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Zambia:

Country Private Sector Diagnostic

DECEMBER 2024

About the Country Private Sector Diagnostic

The private sector is the engine of long-term economic growth and a vital catalyst for global social and economic development. When functioning well, the private sector promotes innovation and entrepreneurship, improves access to and the quality of economic opportunities, and supports the sustainable use of natural resources. In developing economies, the private sector creates most jobs, generates tax revenue, and accounts for significant investment.

The revised Country Private Sector Diagnostic (CPSD) reports seek to unlock private sector–led growth and investment. Prepared jointly by the institutions of the World Bank Group, each report discusses the overall business environment within a country and provides an analysis of specific sectors in which private sector investment could accelerate growth, if appropriate policy and regulatory issues are addressed.

Designed from the perspective of an investor or entrepreneur, this new generation of reports seeks to identify untapped private investment opportunities and the barriers that stand in the way (earlier reports can be found here). The sector opportunities are chosen based on their potential to spur private investment, create jobs, generate domestic revenue, and foster sustainable, inclusive growth, in response to targeted policy action. The report aims to help country policymakers prioritize the most impactful actions that can boost private sector growth, while delivering on broader development goals.

The CPSD is one of the World Bank Group's core country diagnostics produced to guide the design and implementation of public and private investment projects, budget support operations, advisory services, and other analytical work. It is intended to be of interest to domestic and foreign business investors, government officials, World Bank Group staff and management, civil society, and other development partners.

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Executive Summary

Zambia is endowed with a wealth of mineral reserves, abundant arable farmland, renewable energy sources, diverse wildlife, political stability, and a young population. The country is well-positioned to draw significant private investment, which could help it achieve its development aspirations.

Zambia's economy is emerging from a debt crisis and has successfully negotiated a debt restructuring with creditors and an International Monetary Fund (IMF) program.[1] Following several years of anemic growth, rising poverty, and declining foreign direct investment, the government has taken important measures to restore macroeconomic stability and foster economic growth. Promoting private investment is at the forefront of the government's strategy, as net foreign direct investment (FDI) inflows declined from an average of 5.5 percent of gross domestic product (GDP) during 2010–2019 to 1.0 percent of GDP in 2020 (figure ES.1).[2] Interest from foreign investors has begun to resurface. FDI is projected to reach 3.9 percent of GDP in 2024, and foreign investment announcements amounted to $1.7 billion in 2022 and $1.4 billion in 2023.[3] During the past decade, the majority of FDI has been in metals mining, followed by building materials and renewable energy.

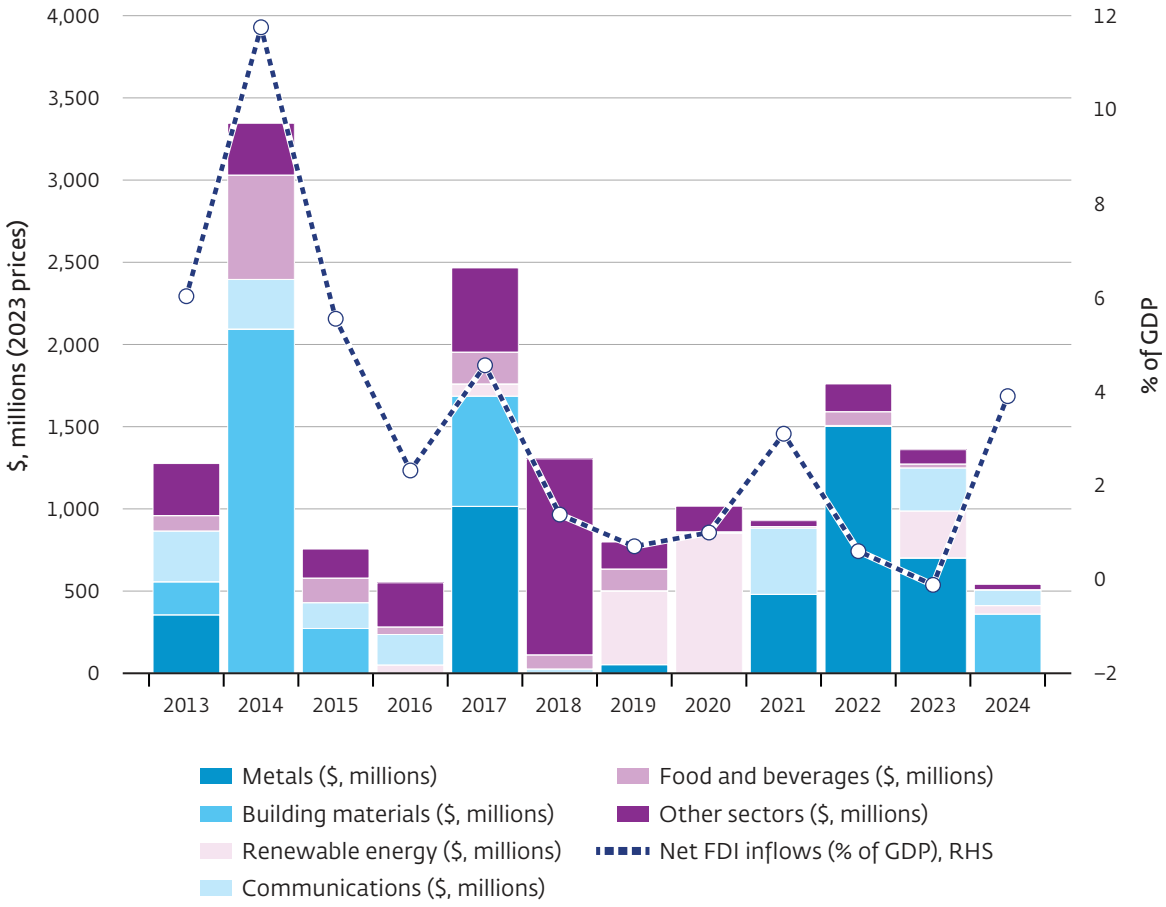
This report highlights that, with reforms, significant profitable investment opportunities are available for businesses, which would contribute to better jobs and higher incomes for Zambia's population. To keep the analysis focused and manageable, the report delves into four specific sectors: mining, solar power, agribusiness and tourism. Implementing key actions in these sectors could attract up to $21 billion in cumulative new investment between 2025 and 2030, or close to 50 percent above current trends.[4] Up to roughly 80,000 additional formal jobs could be created directly—equivalent to more than 10 percent of formal jobs in 2022. In an upside scenario, as many as 220,000 additional jobs could also be created indirectly in the rest of the economy (with greater uncertainty in the estimates, especially for the indirect impact of mining investments on employment).[5]

The selected sectors analyzed in this report suffer from common constraints that affect the economy at large and that the Government of Zambia will need to address to fully realize the potential of the private sector.[6] In order to grow and become more productive, private firms need more predictable policy, simpler regulations, fewer barriers to private sector entry, fewer market distortions, and less corruption. They also require smart

Figure ES.1

Interest from foreign investors is resurfacing

FDI announcements and actual net FDI inflows, 2013–2024



Sources: FDI announcement data from fDi Markets, Financial Times Ltd. Net FDI inflows from Macro Poverty Outlook Dataset, World Bank.
Note: FDI = foreign direct investment. FDI announcements deflated using US GDP deflator from IMF World Economic Outlook (October 2024) data. 2024 announcements cover the January–June period only and added up to $541.0 million (2023 prices). During the first half of 2023, announcements reached $539.7 million.

investments to build the country's transportation infrastructure, and to expand power generation and transmission to provide reliable, affordable electricity. Skills shortages and skills gaps act as a constraint to growth across economic sectors.[7] Moreover, Zambia will also need to address environmental and social concerns associated with the clear-cutting of forests, loss of biodiversity, land degradation, community displacement, and child labor.

But each sector also faces its own specific obstacles, and many of these could be addressed in the short- to medium-term. Below is a breakdown of those challenges and recommendations for overcoming them. A fuller discussion is included in the body of this report.

Mining of Copper and Other Energy Transition Minerals (Manganese, Nickel)

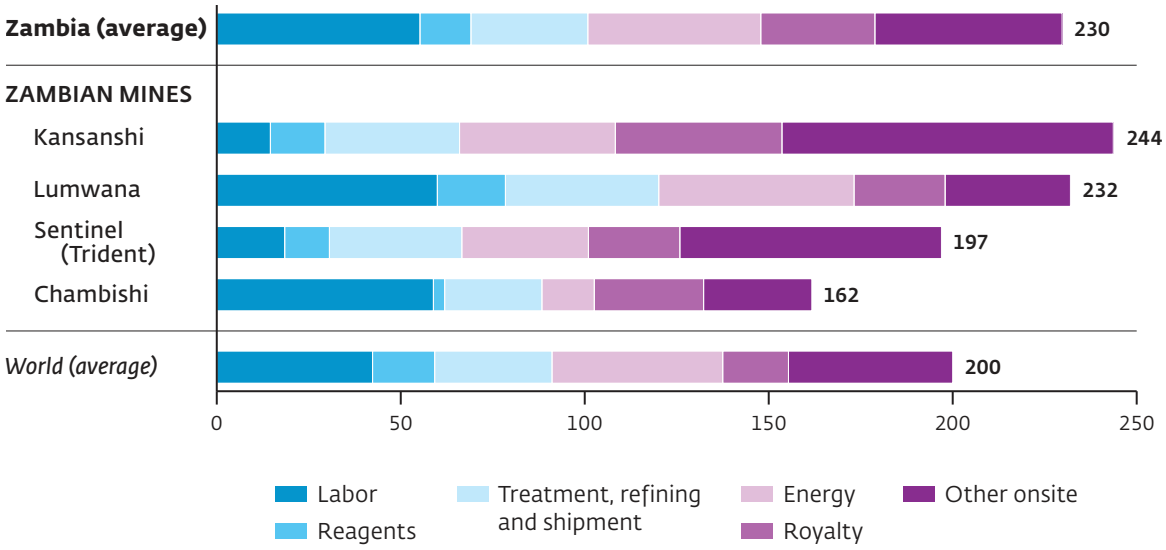
Zambia is Africa's second-largest copper producer and ranks ninth globally, but production has declined in recent years. In contrast, production of other minerals that are in high demand globally for the energy transition, including manganese and nickel, have steadily grown. Although still at relatively low levels, production of these has increased nearly fourfold and threefold, respectively, since 2020.[8] Zambian mines are overall cost competitive, with average operational cash costs in line with the global average (figure ES.2).

Mining is important for the Zambian economy, and accounts for approximately 15 percent of GDP, 70 percent of export earnings,[9] and 44 percent of government revenues (largely through mining royalties and corporate income taxes).[10] The mining sector, currently dominated by foreign firms,[11] has traditionally been a major source of inward foreign direct investment, focused on extraction and early-stage refinement. While Zambia has potential to expand downstream activities over the medium term, the report focuses on extraction and assesses opportunities to increase private investments within the near term.

Figure ES.2

Production costs of some Zambian mines are below global benchmarks

Cash cost for copper production, 2024 (cents per pound, 2023 $)



Source: S&P Capital IQ Pro, 2024.
Note: "Cash cost" reflects short-run production costs and excludes sustaining capital and other amortized expenses. Kansanchi, Lumwana, Sentinel, and Chamibishi accounted for 73 percent of copper production in Zambia in 2023.

Since 2022, several international mining companies have announced new investments in Zambia, including $1.25 billion for the Kanshanshi copper mine and $2 billion for expansion at the Lumwana copper mine. This is a significant scale-up from $400 million in FDI announced between 2015–19.[12]

Although the current administration has set high ambitions for the mining sector, the legacy of previous governments, which had pursued nationalizations,[13] still weighs on investor confidence.[14] The country's policy environment has also been a source of uncertainty. The mining tax regime has been modified 11 times in the past 19 years, making companies reluctant to make long term commitments in the sector. Lengthy, complex, and unclear licensing processes[15] and a lack of transparent stakeholder engagement have eroded investor trust and given rise to community grievances. Meanwhile, Zambia's geological mapping dates from the 1970s and covers only about 55 percent of the country. Inadequate energy and transportation infrastructure has also hampered exploration and production.

Attracting new investments while retaining existing ones requires tackling several policy issues: ensuring a stable and predictable policy environment, including with the recently proposed legislative bills and sector strategy;[16] allowing access to prospective areas for exploration through licensing transparency and tenure security, regulated by the Minerals Commission; improving infrastructure access, particularly to reliable and cost-effective energy; and providing more stringent and effective safeguards to avoid environmental damage and associated reputational risk to investors. With reforms to improve the security of tenure, licensing, and access to better geological data, among others, our analysis suggests that copper production could reach a maximum of 1.5 million MT by 2030, from 0.7 million metric tons (MT) in 2023. Correspondingly, total new private investment in the mining sector could range from $6 billion to $18 billion by 2030, potentially creating between 10,000 and 40,000 new jobs in the sector, plus additional indirect jobs in the rest of the economy ranging between 60,000 and 180,000.[17]

Solar Power

Roughly 90 percent of Zambia's electricity generation comes from hydropower but increased domestic demand from the energy-intensive mining sector (which consumes around 50 percent of electricity) and residential consumption (nearly 30 percent of energy demand) is straining existing sources. Ever more frequent droughts and climate-related shocks have made the hydropower supply less reliable, as evidenced by rolling black-outs and load-shedding. Electricity is the second most frequently reported constraint to the business environment in Zambia, with 21 percent of firms citing access to electricity as a major constraint to their operations.[18]

Total electricity demand is expected to grow 150 percent by 2030 from its 2020 level, according to government projections, reaching 41,925 gigawatt-hour (GWh).[19] Fewer than half of all households have access to electricity.[20] Moreover, realizing the potential growth in the mining sector will require significant new electricity generation. Demand is likely to grow as incomes rise in Zambia and neighboring countries, and as new mining investments come to fruition. Zambia could emerge as a regional power provider; Zambia's electricity exports grew from $87 million in 2019 to $397 million in 2023.[21]

Solar photovoltaic (PV) power has emerged as a cost-effective option to expand electricity generation in Zambia.[22] Independent solar power producers (IPPs) could feed into the grid operated by state-owned utility ZESCO, sell directly to mining companies through bilateral contracts, or power distributed "mini-grids" that serve provincial towns and villages. Recent announcements by investors include a signed $2 billion agreement with ZESCO to develop 2 gigawatts (GW) of solar projects, and an April 2024 Purchase Power Agreement between an IPP and ZESCO to supply 1 GW of solar energy.[23] Nevertheless, past experience suggests that ZESCO's weak financial position would continue to affect its ability as an effective offtaker for solar IPPs.

Unlocking the full potential of solar investment will require addressing lack of regulatory clarity and transparency that limit IPP access to the transmission and distribution grids[24] and investor concerns about the creditworthiness of ZESCO as the main power offtaker. There is also a perception that ZESCO's procurement processes lack transparency and that rules governing transmission charges are unclear. The existing transmission infrastructure has limited capacity to handle large-scale renewable energy projects, particularly intermittent renewable energy sources like solar and wind which can affect grid stability and reliability. Given ZESCO's scarce financial resources, the introduction of independent private transmission (IPT) operators would allow to extend the grid.[25]

With appropriate reforms—improving the governance of the electricity sector, establishing clear and consistent regulations and procedures that govern how the electricity market operates, unbundling ZESCO and thus having transparent network charges, and enhancing ZESCO's financial standing—private investment in solar power could meet much of the projected increase in energy demand, particularly from the mining sector, allowing electricity producers to sell directly to individual companies more easily. The recent publication of rules on open access to the grid are a step in the right direction, although their implementation is at an early stage.

This report estimates total new private investment in additional solar generation capacity could range between $0.4 billion and $1.1 billion by 2030, or an increase between 375 megawatt (MW) and 1,125 MW, compared to 123 MW in installed solar generation capacity in 2023 if appropriate reforms are implemented. In addition to meeting future demand and reducing reliance on hydropower, investments in solar generation would create between 3,000 and 8,000 direct and indirect jobs in the formal sector.

Maize, Soya, Wheat

With good climatic conditions and only a third of available arable land under cultivation, Zambia offers large opportunities for agribusiness to expand sustainably, particularly for maize, soya, and wheat production. The country has transformed into a net exporter, significantly contributing to regional food security and the supply of raw materials for downstream sectors such as processed food and poultry. Investment decisions will be driven by strong market fundamentals, led by low production costs and growing demand from domestic and regional markets that could attract significant investment. Annual domestic demand for maize, for example, is projected to rise from 3.2 million metric tons (MT) in 2024 to over 4 million MT by 2030. Meanwhile, regional exports of maize and value-added maize products, such as ground flour and animal feed, could double to 1.5 million MT, driven by demand in the Democratic Republic of Congo, Malawi, and Zimbabwe. Similarly, demand for edible oils on the local market will require 200,000 MT of soya beans per year by 2030, more than three-times current production.

Zambia is home to roughly 1,300 large commercial farms—many boasting world-class yields and strong profit margins (figure ES.3). Some of these farms specialize in producing wheat, making Zambia the only country in the region producing an annual surplus. Gross margins on a hectare of wheat are more than four times that of a hectare of maize and three times that of soya. These margins could increase an additional 70 percent by 2030 with the reforms described below.

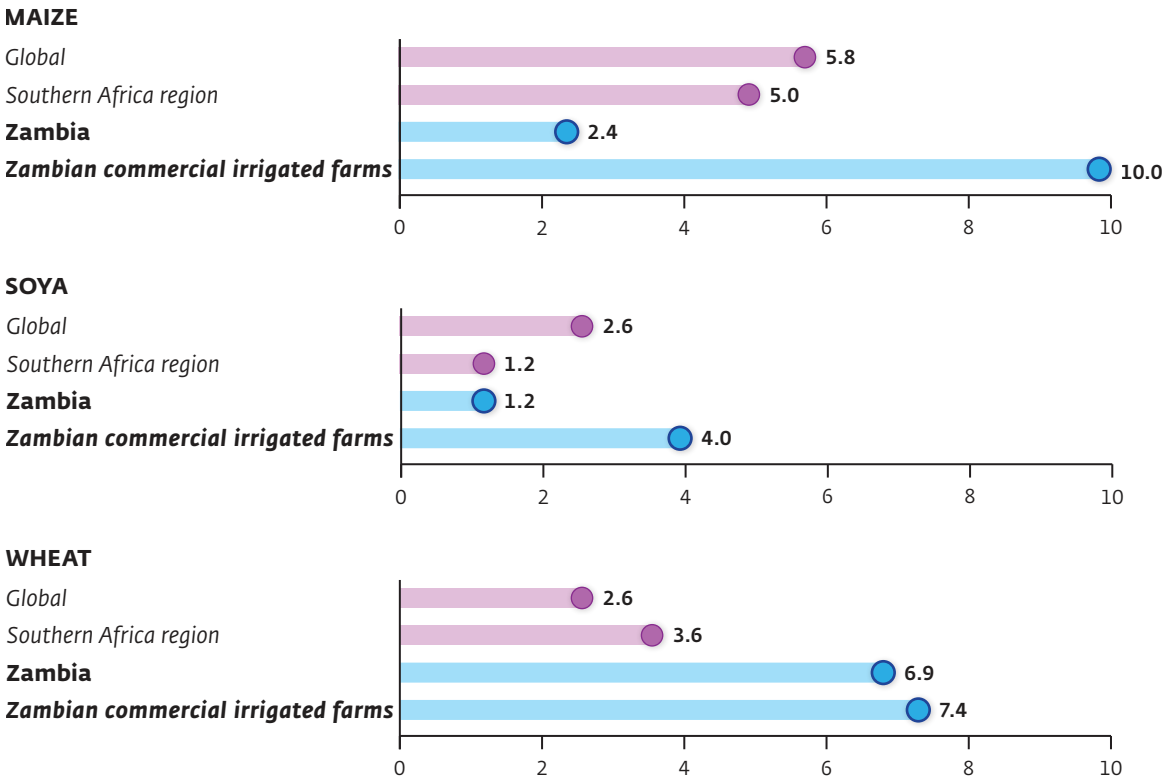
Attracting more private investment into agribusiness will require addressing market-distorting government interventions and unpredictable trade policy, such as export bans on major commodities like soya beans and maize. The government's development strategy has long been driven by food security concerns and public programs to support the country's high number of smallholder and subsistence farmers. The Farmer Input Support Program (FISP), which provides subsidized fertilizer and seed, and the Food Reserve Agency (FRA), which buys and sells commodities from these farmers, have commendable objectives. However, they have not significantly improved productivity, farmers' incomes, or long-term food security. These two programs account for almost all public funding to support sector development.[26] Resources could be reallocated to more efficient and impactful uses.

Limited infrastructure is also holding back agricultural investment. The country needs better roads for market access, better water infrastructure to facilitate investment in irrigation and to boost climate resilience, and more electricity to power mechanization. Access to finance is a problem for farmers, particularly smaller farms. Farming is typically a low-margin, high-risk endeavor, meaning that current high interest rates make financing investment in productivity or expansion out of reach for most farmers. Other

Figure ES.3

Large commercial irrigated farms boast world-class yields

Zambian yields per crop vs. comparators, 2022 (metric tons per hectare)



Source: BFAP, IAPRI, FAO, and World Bank Group calculations.

long-standing problems, such as deforestation, encroachment, and corruption, can also make or break an investment decision.

To facilitate private investment, Zambia could reallocate resources from inefficient market interventions into more productive public investment in roads and irrigation infrastructure. Carrying out planned improvements to the FISP, for example, would raise the efficiency of the program, reduce fiscal costs, and boost productivity, while ensuring better targeting and equity in the provision of services and support to small farmers. Improving land-use planning and simplifying land acquisition could facilitate investment in expansion of productive farms. Tackling these impediments will help to realize the government's objective to garner investor interest in its Farm Blocks initiative. This report estimates that potential private investment in the sector could range from $0.3 billion to $1.5 billion, cumulative, by 2030, with associated job creation, directly and indirectly, in the range of 20,000 to 60,000.

Tourism

With rich nature and wildlife assets, diverse cultural heritage, and relative political stability, Zambia presents strong potential for tourism. Zambia is home to Victoria Falls, wildlife reserves, and multiple national parks. Protected areas, such as Lower Zambezi and South Luangwa National Parks, are well suited for private investment in eco-friendly accommodations, which could create better-paid jobs in the formal sector and diversify revenue streams. Business and conference tourism could attract private investment and grow in Lusaka and Livingstone.

Zambia's tourism sector is recovering to pre-pandemic levels. Investment fell from an average of $297 million per year before COVID (2013–2019), to $181 million in 2020–2023. In 2023, travel and tourism employed almost 450,000 people representing 6.7 percent of total jobs in the country. Zambia's tourism sector trails that of some of its neighbors: the sector represents 12.1 percent of GDP in Botswana and 9.5 percent in Tanzania, but only 6.2 percent in Zambia. Income generated per international visitor to the country falls short of the regional average (figure ES.4). Zambia ranked 104th overall in the 2024 World Economic Forum Travel and Tourism Development Index. Key areas for improvement include Information and Communications Technology (ICT) readiness and air transport infrastructure and connectivity. Poaching, wildlife-community conflicts, and unplanned development in protected areas also pose problems.

Despite a challenging business environment, the 2023 Zambia Tourism Investor Appetite Assessment found that 85 percent of survey respondents planned to expand their businesses within one to five years (World Bank 2023b). Further, the Africa Hospitality Confidence Index 2024, which surveyed over 500 tourism businesses in Africa, including Zambia, shows 80 percent of respondents having confidence in the short-, medium- and long-term prospects of the sector, driven by increased tourism, business travel, and "bleisure" (business and leisure) travel.

