

Southern Africa Economic Outlook 2023

Mobilizing Private
Sector Financing
for Climate and
Green Growth




AFRICAN DEVELOPMENT BANK GROUP
GROUPE DE LA BANQUE AFRICAINE
DE DEVELOPPEMENT

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ABBREVIATIONS

AfCFTA	African Continental Free Trade Area
AfDB	African Development Bank
AMDC	African Minerals Development Centre
ANRC	AfDB Natural Resource Centre
AU	African Union
BIOFIN	Biodiversity Finance Initiative
CAR	Capital Adequacy Ratio
CCDR	Country Climate and Development Reports
CITES	Convention of International Trade in Endangered Species of Wild Fauna and Flora
COMACO	Community Markets for Conservation
COVID-19	Coronavirus Disease 2019
CPI	Consumer Price Index
CRI	Climate Resilience Index
CRS	Creditor Reporting System
CSA	Climate-Smart Agriculture
CSAIP	Climate-Smart Agriculture Investment Plan
CVI	Climate Vulnerability Index
DBSA	Development Bank of Southern Africa
DFIs	Development Financing Institutions
DOE	Department of Energy
DSA	Debt Sustainability Analysis
DSSI	Debt Service Suspension Initiative
DWFNs	Distant Water Fishing Nations
EAC	East Africa Economic Community
EbA	Ecosystem-Based Adaptation
ECA	Economic Commission for Africa
EEZ	Exclusive Economic Zone
ESG	Environmental, Social and Governance
ETISP	Energy Transition and Institutional Support Programme
EU	European Union
FAO	Food and Agriculture Organization
FMO	Nederlandse Financierings-Maatschappij voor Ontwikkelingslanden N.V.
FY	Fiscal Year
GDP	Gross Domestic Product
GEF	Global Environment Facility
GGI	Green Growth Index
GHG	Greenhouse Gas
GIIF	Global Index Insurance Facility
HIPC	Highly Indebted Poor Countries

ICT	Information and Communication Technology
IDEX	International Diamond Exchange
IFC	International Finance Corporation
IFPRI	International Food Policy Research Institute
IIED	International Institute for Environment and Development
IIFs	Illegal Financial Flows
ILO	International Labor Organization
IMF	International Monetary Fund
IPBES	Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services
IPC	Integrated Food Security Phase Classification
IPCC	Intergovernmental Panel Climate Change
IPP	Independent Power Producer
IUU	Illegal, Unreported, And Unregulated
KPMG	Klynveld Peat Marwick Goerdeler
LICs	Low Income Countries
LMIC	Lower Middle-Income Countries
LNG	Liquefied Natural Gas
MDBs	Multilateral Development Banks
MEO	Macro Economic Outlook
NbS	Nature-Based Solutions
ND GAIN	Notre Dame Global Adaptation Initiative
NDBs	National Development Banks
NDC	Nationally Determined Contribution
NPLs	Non-Performing Loans
NRGI	Natural Resource Governance Institute
OCHA	Office for the Coordination of Humanitarian Affairs
OECD	Organisation for Economic Co-operation and Development
PAGE	Partnership for Action for a Green Economy
PES	Payments for Ecosystem Services
PPP	Public-Private Partnership
PRR	Prudential Reserve Requirements
PV	Photovoltaic
R&D	Research & Development
REDD	Reducing Emissions from Deforestation and Forest Degradation
REIPPPP	Renewable Energy Independent Power Producers Procurement Programme
SACU	Southern Africa Customs Union
SADC	Southern African Development Community
SDG	Sustainable Development Goals
SDR	Special Drawing Rights
SMMEs	Small, Medium, and Micro Enterprises
SOEs	State-Owned Enterprises
SSA	Sub Saharan Africa
SSL	Sustainability-Linked Loans
TCFD	Task Force on Climate-related Financial Disclosures
UMIC	Upper Middle-Income Country

UN	United Nations
UNDP	United Nations Development Programme
UNFCCC	United Nations Framework Convention on Climate Change
UNODC	United Nations Office on Drugs and Crime
US	United States
USD	United States Dollar
VAT	Valued Added Tax
WEO	World Economic Outlook
WCB	Wildlife Conservation Bond
WWF	World Wildlife Fund
ZSE	Zimbabwe Stock Exchange

EXECUTIVE SUMMARY

The Southern Africa region's economic performance compared poorly to the other African sub-regions. In 2022, the Southern Africa region's GDP growth barely reached 2.7 percent, a level much lower than the World's (3.4 percent) and Africa's (3.8 percent) averages. This is largely a reflection of sluggish performance in South Africa where civil unrests, natural disasters—such as unprecedented floods and droughts, locust infestations, renewed anti-immigrant protest, and cost-of-living crisis in the run-up to the 2024 national election—compound the electricity crisis to hamper economic growth. Intense adverse weather events also contributed to stalled growth in several countries (Zimbabwe, Zambia, Malawi, Madagascar, and São Tomé and Príncipe). Yet, the overall subdued growth performance masked positive achievements in some countries. Angola recorded a strong economic recovery attributable to favorable oil prices. Likewise, the diamond industry performed well, as sanctions against Russia are benefiting country exporters (Namibia and Botswana) through higher prices and market share. Similarly, the easing of global travel restrictions, imposed during the pandemic, contributed to a rebound in tourism in 2022, which fueled growth in some tourist reliant economies (Botswana, Mauritius, and São Tomé and Príncipe).

Further slowdown of growth in the region is expected in 2023 (1.6 percent), followed by a slight improvement (2.7 percent) in 2024. Subdued regional performance is linked to the lingering political and structural issues in South Africa, which drag down regional growth, as well as the impacts of Russia's invasion in Ukraine, which continue to put pressure on energy and food prices. Projected growth varies across Southern Africa countries, reflecting in part a contrasting trend in the terms of trade and domestic structural issues. Top performers over 2023-2024 will be Mozambique, Madagascar, Mauritius, Eswatini and Zambia. In Mozambique, growth will be mainly boosted by increased demands for liquefied gas, and in Madagascar by the mining sector's recovery buoyed by higher price of nickel. In Zambia, an improved macroeconomic environment coupled with strengthened mining policy and improved electricity supply will be the primary drivers of real GDP growth, while in Mauritius the rebound of tourism activities will sustain growth in 2023 before progressively decelerating to its long-term trend over the medium run.

In this context, per capita income growth for most countries in the Southern Africa region is short of the growth rate needed to reverse the increase in poverty induced by the pandemic and to put the region on track to meet the SDG1. High poverty and inequality rates remain endemic across the Southern Africa region. Madagascar (80.7 percent) and Zimbabwe (64.5 percent) are recording the highest poverty level within their respective income group while Mauritius has the lowest rate of poverty incidence (13.5 percent) within the upper middle income country group

and in the region. Sluggish growth performances are also weighing on employment. Youth unemployment, which is the region's biggest unemployment challenge, requires urgent action. Imported inflation and the depreciation of domestic currencies caused regional inflation to remain in the double-digit range, at 12.6 percent, slightly below Africa's average (14.2 percent). Adverse weather events, which hampered the availability of domestic food production, also contributed to the hike in food prices in several countries. In 2022, inflation rose in all countries except Angola, which benefited from an appreciation of its currency with the increase of oil exports, and Zambia, which embarked on an IMF support program to stabilize the economy. Inflation in the Southern Africa region is expected to halve to 6.7 percent in 2024, with the biggest deceleration expected to occur in Zimbabwe—from 184.1 percent in 2022 to 36.1 percent in 2024—as the government maintains a tight monetary policy and global prices decrease.

Southern Africa's current account balance has deteriorated, recording a slight deficit at -0.6 percent in 2022, against a 2.9 percent surplus in 2021. The low deficit in the region's current account balance is mostly driven by the current account surplus in Angola attributable to high oil prices. Likewise, in Namibia and Botswana, the current account balance improved as both countries benefitted from solid diamond exports. But overall, the worsening terms of trades generally put pressure on the current account of most countries. Lower external demands combined with a moderation of global prices of metals, such as copper and gold, exacerbated headwinds for many commodity exporters, while higher prices for imported fuel, food and fertilizers led to surging spending on imports. Malawi faced a particularly severe balance of payment crisis in 2022. The regional current account is expected to worsen from 1.5 percent of GDP in 2023 to 2.4 percent by 2024, with three countries (Malawi, Mozambique, and São Tomé and Príncipe) recording double digit deficits. Angola should record the largest decrease in its current account surplus due to a drop in the oil windfall cashed in 2022 and a projected slow exhaustion of oil reserves.

The fiscal deficit moderated a little in 2022 at 3.5 percent of GDP in 2022 compared to 3.7 percent of GDP in 2021. No country in the region recorded a double-digit fiscal deficit, but all countries (except for Angola, Botswana, Madagascar and Zimbabwe) recorded fiscal deficit above the regional average deficit. Diverging trends in the terms of trade across countries led to varying fiscal dynamics across Southern Africa. For example, Angola enjoyed a fiscal surplus of 3 percent of GDP thanks to higher oil price and a more stable oil production, while the fiscal balance worsens in all countries classified as mineral and metal resource rich apart from Namibia. Lower Southern Africa Customs Union (SACU) receipts also challenged the fiscal position of member countries, while additional measures to protect the population from rising cost of living contributed to further strain fiscal budgets. Fiscal balance is expected to deteriorate by 1.3 percentage points between 2022 and 2024, with more than half the countries in the region maintaining high deficits, above 5 percent.

External debt is forecasted to remain high across the Southern Africa region (at 48 percent in 2022). Overall debt exposure is heterogenous among southern African countries. Five countries have external debt level beyond the threshold of 60 percent of GDP. Mauritius and Mozambique have triple digit debt to GDP ratios. The latest IMF/WB debt sustainability analysis, concluded

that five—Malawi, Mozambique, São Tomé and Príncipe, Zambia and Zimbabwe—out of the seven low-income countries in the Southern African region are in debt distress. Zambia and Zimbabwe need urgent debt resolution, given the large external arrears and widening sovereign spread exacerbated by a thin domestic market.

The outlook for 2023 and 2024 is uncertain because the Southern Africa region remains subject to significant downside risks. The external outlook is clouded with many risks. More persistent global inflation could prompt significantly stricter monetary policy tightening with substantial spillovers effect in the region. An abrupt growth slowdown in China or a protracted war in Ukraine could weaken global demand of mineral and metal commodities, exacerbating growth outlook of resource-rich countries. Likewise, an intensification of the war in Ukraine and geopolitical tensions could spur food and energy prices, exacerbating the fragility of oil and food importing countries. The domestic front is also exposed to sizable downside risks. The sociopolitical context could cloud the economic outlook. Over 2023-2024, six Southern African countries are holding presidential and/or parliamentary elections, which could put upward pressure on wages and public spending and challenge fiscal discipline, as well as the implementation of bold structural reforms. Likewise, Mozambique's security risks and population displacement have remained high since the intensification of terrorist activity in the country's north could further trigger delays of large-scale LNG projects and disrupt farming activities, which would jeopardize growth prospects and cause more severe food insecurity and poverty. Climate-related risks could also further deteriorate the projected economic and social outlook. The agriculture sector remains the largest employer in many countries in the region. Environmental challenges hamper inclusive growth and food security and exacerbate existing social and political tensions. Weak institutional capacity of most countries—notably Madagascar, Malawi, Mozambique and Zimbabwe—to address climate vulnerabilities amplifies their vulnerability to more severe and frequent adverse climatic events.

Private Sector Financing for Climate and Green Growth in Southern Africa

Climate change impacts on Southern Africa are increasing in both intensity and frequency, leading to higher physical and transition risks. At the same time, Southern African countries have pressing development objectives that necessitate progress towards Sustainable Development Goals as regards poverty and inequality reduction, food security, and access to utility services such as electricity, water, transportation, and telecommunication, among others. As Southern African countries seek to address these challenges, green growth is essential to drive transformative actions to achieve climate goals and minimise transition risks while ensuring that environmental and resource scarcity challenges are identified and addressed.

Sluggish progress and stagnation in green growth performance are observed in Southern Africa from 2010 to 2021. The most climate resilient Southern African countries are also high green growth performing. Countries with low climate resilience (Angola, Eswatini, Lesotho, Madagascar, Malawi, Mozambique and Zimbabwe) are also poor in growth performance. Equally, the most vulnerable countries, with low climate readiness and resilience scores, are also weak in government effectiveness.

Southern Africa's financial needs for climate actions stand at USD 1 trillion, with an annual requirement of USD 90.3 billion for 2020-2030. The average annual climate finance flows to Southern Africa stands at USD 6.2 billion, representing 6.9 percent. Southern Africa received the least financial flows relative to the financial needs, compared to other African regions (North – 18 percent; West – 21.7 percent, East-11.2 percent, and Central- 12.2 percent). Countries in dire need of climate finance do not necessarily receive relatively more climate funds. While in need of investment in adaptation, most of the Southern African countries are recipients of financing mostly for mitigation projects (with the exception of Eswatini, Malawi, São Tomé and Príncipe, and Zambia). Climate finance disbursement ratio is generally lower due to weak institutional capacity, limited technology, lack of awareness, poor physical infrastructure, and unfavorable political environments.

There is an urgent and increasing need for large-scale investment in climate action. The role of the private sector as a partner to make the green growth transition and to close the adaptation finance gap will be crucial. The greater political commitment toward climate and green growth, and the existing green policy frameworks in some countries in the region, are clear signals for the private sector to search for optimum risk/return climate-related portfolios.

Among the unlisted instruments, debt and equity remain the traditional financial mobilisation for Southern Africa. Their ability to be blended with other instruments makes them innovative. The issuance of green bonds is a promising avenue for Southern African countries, given the experience of South Africa and Namibia. Carbon finance and carbon credits could be wise options for climate mitigation. The blue carbon option represents an opportunity for mangroves, salt marshes, sea grasses, and wetlands restoration projects to receive carbon credits on the voluntary carbon market. Debt for swaps (for instance, debt for nature and debt for climate swaps) have gained in popularity in recent years. Lessons learned from the successful Public-Private Partnerships (PPP) projects can help those countries to develop more climate adaptation projects.

The private sector continues to play a marginal role in the provision of climate finance in Southern Africa because of existing challenges. The Southern Africa's capital markets are at different stages of maturity when it comes to attracting investment in green infrastructure. Access to capital remains a major constraint for businesses, so is a lack of financial products and bank credit. Thus, investors struggled to place capital in several countries (South Africa, for instance). Many Southern African countries, notably Angola, Botswana, Namibia, Zambia and Zimbabwe, have low bank lending and relatively high interest rates. Furthermore, businesses are reluctant to accept external capital. Southern African countries are faced with several market imperfections that create distortions in the risk/return profile of climate-related investment. The regulatory frameworks and market institutions are also less supportive of emerging manufacturing and service producers. Macroeconomic risks emanating from volatile foreign exchange rates, high-interest rates, and a lack of hard currency, are existing barriers to private investment. Moreover, the private sector often lacks the capacity and internal knowledge to evaluate climate science.

Multilateral Development Finance Institutions (DFIs), including Multilateral Development Banks (MDBs) and National Development Banks (NDBs), have an important role to set and support

efficient channelling of funds towards green investment, facilitating the pre-screening of prospective projects to align the global benefits of green projects with the potentially high local costs, developing tools to manage climate risks, de-risking climate-related projects, and providing in-country technical and advisory support for climate financing in Southern Africa.

Policy options are required to establish the enabling environment for the private sector as a partner to spearhead transformative actions and provide private sector finance to bridge the climate finance gap.

Short-term policy options: Developing a country-level road map for green growth and climate action that includes mobilising of private sector finance; strengthening governance systems to ensure that proceeds from private sector finance are transparent and accountable; addressing specific access barriers to private-sector financing; advancing the use of blended finance instruments to leverage additional private sector finance; and enhancing training, capacity building to screen adaptation and mitigation investment projects and to promote bankable green projects.

Medium-term policy options: Expanding and deepening capital markets, as well as addressing the unsustainable debt to the mobilisation of private sector finance through the support of MDBs and DFIs.

Long-term policy option: Reforming the financial sector, increasing government effectiveness, and promoting regional coordination of the international private and public institutions.

Leveraging the private sector's momentum toward low-carbon development is important, given the commitment of the region towards net zero targets. There is an urgent need to ensure that environmental, social, and governance standards are integrated into investment decisions. MDBs and DFIs can leverage their convening power and adopt coordinating roles across the global private and public sector landscape to enhance the harnessing of natural capital as an additional financing option for a green growth pathway.

Natural Capital for Climate Finance and Green Growth in Southern Africa

Southern Africa is endowed with a mix of minerals, including precious, ferrous, non-ferrous and industrial minerals. Botswana, Namibia, South Africa and Zambia are among the large minerals producers in Africa. The region is also endowed with rich and abundant renewable resources. Agricultural land, forest areas, wildlife and biodiversity, and marine life are the main components of the renewable natural wealth in Southern Africa. Agricultural land and forest area combined make up more than 70 percent of the land area in Southern African countries, except Mauritius and Namibia. The region's natural capital (stock of natural resources and environmental assets) is a major contributor to the growth and fiscal revenue, driving investment in physical and social infrastructure. Two Southern African countries, namely Malawi and Mozambique, have more than 50 percent of the stock of wealth held in natural capital. Eswatini, Madagascar, Zambia, and Zimbabwe have all significant percentages of wealth in natural capital.

Southern Africa's natural capital is under threat from human activities. Between 1990 and 2020,

the depletion of forest area was 16 percent in Angola, 18.9 percent in Botswana, 36 percent in Malawi, 15.3 percent in Mozambique, and 24.3 percent in Namibia. Major reasons include land use, agricultural expansion, mining, unsustainable exploitation of fuel-wood, infrastructural development, illegal settlements, invasive alien species, pests, and veld fires. There are substantial outflows of the resource rents owing to a dependence on international capital and technology for extraction and through illicit financial flows.

Climate change is also accelerating the depletion of the natural capital. It alters the geophysical conditions, making it difficult for ecosystems to adapt. A warmer temperature exacerbates the natural disturbance severities, causing significant modifications to forests and damaging forest ecosystems. Countries such as Angola, Mozambique, Zambia, and Zimbabwe (among others) with vast forest areas and unique ecosystems are particularly exposed to climate change impacts. Ocean warming has harmful consequences on marine life and coastal communities, increasing the vulnerability of island states (Madagascar, Mauritius, and São Tomé and Príncipe), as well as countries with coastlines (Angola, Madagascar, Mauritius, Mozambique, Namibia, São Tomé and Príncipe, and South Africa).

A decline in natural capital has strong repercussions on human well-being and may result in rural poverty, disruptions in supply chains, acceleration of rural-to-urban migration and potentially escalation of land and natural resource conflicts. As Southern Africa searches for opportunities to manage its natural wealth, the region faces three rampant challenges: (i) illicit trade, (2) illicit and illegal financial flows (IFFs), and (3) a political economy of rent-seeking and corruption. The range of products from the natural resources, the number of entry points along the borders and coastlines, and the ability to evade enforcement by rerouting or bribery, create a favourable environment for illicit trade in Southern Africa. IFFs are highly concentrated in four Southern African countries, namely, South Africa, Angola, Botswana and Zambia. These four countries accounted for 40.7 percent of the total IFFs in Africa from 1980 to 2018. IFFs emanate from business activities through commercial tax evasion, trade mis-invoicing, and abusive transfer pricing. Other sources also criminal activities, including the drug trade, human trafficking, illegal arms dealing, and smuggling of contraband; and bribery and theft by corrupt government officials.

There are also other challenges. A resource-dependent economy is highly vulnerable to accompanying commodity price volatility. This may lead to early depletion, or unrestrained spending of derived resource revenues directed towards public consumption and patronage purposes. Price shocks and resource mismanagement in resource-dependent countries may hinder sustainable future growth for national income and evidently increasing the prospects of natural resources becoming a curse rather than a blessing.

Natural capital is closely linked to climate resilience and human well-being and therefore has a vital role in reducing the vulnerability of Southern Africa against climatic change. The protection of forests and wetlands has a huge potential to reduce GHGs. It can reduce national emissions by more than 50 percent, mainly through avoided deforestation, and can also provide cost-effective solutions to reduce the emission gap under the Paris Climate Agreement. Key to this is green growth that supports a shift in global financial flows away from nature-nega-

tive outcomes and towards nature-positive outcomes. Given its various associations with nature, tourism is one important channel to convert the natural resource flow of services into wealth. Investing in nature is the only affordable and immediately available method of adapting to climate and achieving a net zero pathway through the large-scale removal of carbon from the atmosphere. With good macro-economic policies and strong institutions, natural capital can pave the way for the efficient allocation of capital, stimulate investment, sustained economic growth and can eventually contribute to the financing of climate action.

A response to this call is to turn natural assets into an asset class, which means sustainably converting natural capital into financial capital. This involves the creation of a category of financial securities that contribute capital to natural capital preservation and enhancement. Harnessing private finance is crucial for the protection and management of biodiversity and ecosystem services. There are key financial instruments and financing approaches that have been tested and have the potential to scale up finance. Conservation and financial market specialists are currently exploring innovative financial mechanisms to support conservation initiatives. The development of innovative conservation or biodiversity finance is a promising pathway to natural capital financing. To mobilise private finance, natural capital needs to be bankable in the form of financially viable projects that protect, sustainably manage, maintain or restore nature.

The quality of governance institutions is important in that it largely determines whether resource wealth becomes a blessing or a curse. As a result of weak institutional quality, the natural resource curse occurs in countries with a high level of corruption, and a lack of transparency and accountability, favouring rent-seeking activities, and supporting revenue mismanagement.

Short-term policy options: Institutional reforms of natural capital management; increasing enforcement efforts, especially across national borders, to combat illegal trade and prevent IFFs; enhancing coordination among states; and initiating innovative asset class to manage natural capital, for instance by blending conservation efforts with commercial nature-based activities through public-private partnerships.

Medium policy options: Creating the necessary technical and human capacity to combat illegal trade and IFFs; developing data and information facilities; and promoting good governance in natural resource management.

Long-term policy options: establishing fully-fledged digitalised technologies with state-of-the-art ICT equipment for surveillance and monitoring of transactions across borders; and promoting a regional, continental, and global framework to combat illegal trade and IFFs.

SOUTHERN AFRICA'S ECONOMIC PERFORMANCE AND OUTLOOK

KEY MESSAGES

- The Southern Africa region's economic performance remained subdued and compared poorly to the other African sub-regions. This is largely a reflection of sluggish performance in South Africa where civil unrests, natural disasters—such as unprecedented floods and droughts, locust infestations, renewed anti-immigrant protest, cost-of-living crisis compound the electricity crisis to hamper economic growth. Intense adverse weather events also contributed to stalled growth in a number of these countries.

Per capita income growth for most countries in the Southern Africa region is short of the growth rate needed to reverse the increase in poverty induced by the pandemic and to put the region on track to meet the SDG1. High poverty and inequality rates remain endemic across the Southern Africa region
- Imported inflation and the depreciation of domestic currencies caused regional inflation to remain in the double-digit range, at 12.6 percent, slightly below Africa's average (14.2 percent). Adverse weather events also contributed to the hike in food prices in several countries.
- Macroeconomic imbalances persist. The current account balance has deteriorated, recording a slight deficit at -0.6 percent in 2022, against a 2.9 percent surplus in 2021. The worsening terms of trades generally put pressure on the current account of most countries, External debt is forecasted to remain high across the Southern Africa region (at 48 percent in 2022). Overall debt exposure is heterogeneous among southern African countries. However, the fiscal deficit moderated a little in 2022 at 3.5 percent of GDP in 2022 compared to 3.7 percent of GDP in 2021. No country in the region recorded a double-digit fiscal deficit, but all countries (except for Angola, Botswana, Madagascar and Zimbabwe) recorded fiscal deficit above the regional average deficit.
- The outlook for 2023 and 2024 is uncertain because the Southern Africa region remains subject to significant downside risks. The external outlook is clouded with many risks. More persistent global inflation could prompt significantly stricter monetary policy tightening with substantial spillovers effect in the region.

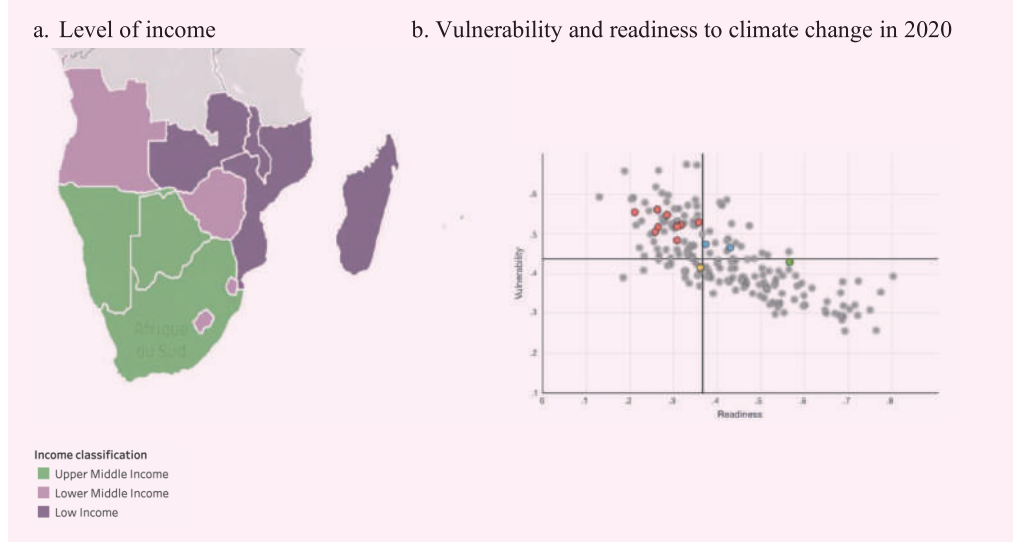
1.1. INTRODUCTION

This chapter discusses economic activity in the Southern Africa region amid multiple regional and external shocks.

The Southern Africa region is very diverse in size, income, resource endowment and exposure to underlying economic uncertainties. The region includes two of Africa's ten largest economies¹ (South Africa and Angola) along with three small states—Eswatini, Mauritius and São Tomé and Príncipe.² South Africa contributed close to 64 percent of the regional GDP over the 2018-2021 period. The region comprises four Low-Income Countries (LIC), five Lower Middle-Income Countries (LMIC), and four Upper Middle-Income Countries (UMIC) (Figure 1.1a). The region is also very diverse in resource abundance. Four countries are classified as resource rich—Angola as

a major oil exporter, and Namibia, Botswana and South Africa as other resource-intensive countries.³ Countries are also very distinct with respect to vulnerability to climate change and readiness to improve their resilience. According to the ND GAIN Country Index⁴, nine countries in the region are poorly prepared in face of high vulnerability (Figure 1.1b). Among the Southern African countries, Zimbabwe is the least prepared, ranking 174th out of 182 countries, while Mauritius is the best prepared, ranking 46th.⁵ Understanding the wide spectrum among members of the Southern Africa group in population size, income levels, amount of resource, exposure and preparedness to economic uncertainties, is key to grasping how their economies have been affected amid global headwinds in 2022.

Figure 1.1: A wide spectrum of country features within the Southern Africa Region



Source : ND GAIN index

1.2 SUBDUED GROWTH IN THE SOUTHERN AFRICA REGION

After a notable recovery in 2021 (6.3 percent), global economy slowed sharply in 2022 with an estimated growth rate of 3.4 percent.⁶ The surge in food and energy prices induced by Russia's invasion of Ukraine, combined with demand pressures from the lagged effects of policy support provided during the pandemic, triggered very high global inflation. This prompted a worldwide, rapid and synchronous monetary policy tightening, which

exerted a substantial drag on activity and led to a significant worsening of global financial conditions. A resurgence of COVID-19 in China during the last quarter of 2022 also contributed to the dampening of global economic activity.

1.2.1 Growth in Africa decelerated to 3.8 percent below previous forecasts

The deceleration of growth in Africa⁷ results from the combination of domestic factors such as enduring conflict and insecurity together with external shocks

¹ In PPP-adjusted international dollars

² Using the World Bank definition, a country is classified as a small state if its population is below 1.5 million. Namibia, Lesotho and Botswana which have a population greater than 1.5 million are also member of the Small States Forum as they share similar challenges.

³ Resource-rich countries are those with rents from natural resources (excluding forests) that exceed 10 percent of gross domestic product. (World Bank classification, 2022).

⁴ The ND-GAIN Country Index summarizes a country's vulnerability to climate change and other global challenges in combination with its readiness to improve resilience.

⁵ Countries in the last two deciles include Zimbabwe (174), Madagascar (167), Malawi (163), Mozambique (156) and Angola (154).

⁶ IMF, World Economic Outlook, (WEO, April 2023).

⁷ Previous Bank estimated Africa growth rate in 2022 at 4% (AfDB, MEO, Dec 2022).

notably adverse climatic events, rising inflation, the marked weakening of the global economy and the tightening of global financial conditions. The cost-of-living increases, triggered by soaring food and energy prices, have reduced food affordability and domestic demand across Africa. Food prices pushed average inflation to 13.8 percent almost three times above its pre-pandemic level, therefore aggravating food insecurity across Africa.⁹

The regional outlook masks uneven impact of terms of trade and cost-of-living development across Africa. Softening prices of non-energy commodity have particularly stifled growth in metal exporters, while oil exporting countries (except Libya and Nigeria) benefited from surging oil exports, thereby lessening the impact of higher global prices on domestic demand. The economies of non-resources rich countries slowed amid weak global demand and subdued household spending. In contrast, growth in some tourism-reliant countries picked up in 2022,⁹ benefiting from the recovery of global tourism.

1.2.2 The Southern Africa region recorded the largest growth deceleration in Africa in 2022

Growth in Southern Africa declined by 1.8 percentage points to 2.7 percent in 2022 (Figure 1.2), largely, reflecting sluggish

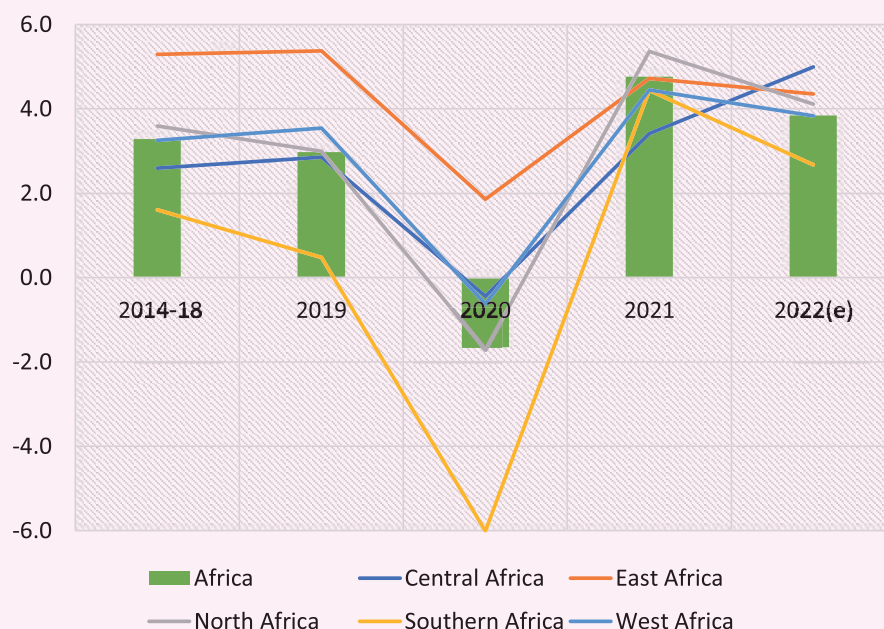
performance in South Africa. The region's growth in 2022 was lower than the average for the World (3.4 percent) and Africa (3.8 percent). It also lagged in Central Africa (5.0 percent), East Africa (4.4 percent), North Africa (4.1 percent) and West Africa (3.8 percent). The region's GDP growth is very dependent on the performance of the South Africa economy, given its overwhelming weight in regional GDP—60 percent of Southern Africa GDP in 2022. In 2022, South Africa's GDP growth slowed markedly to an estimated 2 percent, dragging down the average for the region.

1.2.3 But average regional growth in Southern Africa masks diverging growth performance across countries

Slowdown in global demand, tighter financial conditions and disrupted supply chains had differentiated impacts on Southern African countries. Growth in four out of the thirteen countries was below Southern Africa average in 2022. There was subdued growth below the Southern Africa average GDP growth rate in Malawi, São Tomé and Príncipe, South Africa and Lesotho (Table 1.1).

The impacts of shocks on resource-intensive economies varied globally depending on the type of exported commodities. Specifically, fluctuations in commodity prices explains more than 50 percent of the varia-

Figure 1.2: GDP growth in Southern Africa and other regions



Source: Africa Development Bank statistics, April 2023

⁹ The estimated number of people experiencing acute food insecurity or worse surpassed 140 million, up nearly 24 million since 2021 (The World Bank, GEP, Jan 2023)

⁹ From 4.0% in 2021 to 8.4% in 2022 (AfDB, AEO, April 2023)

tion in business cycles in African countries.¹⁰ In the face of slowing global growth, most commodity prices have eased to varying degrees since June although they remain elevated by historical standards. Crude oil prices have steadily declined from their mid 2022 peak. Likewise, metal prices fell in the second half of 2022 owing to slowing demand, particularly from China. The weakening of the terms of trade resulting from falling global metal prices was an additional factor that hampered growth in South Africa on top of structural issues and adverse climate events. In Zambia, despite of robust price copper during the first quarter, output declined reflecting a prolonged rainy-season, lower ore grades, and management challenges at two notable mines.¹¹ Unlike other countries, Angola benefited from favourable terms of trade. Stable oil production and higher oil prices contributed to Angola's recovery, with the GDP growth rate increasing from 1.1 percent in 2021 to 2.9 percent. Likewise, the diamond industry performed well, as sanctions against Russia are benefitting country exporter through higher prices and market share. In Namibia, diamond production, which was boosted by the new diamond recovery vessel, the Benguela Gem, contributed to GDP growth together with rising output of copper and uranium. Similarly, diamond exports pulled up GDP growth in Botswana. In Zimbabwe, the mining sector played a vital role in offsetting the growth slowdown caused by adverse agricultural conditions and price instability by generating stronger gold exports. Similarly, in Mozambique, the mining sector contributed significantly to the economy's growth, which picked up from 2.3 percent in 2021 to 3.8 percent in 2022. The rise in coal and aluminium production, fuelled by high commodity demand and prices, facilitated the country's economic recovery from a prolonged slowdown.

Throughout the region, countries which had embarked on structural transformation have fared better than those where structural reforms were lagging. In South Africa, implementation of much-needed reforms to remove structural bottlenecks has remained slow. Persistent structural constraints, especially in the energy and transport sectors, markedly tempered growth. Manufacturing was especially badly affected by widespread load-shedding. The escalation of power outage in the second quarter triggered the adoption of a new energy plan in July to address the power crisis in the medium term. Mozambique's economic growth continues to be modest despite high natural gas prices amid structural issues. With the lingering insurgency in Cabo Delgado, governance challenges compounded the secu-

Table 1.1: Southern Africa's real GDP growth by country, 2020 -2022

	2020	2021	2022(e)
Angola	-5.6	1.1	3.0
Botswana	-8.7	11.9	5.8,8
Lesotho	-5.6	1.6	2.5
Madagascar	-7.1	5.7	4.2
Malawi	0.9	2.2	0.8
Mauritius	-14.6	3.4	8.7
Mozambique	-1.2	2.3	3.8
Namibia	-.0	3.5	4.6
São Tomé & Príncipe	3.1	1.9	0.9
South Africa	-6.3	4.9	2.0
eSwatini	-1.6	7.9	3.6
Zambia	-2.8	4.6	3.0
Zimbabwe	-5.3	8.5	3.0
Regional Average	-5.9	4.4	2.7

Source: Africa Development Bank statistics, April 2023

city issues, thus preventing the country to fully benefit from its natural endowment.¹² Likewise, limited spatial and structural transformation is hampering growth in Zimbabwe.¹³ By contrast, after a steady decline in GDP over 2015-2021, the Zambian economy is showing positive signs of stabilization as the country has embarked on a structural adjustment program with the IMF supporting strict fiscal consolidation as well as comprehensive reforms to improve governance.¹⁴ These efforts resulted in a strong momentum in services amongst challenges in the mining and agriculture sector.

The easing of global travel restrictions, imposed during the pandemic, contributed to a rebound in tourism in 2022, which fueled growth in some tourist reliant economies. The tourism industry played a role in mitigating the negative effects of hyperinflation and exchange rate instability on Zimbabwe's GDP growth. In Botswana, an increase in international tourist arrivals also helped boost GDP. Mauritius experienced a tourism recovery thanks to successful vaccination efforts, with tourism arrivals improving significantly since borders reopened in October 2021. However, the sector's progress was hindered by Russia's invasion of Ukraine, resulting in a 35 percent output gap compared to pre-pandemic levels.¹⁵ Similarly, São Tomé and Príncipe recorded a

¹⁰ Kabundi et al (2022)

¹¹ See World Bank (2022): Zambia Outlook Report.

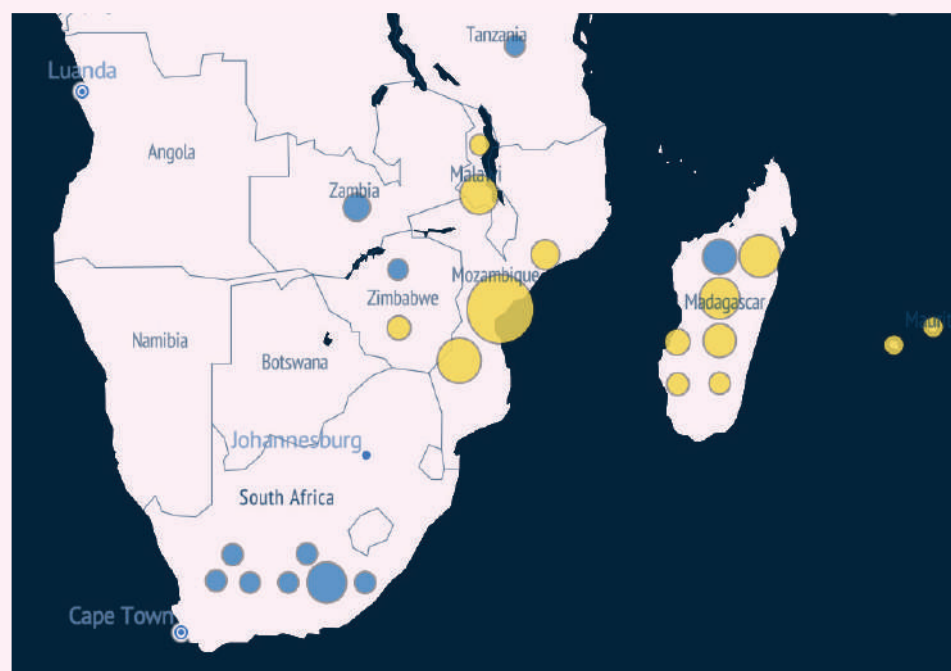
¹² Though the country represents the world's 14th largest liquified natural gas reserves.

¹³ World Bank (2022): Zimbabwe Outlook Report

¹⁴ The program supports the removal of market distortions in energy and agriculture sector and fiscal reforms to improve public spending.

¹⁵ Mauritius outlook, October 2022, The World Bank.

Figure 1.3: Adverse events in Southern Africa in 2022



strong recovery in tourism with the resumption of international travel. Additional air connectivity and progress on the COVID -19 vaccination contributed to increases in tourist arrivals. By contrast, in Madagascar, the recovery of tourist arrivals was slower despite the easing of entry procedures and requirements.

Intense adverse weather events have further stalled growth in several countries across the Southern Africa region (blue for floods and yellow for storms in Figure 1.3).

South Africa was hit by a devastating flooding in the Kwazulu Natal province during the second quarter. Following Zimbabwe's double-digit growth in 2021, its agricultural production decreased because of insufficient rainfall. Four major tropical storms battered Madagascar in the first quarter of the year, resulting in nearly half of the damages attributed to crop and agricultural asset loss.¹⁶ The Ana and Gombe storms in January 2022 submerged farmland across many parts of Southern Malawi, damaging crops, as well as infrastructure that supports agricultural production. In May 2022, São Tomé and Príncipe were also affected by destructive storms that slowed down growth recovery. Adverse weather events impacted not only the agriculture sector but also other sectors, notably energy and mining. For example, in Malawi, the storms hit the Kapichira hydroelectrical power plant, which provides about one-third of national capacity. Power production was reduced

by one third as the capacity remained off track through the first quarter of 2023. Total damage from the January 2022 Gombe tropical storm alone were equivalent to 1.5 to 2.7 percent of GDP.¹⁷ Likewise, in Zambia, a prolonged rainy season hindered copper production.

1.2.4 Growth performance varied significantly across sectors

2. The industrial sector was the first contributor to real regional GDP growth in 2022.

Before the onset of the COVID-19 pandemic, the service sector was the main driver of real GDP growth across all countries (except Zimbabwe). The industrial sector, which was strongly affected by the pandemic in 2020, had recovered in 2021 and contributed to 75 percent of regional GDP growth. In 2022, the industrial sector made the highest contribution to growth in all countries (except Botswana, Namibia and Malawi). Industry contributed to 2.7 percentage points of the 2.8 growth rate recorded for the region. Growth in the industrial sector was catalysed as many countries continued to lift pandemic-related mobility restrictions and travel bans. In seven out of thirteen countries, the industrial sector contributed to more than two third of GDP growth (Figure 1.4). This is particularly true in South Africa where the industrial sector recovered during the second quarter amid fewer COVID-19 cases.¹⁸ In 2022, as climatic events and an energy shortfall

¹⁶ Preliminary estimated damages in agriculture amount to 4.8 percent of GDP (Madagascar Outlook, October 2022, The World Bank.)

¹⁷ Malawi Economic Monitor, December 2022, The World Bank

¹⁸ IMF, Regional Economic Outlook, SSA, Oct 2022

Box 1.1: Adverse weather events in Southern Africa in 2022

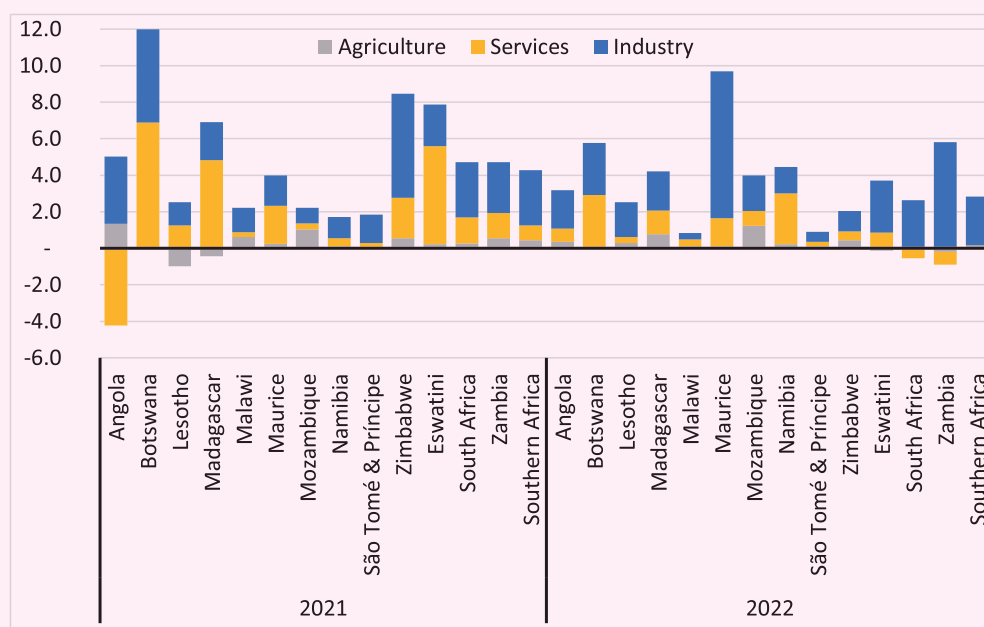
The 2021-22 south-west Indian Ocean cyclone season was above average producing twelve named storms and five tropical cyclones. Southern African countries faced a series of severe cyclones in the first few months of 2022, killing at least 890 people and affecting a further 2.8 million, according to a report from the UN Office for the Coordination of Humanitarian Affairs (OCHA). These included (i) Tropical Storm Ana, which caused 171 deaths across Madagascar, Mozambique, Malawi and Zimbabwe in January; (ii) Tropical Cyclones Batsirai and Emnati, which killed 136 people in Madagascar in February; (iii) Tropical Storm Dumako, which killed 14 people in Madagascar and Mozambique in February, (iv) Tropical Cyclone Gombe, which killed 103 people in Mozambique and Malawi in March; (v) Tropical Storm Jasmine, which affected 5,000 people in Madagascar in April.

Southern Africa also faced serious flooding. Flood disasters were reported in Madagascar, South Africa, Zambia and Zimbabwe. Two days of extreme rainfall in the South African provinces of KwaZulu Natal and Eastern Cape killed 459 people in April, and a further 40,000 were affected in floods and landslides.

Southern Africa also suffers from a recorded increase in droughts and dryness, which are projected to worsen with further global warming.

Source: Reliefweb.int

Figure 1.4: Sectoral decomposition of GDP growth by country (percentage growth), 2021-22



Source: Africa Development Bank statistics, April 2023

hampered the agriculture and services sector, only the industrial sector was driving a tepid overall GDP growth in South Africa. The growth in the industrial sector contributed 2.6 percentage points to the country's GDP growth of 1.9 percent, counterbalancing the stagnation in the agriculture sector and the decline (-0.5 percentage point) in the services sector. (Figure 1.4).

Softening business confidence, costlier input and increased financing cost created headwinds in the industry sector. In South Africa, worst power outage on record, hurt the industrial sector during the second quarter. Widespread load-shedding, as well as floods in KwaZulu Natal and the Eastern Cape led to a 5.9 percent decrease in manufacturing output in the second quarter of 2022, relative to the first quarter. Combined with rising input prices and bleak macroeconomic performance, business confidence deteriorated as reflected by the drop in the RMB/BER business confidence index.¹⁹ This explains why the industry sector has trailed GDP growth (Figure 1.4). Likewise, in Zambia, the industry sector contracted in 2022 as reflected in subdued market confidence²⁰ under an uncertain global environment, debt distress and persistent market distortions (Figure 1.4).