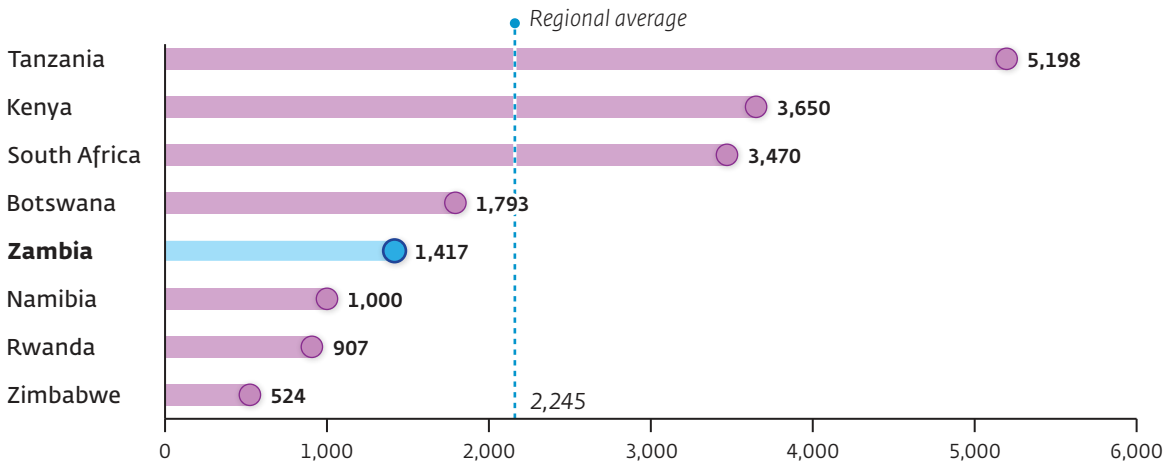
Nature-based and conference tourism are especially promising, based on comparisons with regional peers. However, conference tourism in the main hubs of Lusaka and Livingstone has been hampered by inadequate facilities, whereas nature-based tourism is affected by deficiencies in natural asset planning, forestry and wildlife management and control. While nature-based tourism including eco-tourism is typically more up-market, such activities not only support potential for increased job creation and upskilling, but also sustainable growth and development.

To unlock tourism's full potential, the government must improve the allocation of tourism-related licenses; streamline regulation and processes to open, expand, and even operate a business; and establish a Convention Bureau to promote conference tourism. Better management of protected areas to mitigate poaching and support conservation could also attract investors.

Figure ES.4

Reforms could reduce the gap in tourism income between Zambia and its neighbors

Contribution of travel and tourism to GDP per international visitor, pre-COVID, 2019 ($)



Source: Staff calculations with data from United Nations Tourism and World Travel and Tourism Council (WTTC).

This report conservatively estimates that private investment in new hotels alone could range between $35 million and $100 million by 2030 (cumulative). Correspondingly, total employment creation—encompassing both direct jobs in the construction of new hotels, as well as indirect jobs in the rest of the economy—would range between 2,000 and 6,000 jobs. Additional investments and employment in the sector, beyond hotels and accommodations, would also expand, as demand rises for other products and services aimed at foreign visitors—restaurants, tour and transportation services, and local handicrafts.

The Path Ahead

There is growing optimism about Zambia's macroeconomic future, as the country works to restore fiscal stability and address the structural factors that led to the 2020 sovereign debt default. All this gives Zambia an opportunity to promote more diversified and sustainable private sector–led growth. Removing regulatory barriers, limiting public corruption, lifting market-distorting subsidies and investing in roads, airports, internet and power infrastructure can help Zambia make the most of it.

Table ES.1

Summary of recommendations

Sector	Recommended actions
Mining of Copper and Other Energy Transition Minerals (manganese, nickel)	
Rationale • Scale up copper, manganese, nickel production to contribute to energy transition technologies and stimulate economic recovery. • Promote investments in solar photovoltaic (PV) power generation to meet production needs. • Increase fiscal revenues and foreign exchange reserves. *Constraints* • Uncertainty in tax regime, and frequent policy changes. • Insufficient information and transparency on geological prospects and licensing. • Access to prospective exploration areas tied up through the cadaster inefficiencies. • Weak and inconsistent application of environmental, social, and governance (ESG) standards.	• Clarify in the 2023 Mining Regulation Commission Bill issues of security of tenure, rights and obligations. • Review the adequacy of 2024 Local Content Regulations, "free carry" and production sharing in Critical Minerals Strategy. • Digitize and disseminate geological survey data and collect new geodata. • Create criteria to qualify future issuance of licenses and tenement to entities with technical and financial capability to advance exploration programs, regulated via Minerals Commission. • Upgrade to fully digital mining cadaster management system. • Standardize exploration license to 10 years, remove limits to per-company number of licenses, introduce non-exclusive reconnaissance license. • Formalize ESG and social license to operate criteria into law and regulate performance via Minerals Commission.
Solar Power	
Rationale • Diversify from increasingly variable hydropower. • Guarantee electricity supply to mining and meet rising demand in the rest of the economy. • Position Zambia as regional electricity supplier. *Constraints* • Ineffective stewardship of the electricity sector—unclear regulation, insufficiently transparent processes, and inadequate institutional capabilities—undermines investor confidence. • Macroeconomic uncertainty and ZESCO's fragile creditworthiness without cost-reflective pricing.	• Update the Integrated Energy Resource Plan with realistic demand forecast assumptions through 2040, to better inform private investment decisions in the sector. • Implement clear and consistent market rules, including regarding unbundled network charges, included in the recently enacted grid code, to operationalize open access to the grid regulations and foster greater IPP participation in generation activities. • ZESCO to adopt separate accounting for generation, transmission, and distribution, to improve transparency, financial management, and regulatory compliance, and to enhance private participation in transmission activities (e.g., via Independent Power Transmission arrangements and tenders to develop priority transmission corridors).

(Table continues next page)

Table ES.1

Summary of recommendations *(continued)*

Sector	Recommended actions
Maize, Soya, Wheat	
Rationale • Increase productivity and create jobs in rural areas. • Improve food security and boost climate resilient agriculture. *Constraints* • Inefficient agricultural subsidies. • Difficultly acquiring large tracks of land. • Government commodity trading distorts prices. • Export bans and permit processes disrupt trade.	• Reduce the scope and better target the Farmer Input Support Program (FISP), and complete the transition from direct input supply to e-voucher system. • Update and revise Lands Act to simplify land acquisition, provide for ease of customary land conversion, and introduce integrated land use planning. • Implement Agriculture Marketing Bill to establish private sector rights to market access and the Agricultural Marketing Council for improved stakeholder consultation. • Narrow the mandate of the Food Reserve Agency (FRA) to allow for greater private sector participation in the market, specifically as it pertains to purchasing, storage, and sales of physical stock.
Tourism	
Rationale • Job creation in the formal sector. • Protection of natural assets (wildlife, forests). *Constraints* • Excessive licensing and regulatory burden. • Concession framework has insufficient transparency and lacks flexibility. • Ineffective management of protected areas. • Lack of coordination among stakeholders makes tourism promotion ineffective.	• Reduce the number of tourism related licenses required and move submission and processing of tourism required licenses to government e-business online platform. • Establish Convention Bureau to promote Zambia as a business and conference destination and to coordinate stakeholders. • Issue a statutory instrument on revised concession framework as part of new Wildlife Bill to be passed in 2024. • Issue a statutory instrument to enable the private sector to manage wildlife areas (e.g., *Collaborative Management Partnership* agreements).

Note: Each chapter includes specifics on the above constraints and recommendations.

1

Country Context and Business Environment

1 Country Context and Business Environment

Zambia is endowed with vast arable land, a young and growing population, diverse minerals, rich wildlife, and a location bordering eight nations. With the right policy environment, the country can attract significant private investment to support sustainable growth and raise living standards. This report discusses investor potential in four sectors and identifies key policy actions that can help realize that potential.

Zambia is emerging from a fiscal crisis and a retrenchment in foreign investment that culminated in a 2020 sovereign debt default. The country has made significant progress in implementing an agreement with its creditors but still needs to address many of the structural issues that contributed to the unsustainable accumulation of debt in the first place. This presents Zambia with a rare opportunity to shift towards more diversified and sustainable private sector–led growth. The current administration is taking steps to enact fiscal and structural reforms to restore macroeconomic stability, support a more open and competitive private sector, increase pro-poor spending, and reinvigorate growth.

If recommended reforms are implemented, net foreign investment could be up to $4 billion annually, significantly exceeding its historical share of GDP. This report identifies significant potential to attract additional private investment in support of job creation and economic growth if Zambia takes targeted actions to alleviate long-standing and sector-specific barriers to development.

1.1 Economic and Fiscal Context

Zambia saw remarkable economic growth in the 2000s, spurred on by surging copper prices and large-scale debt relief under the Heavily Indebted Poor Countries Initiative. The country embarked on large public investments (mostly in infrastructure) for which it borrowed heavily, as well as new tax exemptions and tax expenditures. These policies did not generate new economic activity and government revenue to offset their cost, however. Despite significant public investment, per-capita income growth in the decade leading up to the COVID-19 pandemic was anemic. Debt sustainability, which began to deteriorate in 2011, worsened as a result of shocks from the pandemic and Russia's invasion of Ukraine, leading to the 2020 default and the IMF's intervention.

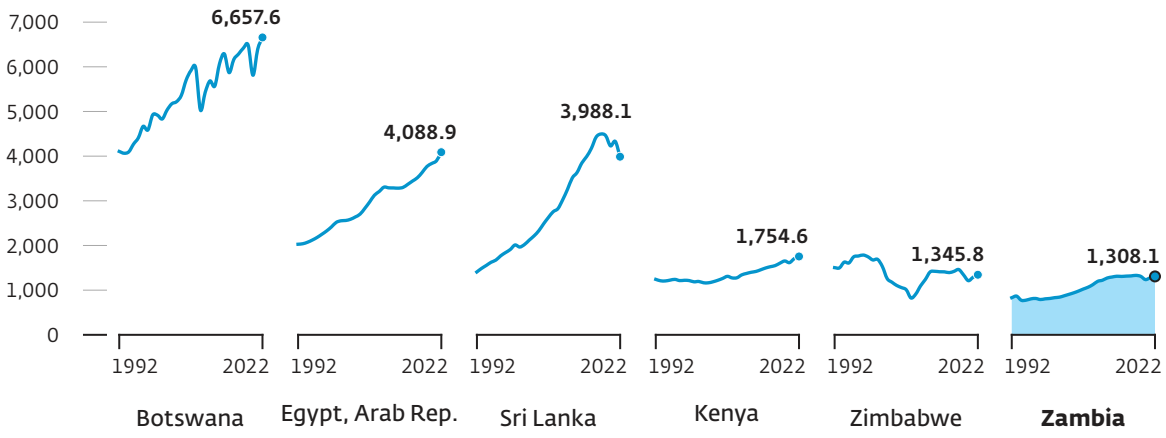
Today, Zambia's per-capita income is significantly below comparator countries (figure 1.1). Poverty has increased and afflicts almost two thirds of all Zambians, especially in rural areas.[27] Agriculture, which employs most of the labor force (mostly on low-yield smallholder farms), is undiversified and has low productivity.

On the positive side, Zambia's resource endowments offer scope for attracting private investment. The country stands to gain from regional integration, especially once the Africa Continental Free Trade Agreement is implemented, facilitating expansion and diversification of exports. However, Zambia's economy remains heavily dependent on mining (accounting for 70 percent of foreign exchange, 30 percent of government revenue and almost 80 percent of exports) which makes it vulnerable to shifts in global commodity prices. Likewise, exports remain concentrated in copper (figure 1.2).

Figure 1.1

Zambia's income per capita has lagged its peers'

GDP per capita, Zambia and peer countries, 1992–2022 (constant 2015 $)

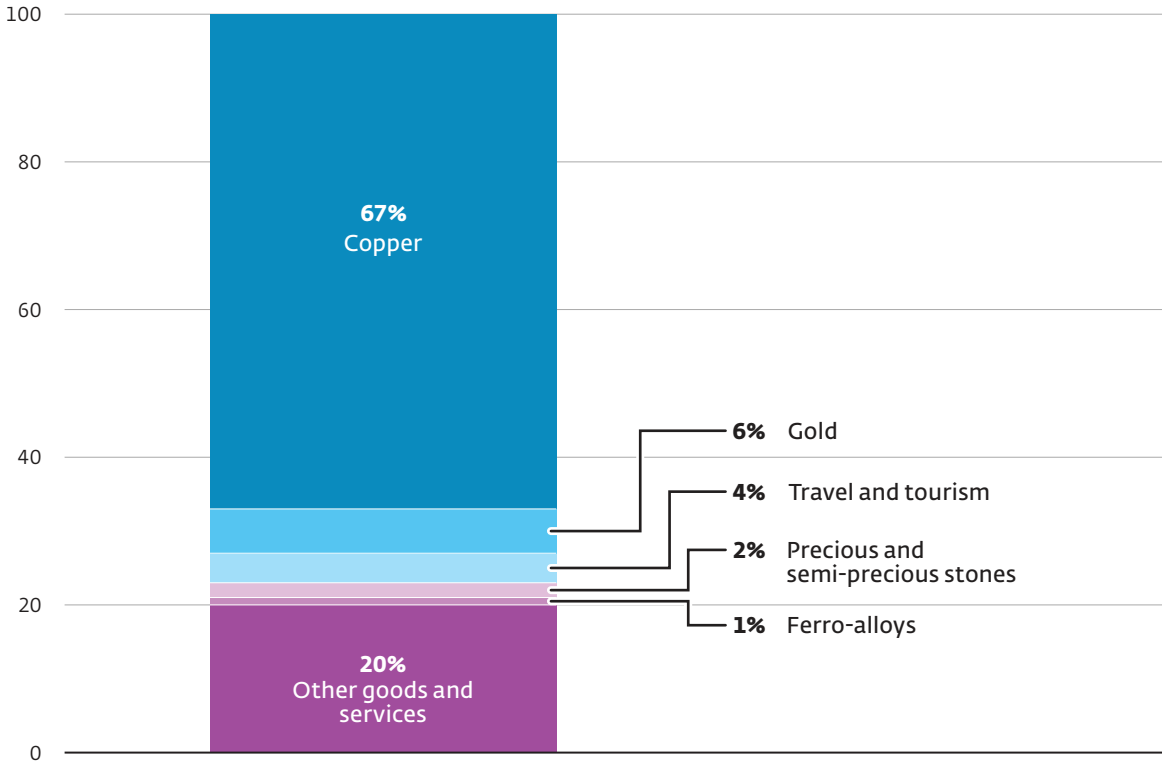


Source: World Bank, World Development Indicators.

Figure 1.2

Zambia's export basket is highly concentrated

Share of total exports of goods and services, 2021 (%)



Source: Atlas of Economic Complexity, Harvard Growth Lab.
Note: Total exports of goods and services reached $10.6 billion in 2021. Copper includes SITC codes 6821 and 2871; Ferro-alloys refers to SITC code 6716.

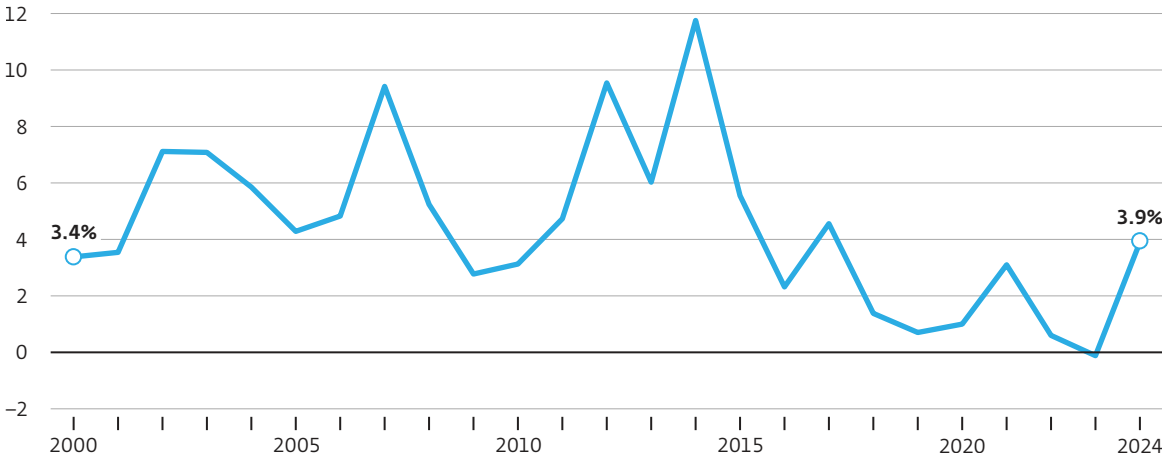
1.2 Financing for Investment

Reflecting an erosion of confidence in the management of economic resources as the debt burden mounted, foreign direct investment as a share of GDP declined sharply toward the the end of the last decade (figure 1.3 and table 1.1). From 2013 to 2023, the majority of FDI went to metals mining, followed by building materials and renewable energy (figure 1.4). However, net foreign investment inflows declined from the 2010s' average of 5.5 percent of GDP to a mere 1.0 percent of GDP in 2020. The decline was partly explained by a fall in investment in copper mining, which resulted from lower global copper prices, frequent policy changes, and legal disputes that created uncertainty among investors. Moreover, uncertainty around the debt restructuring process led to a drop in investor demand for domestic government securities. Interest from foreign investors has begun to resurface, however. Foreign investment announcements[28] reached $1.7 billion and $1.4 billion in 2022 and 2023, respectively, and FDI in 2024 is projected to reach 3.9 percent of GDP.

Figure 1.3

FDI declined steadily over the last decade

Net FDI inflows, 2000–2023 and 2024 projection (% of GDP)



Source: World Bank Macro Poverty Outlook database (October 2024).

Table 1.1

Macroeconomic indicators

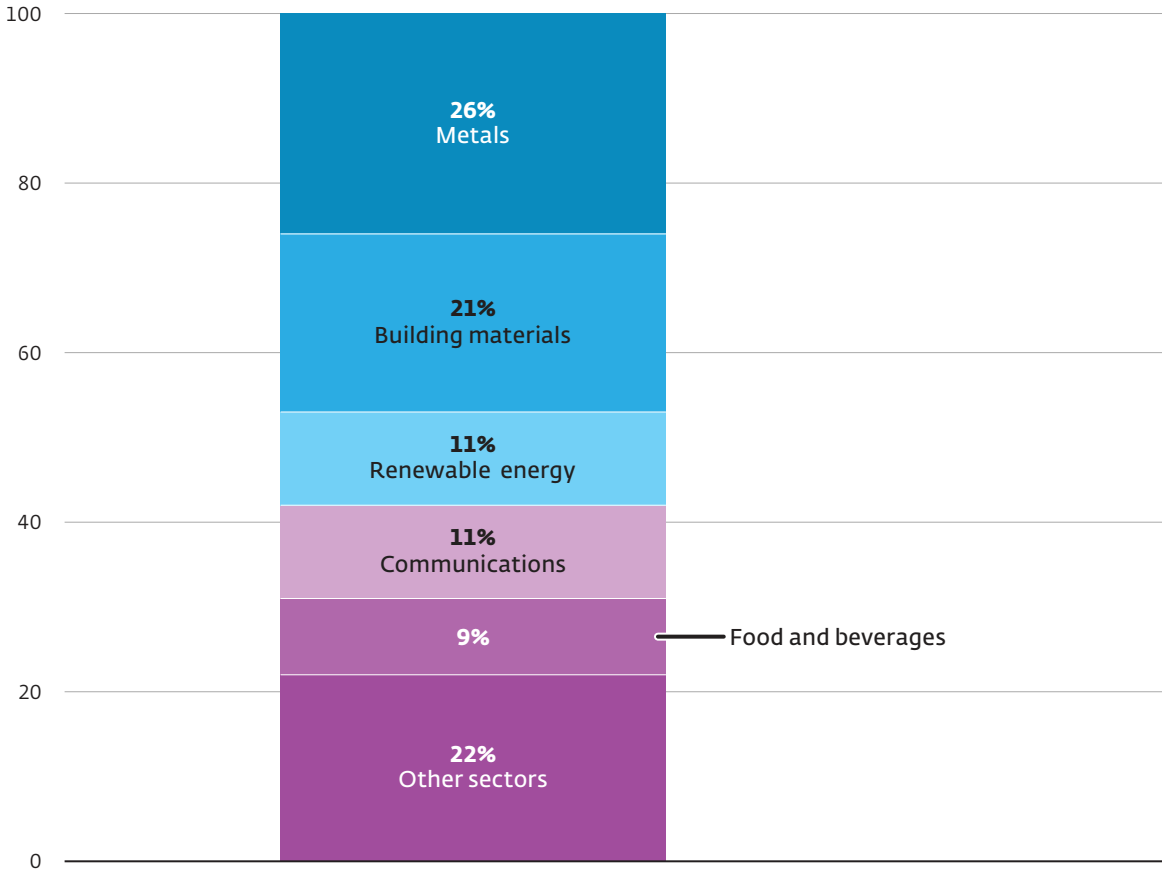
Zambia	**2010–19** (average)	**2020**	**2021**	**2022**	**2023**	**2024** (projected)
GDP ($, billions)	24.2	18.2	22.1	29.1	28.2	25.9
Real GDP growth (%)	4.9	−2.8	6.2	5.2	5.4	2.0
PPP GDP per capita (constant 2021 international $)	3,557	3,415	3,527	3,611	3,719	…
Investment (% of GDP)	31.9	31.6	30.1	27.1	26.5	24.2
Inflation (%, period average)	8.8	15.7	22.1	11.0	10.9	15.0
Fiscal balance (% of GDP)	−5.9	−13.8	−8.1	−7.8	−6.5	−6.1
Public debt (% of GDP)	47.7	140.0	111.0	99.5	127.3	…
Current account balance (% of GDP)	1.0	11.8	11.9	3.8	−1.9	0.0
Gross reserves ($, billions)	2.4	1.2	2.8	3.1	3.3	3.3
Total reserves (in months of imports)	3.3	2.5	4.4	3.2	3.8	4.2
FDI net inflows (% of GDP)	5.0	1.0	3.1	0.6	−0.1	3.9

Sources: World Bank, Macro Poverty Outlook database (October 2024); PPP GDP per capita is from World Development Indicators (WDI); fiscal balance and public debt data from IMF World Economic Outlook database (April 2024).
Note: FDI = foreign direct investment. Population (2023): 20.6 million.

Figure 1.4

Foreign investor interest is concentrated in a few sectors

Share of cumulative FDI announcements, 2013–2023 (%)



Source: fDi Markets, Financial Times Ltd.
Note: FDI data cover cross border investment in a new physical project or expansion of an existing investment (both opened and announced investments). Joint ventures are only included where they lead to a new physical operation. Mergers & acquisitions (M&A) and other equity investments are not tracked.

Domestic firms have limited access to financing. International investors typically access financing from international sources—especially for mining or other export-oriented sectors where exchange rate risks are limited. But most domestic businesses rely on bank financing, and credit to the private sector falls short of regional comparators (tables 1.2 and 1.3). Domestic capital markets are in their infancy, with minimal issuance to date of corporate debt or equities, and they will take time to develop.

Table 1.2

Access to domestic financing

	Domestic credit to private sector (% of GDP)			Bank credit penetration (% of GDP)			Stock market	
	2022*	5Y average	10Y average	2022*	5Y average	10Y average	Average no. of firms	Stock market capitalization to GDP (%)
Zambia	12.7	14.0	15.3	10.0	11.0	11.9	23.0	...
RELEVANT COMPARATORS								
Sub-Saharan Africa	21.8	22.2	22.1	20.4	20.3	20.1	75.1	57.0
Low-income countries	14.5	14.1	13.7	14.3	13.8	13.4	23.0	...
Emerging markets and developing economies	40.1	41.6	40.1	37.3	38.6	37.4	404.5	68.6
IDA countries	27.6	26.8	25.7	26.5	25.8	24.8	141.0	15.7

Source: International Finance Corporation.
Note: IDA = International Development Agency. Domestic credit to private sector (% of GDP) is below all comparator averages. Bank credit penetration (% of GDP) has fallen and is below that of all peer groups' averages.
*Latest data.