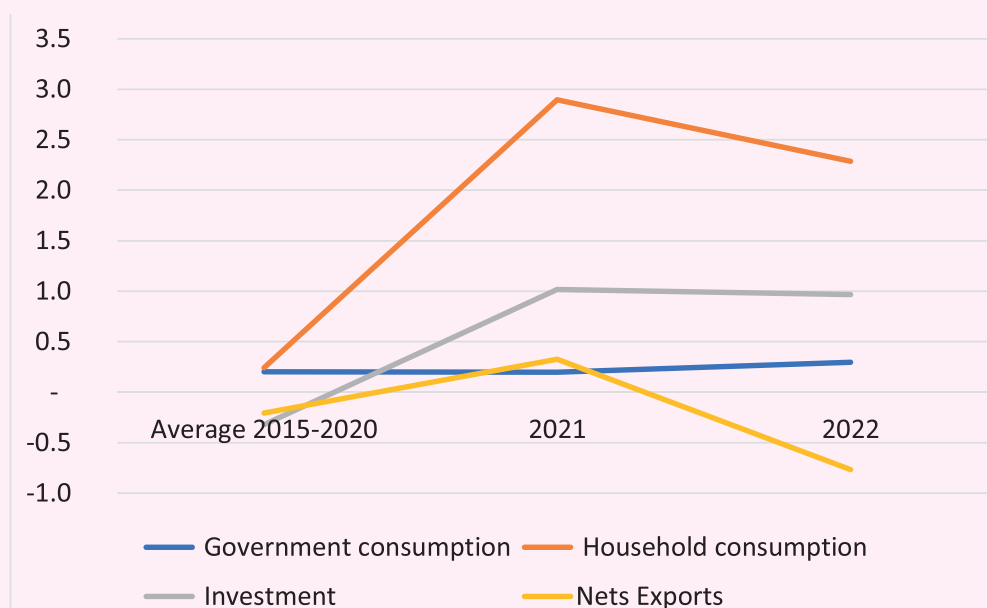
Overall, the agricultural sector has performed poorly in the face of supply disruptions, high input costs, and unfavourable weather. In 2022, the sector's contribution to regional growth was barely 5 percent — a further

decline compared to 2021 where agriculture contributed 10 percent of regional growth²¹. There was no growth in the agriculture sector in South Africa while the agriculture sector contracted in Eswatini and Zambia (Figure 1.4). As fertilizer and other farming inputs became more expensive, their use was reduced, which partly explains the lower level of agricultural productivity and moderate production recorded in several countries. Agriculture sector outcome was further aggravated by adverse climatic events. For example, as noted earlier, limited rain in Zimbabwe and strong tropical storms and floods in Malawi and Madagascar have hampered agriculture production in the regions mostly hit by those adverse climatic events. By contrast, in Mozambique, despite tropical flood that impacted domestic production during the second quarter, investment in productivity-enhancing measures such as widening market access and value-chain development contributed to overall sizeable agriculture growth. In fact, in 2022, Mozambique recorded the highest contribution of agriculture to growth (1.2 percentage point) in the region.

1.2.5 Subdued global demand and rising import prices have weighed on net exports and investment.

In most Southern African countries, inflation has softened private consumption while decelerating global demand has weighed on exports growth. Price increases, notably of food and energy, have dented real

Figure 1.5: Demand side decomposition of GDP growth, 2020-22



Source: Africa Development Bank statistics, April 2023

¹⁹ The RMB/BER is a composite quarterly index compiled from the Bureau of Economic Research (BER) business surveys in the retail, wholesale, motor trade, manufacturing and construction sectors. The BER measures the degree of satisfaction among businesspeople regarding the prevailing business conditions.

²⁰ The Stanbic purchasing market index averaged just 50 percent in 2022.

²¹ In 2022, the agriculture contributed to 0.1 percent to the regional GDP growth of 2.8 percent

incomes, particularly for vulnerable households. However, most government in the region implemented measures to shield vulnerable populations from rising food and fuel prices. Overall government consumption contribution to growth slightly increased from 0.2 to 0.3 percentage point, as several countries increased public spending, despite limited fiscal space, to partly cushion the impact of the surge in the cost of living on households. Overall, total consumption to regional GDP growth increased from 69 percent in 2021 to 92 percent in 2022. In 2022, higher borrowing costs and weakened confidence have limited the contribution of gross fixed investment to regional GDP growth, which stayed flat at 1 percent of GDP (Figure 1.5). Exports of metal-rich countries were lower because of the slowdown in Chinese demand and higher cost of production²² caused by the rise in energy prices. Meanwhile, in non-resource-intensive countries, the surge of import costs, notably energy and food, has significantly weighted on growth.²³ Consequently, the contribution of net exports to real GDP growth became negative and dipped to -0.8 percent in 2022, as against a positive contribution of 0.3 percent in 2021. This overall regional pattern of contribution of demand side component hides some divergences across countries.

On the demand side, the two largest economies in the Southern Africa region displayed diverging growth patterns. The growth slowdown in South Africa reflects a decline in net export amid worsening terms of trades of industrial metals and structural issues, as well as weaker consumption in the face of rising food and fuel prices. Limited competition in key private sectors and low confidence have continued to hamper private investment. By contrast, Angola, the second largest economy in southern Africa, benefitted from high energy prices. In 2022, stronger growth performance came on the heels of surging oil exports combined with rising government expenditure. The appreciation of the Angola Kwanza reduced the cost of debt service and import, which contributed to provide space for higher government expenditure. The appreciation of the Kwanza also limited the impact of higher global prices on domestic inflation which helped to shield private consumption from global inflation.

1.3 SOARING FOOD AND ENERGY PRICES

1.3.1 Inflation surged in almost all economies

Throughout 2022, supply and demand fac-

tors pushed up global inflation. On the demand side, the growth rebound after the global recession caused by the pandemic, together with the lingering effect of government support, provided in 2020 continued to exert inflationary pressure. On the supply side, the impact of COVID-19-related 2020/2021 lockdowns continue to cause capacity constraints and hold down supply chain recovery, which sustains inflationary pressures. In particular, transport costs put a significant pressure on input costs. Inflationary trends were further aggravated by Russia's invasion of Ukraine, which escalated food and energy prices. In some countries, tight conditions in the labor market further pushed wages increases. Finally, many countries faced currency devaluations that translated into higher import, producer and consumer prices.

Though headline inflation started to fall during the third quarter of 2022, inflation remains well above pre-pandemic levels.

Fuel and non-fuel commodities prices have started to decline. Nevertheless, the latest AfDB forecast indicates that "underlying (core) inflation has not yet peaked in most economies".²⁴

1.3.2 Average annual inflation in Africa peaked to 14.2 percent, the highest in more than a decade.

Soaring food and energy prices, stemming partly from Russia's invasion of Ukraine, triggered sharp cost of living increases across Africa. Driving factors of inflation were mostly external factors. Average consumer price inflation is estimated to have increased by 1.3 percentage points to 14.2 percent in 2022 from 12.9 percent in 2021. Overall, the pickup in inflation in Africa was lower than in many advanced economies. Nevertheless, inflation reached double digits in 23 African countries.²⁵

Food prices increase which accounted for more than half of overall inflation, pushed average inflation to almost three times above its pre-pandemic level. Food price inflation exceeded 20 percent in over a quarter of all African economies²⁶. In Africa, non-tradable core inflation, reflecting demand pressures was relatively stable compared to other regions since the level of support during the pandemic was proportionally much lower²⁷ than in many of the largest economies.

Tighter financial conditions put pressure on most African currencies which further exacerbated inflationary pressure. Most African countries (with the exception of oil exporting countries) suffer from unfavorable net terms on trades which exacerbated the loss

²² The cost of production of most metal commodities tends to be energy intensive.

²³ Despite a slowdown of energy and food prices in the second half of 2022, import costs remain elevated.

²⁴ Core inflation is the change in prices for goods and services, but excluding those for food and energy (or the closest available measure).

²⁵ AfDB, April 2023.

²⁶ Global Economic Prospects, January 2023. The World Bank

²⁷ Since most countries had limited fiscal space.

of foreign exchange reserve. A widening of the current account deficit put pressure on the domestic currency. Likewise, the rise in global interest rate undertaken by many Central Banks, notably in US and EU, to abate core inflation, induced capital outflows. Investors adopted a more cautious strategy in face of rising uncertainty and a slowdown in global growth. Altogether, these trends triggered a depreciation of the exchange rate which feed back into higher inflation.

1.3.3 Inflation in the Southern Africa region reached double digit amid depreciation of domestic currencies

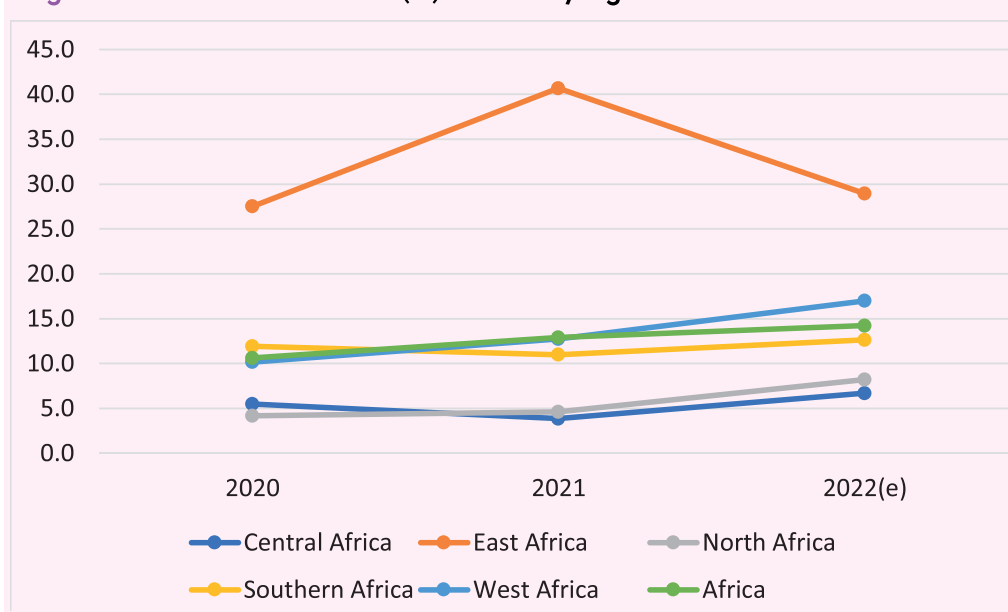
Inflation throughout the southern Africa region was mostly caused by imported inflation and the depreciation of domestic currencies. The inflationary pressures were triggered by the pass-through effects of rising food and energy prices as well as sustained global supply chain disruptions. The depreciation of domestic currencies also caused inflationary pressure throughout the region. The regional inflation rate rose from 11 percent in 2021 to 12.6 percent in 2022. Southern Africa inflation stayed in the double-digit range contrary to the

single digit inflation rate that prevailed in Northern and Central Africa regions, where most countries are oil producers and therefore benefited from favorable terms of trade and lower fuel costs. The inflation rate in Southern Africa was slightly lower than Africa's average (14.2 percent) and well below the levels recorded in East Africa (28.9 percent) and West Africa (17 percent) (figure 1.6).

The impact of rising commodity prices on inflation differed across countries. Net importers faced headwinds as the impact of higher food and fuel prices and increased transport cost widen their current account deficit. Combined with tighter financial conditions, this triggered a depreciation of the exchange rate that further fuel inflation. The moderation of the price of the global prices of metals also challenged several commodity exporters in the region. By contrast, oil rich countries, benefited from soaring prices, which resulted in an appreciation of their currency due to export windfalls which tempered the rising cost of imports.

The inflation transmission dynamics are well illustrated through their impact on three countries in the sub-region: Malawi (a

Figure 1.6: Annual Inflation rates (%) in Africa by regions



Source: Africa Development Bank Statistics, April 2023

non-resource rich), South Africa (metals and mineral rich country), and Angola (oil rich country). In Malawi, the impact of Russia's invasion of Ukraine and debt distress prompted a peak in headline inflation at 26.7 percent in October 2022, but inflation declined at 21.7 percent in

December 2022, the highest level since June 2013. Food inflation soared to 34.5 percent driven by a higher cost of imported foods. Moreover, the situation was worsened as Malawi suffered from lower yields for its local food production due to the late onset of the 2021/22 rain-

ny season followed by multiple tropical storms. A balance-of-payments crisis has led to widespread foreign exchange shortages, affecting access to fuel, fertilizer and other imported inputs. The ensuing devaluation of the Malawi kwacha in May 2022 further increased the price of imported commodities, thereby fueling inflation. In addition, Malawi's debt distress and lack of fiscal space constrained the country's ability to implement safety net programs in response to increased inflation pressure. With the exception of Zimbabwe, Malawi faced both the higher level of inflation in the sub-region and the highest surge (+11.7 points), compared to 2021. South Africa reached its highest inflation level in over a decade. Annual inflation was driven by higher food and fuel prices and further aggravated by electricity loadshedding. Moreover, the falling of the global metal prices lessened the trade surplus which combined with capital outflows contributed to a depreciation of the rand against the dollar by 10 percent which further drove price pressure. After a peak at 7.8 percent in July, the annual inflation rate was estimated at 6.9 percent as of end December. In Angola, the impact of global food and fuel inflation was muted as oil exports were increasing and the kwanza appreciated by ten percent²⁸ against the US dollar. Though the inflation rate remains elevated with a double-digit level of 21.3 percent, it dropped by 4.5 percentage points²⁹ between 2021 and 2022.

Inflation rose by more than 5 percentage points in five out of the thirteen countries in the Southern Africa region. These coun-

tries were Botswana (+5.5), Mauritius (+6.8), Malawi (+11.7), São Tomé and Príncipe (+9.8) and Zimbabwe (+40.8). In Botswana, double digit inflation³⁰ continued to exceed the central bank's medium-term 3.6 percent objective, reflecting high energy prices and other input costs. Russia's invasion of Ukraine created additional annual pressure on food, energy and freight prices in Mauritius, causing inflation to reach 10.8 percent, the highest in over a decade. In São Tomé and Príncipe, inflation doubled to 17.9 percent in 2022. Food and fuel prices were the key factors behind the rally in inflation. Higher global prices for imports and expensive local inputs led to an increase in food inflation, while energy prices rose as a result of fuel price adjustments in April. In Zimbabwe, inflation remained in triple digit levels. By August, the inflation rate had reached 285 percent and the local currency had depreciated by over 70 percent compared to January 2022 both on the parallel and official market. On average in 2022, the inflation rate was estimated at 184.1 percent.

Apart from Angola, Zambia is the only country in the region where inflation ebbed in 2022. With the country embarking on an IMF program, the economy has started to stabilize, with inflation declining to single digits in June for the first time since mid-2019, attributed to the lagged pass-through to the local currency and improved food supply. Inflation was estimated at yearly average of 10.1 percent in 2022, a 12-point decrease from end 2021, and food inflation declined significantly from 24.5 percent

Figure 1.7: Annual Inflation rate in the Southern Africa region by countries (without Zimbabwe)



Source: African Development Bank statistics, April 2023

NB: In 2022 Zimbabwe inflation reaches triple digit 284.9 in 2022 from 98.5 in 2021

²⁸ The World Bank, GEP, January 2023

³⁰ Annual CPI inflation averaged 11.4 percent during January-July 2022 compared to 6.7 per cent in 2021. Botswana outlook (October 2022). The World Bank.

in 2021 to 16.1 percent in 2022.

Adverse weather events which hampered the availability of domestic food production also contributed to the hike in food price in several countries. In Mozambique, the damage to the harvest caused by flooding induced by tropical storms during the first quarter contributed to the increase in overall food price inflation, adding 5.3 percentage points to headline inflation; Eswatini and Zambia were also affected by climate disruptions.

Exchange rate dynamics varied across the region. Tightened US monetary policy, financial outflows from Africa, and weak external demand led to most African currencies depreciating against the US dollar in 2022, resulting in foreign exchange market instability, primarily in commodity exporting countries. Malawi and Zimbabwe had the worst performing currencies in Southern Africa, depreciating by 21 percent and 70 percent³¹, respectively, while Angola's exchange rate strengthened by almost 10 percent against the US dollar³².

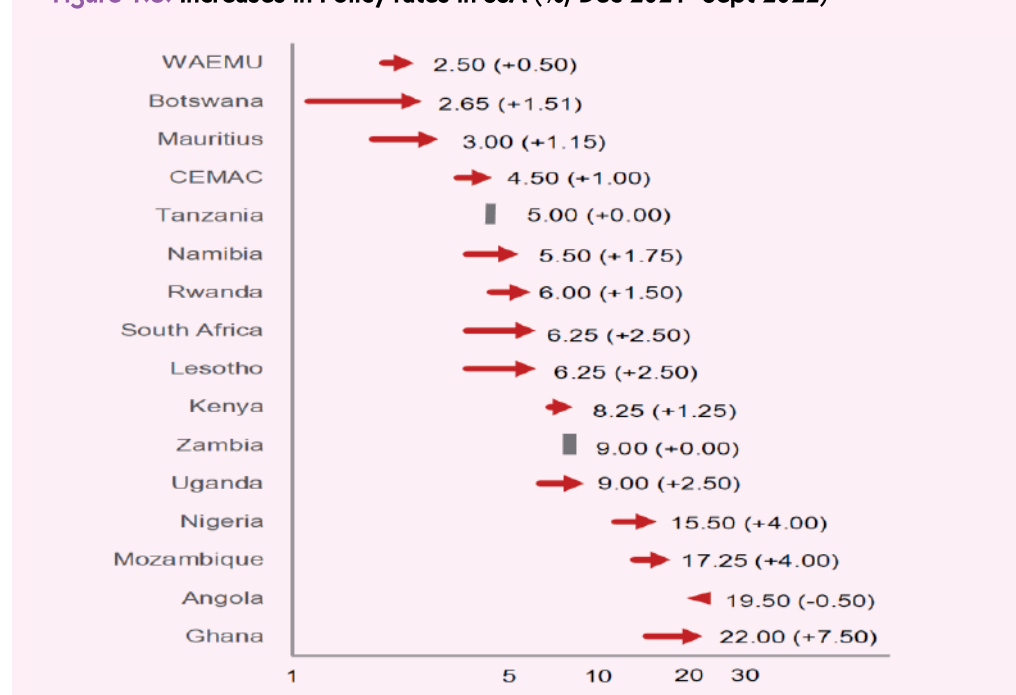
1.4 TIGHTENING MONETARY POLICY RESPONSES

In Africa, monetary policies have recently become less accommodative. Central Banks increased real interest rates to curtail external financing pressures and temper rising inflation. Over two thirds of monetary authori-

ties have increased policy rates to keep inflation under control. But there is need for caution. Higher interest rates, in real as well as nominal terms, may help to limit currency depreciations and ensure macroeconomic stability in the medium-term, but are expected to dampen domestic demand in the near future. The recourse to interest based monetary policy should be made cautiously since interest rate increase are less effective when inflation is predominantly driven from the supply side and when countries have large informal markets and thin financial markets. Policy responses depend on country context and monetary arrangement.

Within the Southern Africa region, countries with inflation targets have increased interest rate to curb inflation as the ceilings of most central bank target bands were breached. In South Africa, as inflation reached the ceiling of the central bank' target range (6 percent) in May 2022 for the first time since March 2017, the monetary authority surprised the market with a rate increase of 75 basis points in July, taking cumulative hike to 200 basis points since the tightening cycle in November 2021. In Mozambique, the rise in global fuel and food prices triggered a breach in the Monetary Policy Consultation Clause upper inflation band. The Central Bank tightened monetary policy to contain inflation expectations. The exchange rate stabilized against the US dollar and appreciated against the South African rand

Figure 1.8: Increases in Policy rates in SSA (% , Dec 2021- Sept 2022)



Source: IMF, *Regional Economic Outlook*, Oct 2022

³¹ Between January and August. *Zimbabwe Economic Outlook*, October 2022. The World Bank

³² GEP, January 2023. The World Bank

while the parallel exchange market spread remained below 5 percent.

In countries where inflation was receding, the central bank kept the interest unchanged. In Angola, the inflation target was at 18 percent for end-2022. As inflation was decelerating in face of a strong kwanza, the central bank kept its reference rate at 20 percent but started easing other monetary instruments³³.

Countries with pegged exchange rates had recourse to monetary policy together with fiscal policies to maintain the credibility of the peg and support reserves. Namibia had to implement contractionary monetary policy to maintain parity with the South African rand and to fight inflation. The Bank of Namibia progressively increased its monetary policy rate to 7.25 percent in April 2023, from 6.75 percent in November 2022 and 3.75 percent in 2021 while the authorities were simultaneously implementing fiscal consolidation policies. In São Tomé and Príncipe, the Central Bank supported the peg of the Dobra to the euro by increasing its base interest rate from 9 percent in June 2017 to 10 percent in June 2022 to tighten excess liquidity and help curb the differential inflation with the euro. In parallel, the government engaged reforms to improve the fiscal position.

Malawi and Zimbabwe adopted a set of measures that failed to tame inflation. The Reserve Bank of Malawi's attempts to support price stability and increase reserves were not successful, reflecting the supply driven nature of inflation. The monetary authorities adjusted the exchange rate downward to boost reserve. To align official rates with market rates and address foreign exchange shortages, the Reserve Bank of Malawi devalued the official Malawi kwacha-US dollar exchange rate by 25 percent. The devaluation briefly closed the spread between the official and parallel exchange rate, but this quickly widened again. Simultaneously, the authorities tightened monetary conditions through an increase by 6.5 percentage of the policy rate between April and October to put inflation and inflation expectations at check, which led to an increase in government borrowing yields on all maturities. Since the increase in the policy rate didn't keep in pace with the pick-up in inflation, the real policy rate was negative around -8.7 percent in October with headline inflation at 26.7 percent.³⁴ In Zimbabwe, the central bank took a package of measures to combat triple digit inflation. The authorities tightened monetary policy, raised

the interest rates from 80 to 200 percent, liberalized the foreign exchange market and issued gold coins as a store of value. By September 2022, these measures had helped to stabilize the parallel market as the premium narrowed to below 35 percent in September 2022³⁵, but despite these measures the overall yearly inflation remained in the three-digit level at 184,1 percent.

1.5 THE FINANCIAL SECTOR REMAINED STABLE

1.5.1 Overall, the banking sector has remained liquid, well capitalized and profitable.

The banking sector capital adequacy ratios has remained above the statutory thresholds in 8 of the 13 countries in the Southern Africa region. In Zambia, average capitalization ratios were robust at 24.6 percent of risk-weighted assets at end-December 2021 (against 20.1 percent at end-2020). In 2020, the government implemented several macro-financial measures to support private sector liquidity and financial sector stability during the COVID-19 crisis, notably a medium-term refinancing facility amounting to 3 percent of GDP to support access to credit by firms and households as well as regulatory incentives³⁶. In Namibia, the Banking sector's capital adequacy ratio increased from 15.7 percent by end 2021 to 17 percent by end 2022 above the 10 percent statutory requirement. Likewise, in Botswana, the Banking sector's capital adequacy ratio averaged 19.1 percent twelve months to November 2022, above the 12.5 percent prudential requirement. In Mozambique, Banks report strong system-wide capital and liquidity ratios, with some heterogeneity across institutions. At end-August 2022, system-average capital adequacy ratios were 26.1 percent, comfortably above the regulatory minimum of 12 percent³⁷. In Malawi, the banking sector showed overall financial stability against economic decline with both the overall capital adequacy ratio and tier 1 capital adequacy ratios well above the regulatory thresholds. Nevertheless, trends show declining buffers in 2022. For example, the liquidity ratio coverage though remaining well above the 25 percent threshold declined from 55 to 47.1 percent in September 2021³⁸. In Madagascar, the banking and financial sectors remain broadly resilient and sufficiently capitalized. Banks are well capitalized, liquid, and profitable, but the significant heterogeneity among them has been exacerbated

³³ *Africa Pulse, October 2022. The World Bank*

³⁴ *Malawi Economic Monitor, Dec 2022. The World Bank*

³⁵ *Zimbabwe outlook, October 2022. The World Bank*

³⁶ *These incentives include revised loan classification and loan provisioning rules, a two-year extension on the transitional arrangements for the application of IFRS 9 capital adequacy standards, and easing of regulatory capital computation requirements for non-bank financial institutions. Other measures focused on promoting contactless mobile money and cashless transactions (Source Zambia macroeconomic stability; Growth and competitiveness development policy financing; September 2022. The World Bank).*

³⁷ *Mozambique First Review under the three-year Extended Credit Facility, IMF, December 2022.*

³⁸ *Malawi Economic Monitoring, December 2022; The World Bank.*

by the pandemic³⁹.

The ratios of non-performing loans (NPLs) to gross loans in the banking sector improved in several countries.

In Zambia, for example, the NPLs for commercial banks declined from 9 percent of gross loans in 2021 to 6.6 percent in 2022 due to business recoveries, improved credit performance, and write off of bad loans. Likewise, in South Africa and Botswana, the ratio of NPLs stayed below 5 percent improving slightly from 4.5 to 4 percent in South Africa and from 4.2 to 3.8 percent in Botswana. Likewise, in Namibia, the NPL ratio fell to 5.6 percent at end December 2022 from 6.4 percent the year before. In Madagascar, despite the pandemic, credit growth remained at a reasonable level and NPLs have only slightly increased. By contrast, in Malawi, the non-performing loans ratio reached 6.1 percent in 2022 above the prudential limit of 5.0 percent - a significant increase from 4.5 percent at the end of 2021.

1.5.2 But risks need to be managed

However, in countries such as Botswana, Namibia, Malawi, Zambia and Zimbabwe, financial data on banks' NPL, profitability and capital ratios may not fully reflect the impact of the COVID 19 crisis.

Some COVID-19 relief measures have been extended which may delay the recognition of asset quality deterioration. For example, in Namibia, COVID 19 relief measures were extended until April 2023, hence NPL levels may not yet reflect the full effects of the pandemic on business. In Botswana, the authorities have removed most COVID-19 crisis-related regulatory forbearance measures but the lower Capital Adequacy Ratio (CAR) and Prudential Reserve Requirements (PRR) were still in place during the IMF article IV mission last April 2022. The IMF noted "Returning the CAR to 15 from 12.5 percent is unlikely to have a significant effect, given banks' existing adequacy ratios. But increasing the PRR for commercial banks from 2.5 to 5 percent could reduce liquidity and increase funding costs, particularly for smaller banks"

Banks' exposure to sovereign risks have increased.

The banking system has grown increasingly exposed to Government debt in countries like Malawi, Zambia, Zimbabwe, placing additional stress on financial stability. Hence, Central banks would need to remain vigilant to ensure financial sector stability given the banking sector' large exposure to government securities and associated potential risks. For example, in Zambia as the government turned to domestic financing to finance its bud-

get, the banking system's net claims on the government grew to around 59 percent of total domestic claims in 2021–22 from around 27 percent on average over 2011–2016. Likewise, the Reserve Bank of Malawi and commercial banks' large exposures to government securities pose potential risks to the financial sector given the level of domestic debt. The debt uptake by the banking sector is so high (67 percent) that it also crowds out resources available for the private sector. In Namibia, reflecting large fiscal financing needs, banks' net claims to the government picked-up by 51 percent in 2021 and by further 30 percent (year-on year) at end-September 2022⁴⁰. In Botswana, the banking sector remains well capitalized but liquid assets in commercial banks decreased as the government sought to finance the deficit with longer-term government bonds.

Southern Africa economies face emerging financial risks due to climate change disruptions.

For example, the Zambian government intends to conduct a sector analysis and establish green loan guidelines for financial service providers to develop environmentally friendly financial products, with the aim of enabling them to identify and track climate change risks in their portfolios. Moreover, central banks in the region are not only raising awareness of the risks associated with climate change among financial institutions, but there are also active interventions underway, such as the establishment of the Prudential Authority in South Africa to monitor climate-related risks and the Task Force on Climate-related Financial Disclosures (TCFD)'s routine climate risk surveys. The monetary policy statement issued by the Reserve Bank of Zimbabwe now requires banks to examine their climate risk management. Also, the Zimbabwe Stock Exchange (ZSE) implemented the «Sustainability Information and Disclosure» requirement as a new listing criterion in 2019, requiring issuers to produce sustainability reporting, including risk coverage. It would be useful to highlight these initiatives and others.

1.6 MACROECONOMIC IMBALANCES DETERIORATED

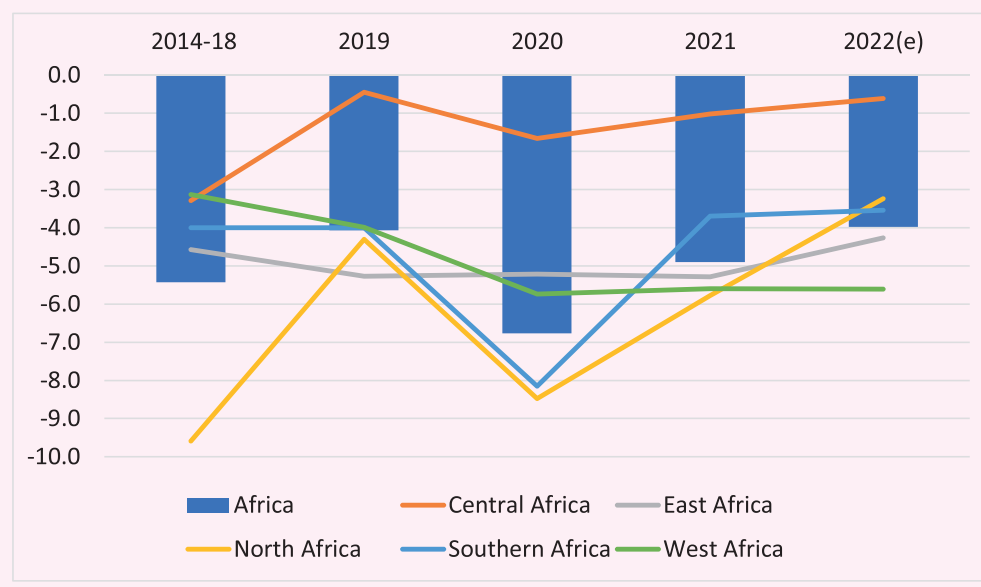
1.6.1 Fiscal deficit widened in half the countries in the Southern Africa region amid muted growth

The southern Africa Region registered a slightly lower fiscal deficit at 3.5 percent of GDP in 2022 compared to 3.7 percent of GDP in 2021. The deficit stood below the average deficit for Africa (4 percent) but higher than the deficit for Central Africa (0.6 percent) where all oil exporting countries benefited from

³⁹ Madagascar, *Second Review under the Extended Credit Facility Arrangement*, IMF September 2022.

⁴⁰ Namibia, *IMF Article IV*, December 2022.

Figure 1.9: Fiscal Balance by region 2014 – 2022 (% GDP)



Source: AfDB Statistics Department, April 2023

an increase in revenue propelled by increasing oil prices (figure 1.9). No country in the region recorded a double-digit fiscal deficit. But all countries (except for Madagascar, Zimbabwe, Botswana and Angola), recorded fiscal deficit above the regional average deficit (figure 1.10). South Africa failed to lower its fiscal deficit in 2022 amid headwinds and lingering structural issues that constrain growth recovery. The budget deficit marginally widened to 4.9 percent of GDP in 2022 from 4.6 percent of GDP in 2021 due to higher growth in priority expenditures. In particular, the government increased social grants and cut a fuel levy to mitigate higher cost of living. Public expenditure also increased as the authorities had to deal with the reconstruction of infrastructure after the flooding. In addition, the government faced mounting interest cost and wage pressure.

Lower Southern Africa Customs Union (SACU) receipts challenged the fiscal position of its members. The economic slowdown in South Africa generated lower revenue for SACU members. Many members struggle to compensate for the fall in these revenue amid increasing pressure to protect the most vulnerable from the overall cost of living squeeze. Lesotho economy remains very dependent on volatile SACU revenues which represented about half of government revenue and rents in 2020. In Botswana, the fiscal balance was eased by an under-executed development budget and elevated diamond sales which compensated for falling SACU receipts. In Namibia, fiscal balance improved as the authorities sought to contain

wage bills and divestiture from state-owned enterprises (SOEs) but lower receipts from SACU continue to weigh on the fiscal balance.

Diverging trends in the terms of trade across countries led to varying fiscal dynamics across Southern Africa. Angola, where oil revenues contribute 60 percent of government revenue⁴¹, achieved a fiscal surplus of 3 percent of GDP in 2022, supported by higher oil prices⁴² and stable production. The government also implemented measures to improve revenue mobilization, including enhanced tax collection efficiency and reduced tax evasion⁴³. In contrast to oil-rich countries, mineral and metal resource-rich countries in Southern Africa, with the exception of Namibia, have been affected by high global inflation, which has negatively impacted their public finances. Madagascar experienced the sharpest decline in fiscal balance, with its deficit increasing from 2.8 percent to 6.8 percent of GDP. Zambia recorded the highest fiscal deficit in the region, almost reaching 9 percent of GDP.

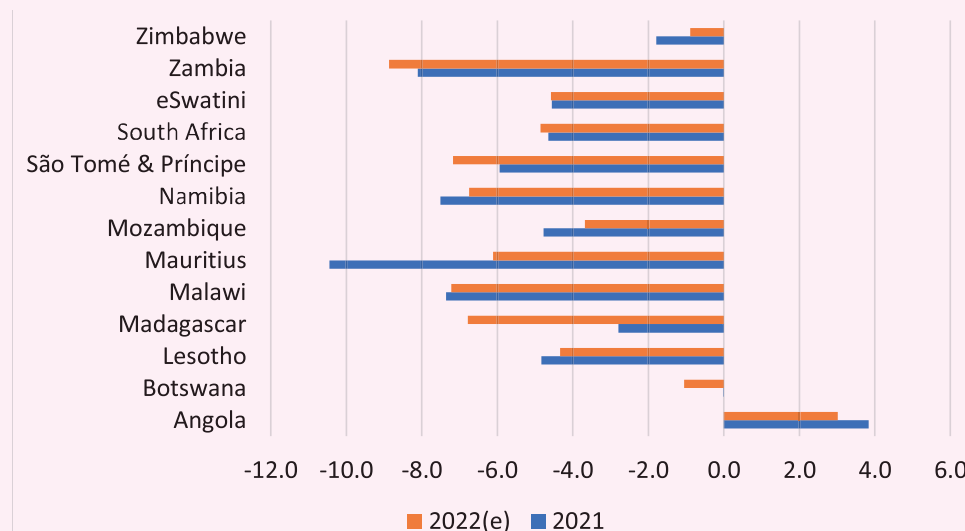
Additional measures to protect the population from rising cost of living have further strained fiscal budget in some countries. Most countries implemented short term emergency support measures to address both fuel and food prices in order to shield consumers from rising cost of living. Containment measures include a combination of tax cut on food and fuel, new subsidies, price controls, allocated credit to key importers or agricultural firms and export restrictions. Only a few

⁴¹ Angola outlook, October 2022. The World Bank.

⁴² The average price for Angola's crude was USD100.65 pb, above the conservative USD59.00 pb used in the 2022 national budget, generating an estimated additional revenue of USD 17.18 billion. (MEO, Angola Country Note, AfDB, 2023).

⁴³ Africa Pulse, October 2022. The World Bank.

Figure 1.10: Fiscal balance by country, 2021-2022 (% GDP)



Source: AfDB Statistics Department, April 2023

Note: Botswana fiscal balance GDP ratio in 2021 is zero

countries like South Africa and Mauritius have introduced targeted cash or in-kind transfers. These policy measures put a halt to the consolidation plan that several countries had engaged to restore the fiscal space that had shrunk following the implementation of accommodative fiscal policy during the COVID 19 pandemic. This was particularly true in Madagascar where the authorities increase the public sector wages and the minimum private sector wage, capped the domestic prices of selected first necessity products (such as rice, edible oil, sugar, fuel and gas) and introduced subsidies on rice and cement⁴⁴. Likewise, in Malawi, higher government spending on compensation for government employees and social benefits - notably higher-than-targeted spending on fertilizer subsidies under the Affordable Input Program combined with continued lack of fiscal discipline widened the fiscal deficit above target despite a good performance on domestic revenue triggered by high international trade taxes. In Zimbabwe, the government voted a large supplementary budget as inflation had eroded allocated budget. The additional spending aimed at increasing public investment but also at alleviating the increase in cost of living, increasing procurement of grain and strengthening social protection⁴⁵. In Lesotho, the government introduced monthly fuel subsidy from July to December 2022 to cushion commuters from the high costs of energy prices. The fuel subsidy has reduced and fixed the prices of petroleum products until December 2022. The government also supported the agriculture sector via subsidies on seeds (80 percent) and fertilizers

(70 percent)⁴⁶.

Two countries – Mozambique and Mauritius – managed to reduce significantly their fiscal deficit in 2022.

In Mozambique, the government managed to reduce its fiscal balance by 1.1 points from 4.8 percent in 2021 to 3.7 percent of GDP in 2022 in line with its commitment under an IMF supported reform program. To mitigate the impact of inflation on households, the government passed on cost increases of international fuel prices gradually⁴⁷ to shield vulnerable household dependent on public transport and curb the risk of social unrest. The price per journey has not been adjusted in the Maputo metropolitan area and a monthly transfer is paid to registered public transport providers by government. Despite these temporary emergency measures, the fiscal balance remained within planned budget as revenue were strong and overall expenditure pressures were kept under control through lower capital spending. To better target its support, the government is developing plans to partially offset the impact of rising fuel prices on households identified as vulnerable by the social security institute through cash transfers, and discounts at point of sale for public transport users for a period of six months⁴⁸. Mauritius recorded the largest improvement in its fiscal balance in the region. The deficit dropped from double digit (10.4 percent) in 2021 to 6.1 percent of GDP in 2022 on the back of GDP recovery, increase in fiscal revenue and the gradual lifting of COVID-19 support measures. The Government has also resumed fiscal consolidation, which

⁴⁴ Madagascar Outlook, October 2022. The World Bank.

⁴⁵ Mozambique Outlook, October 2022. The World Bank.

⁴⁶ Lesotho Outlook, October 2022. The World Bank.

⁴⁷ The response included voluntary agreements to temporary reductions in margins and fees across all components of the cost price formula.

⁴⁸ IMF Country Report No. 22/358, December 2022.

was suspended during the pandemic.

In Eswatini, the government implemented a three-year fiscal adjustment program which had not yet succeeded to reduce its high fiscal deficit by end December 2022.

To reduce its overreliance on SACU revenues, the adjustment program calls for the implementation of several measures to boost domestic revenue (fees, VAT, company tax increase). In parallel, the authorities plan to contain public wage and lower transfers to state owned enterprises to reduce public expenditure. In 2022, these efforts had not yet born some fruits as the deficit remained at 4.6 percent of GDP.

1.6.2 The regional current account balance, though still recording a surplus, plunged driven by lower export earnings and higher import bills.

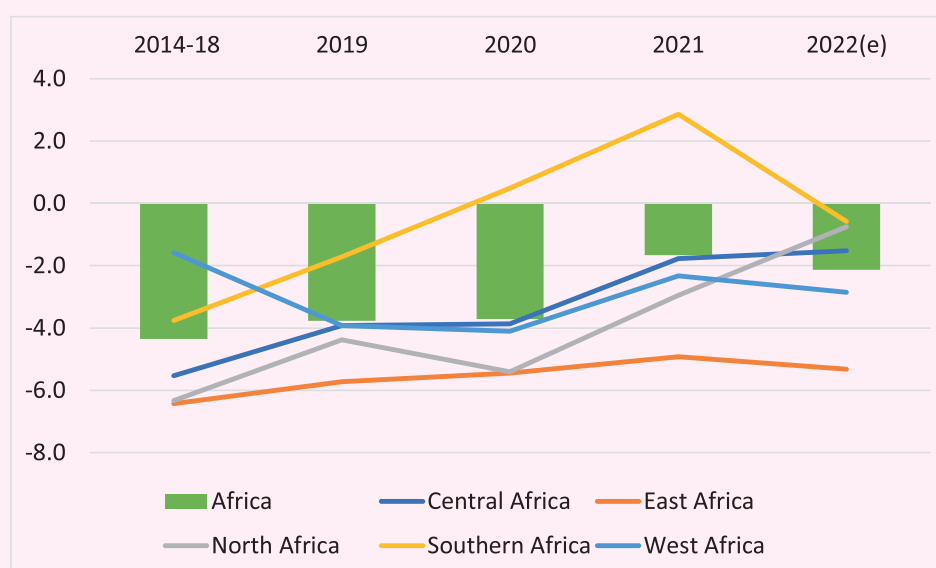
Southern Africa's current account balance has deteriorated due to costlier import and slug-

gish export performance amid overall sharp weakening of global demand. The regional current account balance stood at -0.6 percent in 2022 down from a 2.9 percent surplus in 2021. Southern and North Africa are the two regions which post the lowest deficit in Africa in 2022 (figure 1.11).

But, the overall level of the regional current account masks diverging levels and trends across countries.

The low deficit in the region current account balance is mostly driven by the current account surplus in Angola (box 1.2.). Within the region, the other countries which posted a surplus in their current account in 2022, though smaller than Angola, were Botswana, Eswatini, Zambia and Zimbabwe. Conversely, the current account deficit hit double digit in four countries – São Tomé and Príncipe, Malawi, Mauritius and Mozambique. Nine⁴⁹ out of the thirteen countries recorded deteriorations in their current account balance, with the largest drop beyond 3 percentage

Figure 1.11: Evolution of the Current Account (% GDP)



Source: AfDB Statistics Department, April 2023

point occurring in Mozambique, Zambia and South Africa.

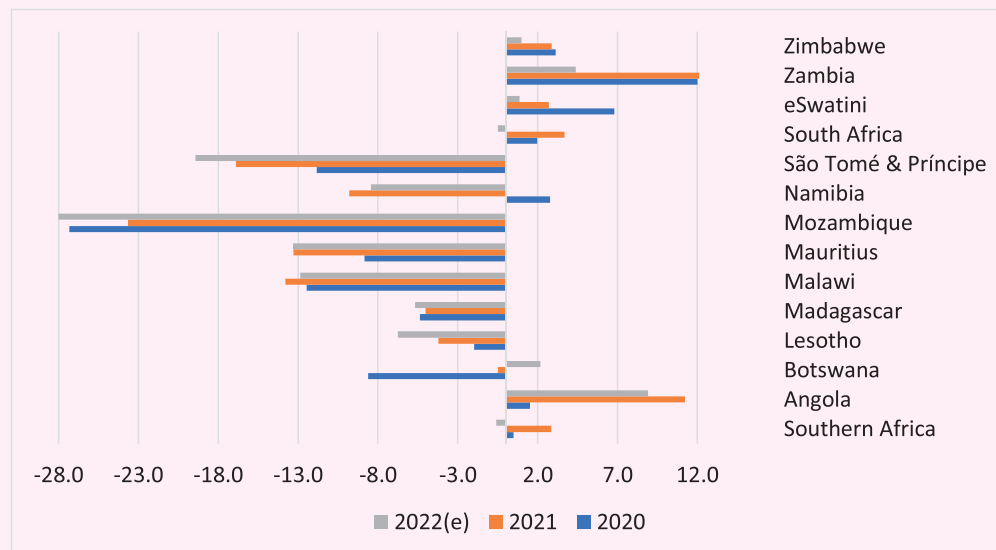
Throughout Africa, weaker external demand and adverse terms of trade weighed on regional exports of non-oil rich countries. Unlike oil rich countries, the worsening of the terms of trades generally put pressure on the current account of most countries. Lower external demands combined with a moderation of global prices of metals, such as copper and gold, exacerbated headwind for many com-

modity exporters while elevated prices for imported fuel, food and fertilizers led to surging spending on imports. These external factors largely explain the deterioration in the external balances of many non-oil exporting countries. In the Southern Africa region, Botswana and Namibia benefitted from a rebound in the diamond sector as western buyers shunned Russian stone⁵⁰ while Zambia faced the largest deterioration in its current account amid declining copper production. (Box 1.2.).

⁴⁹ Ranking countries from the highest to lowest deterioration of their current account, those countries are Mozambique, Zambia, South Africa, São Tomé and Príncipe, Lesotho, Angola, Zimbabwe, eSwatini and Madagascar. However, the large widening of the total current account deficit in Mozambique is due to one off imports related to LNG projects.

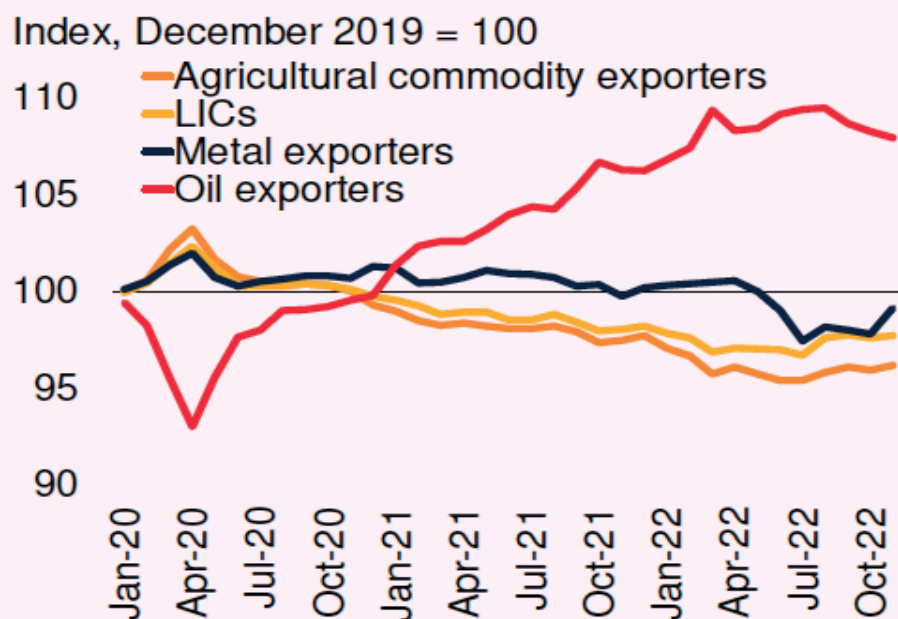
⁵⁰ South Africa didn't benefit from the steady increase in global demand for diamond jewelry as production as the country was transitioning from open pit to underground production.

Figure 1.12: Current Account Balance by country 2020-2022 (as % of GDP)



Source: AfDB Statistics Department, April 2023

Figure 1.13: Evolution of Commodity terms of trade



Source: Global Economic Prospects, January 2023, The World Bank

Mozambique realized the largest improvement in its current account balance (excluding its megaproject) due to lower-than-expected trade deficit. Mozambique suffers from a structural deficit of its current account. The country typically runs double digit deficit over 30 percent over 2014-2018, then in the 20 percent range over 2019-2021. In 2022, the deficit (excluding megaproject) dropped by 10-points reaching -12.7 percent as the

increase in imports, especially fuels, was compensated by higher exports for minerals and foods. Higher price and volume also increased exports of electricity and coal. The widening of the total current account deficit is due to imports related to LNG projects. In the first quarter of 2022, the country faced the huge one-off import of the Coral LNG off shore platform (estimated at 25 percent of GDP) which is fully financed through project financing. The start of

Box 1.2: Trends in the current account of countries classified as resource-rich in Southern Africa

Oil rich country

Angola, the only oil rich countries, benefitted from high oil prices which helped the country maintain a large current account surplus. This export windfall triggered a large appreciation of its currency which further alleviated the cost of import bills.

Metal and mineral rich countries

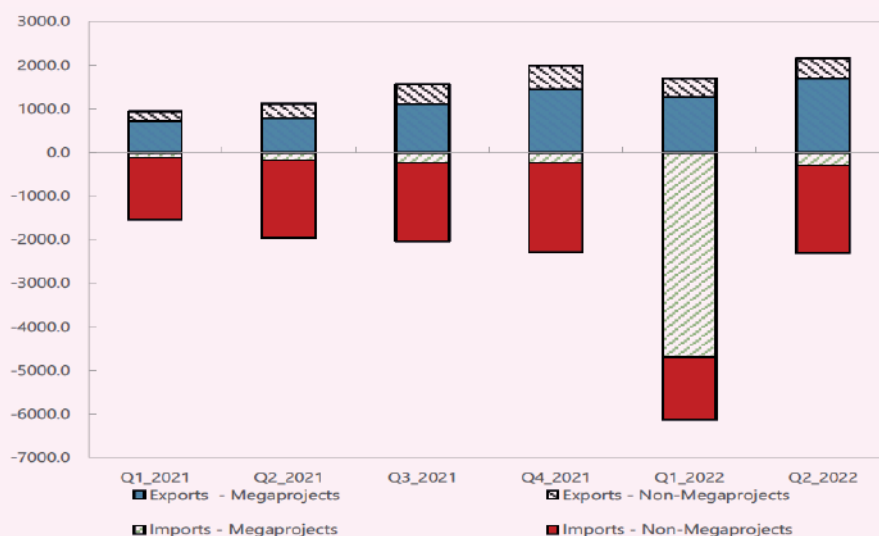
In South Africa, sluggish demand in major trading partners and softening price of metal led to slowing export growth. Exports suffered also from power cuts and the flooding in Kwazulu-Natal province which caused huge damage at the Durban port. The current account balance became in deficit at 0.5 percent in 2022, down from a 3.7 percent surplus in 2021.

Zambia faced the largest deterioration of its current account amid declining copper production. The current account which continued to record a tiny surplus, fell by 7.7 percentage point between 2021 and 2022. On the export side, mining is responsible of roughly three quarters of the country export earnings. Zambia, one of the largest copper producers in Africa, is heavily reliant on the copper mining industry but the country continues to face difficult operating conditions and business challenges on the copper belt. Recent data, published by the Chamber of Mines noted that copper production further fell by 4.49 percent between November 2021 and November 2022, after a 4.5 percent drop in production for 2021. While export earnings were ebbing, the country faced an increasing import bill, linked to soaring energy and food prices, which triggered the sharpest drop in the current account surplus within the region.

In Namibia and Botswana, the current account balance improved as both countries benefitted from solid diamond exports. In both countries, the increase in exports is largely linked to an increase in diamond production combined with favorable terms of trade owing to subdued diamond supply in Russia. In Botswana the current account balance which increased by 2.7 percentage point, recorded a surplus (+2.2 percent) after having been in deficit since 2019. Botswana rough diamond sales rose by 22 percent from January to November 2022 according to IDEX online. In Namibia, the current account deficit declined by 1.4 percentage point. Namibia posted the sharpest increase in diamond production - an exceptional 46 percent increase from 2021 according to latest figures released by De Beers. Production was boosted by the new diamond, recovery vessel, the Benguela Gem, inaugurated in March 2022 and the treatment of higher-grade ore at the land operations. The consolidated average realized price per carat during 2022 was US\$197, up 35 percent in 2021, according to the Anglo-American Production Report Q4 2022. Nevertheless, the current account balance remains in deficit (-8 percent) following higher fuel import payments and declining SACU receipts.

Source: Reliefweb.int

Figure 1.14: Mozambique -Trade in goods (million USD)

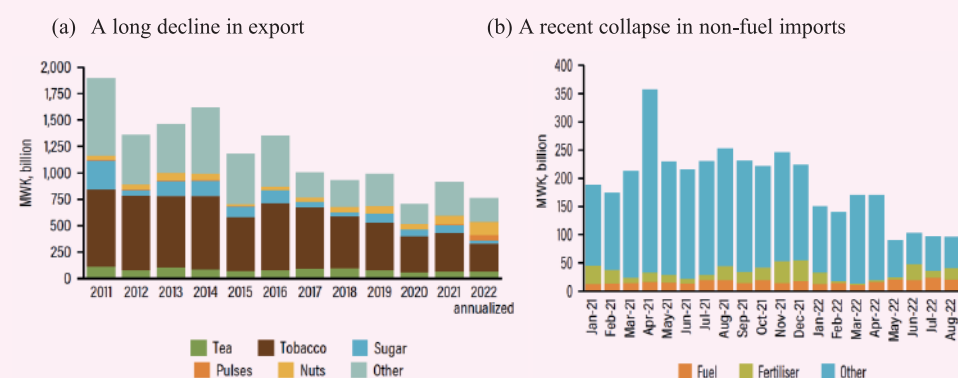


Source: IMF, Report 22/358, Dec 2022

LNG production in November 2022 is expected to meaningfully contribute to real GDP growth from 2023 onwards.

Malawi faced a balance of payment stress. While tobacco exports have steadily fallen, other leading export sectors failed to generate

Figure 1.15: Malawi confronting a balance of payment crisis



Source : Malawi Economic Monitor, The World Bank, December 2022

adequate inflows of foreign exchange (figure 1.15 a). In the face of acute foreign exchange shortages and an exchange rate misalignment, imports have declined dramatically including for priority commodities such as fuel, fertilizer, medicine and food (figure 1.15 b). The system of foreign exchange allocation sought to prioritize support for selected essential imports notably fuel import financing at the expense of other imports. But despite these efforts, there have been widespread reports of shortages of essential goods. The collapse of imports led to a small trade surplus (0.1 percent in August). Despite a decline during the second semester

of the prices of urea and oil – two major common imports, Malawi could still buy less than half of its commodity imports with its commodity exports by the end of the third quarter of 2022⁵¹.

1.6.3 The 2021 issuance of Special Drawing Rights (SDR) has eased pressure on the fiscal and current account balances

The Southern Africa region secured 5,44 billion SDR from IMF general SDR allocation in 2021. In August 2021, the IMF issued a

⁵¹ Malawi Economic Monitoring, Dec 2022. The World Bank

historic US\$650 billion in Special Drawing Rights (SDRs) to its member countries to boost global liquidity, build confidence, foster recovery and stability of the global economy. The allocation was skewed towards South Africa, the largest economy of the Southern Africa Region. South Africa accounted for nearly half (45 percent) of the region total SDR allocation. The three highest recipients beyond South Africa (Zambia, Zimbabwe and Angola) received slightly over one third (36 percent) of the total SDR allocated to the region. Given the high concentration of the allocation in these four countries, the remaining nine countries received only 19 percent.

The SDR allocation was mainly used for enhancing the reserve position, helping debt repayment and providing fiscal support (table 1.2)

- The use of SDRs allocations helped bolster reserves. As several countries faced an increase in their import bills, especially fuel and food as well as portfolio outflows, the SDRs allocation was used to support international reserves. (Angola, Botswana, Lesotho and Zimbabwe)

Table 1.2: Use of SDR allocation per country

Countries	2021 SDR Allocation (billion SDR)	Share of total SDR allocated to the region	Use	Type of use
Angola	0.71	10.9%	The latter savings will be partly driven by the authorities' plans to use half of the recent SDR allocation (of about \$1 billion) for fiscal financing and rebuilding liquid fiscal buffers (with the rest remaining in BNA reserves).	Reserves and Fiscal support
Botswana	0.19	2.9%	While diamond exports rebounded, imports (especially of fuel, food, and diamonds) also increased and, together with large portfolio outflows, contributed to a slight fall in reserves to USD 4.8 billion (6 months of imports or 20% of the standard ARA metric) at end-2021, despite the recent SDR allocation of USD 189 million and positive valuation effects.	Reserves
Eswatini	0.08	1.2%		
Lesotho	0.07	1.1%	The authorities did not indicate plans to access SDRs through on-lending. However, the SDR allocation indirectly helped to somewhat ease fiscal financing constraints as government deposits—otherwise used to support international reserves—could be partially drawn down to meet public spending needs.	Reserves
Malawi	0.13	2.0%	The SDR allocation in 2021 was used for repayment obligations and did not help build reserves or finance productive investment needs. SDR allocations, about USD190 million, of August in 2021 was converted to U.S. dollars immediately and used for repayment obligations within months.	Debt repayment
Mauritius	0.14	2.2%	NA	
Madagascar	0.23	3.5%	With external budget support running out in 2022, the SDRs allocation made by the IMF on August 23, 2021, will be used to finance investment projects, including improvements to road infrastructure and water supply in the south.	Fiscal support

Mozambique	0.22	3.4%	Use of US\$163 million of the 2021 SDR allocation reduced pressure on the debt market and interest costs, with limited net issuance of longer-term bonds; use of a further US\$147 million of the SDR allocation in 2023 will support spending on social protection (including displaced people) and alleviate domestic financing pressures.	Fiscal support
Namibia	0.18	2.8%		
SA	2.92	45.0%	The August 2021 SDR allocation (\$4.2 billion) increased official reserves by as much and is expected to be used to repay maturing debt obligations in the medium term	Debt repayment
Zambia	0.94	14.5%	Zambia's SDR allocation has supported social spending in 2022. The authorities plan to use about half of the allocation to support the 2022 budget, with the remaining half divided equally between 2023 and 2024.	Fiscal support
Zimbabwe	0.68	10.5%	Within a severely constrained policy space, the authorities proactively responded to the COVID-19 pandemic. Pandemic-related spending, (2% GDP), in 2020 was financed by reallocation within the budget. In 2021, such outlays represented about 1.6% of GDP, partially financed by the SDR allocation. The budget envisages an expansion of the social safety net and food security programs, including the cash transfer program to vulnerable groups, which would be partly financed by the SDR allocation (0.5% GDP). The SDR allocation plan foresees that US\$280 million (29.2 %) will be retained as foreign reserves and US\$222 million (23.2%) will be kept in a contingency fund to mitigate against the COVID-19 pandemic and other exogenous shocks.	Reserves and Fiscal support

Source: <https://www.imf.org/en/Topics/special-drawing-right/SDR-Tracker>

- The use of SDRs allocations contributed indirectly to support emergency spending and finance the fiscal deficit. In Zambia half of the allocation helped support social spending while the other half contributed to budget support. In Madagascar, the allocation contributed to finance improvement in road infrastructure and water supply in the South.

- The use of SDRs allocations was also used for repayment of debt obligations (Malawi, South Africa)

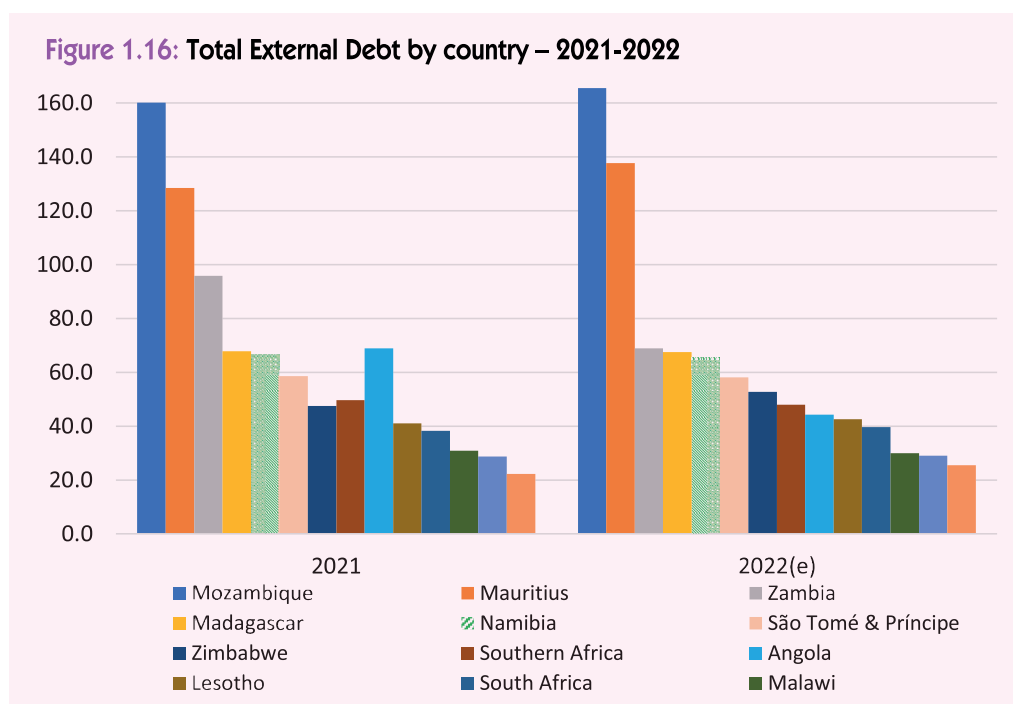
1.6.4 Debt vulnerabilities are increasing

Regional indebtedness in SSA is now approaching levels last seen in the early 2000s before the implementation of the Heavily Indebted Poor Countries Initiative.

The combination of high debt levels, lower global growth, and higher borrowing costs

exacerbate the vulnerability of economies throughout Africa. An already high level of the debt predated the COVID 19 pandemic. In 2020, public debt rose sharply as government stepped-up public spending to address the effects of the health crisis and its ensuing economic impact. In order to alleviate the burden of servicing, official creditors provided debt relief through the G20 Debt Service Suspension Initiative (DSSI). However, this initiative ended by end 2021. Russia invasion of Ukraine in February 2022 added new costs in countries that were already lacking fiscal space. As discussed in paragraph 1.3., disruption in the supply chain, notably food and fuel, led to high inflation which triggered a synchronous policy tightening. The end of debt relief combined with rising interest rates increased significantly sovereign borrowing costs, narrowing the scope for government spending and increasing debt vulnerabilities. Some low-income countries

Figure 1.16: Total External Debt by country – 2021-2022



Source: Africa Development Bank statistics, April 2023

(LICs) find it very challenging to continue servicing their debt. The IMF estimated that 19 out of the 35 LICs are in debt distress or at high risk of distress⁵². Countries facing large sovereign debts and sizable currency depreciations against the U.S. dollar especially at short maturities or denominated in foreign currency are facing greater risk of financial stress.

External debt is forecast to remain elevated across the Southern Africa region.

There is a modest decline in the level of external debt as a share of GDP between 2021 and 2022, from 49.6 to 48 percentage points. The level of external debt remains higher than the pre-pandemic levels (close to three points above the average debt level over 2014-2018). Overall debt exposure is heterogeneous among southern African countries. Five countries have external debt level beyond the threshold of 60 percent of GDP. Among them – Mauritius and Mozambique have triple digit debt to GDP ratios. (figure 1.16). The latest IMF/WB debt sustainability analysis⁵³, concluded that five out of the seven LICs in the southern region are in debt distress. These countries are Malawi, Mozambique, São Tomé, Zambia and Zimbabwe.

Debt dynamics in Southern Africa were partly linked to movements in commodity prices.

In Angola, the oil windfall generated a fiscal surplus which alongside the strengthening of the Kwanza drove down external debt. The country external debt to GDP ratio

declined from 90.9 percent of GDP in 2020 to 44.2 percent in 2022. This is among the largest decrease recorded in 2022 in the southern Africa region (-24.7 points of GDP). These successful developments have enabled Angola to successfully tap global bond markets in April 2022.

Urgent debt resolution is needed for countries in debt distress amid large external arrears and widening sovereign spread exacerbated by a thin domestic market

Zimbabwe continues to face unsustainable debt levels. External public debt which surpassed 100 percent of GDP in 2020, fell in 2021 reflecting the impact of the sharp parallel exchange rate depreciation on the GDP⁵⁴. In 2022, external debt stood at 52.8 percent of GDP. Over 70 percent of the external debt remains in arrears which constrains government access to concessional loans. In the absence of debt resolution, Zimbabwe will remain in debt distress. In 2022, Zimbabwe utilized a total US\$582 million of IMF's additional SDR allocation, out of a total of US\$960 million allocated in August 2021. In 2022, the government has started implementing the Arrears Clearance, Debt Relief and Restructuring Strategy and resumed token payments⁵⁵ to IFI and Paris debt creditors with a view to resolve the long outstanding debt and external arrears with creditors.

⁵² Regional Economic Outlook : Sub Saharan Africa, October 2022, IMF.

⁵³ With the exception of Zimbabwe for which the latest DSA available dates from 2020. <https://www.imf.org/external/pubs/ft/dsa/dsalist.pdf>

Zambia urgently needs comprehensive debt treatment. Deep debt restructuring and significant fiscal adjustment are required to put the Zambian economy on a sustainable path. By end 2020, Zambia became the first SSA country to default on its Eurobonds since the onset of the COVID-19 global pandemic. Throughout 2019-2021, since access to external funds was shrinking, the Zambian Government financed budget shortfall through the domestic market, relying increasingly on short term debt at rising interest rate. Domestic debt represented 66 percent of total public debt by end 2021. The 2021 DSA indicated that all external debt burden indicators exhibit large and persistent breaches of their prudent thresholds through the medium term and beyond under both baseline and stress scenarios. In February 2021, the Government of Zambia requested a debt treatment under the G20's Common Framework and launched fiscal and structural reforms to restore fiscal and debt sustainability. The 2022 budget reflected significant fiscal adjustment which enabled the government to reduce central bank lending by half during the first quarter. Though Zambia is implementing agreed reforms, protracted delays from official bilateral creditors to discuss and finalize debt treatment under the G20's Common Framework have increased uncertainty and dampened the speed of economic recovery, as shown in the sharp widening of credit spreads. By end 2022, the external debt to GDP ratio was estimated at 68.8 percent.

Mozambique is also at high risk of debt distress and continues to face high debt service costs and limited access to global financial markets. Yet according to the IMF, "the debt is assessed to be sustainable in a forward-looking sense considering prospective revenues from LNG projects and the structure of related debt". In 2022, the government refrained from contracting any new non concessional debt or extend new debt guarantees and is working to resolve pre-HIPC arrears with five countries. The IMF noted that reliance on short-term T-bills has increased (with a net issuance of 1.9 percent of GDP from 1.3 in 2021) while the use of US\$163 million of the 2021 SDR allocation reduced pressure on the debt market and interest costs. Domestic financing is estimated at 3.8 percent of GDP, broadly unchanged from 2021. Given the significant exposure of commercial banks to sovereign debt, the strategy aims to shift to longer maturities, and attract other types of investors, including pension funds and insurance companies.

In Malawi, both external and domestic public debt are considered unsustainable.

Since 2018, the external debt servicing costs have increased as Malawi turned to commercial lenders at non concessional terms to finance its deficit⁵⁴. Over 2020-2022, the increase in public debt was mostly driven by soaring domestic debt (+ 10 percentage points) in order to finance an expansionary fiscal policy. Though the Government took measure toward fiscal consolidation in 2022 to bring debt down on a more sustainable path, the fiscal deficit remains high therefore still requiring an increase in public debt in the short term. Over FY2022-23, public domestic debt has increased by 11 percent amid a rise in government borrowing yields. Simultaneously, foreign currency liquidity challenges put pressure on the external debt position as public institutions have been contracting foreign exchange facilities for the importation of strategic commodities. The Government is now seeking to restructure its external debt to reduce debt servicing costs.

1.7 MOUNTING CHALLENGES OF POVERTY, INEQUALITY, FOOD INSECURITY, INFLATION AND CLIMATIC SHOCKS

1.7.1 Higher food and energy prices combined with the weakening of global demand drove more people into poverty

Table 1.3: Real GDP per capita growth in Southern Africa, 2020-2022

Real GDP Growth per Capita	2020	2021	2022(e)
Angola	-8.9	-2.1	-0.2
Botswana	-10.6	10.2	4.2
Lesotho	-6.9	0.3	1.5
Madagascar	-9.7	3.3	1.8
Malawi	-1.8	-0.4	-1.8
Mauritius	-14.7	3.3	8.7
Mozambique	-4.1	-0.6	1.0
Namibia	-9.8	1.9	3.2
São Tomé & Príncipe	1.2	-0.2	-1.0
South Africa	-7.6	3.9	1.2
Eswatini	-2.5	6.9	2.8
Zambia	-5.8	1.7	0.2
Zimbabwe	-9.9	6.4	1.0

Source: Africa Development Bank statistics, April 2023.

⁵⁴ Zimbabwe Article IV, April 2022. IMF.

⁵⁵ Zimbabwe Article IV, April 2022. IMF.

⁵⁶ Commercial lenders held 23 percent of external debt (equivalent to 9.8 percent of GDP). Malawi Economic Monitor, Dec 2022. The World Bank.

Per capita income growth for most countries in the Southern Africa region is short of the growth rate needed to reverse the increase in poverty induced by the pandemic and to put the region on track to meet SDG1. As weak global demand and tighter monetary policies have slowed down GDP recovery, most countries within the southern Africa region registered dismal per capita income growth in 2022 (table 1.3). With the exception of Botswana and Mauritius, all countries had GDP growth rate per capita below 2 percent of GDP, with three countries recording negative per capita income growth. In Angola, despite a favorable outlook in 2022, per capita income growth is estimated to remain negative (-0.2) due to high population growth, estimated at 3 percent. On the back of economic underperformance, Malawi per capita GDP growth rate fares worst registering a decline of -1.8 percentage point.

By and large, high poverty and inequality remains endemic across the Southern Africa region. Table 1.4. classifies the countries along their income level and use the relevant poverty threshold for each group. Madagascar and Zimbabwe have the highest poverty level within their income group. Poverty rate is hovering beyond 60 percent in South Africa and Botswana. Within their sub-group and within the region, Mauritius has the lowest rate of poverty incidence. South Africa, Botswana and Namibia figure among the countries most unequal in the world.

Sluggish growth performances have also weighed on employment. According to ILO statistics, South Africa had the highest rate of unemployment in the world with a rate of 28.8 percent, (in 2021) while Botswana also figured on the list of countries recording very high unemployment rate of 25.4 percent during the fourth quarter of 2022 (box 1.3). In particular, unemployment among the youth remains the biggest problem in the region with countries such as South Africa having youth unemployment rate of about 63 percent in 2023.

Higher global energy and food prices in 2022, have exacerbated the pandemic-induced surge in extreme poverty and is likely to have widened the level of inequality recorded in Southern Africa. Inequality within Southern African countries has widened as net food and oil importers were more severely affected by rising fuel and food prices. Inflation is a regressive tax which disproportionately penalizes the poor. Hence, within countries, the gap between rich and poor is likely to have broadened as elevated food prices tend to affect

Table 1.4: Poverty incidence and Inequality across countries classified according to their income status – 2021

	Poverty headcount	Gini	Most recent available data
Lower income country (\$2,15)			
Zambia	61.4	57.1	2015
Mozambique	64.6	54.0	2014
Malawi	70.1	38.5	2019
Madagascar	80.7	42.6	2012
Lower middle-income country (\$3,65)			
Sao Tome and Principe	44.8	40.7	2017
Angola	52.9	51.3	2018
Lesotho	54.6	44.9	2017
Eswatini	58.9	54.6	2016
Zimbabwe	64.5	50.4	2019
Upper middle income (\$6,85)			
Mauritius	13.5	36.8	2017
Namibia	57.3	59.1	2015
South Africa	61.6	63.0	2014
Botswana	63.5	53.3	2015

Source: WDI, The World Bank

more the poorest households than the richest. Indeed, as household income grows, its share of food expenditure tends to decline. Moreover, household are likely to adapt harmful coping strategy in face of rising food and energy prices which increase their vulnerability, further exacerbating the divide between the rich and the poor. As Government operates under shallow fiscal space and mounting debt in the aftermath of the pandemic, they often lacked the capacity to implement substantial social protection program to support the poorest. For example, IFPRI employed an economy-wide model in Malawi to estimate the effects of global price shocks on different sectors, households, and workers. The study found that a combination of negative terms-of-trade shock and rising import costs are likely to have led to a 1.4 percent drop in real GDP and an increase in unemployment by 3.1 percent. Household consumption likely fell by 5.8 percent, and poverty headcount increased by 2.4 percentage points, indicating that an additional 442,000 people fell below the poverty line. Similarly, in Zambia, national consumption spending is simulated to decline by 2.4 percent, and the poverty headcount rate to rise slightly by 0.9 percentage points, indica-

Box 1.3: A snapshot of poverty and employment trends since 2015 in some Southern African countries

South Africa: Real GDP fell at the level it reached a decade ago driving poverty rate up at around 63%. An additional 1.5 million people are poor relative to 2019. Power shortages and structural constraints are weighing on job creation. Only 38.7% of the working age population is employed. Job losses are higher for the more vulnerable which exacerbate an already extreme level of inequality.

Angola: Despite a significant growth rebound, a stagnating GDP per capita has left poverty level unchanged in 2022. To fight poverty, the government has rolled out of a social protection registry and a targeted cash transfer program (Kwenda) in 2020. Registration reached over 800,000 households by mid-2022.

Zimbabwe: Poverty remains very high around 65% using the LMIC threshold and above 40% using the LIC threshold. Most of the poor which rely on subsistence agriculture, are very vulnerable to climate shocks. Modest poverty gains are also threatened by inflationary pressure which climbed back to triple digit in 2022. Limited fiscal space limit government ability to alleviate the impact of rising food and fuel prices on the poor.

Zambia: Poverty increased amid diminishing policy space and adverse weather shocks between 2015 and 2021. Since 2020, the government is implementing a large fiscal consolidation estimated at 8.5 percent of GDP. According to the IMF and World Bank, the adjustment should have a muted impact on growth poverty as it aims at cutting spending in waste and rents while increasing social spending. Poverty should hover at 62.3 percent in 2022.

Namibia: The country records a high level of poverty (63%) and inequality (59.1) for an UMIC. Insufficient private sector investment and large skill mismatches constrain the creation of pro-job growth. In the absence of broad-based growth, unemployment is expected to remain elevated and above pre-pandemic levels (which was already very high at 19.9% in 2018 according to ILO stat). Given the low rate of growth of real GDP per capita, poverty is expected to hover at 63%.

Mozambique: Poverty reduction has stalled since 2018 as the predominance of subsistence agriculture together with capital intensive megaprojects with limited economic linkages are not supporting pro-poor growth and jobs. About two third of the population is poor and mostly localized in the northern provinces. The high level of inequality – with a Gini coefficient estimated at 54 - exacerbates fragility and conflict. Over 2022, inflation which reached double digit, has been particularly harmful for the poor. Poverty is expected to hang over at 63% over 2022-2024. In order to reduce poverty, the government is committed to enhance social protection, increase overtime the number of beneficiaries and expand the social protection program.

Mauritius: Poverty incidence (using UMIC threshold) is the lowest among the Southern African countries. The pandemic had a devastating impact on Mauritius with the halt of tourism arrivals. It is estimated that poverty increased by over 5 percentage points in 2020 (after having declined by 8 percentage point between 2012 and 2019). By 2022, the poverty incidence has fallen back to 14%, i.e. 3 points higher than its level before the pandemic.

Malawi: The share of people living with less than \$2.15 per day averages 70%, the second highest in the region after Madagascar. On the back of economic underperformance and adverse climatic shocks. Poverty is projected to increase by at least half a point in 2022 as low yields affect farming households, while continuous inflationary pressure is increasingly burdening urban households.

Madagascar: Poverty is the highest in the Southern Africa region with 8 out of 10 people living under the LIC threshold. The COVID-19 shock reversed more than a decade of modest gains in poverty reduction. In 2022, high inflation and new waves of COVID-19 halted a slow economic recovery. Hence the poverty rate is projected to remain above 80% until 2024.

Botswana: The COVID-19 crisis has stalled poverty reduction, and inequality remains high. According to the Botswana Quarterly Multi-Topic Survey Quarter 4, 2022, unemployment rate (persons aged 15 years and above) is closed to historic highs at 25.4% in Q4 2022. Poverty under the UMIC poverty line is expected to decline to 62.7 percent in 2022 down from 64.6 in 2020.

Source: *The Series of Country Outlook, Oct 2022. The World Bank*

ting that 160,000 more people are likely to fall below the poverty line.

1.7.2 An increasing vulnerability of food systems amid the volatility of global food prices and adverse climatic events

Several countries face a severe level of food insecurity. Overall, food insecurity and undernourishment are prevalent within the region. The percentage of children under age 5 who were stunted (height for age) exceeded 35 percent in six countries. The situation is likely to have worsened as for most countries the most recent estimation predates the COVID 19 pandemic (table 1.5). In 2021, according to FAO data, 11 percent of the population was facing severe food insecurity (figure 1.17). The situation is likely to have further worsened in 2022 as imported food prices were skyrocketing. The six Southern African countries⁵⁷ that were analyzed in 2022 under the Integrated Food Security Phase Classification (IPC), recorded that more than 14 percent of the population were experiencing crisis or worst (phase 3 or above). Though the Southern Africa region fares better compared to the other SSA regions, this masks wide disparities among countries. Madagascar faces the worst level of food insecurity with 32 percent of the population in crisis (level 3) and 4 percent in emergency (level 4). Likewise, one in five Malawians will face crisis level acute food insecurity during the 2022/23 lean season amid soaring price for staple foods and lower maize harvest.

Extreme weather events have further aggravated the level of food insecurity in 2022.

In Madagascar, food insecurity worsened as the areas of the Grand Sud-Est were affected by cyclones Emnati and Batsirai in February 2022. The government failed to provide significant support in terms of food assistance and livelihood restoration, which resulted in a persistent high level of acute food insecurity in these areas. In Zambia, climatic shocks which have occurred during the flowering and grain filling periods for most staple crops (between December 2021 and March 2022) have also contributed to worsen Zambia's food insecurity. In Lesotho, excessive rains received from October 2021 to March 2022 resulted in low crop production compared to 2021 and the most recent five-year average. In Angola, the south of the country is increasingly impacted by climate change. A multi-year severe drought drove 1.3 million to suffer from food crisis.⁵⁸ In Malawi, adverse climate event is among the core factors responsible for the slowdown in growth in 2022. The late onset of the rainy season led to lower yields for smallholder and commercial farmers which also suffered from damaged crops after the country was struck by two severe tropical crops. The World Bank Country Climate Development Report for Malawi found that in the absence of policies and investment to support adaptation, climate change shocks could reduce GDP by up to 9 percent by 2030 and push another 2 million people into poverty by 2030.

⁵⁷ For countries analyzed by IPC in 2022, the percentage of the population experience food crisis or worse (level 3+) were for Namibia (14%), Madagascar (36%), Zambia (14%), Lesotho (22%), Malawi (20%), Eswatini (22%).

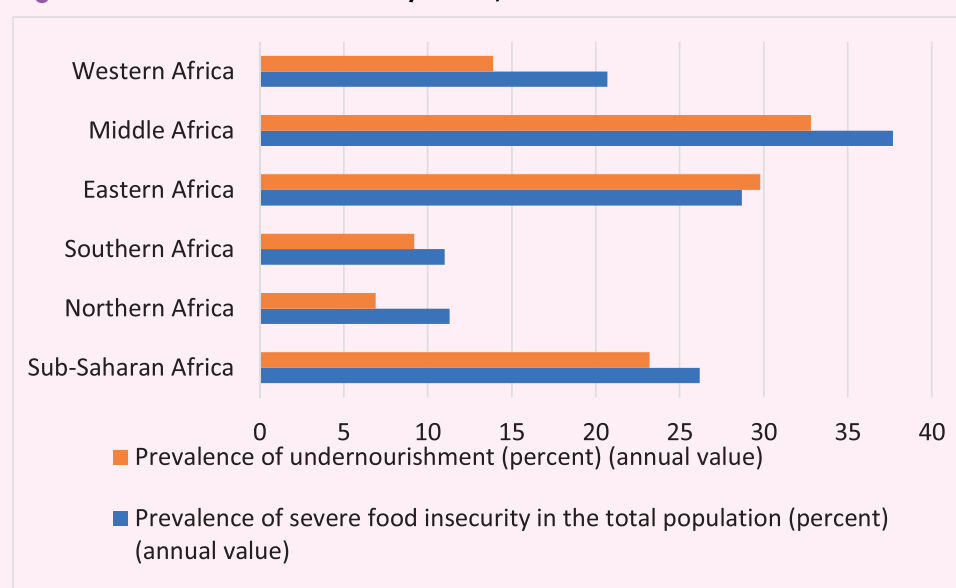
⁵⁸ Angola outlook, Oct 2022. The World Bank

Table 1.5 : Prevalence of stunting

Southern African Countries	Prevalence of stunting, height for age (% of children < 5)
Sao Tome & Principe (2019)	11.7
South Africa (2017)	21.4
Namibia (2013)	22.7
Zimbabwe (2019)	23.5
Eswatini (2014)	25.5
Zambia (2018)	34.6
Lesotho (2018)	34.6
Malawi (2020)	34.9
Mozambique (2020)	37.5
Angola (2015)	37.6
Madagascar (2021)	39.8
Botswana	..
Mauritius	..

Note: Most recent data available in parenthesis

Source: UNICEF, WHO, World Bank: Joint child malnutrition estimates

Figure 1.17: Severe food insecurity in SSA, 2021: Prevalence

Source: FAOSTAT 2022 database

Household's coping strategies to address food security are often detrimental. Response can lead households to “reduce the amount and frequency of food intake or going a whole day without food, borrowing food and money, food aid, and migration, among others. Some of these coping mechanisms increase the risk of undernourishment, malnutrition, and related diseases”⁵⁹. A 2022 survey conducted by the World Bank at the household level has revealed that in Mozambique and São Tomé and Príncipe, the proportion of households worrying about food security exceeded 70 percent. More than half of the households had a member who skipped at least one meal. In Mozambique, close to 30 percent of households reported having a member who went without eating for a day.

1.8 MEDIUM-TERM ECONOMIC OUTLOOK AND RISKS

This section assesses the medium-term economic outlook and risks for Southern Africa. The global fight against inflation as well as Russia's invasion of Ukraine as well as climate-induced risks will continue to weigh on growth in 2023. According to the IMF's World Economic Outlook update of end January 2023, global growth is projected to fall from an estimated 3.4 percent in 2022 to 2.9 percent in 2023 before picking-up to 3.1 percent in 2024. Global inflation is expected to fall from 8.8 percent in 2022 to 6.6 percent in 2023 and 4.3 percent in 2024, still above the pre-pandemic (2017–19) levels of about 3.5 percent. Yet, key downside external risks could dampen growth recovery should Russia's invasion of Ukraine and climate change escalate, further geopolitical fragmentation may hamper economic progress and tighter global financing conditions worsen debt distress.

1.8.1 The Southern Africa region's medium-term outlook remains modest reflecting subdued performance in South Africa

Real GDP growth

The recovery of GDP growth that was halted in 2022 is projected to further slowdown (1.6 percent) in 2023 before slightly improving (2.7 percent) in 2024. In 2023, Southern Africa is the only region faring worse than the average for SSA. In 2024, the region's growth rate should slightly pick-up, though still posting the worse growth performance across the five sub-regions. Nevertheless, the regional growth rate is improving while it is expected to decrease in the oil exporting

regions namely central and northern Africa. (figure 1.18⁶⁰)

Given its weight in the regional economy, South Africa is dragging down overall regional growth. In South Africa, growth should weaken further to 0.2 percent in 2023 reflecting weaker activity in major trading partners, further domestic policy tightening as well as structural bottlenecks in particular electricity supply shortages which restrain industrial output and activity in other sectors. Growth should pick-up to a still sluggish level (1.5 percent) in 2024. Overall, South Africa is the worst performer in the Southern Africa region over 2023-2024 (table 1.6.). Civil unrests, natural disasters such as flood and droughts, local infestations, renewed anti-immigrant protests, a cost-of-living crisis, and the electricity crisis will all hamper economic growth and social cohesion.

With the exception of Mozambique, no countries are considered as “good performers”. According to the criteria used in the AfDB MEO report, in 2023, no countries will be classified as “good performers” while in 2024 only Mozambique will be in this category. Within the “fair performers”, only one country - Mauritius - should have growth rate within the 5 percent range in 2023. In 2024, the two best “fair performers” should be Madagascar with a 5.7 percent growth rate, followed by Eswatini (4.9 percent)” has to be inserted in text. This is also highlighted. There are also a number of places where ‘October’ or ‘December’ are short-handed as ‘Oct’ or “Dec’ respectively. This should be correctly as such shorthand may not be translated in French.

Growth recovery should pick-up in most countries by 2024. In 2023, the recovery will remain tepid with real GDP growth rate rising in half the southern african countries but decelerating in the other half. Real GDP growth is expected to increase by one point or above in Malawi (+1.2 points), Mozambique (+1 point) and Zambia (+1 point). By contrast in 2024, growth should pick-up in all countries with the exception of Mauritius (-0.8 points) and Namibia (-0.5 points) with the largest increase occurring in Mozambique (+3.5 points) and Eswatini (+1.4 points).

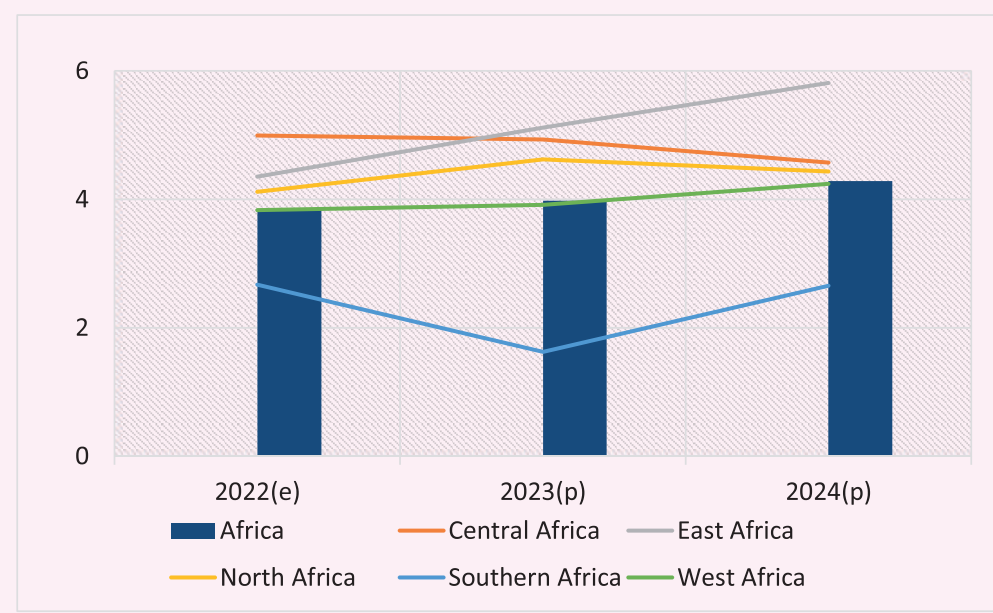
Projected growth differs across countries in the region, reflecting in part a contrasted evolution of the terms of trade and domestic structural issues. Top performers over 2023-2024 will be Mozambique, Madagascar, Mauritius, Eswatini and Zambia (table 1.6). In Mozambique, growth is expected to accelerate from 4.8 percent to 8.3 percent. Growth

The Southern Africa region's medium-term outlook remains modest.

⁵⁹ *Africa's Pulse, October 2022. The World Bank*

⁶⁰ “e” is estimated and “p” is projected in figure 1.18

Figure 1.18: Projection of GDP growth rate (in %) across sub-regions in SSA 2022-2024



Source: Africa Development Bank Statistics, April 2023

will be mainly lifted by an increased demand for liquefied natural gas as Totalenergies-led LNG project should fully resume from 2023 while growth in the agriculture, manufacturing and service sectors should in parallel be boosted by continued demand recovery. In Madagascar, real GDP growth pick-up will be underpinned by a recovery of the mining sector buoyed by higher price of nickel. In Zambia, an improved macroeconomic environment as outlined in the 2023-2025 medium term budget plan coupled with strengthened mining policy and improved electricity supply (supported by new generation capacity at Kafue Gorge) will be the primary drivers of real GDP growth. Mauritius growth should remain strong in 2023 as tourism activities continue to rebound then growth is projected to progressively decelerate to its long term trend over the medium run.

Inflation

Inflation in the Southern Africa region is expected to halve from 12.6 percent in 2022 to 6.7 percent in 2024. Inflation is expected to decelerate in all countries in 2024 (table 1.6). Nevertheless Zimbabwe and Malawi are the two countries which should still record double digit inflation in 2024. The biggest expected deceleration in inflation will be in Zimbabwe from 184.1 percent in 2022 to 36.1 percent in 2024 as the government maintains tight monetary policy and global prices decrease. In Malawi, fiscal consolidation together with a tightening

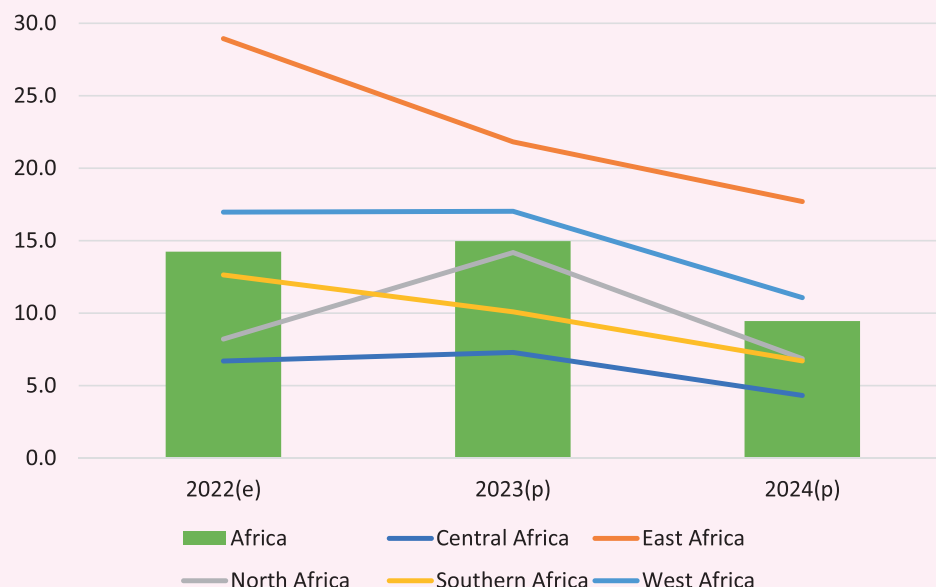
of monetary stance by the central bank should contribute to disinflation toward the single digit range over the medium term. Likewise, Angola will face a large deceleration (around 10 percentage point) in inflation over 2023-2024.

Fiscal balance

The regional fiscal balance is expected to deteriorate between 2022 and 2024. In 2024, the fiscal deficit in Southern Africa (at 4.8 percent) is one point above the average for SSA (3.8 percent) (figure 1.20), with Central Africa recording the lowest overall deficit at 0.7 percent of GDP. Botswana and Zimbabwe are the only countries to register a surplus on average over 2023-2024. More than half the countries⁶² in the region would keep persistent high deficit above 5 percent (table 1.5). Over 2023-2024, the fiscal balance is expected to deteriorate in four countries Angola (3.4 percentage points), South Africa (1.8), Malawi (0.5) and Lesotho (0.8). (table 1.6). Though Angola enjoyed a fiscal surplus in 2022 due to oil revenue windfalls, by 2024 the loss of oil revenues should cause a slight fiscal deficit of -0.4 percent. Conversely, the largest improvement in the fiscal balance should occur in Botswana and Madagascar (3.5 percentage points) followed by São Tomé and Príncipe (2.7 percentage points). Botswana fiscal balance should turn back in surplus in 2024 as the authorities are implementing a sizable fiscal consolidation. On the expenditure side, fiscal consolidation is underpinned by a

⁶¹ with a six percent or above growth rate in 2023

Figure 1.19: Inflation rate (in %) – 2022-2024 across SSA by sub-regions

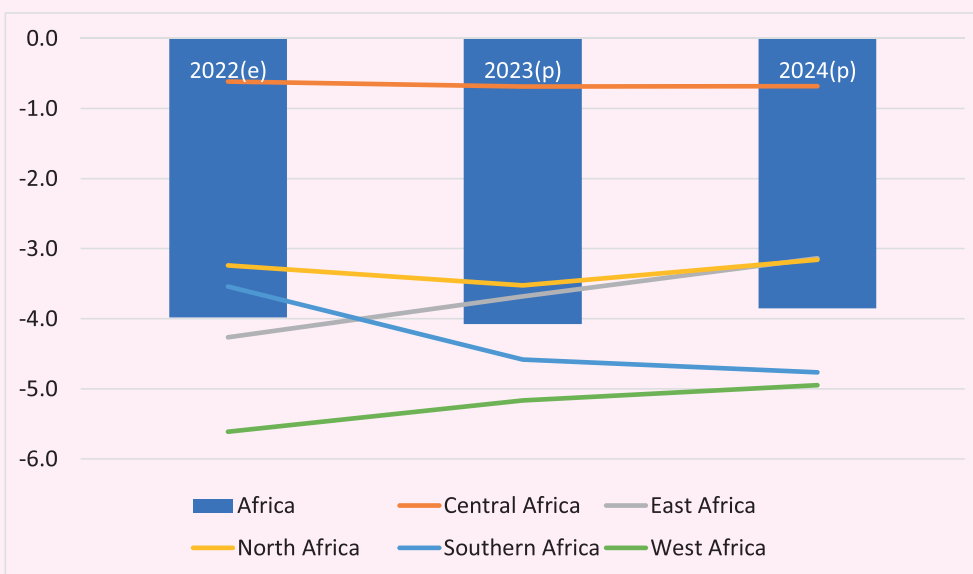


Source: Africa Development Bank statistics, April 2023

lower wage bill, less transfers and subventions and SOE reforms while on the revenue side, higher revenues should be collected thanks to tax measures introduced in FY2021-2022 and higher SACU transfers. In Madagascar, the government scaled-up public investment, (notably in transport and energy), which put pressure on the fiscal deficit in 2022. By 2024, Madagascar should start implementing fiscal consolidation to secure debt sustainability, in-

cluding unwinding recent fiscal measures to mitigate the impact of elevated prices on firms and households. In São Tomé and Príncipe, the fiscal deficit is projected to decline thanks to prudent public expenditure and some austerity measures to contain inflationary pressures together with an improvement in domestic resource mobilization through the introduction of VAT and planned energy reforms.

Figure 1.20: Fiscal balance (in %) over 2022-2024 across SSA by sub-regions



Source: Africa Development Bank statistics, April 2023

Current Account Balance

The regional current account balance plunged driven by lower export earnings and higher import bills. Southern Africa was the only region to record a surplus of its current account balance in 2020 and 2021. But in 2022, the current account balance turned into deficit (figure 1.21). The latter is expected to worsen from 1.5 percent of GDP in 2023 to 2.4 percent by 2024.