Table 1.3

Access to international financing

	International corporate bond issuances (% of GDP)			FDI flows (% of GDP)		
	2022*	5Y average	10Y average	2021*	5Y average	10Y average
Zambia	0.0	0.2	1.6	–3.9	0.7	3.4
RELEVANT COMPARATORS						
Sub-Saharan Africa	1.2	1.5	1.5	3.4	3.7	4.5
Low-income countries	1.0	0.9	1.1	3.1	3.3	4.5
Emerging markets and developing economies	1.5	2.7	2.6	3.2	3.5	3.9
IDA countries	1.0	2.0	2.4	3.7	4.1	4.4

Source: International Finance Corporation.
Note: IDA = International Development Agency. International corporate bond issuances (% of GDP) are below all comparator averages. FDI flows (% of GDP) are below all comparator averages.
*Latest data.

1.3 Investment and Business Climate

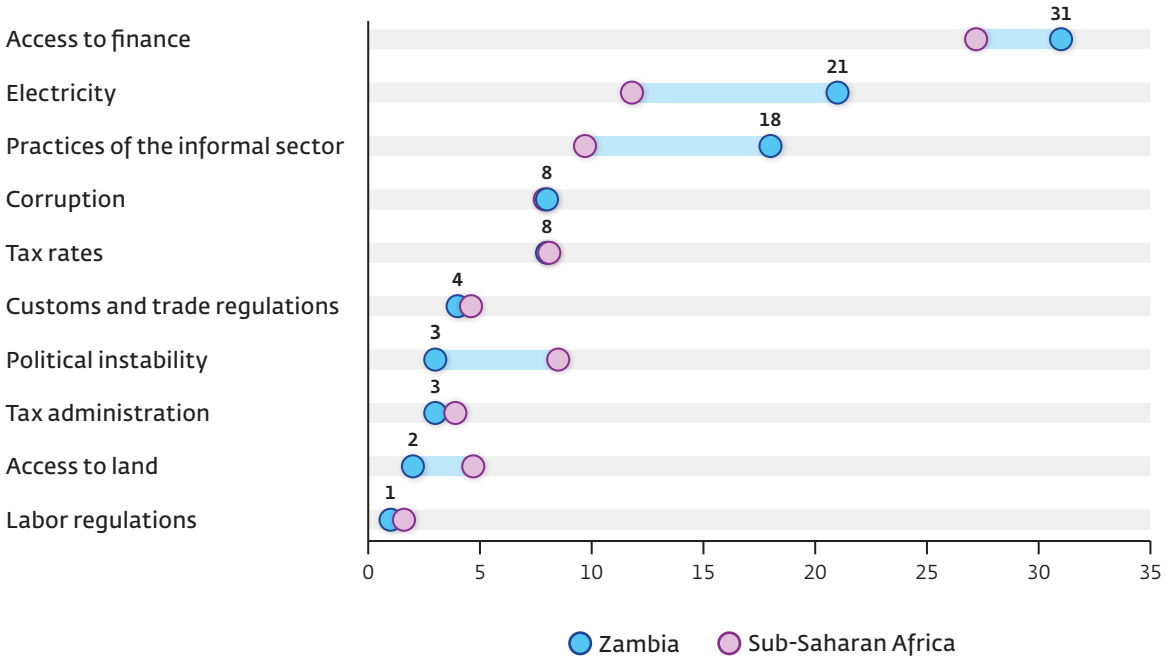
Zambian firms point to unaffordable and limited financing, frequent policy changes that create uncertainty for firms and investors, an unreliable power supply, and pervasive corruption as the most pressing constraints to operating a business (figure 1.5), according to the most recent World Bank Enterprise Survey (2019). Barriers to accessing land are considered a deterrent to investment in agriculture, mining, and tourism. Climate change has made drought more frequent and severe,[29] impacting hydroelectricity generation (the major power source), disrupting business activity, and contributing to widespread crop failures and threats to food security.[30]

State-Owned Enterprises (SOEs) exert a major influence in the energy, mining, agriculture, banking, and communications sectors. SOEs are present in only 10 percent of sectors, a fraction lower than in most other countries in Sub-Saharan Africa, but the state has minority participation in 4 out of 10 sectors.[31] The government is the sole owner of 25 parastatals through the Industrial Development Corporation (IDC) portfolio, in which the IDC holds 60.7 percent to 100 percent of shares.[32] Zambia Electricity Supply

Figure 1.5

Access to finance, electricity, and corruption are major business obstacles

Share of firms that identify each factor as the main business constraint (%)



Source: World Bank, Enterprise Surveys.

Corporation Limited (ZESCO), for instance, has a significant impact on the energy sector and market competition in Zambia where its role in electricity generation, transmission, and distribution undermines competition in the energy market. Other major SOEs with a distorting effect on market discipline include Zambia Telecommunications Company Limited (ZAMTEL), Zambia National Commercial Bank (ZANACO) and Zambia Consolidated Copper Mines (ZCCM). SOE guaranteed external debt was $1.6 billion, equivalent to 7.0 percent of GDP, at the end of 2023.[33] Few Zambian parastatals pay dividends, suggesting relatively weak financial performance.[34 and 35]

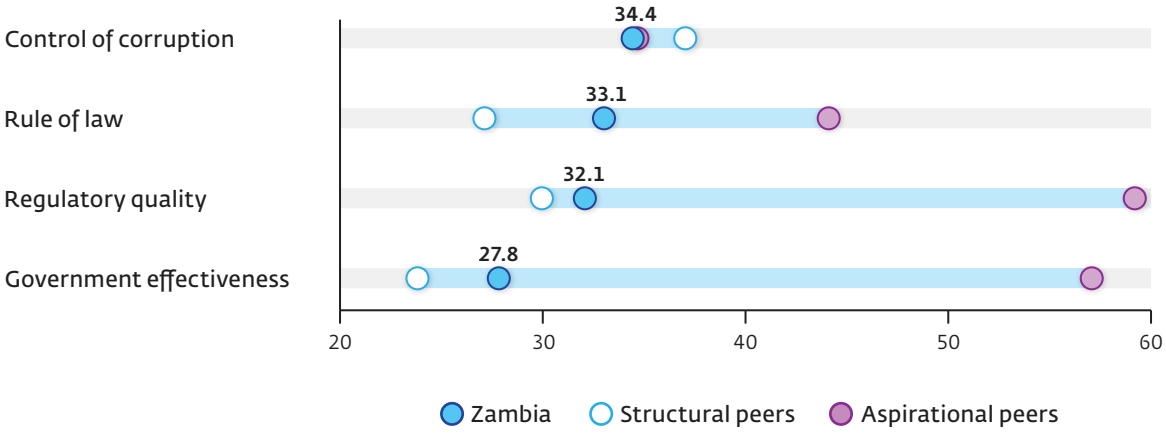
1.4 Institutional Underpinnings for Private Sector Development

The private sector in Zambia needs to contend with a legacy of weak institutions, corruption, poor policy predictability and weak governance.[36] According to a summary measure across various sources, Zambia ranks in the lowest third of countries in terms of public policy effectiveness, regulatory quality, rule of law, and perceived corruption, all of which affect the efficient functioning of markets and firms (figure 1.6).[37]

Figure 1.6

Zambia lags country peers in several institutional dimensions

Worldwide Governance Indicators, Zambia vs. structural and aspirational peers, 2022



Source: Kaufmann and Kraay (2023).
Note: For each governance dimension, the length of the axis reflects the percentile rank of a country relative to all other countries in the world. *Government effectiveness:* Quality of public services, quality of the civil service and degree of its independence from political pressures, quality of policy formulation and implementation, and credibility of the government's commitment to such policies. *Regulatory quality:* Ability of the government to formulate and implement sound policies and regulations that permit and promote private sector development. *Rule of law* is the extent to which agents have confidence in and abide by the rules of society, as well as the quality of contract enforcement, property rights, the police, the courts, and the likelihood of crime and violence. *Control of corruption* refers to the extent to which public power is exercised for private gain, including both petty and grand forms of corruption, as well as "capture" of the state by elites and private interests. Structural peers consist of Angola, Botswana, Tanzania, and Zimbabwe; aspirational peers encompass Mauritius, the Philippines, Peru, and Thailand.

Against the backdrop of weak institutions, new investments can exacerbate environmental, social and governance risks. Investments in mining, solar energy, agribusiness, tourism, if not well managed can negatively affect local communities, biodiversity, and natural resources including water. In some sectors such as agriculture and mining, child labor is widespread.[38] The expansion of cultivated areas, mineral extraction, and associated water use may also affect biodiversity conservation and sustainable natural resource management. However, some activities (e.g., ecotourism) can make preserving the country's natural assets more attractive. Moreover, expanding power generation can improve access to basic services. Likewise, expanded agricultural production supports food security.

1.5 Looking Ahead

Fostering private investment will require public policy actions in several areas. Sector analysis in the following chapters reinforces the case for boosting access to reliable and cost-effective power, strengthening property rights over land, and reducing barriers to affordable financing. Likewise, regulatory and policy predictability needs to be enhanced, including to safeguard the environment and local communities. Addressing these constraints will help Zambian firms realize profitable private investment opportunities, create jobs, generate domestic revenue to finance growth-enhancing spending, and boost inclusive and sustainable economic growth.

2

Sector Investment Opportunities

2 Sector Investment Opportunities

This Country Private Sector Diagnostic identifies policy actions that are needed to attract private capital to specific sectors and promote social and economic development in Zambia at large. A business environment conducive to private investment rests on foundations that benefit all sectors of the economy, but policy actions that are cross-cutting in nature often have a disproportionate impact on specific sectors. Moreover, specific industries and economic activities often face unique obstacles that keep private investors at bay. Therefore, while acknowledging the need to enhance the investment climate in the economy as a whole, the report focuses on particular sectors and economic activities with investment opportunities that could underpin the country's development. Although every effort was made to analyze available and newly collected information, sectoral analyses were undertaken against the backdrop of significant data limitations, which constrain analysis of demand, supply, costs, and economic impact.

The report examines four sectors[39] with the potential to attract private investment and usher in developmental benefits: mining of copper and other critical minerals; renewable energy, with a focus on utility-scale solar generation; agribusiness, with an emphasis on the grain value chain (maize, wheat, soy); and business and nature-based tourism.[40] The selection of sectors followed a rigorous process that included desk research, data analysis, internal consultations with World Bank Group experts, and in-country consultations. The process applied the following selection criteria:

1. Potential to attract private capital for profitable investment in the next three to five years if constraints are mitigated.

2. Potential development impact, assessed by sector contributions to GDP, job creation, exports, diversification, and sustainability, among other factors.

3. Feasibility of removing key constraints over the near term, taking into account the political, economic, and institutional context.

Sector selection is not intended to be exhaustive. Entrepreneurs may well identify further profitable opportunities in other sectors. The focus here is on sectors where an identified constraint to private investment can feasibly be addressed by public policies. The recommended actions to ease the identified constraints are not necessarily sufficient on their own. Rather, these are prioritized in the report as concrete, observable actions to be taken in the near term for meaningful impact. Their ultimate results for investment and job creation will require complementary reforms and capacity building, in some cases extending beyond the next few years.

Abundant mineral resources, along with anticipated growth in demand for energy transition minerals, have sparked investor interest in the mining sector. Revitalizing investment in mining would support economic activity beyond the sector, aiding the country's macroeconomic recovery through improved fiscal revenues and greater foreign exchange reserves. The alignment of investor interest and government priorities enhances the prospects for implementing reforms to facilitate mining investment.

Investing in renewable energy, particularly solar generation, would benefit from increased mining activity and rising electricity demand in Zambia and in neighboring countries. In addition, solar power would decrease the country's reliance on hydropower, which has been disrupted by climatic shocks in recent years. The government acknowledges the vital role of solar energy, echoed by private stakeholders, especially mines, who emphasize the need for reliable electricity access.

Agribusiness has drawn investor interest due to the country's abundant arable land and potential access to regional markets. Domestic and regional demand for

Table 2.1

Sector selection criteria

Sectors	Potential to attract investment	Development impact potential	Feasibility of removing constraints
Mining: Copper and other energy-transition minerals	Abundant mineral endowments Rising global demand for energy transition minerals – Expressed investor interest: FDI inflows are resuming. Established mining companies announced multi-billion investment plans in 2023	Bolstering economic recovery and investment in other sectors (e.g., renewable energy). Improved fiscal revenues and foreign exchange reserves. Propping up energy transition in the region.	Government commitment to expand copper extraction substantially.
Renewable Energy: Utility-scale solar generation	Rising demand, both domestically and in neighboring countries. High level of private sector interest to develop IPPs. Multiple deals in pipeline.	Diversify from increasingly variable hydropower. Guarantee supply to the mining sector and the broader economy. Position Zambia as regional electricity supplier.	Willingness of government to institute reforms in the sector (e.g., open access to the grid). Vision 2030 aspires for universal electricity access.
Agribusiness: Grains value chain (maize, soya, wheat)	Large tracts of arable land, generally good access to water, and mostly good weather conditions. Technologically advanced farms are profitable and at the global frontier of productivity. Multiple private players shared detailed investment plans during consultation.	Increase productivity and create jobs in rural areas. Improve food security and boost climate resilience. Increase exports and foreign exchange reserves. Improve climate resilience.	Willingness among government to support private players in agribusiness. Strong political presence of large players.
Tourism: Conference and business (MICE) and Nature-based segments	Natural and cultural endowments. Expressed interest from domestic and international investors.	Job creation in the formal sector. Protection of natural assets (wildlife, forests). Increased service exports. Contribution to GDP and foreign exchange.	Stable political environment. Business regulation is improving. Prioritized in 8th NDP.

agricultural products is expected to continue growing. A more productive agricultural sector would help create better jobs, reinforce food security, and boost climate resilience. The government's interest in attracting private investors to the agricultural sector bodes well for the feasibility of reforms in the sector.

Zambia boasts abundant natural and wildlife resources, a vibrant cultural heritage, and a stable political environment, making it a prime candidate for investing in the tourism sector. The sector has the capacity to create employment opportunities and attract foreign capital, as highlighted in the 8th National Development Plan (NDP). Nature-based tourism and conference and business tourism[41] show significant potential when compared to other countries in the region.

The four sectors can attract additional private investment in response to actions by the public sector to alleviate identified constraints. For each sector, table 2.2 presents rough, scenario-based estimates of additional private investment and other impacts that could be unlocked through the recommended actions. These estimates are based on simplifying assumptions and subject to great uncertainty.

Private investment can engender synergies or positive spillovers across the selected sectors and beyond. Expanding mining activities would generate additional demand for solar energy. Conversely, the prospective availability of reliable energy sources can reassure investors in the mining and other sectors. Raising agricultural productivity can help address food insecurity and improve standards of living in rural areas. Creating better-paid jobs, for example, in high-end nature-based and conference tourism, can smooth the transition to a more modern economy with a higher share of formal employment.

Table 2.2

Potential increases in private investment and jobs, by sector*

Potential cumulative investment and jobs created by 2030	Approach	Assumptions
Mining of copper and other energy transition minerals (manganese, nickel)		
Potential investment: $6 billion to $18 billion **Potential jobs: 80,000 to 230,000 jobs** *(of which: 10,000–40,000 direct jobs; and 60,000–180,000 indirect jobs)*	Estimated mining output in 2030, and corresponding capital investment, if a conducive business environment is in place. Estimates for indirect effects in mining are especially tentative.	Maximum level of mining output by 2030: 1.5 million metric tons, from its current level of 700,000 metric tons. $30,000 investment needed to produce an additional 1 metric ton of copper. Maximum investment consistent with the increase of 800,000 metric tons in output equal to $24 billion. Low and high estimates correspond to investment consistent with 25% and 75% of the maximum feasible mining output, respectively.
Solar power		
Potential investment: $0.4 billion to $1.1 billion **Potential jobs: 3,000 to 8,000**	Estimated investment in solar generation facilities that would be expected by 2030, based on historical performance.	Expansion in solar installed capacity of 1,500 megawatt over the 2024–30. Required investment of $1 million per additional megawatt of installed capacity, or $1.5 billion total. Low and high estimates: 25% and 75% of potential investment in solar generation.
Agriculture: maize, soya, wheat		
Potential investment: $0.3 billion to $1.5 billion **Potential jobs: 20,000 to 60,000**	Modeled output to 2030, and corresponding capital investment required to meet projections, if driven by private investment into larger, more productive commercial farming operations.	Increase in yields will be driven by large commercial farms with capacity to invest in inputs, machinery, and irrigation for higher yields. Maize output to reach 4.3 million metric tons per annum by 2030, and continued increase in production of soya and wheat, with weather patterns returning to "normal" long-term trends, entering La Niña. Low and high estimates: $3,000 per hectare and $10,000 per hectare for land clearing and installation of irrigation to deliver the expected increase in production of all three crops.

(Table continues next page)

Table 2.2

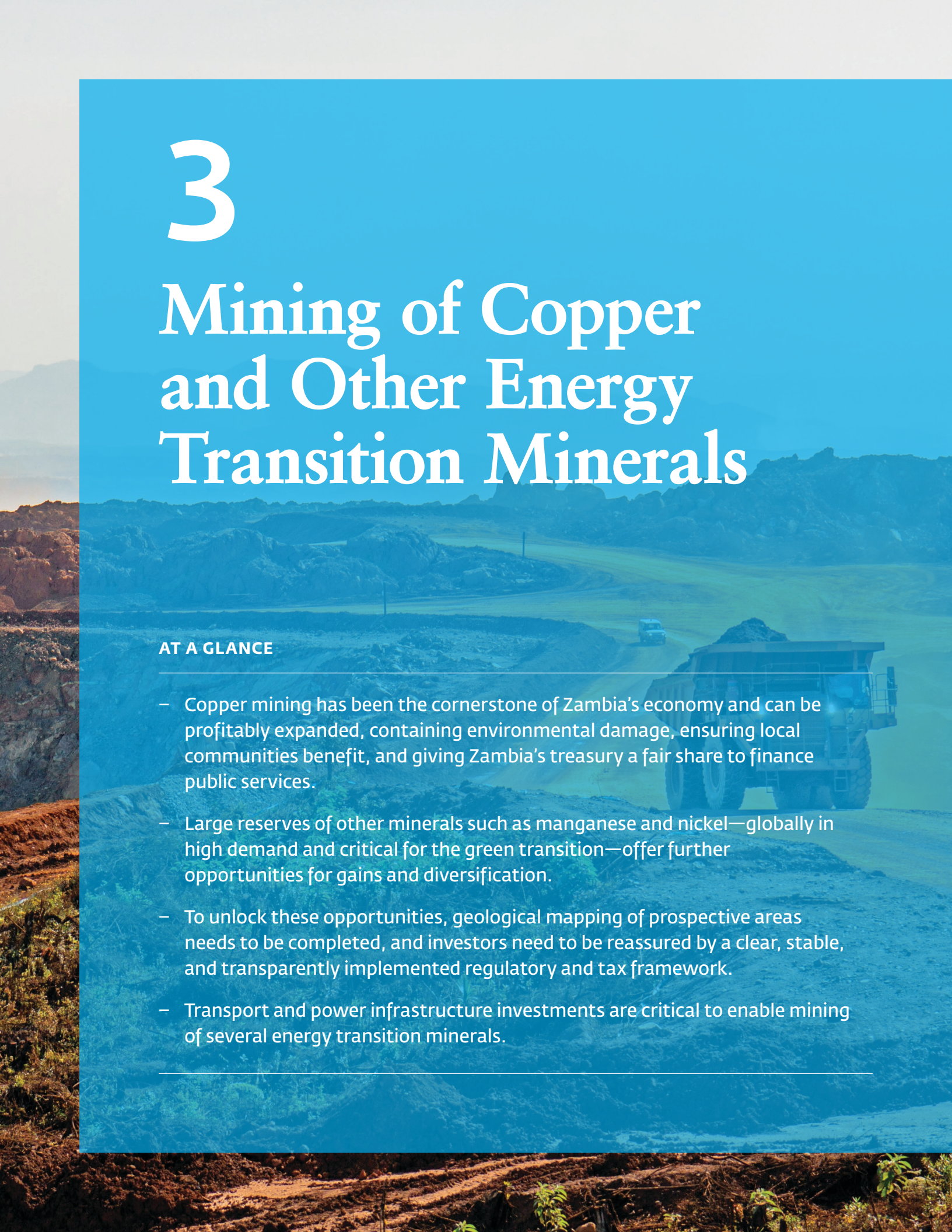
Potential increases in private investment and jobs, by sector *(continued)*

Potential cumulative investment and jobs created by 2030	Approach	Assumptions
Tourism		
Potential investment: $35 million to $100 milllion **Potential jobs:** 2,000 to 6,000	Estimated the number of hotels that would need to be built by 2030 to accommodate the increased number of international visitors that would occur if the sector's contribution to GDP were to reach the level of regional peers.	70% of new international tourists will use existing accommodation. Estimates based on data collected from sector participants for market structure and cost of construction for hotels of different sizes. Low and high estimates: 25% and 75% of the maximum potential investments that are estimated to occur for tourism GDP per international tourist to reach the 2023 level of its regional peers' average by 2030.

Note: Job creation estimates include both direct jobs, those created in the corresponding sector, and indirect jobs, those created in the rest of the economy.
*See appendix A for details.

3

Mining of Copper and Other Energy Transition Minerals



AT A GLANCE

- Copper mining has been the cornerstone of Zambia's economy and can be profitably expanded, containing environmental damage, ensuring local communities benefit, and giving Zambia's treasury a fair share to finance public services.
- Large reserves of other minerals such as manganese and nickel—globally in high demand and critical for the green transition—offer further opportunities for gains and diversification.
- To unlock these opportunities, geological mapping of prospective areas needs to be completed, and investors need to be reassured by a clear, stable, and transparently implemented regulatory and tax framework.
- Transport and power infrastructure investments are critical to enable mining of several energy transition minerals.