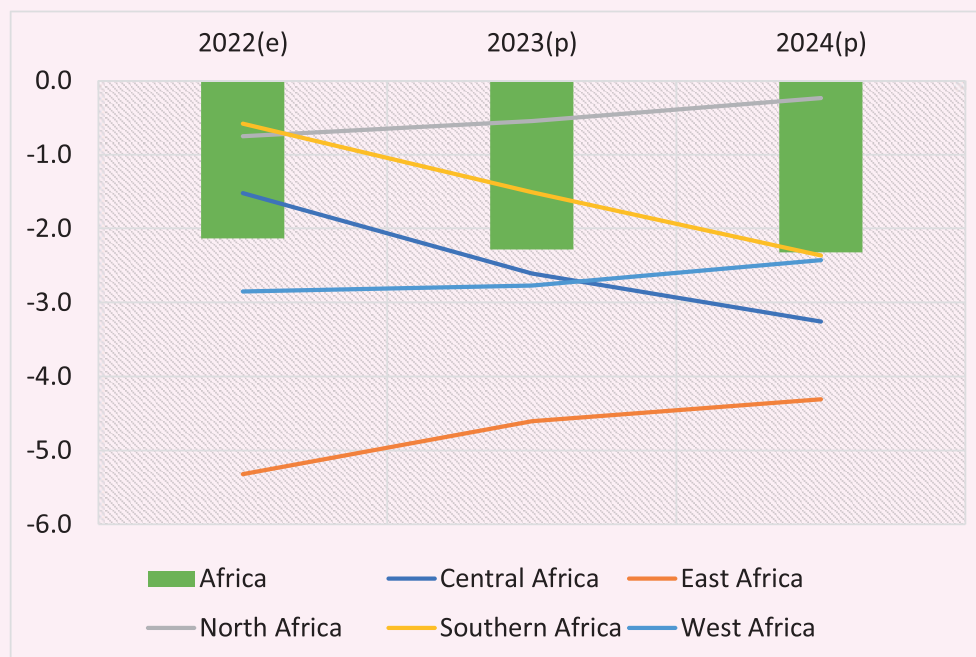
But this masks diverging performance and trends across countries. Six countries are considered as poor performers⁶³ with Malawi, São Tomé and Príncipe, and Mozambique recording double digit deficits. By contrast, four countries – Angola, Botswana, Eswatini and Zimbabwe – record a surplus in their current account balance (table 1.6). Between 2022

and 2024, Mauritius, and São Tomé and Príncipe should record the largest reduction in their current account deficit (of respectively 8.2 and 5.5 percentage points) following a sustained recovery in tourism earnings. Mauritius's current account deficit is expected to contract from 13.3 percent in 2022 to 5.1 percent in 2024. By contrast, Angola should record the largest decrease (5.1 percentage points) in its current account surplus due to a drop in the oil windfall cashed in 2022 and a projected slow exhaustion of oil reserves.

Debt

The risk of debt distress and the burden of debt service remain elevated for most countries within the region⁶⁴. By 2024, the debt burden should exceed 60 percent of GDP in ten out of the thirteen countries. The average debt to GDP ratio should ease in eight coun-

Figure 1.21: Current Account Balance (in %) over 2022-2024 across SSA by sub-regions



Source : Africa Development Bank statistics, April 2023

tries and widen in five countries. The largest decrease is expected to occur in Zambia provided that the debt restructuring process under the G20 common framework is successfully concluded in 2023. As the government continue to successfully implement its structural reforms, this should bolster market confidence over the medium term and enable the debt burden to further ease in 2024. By contrast, within the region, Madagascar and Malawi are expected

to face the largest increase in their debt to GDP ratio over 2023-2024. Madagascar is assessed at a modest risk of debt distress. The increase in debt burden would be partly induced by larger capital spending in infrastructure in the mining and energy sector. In Malawi, public debt is projected to increase due to high fiscal deficits financed through high cost domestic borrowing. In order to bring the economy under a sustainable debt path and increase investor

⁶² Lesotho, Malawi, Mauritius, Namibia, South Africa, Zambia, and São Tomé and Príncipe.

confidence, Malawi needs to succeed in restructuring its debt and engage into a sustained fiscal consolidation process⁶³.

1.8.2 Risks to the outlook

The outlook for 2023 and 2024 is very uncertain as the Southern Africa region remains subject to both external and domestic downside risks.

External Risks

The Southern Africa region prospects are linked to developments in the global economy. The external outlook is clouded with many risks. Several global factors are subject to sizable downside risks that would impact ba-

seline projections.

More persistent global inflation could prompt significantly larger monetary tightening with substantial spillovers effect in the region. A larger increase in global interest rates could further slow global demand and trigger a strong US dollar which would cause imported inflation within the region as many traded goods are invoiced in USD. The increase in interest rate coupled with a strengthening US dollar could further increase borrowing costs prompting a sharp increase in debt service burden and increased difficulty in accessing international borrowing market. As countries lose access to international market, government will increasingly rely on domestic bank financing. Should governments fall in debt distress under

Table 1.6. : Outlook for key macroeconomic indicators, average 2023-2024

Average 2023-2024	Real GDP growth rate (%)	Inflation (%)	Fiscal Balance % GDP	Current Account Balance (% GDP)
Southern Africa	2.2	8.4	-4.7	-19
Angola	3.7	11.4	-0.1	4.1
Botswana	3.9	7.0	1.5	3.4
Lesotho	2.3	6.0	-5.3	-55
Madagascar	4.6	8.9	-3.3	-55
Malawi	2.7	19.1	-7.8	-120
Mauritius	4.6	6.3	-5.1	-6.4
Mozambique	6.6	8.2	-3.8	-25.0
Namibia	3.2	5.2	-5.2	-4.3
São Tomé & Príncipe	1.8	11.5	-5.0	-15.0
South Africa	0.8	5.2	-6.5	-2.3
eSwatini	4.2	5.3	-4.1	0.9
Zambia	4.1	7.8	-7.7	-0.5
Zimbabwe	3.2	84.2	0.1	0.6

Countries are ranked in three criteria: green for good performers, yellow for fair performers, and red for weak performers.

- Real GDP growth above 6 percent is colored green, 4-6 percent yellow, and below 4 percent red.
- Inflation below 5 percent is colored green, 5-9.9 percent yellow, and above 10 percent red.
- Fiscal deficits below 3 percent are colored green, 3-5 percent yellow, and above 5 percent red.
- Current account surplus is colored green, deficits below 5 percent yellow, and above 5 percent red.

Source: AfDB staff computations, based on Africa Development Bank statistics, April 2023

a larger than expected rise in global and national interest rate, this could trigger large adverse spillover effects on growth and financial stability especially in countries where banks are already heavily exposed to sovereign debt. There is also a possible risk for longer monetary policy

tightening⁶⁴. Within the Southern Africa region, as discussed in paragraph 1.4.3 through 1.4.5, many countries record high debt levels and large fiscal and current account deficits which make them particularly vulnerable to financial stress (Malawi).

⁶³ Current account deficit per GDP estimated above 5 percent.

⁶⁴ This assessment is based on the debt ratios and projections presented in the country outlook produced in October 2022 by the World Bank.

The outlook for 2023 and 2024 is very uncertain as the Southern Africa region remains subject to both external and domestic downside risks.

An abrupt growth slowdown in China and/or a protracted war in Ukraine could weaken global demand of mineral and metal commodities, exacerbating growth outlook of resource rich countries. The growth outlook of many resources rich Southern African countries is heavily dependent on the path of commodity prices and demand. This is particularly true for countries insufficiently diversified where export commodities account for a very large part of export earnings and fiscal revenue. For example, growth outlook in Botswana and Namibia remains very vulnerable to the volatility in the price of diamond while the volatility in global copper prices would affect external stability and fiscal revenue in Zambia.

Likewise, an intensification of the war in Ukraine and geopolitical tensions could spur the prices of food and energy, exacerbating the fragility of oil and food importing countries. Since there are still many uncertainties about the war in Ukraine and the extension of the Black Sea grain initiative, there are still risks of substantial global food price inflation. SSA food markets remain tight in many countries as a result of a decline in stock and limited imports. Likewise, costlier prices of farming inputs and lower use of fertilizer could further contribute to lower domestic production and aggravate food insecurity. Food inflation would be particularly harmful in countries where the population already face a high level of acute food insecurity and undernourishment (Madagascar, Mozambique).

Domestic Risks

The sociopolitical context could also cloud the economic outlook. Six Southern African countries will hold presidential and/or parliamentary elections over 2023-2024, which could put upward pressure on wages and public spending and challenge fiscal discipline as well as the implementation of bold structural reforms. Moreover, Mozambique security risks and population displacement remain elevated. Intensification of terrorist activity in the north of the country could further trigger delays of large-scale LNG projects while disrupting farming activities jeopardizing growth prospects and causing more severe food insecurity and poverty.

Adverse climatic events and weather-related risks could further deteriorate significantly projected economic and social outlook. For example, since the last AfDB projections were established, one of the longest lasting, powerful and deadly tropical cyclone “Freddy” have traversed the Southern Indian

Ocean for more than five weeks over February and March 2023, causing human and physical damages in Malawi, Mauritius and Mozambique. Southern Africa is particularly vulnerable to the effects of climate change, including drought and floods. The agriculture sector remains the largest employer in many countries in the region. Environmental challenges have a harming impact on inclusive growth, food security and exacerbate existing social and political tensions. As noted earlier, most countries have weak institutional capacity to address climate vulnerabilities (low level of preparation according to the ND-Gain index), which amplify their fragility (Zimbabwe, Madagascar, Malawi and Mozambique) in face of more severe and frequent adverse climatic events.

1.8.3 Policy Priorities

This section presents a set of policy priorities for the Southern Africa region to boost recovery and strengthen resilience in face of global shocks and adverse climate events in order to set the foundation for greener and more inclusive growth in the medium term. This is critical as Southern Africa has the lowest growth of all the regions on the continent and unemployment is equally severe.

Stabilizing inflation and rebuilding fiscal space amid tighter financing conditions.

Our analysis concluded that growth in the Southern Africa region is subdued with several countries facing high inflation, large fiscal and current account deficit and unsustainable debt levels. Government should move cautiously to put their economy back on a sustainable and inclusive growth path using a mix of monetary and fiscal policies while pursuing an ambitious structural reform agenda. Effective coordination of fiscal and monetary actions is needed to tame inflation and fiscal pressures.

Monetary authorities need to anchor inflation expectation but should thoughtfully increase interest rates given that in most cases, much of the recent increase was due to external factors (food and energy prices and exchange rate depreciation) and that demand pressure remained muted amid fiscal consolidation policies. In countries with very high inflation (Zimbabwe), the authorities have reacted swiftly in 2022 to stabilize the parallel market but should keep managing closely inflation trends. Likewise, authorities should carefully manage foreign ex-

⁶⁵ Also see AfDB Management Briefing Note on Malawi 2022

⁶⁶ See the risk analysis in AfDB's AEO 2023 chapter 1

change reserves to reduce exchange rate volatility and enhance export competitiveness.

Fiscal consolidation needs to be engaged/pursued to preserve fiscal sustainability in most countries. Many Southern African countries still need to rebuild fiscal buffers following the pandemic and growth slowdown in 2022 as their economies were suffering from a multitude of shocks – weaker global demand, higher prices for energy and food and adverse climate events. Meanwhile, most countries will need to absorb an increasingly higher interest bill of debt contracted prior to the pandemic when interest rates were low. As global conditions tighten, borrowing costs are becoming more volatile and some countries have already lost access to global markets, turning to the domestic market and therefore potentially crowding out private investors. As noted earlier, several countries are facing a high level of debt distress which necessitates to engage and/or pursue fiscal consolidation. In particular, government would need to adopt measures to stimulate revenue mobilization, prioritize spending, improve the quality of public spending and adopt prudent debt management practices to reduce currency and interest risks. Policy makers would need to address structural problems to strengthen tax administration capacity and pursue investment in digitalization and e-governance to enhance transparency, reduce illicit financial flows, and scale-up domestic resource mobilization⁶⁷ (for example by enhancing fiscal efficiencies and broadening the tax base through greater private sector participation in the economy).

Scaling-up adaptive social protection system to lessen the impact of shocks in time of crisis and boost household resilience

In the short term, Government should set-up and/or strengthen and expand social safety nets in order to provide rapid and effective cash or in-kind transfers during periods of heightened food insecurity or after adverse climatic events and to strengthen household resilience. Amid current food and energy crisis and climate change, food insecurity has been rising rapidly in many southern African countries (Angola, Madagascar, Zambia, Malawi, Mozambique, Sao Tome). As noted earlier, this has pushed several governments to adopt short term mostly untar-geted emergency measures (such as subsidies, tax cut...) to contain the overall cost-of-living squeeze. The current social protection systems cover only a fraction of climate-vulnerable households in the region⁶⁸. Government should pursue their efforts to phase out these

emergency measures and transition towards setting-up shock-responsive social protection systems. As the recent experience of the COVID-19 response showed, social safety nets are practical, high impact and cost-effective solutions for providing rapid assistance. For example, the poorest households are particularly vulnerable to food insecurity as they use detrimental coping mechanisms. Impact evaluation have shown that social safety net interventions can not only reduce food insecurity but also contribute to foster human capital accumulation, to increase agricultural production and to provide job opportunities. Within the southern region, World Bank evaluations have concluded that the Malawi and Zambian Social Cash Transfer Programs have helped to reduce food insecurity but also have improved human capital (health and education) and agricultural production. New social protection programs that seek to address shock vulnerability contribute to boost resilience. Some cash transfers programs can be accompanied by additional measures that seek to diversify household livelihoods and increase their productive assets. School feeding programs also offer effective way to alleviate food insecurity. Labor intensive public works can help communities build and maintain climate smart infrastructure⁷⁰.

Building a climate smart agriculture and transforming agri-food chains to accelerate economic transformation

In the medium to long term, government should seek to build resilience in agriculture and food systems⁷¹. Policies measures should aim at improving the quality of government support notably toward the adoption of climate smart and regenerative agricultural practices or regional early warning information systems (on weather and pests) as well as targeted public investment. For example, a recent world bank report advises that government start rebalancing public agricultural spending “by moving away from a heavy focus on input subsidies toward a package of complementary investment” – such as agricultural R&D oriented towards green innovations, irrigation, soil management. Zambia moved away from managing farmer input support programs by rolling out an e-voucher program for subsidies. The system crowded in private sector participation in input distribution and promoted agricultural diversification thus contributing to more climate resilient production system. Strategic Grain reserves are instrumental during emergency food crisis; but they should be managed cautiously to avoid creating distortions if they are used to

⁶⁷ *Regional Economic Outlook, October 2022. IMF*

⁶⁸ *The world Bank, World Bank (2022). Inequality in southern Africa. An Assessment of the Southern African Customs Union.*

support farmer price (as was the case in Zambia and Zimbabwe).

Investing in regional trade facilitation is also key to enhance the resilience of food systems to international market shocks. In 2020-2021, about 75 percent of complaints by EAC and SADC traders point to customs and administrative entry procedures and transport,

clearing while only 3 percent were related to import tariffs⁷². Priority interventions should point to further leveraging existing regional trade agreements and the AfCFTA to enhance resilience to global shocks. Countries implement trade facilitation and trade monitoring as practical steps to exploit regional trade agreements.

⁷⁰ For example, the World Bank noted that the new climate-smart Enhanced Public Works Program in Malawi have the potential for improving the environment and climate resilience.

⁷¹ The World Bank, *Africa Pulse*, Oct 2022. *Food system opportunities in a turbulent time*.

⁷² The world Bank; *Africa Pulse*, October 2022.

PRIVATE SECTOR FINANCING FOR CLIMATE AND GREEN GROWTH IN SOUTHERN AFRICA

KEY MESSAGES

- **Given the vulnerability of Southern Africa to climate impacts, and associated physical and transitional risks, there is an urgent and increasing need for climate action at large-scale investments.** As a response to the commitments to achieving sustainable development outcomes and building a low-carbon, climate-resilient economy, green growth provides a unique model to limit the trade-off between development and environmental protection. Investment in green growth could create economic opportunities, and also ensure that environmental and resource scarcity challenges are identified and addressed.
- **Performance in green growth has been sluggish and stagnant over the period 2010-2021.** The performance score as measured by Green Growth Index is negatively associated with the level of climate vulnerabilities and positively linked with climate readiness and resilience score. Poor performance in both green growth and climate resilience could be attributed to weak governance and institutional capacity.
- **Climate action and green growth transition require the private sector as a partner to spearhead transformative actions and private sector finance to bridge the climate finance gap.** However, private financing of climate actions is embedded with a series of challenges, which impede the transition to green growth such as the absence of data and uncertainty on climate scenarios, lack of bankable projects, and weak governance structures. Progress is slow.
- **Policies are important to foster an enabling environment to mobilise private sector financing.** This will involve:

Short term: developing a country-level road map for green growth and climate action for the mobilization of private sector finance; strengthening governance systems to ensure that proceeds from private sector finance are transparent and accountable; addressing specific access barriers to private sector financing; advancing the use of blended finance instruments to leverage additional private sector finance; and enhancing training, capacity building to screen adaptation and mitigation investment projects and to promote green bankable projects.

Medium term: deepening of capital markets and addressing the debt sustainability issue which affect private sector financing.

Long term: promoting regional coordination of the international private and public institutions

- **The role of Development Financing Institutions (DFIs) and Multilateral Development Banks (MDBs) are key to promoting the enabling conditions to unlock private sector finance.** The support of DFIs and MDBs is essential to de-risk climate investment, facilitate the bankability of green projects and to facilitate the blending of public and private sector finance.

2.1. INTRODUCTION

Southern Africa faces the threat of global warming which looms over and above a series of global, complex, and interrelated shocks impacting economic growth, social development, and environmental protection. Global warming heading towards 1.50 C increases climate-related risks in Southern African countries, most of which are intertwined in a climate-water-energy-food nexus. The region is most vulnerable to climate risks, with low adaptive capacity, and inadequate physical infrastructure in Africa.

Climate change impacts in Southern Africa are increasing in both intensity and frequency, leading to higher physical and transition risks⁷³. Climate shocks such as erratic rainfall, dry spells, flooding, and other extreme weather events, spread of pests and diseases, the decreasing trend in water quality⁷⁴, and El Niño⁷⁵ have all occurred in Southern African countries, with devastating impacts on economic activities, especially the agricultural sector. During the last decade or so, frequent episodes of dry spells affected many countries in Southern Africa region. For example, the El Niño conditions during the 2015/16 planting season caused Southern Africa's worst drought in 35 years. Lesotho, Zimbabwe, Eswatini, and Malawi declared national emergencies while Mozambique declared a Red Alert and Madagascar issued a message of solidarity⁷⁶.

Many countries are frequently hit by floods, and other climate events occurred across the region which disrupt significantly economic activities. In 2021 and the first part of 2022, tropical cyclones hit Madagascar, Zimbabwe, and other Southern African countries. The rise in sea level is a major threat to those countries having long coastal lines, and islands such as Mauritius, Madagascar, and São Tomé and Príncipe. Southern Africa also faces transition risks, referred to as risks associated with the transition to a low-carbon economy. Transition risks are likely to impede private sector investment. Some sectors of the economy in countries like Angola and Mozambique may face big shifts in asset values or higher costs of doing business due to their dependence on fossil fuel extraction⁷⁷.

2.2. THE IMPERATIVE FOR GREEN GROWTH AND PRIVATE SECTOR FINANCING IN SOUTHERN AFRICA

The low level of energy access in Southern Africa has serious implications for the development prospects of the region.

Faced with long-lasting economic and social concerns, Southern African countries have pressing development objectives that necessitate progress towards SDGs as regards the reduction of poverty and inequality, food security, and access to utility services such as electricity, water, transportation, and telecommunication, among others. Among the priorities is to ensure universal access to affordable, reliable, sustainable, and modern energy services by 2030, as set out in SDG 7. While access to energy is also important to accelerate structural change, the energy systems in the Southern African region face enormous challenges, given the lack of energy infrastructure. There is an urgent need for an energy transition that will massively expand and provide access to modern energy services. Southern African countries are required to adopt green growth pathways given the necessity to achieve United Nations' Sustainable Development Goals (SDGs). As Southern African countries seek to address the challenges in regard to the energy sector, green growth generates policies and programs that simultaneously facilitate the energy transition, and achieve poverty reduction, environmental protection, resource efficiency, and economic growth in an integrated manner. The African Development Bank defines green growth as "the promotion and maximization of opportunities from economic growth through building resilience, managing natural assets efficiently and sustainably, including enhancing agricultural productivity, and promoting sustainable infrastructure".⁷⁸ Green growth aims at reconciling the quest for ongoing economic growth with the imperative of staying within environmental limits and maintaining healthy ecosystems⁷⁹.

Green growth is a pre-requisite to drive climate goals as outlined in the Paris Agreement of limiting warming as well as the long-lasting quest for structural transfor-

The low level of energy access in Southern Africa has serious implications for the development prospects of the region.

⁷³ The European Investment Bank quantifies the total physical risk by the sum of the damage deriving from natural disasters ("acute" events such as storms, floods, droughts, etc.), production losses in agriculture, the impact of sea level rise (for countries and cities exposed to the sea), the impact on infrastructure, the impact of heat on labour productivity (labour productivity is seriously affected when temperatures are high) and the effects of water scarcity (water is a relevant component for agricultural production and for industry). (Ferrazzi, Kalantzis and Zwart, 2021)

⁷⁴ Nhamo, L., Matchaya, G., Mabhaudhi, T., Nhlengethwa, S., Nhemachena, S., and Mpandeli, S. 2019. Cereal Production Trends under Climate Change: Impacts and Adaptation Strategies in Southern Africa. *Agriculture*, vol.9, no.2, pp.1-16.

⁷⁵ El Niño is a climate pattern that describes the unusual warming of surface waters in the eastern equatorial Pacific Ocean. Trade winds and atmosphere are also impacted by El Niño. [https://www.nationalgeographic.org/encyclopedia/el-nino/#:~:text=Encyclopedic%20Entry%20Vocabulary-,El%20Ni%C3%B1o%20is%20a%20climate%20pattern%20that%20describes%20the%20unusual,%2DSouthern%20Oscillation%20\(ENSO\).](https://www.nationalgeographic.org/encyclopedia/el-nino/#:~:text=Encyclopedic%20Entry%20Vocabulary-,El%20Ni%C3%B1o%20is%20a%20climate%20pattern%20that%20describes%20the%20unusual,%2DSouthern%20Oscillation%20(ENSO).)

⁷⁶ Office for the Coordination of Humanitarian Assistance. *Riasco Action Plan for Southern Africa: Review of the Regional Response Plan for the el Nino Induced Drought in Southern Africa*; OCHA: Johannesburg, South Africa. 2017. <https://reliefweb.int/report/world/report-riasco-action-plan-el-ni-o-induced-drought-southern-africa-20162017> (accessed 18/04/2023)

⁷⁷ EIB 2022.. *Finance in Africa Navigating the financial landscape in turbulent times*. European Investment Bank. https://www.eib.org/attachments/lucalli/finance_in_africa_2022_en.pdf (accessed 19/04/2023)

Several Southern African countries have embarked on the green growth agenda in a holistic manner while others have established sectoral pathways.

mation. Given the commitment of Southern African countries to climate action through their NDCs, green growth is essential to drive transformative actions to achieve climate goals, minimise transition risks while ensuring that environmental and resource scarcity challenges are identified and addressed. The kind of future energy systems also matters, given the constrained of the rising trend of CO₂ emissions. It is therefore crucial that energy access expansion be geared towards a low-carbon trajectory that will rely on renewable energy sources and technologies. In this respect, green growth is central to preventing a carbon lock-in – a situation where fossil fuel-intensive systems perpetuate, delay or prevent the transition to low-carbon alternatives – and contribute to both NDC and SDG targets. Investment in renewable energy, low-carbon transport, green buildings, sustainable agriculture, sustainable forest management and sustainable fisheries, among others will contribute to the long-lasting quest of many Southern African countries to realise structural transformations while achieving other SDGs at the same time⁸⁰.

Green growth also ensures that Southern Africa's natural assets continue to provide the resources and environmental services to the population⁸¹. Southern Africa's economic growth can no longer depend on the ever-increasing consumption of natural resources in an unsustainable manner, nor can it be driven by fossil fuel energy and carbon-based development. The current growth model has led to a range of environmental challenges, including the over-exploitation of natural resources, rapid biodiversity loss, deforestation, land degradation, and lower agricultural yield, among others. By addressing social and environmental externalities, and market failures that emerge from the pursuit of economic growth and investing in and protecting natural capital, green growth pathways reduce ecological scarcities and environmental risks.

2.2.1. Southern Africa's Green Growth Needs and Pathways

Most Southern African countries recognise the need for green growth and have initiated discourses and established green growth pathways. Several Southern African countries have embarked on the green growth agenda in a holistic manner while others have

established sectoral pathways.

Angola's Country Climate and Development Reports (CCDR)⁸² identifies five green growth pathways to achieving a diversified and climate-resilient economy: managing water resources to ensure clean energy, food security, and sustainable cities; promoting renewable energy (hydropower, solar, and wind); leveraging vast arable land resources to become a hub for climate-smart agriculture and food production; building green and resilient cities; and capacity building to foster climate-preparedness and -resilient development across sectors. Botswana initiated the Programmatic Economic Resilience and Green Recovery Development Policy Loan Project⁸³ to strengthen private sector development and promote a resilient, green recovery. The aim was to build the foundations for sustainable, "green" growth. Mauritius, with the assistance of the Partnership for Action for a Green Economy (PAGE), identifies agriculture, energy, manufacturing, transport, tourism, water, and the waste sector for green growth. The Green Economy Assessment for Mauritius demonstrates that a green economy transition offers Mauritius further opportunities for sustained economic growth, energy and water savings, increased agricultural productivity, and green jobs⁸⁴. Similarly, South Africa's green growth emerges through the PAGE initiative and areas for high green growth include the sustainable management of natural resources; increasing investment towards green residential property development and public buildings; promoting energy efficiency; and promoting sustainable water and waste management practices. South Africa also considers greater support for decentralised renewable energy generation in residential and commercial sectors, integration of non-motorised transport into spatial planning, and fostering eco-mobility solutions in Small, Medium, and Micro-sized Enterprises (SMMEs)⁸⁵.

The government in Mozambique has embraced the green economy in its Five Year Government Plan (2015-2019) as a follow-up of the 2013 Green Economy Action Plan which consisted of three key pillars: sustainable infrastructure; efficient and sustainable use of resources; and strengthening resilience and adaptability. Mozambique emphasises policies in four distinct areas: regulatory policies for the conservation, exploitation, and

⁷⁸ AfDB. 2016. *Transitioning The African Continent Toward Green Growth An introductory guide to understanding AfDB's Green Growth Framework*. African Development Bank. https://www.afdb.org/fileadmin/uploads/afdb/Documents/Generic-Documents/Introductory_guide_to_understanding_AfDB_Green_Growth_Framework.pdf (accessed 19/04/2023)

⁷⁹ GGBP (2014) *Green Growth in Practice Lessons from Country Experiences. Executive Summary* Pp. 12. *Green Growth Best Practice Initiative*. Pp. 12. Republic of Korea [www.ggbp.org]

⁸⁰ UNDP (2016) *Demystifying Adaptation Finance for the Private Sector*. United Nations Environment Programme, November 2016. <https://www.unepfi.org/wordpress/wp-content/uploads/2016/11/DEMYSITIFYING-ADAPTATION-FINANCE-FOR-THE-PRIVATE-SECTOR-AW-FULL-REPORT.pdf> (accessed 19/04/2023)

⁸¹ OECD (2011) *Towards Green Growth*. Paris: OECD Publishing.

⁸² World Bank Group. 2022. *Angola Country Climate and Development Report. CCDR Series*. © World Bank, Washington, DC. <https://openknowledge.worldbank.org/entities/publication/f5d0bae7-8230-5d41-8466-b5031de9741e> License: CC BY-NC-ND (accessed on 03/03/2023)

⁸³ <https://projects.worldbank.org/en/projects-operations/project-detail/P175934> (accessed on 03/03/2023)

management of natural resources; fiscal policies focused on taxation; investment policies directed towards infrastructure development, training, and funding producers; and institutional policies aimed at strengthening national institutions through capacity-building, transformation, and best governance practice⁸⁶. Mozambique reiterated its commitment in 2022 to mainstreaming its natural capital to spur the transition to a green economy with the support of the AfDB, the Green Growth Knowledge Partnership and the World Wide Fund for Nature (WWF)⁸⁷.

In the case of Zambia, an assessment by International Institute for Environment and Development (IIED)⁸⁸ observed that the country's high economic growth rates are heavily dependent on its environment-based sectors, such as agriculture, tourism, forestry, and mining⁸⁹. Green growth potentials were observed in the energy sector (waste to energy and clean energy supplied), green infrastructure and services, transport sector, sustainable agriculture, and greener artisanal and small-scale mining practices. In Namibia, the government supported the High-Level Panel on the Namibian Economy entitled, "New Green Economy 2030 Program" as one of the interventions to propel economic growth in Namibia. The Program ensures a just transition of a low-carbon path of development through an output of zero-emission products from new green industries, with plenty of unused land or plots, for generating biomass, energy, aquaculture, hydroponics, and agroforestry.

Several Southern African countries have sector-specific strategies for green growth. Lesotho aims at transitioning towards a greener future through renewable energy options in the form of solar PV systems which can contribute to reducing greenhouse gas emissions whilst at the same time providing economic and social benefits to the economy. The energy sector is also the focus of Madagascar and São Tomé and Príncipe. Madagascar encourages the private sector to expand access to renewable energy and offer a more stable supply of energy, to attain SDG 7 (affor-

dable and clean energy). The Energy Transition and Institutional Support Programme (ETISP) in São Tomé and Príncipe is designed to promote green growth, sustainable development of the power system, and strengthening public financial management⁹⁰. São Tomé and Príncipe also aims to develop more sustainable agricultural practices and climate-resilient family farming. Malawi emphasises agricultural diversification at its core green growth policy, together with the transformation of the agricultural sector through a Farm-to-Fork approach based on enhanced farmers' capacities for increased and diversified production.

2.2.2. Southern Africa's progress toward green growth

Sluggish progress and stagnation in green growth performance are observed for Southern Africa from 2010 to 2021, Progress towards green growth is measured using the Green Growth Index (GGI), constructed by the Global Green Growth Institute⁹¹. The GGI⁹², linked with Sustainable Development Goals, is a composite index made up of about 40 indicators. GGI is calculated for 11 of the 13 Southern African countries⁹³ as shown in table 2.1. Only four countries - Botswana, Eswatini, Namibia, and Zambia - observed a marginal improvement in the GGI from 2010 to 2021. The remaining seven countries observed a decline in the GGI.

Southern African countries show poor performance in two dimensions of green growth which are 'green economic opportunities' and 'social inclusion'. The GGI is subdivided into four main dimensions, (i) Efficient and sustainable resource use, (ii) Natural capital, (iii) Green economic opportunities, and (iv) Social inclusion. Table 2.2 shows the scores for the specific dimensions which drive the GGI. With the exception of Eswatini and South Africa, the remaining countries have relatively good performance in efficient and sustainable resource use compared to the other dimensions. This means there is progress towards efficient and sustainable energy, water, and land use as well as material use efficiency. Performance to protect environmental quality, GHG emission

⁸⁴ <https://www.greengrowthknowledge.org/national-documents/green-economy-assessment-mauritius> (accessed on 03/03/2023)

⁸⁵ PAGE 2017, *Green Economy Inventory for South Africa: An Overview*. Pretoria. South Africa. <https://www.greenpolicyplatform.org/national-documents/green-economy-inventory-south-africa-overview> (accessed on 03/03/2023)

⁸⁶ UNECA 2016. *Inclusive Green Economy Policies and Structural Transformation in Mozambique* <https://repository.uneca.org/handle/10855/23563> (accessed on 06/04/2023)

⁸⁷ A national dialogue, "Africa Green Economy Conference: Innovative Pathways for a Nature Positive Future from Policy, Business and Finance," took place on 29 June 2022 under the Natural Capital for African Development Finance (NC4-ADF) initiative and the Economics for Nature program. <https://www.afdb.org/en/news-and-events/press-releases/mozambique-african-development-bank-green-growth-knowledge-partnership-and-world-wide-fund-nature-host-dialogue-mainstreaming-natural-capital-green-economy-53505> (accessed on 09/05/2023)

⁸⁸ Banda, T., and Bass, S. (2014). *Inclusive Green Growth in Zambia: Scoping the needs and potentials*. London: International Institute for Environment and Development (IIED) Country Report. <https://www.iied.org/16558iied>. (accessed 19/04/2023)

⁸⁹ MoGEE and GGGI. (2022). *Zambia National Green Growth Index 2022*. Ministry of Green Economy and Environment (MoGEE) and Global Green Growth Institute. <https://greengrowthindex.gggi.org/wp-content/uploads/2023/02/2022-Zambia-Green-Growth-Index.pdf>. (accessed 19/04/2023).

⁹⁰ AfDB 2020. *São Tomé and Príncipe - The Energy Transition and Institutional Support Programme (ETISP)*. <https://projectsportal.afdb.org/dataportal/VPProject/show/P-ST-FAB-002> [Accessed date 23/03/2023]

Table 2.1: Green Growth Index

Country	2010	2019	2021
Angola	45.5	44.5	44.5
Botswana	57.2	58.1	57.9
Eswatini	40.9	42.6	42.6
Lesotho	46.6	45.1	45.1
Madagascar	44.1	41.5	40.9
Mauritius	54.5	54.1	53.9
Mozambique	46.2	45.4	45.5
Namibia	54.5	55.5	55.5
South Africa	54.5	50.6	50.7
Zambia	48.9	50.3	50.4
Zimbabwe	50.8	50	50.0
Average –Southern Africa (11 countries)	49.4	48.8	48.8

Source: Global Green Growth Institute

Table 2.2: Green Growth Performance across four dimensions

Country	Efficient and Sustainable Resource Use	Natural Capital Protection	Green Economic Opportunities	Social Inclusion
Angola	66.6	57.4	10.3	37.4
Botswana	69.7	72.7	17.3	57.3
Eswatini	28.8	60.1	16.5	61.5
Lesotho	59.4	41.3	14.2	54.8
Madagascar	58.0	56.7	18.5	27.0
Malawi	64.9	74.4	-	42.6
Mauritius	58.4	52.5	15.1	77.9
Mozambique	53.0	68.8	15.4	36.9
Namibia	58.0	67.6	18.7	62.7
São Tomé and Príncipe	70.5	72.0	-	44.8
South Africa	38.6	64.9	23.3	67.5
Zambia	60.7	70.0	36.2	33.6
Zimbabwe	52.8	78.1	11.9	48.8

Source: Global Green Growth Institute

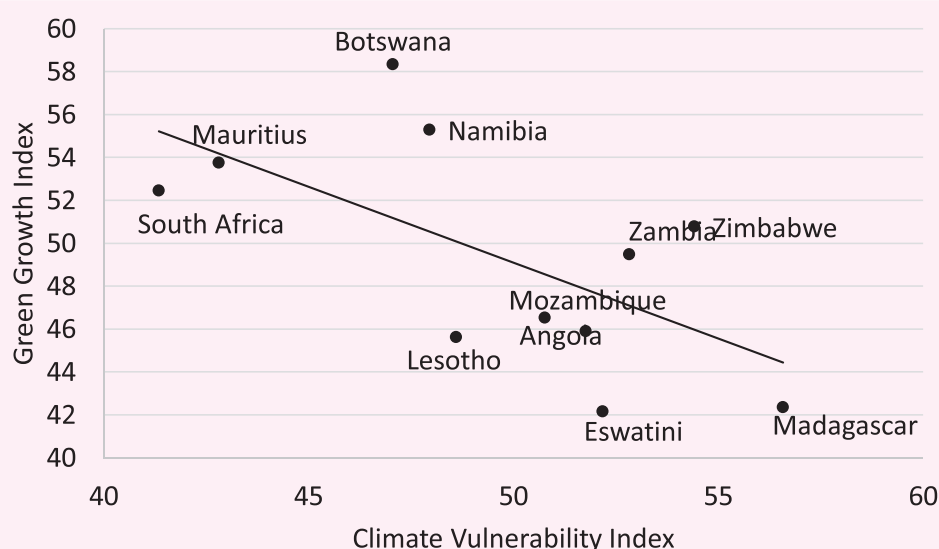
reductions, biodiversity and ecosystem protection, and cultural and social value are also relatively high. As shown in Table 2.2, poor performance is observed in green economic opportunities, that is, green investment, trade, employment, and innovation. The lowest performance comes from Angola and Zimbabwe. As this component is expected to be driven by the private sector, the performance scores exhibit the relatively low involvement of the latter in the green growth pathways. Progress on social inclusion is also warranted. Mauritius, Namibia, and South Africa do relatively well in the dimension of social inclusion of the GGI, while Ango-

la, Madagascar, and Zambia have low performance. This dimension relates to access to basic services and resources, gender balance, social equity, and social protection.

2.2.3. Green Growth Index and Climate Vulnerability, Readiness and Resilience

Countries with higher green growth performance are also those which are relatively less vulnerable to climate change. To examine the link between green growth and climate performance, a comparison is undertaken of the GGI and three climate indices: vulnera-

Figure 2.1: Green Growth Index vs. Climate Vulnerability Index



Source: computed from the GGI and CVI

bility, readiness, and resilience. The Climate Vulnerability Index (CVI) measures a country's exposure, sensitivity, and capacity to adapt to the negative effects of climate change⁹¹. The average CVI for the 13 Southern African countries stands at 50.3 and eight of them have a score above this average. The most vulnerable country is Madagascar, followed by Malawi, Zimbabwe, Zambia, São Tomé and Príncipe, Mozambique, Eswatini, and Angola. Figure 2.1 shows the inverse relationship between the GGI and CVI for the 11 Southern African countries.

Southern African countries that are poor in green growth performance have also low climate readiness scores. Climate Readiness Index measures a country's ability to leverage investments and convert them into adaptation actions⁹². The average score

for the Southern Africa region is 32.6, reflecting the limited abilities of stakeholders (private sector, governance, and social actors) to adopt climate adaptation measures. Mauritius and Botswana have the highest score of 55 and 42 respectively among the 13 countries. The remaining countries have all lower climate readiness scores. The positive correlation between the GGI and Climate Readiness Index is shown in figure 2.2.

Countries that are also high green growth performing, are also most climate resilient.

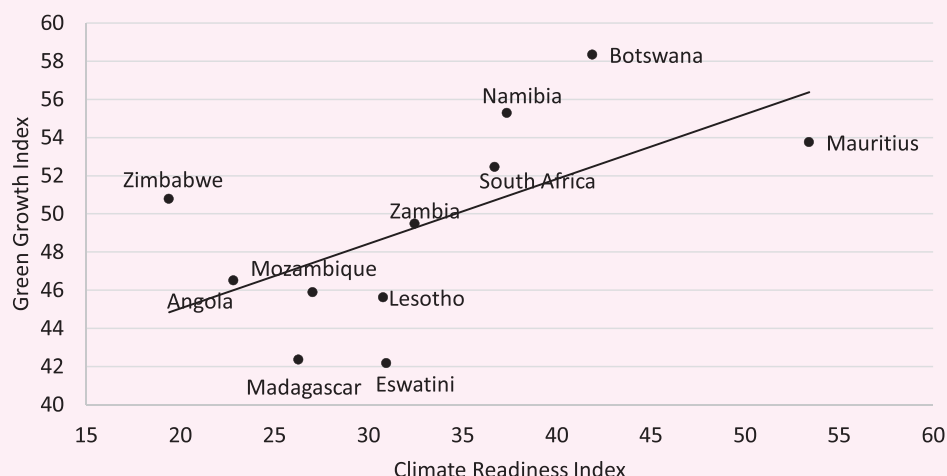
The Climate Resilience Index (CRI)⁹³ is used to account for the multiple elements involved in climate resilience measured by the structural characteristics of a country that help either to increase or to decrease the risk of adverse effects of climate-related disasters. The average

⁹¹ GGGI (2022). *Green Growth Index 2022: Measuring performance in achieving SDG targets* Global Green Growth Institute. December 2022. https://greengrowthindex.gggi.org/?page_id=3126 (accessed 10/04/2023)

⁹² The GGI score is normalized between 0 and 100 and benchmarked against sustainability targets, so that the higher the score the closer the country or region to reaching green growth or sustainability targets.

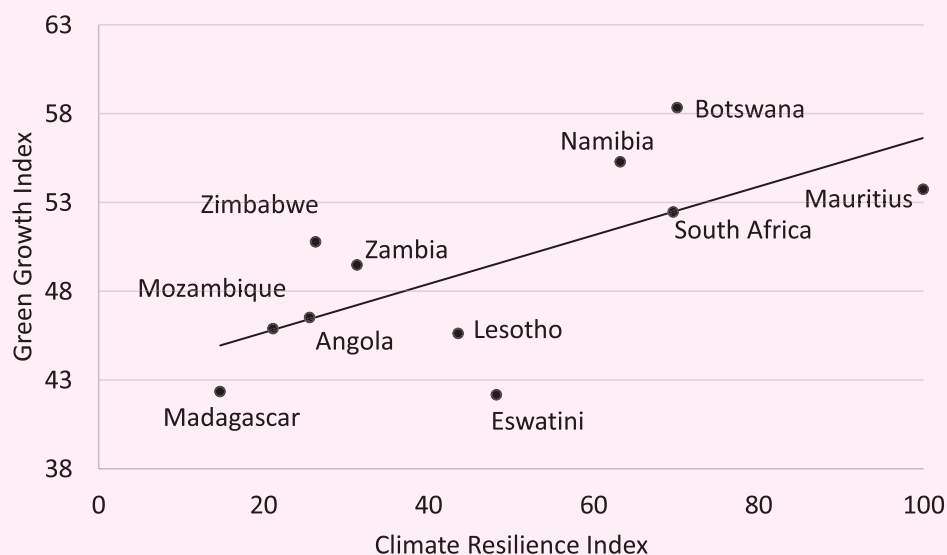
⁹³ The GGI is not calculated for Malawi and São Tomé and Príncipe by the Global Green Growth Institute most probably because the component 'green economic opportunities' is not lacking.

Figure 2.2: Green Growth Index vs. Climate Readiness Index



Source: computed from GGI and Climate Readiness Index

Figure 2.3: Green Growth Index vs. Climate Resilience Index



Source: computed from GGI and Climate Readiness Index

score for the 13 Southern African countries stand at 47. Mauritius is the most climate resilient with a score of 100. The least climate resilience is Madagascar. Five other countries, namely Angola, Lesotho, Mozambique, Zambia and Zimbabwe, have each CRI below the average score. The positive correlation between the GGI and CRI is shown in Figure 2.3. Countries that are most resilient, are also high green growth performing. The CRI scores reflect the

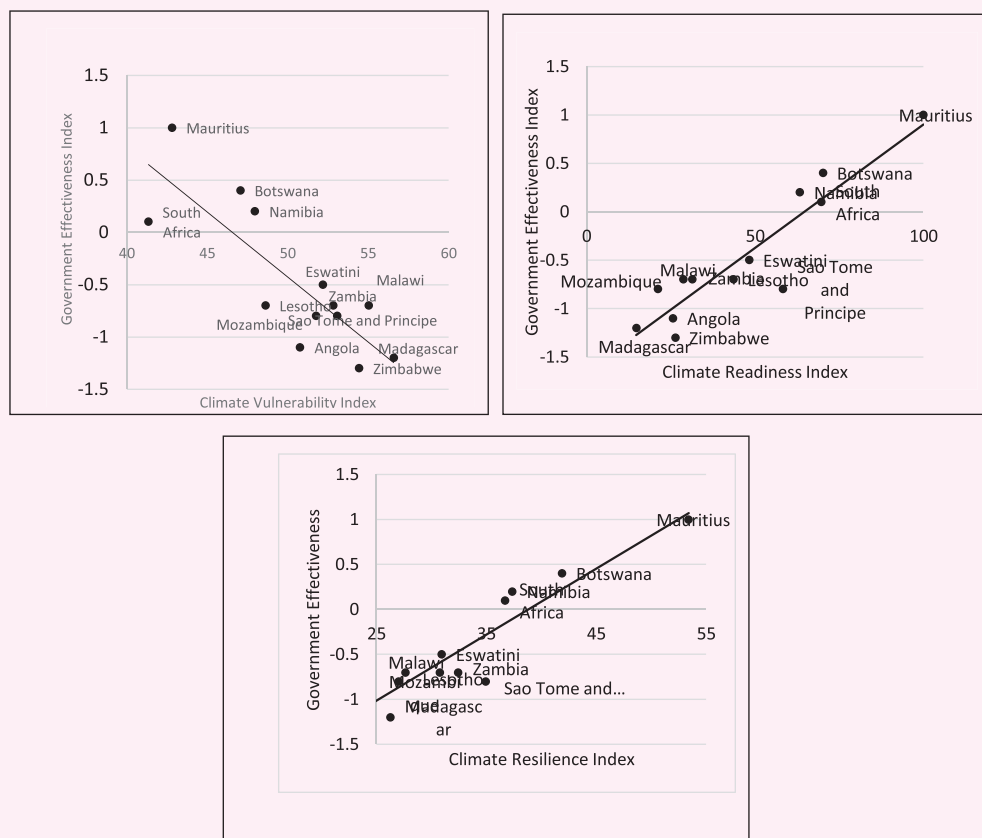
levels of economic diversity, innovation, and skilled labour force; the quality of healthcare, education, and information and communication technology (ICT); geographic characteristics; and the quality of infrastructure and local institutions that are more adapted for reducing vulnerabilities to potential climate shocks. Improvement in structural characteristics is important for Southern Africa to promote green growth and improve climate resilience.

⁹⁴ Climate vulnerability is a measure of a country's exposure (the degree to which the country is exposed to the negative impacts of climate change and its variabilities), sensitivity (the extent to which the country depends on climate-sensitive sectors such as rain-fed agriculture or on a sector of the economy that is highly susceptible to climate change disturbances), and adaptive capacity (the ability of the country and its supporting sectors to adjust and reduce potential damage and to respond to the negative consequences of climate events). The Climate Vulnerability Index is scaled between 0 and 100, with higher values representing greater climate vulnerability. The index is computed using six sectors: food, water, health, ecosystem services, human habitat, and infrastructure. Each sector comprises six indicators that represent three cross-cutting components: the sector's exposure to climate-related or climate-exacerbated hazards, the sector's sensitivity to the impacts of the hazard, and the sector's adaptive capacity to cope or adapt to these impacts.

Weak government's response to climate impacts partly explain the position of Southern African countries with respect to their climate vulnerabilities, readiness and resilience. Governments have a responsibility to build capacities and strengthen

resilience, especially in response to recurrent threats such as droughts which have become a 'new normal.' Episodes of droughts such as the 2015/2016 El Niño-induced drought clearly shows the lack of resilience capacity. In the latter event, seven countries, namely Angola,

Figure 2.4: Climate Vulnerability/Resilience and Readiness vs. Government effectiveness



Source: computed from Government Effectiveness and Climate Readiness Index

Lesotho, Madagascar, Malawi, Mozambique, Eswatini and Zimbabwe, required emergency response from the international community. These countries being at the lowest end of the Climate Resilience Index are caught in cyclical responses to recurring droughts. Evidence suggests that their governments have not sufficiently prioritised drought resilience building⁹⁷. Figure 2.4 plots the three indices against Government Effectiveness Index. The Government Effectiveness Index captures quality of public services, the quality of the civil service and the degree of its independence from political pressures, the quality of policy formulation and implementation, and the credibility of the government's commitment to such policies. The countries which are most vulnerable, having low Readiness and Resilience score are

also those which observed weak Government Effectiveness score.

2.2.4. The importance of private sector finance in enabling green growth

There is an urgent and increasing need for climate action at large-scale investment and the role of the private sector will be crucial as a partner to make green growth transition. Given the level of climate vulnerabilities, there is a need for transformative rather than incremental climate actions in many parts of Southern Africa⁹⁸. As both physical and transition risks associated with climate change are likely to impact business operations, the private sector is increasingly called upon as a partner to consider climate change as a key issue in

⁹⁵ The Climate Readiness Index score is measured through a country's economic abilities (the degree to which the country's investment climate facilitates the mobilization of capital from private sector), governance abilities (the extent to which governance and existing institutional arrangements contribute to reducing climate investment risks), and social abilities (the degree to which social conditions in the country help make efficient and equitable use of investment and yield more benefit from the investment).

⁹⁶ The CRI was computed using principal component analysis and normalized between 0 and 100 for comparability.

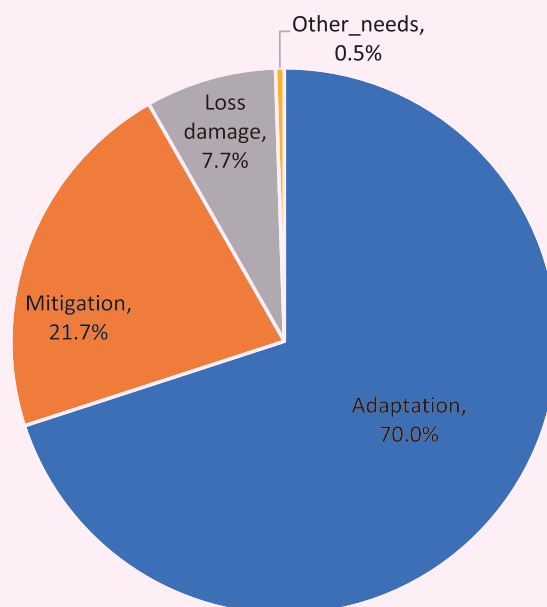
its management strategies. The latter faces the direct climate risks of local exposure which disrupt the supply chain, trade, and distribution channels. It also faces the indirect risk of rising costs due to changing consumer behaviour, health impacts on the workforce, and higher insurance costs. Accordingly, the private sector must adjust its business models to build climate resilience. Since Southern Africa is among the most vulnerable region to climate change⁹⁹, the call for climate action is also higher, with greater demand for climate finance, implying more finance will be needed. Substantial investments are required which may include modernised or adapted technology, and the use of new equipment and machinery. The private sector is an essential partner, particularly through the provision of technologies, business models, and capital investment.

As climate action and green growth become imperative, so too is a significant need for climate finance for investment; however, public resources are limited and climate finance flows remain inadequate, leading to a growing mismatch between the demand for and supply of climate finance. The level of finance needed to achieve green growth, low-carbon, and climate-resilient economy is significant. Although countries have committed to meeting 15 percent of their NDC needs using domestic sources, this alone will be insufficient for meeting current and future

needs. Declining government revenues and concurrent stimulus spending since the outbreak of COVID-19 have resulted in rising debt-to-GDP ratios. Inflation is driving interest rates up across the world, adding to the cost of debt servicing and increasing refinancing risks for countries. The government's fiscal position in the Southern Africa region means that they will have a limited financial response to climate action. Southern Africa plans to allocate less than 1 percent of national public budget. This can be compared to 11, 7 and 13 percent for Eastern Africa, Western Africa and Northern Africa respectively. The debt distress (or high risk) and other development priorities mean that they are unlikely to meet their climate commitments. Public resources will thus not suffice to meet countries' climate adaptation needs. While climate adaptation finance flows have increased in recent years, it still falls short of the needs.¹⁰⁰ There is a mismatch between the demand for climate finance, emanating from climate actions, and the supply of climate finance.

Private sector involvement in bridging the climate financing gap will become a key factor for the success of climate action and green growth. Private sector investment is required to close the adaptation finance gap. The role of the private sector will be critical in meeting the financing needs for green growth and making the transition towards low emissions and green transformation.

Figure 2.5: Components of Climate Financial Needs – Southern Africa



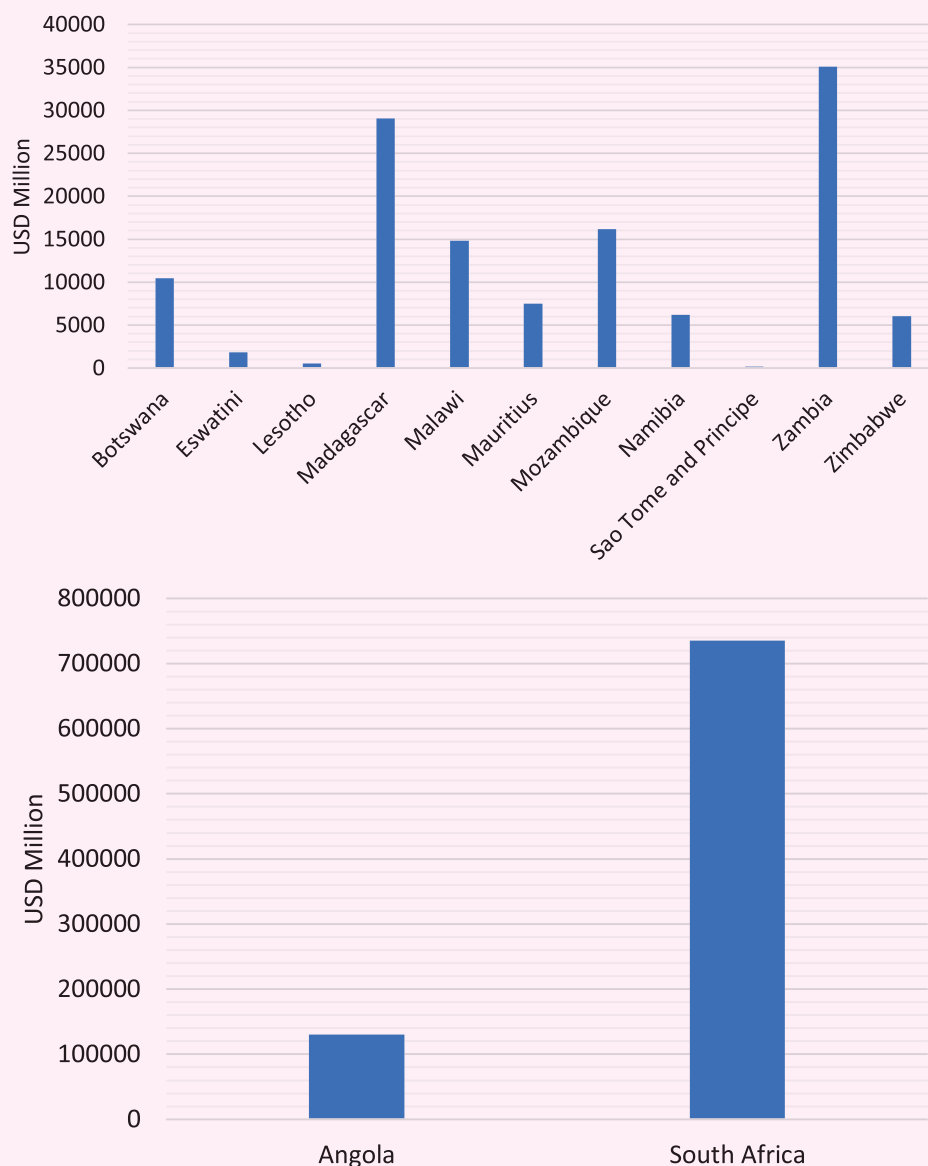
Source: Staff calculation

⁹⁷ Kamara, J., Akombi, B. J., Agho, K., and Renzaho, A. M. N. 2018. Resilience to Climate-Induced Disasters and Its Overall Relationship to Well-Being in Southern Africa: A Mixed-Methods Systematic Review. *Int. J. Environ. Res. Public Health*, 15, 2375; doi:10.3390/ijerph1511237

⁹⁸ Tall, A., Lynagh, S., Vecchi, C. B., Bardouille, P., Pino, F. M., Shabahat, E., Stenek, V., Stewart, F., Power, S., Paladines, C., Neves, P., and Kerr, L. (2021). *Enabling Private Investment in Climate Adaptation & Resilience. Current Status, Barriers to Investment and Blueprint for Action*. World Bank group. Kates et al. (2012)

⁹⁹ UNEP (2021). "Responding to climate change." Available at: <https://www.unep.org/regions/africa/regionalinitiatives/responding-climate-change>. (accessed 19/04/2023)

Figure 2.6: Climate Finance Needs 2020-2030



Source: Staff calculation

2.3. PRIVATE SECTOR FINANCING LANDSCAPE IN SOUTHERN AFRICA

2.3.1. The financing needs for climate action and green growth in Southern Africa

There has been limited attention given to financing needs for green growth as compared to financing needs for climate action. Climate finance from the UNFCCC's broad definition refers to "local, national or transnational financing – drawn from public, private and alternative sources of financing – that seeks to

support mitigation and adaptation actions that will address climate change"¹⁰¹. Further emphasised by Article 9 of the 2015 Paris Agreement, climate finance encompasses external or internal financial flows from any source, as long as it is channelled toward advancing global mitigation and adaptation efforts. In this respect, it extends an earlier and narrower definition that emphasises grant and grant equivalents¹⁰². This report adopts the broad definition from the UNFCCC. Finance for green growth is much wider and includes investments in activities that enable sustainable economic growth and development, including SDGs. While there have been significant efforts to estimate and report

¹⁰⁰ Tall, A., Lynagh, S., Vecchi, C. B., Bardouille, P., Pino, F. M., Shabahat, E., Stenek, V., Stewart, F., Power, S., Paladines, C., Neves, P., and Kerr, L. (2021). *Enabling Private Investment in Climate Adaptation & Resilience. Current Status, Barriers to Investment and Blueprint for Action*. World Bank group.

on climate action needs from NDCs in a systematic and structured manner (e.g., the Africa NDC hub and the Climate Policy Initiative), financing needs for green growth have received less attention. To assess progress toward financing green growth, more comprehensive reporting on the needs, flows, and gaps is needed. Because of these data gaps, climate finance is used to examine the financing landscape for Southern Africa.

The financing needs for climate action in Southern Africa stand at USD 1 trillion for the period 2020 -2030, averaging USD 90.3 billion annually. This represents 37.3 percent of total African countries' financial needs which is estimated at USD 2.67 trillion between 2020 and 2030 to implement the NDCs under the Paris Agreement¹⁰³. This significant financial needs of the region is consistent with the IPCC report of 2022 which observes that the southwestern parts of Southern Africa will be, with "medium to high confidence", among the most affected by climate change. Around 70 percent of this finance needs is attributed to adaptation and 21.7 percent for mitigation as shown in figure 2.5.

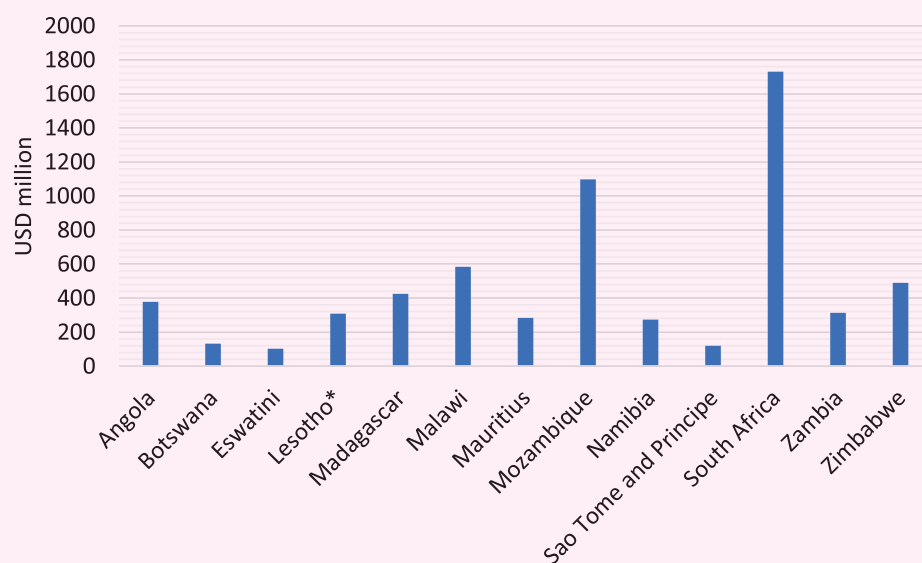
Figure 2.6 shows the climate finance needs

of each Southern African country. Angola and South Africa, together, represent 87.1 percent. Among the remaining countries, Madagascar, Malawi, Mozambique, and Zambia have relatively high needs, conforming to their Climate Vulnerability and Resilience scores.

2.3.2. Climate finance flows in Southern Africa

Southern Africa has the highest climate finance needs, yet received the lowest climate finance flows in Africa. The average annual climate finance flows to Southern Africa stands at USD 6.2 billion, representing 6.9 percent of the finance needs. This figure can be compared to other regions (North – 18 percent; West – 21.7 percent, East-11.2 percent, and Central- 12.2 percent). The average annual climate finance flow is shown in figure 2.7. South Africa received 27.7 percent of the average annual climate finance flows, followed by Mozambique at 17.6 percent. Malawi and Zimbabwe received 9.4 percent and 7.8 percent. The remaining finance is distributed unevenly among the remaining countries, with the lowest being São Tomé and Príncipe at 1.9 percent of the total climate finance flows in the region.

Figure 2.7. Climate finance flows (average annual)



Source: Staff calculation

The share of private climate finance in Southern Africa is low, consistent with other regions in Africa. Private climate finance makes up 21 percent of total climate finance flows in Southern Africa. This can be compared to other regions which have less finance from the private sector (Figure 2.8). The private cli-

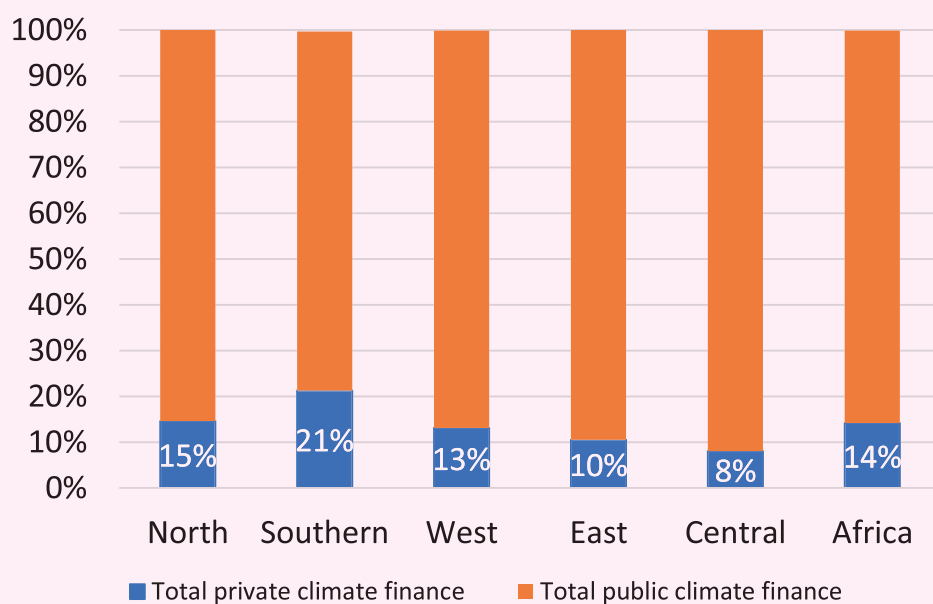
mate finance for the African continent stands at 14 percent. A closer look shows that the relatively high share of private climate finance is driven by South Africa as shown in Figure 2.9. The share of private climate finance for South Africa stands at 15.9 percent. Excluding South Africa, the percentage for Southern Africa reduces to 15 percent, consistent with the share

¹⁰¹ UNFCCC What is climate finance? <https://unfccc.int/topics/introduction-to-climate-finance> (accessed 23/04/2023)

¹⁰² See for example Carty, Tracy, and Armelle L. Comte (2018) *Climate Finance Shadow Report 2018: Assessing progress towards the \$100 billion commitment*. Oxfam. Available at www.oxfam.org/en/research/climatefinance-shadow-report-2018 (accessed 23/04/2023)

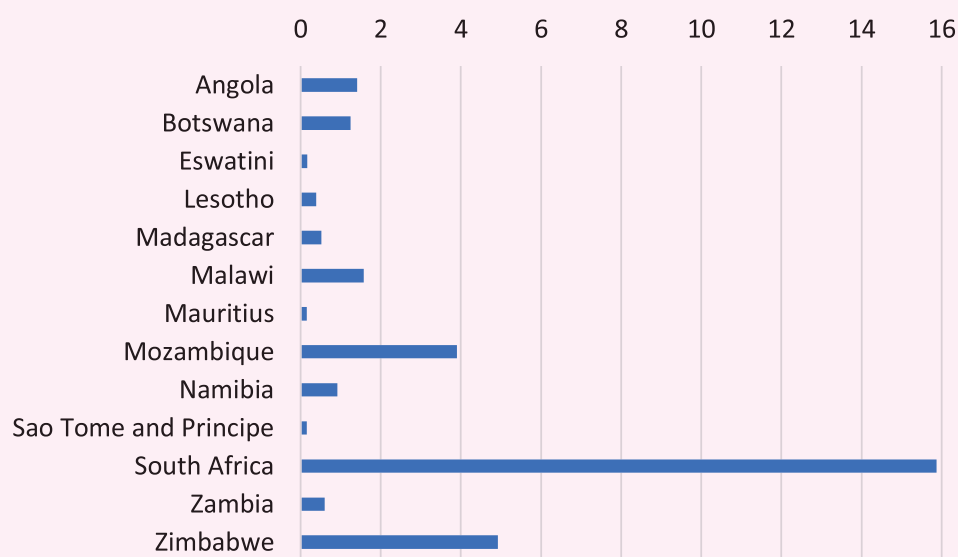
¹⁰³ Staff calculation

Figure 2.8: Private vs. Public Climate Finance Flows



Source: AfDB Staff calculation

Figure 2.9: Share of private climate finance across Southern African countries

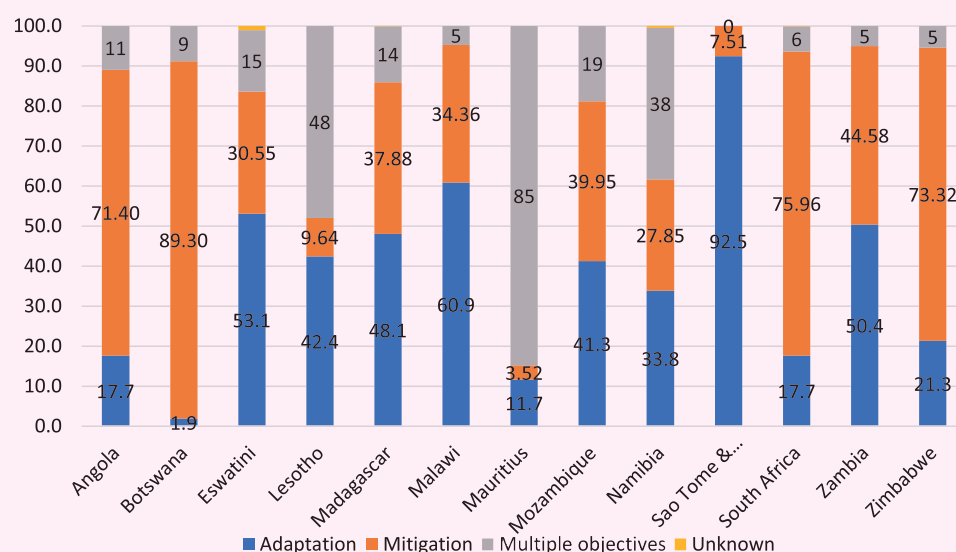


Source: AfDB Staff calculation

of the other African regions. At country level, Mozambique and Zimbabwe have the highest share at 3.9 percent and 4.9 percent, respectively. The remaining countries have a share which less than 2 percent, the lowest figure of 0.2 percent emanates from Eswatini, Mauritius, and São Tomé and Príncipe.

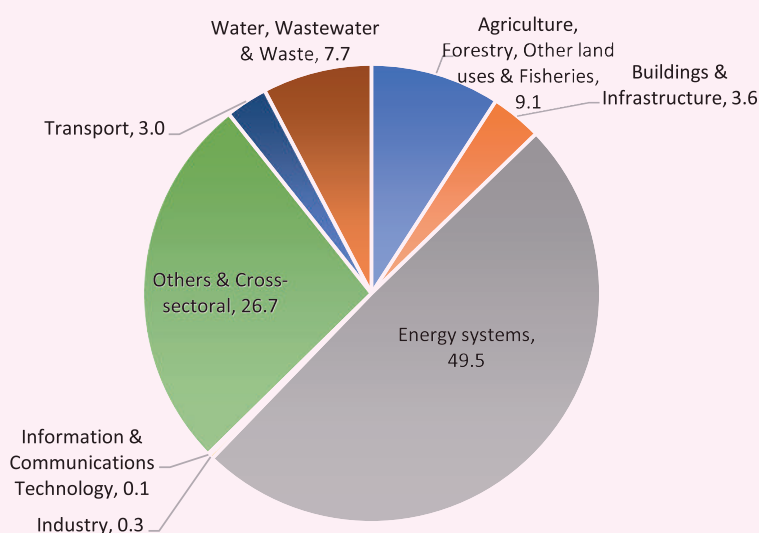
Southern Africa is in need of adaptation more than mitigation; yet, financial flows mostly focused on mitigation than adaptation. With the exception of Eswatini, Malawi, São Tomé and Príncipe, and Zambia, all remaining Southern African countries are recipients of financing mostly for mitigation projects. Mitiga-

Figure 2.10: Use of climate finance flows¹⁰⁴



Source: Computed from the Climate Policy Initiative

Figure 2.11: Climate finance flows by sectors – Southern Africa region



Source: AfDB Staff calculation

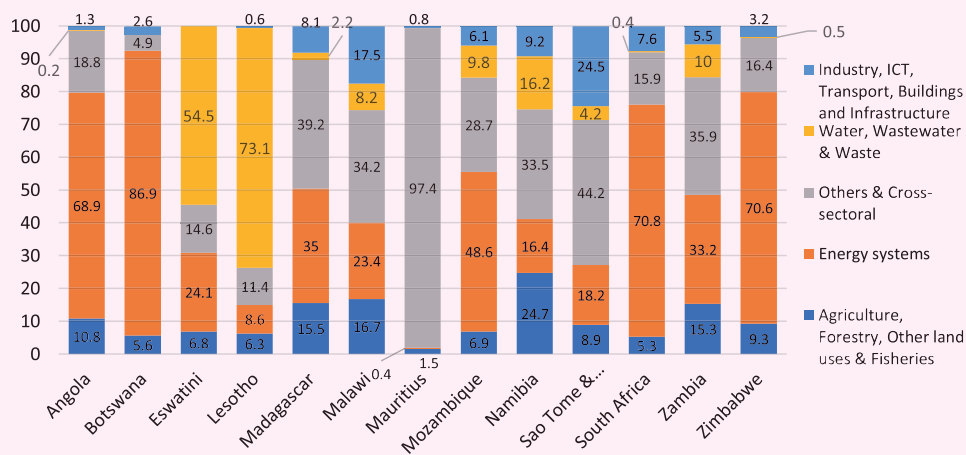
tion projects such as renewable energy, energy efficiency, and sustainable transport accounted for almost half of the total finance flows, while adaptation projects accounted for 39 percent with the rest being used for cross-cutting mitigation and adaptation projects. The major reason, as pointed out by the CPI (2022) report, is that there is a lack of bankable projects regarding adaptation. Mitigation projects are relatively more bankable with a better picture of the streams of future benefits and costs than

adaptation projects.

Energy-related projects dominate the flows of climate finance in Southern Africa. Energy systems and cross-sectoral, multiple objective projects make up almost 75 percent of climate finance flows in the Southern Africa region. Much of the private domestic investment (for e.g. in South Africa) concentrates on renewable energy projects such as solar PV and wind projects following the com-

¹⁰⁴ Data from the CPI as at January 2023.

Figure 2.12: Climate finance flows by sectors – Southern African countries



Source: AfDB Staff calculation

mitment to decarbonise the national energy system. The relatively mature renewable energy market is perceived as relatively less risky by investors. Projects with multiple objectives across cross-cutting sectors/areas such as capacity building, education, health, and food amount just above a quarter of the total climate finance. Capacity building and technical assistance in planning, policy, and budgeting, and in raising climate awareness is still largely driven by grants/donor funding. Agriculture, Forestry, Other Land use, and Fisheries account for 9 percent of total climate finance flows, a figure which is at odds with the need for adaptation investments in that sector. Only Namibia managed to receive 24.7 percent of climate finance towards this sector, followed by Madagascar, Malawi, and Zambia within the range of 15 percent-17 percent. The remaining countries' finance to this sector stands between 1.5 percent and 10 percent.

Climate finance flows across countries are disproportionately distributed and do not match the spread of climate finance needs across countries. Countries that are highly vulnerable to climate change, and are in need of climate finance (Figure 2.6) do not necessarily receive relatively more climate funds (Figure 2.7). With the exception of South Africa which is the recipient of the highest percentage of climate funds in the region, consistent with its relatively high climate finance needs, the remaining countries' climate finance flows are unevenly distributed relative to their finance needs. For example, Angola's climate finance needs stand at 13.1 percent for the region but received 6.1 percent of the total flows in the region while Zimbabwe has climate finance needs which stand at 0.6 percent of the region's total

but receive 7.8 percent of the total flows.

This distribution and use of climate finance flows in Southern Africa indicate that factors other than their needs are at play. Using the OECD's Creditor Reporting System (CRS) database, the Climate Policy Initiative (2022) concludes that the climate finance disbursement ratio was generally lower across African sub-regions (except North Africa). The manner in which finance and projects are managed depends on good governance and bureaucratic procedures. As stated in the Southern African Economic Outlook 2022, the capability, technical competence, and skills of governments to conceptualise, initiate and implement mitigation and adaptation measures are limited. Consequently, many projects failed to meet the requirements of bilateral and multilateral donors. Together with weak institutional capacity, limited technology, lack of awareness, poor physical infrastructure, and unfavourable political environments, many Southern African countries find it difficult to access existing funds.

2.3.3 Emerging innovative sources of private sector finance for climate and green growth in Southern Africa

Debt and equity, as part of the unlisted instruments, remain the traditional financial mobilisation for Southern Africa, and their blended structure with other instruments can make them innovative. Unlisted financial instruments include debt and equity instruments, which are not traded on a public exchange and are particularly relevant with shallow public capital markets. The fact that these instruments are increasingly considered

for blended finance structures to mobilise untapped capital pools make it innovative. The blended finance structure is particularly appealing for many Southern African countries.

Green bond is one promising innovative financial instrument to Southern Africa.

Capital market instruments provide access to large-scale investors such as institutional investors. They are oriented towards stable and predictable returns. One capital market instrument is green bond. Under the Paris Agreement, green bonds have been the most prevalent and accessible option to finance climate change mitigation and adaptation projects. Green bonds are “fixed-income instruments with proceeds earmarked exclusively for new and existing projects that have environmental benefits and are a means of collecting financial resources to fund projects with positive environmental components. They have been issued by various players including sovereign states, multilateral development banks, large corporations, and commercial banks. The various categories of green bonds include “use of proceeds” bonds (proceeds from the bond sale are used to fund a green project), project bonds (debt backing is limited to the project assets and liabilities), and green securities (bonds secured by some form of collateral). Its issuance in Africa is dominated by only 3 countries which accounted for more than 90 percent of total green bonds, with South Africa accounting for over 66 percent. The remaining comes from Egypt and Benin. Namibia has now entered this market. Energy

continues to dominate as the most preferred recipient of green bond proceeds, but sectors such as transport, buildings, water, and waste management are starting to get more attention.

Carbon finance has received better attention in recent years and is also attractive to Southern Africa.

As a type of results-based finance mechanism, carbon finance enables operators of climate mitigation projects to monetize avoided carbon emissions. The main requirements are monitoring and reporting which often relied on scientific environmental assessment tools, coupled with good governance and accountability. The failure to meet the targets and results may be harmful as source of funding. The Zambia's case in Box 2.1 shows a promising avenue to consider carbon finance on a large scale.

Carbon credits could be a wise option to conserve and restore ecosystems and biodiversity.

Recently, there is a growing interest in establishing carbon credits and related mechanisms (e.g. carbon markets) from conserving and restoring terrestrial forests as a component of climate change mitigation. The ‘Reducing Emissions from Deforestation and Forest Degradation (REDD+)’ is one example. This type of initiative is further broadened to coastal and marine ecosystems that contain rich carbon reservoirs. The blue carbon option represents an opportunity for mangroves, salt-marshes, seagrasses, and wetlands restoration projects to receive carbon credits on the

Box 2.1: Promoting sustainable agriculture and forest conservation through carbon finance in Zambia

Climate change, coupled with unsustainable practices of land clearing for agriculture and charcoal burning, has degraded forests in Zambia. To address this issue and promote forest restoration, the World Bank initiated the COMACO Landscape Management Project, a partnership in landscape management involving the government, the World Bank, and the private sector through COMACO, a social enterprise that supports wildlife conservation and small-scale farmers in Eastern Zambia. More than 19,000 farmers were registered by the project, covering over 17,100 hectares of agricultural land. The scale of GHG emission reductions achieved by the project is about 264,578 tons of carbon dioxide equivalent. Finance through the Reduced Deforestation and Forest Degradation (REDD+), a total of \$885,200 has been paid to COMACO, chiefdoms and farmer cooperatives for emissions reductions generated by the project. The project also showcases the importance of the Public-Private Partnerships (PPP).

Source: Mubanga, N., Hooda, N., Braimoh, A., and Syiem, E. 2020. Promoting sustainable agriculture and forest conservation through carbon finance in Zambia – Lessons from the COMACO Landscape Management Project. World Bank Blogs. <https://blogs.worldbank.org/nasikiliza/promoting-sustainable-agriculture-and-forest-conservation-through-carbon-finance-zambia>

Box 2.2: Satellite-based weather index insurance in Mozambique

The IFC Global Index Insurance Facility (GIIF) supported the micro-insurance broker Guy Carpenter LLC and the insurance companies Hollard and EMOSE in 2012 to launch satellite-based weather index insurance in Mozambique. The insurance scheme covers cotton and maize farmers against risks of drought, low temperatures and excess rainfall. It also enables them to access the capital they need to invest in inputs and production to improve crop yield and food security.

The model uses 'portfolio pricing' whereby the sum insured in a given region forms the basis for risk calculation, which helps to lower the cost of the insurance premium for farmers. The agribusiness firms and the Cotton Institute of Mozambique pre-finance the insurance premium to act as a hedge against the climate risk to the future harvest of their farmers, and are recouped from the farmers at the end of the season. Therefore, the insurance provides cover for both the farmer and the agribusiness firms in the event of drought. The average insurance cost is reported at 15 percent of the total insured amount. During the first year of operation, the claims exceeded the number of premiums collected since 2013 was a drought year.

In 2018, this index insurance scheme has been supported by strong public-private collaboration, which is critical for creating markets for agricultural insurance. The Government of Mozambique committed \$1 million to provide premium subsidies for agricultural insurance products.

The biggest challenge for this PPP was the lack of data on historical exposure and crop yield, which increased uncertainty around product design. Disseminating technical information regarding the product to smallholder farmers was also identified as a challenge. The design of the project, with a multi-stakeholder approach with all actors invested in agricultural risk management, helped to overcome this asymmetric information barrier for both private actors (the farmers and the PPP).

Since the pilot phase the product has been successful, the Cotton Institute of Mozambique aims to expand the index insurance coverage to all cotton farmers in Mozambique and eventually to other agricultural sectors. However, before the scheme, there was no market for agriculture insurance products in Mozambique and this scheme helped to address this imperfect capital market barrier faced by clients. Since technological spillover is particularly present in the case of new products or business models, the initial grant from IFC compensated Guy Carpenter for the social benefits generated through piloting such a scheme.

Guy Carpenter, (2011), Guy Carpenter to Develop Agriculture Microinsurance Market. <http://www.-guycarp.com/content/dam/guycarp/en/documents/PressRelease/2011/Guy%20Carpenter%20to%20Develop%20Agriculture%20Microinsurance%20Market%20For%20Farmers%20in%20Mozambique.pdf> (accessed 18/04/2023)
Global Index Insurance Facility and the World Bank group. Mozambique https://www.indexinsuranceforum.org/sites/default/files/3321_Mozambique_March2019_0.pdf (accessed 18/04/2023)

voluntary carbon market.. This option is particularly appealing to countries having coastal lines, including SIDs, such as Mauritius and São Tomé and Príncipe. The data and information requirements remain a barrier. The option relies on highly scientific and systematic collection of

data on the carbon sequestration of different ecosystems, with particular emphasis on the geographical location.

Given the growing demand for risk-mitigating instruments, insurance is one channel

that may answer the call for Southern Africa. Insurance as a risk mitigating instrument can cover a variety of climate risks, thus improving the structure and quality of investment and making projects more attractive to the private sector. It can also aim at tackling imperfect capital market barriers. Insurance products can cover loss or damage to growing crops as a result of natural and climate-related hazards such as hail, drought, flood, and insects (crop insurance).

Debts for swaps have received interest but their progression is slow. Debt for swaps (e.g., debt for nature and debt for climate swaps) have existed in different forms for decades but have gained increasing popularity

in recent years, especially as external debt levels in Africa, repayment burdens and stretched public finances continue to slow down development in African countries. Debt for swaps can help reduce the fiscal burden of external debt and has been used in African countries (e.g., Ghana, Cameroon, and Madagascar).

2.4. THE (PRIVATE SECTOR) FINANCING GAP FOR CLIMATE ACTION AND GREEN GROWTH

The discrepancy between climate finance flows and financial needs is immense across the Southern African countries. Table 2.3 shows the average financing gap as a percent of GDP.

Table 2.3: Climate financing gap

Country	Financing gap as % of GDP (Upper bound)	Financing gap as % of GDP	Financing gap as % of GDP (Lower bound)
Angola	7.1%	4.7%	2.3%
Botswana	2.9%	1.9%	0.8%
Eswatini	0.8%	0.5%	0.2%
Madagascar	10.0%	6.6%	3.2%
Malawi	5.1%	3.2%	1.3%
Mauritius	2.0%	1.3%	0.6%
Namibia	1.6%	1.0%	0.3%
South Africa	12.3%	8.1%	4.0%
Zambia	6.0%	4.0%	2.0%

Source : AfDB Staff calculation

Countries such as Madagascar and South Africa have huge climate financing gap of 10 percent and 12.3 percent respectively. This indicates the necessity to search for alternative financing sources and the importance of the private sector financing to bridge this gap.

Private sector financing still plays a marginal role in the provision of climate finance in Southern Africa. Private financial flows come from Commercial Banks, Commercial Financial Institutions, Institutional Investors, Corporations, and Households/individuals. The biggest share comes from Corporation, followed by Commercial Bank and Financial Institutions.

2.5. BARRIERS AND OPPORTUNI-

TIES FOR LEVERAGING PRIVATE SECTOR FINANCING FOR GREEN GROWTH IN SOUTHERN AFRICA

2.5.1. Barriers to Innovative Private Sector Financing in Southern Africa

The financing options for green growth have to be considered within the investment climate with associated challenges in Southern Africa. While the private sector has a key role to play in the climate finance landscape, existing challenges that impede private sector investment will prevent the leveraging of private sector financing for green growth. Faced with a multitude of challenges, within underdeveloped financial markets, private investment has been significantly low for

the past three decades in several countries including Zimbabwe and Zambia.

The capital markets in Southern African countries are at different stages of development and maturity when it comes to attracting investment in green infrastructure. The banking sector in Southern Africa is among the most developed on the continent, and are well-capitalised, but remains vulnerable to external shocks and tightening conditions¹⁰⁵. Mauritius and South Africa are broad-based and integrated with the global financial system. However, the banking sector in Mauritius is vulnerable to external economic shocks and is dependent on a small number of economic sectors (tourism, construction, and real estate). Zimbabwe's financial system is highly vulnerable to economic downturns and high inflation rates. Angola's financial system is also vulnerable due to high inflation. In Zambia, progress on debt restructuring has been slow, but renewed investment inflows for large capital projects could be underway with China now part of the negotiations. Moreover, the country has a current account surplus due to a strong trade balance from copper exports. Mozambique identifies risk aversion by investors is mainly due to uncertainties, and unsteady financial markets. The banking sector in the remaining countries remains relatively well-capitalised and with a low level of non-performing loans. Four major credit constraints — lack of acceptable collateral, poor credit history, reduction in asset quality, and lack of bankable projects — limit credit supply. The lack of collateral is among the most pressing problems in Southern Africa.

Access to finance remains a key impediment to private sector investment in the Southern Africa region. Access to capital remains a key constraint for businesses. Investors have struggled to place capital in several countries (for e.g. South Africa). In many Southern African countries like Angola, Zambia, Namibia, Botswana, and Zimbabwe, bank lending is small and interest rates are relatively high. In Zimbabwe, nearly half of the banks face liquidity challenges and few alternative sources of capital exist beyond commercial banks. The few large-scale microfinance institutions active in the country charge interest rates typically between four and five percent per month and are primarily able to serve traders looking to meet short-term needs for financing. The cost of financing as a major or severe constraint has been identified as a major constraint by investors. For instance, in Mozambique, bank financing is typically expensive, with interest rates on small-business loans rarely below 15 percent. Madagascar has no debt market outside of

government paper, and foreign-owned banks offering only basic savings and credit instruments to a limited customer base dominate the financial sector¹⁰⁶. Due to the underdeveloped private sector in Malawi, few businesses are ready and willing to accept external capital. The lack of a sufficient supply of financial products and bank credit to finance is likely to impede private climate finance.

Market imperfections are likely to impede significantly private investment in climate actions. Southern African countries are faced with several market imperfections which could create distortions in the risk/return profile of climate-related investment. First, such investment is difficult to identify and implement, mainly due to the limited information of differentiating investment in adaptation from standard business activities. Second, incomplete and/or asymmetric information on climate change impacts (for e.g. intensity and frequency of extreme weather events), is likely to prevent private investors from making effective adaptation decisions and investments. Finally, private adaptation investment generates benefits beyond its investors, referred to as positive externalities. When these benefits are not accounted for or compensated for, they may deter investors from investing in measures that also contain adaptation benefits for the public, as this is not reflected in their return on investment.

Macroeconomic risk and government fiscal policies could also represent significant barriers to private finance. Volatile foreign exchange rates, high-interest rates, and a lack of hard currency are existing barriers to private investment¹⁰⁷ and could also impede private climate financing. Fiscal outcomes have major implications for price stability and external imbalance which also affect private investment. In Zambia, government borrowing crowds out private lending by commercial banks. The high frequency of changes in tax policy in many Southern African countries remains unjustified and impact negatively on the business community. State intervention such as fossil fuel subsidies also skew the relative cost-benefit of low-carbon projects¹⁰⁸.

Southern Africa region is also faced with significant political and regulatory risk. For instance, in Madagascar, the 2009 coup d'état led to years of instability, hardship, and economic contraction. Green finance is also subject to risks related to insecure property rights regimes, fragile or unstable policy environments, and/or legal systems. The nature of regulations in some countries could constitute an impediment to private sector investment in low-car-

The discrepancy between climate finance flows and financial needs is immense across the Southern African countries.

¹⁰⁵ Bel, E. (2021). *Growing Green: Catalyzing Climate Finance in African Markets*. Atlantic Council/Africa Center.

¹⁰⁶ GIIN (2016) *The Landscape for Impact Investing In Southern Africa*. Global Impact Investing Network. GIIN Advisory Team.

bon projects. In South Africa, for instance, the adoption of the Basel III banking regulation is known to reduce the motivation of commercial banking institutions to invest in low-carbon projects. Low-carbon projects are long-term and riskier initiatives and under the Basel III regulations, banks are required to hold additional capital to cover investments in the longer-term and riskier initiatives.

A lack of awareness, internal knowledge and technical capacity is observed to assess climate risks and integrate climate science in business activities.

Private sector often lacks the capacity to evaluate climate science and integrate short to medium-term projections of local impacts of climate change to commensurate with the scale of their business activity. This limited capacity impede innovation, development and deployment of business solutions to address climate challenges¹⁰⁷. When green/climate finance is available, recipients find it difficult to articulate their needs and to identify the green benefits of the projects, given the highly technical and financial requirements. Donors have shown slow responses to fund requests partly due to the bureaucratic processes of board-level approval and the lack standardised, viable, and bankable projects. Banks and financial institutions also suffer a lack of understanding of climate-related investment opportunities. With an inadequate technical capacity in the operational steps involved in green lending investments, few bankable projects are financed, if any.

There is also high upfront costs compared to returns (e.g. low-carbon investment) and revenue volatility from climate compatible projects.

The climate-smart agriculture project is one example where revenue is tied to weather risk. Inadequate risk management mechanisms and standards including credit ratings, and risk transfer and pooling instruments lead to a huge difficulty in accessing the longer-term financing viability of green projects. There is also the issue of the credibility of off-takers. A key issue in climate finance is how to mobilise finance for smaller-scale initiatives (e.g. residential solar power and storage, energy efficiency, waste management), to enable communities to move towards a climate-resilient society. However, the high transaction costs for smaller projects, and the difficulty in raising financing for technologies that have not been proven locally, makes financial institutions to be less responsive to such projects.

There is a lack of enabling conditions to mobilise private finance for green growth.

Countries in the Southern Africa region have

made limited progress in creating an enabling environment for private sector investment in sectors such as climate-smart agriculture and energy efficiency. For instance, in several countries including Zambia, the financial sector makes it very challenging for the private sector to find a bank guarantee. This constrains investment in climate actions. In other countries, private investments are constrained because of state policies in specific climate-related sectors. For example, in Lesotho, the energy sector is strongly supported by national and multinational companies. With the low electricity tariffs and the costs of renewable energy investment, the electricity market remains unattractive to private investors¹¹⁰.

There are also non-economic challenges to private sector financing for green growth.

Infrastructure is a major barrier to private investment and is likely to impede significantly private sector financing in green growth (for e.g. Madagascar, Mozambique, and Angola). Physical access to rural banking facilities is still very limited. Other factors include crime, theft, fraud, and disorder (for e.g. Zambian business environment¹¹¹). In Mozambique, alongside its poor infrastructure, low level of education, and political tensions, the linguistic and cultural barriers for non-Portuguese speakers is a also constraint to private investment.

2.5.2. Opportunities to mobilise private sector finance for climate and green growth

There are innovative financial instruments which are emerging in the Southern Africa region to mobilise private sector finance.

Currently, there is considerable interest from investors in green bonds. Countries in the region such as Madagascar, Namibia, and South Africa are using climate / green bonds to unlock private finance that is currently unavailable to address climate change adaptation and mitigation. Nedbank of South Africa issued the continent's first green bond in 2012, with the proceeds dedicated to investments aiming to boost employment in the manufacturing, construction, and infrastructure sectors of the green economy. In the subsequent years, a number of green bonds were either issued by governments or benefited from the sovereign guarantees. These bonds are increasingly attractive asset classes for institutional investors in the region. The fact that they are currently operational provides important lessons for their consideration and implementation in other countries.

Public-Private Partnerships is a viable option to explore when resources involve

¹⁰⁷ Munthali, T. C. 2011. *Interaction of public and private investment in Southern Africa: a dynamic panel analysis*. *International Review of Applied Economics*. Vol. 26, no. 5. <https://doi.org/10.1080/02692171.2011.624500>

¹⁰⁸ Bel, E. (2021). *Growing Green: Catalyzing Climate Finance in African Markets*. Atlantic Council/Africa Center

¹⁰⁹ <https://www.greenclimate.fund/document/enhancing-lesotho-s-private-sector-readiness-clean-energy-transition>

Box 2.3: Renewable Energy Independent Power Producer Procurement Program (REIPPPP)

In 2011, the Government of South Africa launched the Renewable Energy Independent Power Producer Procurement Program (REIPPPP), public-private partnership. Since its launch, the private-sector investment has been committed for 79 awarded projects. The program has resulted in significant reductions in tariff rates for solar photovoltaic (PV) and wind over a short period, with positive impact on rural development. The REIPPPP is highlighted as a significant policy for enabling achievement of climate change mitigation goals in South Africa. The success of the program was attributed to independent operation of the South Africa Department of Energy (DOE) Independent Power Producer (IPP) with its extensive expertise in design, communication strategy to stakeholders and interactions with the private sector and key senior government officials. Key design elements of the framework included: (1) allowing several bid winners, which incentivized participation; (2) including large capacity allocations and the rolling bidding process, which built confidence in the program; (3) developing complementary policies to fast-track the program and reduce administrative barriers; (4) requiring bids to be fully underwritten by debt to reduce challenges associated with underbidding; and (5) ensuring reasonable profits through connection with tariff caps. Moreover, the integration of economic-development requirements with the bidding process gathered support across stakeholders and provided a connection to broader development goals. The availability of long-term project finance within the South African capital markets supported the success of the program by enabling investment and deployment. The program was improved over time based on lessons from each competitive bidding round.

There are innovative financial instruments which are emerging in the Southern Africa region to mobilise private sector finance.

<https://ndcpartnership.org/case-study/south-africa%E2%80%99s-renewable-energy-independent-power-producer-procurement-programme>
Montmasson-Clair, G., Ryan, G. 2014. Lessons from South Africa's Renewable Energy Regulatory and Procurement Experience. *Journal of Economic and Financial Sciences* | JEFIS September 2014 7(S), pp 507-526

multiple stakeholders. There have been cases of successful implementation of Public-Private Partnership (PPP) in the African continent. Lessons learned from the successful projects can help many countries to develop more projects towards PPPs. One example is the Renewable Energy Independent Power Producers Procurement Programme (REIPPPP) which is a South African government scheme to attract private investment into renewable energy in South Africa. Funding for the programme is provided through foreign and local private equity and large commercial and development banks (Box 2.3)

Developing and implementing blended finance is the new gateway to mobilise private sector finance. Blended finance, according to the International Finance Corporation (IFC), is the use of relatively small amounts of concessional donor funds to mitigate specific investment risks and help rebalance risk-

reward profiles of pioneering investments that are unable to proceed on strictly commercial terms¹¹². Blended finance involves concessional financing acting as debt, equity, guarantee, or risk-sharing. To date, sub-Saharan Africa has been the most dynamic region for blended finance in the world, accounting for 33 percent of global transactions between 2017 and 2019 and 43 percent historically.¹¹³

There is an interest even if it is currently low, among commercial banks to invest in green projects. Africa's banks are making green investments, although these still represent a small share of their total portfolios. East and Southern Africa are slightly ahead of other African regions in taking up these opportunities, with 12% of banks in East Africa and 7% in Southern Africa having more than 20% of their total portfolio in renewable energy, compared to 6% for the sample overall¹¹⁴. However, the renewable energy sector still represents less

¹¹⁰ Enhancing Lesotho's private sector readiness for a clean energy transition <https://www.greenclimate.fund/document/enhancing-lesotho-s-private-sector-readiness-clean-energy-transition>

¹¹¹ Chikosi, C., Ramachandran, V., Cotton, L., Leechor, C., Habyarimana, J. An Assessment of the Investment Climate in Zambia

Box 2.4: Programmes which can replicated for private sector finance

The **Development Bank of Southern Africa (DBSA)** initiated a programme as the first private sector climate finance facility in Africa using a green bank model, which de-risk and increase the bankability of climate projects in order to crowd in private sector investment. Its successful implementation will prove that similar financial models can be replicated in other developing countries¹¹⁷.