3 Mining of Copper and Other Energy Transition Minerals

3.1 Sector Context and Opportunity

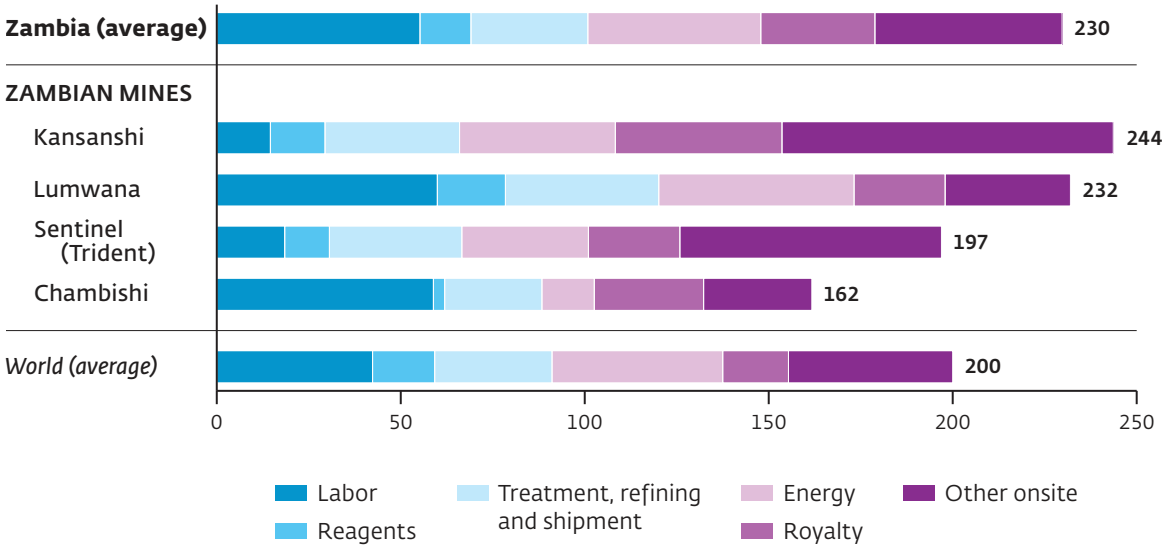
Mining, particularly copper, has been the backbone of the Zambian economy. The country is Africa's second largest copper producer and ranks ninth globally. Mining accounts for approximately 15 percent of GDP, 70 percent of export earnings, and 44 percent of government revenues (largely through mining royalties and corporate income taxes). Zambia exported 0.7 million metric tons (MT) in 2023, accounting for 4 percent of global production.[42] International mining firms produce over 75 percent of the country's copper.[43] Zambia boasts high-grade copper deposits compared with other mining markets (average grade ore of 2–3 percent compared with a global average of 0.8 percent), providing a boost to firms' profit margins.[44] Zambian mines are overall cost competitive, with average cash cost in line with the global average (figure 3.1). Although the sector accounts for only 2 percent of total employment, its employees earn well above the national average and thus contribute significantly to domestic consumption.[45]

Spillovers to the broader economy have been limited, however. Mining has been low value-add and participation of domestic firms in mining-related activities marginal. Despite numerous initiatives to strengthen linkages between miners and local suppliers,[46] domestic firms lack access to affordable financing and face competition from duty exempt foreign imports as well as foreign firms in in Zambia's Multi Facility Economic Zones. The report focuses on extraction and presents policy recommendations to increase private

Figure 3.1

Zambian mines' cost structure can be lower than their global peers'

Cash cost for copper production, 2024 (cents per pound, 2023 $)



Source: S&P Capital IQ Pro, 2024.
Note: "Cash cost" reflects short-run production costs and excludes sustaining capital and other amortized expenses. Kansanchi, Lumwana, Sentinel, and Chamibishi accounted for 73 percent of copper production in Zambia in 2023.

investments within the near term, although Zambia has potential to expand on downstream activities over the medium to long-term.

Zambia's sizable reserves of other critical minerals for the transition to clean energy create potential opportunities for diversification and growth in the medium and long run. Beyond copper, Zambia's production of manganese and nickel has steadily increased in recent years (table 3.1).[47] Since 2022, several international mining companies have announced new investments in Zambia, including $1.25 billion expansion of the Kanshanshi copper mine, and $2 billion expansion at the Lumwana copper mine. This is a significant ramp-up from only $400 million of FDI announcements between 2015–19.[48] New market entrants are growing in prominence, particularly in exploration through use of the latest A.I. technologies. New investments have been recently undertaken by companies from a wide range of countries, consistent with Zambia's rise in attractiveness in this sector.[49]

Copper and energy transition mineral resources offer private investment opportunities across the value-chain. The government commissioned a pre-feasibility study in December 2023 on the lithium-battery value chain to determine how it can

Table 3.1

Zambia critical mineral reserves, production

Commodity	Reserves in contained metal (million metric tons, last available)	Production (metric tons)					
		2018	2019	2020	2021	2022	2023
Copper	64.0	868,908	789,942	837,996	803,747	763,550	698,566
Manganese	n.a.	4,448	15,904	46,515	132,241	158,675	171,066
Nickel	0.5	487	1,110	3,226	3,834	4,059	7,980

Sources: Reserves from US Geological Survey; production from Zambia Ministry of Finance and National Planning Annual Economic Reports and consultation with the Presidential Delivery Unit.
Note: A mineral resource is one of the first stages of defining mineable deposits, which means that through sampling and other data geologists have found that there is something there that could possibly be mined or there is reasonable prospects for economic extraction. As a subset of these, a mineral reserve is what happens when enough studying and testing (with at least one preliminary feasibility study) has been done to determine that the mineral resource or part of the resource is reasonably economical to mine. Reserves will need to meet not only the requirements of geological certainty and economic viability but also accessibility based on legal permission to extract the mineral. Also, reserves are dynamic, which means they may be reduced as ore is mined and (or) the feasibility of extraction diminishes, or more commonly, they may continue to increase as additional deposits (known or recently discovered) are developed, or currently exploited deposits are more thoroughly explored or new technology or economic variables improve their economic feasibility.

facilitate and support private investors' move up the value-chain from mineral extraction → battery grade refining and processing → cathode active mass and components → electrodes manufacturing and cell assembly → battery pack and module.[50] It is generally recognized that such a move would require resources and expertise, and that it would likely take many years.[51] However, near-term opportunities exist in manufacturing of copper rods for the wire and cable industry and copper tubes for durable consumer goods. Realizing the announced investments and attracting additional private capital in value-added activities will require tackling the constraints identified in the following section.

The energy transition and the pursuit of critical minerals have raised interest in Zambia from many stakeholders—private companies and government-related entities alike. A stable policy environment that is consistent and competitive for investors is necessary to realize the expressed interest by national and international partners in this congested space. Balancing the volume and complexity of incoming project deals and project execution may prove to be challenging given Zambia's limited institutional and technical capacity.

3.2 Constraints and Recommendation for Private Investment

CONSTRAINT 1. Unclear and frequent policy changes with limited engagement with private-sector stakeholders. A central policy issue for the government has been the level of state intervention needed to stimulate copper production. The overall design of Zambia's fiscal regime alone is not a deterrent for investment, as Zambia's statutory average effective tax rate on copper projects is low to moderate relative to its peers (Bauer, 2024). However, frequent policy changes can engender uncertainty for investors and risk creating perceptions of "resource nationalism." The mining tax regime underwent 11 significant modifications in the past 19 years.[52] The benefits from refining tax regimes need to be weighed against the costs of insufficient predictability.[53]

Likewise, weak transparency and insufficient engagement of stakeholders erode investor trust. This is most evident through the current Minerals Regulation Commission Bill, Local Content Regulations[54] and the 2024 Critical Minerals (CM) Strategy which are under review, but with little consultation with the industry. In June 2024 the Zambian Cabinet announced the establishment of a special purpose vehicle (SPV) to facilitate a minimum of 30 percent production sharing[55] with little industry engagement. Policies that reduce investor certainty around the terms or duration of their investments into Zambia could quickly dissuade capital inflows.

RECOMMENDATION 1A. A stable and predictable policy environment would attract new investments and retain existing ones. In the Commission Bill, clarifying (i) the lack of security tenure; (ii) definition of rights and obligations for both mining and non-mining rights holders; and (iii) the government's right to act in the public interest is imperative as it ranks high on decision criteria for investors. In the CM Strategy, review the adequacy of the proposed 15–30 percent free carry rights[56] and 30 percent production sharing mechanism in new greenfield exploration because it can be perceived by investors as signaling resource nationalism, thereby lowering investor's confidence and negatively impacting future investment projects. The move towards Production Sharing Contracts (PSCs) through the new SPV also requires careful consideration. PSCs, though common in the petroleum sector, are absent in the mining industry, which is traditionally structured around royalties. Retaining cost competitiveness in PSC-based structures requires significant government resources with respect to oversight of the joint venture, and in audit functions to ensure that costs of production being declared, including a fair return to capital, are accurate and that the amount of production share at any given point is correctly determined. Given that this is proposed in addition to applying the existing fiscal regime, it is crucial for the government to achieve sustainable revenue streams without jeopardizing investor confidence and private investments.

RECOMMENDATION 1B. Zambia should also formalize a forum for policymaking discussions to improve accountability and engagement. In addition, policy making process needs to be evidence based and ensure that the regulatory impact assessment is done. This could be done by creating a technical advisory body and identifying relevant private sector stakeholders to be consulted on major regulations changes under consideration. This taskforce could include organizations such as the Public Private Dialogue Forum (PPDF), the Zambia Chamber of Commerce and Industry (ZACCI) task force on Mining, and the Zambia Extractive Industries Transparency Initiative (ZEITI).

CONSTRAINT 2. Limited geological data. Only 55 percent of the country has been geologically mapped and the data is of low quality and outdated as the last airborne geophysical coverage on a national scale was done in the early 1970s. As a result, few large-scale mines have been developed in recent years.[57] Analogue data has been digitized to produce an image of Zambia's gross geological architecture, however, the data has little benefit to investors as the granularity of information is not sufficient to allow firms to identify targets for further exploration investment. In August 2024, Zambia launched a nationwide high resolution aerial geophysical survey, which is expected to pave the way for targeted exploration of mineral resources.

RECOMMENDATION 2. Provide more comprehensive, up to date and publicly available geological information as well as conducting environmental sensitivity mapping could unlock Zambia's resource potential. The Commission Bill should include a non-exclusive reconnaissance license to allow companies to collect geodata through remote sensing over large areas without the need to enter memoranda of understanding (MOUs) with the government, but with the requirement to submit the data to the government in a specified format which could be released to the public after a brief period of confidentiality. This would ensure that the development of the mining sector isn't dependent on government spending on geological surveys.

CONSTRAINT 3. Zambia's mining licensing regime is opaque and results in delays that discourage further investments. Investors are faced with complex licensing and permitting frameworks, which involve interactions with multiple agencies and stakeholders.[58] The licensing system also encourages hoarding and speculative behavior, according to the IMF (2023) Governance Diagnostic.[59] For instance, the Ministry of Mines and Mineral Development (MMMD) does not regularly exercise its authority to cancel or suspend licenses that do not meet their workplan, limit number of exploration licenses that can be issued to "single entity" and has unclear definition of what is deemed a "single entity." These inefficiencies lead to limited mining activity, and hold back the discovery of new deposits, as well as new investment and production.[60]

Many countries offer large-area authorizations allowing the license holder to gather so-called "reconnaissance," that is, information useful to identify specific areas for more intensive follow-up. In Zambia, however, the collection of geological data over large areas is reserved to the state, unless under an MOU with the private sector.

RECOMMENDATION 3A. The government should simplify licensing and permitting frameworks and speed up review and decision-making via amendments to the draft Commission Bill, including requirements to:

- Actively consult communities, including gaining *free prior informed consent* (FPIC), before approval of new projects.
- Conduct environment and social impact assessments (ESIAs) consistent with international standards, prior to the approval of any large new mining license.
- Clarify the role of traditional chiefs in awarding mining licenses on customary-held land.

RECOMMENDATION 3B. Licenses, underpinned by certainty of tenure, should be administered through a fully digital cadaster system to mitigate issues including encroachment and speculative hoarding. The cadaster system should be managed by MMMD and regulated by the Minerals Commission, and all workflows in the cadastre should be codified and provide specific (and limited) permissions to Mining Cadastre Office Officers based on their official roles, with unique login IDs. To receive a license, any exploration company should be technically competent, well-financed, and able to convert early-stage prospecting into projects with credible feasibility studies. Reports submitted to the cadaster should be digitalized and submitted through the portal which will track the timely delivery of reports and payments.

RECOMMENDATION 3C. Zambia should also standardize the concession period for exploration to 10 years in line with international standards, remove limits to the number of licenses companies can hold, accelerate a "clean up" of the cadaster, and only grant licenses and tenements to entities with technical and financial 'know-how' of geological work. This will help shape the market and weed out speculators and corruption.

CONSTRAINT 4. Current gaps in power and transport infrastructure reduce investment attractiveness and limit current and future production capacity. Unreliable and costly power hinders production—mining uses more than half of generated power. Although Zambia has improved its road networks over the years, moving bulk cargo by road has been both costly and damaging for the roads. Recent announcements to revitalize railway corridors, if implemented, would help address key transport bottlenecks.

Climate shocks, sovereign risk ratings, and low institutional project management capacity exacerbate these issues and augment costs for firms. The large-scale infrastructure development currently planned within Zambia is unlikely to be large and fast enough for the industry. Thus, mining companies are engaging directly with independent power producers (IPPs) to develop alternative supply during the current drought.[61]

RECOMMENDATION 4A. Review the adopted Public Partnerships Act of February 2024 to ensure it reflects international best practices for procurement, selection and negotiation with a private developer.

RECOMMENDATION 4B. Improve government capacity to prepare power supply and transmission projects. Put in place better coordination between the government and the private sector to ensure project success (see the discussion on solar power in the next chapter).

RISKS TO BE MANAGED. Environmental management and compliance have been lacking. Although Zambia has an environmental regulatory framework to manage pollution risks (for example, water and air pollution, acid mine drainage, and soil degradation), enforcement has been limited. Recent class actions against Vedanta (2015) and by the Kabwe community against Anglo American on lead pollution (2023) exemplify these shortcomings. Zambian legislation requires mining companies to conduct Environment and Social Impact Assessments. However, insufficient consultation and inadequate data sharing have been an underlying cause of community grievances.[62]

Moreover, community rights violations stem from a lack of explicit requirements around community FPIC in Zambian law. Similarly, Zambia Environmental Management Agency (ZEMA) and the Mines Safety Department have limited financial and technical capacity to meet international standards. The gradual transition to mandatory ESG reporting standards such as the European Union's Corporate Sustainability Due Diligence Directive will require Zambian producers to comply or face challenges in remaining integrated with global supply chains.

Furthermore, regulatory hurdles block full compliance with requirements to contribute to the Environmental Protection Fund (EPF).[63] Cash contributions to EPF curtail investment by firms as it ties up their funds which could be used for growth. Therefore, companies prefer a cash-and-guarantee mix. Zambian law requires the guarantee to be from a Zambian bank, but these do not have the balance sheets to guarantee such amounts, and using their balance sheets could crowd out opportunities for other lending.

These risks can be mitigated by establishing a semi-autonomous Minerals Commission, including a Mining Appeals Tribunal, to strengthen regulation, compliance, and enforcement, while avoiding political interference. The function of

ombudsman could be part of the Mineral Commission Bill (for example, following Peru's experience) to make it more responsive when institutions or regulations are violating firms' or people's rights. Zambia could also formalize ESG and social license to operate criteria into law and regulate performance via the Minerals Commission through industry reporting standards. This would help keep track of where minerals are coming from and improve community consultation to get Free and Prior Informed Consent (FPIC) and ESIA before licenses are approved. Licenses would include clear roles for traditional leaders.

Table 3.2

Priority policy recommendations for increasing private investment in mining

Constraints	Recommended actions
Unpredictable policy changes undermine investment attractiveness and diminish mining sector competitiveness.	**Clarify in 2023 Mining Regulation Commission Bill** issues relating to security of tenure, rights and obligations. **Reassess 2024 Local Content Regulations and in Critical Minerals Strategy**, the **"free carry"** and the proposal to capture additional benefits through a minimum of 30% production through new mining **special purpose vehicle (SPV)**. **Fund establishment of a regulatory body—Minerals Commission**—to strengthen audit/compliance capabilities with placement of impartial technical mentors and provision of inception budgets.
	Responsible government entities: Ministry of Mines and Mineral Development (MMMD), Ministry of Commerce, Trade, and Industry (MCTI), Minerals Commission, Zambia Chamber of Commerce and Industry, Zambia Development Agency (ZDA), Zambia Revenue Authority (ZRA), Industrial Development Corporation (IDC).
Poor and inconsistent application of ESG standards exposes producers and buyers to reputational and due diligence risk and disincentivizes investment. **Land-related laws are not harmonized across ministries.**	**Formalize ESG-social license to operate criteria into law** and regulate performance via Mineral Commission by adopting industry reporting standards, better tracing mineral provenance and improving community consultation to gain Free Prior and Informed Consent (FPIC) and ESIA prior to the approval of licenses, with a clarified role for traditional leaders in the award. **Remove constraints to the operationalization of the Environmental Protection Fund** (for mine closure) and link compliance with the fund to any direct or indirect license transfers.
	Responsible government entities: MMMD, Zambia Environmental Management Agency (ZEMA), Department of Geological Survey (GSD), Minerals Commission, and ZDA/ZRA.

(Table continues next page)

Table 3.2

Priority policy recommendations for increasing private investment in mining *(continued)*

Constraints	Recommended actions
Absence of reliable, high-resolution geological survey data. **Licenses bought for prospecting/ speculation, over existing license areas.**	**Digitize current Geological Survey Data records and collect new geodata and environmental sensitivity mapping** and disseminate to garner interest from exploration. **Upgrade to a digitally driven cadastre management system** managed by MMMD and regulated by Minerals Commission. Standardize exploration rights concession periods to 10 years in line with international standards. Remove limits to number of licenses companies can hold. **Accelerate a "clean up" of the cadastre and create criteria to qualify future issuance of licenses and tenement to entities capable of financing geological work** to shape the market and weed out speculators and corruption. **Introduce a non-exclusive reconnaissance license** to allow companies to collect geodata through remote sensing over large areas without the need to enter MOUs with the government, but with the requirement to submit the data to government in specified format which could be released to the public after a brief period of confidentiality.
	Responsible government entities: GSD, MMMD, Minerals Commission.

4

Solar Power

AT A GLANCE

- Zambia's energy generation is almost entirely from hydropower, but with rising incomes domestic demand is already outstripping this source. Increasingly frequent, climate-change-related droughts are making diversification a priority.
- Solar power is the least-cost power generation source and a good complement for hydro.
- Bordering on several growing economies, Zambia has potential to increase energy exports to the region by expanding solar power generation.
- Investor confidence would be supported by clear and stable regulations, and transparent procurement processes.
- State-owned electricity company ZESCO's financial viability needs to be addressed, including by setting tariffs that are cost-reflective, to make it a credible offtaker.

4 Solar Power

4.1 Sector Context and Opportunity

Growing demand for electricity, both domestically and in the region, necessitates further investments in Zambia's energy sector. Currently, only 48 percent of households[64] have access to electricity and residential demand is expected to increase as incomes rise. Official projections in the *Integrated Resource Plan for the Power Sector in Zambia* (IRP) [65] foresee rapid energy demand growth in the next decade and beyond (table 4.1). Such projections are a "best-case scenario" based on optimistic assumptions about economic prospects and the pace of electrification in agriculture (Ministry of Energy of Zambia, 2023). They also include a favorable scenario for the mining sector. Even with lower energy demand growth, however, hydropower would struggle to keep pace, because it already falls short of domestic demand.

Neighboring countries will be an additional source of demand growth, giving Zambia the chance to capitalize on its geographical location to serve as an electricity hub for the region. Zambia is a member of the Southern Africa Power Pool (SAPP), alongside 11 other countries in the region which absorb most of Zambia's electricity exports.[66] These rose to $397 million in 2023 from $87 million in 2019. Growing incomes and expanded electrification in SAPP countries will translate into greater electricity consumption, boosting the market for Zambia's exports (table 4.1).[67] Transmission interconnector projects underway in the SAPP region—such as the *Tanzania-Zambia Transmission*

Table 4.1

Zambia's energy market investment outlook: energy demand, 2020–2050 (GWh)

Consumption sectors	2020	Projections			
		2026	2030	2040	2050
Agriculture	252	260	9,519	16,102	24,869
Mining	6,569	9,747	13,127	14,853	15,009
Residential	4,618	5,605	6,704	8,647	11,535
Other sectors	4,036	4,676	8,195	11,312	15,575
Exports	1,210	2,628	4,380	8,760	8,760
Total demand	16,685	22,916	41,925	59,674	75,748

Source: Ministry of Energy of Zambia (2023). Energy Regulation Board (ERB) of Zambia (2024); Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH (2023); Mubanga (2009), and Lunsemfwa Hydro Power Company Limited, https://lunsemfwahydro.com.zm/about/.

Interconnector and the *Zambia-Mozambique Interconnection* projects—will facilitate Zambia's access to regional electricity markets.

Although the power generation segment is currently concentrated, open access to the grid for independent power producers would attract private investors. ZESCO, the public power company, is the dominant player, with a share of 81 percent, followed by Maamba Collieries Limited (MCL) with an industry share of 7.9 percent. With the commissioning of 94 MW of solar generation and the existing gas turbine alternators (GTAs), Copperbelt Electric Company (CEC) comes in third with a share of just over 3 percent. The participation of private independent power producers (IPPs) in the power sector would be enhanced once an open access framework is fully put in place—including unbundled network tariffs, clear and consistent market rules, and revisions to grid code—allowing IPPs to use transmission and distribution infrastructure on a non-discriminatory basis. That would allow IPPs to engage in power trading with private offtakers, without ZESCO acting as the sole offtaker.

Solar photovoltaic (PV) power is emerging as the most cost-effective source of generation. Solar installations are the least costly and have the shortest lead times among power generation sources (table 4.2). For example, relative to coal generation projects, solar generation installations are less costly ($1.01 million per MW versus $1.07 million) and have a significantly shorter lead time (2 years vs. 5 years). As is well known,

Table 4.2

Zambia's energy market investment outlook: investment profile for on-grid generation expansion for 2023–2030 (2021 $ prices)

Investment by generation technology	Capital cost ($, millions per MW)	Construction lead time (years)	Installed capacity (MW)		Investment ($, millions)
			June 2023	2030 (projection)	
Hydro storage	0	0	2,558	2,558	0
Hydro (run-of-river)	1.28	3	589	2,794	2,827
Thermal - steam	1.07	5	435	1,035	643
Solar PV	1.01	2	123	2,083	1,970
Wind	1.29	3	0	1,192	1,534
Geothermal	1.60	4	0	30	48
Biomass	0.63	4	0	321	202
Total			3,705	10,013	7,224

Source: Ministry of Energy of Zambia (2023). Energy Regulation Board (ERB) of Zambia (2024); Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH (2023); Mubanga (2009), and Lunsemfwa Hydro Power Company Limited, https://lunsemfwahydro.com.zm/about/.
Note: Overnight cost, expressed in base-year dollars and as such does not include escalation during construction or interest during construction.

compared with coal, solar does not generate greenhouse gas emissions, nor does it harm the local population with pollutants, such as sulfur dioxide, nitrogen oxides, particulates, mercury, lead and other heavy metals.[68] Furthermore, solar PV generation is a good complement to hydro, whose level of output does not depend on the time of day or the weather. With growing demand and changing climatic conditions, Zambia will need to shift from its traditional reliance on hydroelectric power to a more diversified generation mix. At present, hydropower generation, which represents 82 percent of the total, usually exceeds demand in normal rainfall seasons. However, supply constraints caused by seasonal fluctuations have often resulted in winter load shedding. The severe drought that affected the country during the 2023–2024 summer season underscores the need for Zambia to seek additional power sources. Large-scale solar PV plants in Zambia will complement existing and future hydropower plants by conserving water in the country's main reservoirs during periods of sunlight and utilizing this banked energy when solar PV power generation is unavailable or insufficient, with potential future large-scale battery energy storage system (BESS) additions.

Under a more conservative scenario for growth in energy markets than that used in the IRP, investments in solar generation on the order of $1.5 billion would seem feasible. A scenario prepared for this report suggests that 1,500 MW of installed capacity could be added in the form of solar generation by 2030 (compared to the 2023 total of about 3,705 MW from all sources; table 4.2). This would be equivalent to investments on the order of $1.5 billion, although subject to high uncertainty. Such scenario is based on conservative assumptions that consider historical performance and capacity installation trends; sector-specific growth projections; project lead times for different technologies, including installation and commissioning periods; seasonal variations in electricity generation across different technologies; technology-specific factors (e.g., prioritization of sustainable and lower-emission technologies while constraining the growth of coal generation due to its adverse environmental impacts), among others. The scenario was informed by stakeholder consultations (IPPs, government officials, and industry experts).

The electricity sector suffers from inadequate transmission and distribution infrastructure that constrain embedding renewable energy into the Zambian grid. Transferring electricity generated from distant renewable energy sites (such as solar or wind farms) to load centers or urban areas can be challenging as transmission lines and substations are already operating at or near their maximum capacity. In addition, grid stability and reliability are often an issue. Thus, introducing intermittent renewable energy sources like solar and wind can affect grid stability and reliability, especially if the grid is not equipped with sufficient balancing mechanisms (such as energy storage or flexible generation capacity) to manage fluctuations in supply and demand.

Electricity sector reform has progressed slowly without consistent political support. In 2019, the government approved new policies and a revised Electricity Law but the envisaged increase in private sector participation has yet to materialize, except for small import deals organized by traders. Although the eventual resolution of Zambia's debt renegotiation would be viewed favorably by investors, ZESCO's weak financial position would continue to affect its ability as an effective offtaker for solar IPPs. Implementing the agreed revision in ZESCO retail tariffs for the period 2023–2027 would improve its financial situation.

Zambia's macroeconomic uncertainties have discouraged investments in the energy sector. For instance, projects under the Scaling Solar and the Global Energy Transfer Feed-in Tariffs programs, in which ZESCO would have been the offtaker, were suspended or delayed because ZESCO's financial position required stringent payment security mechanisms and credit enhancements. In addition, lack of an effective Kwacha-US dollar hedging mechanism and rising US dollar funding costs negatively affect investment in solar projects. Increased access to long-term finance and new currency hedging instruments to facilitate investment in solar generation projects could help.

4.2 Constraints and Recommendations for Private Investment

CONSTRAINT 1. Ineffective stewardship of the electricity sector—unclear regulation, insufficiently transparent processes, and inadequate institutional capabilities—undermines investor confidence. As discussed, the current Integrated Resource Plan (IRP) 2023 displays ambitious timelines and projected power installations, premised on optimistic assumptions, such as the rapid financing and commissioning of new coal-fired power stations. However, the absence of more realistic projections affects the ability to plan investment projects in the energy sector.

Investors may also be deterred by the lack of transparent processes to award contracts and standardized rules applicable to all independent power producers. ZESCO's recent announcements of Memoranda of Understanding (MoUs) with international developers have yielded few instances of financial closure. Furthermore, the perception that ZESCO allocates projects to a predetermined list of awardees, before procurement processes commence, generates mistrust among investors.

Access to the public grid by IPPs is also affected by the absence of rules to govern the sector, including transparent unbundled transmission and distribution charges. The government announced a new market design early May 2024, but it was not published. In July 2024, the government published open access regulations that could be considered a first step. There remain pending reforms to have separate accounting for each of ZESCO's businesses, new unbundled published network tariffs, the development of market rules, revisions to the grid code, among others. Many of these reforms are to be led by the regulator.

RECOMMENDATION 1A. Update official forecasts in the *Integrated Resources Plan* (IRP) 2023, based on more conservative and realistic assumptions, so that the IRP serves as a credible guide for sectoral policy and private investment decisions.

RECOMMENDATION 1B. Separate accounting of ZESCO's generation, transmission, and distribution activities, to improve transparency, financial management, and regulatory compliance.

RECOMMENDATION 1C. Establish transparent rules on open access to the transmission grid to streamline project development and competition, reducing reliance on individual agreements with ZESCO. The implementation of open access regulation published in July 2024 is at an early stage. There is a need to implement the rules, tariffs and guidelines envisioned by the regulation.[69] That would streamline project development and competition, reducing reliance on individual agreements with ZESCO for access to the grid. Bilateral contracts between IPPs and customers could be executed independently under open access, further enhancing transparency and encouraging increased project

development while driving down tariffs. It is likely that ZESCO, or potentially an unbundled ZESCO distribution entity or a future transmission system operator, akin to South Africa's recently established National Transmission Company, also would also need to procure additional energy from various technologies through competitive tender processes. Moreover, leveraging access to the Southern African Power Pool (SAPP) as an avenue to sell energy on a short-term basis would de-risk renewable energy projects by connecting them to a larger market.

Specific and concrete recommendations can be adopted in the near term to attract private investment into utility-scale solar generation (table 4.3). Nevertheless, sustained political will and a broader set of complementary actions will be needed for several years to achieve solar power's full potential. This includes reforms to ZESCO including addressing its precarious financial situation and the larger macroeconomic challenges. There is also a need for training to raise the capacity of the Energy Regulation Board (ERB) and its staff, in particular in the area of market rules and unbundled tariffs, and in the alignment with international norms and Southern Africa Power Pool rules.

Table 4.3

Priority policy recommendations for increasing private investment in solar power

Constraints	Recommended actions
The current Integrated Resources Plan (IRP 2023) is overly optimistic. **Perception that certain IPPs have been "pre awarded" potential ZESCO tenders (public announcements of signed MOUs) discourages interest from a wider pool of potential investors.** **Need for implementation of the open access regulation. Specifically:** – Future market design – Development of market rules – Linkage to SAPP – Unbundling of network tariffs – Revised grid code (including rules to connect to the grid)	**Update the existing IRP** and supporting documentation based on realistic demand forecast assumptions to 2040. **Adoption by ZESCO of separate accounting for generation, transmission, and distribution businesses**, to improve transparency, financial management, and regulatory compliance. **Adoption and implementation of market rules, unbundled network charges, and revisions to the grid** code to operationalize open access to the grid to foster greater IPP participation in generation: including transmission charges (wheeling tariffs), unbundling of tariffs, balancing agreement for the complement of energy activities. *Responsible government entities:* Ministry of Energy, Ministry of Finance, ZESCO and ERB.

5
Maize, Wheat, Soya

AT A GLANCE

- Domestic and regional demand for agricultural products will be strong for years to come. Beyond maize—the traditional staple—wheat and soy offer opportunities for profitability and diversification.
- Agri-climatic conditions are ideal, and Zambia's most advanced farms are profitable and at the global frontier of productivity, whereas myriad small, household-level farms with little access to finance and other inputs operate at subsistence levels.
- Large tracts of arable land are potentially available through government initiatives.
- Reforming agricultural subsidies, dismantling export bans, and deepening access to finance would correct market distortions and channel investment to the sector.

5 Maize, Wheat, Soya

5.1 Sector Context and Opportunity

With ample fertile land, favorable agri-climatic conditions, and strong demand, Zambia has potentially profitable opportunities for expanding production through private investment. Facilitating greater private investment can be achieved by improving access to new tracts of land to establish large commercial farms with irrigated, year-round crop production.

For the agriculture sector to have a transformative impact on the economy and deliver more and better jobs for Zambians, attracting greater private investment will be critical. More than 2.3 million households rely on agriculture for their livelihoods, providing 22 percent of jobs nationwide and more than 50 percent in rural areas. Most of these jobs are seasonal, temporary, and informal; in 2022, just under 10 percent were formal.[70] Another 2 million Zambians classified as outside of the labor force rely on farming or fishing for subsistence. Indeed, most Zambian households farm to feed themselves and only sell products when they have an available surplus. Maize, as the country's primary source of nutrition, is grown by more than 98 percent of smallholder farming households.

The wider agribusiness sector contributes roughly 6 percent to Zambia's annual GDP through production, processing, and manufacturing. The primary agricultural exports are tobacco and sugar, followed by maize flour, soya oilcake, and soya beans,

contributing a significant source of foreign currency. Maize and maize seed have also been significant exports at times but are often limited by export restrictions and policy uncertainty. The bulk of agricultural exports are to neighboring countries, especially the Democratic Republic of Congo, although some products, like tobacco and coffee, reach European markets.

Farming can be a highly profitable venture in Zambia, but not all farmers have the necessary means to develop a successful commercial operation. Zambia is home to roughly 1,300 large commercial farming operations—some boasting world-class yields, driving strong profit margins. These large commercial farms (LCFs) produce for both the domestic market and exports. With modern irrigation and access to financing, these farms are more productive and more resilient to weather and economic shocks. In contrast, the overwhelming majority of small-scale farms (SSFs) are not profitable and remain vulnerable to shocks. More than 90 percent of farms are smaller than 2 hectares. With limited land and few means to increase productivity, most farmers live below the poverty line. Based on data from the World Bank's 2024 Country Economic Memorandum (World Bank, 2024a), at current prices and productivity levels, a married Zambian farmer would need 7.5ha to produce enough maize for the couple to live above the $1.90/day poverty line.

Developing large farming projects in Zambia is also capital intensive, and accessing finance is often prohibitive for the private sector. Less than 3 percent of Zambian farmers borrow money from a commercial bank to finance capital improvements for productivity and expansion.[71] Commercial credit to the sector has been declining, accounting for less than 10 percent of total credit in 2023—with only 1 percent going to small and medium-sized agribusinesses. New government initiatives like the Sustainable Agriculture Financing Facility (SAFF), introduced in 2023 and supported by the Zambia Credit Guarantee Scheme, have shown promising initial results.[72] Alignment and coordination of financial support schemes will need to continue—an objective of the Comprehensive Agricultural Transformation Support Program (CATSP)[73] officially adopted in 2024, to further support the National Agricultural Policy 2012–2030 and to advance objectives last outlined in the National Agriculture Investment Plan 2014–2018.

Although investment in crop production—especially greenfield projects—is generally seen as involving risks, the sector remains an important destination for FDI. Agriculture and food value chains attracted announced foreign direct investments of $600 million from 2013 to 2023, a lower but steadier flow than mining, cement and concrete, or solar; investment in crop production represented 20 percent of that total. The top-five sources of foreign investment over that period were Belgium (22 percent of the total), the United Kingdom (18 percent), Israel (15 percent), South Africa (12 percent), and the United States (11 percent).[74]

One of the most commonly cited attractions to investors in farming in Zambia is the availability of large tracts of arable land, but this can be a challenge despite government programs to attract investors. One such initiative is the government's "Farm Block Development Program." Launched in the early 2000s, the Farm Block initiative aims to boost agricultural productivity and attract private investment. To achieve this, the government has converted large tracts of customary land[75] to state-owned land, which ostensibly would be available to private investors through long-term leases. However, the program has largely fallen short to deliver on its objectives, for reasons well documented in previous work, such as limited road, power, and irrigation infrastructure, distance to markets, encroachment, speculative land holding, gaps in legal and regulatory frameworks, and complex land acquisition processes and approvals.[76] A renewed commitment from the government will require adoption of a transparent approach to developing the Farm Blocks. Key factors would be (a) transparent and fair land allocation process; (b) identifying investors with the technical know-how to grow crops and produce suited for particular land conditions (as each block has different conditions that may be more favorable to certain crops, e.g., cereals or citrus); (c) continued assistance to investors to meet required regulations and processes, as well as accessing key infrastructure; and (d) support on ESG issues, including community engagement.

Potential for new or expanded private investments stems from growing demand domestically and from neighboring countries, driven by rapid population growth and shifting consumer preferences for diversification. Domestic demand is large and growing for maize, soya, and wheat. While across the region, demand continues to grow, especially in the neighboring Katanga region of the Democratic Republic of Congo (DRC), owing to rapid economic and population growth. And despite the most recent drought, Zambia normally boasts favorable climatic conditions allowing for relatively high yields (figure 5.1). As weather patterns shift from El Niño to La Niña, Zambian crop production will benefit from more stable conditions over the next few years, whereas peers in East Africa will likely be negatively impacted.

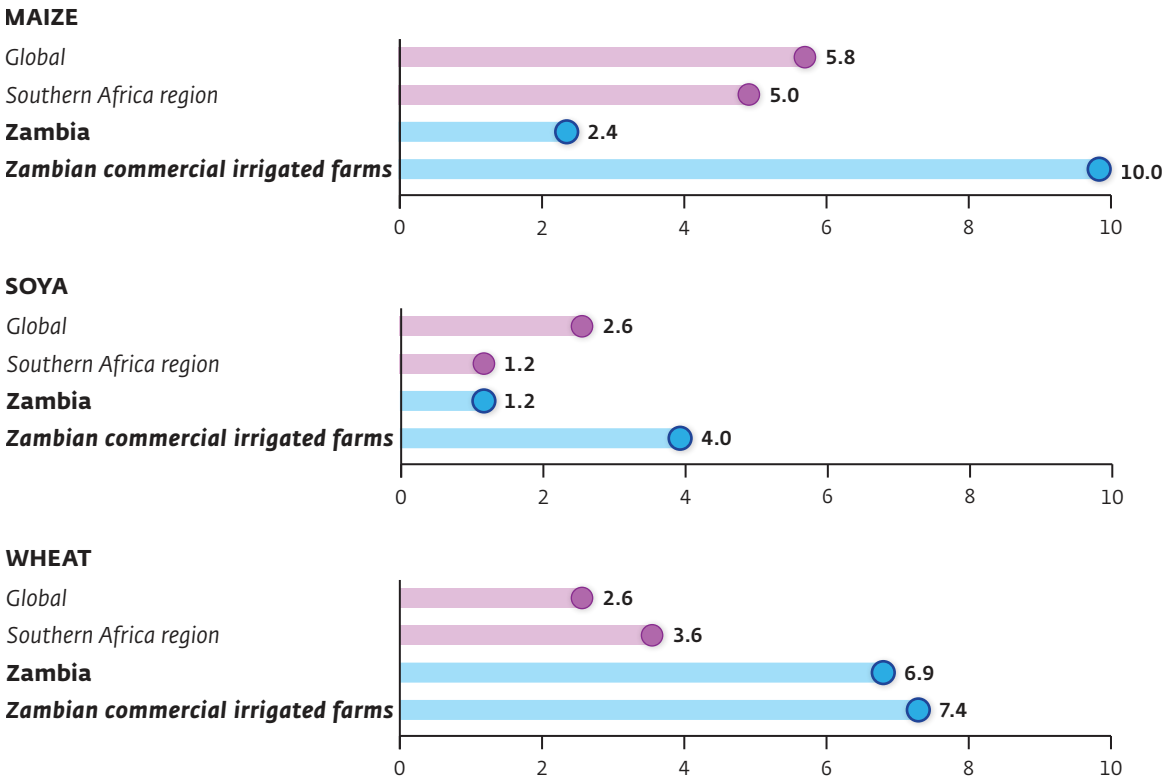
Many farmers consulted for this report expressed a desire to invest in expansion and diversification, which would spur private investment along the value chain. Companies consulted were actively exploring investment in new opportunities: from upstream inputs, including blended fertilizer and improved seed, to machinery and equipment manufacturing and distribution, to agro-processing and storage, and downstream industrial uses, particularly in manufacturing animal and fish feed.

This report focuses on opportunities for developing large, commercial farms, operating year-round with professional management and irrigation systems. As such, ensuring the farm can adhere to ESG standards, often required in public reporting and increasingly demanded by buyers, is of paramount concern. These and other challenges specific to developing agribusiness projects in Zambia are discussed in the following

Figure 5.1

Large commercial irrigated farms are highly productive

Zambian yields per crop vs. comparators, 2022 (metric tons per hectare)



Source: Bureau for Food and Agricultural Policy (BFAP), Indaba Agricultural Policy Research Institute (IAPRI), FAO, and World Bank Group calculations.

sections. Wider challenges—such as child labor in the supply chain—are of concern but are not covered in depth. A prioritized set of recommended actions by the public sector is identified at the end of the chapter. If taken by government and implemented over the next few years, they could increase the likelihood of transformative private investment in crop production.

Most recent investment in the sector has come from incumbents in the market, who understand how to navigate the complex business environment—thus targeted actions to improve the business environment could increase investment in Zambia's agricultural sector by attracting new players. Growing one's farming business and developing greenfield projects are challenging in any market. Efforts in Zambia can quickly be abandoned due to the challenging business environment. Informal payments are considered part of the cost of doing business. Pay-to-play transactions are common within all levels of the country's public institutions and agencies. Examples of these additional

costs specific to developing and operating farms range from small out-of-pocket expenses—such as providing a "per diem" for meals for government officials during a required site visit, or paying to fuel the vehicles of local police if one wants them to respond to an incident on the farm, or to more consequential sums such as motivational gifts to local chiefs to facilitate access to land or removal of squatters.

Like mining, agriculture is also beset by bureaucratic inertia and vested interests across both the public and private sectors. Policy is ostensibly driven by food security concerns, yet ineffective market interventions have stunted growth and investment, especially from productive farms capable of improving food security. A small set of powerful players benefit from the way the sector currently operates, and the political bargain of elites will not be easily altered. Recommendations in the World Bank's *Country Economic Memorandum* (World Bank, 2024a) and sector studies provided by development partners seek to fundamentally change the relationship between farmers and the state. Agricultural policies are currently dominated by spending on private goods delivered directly via public intervention in agricultural markets—which foster a relationship of dependency and incentivize informal payments for such services. This approach needs to be replaced by policies that allow the government to focus on providing public goods and the private sector to meet demand in more open markets. Implementing the near-term recommendations proposed in this diagnostic would help deliver on the more complete set of actions detailed in the CATSP, and a shift toward a new paradigm, by creating a constituency that benefits from and supports open and well-functioning agricultural markets.

Looking ahead, and despite the above challenges, this report holds a positive outlook for Zambian agribusiness in the next few years and beyond. Production growth is expected to rebound strongly, following the 2023/2024 El Niño–induced drought, as weather patterns shift, and rainfall improves. Production will also benefit from greater use of agricultural inputs as their prices become more affordable with easing inflation. On the demand side, rising Zambian incomes are forecast to support steady domestic consumption growth across commodities, as well as the food and beverage industry. Projections are reported by crop, in the following sub-sections.

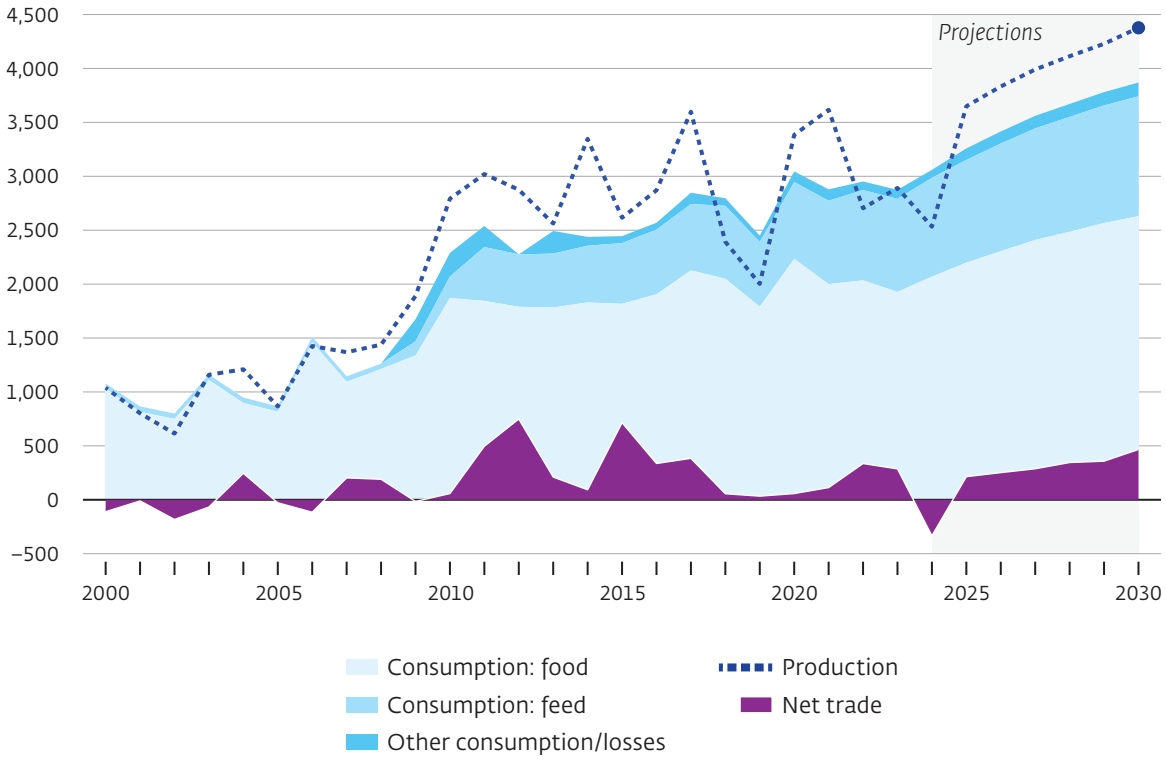
5.1.1 *Maize*

The market for maize, the primary source of nutrition for most Zambians and neighboring countries, is projected to grow rapidly in the years ahead. Annual domestic demand for food and feed use is projected[77] to rise by 1 million metric tons (MT) by 2030, while regional exports of maize and value-added maize products (e.g., processed meal and feed) could double to 1.5 million MT,[78] driven by demand in the DRC, Zimbabwe, and Malawi. To meet this demand, Zambia's production is projected to grow from a recent annual average of 2.8 million MT to 4.3 million MT by 2030 (figure 5.2)—a number that could rise if more LCFs begin growing maize, to be discussed below.

Figure 5.2

Increasing demand will support growth in maize production if reforms are adopted

Maize production, trade, and market balance, 2000–2030 (metric tons, thousands)



Sources: Zambia Statistics Agency, FAO FPMA, Commodity Insight Africa, BFAP Industry survey 15–19 April 2024. Calibration and outlook from BFAP Africa Sector Model.

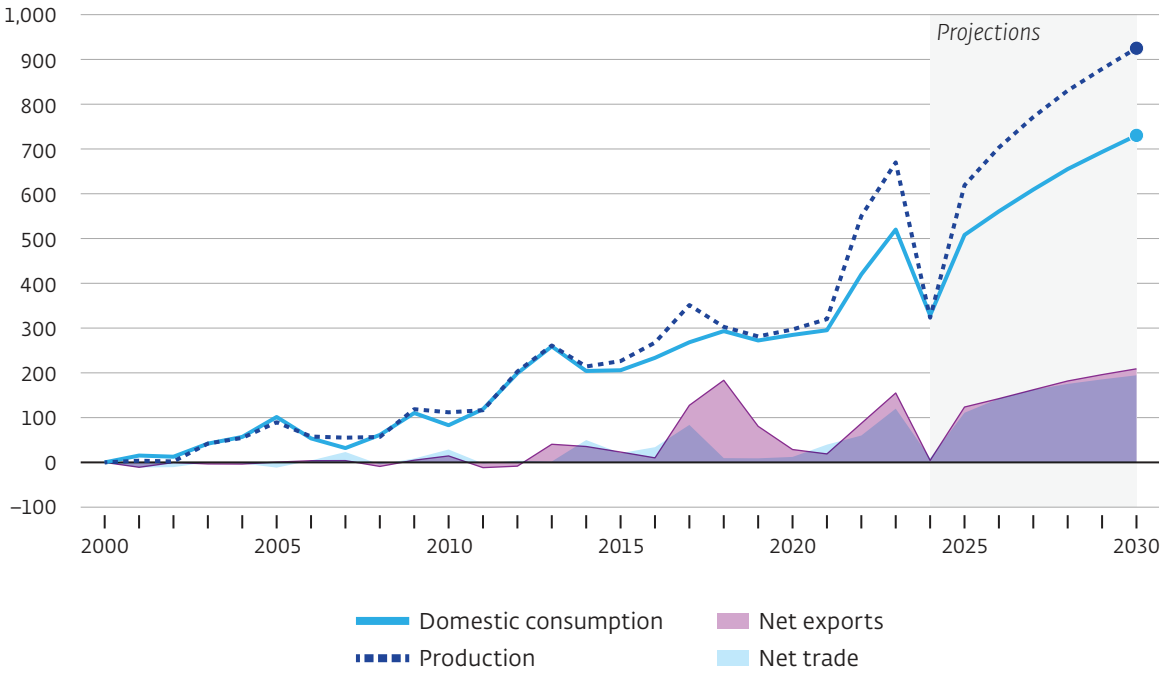
5.1.2 *Soya*

Soya production and processing—the fastest growing agribusiness value chain in Zambia—is highly attractive for private investment. The number of farmers growing soya and the land area planted for production have risen more than for any other crop in recent years. As more small-scale farms (SSFs) have diversified into soya, the planted land area has tripled from the 2019/2020 planting season to the 2022/2023 season preceding the drought. Output is forecast at 925,000 MT by 2030, double the 2020 level (figure 5.3).[79] Large commercial soybean producers who invested in irrigation systems and professional farm management have experienced the fastest productivity gains and now produce yields up to 4 MT/ha—well above global averages. They are both highly competitive and profitable (World Bank, 2024a).