Africa GreenCo, a not-for-profit company based in London, having identified a lack of creditworthy off-takers in sub-Saharan Africa as a barrier, aims to boost private sector investment in renewable energy generation in the region by acting as a regional intermediary off-taker. To reduce credit risk, therefore, Africa GreenCo aims to pool risk across countries on a regional basis. It serves as an intermediary aggregator between buyers and sellers which can help attract sustainable investments in the power sector on the strength of a multi-buyer model.

In Zambia, the WWF interventions are driving landscape-based, green bankable investments through the **Dutch Fund for Climate and Development**. Eligible projects have to be private sector-led and have to help save degrading landscapes. Essentially, green funds will flow to projects in Zambia that deliver the commercial, social and environmental returns¹¹⁸.

The African Development Bank Group has launched the African Green Bank Initiative, a new initiative for green banks. The launch of this initiative gives a unique framework for the African Development Bank to provide governments and financial institutions (public and private banks, microfinance, etc.) with technical assistance grants, fundraising support, and co-financing opportunities for green projects, by providing credit enhancement solutions to reduce the risks inherent in investing in sustainable projects¹¹⁹.

Climate Investor One is an FMO-backed infrastructure fund set up to facilitate private sector investment in developing countries. It provides technical, environmental and social due diligence support at an early-stage for renewable energy projects. It then finances a large part of construction costs with equity and unlocks new capital through a pooled refinancing fund that should attract institutional investors. One of its projects is involved in a four-way all-equity partnership with eleQtra Limited in Zambia, funded solely by equity and re-financed after commercial operation.¹²⁰

than 10% of the total portfolio for two-thirds of banks, suggesting that green financing opportunities are yet to be grasped across the board.

The increasing political commitment toward climate and green growth provides a signal to private investors to search for optimum risk/return portfolios. Climate change is increasingly viewed from a development perspective rather than solely from an

environmental standpoint. Many countries have already developed mitigation and adaptation strategies and plans which provide guidelines to private investors. In Zambia, the National Climate Change Policy and National Climate Change Response Strategy are both expected to pass through the cabinet. In parallel, a strategy to reduce emissions from deforestation and degradation is underway¹¹⁵. Similarly, in Namibia, there is the adoption of the Natio-

nal Climate Change Policy and the development of a draft Climate Change. In Botswana, Mauritius, Namibia, and South Africa, the governments are making progress towards the provision of robust planning, clear targets, and legal frameworks for renewable energy production expansion. The objective is to increase the share of renewables in the national electricity mix. This gives opportunity for private-sector investments. A number of Southern Africa countries such as Zambia and Zimbabwe have also developed their climate-smart agriculture (CSA) roadmap as well as the CSA investment plan (CSAIP) that is complementary to the SADC agricultural policy¹¹⁶.

Dedicated programmes developed successfully to de-risk green investment could be replicated in other Southern African countries.

International institutions have developed programmes to provide access loans and lines of credits to both private and public sectors for implementing green projects across different sectors. DFIs with their capacity to directly access dedicated climate funds is an advantage to assist financial institutions in Southern Africa. Box 2.3 provides cases where programmes have been developed from this perspective. Microfinance has also been used as a tool to strengthen the resilience and adaptation capabilities of farmers to climate shocks. Examples include investment in irrigation systems or drought-resistant crops. However, results have been mixed. For example, direct finance provided to Mozambique farmers for investment in climate-resilient irrigation had limited impact because of difficulty in maintaining equipment and financing inputs. Insurance schemes also help households cope with the risk of climate-related shocks. Weather or crop micro-insurance can be used to insure against losses from crop failures or prices falling due to weather events, offering significant potential benefits for smallholder farmers with high exposure to climate risks. For example, the African and Asian Resilience in Disaster Insurance Scheme provides climate insurance to rural families and smallholder farmers, aiming to provide recovery finance after any potential climate shock.

Private sector climate finance can be further accelerated through the provision of

concessional finance. Credit enhancement mechanisms¹²¹ at their core, seek to ‘crowd in’ or catalyse private sector finance. This has the effect of reducing some of the risks associated with infrastructure-based projects, such as performance and credit risks, currency risks and technology risks. Credit enhancement mechanisms can be provided by entities that provide concessional finance (DFIs, governments, and multilateral and regional agencies) in the form of guarantees, tenure extension mechanisms, lower-than-market pricing and subordinated loans.

2.6. THE ROLE OF DFIS AND MDBS IN UNLOCKING PRIVATE SECTOR FINANCING TOWARD CLIMATE TRANSITIONS AND GREEN GROWTH

Multilateral development finance institutions (DFIs), including multilateral development banks (MDBs) and national development banks (NDBs) play a prominent role in supporting and delivering multilateral climate finance. DFIs, including MDBs are the main providers of global public finance for adaptation. The collective commitment of MDBs¹²² was USD 58.8 billion in 2021¹²³. MDBs announced their climate action targets for 2025 at the UN Secretary General’s Climate Action Summit in New York in September 2019, with an expected collective total of \$50 billion for low-income and middle-income economies, and at least \$65 billion for climate finance globally, with an expected doubling in adaptation finance to \$18 billion, and private mobilisation of \$40 billion. Many have incorporated climate change considerations into their core lending and operations, and most MDBs administer climate finance initiatives with a regional or thematic scope¹²⁴.

DFIs and MDBs have an important role to set and support efficient transmission of funds towards green investment. There is a need to enable the efficient transmission of funds into appropriate green projects. DFIs and MDBs will be called upon to encourage and ensure financial resources allocated to Southern Africa region are directed towards climate actions. For example, the AfDB and World Bank

¹¹² Blended Concessional Finance,” International Finance Corporation, accessed March 24, 2021, https://www.ifc.org/wps/wcm/connect/topics_ext_content/ifc_external_corporate_site/bf.

¹¹³ Bel, E. (2021). Growing Green: Catalyzing Climate Finance in African Markets. Atlantic Council/Africa Center.

¹¹⁴ European Investment Bank, 2021. Finance in Africa: for green, smart and inclusive private sector development. https://www.eib.org/attachments/publications/economic_report_finance_in_africa_2021_en.pdf#page=111

¹¹⁵ <https://www.cbd.int/financial/climatechange/zambia-climate-giz.pdf>

¹¹⁶ AfDB 2021. NDC Implementation in Africa through Green Investments by Private Sector A Scoping Study The African Development Bank <https://africandchub.org/sites/default/files/2021-06/African%20NDC%20Scoping%20study%2031.03.pdf> (accessed 26/04/2023)

¹¹⁷ <https://www.greenclimate.fund/project/fp098>

¹¹⁸ <https://www.undp.org/africa/events/green-business-and-climate-investment-business-solutions-and-impact-investment-sdgs-africa>

¹¹⁹ <https://allafrica.com/stories/202211170458.html>

¹²⁰ <https://www.nortonrosefulbright.com/en-zw/knowledge/publications/9867e6a5/new-approaches-to-climate-finance>

provide project financing liquidity in several key areas of business and economic development. The portfolio of the AfDB in Angola includes the agriculture, rural development, and environment; social, including health and education; water and sanitation; and multi-sector. The AfDB also focuses on economic and social programs related to gender, education, private sector development, microfinance. The World Bank Group portfolio in Angola includes major efforts in the water and agriculture sectors. These sectors are inextricably linked to climate actions. By initiating project finance towards climate action, MDBs can facilitate market participants to better leverage finance towards climate actions. In Angola, for instance, the World Bank “Smallholder Agricultural Development and Commercialization” project loan aims at increasing smallholder agriculture productivity, production, and marketing for selected crops. This initiative can also complement private climate finance to further boost the capability of farmers to climate adaptation.

DFIs and MDBs could pre-screen prospective projects to align the global benefits of green projects with the potentially high local costs and develop tools to manage climate risks. One of the key challenges is the dearth of ‘bankable’ climate change projects, i.e., projects with a clear business case that can attract financial investment. Demonstrating the bankability of a project requires more than just a technical report, and extends to a financial model and an environmental, social and governance (ESG) impact report. In order to leverage private sector financing for conservation, banks, and financial institutions need to adopt the tools to measure and manage climate risk¹²⁵. The global benefits of green projects will have to be aligned with the potentially high local costs. The framework to mainstream climate risks will need to identify the green portion of the projects, separate the development part and climate adaptation/mitigation part, quantify the benefits over a time horizon, assess multiple funding, and determine the appropriate funding mix¹²⁶. In this respect, DFIs and MDBs could assist in pre-screen prospective climate projects, and could provide more granular project-level information on mitigation and adaptation outcomes. Standardizing approaches would streamline reporting and analysis.

DFIs and MDBs have an important role to play in de-risking climate-related projects

in Southern Africa. This can be achieved in a number of ways. In the early stages of projects, DFIs and MDBs can use instruments such as growth equity or concessional construction debt, to enabling projects to overcome acute barriers to finance and establish operating performance data. They can also provide credit lines on concessional terms or other financial support such as credit enhancement mechanisms (i.e., sub-ordinated loan facilities, first loss facilities or guarantees) to local financial institutions, which then disburse the funds to project developers. DFIs and MDBs can act as a guarantee to ensure an uninterrupted flow of payments from off, thereby scaling up liquidity facilities to assist renewable energy investors fulfilling their business obligations. These liquidity facilities can evolve to incorporate the role of guarantor supported by MDBs and DFIs in compliance with guidelines issued by multilaterals and agreed by shareholders.

DFIs and MBs can intervene to release capital from balance sheets. Balance sheets of investors and financial institutions in general disclose rights and obligations connected to the owning and lending of assets. DFIs can use those elements to raise additional funds by posting existing assets as collateral (provided they are not pledged to any other lender as financial collateral)¹²⁷ and partially repackaging receivables from guaranteed loan repayments into new financial structured products in the market. In practice, DFIs could offer a (high rated) new debt product (e.g. a collateralised debt obligation)² guaranteed and managed by a bank such as an MDB to qualified investors (e.g. pension funds, insurers, institutional investors, etc.) and traded on international exchanges. The new debt obligation product's proceeds would be used in new investments.

DFIs and MDBs are expected to provide in-country technical and advisory support for climate financing. DFIs generally provide technical support and training on specific sectors and/or technologies to ensure that funds are deployed in an effective way to achieve desired outcomes. Technical and advisory support is essential to build enabling conditions and policy environment—including regulatory, fiscal, financial, and trade – and to better align the financing conservation agenda and climate change agenda¹²⁸. There is a greater role of DFIs and MDBs for downstream advisory services and capacity building to understand the dri-

¹²¹ Rumble, O. and First, J. 2021. *Accelerating Private Sector Climate Finance in Africa*. SAIIA Policy Briefing No 249, October 2021. <https://saiia.org.za/research/accelerating-private-sector-climate-finance-in-africa/>

¹²² African Development Bank (AfDB), the Asian Development Bank (ADB), the Asian Infrastructure Investment Bank (AIIB), the Council of Europe Development Bank (CEB), the European Bank for Reconstruction and Development (EBRD), the European Investment Bank (EIB), the Inter-American Development Bank Group (IDBG), the Islamic Development Bank (IsDB), the New Development Bank (NDB) and the World Bank Group (WBG).

¹²³ 2021 Joint Report On Multilateral Development Banks' Climate Finance. www.eib.org/mdbs-climate-finance (Accessed 14/04/2023).

¹²⁴ Watson, C., Schalatek, L., and Evequoz, A. 2022. *The Global Climate Finance Architecture*. Climate Funds Update.

¹²⁵ Ambachtsheer, J., Colas, J., Khaykin, I., Pyanet, A. 2017. *A Stressing Climate. Key Challenges for Banks in Assessing and Disclosing Climate-Change Risk. Financing For Climate Resilience*. Marsh & McLennan. Global Risk Center.

¹²⁶ Reynolds, P. and Kwatra, G. 2017. *Practical Considerations To Enhance Structures In Place Today. Financing For Climate Resilience*. Marsh & McLennan. Global Risk Center.

vers, increase project standardisation, support project development, from preparation to implementation, and monitoring, and ensuring the integration of climate risk management strategies. One channel is to develop certification on climate quality assurance.

There is higher expectation for DFIs and MDBs to institutionalise climate finance coordination in their attempt to mainstreaming of green policy across their lending portfolios, and.

Addressing climate change involves many sectors – such as forestry, land, agriculture, water, and finance, as well as a multitude of actors including diverse government departments, civil society, academia and local communities. Coordination is therefore critical for ensuring that finance is effective in achieving its objective. DFIs and MDBs can also assist to institutionalize climate finance coordination for policy coherence, and finance delivery to enable Southern African countries to adapt to and mitigate climate change, while avoiding overlapping responsibilities and struggle for institutional legitimacy, among local institutions. Climate finance coordination in Zambia led by the World Bank and the UNDP is an example¹²⁹. When responsibility for coordinating climate finance was moved to the Ministry of Finance in 2012 with the establishment of the Interim Climate Change Secretariat, the latter was unable to assume unilateral authority for the coordination. The emergence of a climate finance coordination framework was successful with the support of the UNDP and World Bank acting within the development aid coordination infrastructure. MDBs' collaboration with the private sector is essential, to set the framework for mainstreaming climate impacts in banks' financial dealings, thereby ensuring climate risks are assessed, priced, and managed.enders, insurers, investors, and other stakeholders. They are in a position to lead the private finance sector by developing transparent accountability, reporting standards climate projects and harmonizing contracts for sustainable investment.

2.7. CONCLUSION AND RECOMMENDATION

Policy options are required to establish the enable environment for the private sector as a partner to spearhead transformative actions and provide private sector finance to bridge the climate finance gap.

2.7.1 Short term policy options

Developing a country-level road map for green growth and climate action the mobilization of private sector finance.

There a need for strong policies and guidelines for green growth in each Southern African country. In order to develop complementarity between public and private sector involvement, Southern Africa must develop a green growth road map with priorities on climate investment and green projects, with clear timelines, budget, etc. Developing a contextual understanding of different types of private sector investors (present and potential) is important. This will provide strong signals to domestic and international stakeholders on countries' green growth and climate change priorities.

Strengthening governance systems to ensure that proceeds from private sector finance are transparent and accountability.

Private sector finance is based on the proper utilization of funds, which generates the expected and maximum impact for green growth. Effective monitoring and evaluation frameworks are essential, together with transparent and accountable systems. This will involve the establishment of consultative platforms on green growth and climate actions and identifying bankable climate and green projects in a holistic and transparent manner.

Address specific access barriers to private sector financing. It is also important to address a series of barriers which are impeding the financial flows of private sector. Infrastructural development to enable physical access to rural banking facilities is necessary. It is recommended to tackle issues relating to the high upfront cost compared to returns, lack of acceptable collateral, poor credit history and lack of bankable projects to facilitate green projects financing.

Advancing the use of blended finance instruments to leverage additional private sector finance. Southern Africa is expected to make effective use of blended finance instruments by ensuring that finance allocations demonstrate additionality and proportionality. Potential impact of these investments should therefore be used to inform allocation of finance for blending, particularly by ensuring that there is a balance between infrastructure financing and social development and environmental management projects. It is recommended to establish national level standardized blended finance vehicles that offer attractive returns for institutional investment and

¹²⁷ : IRENA and CPI (2023), *Global landscape of renewable energy finance, 2023*, International Renewable Energy Agency, Abu Dhabi. https://mc-cd8320d4-36a1-40ac-83cc-3389-cdn-endpoint.azureedge.net/-/media/Files/IRENA/Agency/Publication/2023/Feb/IRENA_CPI_Global_RE_finance_2023.pdf?rev=8668440314f34e588647d3994d94a785 (accessed 25/04/2023)

¹²⁸ World Bank (2020) *Mobilizing Private Finance For Nature A World Bank Group paper on private finance for biodiversity and ecosystem services*. The World Bank Group <https://thedocs.worldbank.org/en/doc/916781601304630850-0120022020/original/FinanceforNature28Sepwebversion.pdf> (Accessed 14/04/2023)

¹²⁹ Dupuy, K., Sambo, P. T., Funder, M., Chama, E. 2019. *Coordinating Climate Finance: Lessons from Zambia*. PRIO PAPER. https://pure.diis.dk/ws/files/3103850/2019_Climate_Finance_Coordination_lessons_from_Zambia.pdf (Accessed 14/04/2023)

to use concessional capital, guarantee/ risk insurance, technical assistance and design stage grants towards supporting the upstream phase of project preparation

Enhancing Training, capacity building to screen adaptation and mitigation investment projects and to promote green bankable projects. It is recommended to tackle issues related to the lack of the capacity and internal knowledge to evaluate climate science and to integrate the information in climate-related projects. The facilitation of private financing is determined largely by the bankability aspects which in turn depend on the capacity to screen adaptation and mitigation investment projects.

2.7.2 Medium term policy options

Deepening of capital markets. Southern African countries should further expand and deepen their capital markets to enable further mobilization of sustainable finance by providing affordable financing through domestic capital markets. This will also encourage private sector confidence in domestic markets and increase the capacity of domestic institutions in mobilizing finance from international institutions.

Addressing the debt sustainability issue.

Unsustainable debt is one of the biggest barriers to the mobilisation of private sector finance. MDBs and DFIs can be instrumental in helping African countries to improve the sustainability of their external debt. MDBs and DFIs should: expand issuance of concessional finance for green growth and climate change projects so as not to push countries into further debt; and expand and accelerate mechanisms for sustainable debt management particularly to countries with medium to high likelihood of debt distress.

2.7.3 Long-term policy options

Promoting regional coordination of the international private and public institutions.

Large MDBs can leverage their convening power and adopt coordinating role across the global private and public sector landscape to direct finance towards Africa. MDBs can also use their voice to encourage developed countries to strengthen their commitment towards meeting climate finance goals. This finance can then be used to further unlock private sector finance investments particularly towards social and environmental outcomes.

NATURAL CAPITAL FOR CLIMATE FINANCE AND GREEN GROWTH IN SOUTHERN AFRICA

KEY MESSAGES

- **Southern Africa is gifted with rich and abundant renewable resources (arable land, water, forest, and fisheries), and non-renewable resources (coal, gas, oil, and minerals).** The natural capital in the Southern Africa region is a major contributor to growth and fiscal revenue, driving investment in physical and social infrastructure. However, the region is particularly at risk of the devastating impacts of human activities and climate change on the natural capital.
- **There are three challenges of the Anthropocene facing the Southern African countries: mitigating and building resilience to climate change; protecting the natural capital and ensuring human well-being which must be tackled together.** These challenges are complex since natural capital, human activities, and climate change impact each other. Biodiversity loss and climate change also mutually reinforce each other and are both driven by human activities.
- **Natural capital is positioned at the intersection of climate resilience and human well-being and has a vital role in helping countries adapt to climatic change.** It provides cheaper and longer-lasting solutions to adaptation. Nature-based solutions can also provide cost-effective options to reduce the emission gap to meet the targets under the Paris Climate Agreement.
- **Natural resource management in Southern Africa however is faced with weak governance structure and poor institutional and legislation frameworks.** As a results, the region faces three rampant challenges: illicit trade, illicit and illegal financial flows (IIFs), and political economy of rent seeking and misdirect public spending and corruption, which are depleting the natural capital.
- **The green growth model supports a shift in global financial flows away from nature-negative outcomes and towards nature-positive outcomes.** With good macro-economic policies and strong institutions, natural capital can pave the way for the efficient allocation of capital, stimulate investment and generate sustained economic growth.

Policy options to improve the management of natural capital include:

Short-term: institutional and legal reforms, enhancing coordination among state and social actors, and initiating innovative asset class to manage natural capital.

Medium term: technical and human capacity, data and information facilities and good governance structures are warranted for sustained natural resource management and prevent rent-seeking.

Long term: the establishment of fully-fledged digitalised technologies with state-of-the-art ICT equipment, and a regional, continental and global framework is essential for monitoring and surveillance and combatting illegal trade and IFFs.

3.1 INTRODUCTION

The depletion of natural capital is a direct consequence of human activities and climate change. While human activities are driving global warming, they are also depleting the natural capital - the stock of natural resources and environmental assets (renewable and non-renewable) (Box 3.1). According to the 2019 report of the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES), five key causes of the unprecedented decline in biodiversity are land and ocean use, overexploitation of organisms, pollution, climate change, and invasive species¹³⁰. The marine and coastal ecosystems are also currently under threat from poorly managed fishing practices, unsustainable infrastructure development, inadequate management of natural habitats, and weak governance.¹³¹

Climate change accelerates the depletion of natural capital as it alters the geophysical conditions¹³², making it difficult for ecosystems to adapt. A warmer temperature exacerbates the natural disturbance severities, causing significant modifications to forests¹³³ and damaging ecosystems¹³⁴. It leads to severe alterations in species composition and reduces the ability of forests to act as carbon sinks¹³⁵. Ecosystems, being joint products and complementary to one another, are self-regulating, but only within certain thresholds. Beyond given thresholds, ecosystems can no longer sustain a disturbance and the cascading effect on ecosystem processes can cause an accelerating rate of natural capital depletion. Both climate and anthropogenic factors can lead to trespassing these thresholds, triggering significant economic losses.

Southern African countries are particularly at risk from the devastating impacts of climate change on ecosystems. Countries such as Angola, Mozambique, Zambia, and Zimbabwe (among others) with vast forest areas and unique ecosystems are particularly exposed to the impact of climate change.

Oceans warming has harmful consequences on marine life and coastal communities, increasing the vulnerability of island states (Madagascar, Mauritius and São Tomé & Príncipe), as well as countries with coastlines (Angola, Madagascar, Mauritius, Mozambique, Namibia, São Tomé & Príncipe and South Africa).

A declining natural capital has strong repercussions on human well-being. Continued degradation of natural capital may result to rural poverty, disruptions in supply chains, accelerating rural-to-urban migration and potentially increasing land and natural resource conflicts¹³⁶. It may therefore reverse progress made on the SDGs. Enterprises that fail to integrate the risks associated with a depleting natural capital face a high risk of reduced corporate earnings. Business disruption over time may force investees to default on their financial obligations, reducing their ability to access finance.¹³⁷ The transmission channel goes to increased credit risk and reduced debt capacity of financial institutions. At the extreme, this could lead to bank defaults.

Building climate resilience, protecting natural capital, and ensuring human well-being are three interconnected challenges of the Anthropocene which must be addressed together. Natural capital, human activities, and climate change impact each other¹³⁸. Biodiversity loss and climate change also mutually reinforce each other and are being driven by the same human activities¹³⁹. Addressing these interdependent challenges is important to build a climate-resilient economy, foster growth, and prevent negative and unintended feedback¹⁴⁰.

Natural capital is positioned at the intersection of climate resilience and human well-being and has a vital role in reducing the vulnerability of Southern Africa against climatic change. Natural capital can mitigate over 50% of national emissions, mainly through avoided deforestation, and can also provide cost-effective solutions to reduce the emission gap under the Paris Climate Agreement.

¹³⁰ IPBES (2019): *Summary for policymakers of the global assessment report on biodiversity and ecosystem services of the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services*. S. Díaz, J. Settele, E. S. Brondízio, H. T. Ngo, M. Guéze, J. Agard, A. Arneeth, P. Balvanera, K. A. Brauman, S. H. M. Butchart, K. M. A. Chan, L. A. Garibaldi, K. Ichii, J. Liu, S. M. Subramanian, G. F. Midgley, P. Miloslavich, Z. Molnár, D. Obura, A. Pfaff, S. Polasky, A. Purvis, J. Razaque, B. Reyers, R. Roy Chowdhury, Y. J. Shin, I. J. Visseren-Hamakers, K. J. Willis, and C. N. Zayas (eds.). IPBES secretariat, Bonn, Germany. 56 pages. <https://doi.org/10.5281/zenodo.3553579>

¹³¹ World Bank (2022) *Overview Blue Economy For Resilient Africa Program. Operational Brief*. World Bank Group.

¹³² For example, average surface temperatures, ocean body temperatures, precipitation patterns, oxygen content and acidity of seawater

¹³³ Kirilenko, A., P., and Sedjo, R., A. 2007. *Climate change impacts on forestry*. *Biological Sciences*, vol. 105, no.50, pp.19697-19702; Hartmann, H., Bastos, A., Das, A. J., Esquivel-Muelbert, A., Hammond, W. M., Martínez-Vilalta, J., McDowell, N. G., Powers, J. S., Pugh, T. A. M., Ruthrof, K., Allen, C. D. 2022. *Climate Change Risks to Global Forest Health: Emergence of Unexpected Events of Elevated Tree Mortality Worldwide*. *Annual Review of Plant Biology* 2022 73:1, 673-702.

¹³⁴ Warmer and drier conditions particularly facilitate fire, drought and insect disturbances, while warmer and wetter conditions increase disturbances from wind and pathogens.

¹³⁵ Battles JJ, Robards T, Das A, Waring K, Gilles JK, et al. (2008) *Climate change impacts on forest growth and tree mortality*. *Climatic Change*. 87(Suppl 1): s193-s213.

Box 3.1: Nature and natural capital: a brief conceptualisation

Nature can be referred to as a functioning ecosystem that delivers a flow of services to contribute to human well-being, actively or passively. It is underpinned by biodiversity, defined as variability among living organisms from all sources including, inter alia, terrestrial, marine, and other aquatic ecosystems and the ecological complexes of which they are part¹⁴². Natural capital is the stock of natural resources and environmental assets (renewable and non-renewable) from within pristine or largely untouched ecosystems, such as rainforests, remote grasslands, and oceans, with their biodiversity to heavily managed cultivated land, water, wetland, and other ecosystems, that combine to yield a flow of benefits to people¹⁴³. The concept of natural capital uses an economic framework within which ecosystems are nature's assets or capital, and ecosystem services are its flows, which support human well-being. Ecosystem services support real and financial economies in many different ways. They provide direct goods such as food, fiber, fuel, water, wood, and biomass, and support recreation, spiritual fulfillment, aesthetic enjoyment, and other cultural practice. They regulate environmental conditions through pollution and pest control, nutrient cycling and water purification, and by protecting against natural hazards like floods and forest fires. Natural ecosystems such as mangroves, corals, and wetlands provide the most important climate regulation services. Indirectly, ecosystem services support businesses through their supply chain including inputs, transportation, and business locations. It is observed that more than 25% of financial investments by DFIs are directed to projects highly dependent on vulnerable natural capital¹⁴⁴. According to the World Economic Forum, around \$44 trillion of global value-added, corresponding to over half of the world's GDP is generated in industries like construction, agriculture, and tourism that depend moderately to highly on nature and its services.

Natural capital also provides solutions that can support climate change adaptation.

Examples include flood protection, air and water quality regulation, and urban cooling. Natural coastal ecosystems are highly effective at reducing wave heights and energy, and hence minimizing exposure to hydro-meteorological hazards¹⁴⁵.

Key to this is a green growth model that supports a shift in global financial flows away from nature-negative outcomes and towards nature-positive outcomes. Investing in nature is the only affordable and immediate available method to adapt to climate and achieve a net zero pathway by the large-scale removal of carbon from the atmosphere. With

good macro-economic policies and strong institutions, natural capital can pave the way for the efficient allocation of capital, stimulate investment and generate sustained economic growth. Positioning the natural capital to respond to climate change challenges while ensuring its services to human well-being is the focus of this chapter.

3.2 THE NATURAL WEALTH OF SOUTHERN AFRICA

The natural capital in the Southern Africa region is a major contributor to the growth and fiscal revenue, driving investment in physical and social infrastructure. Sou-

¹³⁶ Feyertag, J., Pettinotti, L., and Tyson, J. 2022. *Financing natural capital in Africa. A FSD Africa briefing paper.*

¹³⁷ Dasgupta, P. (2021), *The Economics of Biodiversity: The Dasgupta Review.* (London: HM Treasury). https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/962785/The_Economics_of_Biodiversity_The_Dasgupta_Review_Full_Report.pdf (accessed on 04/03/2023)

¹³⁸ Agarwala, M., Atkinson, G., Baldock, C., and Gardiner, B. 2014. *Natural capital accounting and climate change*, vol 4, July 2014.

¹³⁹ Intergovernmental Panel Climate Change (IPCC) and Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES). 2021. "IPBES-IPCC Co-Sponsored Workshop Report on Biodiversity and Climate Change." <https://www.ipbes.net/events/ipbes-ipcc-co-sponsored-workshop-biodiversity-and-climate-change> (Accessed on 10th April 2023).

¹⁴⁰ Seddon N, Chausson A, Berry P, Girardin CAJ, Smith A, Turner B. 2020 *Understanding the value and limits of nature-based solutions to climate change and other global challenges.* Phil. Trans. R. Soc. B 375: 20190120. <http://dx.doi.org/10.1098/rstb.2019.0120>

thern Africa is gifted with rich and abundant renewable resources (arable land, water, forest, and fisheries), and non-renewable resources (coal, gas, oil, and minerals). Significant reserves of the world's most strategic minerals like gold, platinum, diamonds, chrome, manganese, copper, uranium, nickel, and cobalt are found in Southern Africa. In the last decade or so, there have also been new discoveries of coal, iron ore, and manganese. In addition to the environmental functions, natural resources contribute to fiscal revenue, food, income, and employment. Rents generated from natural resources can enable a country to acquire

the necessary human capital, technology, and science necessary for economic growth.

3.2.1. Non-renewable natural wealth

Southern Africa is endowed with a mix of minerals, including precious, ferrous, non-ferrous and industrial minerals. Botswana, Namibia, South Africa and Zambia are among the large minerals producers in Africa. Countries in the Southern Africa region have significant coal, oil, and gas reserves. The majority of Africa's coal resources are located in southern Africa (and western Africa)¹⁴⁵

Box 3.2: Non-renewable natural wealth

Angola: The country is Africa's second-largest oil producer and the third-largest producer of diamonds in the continent by quantity and value. Other minerals produced include gold, granite, gypsum, marble, and salt, while undeveloped minerals with potential for extraction include beryllium, clay, copper, iron ore, lead, lignite, manganese, mica, nickel, peat, phosphate rock, quartz, silver, tungsten, uranium, vanadium, and zinc¹⁴⁶. Angola's economy is dominated by the oil and gas industry, which accounts for about 50% of its GDP.

Botswana: Mining has been a crucial sector of the Botswana economy since the early 1970s. The country has been blessed with a vast quantity of high-quality minerals ranging from copper, gold to diamonds.

Eswatini: The country is endowed with a wide array of valuable minerals such as diamonds, coal, and gold among others¹⁴⁷. The country's gold production has declined due to the depletion of gold deposits.

Lesotho: Water and diamonds are Lesotho's only significant natural resources. The diamond sector is a major contributor to the exports of Lesotho. Diamonds are produced in Letšeng, Mothae, Liqhobong, and Kao mines -Letšeng is the world's highest diamond mine, famous for producing huge diamonds.

Madagascar: The country has a vast array of mineral resources, including gold, manganese, and copper.

Malawi: Coal, lime, limestone, graphite, black granite, aquamarine, tourmaline, ruby, sapphire, bauxite, and marble are some minerals found in Malawi. Raw and processed minerals are sold in both domestic and international markets. Uranium, bentonite, gemstones, and ornamental stones from Malawi are exported. Malawi also has large unexploited reserves of limestone, uranium, coal, and bauxite. Most recently, oil deposits have been discovered around Lake Malawi.

Mauritius: The minerals extracted from the island include basalts and lime. Mauritian basalt is of high quality and is primarily used in building and construction. Lime in Mauritius is obtained from two primary sources, the coral sand around the island and the local coral limestone¹⁴⁸

¹⁴¹ Chausson, A, Turner, B, Seddon, D, et al. 2020.. Mapping the effectiveness of Nature-based Solutions for climate change adaptation. *Glob Change Biol.* 2020; 26: 6134– 6155. <https://doi.org/10.1111/gcb.15310>.

¹⁴² CBD, B. (1992) Convention on Biological diversity, Secretariat of the Convention on Biological Diversity. Secretariat of the Convention on Biological Diversity. <https://www.cbd.int/doc/legal/cbd-en.pdf> (Accessed: 04 April 2023).

¹⁴³ SEEA (2023) <https://seea.un.org/content/natural-capital-and-ecosystem-services-faq#What%20is%20natural%20capital?>, UN (1997) Glossary of Environment Statistics Department for Economic and Social Information and Policy Analysis Statistics Division. *Studies in Methods. Series F, No.67* https://unstats.un.org/unsd/publication/SeriesF/SeriesF_67E.pdf (Accessed on 04 April 2023)?

The natural capital in the Southern Africa region is a major contributor to the growth and fiscal revenue, driving investment in physical and social infrastructure.

Mozambique: Mozambique is the third largest holder of proved natural gas reserve in Africa with proven reserves of about 100 trillion cubic feet, the country. It holds reserves of coal estimated at 38.4 billion tonnes according to the Ministry of Mineral Resources and Energy of Mozambique but other sources suggest 1975 million short tons of coal reserves¹⁴⁹. It is among the top 8 tantalum producing countries and the 2nd largest producer of aluminum after South Africa¹⁵⁰. Investment projects in titanium extraction are expected to help strengthen the economy¹⁵¹.

Namibia: The most important mineral (from an economic standpoint) in Namibia is diamonds. Vast copper deposits which are mined, processed, and sold to external markets. The mining of copper in Namibia has gone through a troublesome period especially during the global economic recession experienced in the late 2000s. Uranium is also one of the most important foreign exchange earners in Namibia.

São Tomé and Príncipe: The islands have no known mineral resources, but the country claims an area of the Gulf of Guinea that may have considerable deep-water hydrocarbon reserves¹⁵².

South Africa: The country stands alone in terms of minerals resources. It is estimated to have the world's fifth-largest mining sector in terms of gross domestic product value and its mining companies are key players in the global industry. South Africa holds the world's largest reported reserves of gold (29.7%), platinum group metals (87.7%), chrome ore (72.4%) and manganese ore (80%), and the second-largest reserves of zirconium, vanadium, and titanium¹⁵³. It is one of the largest coal producers in the world and nearly 40% of the coal produced is used to generate energy.

Zambia: The country has 6% of the world's known copper reserves, as well as abundant cobalt, uranium and manganese. It is the second-largest copper producer in Africa and the fourth-largest copper producer in the world. The country also produces 20% of the world's emeralds, as well as gold and other gemstones. Other natural resources include silver, lead, coal, and zinc. It is also one of the main producers of semi-precious gemstones and cobalt. The country is also recognized internationally as a major producer of tourmaline, amethyst, and aquamarine. It has large deposits of limestone¹⁵⁴. The country also has significant coal resources and has been producing coal since 1967.

Zimbabwe: Zimbabwe has different mineral deposits such as coal, gold, diamonds, and iron ore which contribute significantly to the Zimbabwean economy. It is believed that the area Marange Diamond Fields could have one of the wealthiest diamond reserves in the world¹⁵⁵.

with major deposits, located in Botswana, Mozambique, South Africa and, Zimbabwe. South Africa ranked first in Africa followed by Mozambique, and Zimbabwe. Minor deposits are found in Zambia, Malawi, and Madagascar. Mozambique is among the countries with the largest deposits of natural gas in Africa.

Significant occurrences of natural gas are located in South Africa and Namibia. Angola is the only country the Southern Africa region with known deposits of crude oil. It is also Africa's second-largest oil producer. An overview of the minerals and non-renewable natural resources is provided in Box 3.2.

¹⁴⁴ Feyertag, J., Pettinotti, L., and Tyson, J. 2022. *Financing natural capital in Africa. A FSD Africa briefing paper*
Dasgupta, P. (2021) *The economics of biodiversity: the Dasgupta review: full report. Updated: 18 February 2021. London: HM Treasury*, pp.427.

¹⁴⁵ AfDB (2007) Chapter 3 Africa's Non-Renewable Natural Resources

¹⁴⁶ Angola Gaborone Declaration for Sustainability in Africa <http://www.gaboronedecclaration.com/new-page-1>

¹⁴⁷ <https://www.worldatlas.com/articles/what-are-the-major-natural-resources-of-eswatini.html>

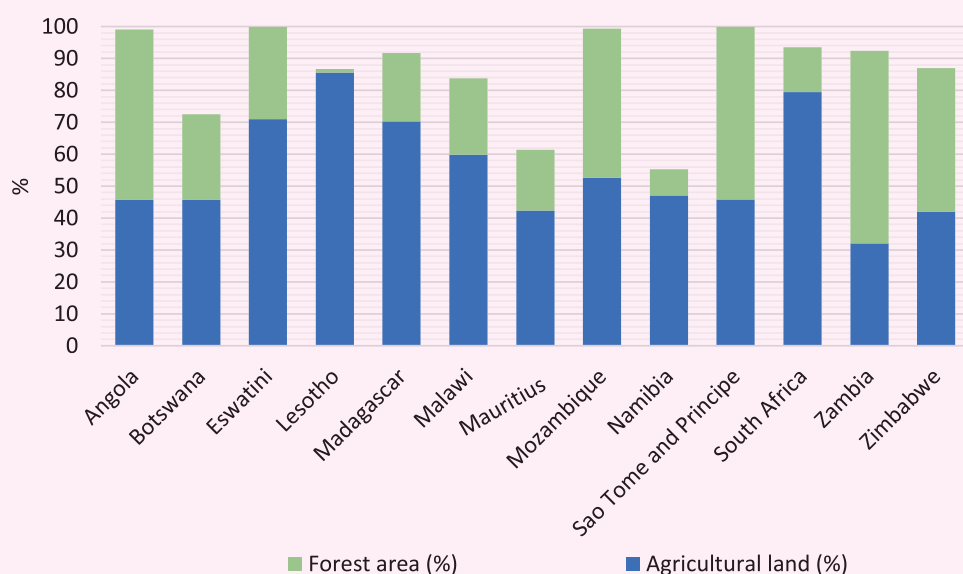
3.2.2. Renewable natural resource wealth

Agricultural land, forest areas, wildlife and biodiversity, and marine life are the main components of the renewable natural wealth in Southern Africa. With the exception of Mauritius and Namibia, agricultural land and forest area combined make up more than 70% of the land area in the remaining countries. Forest area is significantly high in Angola (53.4%), São Tomé and Príncipe (54.1%), Zambia (60.3%), and Zimbabwe (45.1%). Forests play an essential role in providing environmental benefits such as climate regulation, soil formation, nutrient cycling, erosion control, and water catchment protection in these countries. They are vital for rural livelihoods and provide sources of energy. Yet, the rate of depletion is very high. Data from the FAO reveals that between 1990 and 2020, the depletion of forest area was 16% in Angola, 18.9% in Botswana, 36% in Malawi, 15.3% in Mozambique, and 24.3% in Namibia. Major reasons include expansion of agriculture, unsustainable exploitation of fuel-wood, infrastructural developments (dams, power lines, urban expansion, irrigation) illegal settlements, change of land use, mining, invasive alien species, pests, veld fires, among others.

Wildlife and biodiversity are linked with the extent of the forest areas. The forest has the ability to sustain communities of wildlife, including mollusks, arthropods, amphibians, reptiles, fish, mammals, and birds allowing them to persist over time. Wildlife and forest diversity are extremely huge in the Southern Africa region (Box 3.3). Mammal species, and associated big games are the most popular in many Southern African countries with huge forest areas.

Tourism, in relation to its different associations with nature, is one important channel to convert the natural resource flow of services into wealth. Table 3.1 shows the increase in international tourist arrivals for the 13 Southern African countries. With the exception of Botswana, Eswatini, Madagascar, and Zimbabwe, all remaining countries have recorded a remarkable increase in tourist arrivals from 2000 to 2018. Tourism is inextricably linked to natural capital through its different forms. For instance, wildlife tourism refers to viewing and experiencing animals in their natural habitats, motivated by wildlife-watching experiences and/or interactions. Across Southern Africa, wildlife tourism is an important component of travel and tourism revenue. Protected Areas, where most wildlife tourism takes place, have developed rapidly over the past few decades in response to burgeoning demand from tourism. South Africa, for instance, has 1,544 protected areas, covering 8% of its terrestrial land and 12% of its marine area, with the majority of them being governed by individual landowners. Ecotourism, slightly broader than wildlife tourism, is a form of tourism involving experiences with flora, fauna, landscapes, and potential cultures in a natural setting while nature-based tourism encompasses both ecotourism and wildlife tourism including rural activities such as farm stays. Adventure tourism is viewed as involving some form of physical activity. All these forms of tourism refer to non-consumptive which also excludes consumptive wildlife tourism such as hunting and fishing. Tourism represents an important channel to protect the natural capital.

Figure 3.1: Agricultural land and forest area as % of land area (2020)



Source: World Bank Indicators & Food Agriculture Organisation

¹⁴⁸ <https://www.worldatlas.com/articles/what-are-the-major-natural-resources-of-mauritius.html>

¹⁴⁹ <https://www.eia.gov/international/analysis/country/MOZ>

¹⁵⁰ <https://www.worldatlas.com/articles/what-are-the-major-natural-resources-of-mozambique.html>

Box 3.3: Renewable natural wealth

Angola: Forests and fisheries are important natural resources in Angola. Forests cover 54% of the total land area. Trees exported from Angola include cypress, pines, and eucalyptus. The wildlife includes large carnivores such as hyenas, leopards, African wild dogs, lions, and cheetahs¹⁵⁷. Fisheries reserves are divided into marine and inland. Marine capture fisheries are classified as industrial or artisanal. Crabs, lobsters, and prawns are readily available, together with sticklebacks, sardines, mackerel, catfish, mullet, and tuna. While it has no large lakes, it does have many rivers that flow across its borders and include some high-value freshwater species.

Botswana: The country is known for the best wildlife areas on the African continent with about 38% of Botswana's total area is devoted to national parks, reserves and wildlife¹⁵⁸. The Central Kalahari reserve is famous for its four distinct fossilized rivers, covering roughly 10% of the state's total land area.

Eswatini: Approximately 29% of Eswatini is covered with forests having a tremendous ecological function. With some 17 protected areas, it hosts a wide range of species, including lion, elephant, hippo, giraffe, zebra, and rhino as well as almost 500 species of birds¹⁵⁹. The forestry sector employs a large number of people. Eswatini timber is used both locally and internationally, earning the country foreign currency. The Eswatini forests face several challenges such as outbreaks of wildfires, diseases, and pests¹⁶⁰.

Lesotho: Water is Lesotho's most abundant resource. With the supply to the Republic of South Africa, water is the largest single source of foreign exchange earnings since the implementation of the Lesotho Highlands program.

Madagascar: Natural resources include arable land, forests, fish, and the country's beautiful scenery. Forests covered approximately 21.44% of and over 90% of its wildlife is unique on Earth.

Malawi: Malawi's forests cover 23.8% of its land area. The major tree species in Malawi's forests include conifers, baobab, miombo, and acacia. The wood from these forests supports the large wood carving and furniture industry in the country. Fishing remains a key economic activity and source of food in Malawi. Lake Malawi is one of the major sources of fish in the country. It is Africa's third-largest lake and is home to hundreds of fish species. The many national parks and other protected areas of Malawi are major tourist attractions in the country. Malawi has a rich biodiversity.

Mauritius: Arable land is one of the most critical natural resources in Mauritius. Due to its position within the Indian Ocean, Mauritius has access to a wide variety of ocean resources, most of them are not exploited.

¹⁵¹ United Nations Economic Commission for Africa and African Union, *Report of the High Level Panel on Illicit Financial Flows from Africa ('Mbeki Report')*, 2015, 106–17

¹⁵² <https://www.britannica.com/place/Sao-Tome-and-Principe/Economy>

¹⁵³ *Mineral Resources Pocket Guide to South Africa 2012/13*.

¹⁵⁴ <https://www.worldatlas.com/articles/what-are-the-major-natural-resources-of-zambia.html>

¹⁵⁵ <https://www.worldatlas.com/articles/what-are-the-major-natural-resources-of-zimbabwe.html>

¹⁵⁶ Costanza, R., D'Arge, R., De Groot, R., Farber, S., Grasso, M., Hannon, B., et al. (1997). The value of the world's ecosystem services and natural capital. *nature* 387, 253–260. doi:10.1038/387253a0

¹⁵⁷ Fabiano, E. C., Castro, I., Whitesell, C., de Matos Machado, 2017. I. B. *Wildlife Inventory of Two National Parks in Southeastern Angola. Conservation Leadership Programme: Final Report CLP ID: 01275916.. Wildlife Inventory of Two National Parks in Southeastern Angola.* https://www.conservationleadershipprogramme.org/media/2018/03/01275916_Angola_Wildlife-Inventory-of-Two-National-Parks-in-Southeastern-Angola.pdf

¹⁵⁸ <http://www.gaboronedecommunication.com/botswana>

¹⁵⁹ <https://www.thekingdomofeswatini.com/eswatini-experiences/wildlife/>

¹⁶⁰ <https://www.worldatlas.com/articles/what-are-the-major-natural-resources-of-eswatini.html>

Mozambique: The country has a coastline that supports a wide diversity of life in its stretches of coral reefs, estuaries, mangroves and islands¹⁶¹. These reefs are subject to bleaching from rising sea temperatures as the earth becomes warmer. Mangroves are crucial to Mozambique's aquatic biodiversity as they are the breeding grounds and nurseries for many species, including five of the world's seven marine turtle species. These coastal habitats and fisheries provide a main source of food and livelihoods for many Mozambicans.

Namibia: The country is endowed with natural resources which include wildlife and scenic terrain. The country's two harshest geographical features where human settlement is nearly impossible, the Kalahari and Namib deserts, have geological features found nowhere else on the continent¹⁶².

São Tomé and Príncipe: 54.1% of the country is rainforest although most of the lowlands forests have been cleared for palm and coconut tree plantations. The forests are mostly inaccessible and cannot support farming which makes them an ideal haven for endemic and threatened species of fauna and flora¹⁶³. With 30% of the land being a national park, agriculture is not widely practiced. However, the country's topography provides a conducive environment for hydropower and fishing, its major natural resources.

South Africa: South Africa's most beautiful regions include the country's beaches and nature trails. The tourism sector is one of South Africa's significant employers.