Figure 5.3

With reforms in place, soya production could grow to meet rising demand

Soya production, trade, and market balance, 2000–2030 (metric tons, thousands)



Sources: Zambia Statistics Agency, FAO FPMA, Commodity Insight Africa, BFAP Industry survey 15–19 April 2024. Calibration and outlook from BFAP Africa Sector Model.
Note: Net exports are the country's soybean meal exports.

Investment in soya farming will benefit from strong domestic demand, driven by local crushers producing edible oil and oilcake. Zambia imports large quantities of edible oil, which could be partially offset with more efficient and competitive domestic production. Total cooking oil demand in Zambia is estimated at 200,000 MT by 2030, more than three-times current production volume. Meeting this demand would require approximately 1 million MT of soyabean per year by 2030. Zambia has the crushing capacity, with companies investing an estimated $200 million in crushing facilities in recent years.

For these downstream investments to pay off, Zambia requires more investment in upstream production and productivity to meet demand. Greater on-farm productivity will be critical, to ensure the increase in supply maintains farmer profits while lowering farmgate prices for downstream industries. This would boost the regional competitiveness of Zambia's crushers, who are well positioned to improve margins by increasing oilcake exports.

Soya oilcake, an input to animal and fish feed, is already Zambia's second largest agricultural export, driven by growing industrial demand. With soya production forecast to outpace demand in the domestic feed industry, Zambian exports could more than triple by 2030. Since Zambia has a ban on producing genetically modified (GM) crops, exporters are more likely to be competitive in Tanzania, Kenya, Rwanda, Uganda, and Malawi, which only allow non-GM soybean and oilcake imports.

5.1.3 *Wheat*

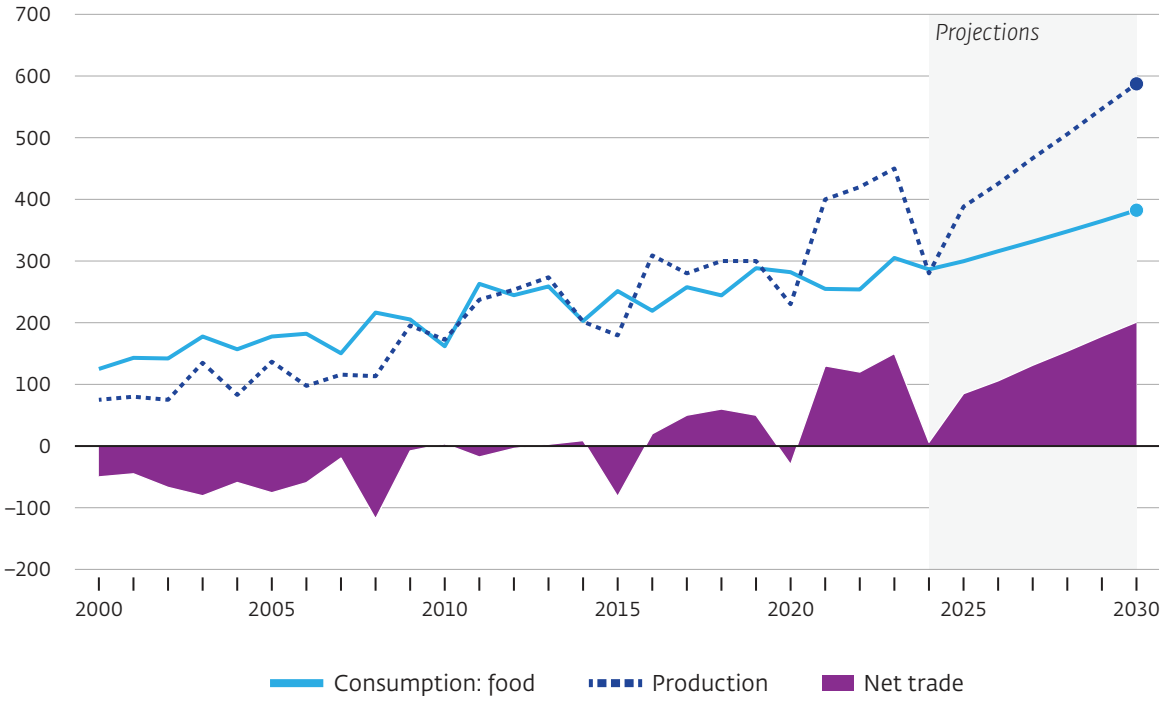
Investment in wheat production has generally been successful, with Zambia now the only country in the region producing a surplus. Due to limited political interference, wheat production has attracted significant private investment from LCFs in recent years. Currently, only LCFs produce wheat. Thus, the national average yield of 7 MT/ha is well above the global average and projected to reach 8 MT/ha by 2030. These privately owned LCFs have invested in irrigation and professional management, which, along with Zambia's ideal climatic conditions, have made them highly productive and profitable. Gross margins on a hectare of wheat are more than four times that of a hectare of maize and three times that of soya. These margins could increase an additional 70 percent by 2030. Driven by some of these fundamentals, investment in irrigation is forecast to increase the land area planted by 24 percent and to double production to 587,000 MT by 2030 (figure 5.4).

While domestic demand is expected to grow more than 40 percent by 2030, the greatest business opportunity lies in regional export markets. Official estimates are unavailable for the current volume of wheat and wheat flour exports to DRC, but industry experts estimate an average of 158,000 MT/p.a. and this is expected to nearly double by 2030, absorbing Zambia's surplus. Investment in production and milling in northern regions will provide a competitive advantage to access the DRC market. Additional export opportunities could include Angola and more central areas of DRC, if planned development of the Lobito Corridor proceeds.

Figure 5.4

Reforms would help wheat production to meet rising demand

Wheat production, trade, and market balance, 2000–2030 (metric tons, thousands)



Sources: Zambia Statistics Agency, FAO FPMA, Commodity Insight Africa, BFAP Industry survey 15–19 April 2024. Calibration and outlook from BFAP Africa Sector Model.

5.2 Constraints and Recommendations for Private Investment

Developing and operating farms in Zambia requires not only farming skills[80] and business savvy, but also the patience to overcome inefficient and time-consuming official processes. Beyond the common risks of investing in a greenfield farming project, developers in Zambia must contend with: government interventions that distort prices, limit competition, and disrupt market access, thus creating uncertainty that discourages long-term investment; limited public information on land availability and complex land tenure and alienation processes[81] that make acquisition and consolidation difficult; poor physical and digital connectivity in remote areas making it costly and time-consuming to reach markets; unfavorable borrowing terms and interest rates that make finance beyond reach for most farmers; changing weather patterns, with limited public investment in the water infrastructure and natural resource management needed to boost climate resilience; and overly strict labor regulations that disincentivize hiring and training of staff.

Addressing these challenges will take time. Stabilization of macroeconomic conditions and a commitment to prudent public financial management are necessary to encourage private investment in any sector. Fragmented policy and weak governance are overarching constraints on economic activity, but especially acute in agribusiness where interventions in the functioning of the market, pricing, and commodity trade have been detrimental to the private sector. For project developers, procedures are opaque and processes unreasonably slow. Improvement in these areas will require bold leadership and effective management, along with incremental efforts to simplify and streamline processes, including through public investment in digital systems to increase both efficiency and transparency.

CONSTRAINT 1. Market Distortions

Several studies have shown Zambia's Farm Input Support Program (FISP) and the commodity trading of the Food Reserve Agency (FRA) distort market prices, increase risks for borrowers and lenders, and fail to boost productivity and incomes for the smallholder farmers they intend to support. Take, for example, the case of maize. LCFs in Zambia are capable of reaching yields of up to 12 MT/ha under irrigation—on par with world-class farms in the United States, Brazil, and the Black Sea region.[82] Yet most LCFs have stopped growing maize because the government distorts prices, buying from subsidized smallholders participating in the FISP and FRA programs at an over market price, and later releasing supplies to the market at below market prices, including selling to major commercial enterprises, at the same time often not permitting commercial farmers (who cannot benefit from the FISP or FRA) to seek arbitrage through regional trade. Almost all maize is now produced on SSFs averaging less than 2mt/ha in size. Few of these are profitable, and even fewer can access the finance necessary to invest in irrigation or mechanization. Hence, productivity is not forecast to increase significantly by 2030. If the government is to rely on these SSFs to reach its 2026 target of 4 million MT in annual production at current yields, the total area of maize planted in the country in 2023 would need to double.

RECOMMENDATION 1. Redesigning the FISP and the FRA

The government will need to rationalize intervention in the market to encourage investment in the expansion of local farms and to attract potential investors and project developers. Ongoing efforts to redesign the FISP and redefine the role of the FRA, if fully implemented, would reduce the share of the annual agricultural budget going to these two entities. In turn, this will free up scarce public resources to reallocate toward investment in productive infrastructure—especially roads for better market access, water infrastructure to facilitate investment in irrigation and to boost climate resilience, and energy to power mechanization. As a first step, the government will need to deliver on its

commitment to fully transition from the FISP's direct subsidy design to the nascent e-voucher system. This would send a strong signal to the market and would spur private investment in the country's agro-dealer network, which will be critical for the system's success. Recent World Bank studies detail how this can be accomplished while addressing distributional impacts on those farmers that currently benefit from the subsidy programs.[83]

CONSTRAINT 2. Accessing land and water

Identifying and acquiring large tracts of land, with reliable access to water, presents a significant challenge for developing farms in Zambia. The complex interplay of customary land tenure systems, government regulations, and the presence of local communities and squatters often hinders large-scale land deals. While the government has implemented reforms to streamline land acquisition processes, compensation and resettlement of affected populations remain contentious issues. Ensuring fair compensation and implementing effective resettlement plans are crucial to mitigate social unrest and maintain community support. Additionally, the availability and access to water resources are essential for developing large-scale irrigation projects, which are often a prerequisite for attracting investors. Negotiating water rights and ensuring adequate water supply can be complex, particularly in regions with competing demands from local communities and other economic sectors.

Constraints on investments in the Farm Blocks are also well documented: the lack of physical and digital connectivity (i.e., roads, power, water, and internet network access), speculative holding of land titles within the Farm Blocks, and slow and cumbersome approval processes. Furthermore, Zambia does not have a defined governance structure in place to foster the development of the Farm Blocks. This would include, for example, clear institutional arrangements to coordinate the needed public investments into infrastructure and to efficiently and effectively evaluate and approve investment proposals.

RECOMMENDATION 2. Better land-acquisition processes

Facilitating the identification of available high-potential land areas—including within Farm Blocks—and improving the processes for acquiring land would bring more private investment. Rationalization of the agriculture budget to allow for more public resources to support the development of physical infrastructure at the most promising Farm Blocks is required for the initiative to deliver on its promise. Ongoing support from development partners is a start, but for these efforts to succeed where past efforts failed, they will need to be complemented by deeper structural reforms, as outlined in the CATSP. Additional attention will need to be paid to the distributional impacts of commercialization on local communities.

Timely implementation of some of the core components of the CATSP would signal the government's commitment to a shift in approach. Previous strategies have fallen short on implementation. One immediate objective to target would be trade policy. Reliable market access is a critical determinant of long-term investment decisions. Passing the Agriculture Marketing Bill in July 2024 has provided a policy vehicle to help harmonize relevant trade legislation, including the Control of Goods Act, by establishing rules-based frameworks for import and export controls and mandating substantive public-private dialogue prior to policy implementation.

CONSTRAINT 3. Squatting, encroachment and theft

For reputable investors, the government's weak institutional management of ESG further constrains investment. The foremost concern for potential investors is accessing land and ensuring a positive relationship with the local community, which means having effective legal means to manage issues such as squatting, encroachment, and theft—which are common in Zambia. Limited and weak capacity in the police force, an overburdened and backlogged commercial court system, and pervasive corruption make resolving disputes a lengthy, and often costly, process. On environmental matters, especially water issues and the problem of deforestation, the Zambia Environmental Management Agency (ZEMA) and the Water Resources Management Authority (WARMA) have limited capacity to effectively support project development.

RECOMMENDATION 3. Improved transparency of procedures, stronger capacity to enforce laws

Better governance—requiring more accountability, more enforcement, and reversing what has been labeled as a "legacy of impunity"[84]—would facilitate greater private investment. Strengthening of the judicial system is paramount to ensure timely and fair rulings. Digitalization of administrative processes, coupled with transparent public disclosure of information, can streamline operations, increase transparency, and enhance accountability. Comprehensive water resource mapping and biodiversity assessments are vital for identifying optimal locations for agricultural expansion while safeguarding environmentally sensitive areas. These initiatives will collectively create a more conducive environment for sustainable and responsible investment in Zambia's agricultural sector.

Table 5.1 summarizes the recommended actions to facilitate private investment in crop production in Zambia in the near term. These actions are a necessary starting point for a transformative impact on the sector and will require long-term political commitment to improve the business environment and investment climate. The below recommendations were selected based on: (1) feasibility of implementation in the near term, (2) potential for attracting private investors, and (3) impact for pro-poor growth and job creation.

Table 5.1

Priority policy recommendations for increasing private investment in maize, soya and wheat production

Constraints	Recommended actions
Inefficient, ineffective, and fiscally unsustainable agricultural subsidy program which perpetuates monocropping of maize, distorts prices of agricultural inputs, and limits competition in the market. **Buying and selling of commodities at non-market prices, at unpredictable times, and with unclear motives.**	**Reduce the scope and better target the FISP, and complete the transition from direct input supply to the e-voucher system** by: (a) Defining eligibility criteria to ensure that farmers who are not capable of benefiting from FISP are transferred to more effective social safety net programs; (b) Increasing the number of farmers registered in biometric-based registry on the Zambia Integrated Agriculture Management Information System to better target and track implementation; (c) Allowing beneficiaries to use e-vouchers on inputs and agro-dealers of their choice; and (d) Ensuring that timely payment released to agro-dealers. **Amend the Food Reserve Act No. 6 of 2020** to align the mandate and operations of the Food Reserve Agency (FRA) with the current Government policy of increasing private sector participation in the sector, specifically by limiting the purchasing, storage, and sales of physical stock. *Responsible government entities:* Ministry of Agriculture; Ministry of Finance; Presidential Delivery Unit.
Difficult to acquire large tracks of land due to land tenure system, speculative holding, and procedural inefficiencies. **Land documentation endorsed and issued by traditional authorities is not recognized in official land registers and lacks legal standing.** **Lack of integrated land use planning in customary areas.**	**Update and revise Lands Act to enable new land management frameworks and to introduce systems to simplify land acquisition, ease customary land conversion, improve integrated land use planning, and protect biodiversity and critical habitat** by, inter alia: (a) Migrating all workflows for issuance and maintenance of titles to a digital environment to increase transparency, reduce scope for fraud, and improve quality and efficiency of land service provision;[a] and (b) Finalizing and publicizing the national land audit, and implementing digital systems for land management (i.e., the Zambia Integrated Land Management System, including digital clearance processes, and the National Spatial Data Infrastructure, a geospatial information system). *Responsible government entities:* Ministry of Lands; Commissioner of Lands; Lands Survey Department; Ministry of Local Government and Rural Development; Ministry of Science and Technology; Smart Zambia.
Export bans and de facto limits on trade, such as inefficient permitting, limit the ability of commercial players to maximize revenue, create market uncertainty and promote informal trade through porous borders.	**Implement the Agriculture Marketing Bill** by (a) Establishing a rules-based system that legally establishes a private sector right to market access, by introducing clearly defined trigger mechanisms and protocols for public-private dialogue as prerequisites to any trade restriction, except under well-defined and extraordinary circumstances; (b) Establishing the Agricultural Marketing Council to facilitate structured stakeholder consultation and use of evidence in guiding agriculture trade policy and regulation, including on imports and export of agriculture commodities. *Responsible government entities:* Ministry of Agriculture; Ministry of Trade and Commerce; Ministry of Justice; Food Reserve Agency; Securities Commission.

a. Ali and Deininger (2022).

6 Tourism

AT A GLANCE

- Zambia is an attractive destination with room to grow in Nature-Based Tourism, the Meetings, Incentives, Conferences and Exhibitions segment, and synergies between the two.
- Although investments in air and road access and information and communications technology infrastructure will require time and resources, near-term gains can stem from concerted efforts to improve branding and destination marketing.
- Likewise, simplifying and clarifying regulations and licensing can help attract private investment.

6 Tourism

6.1 Sector Context and Opportunity

With rich nature and wildlife assets, diverse cultural heritage, and relative political stability, Zambia presents strong potential for tourism. The sector can generate jobs and bring in foreign exchange earnings, as noted in the 8th National Development Plan (NDP) and the Zambia Tourism Master Plan (ZTMP). Nature-based tourism (NBT) and conference and business tourism[85] are especially promising, based on comparisons with regional peers, with Lower Zambezi, South Luangwa, Kafue and Mosi-oa-Tunya National Parks and Victoria Falls as the main NBT destinations[86] and Lusaka and Livingstone as the main conference destinations.

Zambia's tourism sector is recovering toward pre-pandemic levels and its outlook is for future expansion. In 2023, travel and tourism represented 6.2 percent of Zambia's GDP or $1.7 billion and employed almost 450,000 people or 6.7 percent of total jobs in the country. Although Zambia's tourism share of GDP is not out of line with regional peers (table 6.1), several factors suggest it has scope for growth. First, investment in the tourism sector has room to recover from the impact of COVID. Total investment in the sector averaged roughly $300 million per year during 2013–2019 but, after COVID hit, investment fell to a yearly average of $180 million (figure 6.1).[87] Second, the ratio of GDP to jobs in the sector is among the lowest in the region. That suggests that there is not only scope to increase the number of international tourists, but visitor spending per stay as well. Visitors

Table 6.1

Travel and tourism, Zambia vis-à-vis peer countries

	Botswana	Kenya	Rwanda	South Africa	Tanzania	Zambia	Zimbabwe
T&T total GDP contribution ($, billions)	2.4	7.5	1.4	30.8	7.8	1.7	1.2
T&T as % of GDP	12.1	7.0	9.2	8.2	9.5	6.2	5.6
Total T&T jobs (thousands)	100	1,550	324	1,460	1,420	446	179
T&T jobs as % of total jobs	10.6	7.8	7.8	8.8	5.7	6.7	3.0
GDP per employee in T&T ($)	23,904	4,839	4,326	21,096	5,493	3,812	6,719
International visitor spending ($, billions)	1.2	1.9	0.7	5.9	3.4	0.9	0.2
Domestic visitor spending ($, billions)	0.6	3.3	0.6	21.5	1.6	0.7	0.8
Receipts per arrival ($)	874	756	312	838	1,737	781	n.a.
Tourist arrivals from Africa, 2021 (%)	90	38	87	83	51	88	71

Source: World Travel and Tourism Council, 2024 (Figures are final 2023), Staff calculations.
Note: T&T = travel and tourism. Receipts per arrival data are from 2022, except Botswana and Rwanda (2021).

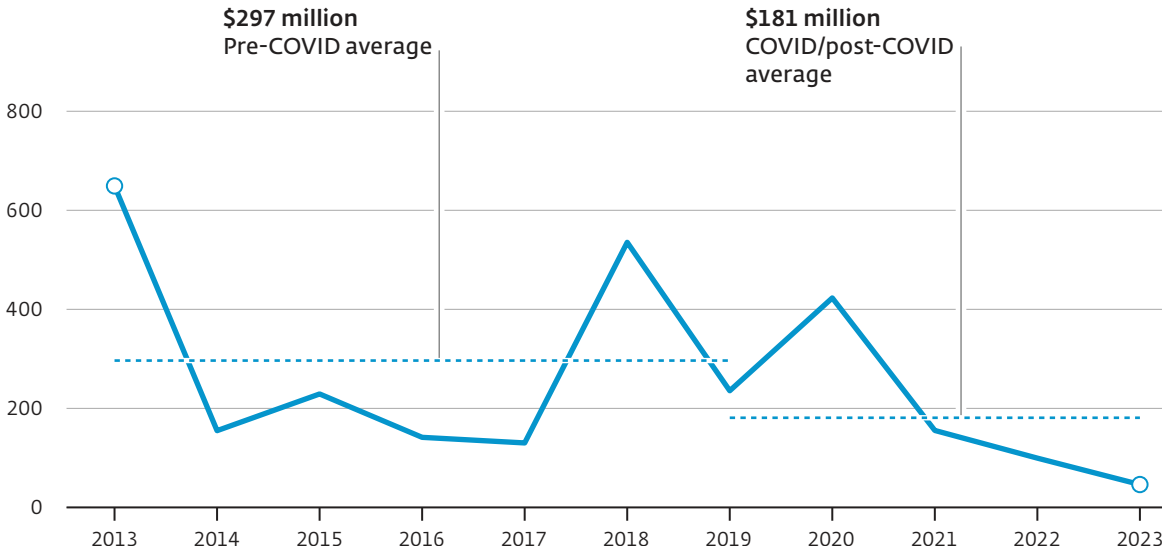
from Europe and the Americas accounted for 11 percent of tourists in 2019, and fell to 7 percent after COVID.[88] The shifting regional patterns might explain the drop in the share of visitors coming to Zambia for holiday, leisure, and recreation, from 25 percent before COVID to 15 percent afterward. In Kenya, Tanzania, and South Africa, holiday visitors represent 70 percent, 80 percent, and 90 percent, respectively, of all arrivals.[89]

Several international hotel brands are already present in Zambia, and surveys point to investor interest in expansion.[90] According to UN tourism data for 2021, Zambia had more than 30,000 available rooms of hotel or similar establishment standard. As noted in the 2023 Zambia Tourism Investor Appetite Assessment (World Bank, 2023b), despite a challenging business environment, 85 percent of survey respondents planned to expand their businesses within one to five years, both within and outside their existing locations. Key areas for expansion mentioned by investors include Livingstone, Liuwa, Kafue, South

Figure 6.1

Reforms could boost the recovery in tourism FDI

Investment in tourism, 2013–2023 ($, millions)



Source: Based on World Tourism Organization (2024).
Note: Figures incorporate investments from various stakeholders, which could include public entities, including investments in accommodation, wildlife reserves and safari tourism, adventure and cultural tourism facilities such as white-water rafting, museums and cultural centers. Figures are also based on capital formation approximated from announced greenfield investments according to fDi Markets, Financial Times Ltd.

Luangwa, Kasaba Bay, and the North-Western province (World Bank, 2023b).[91] Further, the Africa Hospitality Confidence Index 2024 which surveyed over 500 tourism businesses in Africa, including from Zambia, shows 80 percent of respondents surveyed having confidence in the short-, medium- and long-term prospects of the sector driven by increased tourism, business travel, and what the survey refers to as the "bleisure" (business and leisure) trend.[92] Recent investments in Zambia include the opening of medium- to large-sized hotels under international brands, including Marriott, Holiday Inn, and Intercontinental Hotel in Lusaka, and Radisson Blu in Livingstone. In addition, significant conference and event capacity was added in Lusaka with the Mulungushi International Conference Centre and the conference facility at the Ciela Resort.

Persisting issues that hinder the sector's business environment were noted in the 2024 World Economic Forum Travel and Tourism Development Index, which ranked Zambia 104th overall (table 6.2). Key areas for improvement include human resources and the labor market, Information and Communications Technology (ICT) readiness and air transport infrastructure. Availability of skilled workers is also a constraint for tourism often mentioned by the private sector. Moreover, Zambia lags in ICT Readiness, a

Table 6.2

Zambia and peer country Travel and Tourism Development Index rankings, 2024

Indicator	Botswana	Kenya	Rwanda	South Africa	Tanzania	Zambia
Overall ranking	75th	77th	93rd	55th	81st	104th
Health and hygiene	96	109	106	97	116	108
Human resources and the labor market	31	66	84	70	79	94
ICT readiness	78	99	101	58	106	104
Prioritization of travel and tourism	69	37	81	67	26	87
Air transport infrastructure	117	68	101	49	81	107
Price competitiveness	35	48	69	43	62	37

Source: World Economic Forum, Travel and Tourism Development Index 2024.

necessary enabler for both conference and nature-based tourism. Digital adoption, especially among SME tourism operators and in remote areas is low due to cost and infrastructure considerations, although the introduction of products such as StarLink may lead to better ICT services.

Limited air and road connectivity hinders the sector's development. The road network is expansive but not well maintained, and there are gaps in connectivity between tourist destinations. This reduces visitor access as well as investment in the sector. Key issues include expansion and maintenance of all-weather access to important parks such as Kafue and South Luangwa. Air links are also inadequate: Livingstone is not well connected to other domestic tourist destinations, owing to lack of competition and inadequate investment in provincial airports and airstrips in key National Parks.

International air connectivity beyond the capital is limited. Lusaka continues to account for the majority of Zambia's international passenger demand (86 percent), with the rest being between Livingstone and Ndola. Although several international airlines, such as Kenya Airways and Ethiopian Airlines, operate directly into Livingstone, there is a need to increase flights from other destinations in Southern Africa, such as South Africa. A Zambia Aviation Strategy 2022–2026 was developed in 2022 and was subsequently finalized after extensive consultation between government agencies, the private sector

and the aviation industry but is yet to be adopted. The strategy contains key recommendations and implementation plans that build upon the government's recent investments in the major airports in Lusaka, Ndola, Livingstone and Mfuwe to further improve the competitiveness of the sector.

Lack of reliable electricity and power represents a growing challenge. Climate change adaptation will become a pressing need in the coming years. In 2024, hotel operators are facing escalating operational costs due to a drought emergency and power deficit. The scarcity of electricity has prompted widespread load-shedding, compelling hotel operators to resort to costly backup power generation from diesel. The surge in operational costs threatens to drive many small operators out of business and hinders the pandemic recovery efforts of larger establishments. As the drought persists, demand for short-term financial assistance to mitigate soaring power costs through greater use of inverters and solar solutions will intensify. But medium-run solutions will be needed to deal with similar challenges in the coming years, such as the adoption of energy efficient technologies and practices. Urgent measures are needed to mitigate the impact of energy price hikes due to drought and enhance operators' resilience to future climatic disruptions. Promoting investment in off-grid and mini-grid solutions, as well as investment in renewable energy generation other than hydro, such as solar PV (see the previous discussion on *solar power*), must gain prominence in the policy agenda.

There is a need for the government of Zambia to level the playing field for all operators in the tourism sector. As government entities also engage in activities within the sector, alongside private operators, it is important that public sector involvement remain impartial and transparent to avoid distorting the market. Similarly, the selection process for operators of government-funded hotels/facilities or related ventures and concessions should be accessible to all interested parties without discrimination. Access to land for investors remains a constraint, particularly in Livingstone and protected areas, where investors need to negotiate with traditional authorities. This negotiation process often occurs at land values not determined by commercial prices, posing a significant barrier to several prospective investors.

6.1.1 *Conference and Business Tourism*

The conference and business ecosystem presents significant economic opportunities, especially in Lusaka and Livingstone where it is more developed. Lusaka and Livingstone have 23 and 12 hotels, respectively, serving the business and conference segment. Facilities include meeting and conference rooms and event spaces. The conference and business segment generates income and employment directly and through interconnections with upstream and downstream industries, such as construction, food and beverages, transportation, accommodation, retail, catering, translation, cleaning, and security. Conference and business activities help mitigate the seasonal fluctuations inherent in nature-based tourism.

Zambia ranks 13th in Africa on the International Congress and Convention Association Country and City Rankings Report. Typical business gatherings in Zambia host approximately 250 attendees. With more than 3 million residents, Lusaka already operates as a conference hub with the largest international conference center in the country (Mulungushi, 5,200 square meters, 2,500 participants capacity). Private sector investment opportunities there focus on expanding hotel accommodations and offering ancillary services such as cleaning, security, and translation.

Livingstone, a city of almost 200,000 residents, is close to iconic attractions like Victoria Falls, Mosi-oa-Tunya, and Kafue National Parks. There are prospects for private sector involvement in multipurpose hotels with conference facilities in Livingstone, but potential investors have put their plans on hold due to an inability to acquire suitable land. In Lusaka, the Ministry of Tourism and the Zambia Development Agency are currently conducting market and feasibility studies for the Lusaka National Park Convention Center.

In contrast, Lusaka has limited supporting activities, especially nature-based tourism. The nearest national park is a four-hour drive away and is not served by regularly scheduled flights. Livingstone, meanwhile, lacks dedicated conference facilities, the largest event space being 750 square feet situated within a private hotel.

6.1.2 *Nature-Based Tourism (NBT)*

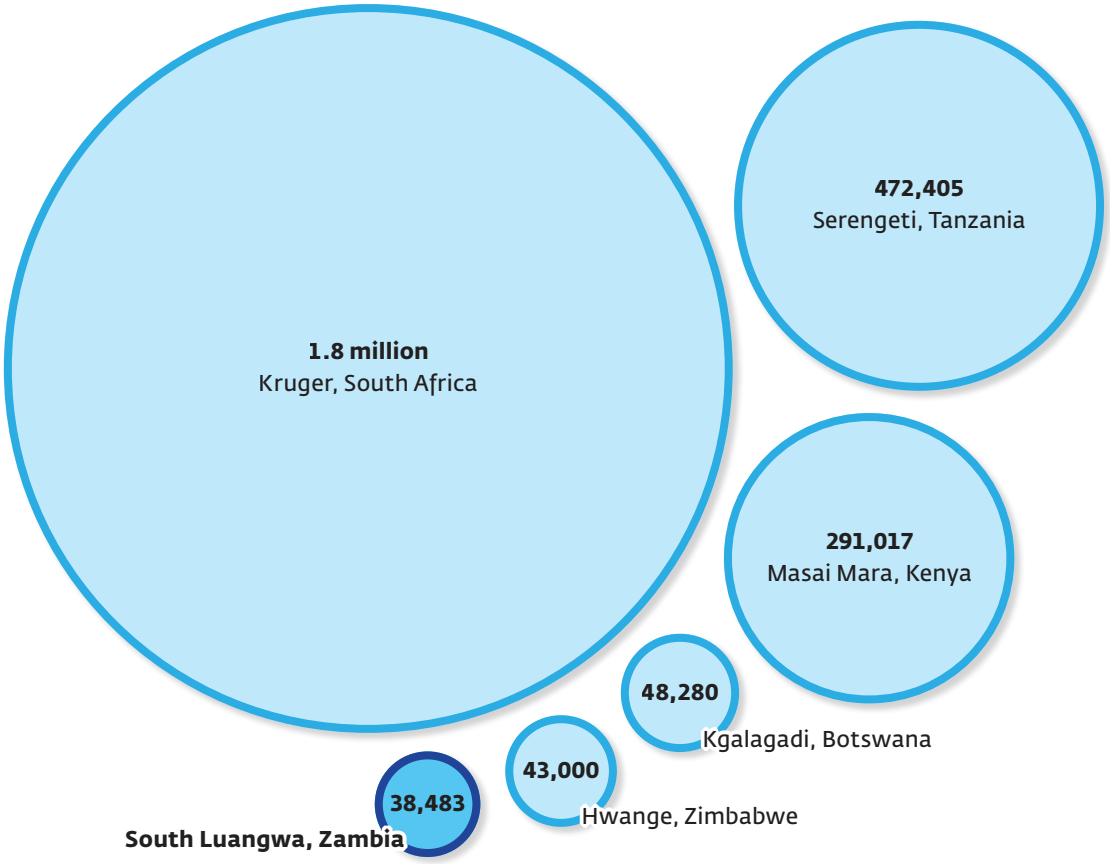
The nature-based tourism ecosystem is smaller than in other countries in Africa. At present, it primarily consists of relatively small (20–50 bed) game lodges—most individually-owned and a few under regional chains—in Game Management Areas (GMAs) around the major National Parks of South Luangwa, Lower Zambezi, Kafue and Luiwa. Concessions for game lodges inside National Parks are issued to private lodge operators by the Department of National Parks and Wildlife (DNPW), which is also in charge of hunting licenses. A few air charter companies and two domestic commercial airlines fly to Mfuwe airport close to South Luangwa.

Investors' interest in the NBT segment has increased as evidenced by new projects. Although private sector opportunities for game lodge accommodations have been saturated in the GMAs around Lower Zambezi National Park, there are promising opportunities in the GMAs around Kafue, South Luangwa, and Luiwa National Parks. For example, Anantara plans an investment in a luxury camp in Kafue National Park set to open in 2025 (Africa Hotel Report, 2024).

Opportunities to build accommodations within National Parks through concessions also exist, such as one recently announced for a 200-bed eco-hotel on the shores of Lake Itezhi-Tezhi, in Kafue National Park, which present attractive investment prospects. The increasing availability of multiple revenue streams in GMAs, encompassing carbon trading, forestry, fisheries, accommodations, and more, offers diversified business opportunities in the NBT segment.

Figure 6.2

Number of visitors to the most visited national park by country (pre-COVID)



Sources: Zambia Ministry of Tourism, South African National Parks Annual Report, Masai Mara Visitation Trends, Statista, and online estimates.
Note: The figures for Kgalagadi (Botswana), Kruger (South Africa), Serengeti (Tanzania), and South Luangwa (Zambia) are for 2019; the figure for Masai Mara (Kenya) is for 2018; the year of the figure for Hwange (Zimbabwe) is not available.

Investments in the nature-based segment can create jobs and improve incomes in hard-to-reach areas. NBT is often concentrated in communities where poverty rates are high. Direct spending by tourists in protected areas (40 percent of Zambia's land) sustains local employment and triggers additional economic activities. One Kwacha spent by visitors in Lower Zambezi National Park is estimated to lead to a household income increase of 1.82 Kwacha in the surrounding area, or to 1.53 Kwacha in South Luangwa (Zhu et al., 2021). NBT initiatives support about 7,500 full-time jobs in Lower Zambezi and 28,000 jobs in South Luangwa National Parks, equivalent to 14 and 30 percent, respectively, of the populations in the immediately surrounding areas. By providing a vital source of income, nature-based tourism helps preserve Zambia's protected ecosystems and mitigate the threat of poaching, thus contributing to global biodiversity conservation objectives.

Experience from other countries points to possible synergies between the conference and NBT segments. For example, with better air connections,[93] conference delegates to Lusaka could combine their travel with visits to Livingstone, Victoria Falls, or Kafue National Park.[94] Zambia could also explore synergies with other markets in Southern Africa, such as Zimbabwe, Botswana, and Namibia. Coordinated efforts between the public and private sectors would facilitate offering more diversified products to potential customers.

Access to land for investors remains a constraint, particularly in Livingstone and protected areas, where investors need to negotiate with traditional authorities. This negotiation process often occurs at land values not determined by commercial prices, posing a significant barrier to several prospective investors.

6.2 Constraints and Recommendations for Private Investment

6.2.1 *Licensing requirements*

CONSTRAINT 1. Obtaining and complying with the multiplicity of tourism related licenses and regulations is costly and time-consuming. For instance, a company wanting to participate in the accommodation sector in a non-protected area requires 14 licenses from six government agencies, out of which 11 are not valid for more than a year and have to be renewed. In addition to the fees associated with these licenses, there are waiting time and opportunity costs associated that slow the operations of accommodation establishments.[95]

A single licensing system in the tourism sector has been set up in Livingstone to pilot the single point of contact for businesses needing licenses.[96] The agencies involved have agreed to exchange information and cooperate to create a more efficient and transparent process with minimum interaction. The system is also expected to be fully electronic and transactional. For the time being, businesses make requests at the Livingstone Regulatory Services Centre. Some databases are already shared among institutions, but improvements are needed so that information from one agency can be used by other agencies.

RECOMMENDATION 1. Reduce the number of tourism-related licenses and move the submission and processing of tourism-related licenses to the government's e-business online platform.

6.2.2 *No branding and marketing strategy.*

CONSTRAINT 2. Zambia's conference and business industry lacks a unified branding and destination marketing strategy. Private sector stakeholders have also highlighted complex licensing requirements and scant coordination across public offices as obstacles.

RECOMMENDATION 2. Discussions are ongoing to establish a Convention Bureau to oversee and promote collaboration among stakeholders as well as to attract conferences and business events to Zambia. The country should model its work on the Rwanda Convention Bureau, a company that provides pre and post bid support, destination expertise, event and convention planning, and liaison for facilitating services such as visa on arrival for convention delegates, coordinating ground transfers, and site inspections of conference and event facilities. The Cape Town and Western Cape Convention Bureau provides similar services but is a subsidiary of the Trade and Investment Agency of Cape Town and Western Cape Province.

6.2.3 *Concessions Frameworks in the Wildlife Bill*

CONSTRAINT 3. Deficiencies in nature asset planning, management, and control are responsible for elevated levels of poaching, conflicts between wildlife and communities, and unplanned development. Collaborative Management Partnership agreements (CMPs) between the government, through the Department of National Parks and Wildlife, and international conservation partners, such as Africa Parks and The Nature Conservancy, have leveraged additional financing primarily from philanthropic sources. Nevertheless, the lack of transparency in concession frameworks and private and public sector vested interests pose a risk to the concessions framework and CMPs. For instance, the landscape is rife with diverse private sector interests, e.g., hunters and mining groups (both of whom tend to be politically connected, although now less so since the new administration), who have lobbied and present a notable risk to the Wildlife Bill's objectives.

RECOMMENDATION 3A. The Wildlife Bill, which is due to be passed in late 2024, should include a statutory instrument revising the concession framework to make it more transparent and advocate for CMPs to enhance the stewardship of protected areas. There should also be a statutory instrument to reduce the time it takes to negotiate between parties, minimum investments and benefit sharing mechanisms.

RECOMMENDATION 3B. Enhanced technical capacity of the public sector to develop appropriate regulations and effectively implement and enforce the provisions of the Bill will be important considering the diverse interest groups involved. Technical and institutional capacity is also essential in the coordination of the relevant government agencies and ministries that are relevant to conference and nature-based tourism.

Table 6.3 outlines recommendations to foster private sector investment in the conference and nature-based segments to: (i) enhance the promotion of the country as a conference destination and improve the coordination among public and private sector stakeholders; (ii) enhance the transparency in concession framework and the

management of protected areas through CMPs; and (iii) improve and streamline tourism-related licensing to reduce the cost of doing business in the sector. The underlying constraints, recommended actions, risks to implementation, timeframe as well as actors that are responsible for implementing the recommended actions are elaborated in table 6.3.

Table 6.3

Priority policy recommendations for increasing private investment in tourism

Constraints	Recommended actions
Obtaining and complying with multiplicity of tourism related licenses and regulation is costly and time consuming.	**Reduce the number of tourism related licenses** and move the submission and processing of tourism related licenses to the government e-business online platform.
	Responsible government entities: Ministry of Tourism, Business Regulatory Reform Agency, Tourism Council of Zambia.
Weak promotion of Zambia as a conference and business destination due to the lack of coordination among stakeholders.	**Establish a Convention Bureau** to promote Zambia as a conference and business destination and to coordinate stakeholders.
	Responsible government entities: Ministry of Tourism, Zambia Tourism Agency.
Current concession framework not attractive for private investment, because of lack of transparency and lack of flexibility in relation to length of tenure and terms such as concession fees and other charges. **Excessive poaching, poor management, and inadequate infrastructure in protected areas**	**Issue a statutory instrument on revised concession framework** as part of new Wildlife Bill to be passed in 2024. **Issue statutory instrument that encourages and facilitates more CMPs** using a transparent and standardized framework for the negotiation of CMPs, lessen time taken to negotiate with interested parties by creating a framework on how to enter into such an agreement, agree on minimum investments into each park as well as on benefit sharing mechanism.
	Responsible government entities: Ministry of Tourism, Department of National Parks and Wildlife.

Appendix

Appendix A

Estimates of Potential Increases in Private Investment and Employment

The general approach adopted in this report to estimate the impact that policy reforms in the four sectors could have on private investment and job creation starts from an estimate of the maximum output that could be produced in the sector by 2030. The report considers a range between 25 percent and 75 percent of the output maximum to allow for different degrees of implementation of the reform agenda. The report then estimates the investment required to achieve the 25–75 percent production levels using sector-specific information on investment costs. Job creation estimates consider the revenue associated with such output levels and apply job multipliers at the sector level.

It should be noted that investment and employment estimates are only indicative. The estimates rely on secondary data from various sources and expert consultations, without formal primary surveys. As such, the estimates are not based on feasibility studies or statistical analysis.

For all four sectors included in the report, estimates assume that there are no interest rates or financing costs; no replacement or operation and maintenance costs; and no ancillary, associated infrastructure or transport costs. Job creation is estimated through the use of employment multipliers.[97] All prices are in constant 2023 US dollars, unless otherwise noted.

A.1 Mining of Copper and Other Energy Transition Minerals

A.1.1 *Assumptions*

Investment estimates are focused on copper production. Based on secondary data on market trends and consultations with industry experts, the report assessed that the potentially attainable annual production of copper could reach a maximum of 1.5 million MT by 2030, equivalent to an increase of 0.8 million MT from 0.7 million MT in 2023.

Based on potential global supply gaps estimates from the International Energy Agency (IEA 2024), the report assumes that Zambia could increase annual copper production by 0.2–0.6 million MT by 2030, equivalent to 25–75 percent of the incremental maximum of 0.8 million MT.

In estimating mining investment costs, the report used IEA's conservative reference of copper price at $30,000/MT for brownfield projects (IEA 2024). Therefore, potential private investment in copper mining brownfield projects for 2024–2030 could be a cumulative $18 billion in the 75 percent of the estimated maximum incremental production scenario, or $6 billion in the 25 percent scenario.

To estimate the changes in employment, the report used United Nations (UN) Comtrade of Zambia's 2023 average free on board (FOB) price of "copper; refined and copper alloys, unwrought," equal to $8,161/MT,[98] to calculate potential revenues. Using an employment multiplier of 46 jobs per $1 million in revenue, the potential total number of direct, indirect and induced jobs could range from 80,000 to 230,000 (reflecting 25 percent to 75 percent implementation of the estimated investment potential).

A.1.2 *Potential Investment and Employment*

In sum, potential private investment in copper mining brownfield projects for 2024–2030 could be between $6 billion and $18 billion. The potential total number of direct, indirect and induced jobs could increase by between 80,000 and 230,000.

A.2 Solar Power

A.2.1 *Assumptions*

The report estimates potential private investment in solar photovoltaic (PV) in Zambia's electrical power grid building on the 2023 Integrated Resource Plan (IRP) for the Power Sector published by the Ministry of Energy of Zambia. The report assessed the IRP by reviewing the historical performance of the sector vis-à-vis government plans, secondary data and information and consultations with industry experts, independent power producers (IPPs) and government officials.

The maximum solar PV generation capacity that could be in place in the electrical grid power by 2030 would be 1,500 megawatts (MW). The report assumes a 25–75 percent range of potential investments, or installation of 375–1,125 MW. The team uses the lower assumptions due to: (i) the historical performance of Zambian governments in executing planned power generation projects;[99] and (ii) uncertainties with respect to hydropower availability given climate change impacts, such as droughts, to balance the grid with hydropower during times of low solar irradiation and overnight, which may contribute to limiting the benefits of solar PV installation. The report assumes implementation of transmission reinforcements on time as per IRP 2023 to integrate solar PV in the electrical grid (Ministry of Energy of Zambia 2023).

Capital costs of solar PV are assumed to be $1,000 per kilowatt (kW), based on consultation with IPPs and in line with $1,010/kW in 2021 US dollar prices of the IRP 2023 in table 4.2 of this report, or $1,100 in 2023 dollar prices. Thus, $1.5 billion would be needed to install the maximum potential of 1,500 MW of solar PV generation capacity. The assumption of the report's 25 percent to 75 percent implementation would translate into investments between $0.4 to $1.1 billion.

To estimate potential changes in employment, the report uses the average tariff of the electricity sector in Zambia, which is $0.07 per kilowatt-hour (kWh) as of November 2023.[100] The report assumes the capacity factor of 1,500 MW solar PV at 20 percent, the same as in IRP (Ministry of Energy of Zambia 2023), resulting in revenues of $180 million at 100 percent implementation of the estimated investment. Using a multiplier of 57 new jobs per a $1 million increase in revenue, the potential total number of direct, indirect and induced jobs could range from 3,000 to 8,000.

A.2.2 *Potential Investment and Employment*

Potential cumulative investments by 2030 could range between $0.4 and $1.1 billion. The potential total number of direct, indirect and induced jobs could be between 3,000 and 8,000.

A.3 Agribusiness

A.3.1 *Assumptions*

Estimates are based on a simulated forecast of a total production of maize, soybeans, and wheat by 2030, based on a multi-market partial equilibrium model, developed by the Bureau for Food and Agricultural Policy (BFAP).[101]

The report estimates the investment to achieve the modeled increases in production if the increases were driven by investment in large-scale, commercially oriented farms (LCFs). Since investment in irrigation will allow for a second crop to be planted each year, the report assumes that the estimated increase in the irrigated land areas for maize

production alone would allow the estimated increase in soybeans and/or wheat production as the second crop on the increased irrigated land areas. To estimate the potential investment, the report divides the estimated increased production by LCF yields per hectare to estimate the required land area, then multiplies by the report's assumed cost of developing irrigated farms. See table A.1.[102]

To estimate potential changes in the number of jobs, the report uses Zambia's 2023 average FOB prices for exports of maize ($1,000/MT), soybean cake ($490/MT), and wheat ($1,240/MT) and Zambia's average cost, insurance, and freight (CIF) prices for soybean oil for domestic consumptions ($1,300/MT).[103]

Using the employment multipliers for each type of grain, total new jobs could range from 20,000 to 60,000.[104]

A.3.2 *Potential Investment and Employment*

Total investment needed to achieve the baseline estimate for 2030 output of the three crops ranges from $300 million to $1.5 billion. This assumes normal weather, more stable macroeconomic conditions, and an improved business environment that facilitates investment and trade. The potential total new jobs could range between 20,000 and 60,000.

Table A.1

Estimated investment needed by LCFs to increase irrigated crop production by 2030

	Production (million MT)			Yield (MT/ha)	Land area (ha, thousands)	Investment ($, millions)		
	Annual average, 2019–2024	Estimated output 2030	Increase	LCF yield	Increase in planted area	$2,000 per ha	$5,000 per ha	$10,000 per ha
Maize	2.9	4.4	1.5	10.0	150	310	770	1,540
Soybean	0.4	0.9	0.5	3.5	150	300	740	1,480
Wheat	0.3	0.6	0.2	7.0	30	70	170	340

Source: International Finance Corporation.
Note: ha = hectare; LCF = large commercial farm.