Zambia: Zambia has diverse flora and fauna, most of which is located within the country's protected areas. Zambia has 20 national parks, which protect about 6.4% of the country's total area. With diverse wildlife, it makes a popular destination within Africa, and as a result, tourism is one of the country's largest employers and foreign exchange¹⁶⁴.

Zimbabwe: Roughly 45% of Zimbabwe's land are covered with forests. Some of the regions in Zimbabwe with large areas covered with forests include Matabeleland and the Midlands. The regions are famous because they have indigenous hardwood forests made up of trees such as teak, mahogany, and Leadwood. Zimbabwe's hardwood forests face several significant challenges such as illegal logging and deforestation. Although Zimbabwe is a landlocked country, the country has vast quantities of fish resources which are vital to the country's economy. Several areas are designated as natural parks to conserve the country's wildlife.

3.2.3. Natural resources rents and wealth

The natural resources rents of the Southern Africa did not improve significantly from 2000 to 2021, declining in four of the 13 countries and increasing slightly in six countries. The economic value of a mineral resource is measured by the "resource rent" defined as the economic return earned from the sale of a mineral over and above the costs of extracting the mineral, including the risk-adjusted opportunity cost of capital. It represents the economic income derived solely from the scarcity of a resource. Using natural capital is not just about liquidating natural capital to pur-

chase other assets; rather it is about the efficient use and sustainable management of all components of the natural capital while investing in other assets to increase productivity. The contribution of natural resources is described by total natural resources rents calculated as the difference between the price of a commodity and the average cost of extraction or harvesting costs of producing it. Table 3.2 shows the evolution of natural resource rents as % of GDP from 2000 to 2020. Countries such as Angola, Mozambique, and Zambia can be described as natural resources dependent, with natural resource rents as a percentage of GDP of 25.5%, 11.7%, and 11.8%, respectively. The

¹⁶¹ <http://www.gaboronedecorations.com/mozambique>

¹⁶² <https://www.worldatlas.com/articles/what-are-the-major-natural-resources-of-namibia.html>

¹⁶³ <https://www.worldatlas.com/articles/what-are-the-major-natural-resources-of-sao-tome-and-principe.html>

¹⁶⁴ <https://www.worldatlas.com/articles/what-are-the-major-natural-resources-of-zambia.html>

share of natural resource rents to GDP declined for Angola, Botswana, and Malawi between 2000 and 2020. A slight increase is observed for Eswatini, Lesotho, Madagascar, Namibia, South Africa, and Zambia while a small but nontrivial increase is seen in Mozambique and Zimbabwe.

Forests remain one major component of natural resources rents in Southern Africa.

The different components of total natural resources rents for the Southern African countries are shown in Figure 3.2. The high percentage of natural capital to GDP for Angola emanates from its oil rents (24% of GDP), while forest rents remain the major component for Eswatini (3.8% of GDP), Lesotho (5.1% of GDP), Malawi (4% of GDP), Mozambique (7.4% of GDP), and Zambia (7.6%).

Table 3.1: International Tourism Arrivals in Southern Africa (2000-2018)

Country	2000	2005	2015	2018
Angola	51,000	210000	592000	218000
Botswana	1,306,000	1684000	1660000	1830000
Eswatini	1,151,000	1182000	1256000	1277000
Lesotho	302,000	304000	1082000	1173000
Madagascar	..	..	282000	360000
Malawi	228,000	438000	805000	871000
Mauritius	678,000	782000	1174000	1431000
Mozambique	..	954000	1634000	2870000
Namibia	759,000	856000	1488000	1639000
São Tomé and Príncipe	7,100	15800	25600	33400
South Africa	6,001,000	7518000	13952000	15004000
Zambia	457,000	669000	932000	1072000
Zimbabwe	1,967,000	1559000	2057000	2580000
Total	12,907,100	16171800	26939600	30358400
% Sub-Saharan Africa	65.91%	61.33%	55.00%	53.57%
% World	0.97%	1.08%	1.30%	1.30%

Source : World Bank Indicators

Natural capital could be the key to unlocking Southern Africa's potential. Natural capital as a wealth component measures the discounted sum of the value of the rents generated over the lifetime of a natural resource. The economic contribution from natural resources can be measured by using wealth accounting. Estimates are developed by the World Bank's Changing Wealth of Nations program. Figure 3.3 shows the natural capital as % of total wealth for selected Southern African countries for which data are available. According to the World Bank estimates (2021), two Southern African countries, namely Malawi and Mozambique, have more than 50% of the

stock of wealth held in natural capital. Eswatini, Madagascar, Zambia, and Zimbabwe have all significant percentages of wealth in terms of natural capital. Figure 3.4 depicts the percentage of natural capital wealth from renewable and non-renewable resources.

Countries that are dependent on natural-resource lack production diversification and are exposed to price variability. A resource-dependent economy is highly vulnerable to accompanying commodity price volatility. This may lead to early depletion, or unrestrained spending of derived resource revenues directed towards public consumption

¹⁶⁵ WTTC (2019) *The Economic Impact Of Global Wildlife Tourism Travel & Tourism As An Economic Tool For The Protection Of Wildlife - August 2019*. World Travel & Tourism Council.

¹⁶⁶ <https://databank.worldbank.org/metadataglossary/adjusted-net-savings/series/NY.GDP.TOTL.RT.ZS>

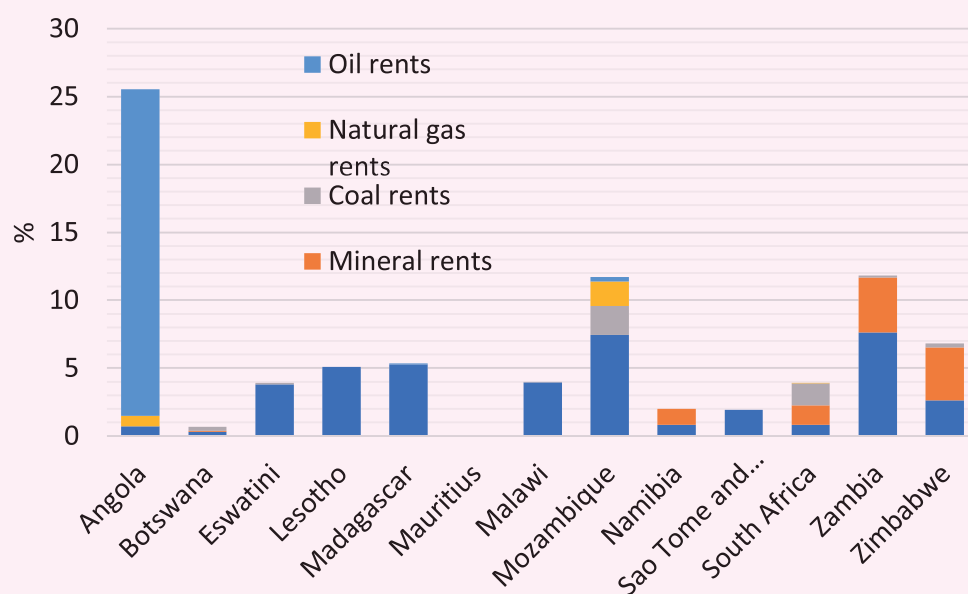
Table 3.2: Natural resources rents (as % of GDP), 2000, 2010, 2015, 2018-2020

Country Name	2000	2010	2015	2018	2019	2020
Angola	55.5	40.2	10.8	27.5	26.1	25.5
Botswana	2.4	2.1	0.8	0.8	0.6	0.7
Eswatini	3.0	2.2	3.3	3.0	3.4	3.9
Lesotho	3.5	3.9	6.2	3.4	3.9	5.1
Madagascar	3.3	5.8	8.6	4.8	4.7	5.3
Malawi	10.1	5.9	8.9	5.0	4.2	4.0
Mauritius	0	0	0	0	0	0
Mozambique	6.2	11.1	13.0	16.0	12.4	11.7
Namibia	0.6	2.4	1.9	1.2	1.4	2.0
São Tomé and Príncipe	..	4.0	3.4	2.2	2.0	1.9
South Africa	3.0	6.2	2.6	3.4	3.7	3.9
Zambia	9.1	18.7	11.2	11.5	11.6	11.8
Zimbabwe	3.9	7.1	4.6	6.1	5.3	6.8

Source: World Bank Indicators

and patronage purposes rather than building produced and human capital. Price shocks and resource mismanagement in resource-dependent countries may hinder sustainable future growth for national income and evidently raise the possibility of natural resources becoming a curse rather than a blessing .

Sustainable natural resource management requires the accumulation of alternative assets to replace a depleting non-renewable natural asset. the form of physical capital, financial capital, or human capital . The depletion of wealth from non-renewable natural resources must be outweighed by the accu-

Figure 3.2: Components of natural resources rents as % of GDP (2020)

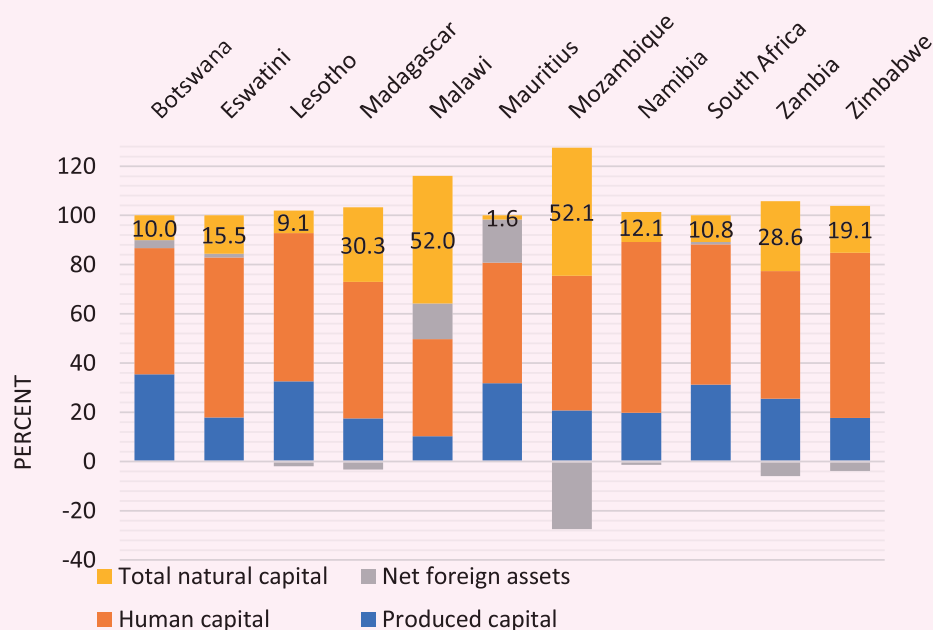
Source: World Bank Indicators

¹⁶⁷ Natural capital is defined by the World Bank as agricultural land, protected areas, forests, minerals, and energy.

mulation of other forms of wealth if the capital stock for future GDPs is to increase or even maintained. Resource-rich countries need to

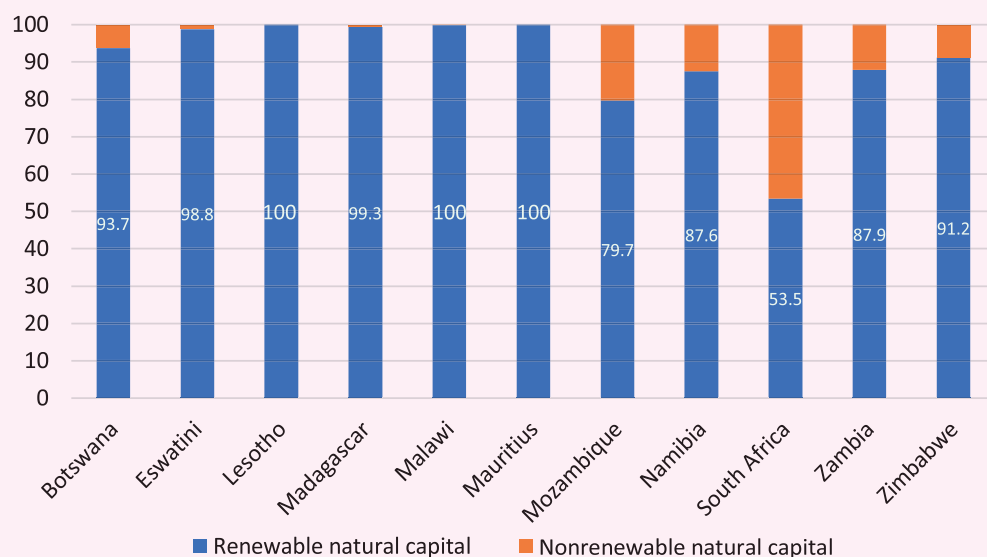
save and invest proportionately more in other forms of wealth because their revenues are generated from asset depletion.

Figure 3.3: Natural capital and total wealth¹⁷⁰



Source: World Bank (2021)

Figure 3.4: Renewable vs. non-renewable natural capital

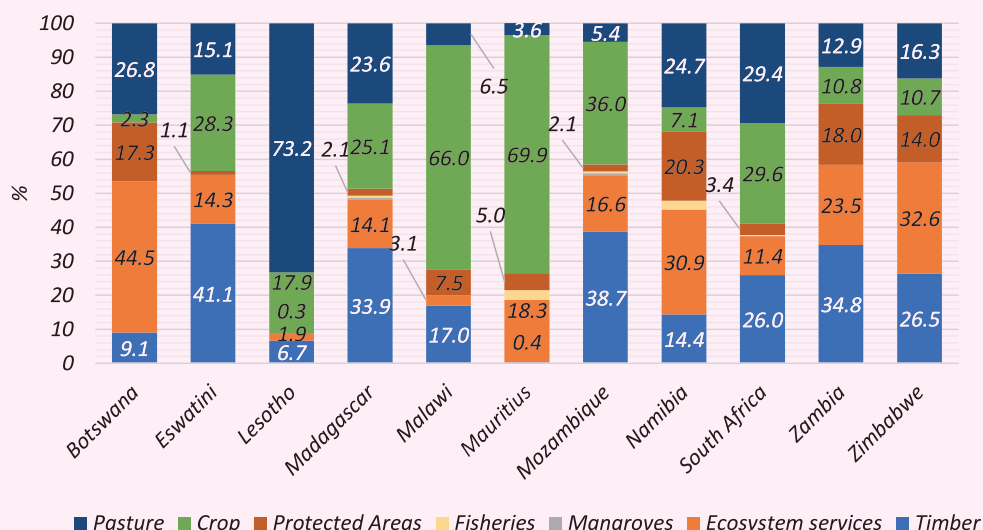


Source: World Bank (2021)

¹⁶⁸ Lange, Glenn-Marie, Quentin Wodon, and Kevin Carey, eds. 2018. *The Changing Wealth of Nations 2018: Building a Sustainable Future*. Washington, DC: World Bank. doi:10.1596/978-1-4648-1046-6. License: Creative Commons Attribution CC BY 3.0 IGO

¹⁶⁹ Total wealth is measured as the sum of discounted value of rents/benefits generated by produced capital and urban land, natural capital, human capital, and net foreign assets (Lange et al. 2018).

Figure 3.5: Component of natural renewable wealth



Source: World Bank (2021)

3.3 APPROACHES TO INCREASE THE CONTRIBUTION OF NATURAL CAPITAL TO FINANCING CLIMATE AND GREEN GROWTH IN SOUTHERN AFRICA

Despite the abundant renewable and non-renewable resources, natural capital in the Southern Africa region is not effectively harnessed for sustainable economic development. This section discusses the potential for boosting the value of natural capital and harnessing it for sustainable development.

Opportunities in Non-Renewable Resources

Southern Africa countries must ensure receiving their fair share of resource rents. At the regional level, Southern Africa, (together with Western Africa) contributes the highest to the continent's mineral wealth and fossil fuels respectively. For natural resource wealth to drive economic development, Southern Africa countries must ensure receiving their fair share of resource rents and effectively manage the revenues.

An efficient tax system is essential to provide the necessary incentive and internalize the environmental opportunity costs. Tax policies should be designed to internalize environmental opportunity costs associated with the exploitation of non-renewable resources. The most used fiscal instruments are royalties, income tax, and corporate taxes. When there are excess profits due to high prices of a natural resource, governments should be able to inter-

vene and capture some rents. Windfall taxes are capable of raising substantial revenue and efficient as they do intend to reduce or impact investments.

It is important to recalibrate the royalty taxes which are often low in many countries. Royalty tax is often very low. For example, the royalty tax ranges from 4 to 6% in Zimbabwe and 0.05% to 7% in South Africa, depending on the type and price of the mineral. For most countries on the continent, the royalty rate charged is 3%, as mining companies argue that a higher rate will impair the profitability and investment in the mines. In addition, unfair concession agreements signed with foreign mining companies restrict fiscal instruments, and limit resource rents to remain within countries. Royalty rates may be used and set at higher levels than they are currently if the overall fiscal system is progressive and/or the extraction generates environmental damages.

Improving good governance provides a huge opportunity to manage the extractive sector and to prevent the resource curse phenomenon. Corruption among the political class or elites in countries with weak institutions has been noted as the cause of Africa's resource curse. Countries that have a high proportion of resource-based commodities to GDP have also been found to experience low growth rates and high poverty rates.

Opportunities in Renewable Resources

Nature-based solutions is key as an approach to building climate resilience

Despite the abundant renewable and non-renewable resources, natural capital in the Southern Africa region is not effectively harnessed for sustainable economic development.

¹⁷⁰ World Bank. 2021. *The Changing Wealth of Nations 2021: Managing Assets for the Future*. Washington, DC: World Bank. doi:10.1596/978-1-4648-1590-4. License: Creative Commons Attribution CC BY 3.0 IGO

and fostering green growth. Prevailing approaches for addressing climate change have relied on hard-engineering interventions. Yet, there are approaches to using nature to address climate change challenges, encompassing a broad range of actions that protect, restore, or sustainably manage ecosystems to provide benefits to people. The so-called 'nature-based solutions (NbS)' is gaining increasing attention among the international communities. NbS include established approaches such as ecosystem-based adaptation (EbA), ecosystem-based disaster risk reduction, natural infrastructure, green and blue infrastructure, and forest and landscape restoration. The UNFCCC and the Paris Agreement of UNFCCC (2015) both acknowledge the importance of the conservation and enhancement, as appropriate, of sinks and reservoirs of greenhouse gases and the importance of ensuring the integrity of all ecosystems, including oceans, and the protection of biodiversity. NbS can provide up to 37 per cent of global cost-effective solutions to reduce the emission gap to meet the targets under the Paris Climate Agreement and also have a vital role to play in helping countries adapt to climatic change, being cheaper, longer lasting and yielding more eco-benefits than technology-based solutions.

Financing natural capital is essential, but investment in NbS or other measures hardly match the annual requirements, implying there is significant financing deficit.

Financing natural capital has huge importance to economies and financial markets. According to a report entitled, 'State of Finance for Nature 2021', in order to meet the targets for climate change, biodiversity, and land degradation, the financing gap is likely to be close to USD 4.1 trillion by 2050. The recent follow-up of the report estimates finance flows to NbS currently at US\$154 billion per year. This figure is less than half of the US\$384 billion per year investment needed by 2025 and represent only a third of investment needed by 2030 (US\$484 billion per year). It is therefore essential to generate and capture the maximum rents from natural resources in a sustainable manner.

Developing innovating conservation or biodiversity finance is a promising avenue to finance natural capital.

Biodiversity finance, defined as the "practice of raising and managing capital and using financial and economic mechanisms to support sustainable biodiversity management" can be directed towards conservation activities that maintain natural capital, as well as towards rehabilitation. It can include finance to offset unavoidable damage as part of a development project as well. It is

estimated that just 3 percent of the finance for biodiversity goes to Africa. To plug the biodiversity conservation finance gap, private finance will need to be mobilized to become the dominant source over time. Natural capital therefor needs to be bankable in the form of financially viable projects that protect, sustainably manage, maintain or restore nature. A key challenge with biodiversity project is their small scale and localized nature. Most biodiversity challenges are location-specific and solutions need to be tailored to individual conditions.

A response to this call is to turn natural asset into asset class which means converting natural capital into financial capital in a sustainable manner.

This involves the creation of a category of financial securities that contribute capital to natural capital preservation and enhancement. Harnessing private finance is critical to drive critical protection and management of biodiversity and ecosystem services. There are key financial instruments and financing approaches that have been tested and have the potential to scale up finance. Conservation and financial markets specialists are currently exploring innovative financial mechanisms to support conservation initiatives.

- Performance guarantee bond scheme is one of financial instrument for which the long-term cutting rights and the responsibility for sustainable forest management rest on a lessee through competitive bidding. The scheme can be designed to enforce compliance with technology or performance standards. Another alternative is to have a 'deposit-refund' (tax-subsidy) mechanism where an individual pays the up-front bond but receives a bond repayment as a subsidy if actions result in an improvement over a reference level. Performance bonds can effectively change the incentive structure and behavior of loggers, making them an enforcement mechanism with stronger sanctions than the standard withdrawal of concession. Another advantage is that it may reduce the burden and cost of monitoring.

- Payments for ecosystem services (PES) offer a promising source of finance for conservation financing. In order to compensate the economic benefit forgone by actors whose choices determine the availability of the service, these payments allow users of an ecosystem service, to contribute financially to the owners. The PES is a market-based approach which aims at correcting an externality and are directed toward conservation activities.

- Green loans or sustainability-linked loans (SSL) are mostly issued by banks and can be

¹⁷¹ Canuto, O., and Daoulas, C. 2019. *Natural Wealth and Economic Growth: The Case of Sub-Saharan Africa*. Policy Center for the New South. PP-19/12. Morocco.

¹⁷² This is known as the Hartwick rule (Hartwick, J. M. 1977. "International Equity and the Investing of Rents from Exhaustible Resources." *American Economic Review* 67 (5): 972–74.

used to finance a specific conservation project. However, few are linked to biodiversity and this category of lending products is less common in Africa due to the higher risks associated with them

- Green equity is currently the largest public-private source of finance for natural capital

in Africa. HSBC and Pollination's Climate Asset Management Fund announced USD 150 million to restore two million hectares of land in five years across Kenya, Ethiopia, Malawi, Tanzania, Uganda and Zambia. It aims to connect local farmers on the ground with new revenue streams from global carbon markets.

Box 3.4: Global Environment Facility (GEF)-funded Wildlife Conservation Bond

The Global Environment Facility (GEF)-funded Wildlife Conservation Bond (WCB) project, currently under preparation, is exploring the potential to structure a bond for institutional investors to help fund conservation and to transfer the risk of failing to achieve conservation results from traditional donors to investors. The WCB aims to create an outcome-driven structured bond that channels private sector funds to increase black rhino populations in target protected areas in South Africa. The proposed WCB project integrates three key elements: (i) tapping institutional investors as a new source of funding for conservation; (ii) applying a private sector approach to delivering conservation activities; and (iii) payment by donors for independently verified conservation achievements. Under the WCB structure, the payments to investors would come from the GEF and potentially from another outcome payer. This innovative bond structure could help test investor appetite for a conservation.

Source: <https://www.thegef.org/projects-operations/projects/10330>

Box 3.5: BIOFIN – Zambia's green bonds for conservation

Zambia is a country that has faced huge biodiversity loss in recent years. BIOFIN is supporting government and the private sector with identifying innovative solutions to protect and restore nature while supporting the economic development of the country. Green bonds have been created as a way to not only protect biodiversity but to help invest in innovative projects that will bring long-term benefits both to the planet and to investors. Zambia's National Biodiversity Strategy and Action Plan has a target to reduce deforestation by at least 25%, and one way of doing this is to invest more in alternative renewable energy technologies. As such, green bond proceeds can be deployed to finance projects that promote alternative renewable energy technologies that would help to reduce deforestation. The target by BIOFIN Zambia and its stakeholders for 2021 and 2025 is for Zambia to record its first green bond issuance with a target of 30% of the proceeds aimed at financing biodiversity conservation interventions. Critical at this point is establishment of a technical assistance package to potential issuers.

Source: <https://www.biofin.org/zambia>

¹⁷³ Chausson, A., Turner, B., Seddon, D., Chabaneix, N., Girardin, C. A. J., Kapos, V., Key, I., Roe, D., Smith, A., Woroniecki, S., and Seddon, N. 2020. Mapping the effectiveness of nature-based solutions for climate change adaptation. *Global Change in Biology*, vol.26:6134-6155.

¹⁷⁴ UNEP (2021). *State of Finance for Nature Tripling investments in nature-based solutions by 2030*. United Nations Environment Programme. <https://www.unep.org/resources/state-finance-nature>

¹⁷⁵ UNEP (2021). *State of Finance for Nature2022 Time to act: Doubling investment by 2025 and eliminating nature-negative finance flows*. United Nations Environment Programme https://wedocs.unep.org/bitstream/handle/20.500.11822/41333/state_finance_nature.pdf?sequence=3

¹⁷⁶ Feyertag et al. 2022.

¹⁷⁷ Asset classes are groups of comparable financial securities with similar financial characteristics and as such often behave similarly to one another: a category of asset class is expected to reflect the same risks and return investments. Well-established asset classes include equities, bonds, cash and cash equivalents, and commodities.

Southern Africa has a huge stock of natural renewable resources (e.g. forest, fisheries, wildlife) which if managed efficiently and sustainably, can maximize revenue and ensure a steady flow of benefits. Countries in Southern Africa (Angola, Zambia, Namibia, Botswana, Zimbabwe, South Africa, Mozambique, and Madagascar) are amply endowed with forests. This, therefore, offers an opportunity for private sector companies to invest in REDD+ and engage in carbon trading as seen already in countries like Madagascar and Zimbabwe.

The factors contributing to overfishing in Africa are overcapacity, illegal, unreported, and unregulated (IUU) fishing activities, poor resource governance, insufficient knowledge and misperception of biophysical dynamics. Programmes to tackle these challenges will provide important opportunities for Southern Africa. The development of fisheries access agreement is one way to manage the resource sustainably. The term fisheries access agreements typically apply to the contractual framework that allows industrial fishing vessels belonging to Distant Water Fishing Nations (DWFNs) to fish in the waters of resource-rich third countries. Currently, access agreements are not designed appropriately in a fair manner.

There are untapped resources which also provide opportunities for generate wealth. The Southern Africa region holds 65% of ethanol potential and 41% of biodiesel potential in Africa. This offers an ideal opportunity for the private sector to take advantage and develop projects in the renewable energy sector.

The involvement of private sector is essential; yet, integrating biodiversity risk is still incipient. Businesses are starting to consider biodiversity and ecosystem services in their production and investment practices in response to the loss of nature affecting their bottom lines. The financial sector is also increasingly recognizing the risks posed by loss of biodiversity and ecosystem services to the real sector projects and companies in which they invest. However, the integration of biodiversity risk into corporate decision making is still incipient, as the understanding and the measurement of impacts are still in progress. Given the financial materiality of biodiversity loss, financial institutions are starting to use their leverage to push for faster change in the real sector through engagement and capital allocation. Financing tools which link the cost of capital to the achievement of sustainability objectives are starting to be used to incentivize changes in

corporate behaviour. Instruments such as sustainability-linked loans, which link interest rates to key sustainability performance indicators, are starting to be applied to incentivize companies to meet biodiversity targets.

Developing Natural Capital and Ecosystem Accounting is a key step forward. Biodiversity and ecosystem services have economic value which, if internalized by economic agents, has the potential to attract private finance. The real and financial sectors are increasingly searching for projects that protect and manage ecosystem services as business opportunities that are economically viable. These services, namely: cultural or nonmaterial services; regulating services and provisioning or material services, have traditionally been underprovided, owing to their public good nature.

Blending conservation efforts with other commercial nature-based activities through public-private partnerships. Public-private partnership in biodiversity management is being emphasised worldwide, especially in Southern Africa. One case study as shown in Box 3.3 shows how Mozambique is using the PPP approach to conserve biodiversity.

3.4 THE GOVERNANCE OF NATURAL WEALTH IN SOUTHERN AFRICA

While Southern African countries have a dependency on natural resources, performance has generally been disappointing. Natural resource dependent countries have experienced low long-term growth rates, and persistently high fiscal and current account deficits. While several causes have been identified for such a predicament, including volatile domestic revenues and foreign exchange earnings, governance-related factors such as political instability, conflicts, and corruption are among the main ones.

Natural resources have several characteristics that make their exploitation subject to economic and political risks. When extractive industries are externally financed and owned, the local community has a limited role in the development and management of the resource. Such industries have fewer backward and forward linkages (partly because of the weak manufacturing sector) which further limits the distribution of resource rents among the local stakeholders. The lack of meaningful community engagement eventually leads to a high risk of conflicts. A second characteristic of natural resources is that wealth has to be

¹⁷⁸ <https://www.biofin.org/news-and-media/green-bonds-zambia>

¹⁷⁹ (IRENA 2015)

Box 3.6: World Bank Mozambique Conservation Areas for Biodiversity and Development and PPP

The World Bank Mozambique Conservation Areas for Biodiversity and Development has supported five co-management agreements between the government and nonprofits, as well as private organizations, to manage five conservation areas and to finance anti-poaching activities. It also regularized eight private tourism concessions in the Bazaruto Archipelago National Park and facilitated a successful joint venture between a local community and a private operator. The PPP structures applied leveraged significant private and philanthropic investments in excess of \$600 million. Phase I of the project created nearly 1,800 tourism jobs. The model is being replicated across the country—PPPs are at the center of Mozambique's strategy to attract investment in rural areas, develop the tourism sector, and conserve biodiversity and ecosystem services. The financial sector is also stepping up: the country's largest bank, Millenium BIM Bank, has established a \$50 million line of credit for investors interested in nature-based tourism, particularly in and around conservation areas.

Source: World Bank. <https://documents.worldbank.org/en/publication/documents-reports/documentdetail/529271623339994985/mozambique-africa-east-p131965-mozambique-conservation-areas-for-biodiversity-and-development-project-audited-financial-statement>

converted into other assets; in case this is not happening, the country will simply deplete its assets, making it poorer in the long run. Finally, their exports are subject to the dynamics of international demand and price which make lead to highly fluctuating resource rents.

The quality of governance institutions matters, as it largely determines whether resource wealth becomes a blessing or a curse. Given these characteristics, a weak governance structure motivates rent-seeking behavior, misdirected public spending, and weakening state structure, leading to a shift of resources from productive to unproductive activities and undermining the system's ability to respond to external shocks. There is thus a concern regarding the vulnerability of the countries in regard to the 'resource curse' phenomenon, referring to the paradox that countries (for e.g. Angola) endowed with natural resources tend to have lower economic growth and poor development outcomes than countries with fewer natural resources. The quality of institutions play a key role in preventing the resource curse. Natural resources rents can also induce appreciation of the real exchange rate while

transferring labour from manufacturing industry to the extraction industry. As a result of weak institutional quality, the natural resource curse occurs in countries with high level of corruption, a lack of transparency and accountability, and favouring rent seeking activities, and supporting revenue mismanagement. Weak governance institutions also allow multinational corporations to implement strategies to deprive countries well-endowed in natural resources from benefiting fully from their legitimate, mandated and legal share of their natural resource endowments such as legitimization, transfer pricing and tax avoidance. They also lack corporate social responsibility commitments to support environmental preservation and sustainable growth and development. Malawi and Mozambique, are found to be extremely vulnerable to the resource curse followed by Lesotho, Zimbabwe, and Zambia.

Natural resource governance in most Southern African countries are very weak, and require significant improvement. Natural resource governance has two main roles – regulation and enabling. The quality of governance is analysed through six indicators: Control of

Developing Natural Capital and Ecosystem Accounting is a key step forward.

¹⁸⁰ Governance mean the purposeful processes, rules, policies, norms and mechanisms that shape the making and execution of decision (ECA 2018)

¹⁸¹ ECA (2018). *African Governance Report V: Natural Resource Governance and Domestic Revenue Mobilization for Structural Transformation by the Economic Commission for Africa*

¹⁸² Rodrik, D. (1998)

¹⁸³ Badeep, R., A., Lean, H. H., Clark, J. 2017. *The evolution of the natural resource curse thesis: A critical literature survey. Resources Policy. Vol.51, Pp.123-134.*

¹⁸⁴ North, D. (1990)

¹⁸⁵ According to the study by Mehlum et al. (2006), the curse occurs only in low institutional quality.

¹⁸⁶ Henri, A. O. (2019). *Natural resource curse: A reality in Africa. Resources Policy, vol. 63:101406*

¹⁸⁷ Henri, A. O. (2019). *Natural resource curse: A reality in Africa. Resources Policy, vol. 63:101406.*

¹⁸⁸ Rafael da Cruz Macamo (2022) *Mineral resources and economic growth: evidence from the coal sector in Mozambique*, *Espaço e Economia [Online]*, vol.24. DOI: <https://doi.org/10.4000/espacoconomia.22101>

Corruption, Government Effectiveness, Political Stability and Absence of Violence, Regulatory Quality, Rule of Law, and Voice and Accountability. Table 3.3 shows the average score for the period 2011-2021. Only three Southern African countries - Botswana, Mauritius, and Namibia - have a positive score in all six indicators. Angola and Zimbabwe have the lowest average score on control of corruption. It is observed that conflict in Angola over its oil and diamond wealth, including tribal wars has rendered the state unable to contain systemic and widespread corruption. The Natural Resource Governance Institute (NRGI) provides the Resource Governance Index, which measures the quality of governance in the oil, gas, and mining sectors for 80 countries, including seven Southern Africa countries. Table 3.4 shows that of the seven countries, only Botswana has been rated satisfactory. Three of the remaining countries are weak, two have been rated poor and one classified as failing,

Southern Africa faces serious weaknesses on the regulatory frameworks for natural resource management. The institutional and regulatory framework is the stepping-stone for

the governance of natural resources. In countries such as South Africa and Zambia, the minister has the discretion to grant licenses for large-scale mining. Consequently, it is reported that Zambia suffered substantial losses because of differential extraction contracts. In Madagascar, natural resource licensing and concessions are granted on a “first come, first served” basis, making it vulnerable to bad governance or lack of transparency. The property rights and control of minerals, as well as natural resource protection, are generally vested in the government. The discretionary powers of the minister vary by country and are often subject to other constitutional and administrative processes. The African Governance Report V pointed out a major weakness among African countries is the lack of uniformity in licensing since very often each license is based on an individual contract usually informed by the discretion of public office holders. Mining contracts play a significant role in mining investments on the continent. Botswana is viewed as a fair and equitable licensing process. Box 3.7 shows the component of licensing in Botswana’s Mines and Minerals Act.

Table 3.3: Governance indicators (average values 2011-2021)

Country Name	Control of Corruption	Government Effectiveness	Political Stability and Absence of Violence	Regulatory Quality	Rule of Law	Voice and Accountability
Angola	-1.2	-1.1	-0.4	-0.9	-1.1	-1.0
Botswana	0.8	0.4	1.0	0.6	0.5	0.5
Eswatini	-0.2	-0.5	-0.3	-0.4	-0.4	-1.3
Lesotho	0.0	-0.7	-0.1	-0.5	-0.3	0.0
Madagascar	-0.9	-1.2	-0.5	-0.7	-0.9	-0.5
Malawi	-0.6	-0.7	-0.1	-0.8	-0.3	-0.1
Mauritius	0.3	1.0	0.9	1.0	0.9	0.8
Mozambique	-0.7	-0.8	-0.6	-0.6	-0.9	-0.4
Namibia	0.3	0.2	0.7	0.0	0.3	0.5
São Tomé and Príncipe	0.0	-0.8	0.3	-0.9	-0.7	0.3
South Africa	-0.1	0.1	-0.2	0.2	0.0	0.6
Zambia	-0.5	-0.7	0.2	-0.5	-0.4	-0.2
Zimbabwe	-1.3	-1.3	-0.8	-1.7	-1.4	-1.2

Source : Worldwide Governance Indicators – World Bank

¹⁸⁹ Nhabinde, S., & Heshmati, A. (2020). *The Extractive Industry’s Impact on Economic Growth in SADC Countries. Discussion Paper. IZA Institute of Labour Economics*, 13586.

¹⁹⁰ Control of Corruption captures perceptions of 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; Government Effectiveness captures perceptions of the quality of public services, the quality of the civil service and the degree of its independence from political pressures, the quality of policy formulation and implementation, and the credibility of the government’s commitment to such policies; Political Stability and Absence of Violence/Terrorism measures perceptions of the likelihood of political instability and/or politically-motivated violence, including terrorism; Regulatory Quality captures perceptions of the ability of the government to formulate and implement sound policies and regulations that permit and promote private sector development; Rule of Law captures perceptions of the extent to which agents have confidence in and abide by the rules of society, and in particular the quality of contract enforcement, property rights, the police, and the courts, as well as the likelihood of crime and violence; Voice and Accountability refers to perceptions of the extent to which a country’s citizens are able to participate in selecting their government, as well as freedom of expression, freedom of association, and a free media. The scale range is -2.5 to 2.5.

¹⁹¹ Warf, B. 2016. *Geographies of African corruption. PSU Research Review. Vol. 1 No. 1, pp. 20-38.*

Table 3.4: Resource Governance Index

Country	Score	Rating
Angola (oil & gas)	35	Poor
Botswana (mining)	61	Satisfactory
Madagascar (mining)	36	Poor
Mozambique (oil & gas)	50	Weak
South Africa (mining)	57	Weak
Zambia (mining)	50	Weak
Zimbabwe	29	Failing

Source: Natural Resource Governance Institute (NRGI)

Lack of transparency and poor designed long- and medium-term plans are among the causes of mismanagement. A major challenge in this respect is the lack of basic data and access to information natural resources, making it hard to track output, exports, and taxes due and laying the basis for planning and monitoring. In Zimbabwe, the lack of access to information in the governance of the diamond sector has created widespread corruption and leakages in revenue from the diamonds, preventing the country from realizing maximum benefits.

There is a higher emphasis on governance at continental, regional, and international levels in the management of Africa's natural resources. At the continental level, the Africa Mining Vision (AMV) was adopted by heads of state in 2009, with a compelling

thrust towards 'transparent, equitable and optimal exploitation of mineral resources to underpin broad-based sustainable growth and socio-economic development'. The African Mineral Governance Framework was designed to facilitate the realization of the AMV. In 2015 the African Union (AU) adopted the first 10-year Implementation Plan for Agenda 2063, a milestone of the 2030 Agenda for Sustainable Development, which places natural resources at the center of the construction of a developmental state and of the socio-economic transformation of African countries. Regional institutions such as the AfDB Natural Resource Center (ANRC) and the African Minerals Development Center (AMDC/ECA) are also supporting African states in their efforts to improve their natural resource governance. At the international level, this trend includes the Organisation for Economic Co-operation and Development (OECD) Due

Box 3.7: Best practices in Botswana – the Mines and Minerals Act (1999)

The Mines and Minerals Act (1999) in Botswana sets out a clear regulatory framework for the licensing of mineral development. The Act provides a clear “de jure” process regarding application requirements for prospecting, retention, and mining licenses for larger-scale mining; and a minerals permit for small-scale mining. The Act ensures the security of tenure, competitive tax rates, right to arbitration, and other features of a modern mining regime. It allows for the transferability of licenses and provides clear instructions for the provision of geological data. It specifies that companies must report on the results of their prospecting work plans every three months, at the time of prospecting renewals, and when the project has been completed.

Source: <https://www.botswanalaws.com/StatutesActpdf/1999Actpdf/MINES%20AND%20MINERALS%20ACT,%2017%20OF%201999.pdf>

¹⁹² World Bank (2016). *Botswana Mining Investment and Governance Review*. International Bank for Reconstruction and Development / The World Bank. World Bank Publications. The World Bank Group.

¹⁹³ <https://www.idea.int/sites/default/files/publications/enhancing-natural-resource-governance-in-africa.pdf>

Diligence Guidance for Responsible Supply Chains of Minerals from Conflict-Affected and High-Risk Areas; the Kimberley Process; the Dodd-Frank Act in the United States; the European Union's transparency and accounting directives; the Extractive Industries Transparency Initiative; and Publish What You Pay.

3.5 POLITICAL ECONOMY, ILLICIT TRADE, AND OTHER LEAKAGES

As Southern Africa searches for opportunities to manage its natural wealth, the region faces three rampant challenges (1) illicit trade, (2) illicit and illegal financial flows (IIFs), and (3) political economy of rent seeking and corruption. Illicit trading refers to those activities include the harvesting, transportation, purchase, and sale of natural resources which are in violation of national laws. Illicit trading refers to those activities such as harvesting, transportation, purchase, and sale of natural resources which are in violation of national laws. IIFs refers to money illegally earned, transferred or used which are in violation of laws in their origin, or during their movement or use, and are therefore considered illicit. Illicit trade and IIFs take place within an environment with high corruption practices, low governance and political involvement. For instance, in Mozambique, most profitable mining concessions are owned by those with powerful political connections . It is also reported that high-level «friendships» between the public officials and the timber agents help the agents avoid regulations and illegally obtain logging permits . In Angola, an act of nepotism deemed unconstitutional by anti-corruption activists was reported with the appointment of the Chairman of the Board of Directors of the state-owned oil company .

3.5.1. Illicit trade

The products associated with illegal trade range from illegally-logged timber, to wildlife poaching for ivory, rhino horn, pangolin) to a variety of minerals (gold, gemstones including diamonds and rubies, and coltan). The range of products, the number of entry points along the borders and coastlines and the ability to evade enforcement by rerouting or bribery, create a favourable environment for illicit trade to take place in Southern Africa. There are no official figures and data. The reporting is mostly based on successful interceptions by the authorities. Reported illicit trade can, in some instances, be more a reflection of the diligence of enforcement authorities (and the interest of researchers) than any on-the-ground reality.

Wildlife crime in recent years has grown into a significant and specialised area of transnational organised crime in many Southern African countries. Wildlife crime is driven by high demand and facilitated by a lack of effective law enforcement, weak legislation, and non-commensurate penalties according to UNODC (2017) . Species protected by the Convention of International Trade in Endangered Species of Wild Fauna and Flora (CITES) are often the target for illegal trade. Poaching operations in Africa have grown increasingly sophisticated controlled and financed by professional foreign ivory traffickers. Malawi, Mozambique, Namibia, Zambia, Zimbabwe among others, experienced rampant poaching resulting in loss of large numbers of endangered species, such as rhinos, elephants, and pangolins. For example, the elephant population in the Niassa National Reserve, has declined from an estimated 12,000 in 2011 to just 3,675 in 2016 . Due to bushmeat trafficking, an informal and unregulated illicit bushmeat industry has emerged and poachers also kill lions, leopards and cheetahs to sell their skins in Zambian markets making the capital Lusaka a wildlife trafficking hub. Zimbabwe is an epicenter for pangolin poaching despite having one of the strictest laws against pangolin poaching in Africa. Importantly, poaching of lions for their parts occurs in Zimbabwe. Namibia has a large market for ivory, rhino horn and pangolins losing an average of 50 rhinos a year to poaching since 2016. Due to corruption in South Africa, there was an increase from 13 rhinos being killed illegally for the export of their horns in 2007 to 1,215 by 2014.

The rising illegal timber trade is a major concern. It is estimated that between 50% to 90% of tropical timber and associated products is illegal in Africa. Such economic activities worsen the quality of forest management . Due to illegal logging, Malawi has lost 12% of its tree cover since 2000, given that unregulated charcoal production takes place at a large scale in its forests. Around 76% of Mozambique's timber exports in 2013 were illegally cut in excess of reported harvests. Zambia attempted to ban the transport of endangered wood products; yet its forest cover significantly reduced due to criminal activity . The abundant timber resources in Mozambique and Zambia were threatened by illegal logging and trafficking . Illegal activities in forestry sector include: harvesting without title (or right); harvesting outside concession boundaries; harvesting in protected areas; failing to respect management plans setting out the geographic scope and technical approach permitted; re-cutting on a concession site; and harvesting more than

¹⁹⁴ <https://africa.ocindex.net/country/mozambique>

¹⁹⁵ Kukutschka, R. M. B. 2018. *Illicit financial flows in Mozambique*. U4 Helpdesk Answer 2018:6

¹⁹⁶ <https://www.makaangola.org/2016/06/supersonic-nepotism-illegalities-at-the-speed-of-light/>

¹⁹⁷ United Nations Office On Drugs And Crime 2017. *Wildlife Crime Status Update 2017 Research Brief*

¹⁹⁸ Kukutschka, R. M. B. 2018. *Illicit financial flows in Mozambique*. U4 Helpdesk Answer 2018:6

authorized volumes and below the allowed minimum exploitable diameter (MED) rules. At the tree species level, rosewood is reported to be the single-most smuggled wildlife product in the world. Despite Namibia's relative low forest cover, illicit timber - rosewood, in particular - from the north of the country is exported to China and Vietnam .

As with other illicit natural resources in Africa, illicit trade in African timber is catalyzed by rural poverty, sustained by widespread corruption, and enabled by weak governance and conflicts.

The presence of a corruption chain and vested interests within countries, makes it difficult for government policies and laws to be effectively applied. The lack of enforcement capacity of states is the main reason. Yet, when enforcement capacity is improved, the trade simply shifts elsewhere, often making use of smaller harbours, beach landings or insecure airports. There is a complex coordination network from officials at the highest levels to traders to make the dealings successful. Such collusion schemes have been observed in Madagascar.

Illegal trade in minerals is a major challenge in Southern Africa. Namibia has a considerable market for illicit diamonds and gemstones, with approximately 80% of small-scale mining activity in the country is illegal. Mozambique has an active market for non-renewable-resource crimes, being a transit country for smuggled Zimbabwean diamonds and illicit gold from South Africa to the United Arab Emirates. Maputo's port and airport are also used in the smuggling of precious stones from South Africa to Asia. High unemployment rates have forced many to turn to illegal mining , while lack of access to information has created rampant corruption. There is also the emergence of parallel networks in smuggling and illegal diamond sales. A report by Partnership Africa Canada estimated that in 2008 there were more than 500 illegal diamond syndicates operating in Manicaland province of Zimbabwe .

Southern Africa is also prone to illegal activities which are associated with illegal trade. Illegal activities include the falsification of documents, smuggling; transfer pricing; tax evasion; corruption; wood laundering, illegal industrial processing; and ignoring the terms of social responsibility contracts. Government officials overlook violations of the law in return for bribes especially during the bidding for allo-

cation of logging permits or during harvesting such as export or transport without permit and logging outside authorized areas. There is also a chain of participants involved, from the forest controllers to overlook contraventions to road control officials to overlook transport documents subject to tampering, and inspectors to overlook the sale of illegal timber or protected species. There is another layer of complexity in the form where timber may be processed and also gets legalized through counterfeit paperwork . Numerous assessments point to authorities being involved in organised crime, either directly or indirectly through political leadership.

Illegal fishing is a major cause of the depletion of fish stocks.