A.4 Tourism

A.4.1 *Assumptions*

The report considers a scenario in which more international tourists would visit Zambia and would spend more, and in which private investors would continue to perceive positive investment prospects in Zambia's tourism. The report estimates the potential private investment in new hotels, assuming increases in Zambia's total tourism's contribution to gross domestic product (TGDP) per new international tourist, using data from the World Travel and Tourism Council (2024).

The report calculates the increase in TGDP from the 2019 level by multiplying the number of international tourists (1.12 million)[105] by the average TGDP per international tourist among its peers ($2,670),[106] assuming the total number of international tourists remains the same. In turn, the incremental number of international tourists consistent with the increased TGDP in 2030, the report assumes that the TGDP per incremental international tourist (total new 479,000 tourists) is the peers' average ($2,670), but the TGDP per the 2019 baseline international tourist remains the same as 2019 level $1,420.

Given the pre–COVID-19 pandemic average of annual occupancy rate of 47 percent for 2017–2019,[107] the report assumed 70 percent of new international tourists would use the existing baseline accommodations (33,000 rooms). For the rest (30 percent) of the estimated number of new international tourists, the report applied the above 47 percent occupancy rate and pre–COVID-19 pandemic annual averages of number of beds per room at 1.8, and the length of stay in hotels at 4.1 nights for 2017–2019, to arrive at an estimate of 1,930 new rooms to be constructed by 2030.[108]

Based on data of existing hotels and construction costs (weighted average $76,000 per room) provided by the Zambian Tourism Agency during the report preparation in 2023–2024, indicative private investment in new hotels ranges between $35 million and $100 million, reflecting 25 percent and 75 percent implementation of the maximum potential investment.

The report assumes potential changes in the number of jobs from tourists' stays and expenditures in new and existing hotels and their local expenditures outside the hotels. Based on the available information from the Zambian government (Republic of Zambia Ministry of Tourism 2015), the report assumed that 50 percent of tourists would visit national parks. Using World Bank surveys circa 2021, this report assumed a national park-visiting tourist would spend $40 per day at local retail shops and for local services and transport (Zhu et al., 2022). For hotel revenues, the report assumed $80 per night per person. Using an average employment multiplier[109] of 75, the potential total number of jobs could range from 2,000 to 6,000 (reflecting 25 percent to 75 percent implementation of estimated investment potential).

A.4.2 *Potential Investment and Employment*

Estimated potential private investment in tourist accommodations would be between $35 million and $100 million, cumulative by 2030, with corresponding total employment ranging between 2,000–6,000.

Abbreviations and Acronyms

AfCFTA	Africa Continental Free Trade Agreement
BFAP	Bureau for Food and Agriculture
CATSP	Comprehensive Agricultural Transformation Support Program
CEC	Copperbelt Energy Corporation
CMP	collaborative management partnership
DRC	Democratic Republic of Congo
ERB	Energy Regulation Board
ESG	environmental, social and governance
ESIA	environment and social impact assessments
FAO	Food and Agriculture Organization
FISP	Farmer Input Support Program
FPMA	Food Price Monitoring and Analysis
FRA	Food Reserve Agency
GRZ	Government of the Republic of Zambia
GSD	Department of Geological Survey
IAPRI	Indaba Agricultural Policy Research Institute
ICT	information and communications technology
IDC	Industrial Development Corporation
IPP	independent power producer
IRP	Integrated Resource Plan for the Power Sector in Zambia
LCF	large commercial farms
MICE	meetings, incentives, conferences and exhibitions
MCTI	Ministry of Commerce, Trade, and Industry
MMMD	Ministry of Mines and Mineral Development
MOE	Ministry of Energy
MOF	Ministry of Finance
MT	metric tons
NBT	nature-based tourism
NDP	8th National Development Plan
NGO	non-governmental organization
PACRA	Patents and Companies Registration Agency

PPA	power purchase agreement
PPDF	Public Private Dialogue Forum
PPP	purchasing power parity
SAPP	Southern African Power Pool
SME	small and medium enterprises
SSF	small-scale farms
TCZ	Tourism Council of Zambia
ZACCI	Zambia Chamber of Commerce and Industry
ZAMACE	Zambia Agricultural Commodity Exchange
ZDA	Zambia Development Agency
ZEMA	Zambia Environmental Management Agency
ZESCO	Zambia Electricity Supply Corporation Limited
ZRA	Zambia Revenue Authority

Notes

1. On 11 November 2024, the IMF announced that it had reached a staff-level agreement with Zambian authorities on priority economic policies and reforms that, once approved by the IMF Executive Board, would release $185.5 million in financing under the IMF Extended Credit Facility (IMF 2024a).
2. The decline was partly explained by a fall in investment in copper mining, which resulted from lower global copper prices, frequent policy changes, and legal disputes that created uncertainty among investors. Moreover, uncertainty around the sovereign debt restructuring process reduced investor demand for domestic government securities.
3. fDi Markets, Financial Times Ltd.
4. Investment and job creation estimates are based on simplifying assumptions and subject to uncertainty, as described in more detail in appendix A of the report. Figures in 2023 US dollars. From 2020 to 2023, total gross fixed investment (domestic and foreign) in the economy averaged $7.5 billion per year. The estimates presented in this report indicate that additional annual investments of $3.5 billion during the six-year period from 2025 to 2030, for a total of $21 billion.
5. According to the most recent labor force survey (Zambia Statistics Agency 2023), the total number of employed persons 15 years or older in 2022 was 3,273,125, of which 23.7 percent—or roughly 776,000 people—were employed in the formal sector. Estimates of jobs created due to new investment are based on sector level job multipliers that distinguish between direct and indirect jobs created.
6. The World Bank's Zambia Country Economic Memorandum (World Bank, 2024a) analyzes macroeconomic challenges and policies to foster economic growth.
7. World Bank (2023a).
8. Zambia's shares of global production were 0.9 percent for manganese and 0.2 percent for nickel in 2023 according to USGS.
9. African Development Bank (2022) and IMF (2023b) cited in Center for Critical Minerals Strategy (2024).
10. Bauer (2024).
11. The Zambian state, primarily through ZCCM-IH and the Industrial Development Corporation (IDC), holds various equity stakes in the upstream mining sector, including majority and minority shares in multiple mining projects.
12. fDi Markets, Financial Times Ltd.

13. In September 2023, the government agreed to return control of the Konkola Copper Mines (KCM) to Vedanta Resources, ending a four-year dispute over the ownership of the assets that the previous government had seized.
14. Based on stakeholder interviews conducted in the preparation of this report.
15. The Ministry of Mines and Minerals Development had to suspend mining license issuance in February 2022 for eight months after purported corruption and speculative behavior in the awarding of mining licenses. The suspension affected exploration and mining licensing projects for all minerals that were to be approved and granted at the time and did not affect existing projects. Mining license issuance only resumed in November 2022 with a backlog of over 2,000 license applications.
16. Mineral Regulation Commission Bill 2023, Critical Mineral Strategy, and 2024 Local Content Regulations.
17. Estimates of jobs created indirectly are especially tentative, as they depend on job multiplier coefficients that are subject to wide margins of error. The mining and quarrying industry employed 65,409 persons in 2022 (Zambia Statistics Agency, 2023).
18. World Bank. 2019 Zambia Enterprise Surveys (https://www.enterprisesurveys.org).
19. Ministry of Energy (2023).
20. IEA, IRENA, UNSD, World Bank, WHO (2024).
21. United Nations (UN) Comtrade Database (https://comtradeplus.un.org/TradeFlow).
22. Figures in 2021 US dollar prices from Ministry of Energy (2023). In addition to not generating greenhouse gas emission, relative to coal generation projects, solar generation installations are less costly ($1.01 million per MW versus $1.07 million) and have a significantly shorter lead time (2 years versus 5 years).
23. "SkyPower Global signs 1 GW solar PPA with Zambian utility," 26 April 2024. https://skypower.com/2024/05/03/skypower-global-signs-1-gw-solar-ppa-with-zambian-utility.
24. The recent open access regulation (July 2024) is confirming open access to the grid and requires the regulator to develop unbundled network charges. Transmission rights will be offered on a first come first serve basis and the concept of long-, medium- and short-term open access is introduced. This is uncommon as open access has no duration usually. If ZESCO refused access to IPPs and/or customers, the regulator is likely to intervene, thus providing some confidence to eventual investors.
25. Other countries in the region, such as South Africa, are in the process of implementing various types of IPT models.
26. Over the last three years (2021, 2022, and 2023), total spending on the FISP and FRA has exceeded 80 percent of the total Ministry of Agriculture's budget. World Bank (2024a).

27. In 2023, the poverty rate was 64 percent (percent of population living with a daily income under $2.15 in 2017 PPP US dollars). World Bank, Macro Poverty Outlook database.
28. fDi Markets, Financial Times Ltd.
29. Power outages have been on the rise in Zambia, with the corresponding increases in economic losses. Firm-level data reveal a significant and negative impact of electricity disruptions on total factor productivity. *International Monetary Fund, Third Review Under the Arrangement Under the Extended Credit Facility, Requests for Augmentation of Access, Modifications of the Monetary Policy Consultation Clause and of Quantitative Performance Criteria, and Financing Assurances Review* (June 2024).
30. World Bank (2024b).
31. 2019 data (World Bank Group 2023a).
32. Zulu (2020). The year of these data is not available.
33. IMF (2024b), Text table 1.1.
34. Zulu (2020).
35. The current IMF-supported arrangement seeks to improve governance among SOEs with a new performance monitoring framework that establishes performance indicators and will require performance management contracts starting in 2025. It will also require the Industrial Development Corporation (IDC), the holding company that manages a large portfolio of SOEs, to publish audited financial statements. IMF (2024b).
36. The IMF's Governance Diagnostic Assessment (IMF, 2023) identified governance weaknesses and corruption vulnerabilities across all state functions, and it suggested possible measures to tackle these macroeconomically relevant constraints.
37. The Worldwide Governance Indicators (WGI) are a research dataset summarizing the views on the quality of governance provided by a large number of enterprises, citizen and expert survey respondents in industrial and developing countries. These data are gathered from a number of survey institutes, think tanks, non-governmental organizations, international organizations, and private sector firms. The WGI do not reflect the official views of the World Bank, its Executive Directors, or the countries they represent. The WGI are not used by the World Bank Group to allocate resources.
38. The US Department of Labor (2022) reports that children account 7.8 percent of the working population in Zambia.
39. The report uses the term "sectors" loosely, encompassing industries, specific segments or products within an industry, or distinct economic activities.
40. Other candidate sectors that were considered, but that did not meet the selection criteria to the same degree, were transport and logistics, green construction, and digital economy.
41. Known in the industry as *Meetings, Incentives, Conferences, and Exhibitions* (MICE).

42. Center for Strategic & International Studies (2024).
43. Global Business Reports (GBR) 2024. Mining in Africa Country Investment Guide. https://gbreports.com/files/pdf/_2024/MACIG_2024_Print.pdf
44. Business Monitor International (BMI) Industry Research (2024).
45. According to the 2022 Annual Labor Force Survey Report (Zambia Statistics Agency, 2023), the mining and quarrying industry employed 65,409 persons, or 2.0 percent of the employed population. Monthly earnings in the industry averaged 9,086 kwacha, compared to 5,342 kwacha for all employed workers.
46. Zambian firms account for 2.5 percent of goods and services procured by the mining industry in 2017, according to the African Development Bank (2019).
47. Presidential Delivery Unit consultations, referencing "*Pre-Feasibility Study for Establishment of SEZ for EV Battery Precursor & Related Services in DRC and Zambia*." December 2023.
48. fDi Markets, Financial Times Ltd.
49. For example, the *2023 Frazer Institute Annual Survey of Mining Companies* shows that Zambia jumped from 12th to 3rd in Africa in the Investment Attractiveness Index (Mejia and Aliakbari, 2024).
50. The World Bank Group is currently (October 2024) developing a RoadMap for Energy Transition Minerals in Zambia.
51. Average lead time from discovery to mine is currently 11–15 years. https://www.spglobal.com/marketintelligence/en/news-insights/research/discovery-to-production-averages-15-7-years-for-127-mines.
52. In contrast, Botswana's mining law has been changed twice in 50 years.
53. According to the Secretary to the Treasury, an additional $8 billion in fiscal revenue would have been generated over last five or six years, if mining tax regime was not tampered with (Mining for Zambia, 2023).
54. The 2024 proposed Local Content Regulations (LCR) are not reflective of global best practices. Elements of "good" practice in LCR include: clearly written and consistent use of definitions of local contents, with well-defined terminology; inclusion of a goods and services sourcing plan based on company demand needs; ensuring not only cost-competitiveness but also the quality of goods and services; and exemptions of specialized equipment and providers, as mining is highly specialized industry. The current draft of LCR does not align with many of the essential elements, and in fact are more harmful to the government objectives of increasing local value addition. New regulations are unlikely to be able to be complied with in the current form (or in the near term) and could lead to disputes. Industry players have voiced concerns that it could further erode trust and contribute to regulatory instability.
55. In June 2024, Cabinet approved to shift away from the dividend payment model for

mineral resources to production sharing of minerals produced as well as enable the government to negotiate mineral prices. As a 30 percent share of production has the same economic impact on an investment return as a 30 percent ad valorem royalty, and could potentially be an impediment to its growth.

56. Free carry is where a government, local community, or other designated entity receives a stake (ownership interest) in a mining project without having to invest any money upfront, essentially getting a free share of the profits. This affects the investment competitiveness of a jurisdiction if not factored into the total tax burden (effective tax rate) imposed on operators.
57. Center for Strategic and International Studies. June 2024
58. "De facto" obstacles might further delay mining operations across the country.
59. The Ministry of Mines and Minerals Development had to suspend mining license issuance in February 2022 for eight months after purported corruption and speculative behavior in the awarding of mining licenses. The suspension affected exploration and mining licensing projects for all minerals that were to be approved and granted at the time and did not affect existing projects. Mining license issuance only resumed in November 2022 with a backlog of over 2,000 license applications.
60. Zambia: Technical Assistance Report-Diagnostic Report on Governance and Corruption. IMF January 2023.
61. For instance, FQM was developing, as of February 2024, a 430 MW wind and solar project to supply up to 60 percent of Kansanshi's power demand.
62. Transparency International Zambia (undated).
63. Most countries 'mining laws contain a mechanism to provide a financial surety for mine closure in the event of a sudden closure event. Zambia's mining laws address this through the Environmental Protection Fund (EPF) which works like an escrow account whereby each license holder must provide financial sureties in the form of cash or bank guarantees. The EPF is currently underfunded.
64. Figures for 2022. IEA, IRENA, UNSD, World Bank, WHO (2024).
65. Ministry of Energy of Zambia (2023).
66. Namibia, Botswana, the Democratic Republic of Congo, and Zimbabwe accounted for 96 percent of Zambia's electricity exports in free on board (FOB) US dollar values in 2023. Source: United Nations (UN) Comtrade Database (https://comtradeplus.un.org/TradeFlow).
67. In a global analysis, a 10 percent increase in GDP per capita is correlated with a 9.6 percent increase in electric power consumption (kWh per capita), according to a simple ordinary least squares (OLS) log-log regression. The estimate is based on World Bank *World Development Indicators* data for 2014, the last year for which data on power consumption is available.

68. See for example the discussion on the subject by the US Energy Information Administration (EIA) (https://www.eia.gov/energyexplained/coal/coal-and-the-environment.php).
69. To support implementation, ZESCO, the system operator, needs to prepare and adopt guidelines for the operation of both the transmission and distribution systems within 180 days from July 20, 2024, when the regulations were enacted.
70. Zambia Statistics Agency (2023).
71. Based on 2024 background study for this diagnostic, updating the World Bank (2019) "Agriculture Finance Diagnostic: Zambia."
72. The SAFF is a ZMW 700m ($28m) risk-sharing facility provided through five financial institutions. Smallholder and medium-scale farmers are eligible if they are (1) cultivating between 1 and 5 hectares and (2) not participating in the FISP. The SAFF covers 80 percent of the credit default risk. The program has thus far extended finance to 10,347 farmers, totaling ZMW 257m ($10.4m) in disbursements, based on the latest available data at time of writing. This amounts to an average of $100 per smallholder for purchasing agricultural inputs and equipment. See: https://www.pdu.gov.zm/food-security
73. According to a summary from the United Nation's Food and Agriculture Organization (FAO), the Comprehensive Agricultural Transformation Support Programme's (CATSP) primary goal is to swiftly and comprehensively transform the sector, ensuring improved performance and resilience in both the agricultural sector and agri-food systems. The CATSP aims to achieve the following objectives: (i) enhanced food security; (ii) improved nutrition; (iii) increased job opportunities; (iv) growth in agricultural exports; (v) decreased reliance on food imports; (vi) expanded opportunities for income generation and wealth creation. The realization of these goals hinges on increased private investment in the sector, contingent upon the government's implementation of appropriate and adequate policy measures. The CATSP contains seven key priorities: (i) empowering the public sector, (ii) optimizing public expenditure, (iii) facilitating inclusive local supply chains, (iv) broadening private sector financial access, (v) modernizing infrastructure, (vi) prioritizing research and technology investments, and (vii) advancing land tenure security and safeguards through collaboration with the private sector. The program defined seven "Sub-Programs": (i) Institutional Development; (ii) Financial and Risk Sharing Facilities; (iii) Agriculture Marketing, Trade, and Industry; (iv) Agriculture Research and Production Support; (v) Infrastructure Development; (vi) Emergency Preparedness and Response Mechanisms, and Nutrition; and (vii) Sustainable Management of Natural Resources. See: https://www.fao.org/faolex/results/details/en/c/LEX-FAOC223713/
74. Announced investment data from the Financial Times fDiMarkets database.
75. Customary land is overseen by traditional local authorities, namely chiefs, and held by

families or communities for generations without formal titles. This land is used for housing, farming, and grazing, and follows customary law.

76. World Bank (2024a), World Bank (2022a), Ali and Deininger (2022), Salverda and Nkonde (2021).
77. Market forecasts for this report were produced by the Bureau for Food and Agricultural Policy (BFAP), a South Africa-based market intelligence firm. BFAP's team of agricultural economists and commodity market analysts combine quantitative modelling techniques with in-depth, in-country consultations with key market actors.
78. Exports are forecast to double from the current average of 700,000 MT/p.a. to 1.5 million MT/p.a. by 2030.
79. Production in the 2022/2023 season preceding the 2023/2024 drought reached an all-time high of 760,000 MT.
80. According to World Bank (2023a), farmers education and training programs on sustainable farming techniques, soil management, water conservation, and the use fertilizers, pesticides, and other inputs, can improve agricultural practices and productivity.
81. Alienated land is land which has been acquired from customary landowners, either for its own use or for private development.
82. The market forecast produced for this report employed a conservative estimate of commercial yields ranging from 4.5–5.0 MT/ha for rainfed and 9.2–10.0 MT/ha under irrigation.
83. See Hanbal et al. (2021); World Bank (2024a); World Bank (2022b).
84. IMF (2023).
85. We use "conference and business tourism" to refer to what is known as the *Meetings, Incentives, Conferences, and Exhibitions* (MICE) segment in the tourism industry.
86. Zambia is home to Africa's *big* 5 game animals: buffalo, elephants, leopards, lions, and rhinos.
87. The share of visitors coming to Zambia for holiday, leisure, and recreation also fell—from 25 percent before COVID to 15 percent afterwards (UNWTO Tourism Statistics).
88. Official figures may not accurately reflect the number of visitors from outside of Africa, and who may be visiting Zambia along with other countries in the region during the same trip.
89. UN Tourism Statistics Database (https://www.unwto.org/tourism-statistics/tourism-statistics-database).
90. These include Intercontinental, Holiday Inn, Radisson Blu, Protea-Marriot Bonvoy, Hilton, Anantara, Best Western, and the Taj Group.
91. Ingwe Safari and Tours Bush Camp in Kafue National Park; South Luangwa National

Park Hotel in Luangwa Valley; Kasaba Bay Resort with Golf Course /Chilanga Hotel, and Campsite/and Nsumbu National Park Crocodile Bay Site Hotel in Kasaba Bay; Songwe Lodge/Hotel Mosi-Oa-Tunya National Park in Livingstone.

92. African Hospitality Confidence Index 2024, Hotel and Hospitality Expo Africa (DMG Events), and Moore Global, 2024.
93. Flights from Lusaka to Livingstone are relatively infrequent and costly. To get to Kafue National Park from Lusaka, visitors need to travel four hours by road or arrange a chartered plane.
94. This would be analogous to delegates in Nairobi visiting Nairobi National Park, delegates in Kigali visiting mountain gorillas, or delegates in Cape Town visiting Table Mountain and Cape of Hope Nature Reserve.
95. A stakeholder interviewed for this report narrated the case of a hotel chain that had to obtain nearly 200 licenses per year involving compliance expenses of around $220,000.
96. Zambia Tourism Agency (ZTA); the Department of Tourism (DOT); the Patents and Companies Registration Agency (PACRA); the Zambia Revenue Authority (ZRA); the Zambia Development Agency (ZDA); and Livingstone City Council (LCC).
97. These multipliers are derived from value-added multipliers and employment elasticities obtained from Burgi et al (undated). The value-added multipliers, on the other hand, are estimated using a Social Accounting Matrix (SAM) multiplier approach, which relies on the latest version of the Global Trade Analysis Project database for 2017. They include estimates of direct and indirect jobs created. Direct jobs are the direct contribution of the investment to the sector. Indirect jobs can be divided into (i) backward supply chain linkages that trigger an increase in employment in other sectors via the increase in domestic demand for intermediate inputs; and (ii) consumption spillovers (induced) employment which are the result of the overall increase in household income triggered by an increase in direct and supply chain employment (and income).
98. Source: United Nations (UN) Comtrade https://comtradeplus.un.org/TradeFlow. Given the cash cost in figure 3.1 included refining, the report used "Copper; refined and copper alloys, unwrought," which was the second largest copper product export in volume and financial values after "Copper; unrefined, copper anodes for electrolytic refining" in 2023.
99. For example, of ZESCO's roughly 40 planned projects in 2018, solar PV projects totaling 400 MW were not realized as of May 2024 (ZESCO, 2018).
100. Source: Malawi Energy Regulatory Authority (MERA), reporting electricity tariff rates of member countries of Southern African Development Community (SADC) as of November 23, 2024. https://mera.mw/2023/11/24/comparative-energy-prices-within-the-sadc-region-as-at-23-november-2023/.

101. The model incorporates the major economic, ecological and policy relationships across Southern Africa (Bureau for Food and Agricultural Policy [BFAP], https://ppvc.bfap.co.za/tools). It employs parameters for supply and demand, incorporating trades, prices, investments, and other key determinants.
102. The cost of irrigated farm development includes land clearing and preparation, irrigation equipment and installation, and power systems, but excludes the costs of land and support infrastructure (e.g., feeder roads and storage facilities), assumed from a range of the costs across provinces of Zambia and its neighboring countries for 2022–2024.
103. Source: UN Comtrade https://comtradeplus.un.org/TradeFlow.
104. Maize, 33 new jobs per $1 million increase in revenue; wheat, 48 new jobs; soybean, 39 new jobs.
105. Pre–COVID-19 annual average during 2017–2019.
106. Botswana, Namibia, Rwanda, Kenya, Zimbabwe, South Africa and Tanzania.
107. United Nations (UN) Tourism key tourism statistics https://www.unwto.org/tourism-statistics/key-tourism-statistics.
108. United Nations (UN) Tourism key tourism statistics https://www.unwto.org/tourism-statistics/key-tourism-statistics.
109. Accommodation, food and service activities multiplier 77, transport not elsewhere classified (nec) multiplier 62, and recreation and other activities multiplier 86.

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