Illegal fishing activities occur when the legal framework related to fishing or a fishery is violated. Such activities commonly include fishing without authorisation (i.e. fishing licence); fishing out of season or in closed areas; harvesting prohibited species; using banned fishing gear; and, catching more than the set quota . Illegal fishing involves a multitude of persons, corporations, and government agencies, ranging from the fishers themselves to the masters of the fishing vessels, to the vessel owners, to vessel financiers and insurers. These key actors are of different nationalities – for example, the vessel may be registered in one state, the vessel owner domiciled in another and the fishing crew originating from yet numerous other jurisdictions. In some cases illegal fishing results from the increase in restrictions on legal fishing implemented to recover depleted stocks. Management restrictions have sometimes unintended impacts in exacerbating illegal fishing.

Illegal, unreported, and unregulated (IUU) fishing is one of the greatest threats to ocean resources.

The IUU Index published by the Global Initiative Against Transnational Organized Crime and Poseidon – Aquatic Resource Management Ltd, provides an IUU fishing score for coastal states with range between 1 and 5 (1 being the best, and 5 the worst) . Only Namibia and Mozambique have a score lower than 2 (Table 3.5.) . The main cause of IUU is the almost complete absence of monitoring capacity . The lack of capacity is observed at all levels of the government to monitor and enforce fisheries regulations (for e.g. Mozambique) . The sea patrol units lack the capacity of covering a large range as in the case of the Angolan EEZ. In South Africa, illegal fishing takes place in both

¹⁹⁹ African Natural Resources Centre (ANRC). 2021. *Illicit trading in Africa's forest products: Focus on timber*. African Development Bank. Abidjan, Côte d'Ivoire

²⁰⁰ <https://africa.ocindex.net/country/zambia>

²⁰¹ <https://www.traffic.org/news/chinese-communities-in-mozambique-and-zambia-engaged-on-cites-and-sustainable-trade-in-forest-resources/>

²⁰² <https://africa.ocindex.net/country/namibia>

²⁰³ https://africa.ocindex.net/assets/downloads/2021/ocindex_summary_zimbabwe.pdf

²⁰⁴ Elijah Doro & Ushewedu Kufakurinani (2017): *Resource Curse or Governance Deficit? The Role of Parliament in Uganda's Oil and Zimbabwe's Diamonds*, *Journal of Southern African Studies*, DOI: 10.1080/03057070.2018.1403214

²⁰⁵ Kishor, N. and Lescuyer, G., 2012. *Controlling Illegal Logging in Domestic and International Markets by Harnessing Multilevel Governance Opportunities*. *International Journal of the Commons* 6 (2): 255-270. <https://storage.googleapis.com/jnl-up-j-jc-files/journals/1/articles/327/submission/proof/327-1-2449-1-10-20120829.pdf>

The quality of governance institutions matters, as it largely determines whether resource wealth becomes a blessing or a curse.

the commercial sector as well as in small-scale fisheries. Attempts to curb illegal harvest in the latter sector have been largely unsuccessful partly due to the problematic socio-political history of abalone rights in the country in terms of which traditional fishers were deprived of legal harvesting rights. Namibia is described as having lowest IUU fishing score in the sample. One reason is that the country has one of the highest penalties in the world for illegal vessels caught in its jurisdiction. Illegal fishing in Angola often involve vessels from China, Korea, Spain, Namibia, Japan, and Russia. Before the civil war in 2002, Angola's fisheries sector was the third largest economic sector after oil and mining. However, the relative contribution of the sector declined in the last two decades. Total foreign catches within Angolan EEZ-equivalent waters averaged around 250,000 tons per year in the 2000s. Illegal catches by industrial fleets increased drastically from low levels in 1983 to around 63,700 t in 2010 with over 80 taxa caught by illegal fleets - tunas, and other large pelagics as well as Sparidae and Sciaenidae represent over half of the latter.

3.5.2. Illicit and illegal financial flows (IFFs)

There is evidence of significant Illicit Financial Flows (IFFs) in Southern African countries. IFFs are highly concentrated in some countries, the top-ten countries and account for 73.4% of total IFFs in Africa from 1980 to 2018. Three Southern African countries, namely South Africa, Angola, Botswana, and Zambia accounted for 40.7%. IFFs emanates from business activities through commercial tax evasion, trade mis-invoicing, and abusive transfer pricing. Other sources also cri-

minal activities, including the drug trade, human trafficking, illegal arms dealing, and smuggling of contraband; and bribery and theft by corrupt government officials. Direct proceeds of corruption, such as bribes and embezzlement of state funds constitute just 5% of illicit outflows.

The various means by which IFFs take place in Africa include abusive transfer pricing, trade mispricing, mis-invoicing of services and intangibles and using unequal contracts.

Abusive transfer pricing occurs when a multinational corporation takes advantage of its multiple structures to shift profit across different jurisdiction. Zambia for example, is said to lose nearly 10 percent of its GDP every year as a result of corporate tax avoidance schemes, including transfer mispricing. The main cause is the extent and efficacy of policy and the fact that the legislative systems differ from state to state. In South Africa, the vast majority of illicit capital flows arise out of transfer pricing from the mining sector. South Africa and Zambia have some sort of legislation in place to curb transfer mispricing, but many have yet to formulate specific complementary regulatory guidance. Most African countries do not have an appropriate transfer pricing framework. It is addressed either in the general tax law or a financial act as in Madagascar. Trade mispricing is the falsification of the price, quality and quantity values of traded goods for a variety of purposes. Under-invoicing of exports are also quite common. Despite the success story of Botswana's economy, trade mis-invoicing outflows are prevalent, with over US\$ 12.3 billion cumulatively recorded in 2003 and 2013. The driving factors for illicit financial flows in Botswana include weak enforcement institutions, corruption and existence of tax havens. In Mozambique exported shrimp were often declared to be of a lower quality than was actually the case. IFFs in Mozambique is also fuelled by the high number of people, informally employed in the agricultural sector or work in informal trade in cities.

The extractive sector is particularly prone to IFFs. Extractive sectors fall under high-level discretionary political control, such as a president or executive committee, and are often prone to secrecy. State companies in these sectors often use the public function to promote their personal interests. There are also limited competition in extractive sectors, leading to fewer corporate checks and balances. Moreover, extractive

Table 3.5: IUU Index in Southern African countries

	Score	World rank
Madagascar	2.33	57
Mauritius	2.30	62
Mozambique	1.98	117
Namibia	1.97	120
São Tomé & Príncipe	2.40	41
South Africa	2.64	13

Source: Macfadyen, G. and Hosch, G., 2021¹¹³

²⁰⁶ Stop Illegal Fishing (2017) *Illegal Fishing? Evidence and Analysis*. Gaborone, Botswana.

²⁰⁷ The IUU Fishing Index covers 152 coastal countries of the world, and for each country a score is calculated based on a suite of 40 indicators. These relate to the prevalence of IUU fishing in each country and the country's vulnerability and response to it, as assessed according to the country's coastal, flag, port and general state responsibilities

²⁰⁸ The Index for Angola is not available.

²⁰⁹ UNCTAD (2022) *Harnessing Fishery Resources For Socioeconomic Development Lessons For Angola And Haiti*. United Nations Conference on Trade and Development

²¹⁰ Yozell, S., and Shaver, A. 2019. *The Need for Transparency across Distant Water Fishing. Shining a Light*. Stimson Center. <http://www.jstor.com/stable/resrep20057.10>

²¹¹ de Coning, E., and Witbooi, E. 2015. *Towards a new 'fisheries crime' paradigm: South Africa as an illustrative example*. *Marine Policy*, vol. 60, pp.208-215.

Table 3.6: Total illicit financial flows from sub-Saharan African countries, by volume (1980-2018)

Country	IFFs (millions of USD)	IFFs (% of total trade)
Angola	45,132	4.4
Botswana	31,485	16.1
Zambia	27,499	11.8
Namibia	24,048	13.4
Zimbabwe	22,652	13.9
Mauritius	13,920	9.5
Mozambique	13,339	8.7
Malawi	13,169	21.1
Madagascar	11,003	12.8
Eswatini	10,590	20.5
Lesotho	9,536	29.5
South Africa	441,481	15.5
São Tomé and Príncipe	1,538	57.3

Source: Signé, L., Sow, M., & Madden, P. 2020. *Illicit financial flows in Africa Drivers, destinations, and policy options*. Africa Growth Initiative at Brookings. Policy Brief. March.

sectors often require high degrees of technical expertise which facilitate the falsification of reports. IFFs in the extractive sector occur in different phases. In the exploration, bribery and corruption prevail to obtain the necessary permits. For example, Malawi granted rights to explore and extract resources to an increasing number of mining companies within its borders. It now faces a challenge in tracking illicit financial flows. In the contracts and licenses phase, negotiations processes are generally not transparent, without clear requirements for obtaining licenses. Tax rates, incentives, and fiscal exemptions are not explicit in such contracts. The production and processing stage involves those activities of the company in which the minerals are extracted from the subsoil, classified, prepared for distribution and export. The risk of smuggling is present at this stage where companies can camouflage the production of small-scale and artisanal miners which would make it easier to reduce production costs and pay less tax. During the assaying process, companies declare the quality of the minerals and it is easy for companies to reduce both the quantities and the qualities of the minerals to reduce both direct taxes (on quantities) and indirect taxes. Sometimes companies even declare losses to

avoid paying tax and use other companies in the same group located in tax havens to set fictitious prices (transfer pricing). Finally, in the closure, the lack of mining codes may impede the closure and environmental restoration of the mine site in compliance with international.

IFFs in the commercial arena is mainly motivated to hide wealth, evade or aggressively avoid tax, and escape customs duties and domestic levies. The ultimate objective of the actors involved is to hide illicit wealth by concealing the proceeds away from law enforcement agencies. Macroeconomic indicators such as government deficits, inflation and inflationary expectations), structural variables (such as increasing trade openness, changes in income distribution) and governance-related issues are drivers of IFFS. Poor governance, weak institutions and generalised corruption are the main factors. A poor business environment may encourage IFFs when people find it easier to make money through illicit activities than through legitimate business. Recently, the existence of information technologies and the trans-border nature of many transactions have been identified as primary drivers. As most Southern African countries lacked the means

²¹² Sjöstedt, M., Sundström, A. 2014. *Coping with illegal fishing: An institutional account of success and failure in Namibia and South Africa*. *Biological Conservation*, vol.189, pp.78-85.

²¹³ Macfadyen, G. and Hosch, G., 2021. *The IUU Fishing Index, 2021*. Poseidon Aquatic Resource Management Limited and the Global Initiative Against Transnational Organized Crime.

²¹⁴ Signé, L., Sow, M., & Madden, P. 2020. *Illicit financial flows in Africa Drivers, destinations, and policy options*. Africa Growth Initiative at Brookings. Policy Brief. March.

As Southern Africa searches for opportunities to manage its natural wealth, the region faces three rampant challenges (i) illicit trade, (2) illicit and illegal financial flows (IIFs), and (3) political economy of rent seeking and corruption.

Table 3.7: Illicit Financial Flows to and from Southern African Countries: 2005–2014²⁰⁰

	Illicit Financial Flows					Trade Mis-invoicing					BoP Leakages			
	Outflows		Inflows			Outflows			Inflows		Outflows	Inflows		
	Low	High	Low	-	High	Low	-	High	Low	-	High			
Angola	1%	-	1%	3%	-	6%	0%	-	0%	3%	-	6%	1%	0%
Botswana	8%	-	12%	3%	-	4%	5%	-	9%	1%	-	2%	3%	2%
Lesotho	4%	-	7%	2%	-	3%	4%	-	6%	1%	-	1%	1%	2%
Madagascar	5%	-	10%	2%	-	4%	2%	-	8%	2%	-	3%	2%	0%
Malawi	7%	-	24%	4%	-	7%	5%	-	22%	2%	-	5%	2%	2%
Mauritius*	5%	-	9%	10%	-	18%	4%	-	9%	7%	-	15%	1%	3%
Mozambique	2%	-	3%	3%	-	7%	1%	-	3%	3%	-	7%	0%	0%
Namibia	6%	-	11%	3%	-	3%	5%	-	9%	1%	-	2%	2%	2%
São Tomé and Príncipe	19%	-	22%	14%	-	15%	11%	-	13%	3%	-	4%	8%	11%
South Africa	5%	-	9%	2%	-	3%	4%	-	8%	1%	-	2%	1%	1%
Eswatini	8%	-	12%	2%	-	3%	5%	-	9%	1%	-	1%	3%	1%
Zambia	2%	-	7%	8%	-	15%	1%	-	6%	8%	-	15%	0%	0%
Zimbabwe	3%	-	6%	10%	-	23%	1%	-	4%	4%	-	16%	2%	7%

Spanjers, J., and Salomon, M. (2017). *Illicit Financial Flows to and from Developing Countries: 2005–2014*. Washington D.C.: Global Financial Integrity.

to verify the quantities of natural resources produced, relying instead on exporter declaration, this makes it difficult to control or prevent IFFs.

3.6. CONCLUSION AND RECOMMENDATION

The green growth model supports a shift in global financial flows away from nature-negative outcomes and towards nature-positive outcomes. With good macro-economic policies and strong institutions, natural capital can pave the way for the efficient allocation of capital, stimulate investment and generate sustained economic growth. There is thus a need for actions so that natural capital can contribute effectively to build climate resilience among Southern African countries.

Short-term policy options

Initiating institutional and legislation reforms. There is an urgent need for institutional reforms in the management of natural capital and to prevent illegal and IFFs. In the short term, Southern Africa is expected

to address crucial issues in the exploitation of natural capital. There is a need to strengthen legal and policy frameworks to promote financial transparency. Reforming taxation system and revenue transparency, establishing Transfer Pricing Units, and improving tax compliance remain priority. A country strategy will need to be developed with the participation of state and social actors to lay the foundations of the institutional reforms, with the necessary amendment or introduction of the legal framework.

Enhancing monitoring, enforcement and coordination among state and social actors. There is a need to increase monitoring and enforcement efforts, especially across national borders. Ensuring rigorous customer due diligence and suspicious activity reporting programs are important initiatives. In many countries, there is a duplication, overlapping of functions and lack of coordination among different agencies dealing in natural resources. Southern Africa should improve its coordination structure across ministries and social actors in order to manage effectively its natural capital.

²¹⁵ AU/ECA. 2015. *Report of the High Level Panel on Illicit Financial Flows from Africa Commissioned by the AU/ECA Conference of Ministers of Finance, Planning and Economic Development* https://www.unodc.org/documents/NGO/AU_ECA_Illicit_Financial_Flows_report_EN.pdf (accessed on 05/05/2023).

²¹⁶ Ashman, S., Fine, B., and Newman, S. 2011. *Amnesty International? The Nature, Scale and Impact of Capital Flight from South Africa Journal of Southern African Studies*. Vol. 37, No. 1 (March 2011), pp. 7-25

²¹⁷ Mutio, P. 2021. *Illicit financial flows and the extractives sector on the African continent: Impacts, enabling factors and proposed reform measures. Academics Stand Against Poverty Vol. 1, No. 1, 86-105*

Medium-term policy options

Initiating innovative asset class to manage natural capital. A response to managing natural capital is to turn natural capital into an asset class to increase income and generate provide financial flows. This involves harnessing private finance and creating a category of financial securities to contribute to the protection and management of biodiversity and ecosystem services. Blending conservation efforts with commercial nature-based activities through public-private partnerships is a step forward. Medium policy options

Creating the necessary technical and human capacity. There is a lack of technical and human capacity to deal with crime perpetuated in Southern Africa. An adequate stock of qualified forensic statisticians, investigators, financial crime prosecutors, ICT operators and programmers is essential to combat illegal trade and IFFs. The medium term policy option involves training and capacity building of people in Southern Africa.

Developing data and information facilities. The lack of quality data remains an important challenge. Data issues include the lack of common standards in compiling data, data errors and differences in classifications and measuring discrepancies.

Promoting good governance in natural resource management. Bad governance, weak and corrupt regulatory structures, must be tackled to reduce illegal trade and IFFs. Promoting good governance is key to mobilize adequate domestic resources and plug loopholes

that facilitate illicit financial outflows. Southern African countries require an urgent need to improve good governance across different hierarchies of the supply chain natural resource trade. Improving transparency in the industry, including, making access agreements publicly available, complemented with increased capacity to monitor and take action against perpetrators, is critical.

Long term policy options

Establishing fully-fledged digitalised technologies with state-of-the-art ICT equipment for monitoring and surveillance.

There is a need to develop adequate supply of specialised technology and equipment for collecting, processing and storing specialized information on financial crime. As information and communication technologies are evolving, they are also the primary factors facilitating illegal activity carried out with the use of digital networks. In the long term, there is a need to develop a fully fledged ICT-based framework to digitalise transactions across borders and to increase monitoring and surveillance of illegal trade.

Establish a regional, continental and global framework to combat illegal trade and IFFs.

Information sharing and timely monitoring, control, and surveillance, at regional, continent and global level can be effective illegal trade. There is a need to work bilaterally and multilaterally especially to conduct joint patrols. For instance, in Mozambique, IUU is also driven by the lack of engagement of the relevant Ministry with a mandate to enforce the regulations.

²¹⁸ Kar, D., and Leblanc, B., 2013, *Illicit Financial Flows from Developing Countries: 2002–2011*, Washington DC: Global Financial Integrity

²¹⁹ Kukutschka, R. M. B. 2018. *Illicit financial flows in Mozambique*. U4 Helpdesk Answer 2018:6

²²⁰ Spanjers, J., and Salomon, M. (2017). *Illicit Financial Flows to and from Developing Countries: 2005–2014*. Washington D.C.: Global Financial Integrity.

²²¹ Nyasa Times (2013) Malawi to Lose More Revenue Due to Illicit Financial Flows-Report, http://iffoadatabase.trustafrica.org/iff/malawi_to_lose_more_revenue_due_to_illicit_financial_flows_-report___malawi_nyasa_times_%E2%80%93_malawi_breaking_news_in_malawi.pdf

²²² African Union Commission(2019). *Domestic Resource Mobilization: Fighting Against Corruption and Illicit Financial Flows* https://au.int/sites/default/files/documents/37326-doc-k-15353_au_illicit_financial_flows_devv10_electronic.pdf

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ANNEX

Annex 1: Basic indicators 2017-20

	(Thousands)	(km ² Thousands)	(People per km ²)	(\$ millions)	(\$)	(%)
Angola	35,589	1,247	29	247,225	6,947	1.6
Botswana	2,630	567	5	48,480	18,431	4.5
eSwatini	1,202	17	70	12,527	10,424	2.8
Lesotho	2,306	30	76	6,549	2,840	1.8
Madagascar	29,612	582	51	52,742	1,781	2.5
Malawi	20,405	94	216	35,963	1,762	3.9
Mauritius	1,299	2	640	33,880	26,072	2.6
Mozambique	32,970	786	42	48,391	1,468	4.6
Namibia	2,567	823	3	28,348	11,043	2.4
São Tomé and Príncipe	227	1	237	1,068	4,696	3.7
South Africa	59,894	1,213	49	952,598	15,905	1.4
Zambia	20,018	743	27	76,984	3,846	4.1
Zimbabwe	16,321	387	42	39,905	2,445	4.9
Southern Africa	225,039	6,493	35	1,584,659	7,042	1.9
Africa	1,424,855	29,614	48	8,298,147	5,824	3.5

a. Based on purchasing power parity valuation

Source: UNDESA 2017, African Development Bank statistics and estimates, and various domestic authorities

Annex 2: Real GDP growth, 2014–24 (%)

	2014	2015	2016	2017	2018	2019	2020	2021	2022(e)	2023(p)	2024(p)
Angola	4.8	0.9	-2.6	-0.1	-1.3	-0.7	-5.6	1.1	3.0	3.5	3.9
Botswana	5.7	-4.9	7.2	4.1	4.2	3.0	-8.7	11.9	5.8	4.0	3.9
eSwatini	0.9	2.2	1.1	2.0	2.4	2.7	-1.6	7.9	3.6	3.5	4.9
Lesotho^a	1.7	3.1	3.6	-3.1	-1.5	-0.8	-5.6	1.6	2.5	2.1	2.6
Madagascar	3.3	3.1	4.0	3.9	3.2	4.4	-7.1	5.7	4.2	4.2	5.0
Malawi	6.2	3.3	2.7	5.2	4.4	5.7	0.9	2.2	0.8	2.0	3.5
Mauritius	3.8	3.7	3.9	3.9	4.0	2.9	-14.6	3.4	8.7	5.0	4.2
Mozambique	7.4	6.7	3.8	3.7	3.4	2.3	-1.2	2.3	3.8	4.8	8.3
Namibia	6.1	4.3	0.0	-1.0	1.1	-0.8	-8.1	3.5	4.6	3.5	3.0
São Tomé and Príncipe	6.5	3.9	4.2	3.8	2.9	2.2	3.1	1.9	0.9	1.6	1.9
South Africa	1.4	1.3	0.7	1.2	1.5	0.3	-6.3	4.9	2.0	0.2	1.5
Zambia	4.7	2.9	3.6	3.7	4.0	1.4	-2.8	4.6	3.0	4.0	4.2
Zimbabwe	2.4	1.8	0.7	4.7	3.5	-6.1	-7.8	8.5	3.0	3.2	3.2
Southern Africa	2.7	1.5	0.8	1.5	1.5	0.5	-6.0	4.4	2.7	1.6	2.7
Africa	3.8	3.4	2.1	4.0	3.6	3.0	-1.7	4.8	3.8	4.0	4.3

a. Based on fiscal year data (April–March). (e) – estimated (p) – projected
Source: UNDESA 2017, African Development Bank statistics and estimates, and various domestic authorities

Annex 3: Demand composition and growth rate, 2017-20

	2021						2021(e)					2022(p)					2023(p)				
	Final consumption		Gross capital formation		External sector		Total final consumption	Total gross capital formation	Exports	Imports	Total final consumption	Total gross formation	Exports	Imports	Total final consumption	Total gross capital formation	Exports	Imports			
	Private	Public	Private	Public	Exports	Imports															
	(% of GDP)						(% real growth)					(% real growth)					(% real growth)				
Angola	54.9	12.1	17.6	3.8	35.4	23.7	2.5	1.6	4.7	1.5	4.1	3.1	2.7	2.0	4.1	4.4	2.0	1.3			
Botswana	44.5	32.4	20.3	7.8	43.1	48.2	4.8	-12.3	-5.6	-	1.5	3.5	7.0	3.5	1.6	4.5	8.0	6.2			
										11.8											
Eswatini	66.9	19.7	6.3	8.0	45.8	46.7	4.0	6.1	5.1	5.1	3.1	8.5	3.8	4.5	4.4	9.5	3.8	4.5			
Lesotho ^a	81.5	41.5	14.3	11.8	46.0	95.1	1.7	1.7	0.8	0.3	2.3	3.2	-3.9	0.1	3.3	4.2	0.2	3.9			
Madagascar	70.8	15.7	13.8	4.8	28.0	33.1	1.8	8.3	8.3	5.7	2.1	4.3	5.8	2.1	1.8	4.1	5.8	0.2			
Malawi ^b	85.7	10.2	10.1	13.0	20.2	39.2	0.3	4.2	3.7	3.5	2.3	4.5	3.8	3.7	3.1	4.4	3.6	3.4			
Mauritius	72.8	17.2	15.3	4.5	44.2	54.0	3.3	7.8	38.3	10.0	3.5	4.9	4.3	2.2	2.4	-0.9	5.2	0.2			
Mozambique	68.6	19.0	38.6	11.2	31.4	68.8	2.6	7.1	8.6	5.6	1.9	11.4	8.4	6.4	2.2	13.1	5.9	2.6			
Namibia	75.8	25.0	13.2	4.3	31.9	50.1	14.4	2.6	20.0	23.6	-2.4	5.5	4.3	-2.5	-1.7	6.5	4.3	0.5			
São Tomé and Príncipe	88.4	14.8	7.1	7.1	22.7	40.1	0.7	0.8	0.9	0.7	0.7	1.4	0.3	0.1	1.1	1.2	-0.6	-0.5			
South Africa	44.4	17.4	22.7	15.3	26.7	26.5	1.8	1.2	0.0	-3.3	3.1	0.4	2.5	-1.1	2.7	1.8	2.4	2.4			
Zambia	33.0	17.1	27.7	4.0	52.1	33.9	8.2	2.1	-4.5	-3.0	6.6	3.7	-5.0	-1.0	6.7	3.7	-5.0	-1.0			
Zimbabwe	82.5	20.9	3.1	6.7	19.6	32.8	1.3	3.7	5.7	2.3	1.0	4.3	3.8	0.9	1.7	4.3	2.1	0.5			
Southern Africa	61.2	18.9	9.2	7.5	32.4	29.1	3.0	5.4	6.8	9.4	2.9	2.1	-1.1	2.8	1.8	2.7	2.6	1.5			
Africa	66.4	12.8	14.6	9.2	22.0	24.9	4.7	5.9	12.9	15.8	3.4	3.4	4.5	2.5	3.3	6.0	3.0	3.7			

a. Based on fiscal year data (April–March)

b. Based on fiscal year data (July–March)

Source: African Development Bank statistics, estimates, and projections and various domestic authorities

Annex 4: Public finances, 2021–24 (% of GDP)

	2021				2022 (estimated)				2023 (projected)				2024 (projected)	
	Total revenue and grants	Total expenditure and net lending	Overall balance	Total revenue and grants	Total expenditure and net lending	Overall balance	Total revenue and grants	Total expenditure and net lending	Overall balance	Total revenue and grants	Total expenditure and net lending	Overall balance	Total revenue and grants	Total expenditure and net lending
Angola	23.3	19.5	3.8	21.9	18.9	3.0	19.6	19.3	0.3	18.8	19.2	-0.4		
Botswana^a	33.9	33.9	0.0	30.7	31.8	-1.0	31.1	30.5	0.6	32.7	30.3	2.5		
Eswatini^a	29.0	33.6	-4.6	25.0	29.6	-4.6	26.8	31.9	-5.1	27.5	30.4	-3.0		
Lesotho^a	53.0	57.9	-4.8	52.8	57.1	-4.3	49.9	55.4	-5.5	46.6	51.7	-5.1		
Madagascar	11.2	14.0	-2.8	13.7	20.4	-6.8	13.5	16.8	-3.3	13.2	16.5	-3.2		
Malawi^b	14.5	21.9	-7.4	10.8	18.0	-7.2	11.6	19.4	-7.8	11.1	18.9	-7.7		
Mauritius	21.6	32.1	-10.4	22.5	28.6	-6.1	22.7	28.1	-5.4	22.5	27.2	-4.7		
Mozambique	27.7	32.5	-4.8	26.6	30.3	-3.7	27.1	31.1	-4.0	27.0	30.6	-3.6		
Namibia^a	29.8	37.3	-7.5	31.5	38.3	-6.8	30.9	36.5	-5.6	30.6	35.5	-4.9		
São Tomé and Príncipe	19.7	25.6	-5.9	21.1	28.3	-7.2	20.4	25.9	-5.5	19.8	24.2	-4.5		
South Africa^a	27.8	32.5	-4.6	27.8	32.7	-4.9	27.7	33.9	-6.2	27.8	34.5	-6.7		
Zambia	22.3	30.4	-8.1	23.3	32.1	-8.9	23.4	31.5	-8.1	23.2	30.5	-7.3		
Zimbabwe	23.2	25.0	-1.8	23.7	24.6	-0.9	23.4	23.6	-0.2	23.4	22.9	0.4		
Southern Africa	26.5	30.2	-3.7	25.9	29.4	-3.5	25.4	29.9	-4.6	25.3	30.0	-4.8		
Africa	18.3	23.2	-4.9	18.0	22.0	-4.0	17.4	21.5	-4.1	16.8	20.6	-3.8		

a. Based on fiscal year data (April–March)

b. Based on fiscal year data (July–March)

Annex 5: Monetary indicators

	Inflation				Exchange rate			
	2021	2022 (estimated)	2023 (projected)	2024 (projected)	2019	2020	2021	2022 (estimated)
Angola	25.8	21.3	13.2	9.6	364.8	578.3	631.4	449.0
Botswana	6.7	12.2	8.2	5.8	10.8	11.5	11.1	12.4
Eswatini	3.7	4.8	5.5	5.1	14.5	16.5	14.8	16.4
Lesotho^a	6.1	8.3	6.5	5.5	14.8	16.4	14.9	16.4
Madagascar	5.8	8.1	9.5	8.2	3,618.3	3,787.8	3,830.0	4,096.1
Malawi	9.3	21.0	22.8	15.4	745.2	744.1	799.6	963.8
Mauritius	4.0	10.8	7.0	5.5	35.5	39.3	41.7	44.2
Mozambique	5.7	10.3	9.5	7.0	62.5	69.5	65.5	64.3
Namibia	3.6	6.1	5.7	4.6	14.5	16.5	14.8	16.4
São Tomé and Príncipe	8.1	17.9	13.4	9.5	21,882.9	21,467.1	20,700.8	23,355.1
South Africa	4.5	6.9	5.9	4.5	14.5	16.5	14.8	16.4
Zambia	22.1	10.1	8.5	7.1	12.9	18.3	20.0	17.0
Zimbabwe	143.3	184.1	132.2	36.1	1.0	1.0	1.0	1.0
Southern Africa	11.0	12.6	10.1	6.7	...	...	...	...
Africa	12.9	14.2	15.1	9.5	...	...	...	...

a. Based on fiscal year data (April–March).

Source: African Development Bank statistics, estimates, and projections; various domestic authorities; and the International Monetary Fund International Financial Statistics database.

Annex 6: Balance of payments indicators

	Trade balance (\$ millions)					Current account balance (\$ millions)					Current account balance (% of GDP)				
	2021	2022 (estimated)	2023 (projected)	2024 (projected)	2021	2022 (estimated)	2023 (projected)	2024 (projected)	2021	2022 (estimated)	2023 (projected)	2024 (projected)	2021	2022 (estimated)	2023 (projected)
Angola	21,787	32,052	25,135	22,663	8,399	10,233	5,183	4,855	11.2	8.9	4.3	3.9			
Botswana	-622	436	-10	427	-90	440	591	834	-0.5	2.2	2.9	3.8			
Eswatini	128	36	35	48	126	44	72	30	2.7	0.9	1.3	0.5			
Lesotho^a	-750	-643	-724	-810	-100	-144	-128	-117	-4.2	-6.8	-5.8	-5.1			
Madagascar	-967	-995	-1,015	-709	-732	-902	-959	-947	-5.0	-5.7	-5.8	-5.2			
Malawi^b	-1,891	-498	-1,859	-1,833	-1,715	-1,538	-1,276	-1,363	-13.8	-12.9	-11.7	-12.3			
Mauritius	-2,683	-3,911	-3,108	-3,243	-1,526	-1,810	-1,150	-827	-13.3	-13.3	-7.7	-5.1			
Mozambique	-2,252	-5,119	-1,333	-1,794	-3,731	-8,712	-3,259	-8,663	-23.6	-39.1	-14.0	-35.9			
Namibia	-1,918	-2,300	-1,886	-1,752	-1,206	-1,020	-584	-546	-9.8	-8.4	-4.5	-4.0			
São Tomé and Príncipe	-129	-151	-202	-212	-90	-117	-109	-107	-16.9	-19.4	-16.2	-13.9			
South Africa	30,313	13,542	6,023	4,711	15,403	-1,951	-8,724	-9,827	3.7	-0.5	-2.2	-2.4			
Zambia	4,816	3,137	3,210	3,658	2,682	1,360	-195	-157	12.1	4.4	-0.5	-0.4			
Zimbabwe	-779	-1,159	-1,315	-1,247	698	234	192	131	2.9	1.0	0.8	0.5			
Southern Africa	45,052	34,426	22,952	19,906	18,119	-3,883	-10,344	-16,706	2.9	-0.6	-1.5	-2.4			
Africa	-49,318	-50,466	-74,942	-88,783	-45,875	-60,535	-69,296	-76,207	-1.7	-2.1	-2.3	-2.3			

a. Based on fiscal year data (April–March)

b. Based on fiscal year data (July–March), rce: African Development Bank statistics, estimates, and projections

Annex 7: Intra-regional trade, 2021 (\$ millions)

	Angola	Botswana	Eswatini	Lesotho	Madagascar	Malawi	Mauritius	Mozambique	Namibia	São Tomé and Príncipe	South Africa	Zambia	Zimbabwe	Southern Africa	Africa	World
Angola	..	4.0	..	..	..	0.8	..	3.0	90.5	14.1	596.8	0.2	0.0	709.4	999.8	33,672.1
Botswana	0.6	..	0.1	0.1	0.1	2.4	0.0	3.6	96.9	..	747.4	22.0	85.5	958.7	965.4	7,473.5
Eswatini	..	69.2	..	..	..	..	1.4	..	..	..	69.2	..	..	139.8	781.8	2,060.0
Lesotho	0.1	2.5	7.4	..	0.3	0.0	0.4	0.2	0.3	..	316.9	0.1	0.2	328.5	329.9	998.1
Madagascar	0.0	..	..	..	..	0.3	22.9	3.9	0.0	..	86.6	0.2	0.2	114.1	157.5	2,637.4
Malawi	1.5	1.7	0.2	0.0	0.4	..	0.0	18.3	0.6	..	63.7	37.3	44.6	168.2	346.5	1,006.6
Mauritius	1.4	0.3	4.9	1.5	129.2	0.3	..	3.9	0.3	..	232.3	0.0	2.4	376.4	466.7	1,964.3
Mozambique	1.1	..	14.6	10.4	1.0	68.7	2.7	..	1.4	..	798.4	42.8	121.7	1,062.9	1,092.8	5,379.3
Namibia	40.3	678.5	0.4	1.5	0.0	2.0	22.8	57.0	..	0.1	1,173.0	219.1	17.9	2,212.5	2,501.5	6,696.1
São Tomé and Príncipe	0.1	..	..	..	..	..	..	..	..	..	0.0	..	..	0.1	1.6	19.2
South Africa	..	4,196.5	..	..	..	..	372.6	..	..	0.5	..	..	..	4,569.6	6,224.9	122,697.7
Zambia	3.3	43.2	2.1	8.5	1.2	149.5	10.1	24.2	900.6	..	292.8	..	422.8	1,858.3	3,342.9	11,117.7
Zimbabwe	0.1	129.3	2.7	..	0.0	5.8	3.2	709.7	10.1	..	3,022.6	107.2	..	3,990.6	4,307.8	6,034.3
Imports from																
	Angola	Botswana	Eswatini	Lesotho	Madagascar	Malawi	Mauritius	Mozambique	Namibia	São Tomé and Príncipe	South Africa	Zambia	Zimbabwe	Southern Africa	Africa	World
Angola	..	0.3	10.6	0.1	0.0	1.3	2.0	1.4	34.5	0.1	378.4	2.4	0.5	431.7	1,414.9	11,822.5
Botswana	5.0	0.5	25.0	1.8	0.0	1.8	0.8	7.4	517.6	..	5,095.6	44.0	47.9	5,747.3	5,754.8	8,459.4
Eswatini	..	1.3	..	..	..	..	40.3	..	..	..	1.3	..	..	43.0	125.4	1,935.8
Lesotho	..	0.6	3.8	..	..	0.2	1.3	5.3	0.9	..	1,624.1	8.9	4.2	1,649.4	1,649.8	2,051.0
Madagascar	0.0	0.0	8.0	0.1	..	0.4	135.6	2.1	0.0	..	165.5	0.1	2.9	314.7	491.7	4,419.0
Malawi	0.5	..	3.5	0.3	0.3	..	3.3	95.6	1.1	..	777.7	154.6	24.4	1,061.4	1,190.8	3,257.4
Mauritius	0.3	0.0	0.6	1.2	27.8	0.9	..	5.1	0.8	..	411.9	3.7	5.0	457.3	626.1	5,147.3
Mozambique	1.1	..	42.8	0.2	2.4	11.2	16.8	..	34.3	0.3	1,751.8	19.2	257.9	2,137.9	2,309.2	8,576.5
Namibia	6.6	178.6	33.8	0.3	0.5	0.5	7.6	4.7	228.3	0.1	4,591.7	987.4	10.0	6,050.1	6,431.4	9,121.6
São Tomé and Príncipe	19.9	..	..	..	0.0	..	..	0.0	0.0	..	0.6	..	..	20.5	40.2	166.3
South Africa	..	838.5	..	..	..	..	285.8	..	..	0.0	..	..	..	1,124.3	4,391.4	93,487.6
Zambia	0.3	26.6	16.8	0.1	0.1	29.4	45.0	49.9	200.1	0.0	2,165.8	0.0	73.5	2,607.6	3,763.0	7,084.2
Zimbabwe	..	90.3	31.9	0.3	0.9	69.0	40.7	150.6	25.7	..	3,975.6	384.4	..	4,769.4	4,857.2	7,254.5

Annex 8: Demographic indicators, 2022

	Age distribution						
	Population growth rate	Urban population	0–14			65 and older	Fertility rate
			(% of total)				
	(%)	(% of total)	(% of population)			(births per woman)	
Angola	3.1	66.9	45.0	52.4	2.6	5.2	
Botswana	1.6	68.6	32.6	63.7	3.7	2.8	
Lesotho	1.1	30.9	34.0	61.8	4.2	3.0	
Madagascar	2.4	39.3	39.1	57.6	3.3	3.8	
Malawi	2.6	18.9	42.6	54.8	2.6	3.8	
Mauritius	0.0	40.2	16.3	70.9	12.8	1.4	
Mozambique	2.8	39.6	43.5	53.9	2.6	4.6	
Namibia	1.5	59.0	36.2	59.8	4.0	3.2	
São Tomé and Príncipe	1.9	75.8	39.5	56.8	3.8	3.8	
South Africa	0.8	68.5	28.6	65.6	5.9	2.3	
eSwatini	0.8	30.4	34.7	61.3	4.0	2.8	
Zambia	2.8	45.3	42.9	55.4	1.7	4.2	
Zimbabwe	2.0	36.6	40.6	56.0	3.3	3.4	
Southern Africa	2.1	50.4	38.3	58.0	3.7	3.7	
Africa	2.4	44.1	40.2	56.4	3.5	4.2	

Source: African Development Bank statistics and estimates, UNDESA 2022, and various domestic authorities

Annex 9: Poverty and income distribution indicators

	National poverty line ^a			International poverty line (\$2.15 a day)			Gini index ^b	
	Survey year	Population below the poverty line (%)	Survey year	Population below the poverty line (%)	Survey year	Value		
Angola	2018	32.3	2018	31.1	2018	51.3		
Botswana	2009	19.3	2015	15.4	2015	53.3		
Lesotho	2017	49.7	2017	32.4	2017	44.9		
Madagascar	2012	70.7	2012	80.7	2012	42.6		
Malawi	2019	50.7	2019	70.1	2019	38.5		
Mauritius	2017	10.3	2017	0.1	2017	36.8		
Mozambique	2014	46.1	2014	64.6	2014	54.0		
Namibia	2015	17.4	2015	15.6	2015	59.1		
São Tomé and Príncipe	2017	66.7	2017	15.6	2017	40.7		
South Africa	2014	55.5	2014	20.5	2014	63.0		
eSwatini	2016	58.9	2016	36.1	2016	54.6		
Zambia	2015	54.4	2015	61.4	2015	57.1		
Zimbabwe	2019	38.3	2019	39.8	2019	50.3		
Southern Africa	...	...	...	...	...	...
Africa	...	...	...	...	...	...

a. Defined as two-thirds of average consumption

b. Based on income distribution

Source: Various domestic authorities and the World Bank

Annex 10: Access to services

Telecommunications, 2021

	Fixed telephone subscriptions (per 100 people)	Mobile- cellular subscriptions (per 100 people)	Internet users (%)	Access to electricity, 2020 (% of population)	People using at least basic drinking water services 2020 (%)	People using at least basic sanitation services 2020 (% of population)
Angola	0.3	44.4	32.6	46.9	57.2	51.7
Botswana	3.6	160.7	73.5	72.0	92.2	80.0
Lesotho	0.4	79.8	48.0	47.4	72.2	50.3
Madagascar	0.1	56.3	19.7	33.7	53.4	12.3
Malawi	0.1	60.0	24.4	14.9	70.0	26.6
Mauritius	36.1	151.8	67.6	99.7	99.9	...
Mozambique	0.2	42.7	17.4	30.6	63.4	37.2
Namibia	3.6	115.2	53.0	56.3	84.3	35.3
São Tomé and Príncipe	1.2	84.8	51.2	76.6	78.2	47.6
South Africa	2.5	168.9	72.3	84.4	93.9	78.5
eSwatini	3.9	120.1	58.9	79.7	70.8	64.3
Zambia	0.3	104.0	21.2	44.5	65.4	31.9
Zimbabwe	1.5	89.1	34.8	52.7	62.7	35.2
Southern Africa	1.2	84.0	39.1	51.3	61.4	46.9
Africa	2.3	79.8	42.0	56.0	60.4	41.9

Source: African Development Bank statistics, the International Telecommunication Union World Telecommunication/ICT Indicators database, the United Nations Statistics Division Energy Statistics Database, WHO/UNICEF Joint Monitoring Programme for Water Supply and Sanitation 2015, and various domestic authorities

Annex 11: Health Indicators

	Life expectancy at birth, 2022			Prevalence of undernourished, 2020		Health personnel, 2011–21		
	(years)			(% of population)		(per 100,000 people)		
	Total	Male	Female			Medical doctors	Nurses and midwives	
Angola	61.9	59.4	64.5	20.8		21.1	40.1	
Botswana	65.9	63.3	68.4	21.9		34.8	501.8	
Lesotho	53.0	50.3	55.9	34.7		45.4	312.4	
Madagascar	65.2	63.0	67.6	48.5		19.5	29.2	
Malawi	62.9	59.6	66.3	17.8		4.9	70.0	
Mauritius	74.0	71.0	77.1	7.8		265.8	384.9	
Mozambique	59.6	56.5	62.7	32.7		8.1	56.8	
Namibia	58.1	54.6	61.7	18.0		60.1	198.9	
São Tomé and Príncipe	68.8	66.1	71.9	13.5		48.9	215.3	
South Africa	61.5	58.6	64.2	6.9		80.9	501.3	
eSwatini	56.4	52.6	60.6	11.0		14.0	247.1	
Zambia	61.8	59.1	64.5	...		29.7	186.4	
Zimbabwe	59.4	56.4	62.1	...		18.9	202.9	
Southern Africa	61.8	59.0	64.5	22.3		37.7	213.5	
Africa	62.6	60.6	64.6	18.2		36.1	136.8	

Source: African Development Bank statistics, UNDESA 2022, the Food and Agriculture Organization, and the World Health Organization.

Annex 12: Major diseases

	Healthy life expectancy at birth, 2019 (years)		Prevalence of HIV, ages 15–49, 2021 (%)	Infant mortality rate, 2021 (per 1,000 live births)	Under-five mortality rate, 2021 (per 1,000 live births)
	Total	Male	Female	2021	2021
Angola	54.8	53.6	56.2	47.2	69.4
Botswana	53.9	51.9	55.8	28.3	34.9
Lesotho	44.2	42.3	46.4	57.0	72.9
Madagascar	57.3	56.9	57.7	45.3	66.0
Malawi	57.1	55.1	59.0	31.2	41.9
Mauritius	63.9	62.0	66.0	15.3	16.6
Mozambique	50.4	47.9	52.8	51.0	69.6
Namibia	56.1	53.4	58.6	29.4	39.0
São Tomé and Príncipe	61.6	60.9	62.2	12.1	15.4
South Africa	56.2	54.6	57.7	26.4	32.8
eSwatini	50.1	47.1	53.9	41.5	52.6
Zambia	54.4	52.5	56.3	40.2	57.7
Zimbabwe	53.1	51.2	54.8	35.7	49.5
Southern Africa	54.8	53.2	56.4	40.3	55.8
Africa	57.2	56.3	58.1	46.4	66.6

Source: UNAIDS 2022, the UN Inter-agency Group for Child Mortality Estimation CME Info database, and the World Health Organization Global Health Observatory Data Repository.

Annex 13: Education indicators

	Estimated adult literacy rate, 2011–21			Gross enrolment ratio, primary, 2011–21			Government expenditure on education as a percentage of GDP, 2012–22
	(% ages 15 and older)			(%)			
	Total	Male	Female	Total	Male	Female	
Angola	72.3	82.6	62.4	113.5	121.1	105.9	2.1
Botswana	86.8	86.1	87.5	99.0	99.9	98.1	8.1
Lesotho	81.0	72.9	88.8	120.9	124.1	117.8	6.1
Madagascar	77.3	78.8	75.8	134.1	132.9	135.2	3.2
Malawi	67.3	71.2	63.7	144.8	142.7	147.0	3.3
Mauritius	92.2	93.9	90.5	98.4	97.3	99.6	4.7
Mozambique	63.4	74.1	53.8	118.4	121.9	114.9	6.9
Namibia	92.3	92.2	92.3	124.2	126.4	122.1	9.5
São Tomé and Príncipe	93.8	96.5	91.1	106.8	108.5	105.0	5.3
South Africa	95.0	95.5	94.5	98.4	100.1	96.6	6.6
eSwatini	89.3	89.1	89.5	114.5	119.0	109.8	5.5
Zambia	87.5	91.0	84.3	98.7	97.5	99.9	3.9
Zimbabwe	89.7	88.3	90.9	97.3	97.1	97.6	2.1
Southern Africa	82.1	85.6	79.0	114.4	116.0	112.4	5.5
Africa	69.7	76.2	63.6	103.0	104.8	101.0	4.4

Source: African Development Bank statistics, the United Nations Educational, Scientific and Cultural Organization Institute for Statistics database, and various domestic authorities.

Annex 14: Labour indicators 2022

	Employment to population ratio, ages 15 and older			Labour force participation rate, ages 15 and older			Unemployment rate, total	
	(%)			(%)			(%)	
	Total	Female	Youth	Total	Female	Male		
Angola	69.0	67.4	46.5	76.9	74.9	79.0	10.2	
Botswana	51.5	46.4	22.2	65.0	60.0	70.2	20.7	
Lesotho	52.7	45.7	31.2	64.3	57.4	71.6	18.0	
Madagascar	84.1	81.9	69.8	85.9	83.7	88.1	2.1	
Malawi	63.8	59.1	50.7	67.6	63.3	72.4	5.6	
Mauritius	54.3	41.1	30.3	58.5	45.8	71.7	7.2	
Mozambique	75.4	74.9	56.0	78.5	78.2	78.8	3.9	
Namibia	46.6	44.7	17.6	58.9	55.6	62.4	20.8	
São Tomé and Príncipe	45.5	29.6	26.0	53.8	37.9	69.9	15.3	
South Africa	39.9	34.7	14.4	56.8	50.6	63.6	29.8	
eSwatini	38.2	34.7	11.9	50.5	47.1	54.0	24.4	
Zambia	56.9	50.7	33.8	60.7	54.1	67.6	6.1	
Zimbabwe	60.8	56.5	43.6	66.1	61.2	71.9	7.9	
Southern Africa	62.3	56.0	47.5	68.4	64.4	72.9	12.9	
Africa	61.2	49.4	44.4	62.6	53.9	71.8	7.4	

Source: International Labour Organisation ILOSTAT database.



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