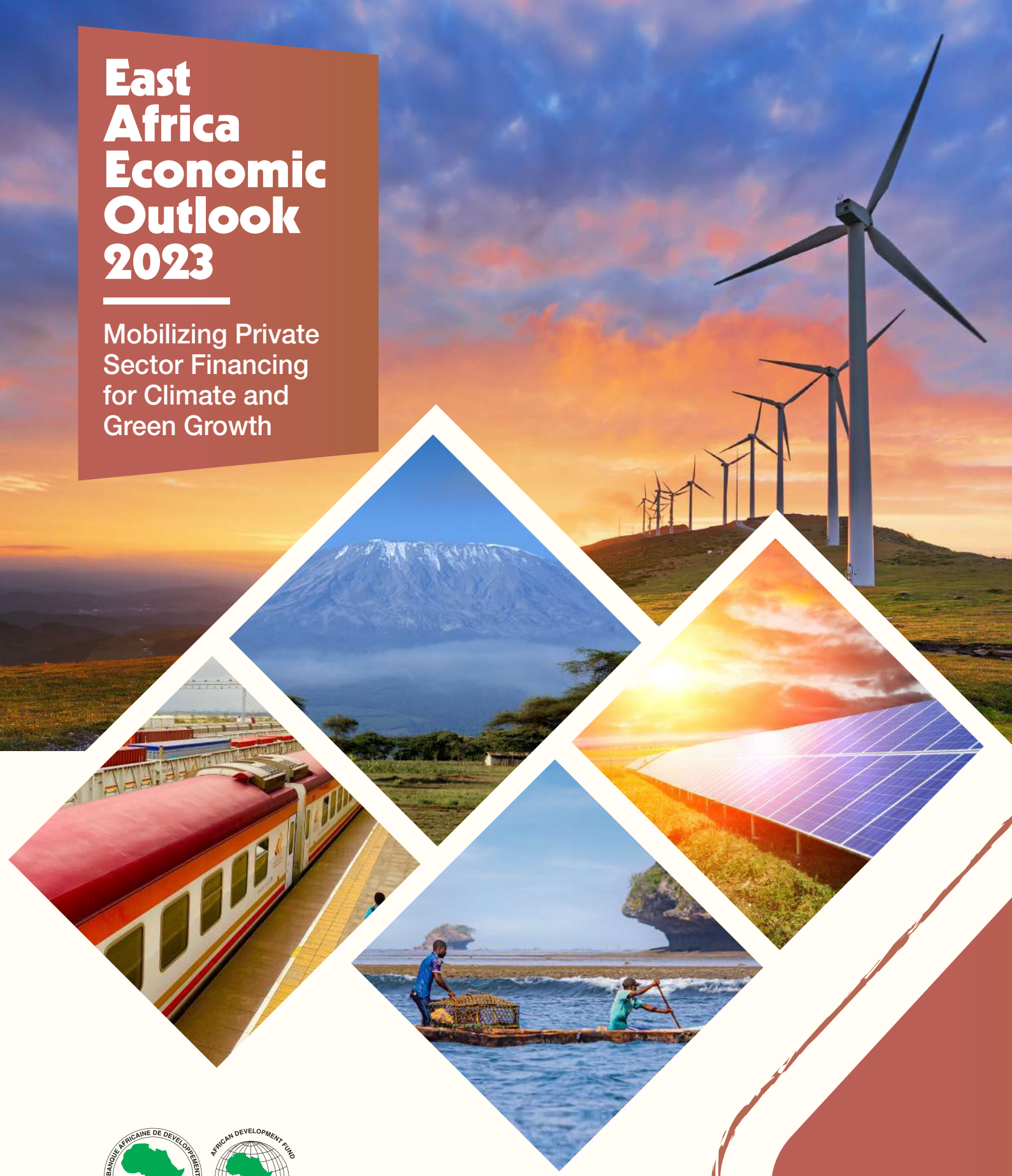
East Africa Economic Outlook 2023

Mobilizing Private Sector Financing for Climate and Green Growth



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East Africa Economic Outlook 2023

Mobilizing Private Sector Financing for Climate and Green Growth

AFRICAN DEVELOPMENT BANK GROUP
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ACRONYMS

ACMI	Africa Carbon Markets Initiative
AECF	Africa Enterprise Challenge Fund
AFD	Agence Francaise De Development
AFDB	African Development Bank
AFED	Arab Forum for Environment and Development
AFOLU	Agriculture, Forestry and Other Land Use
BAAC	Bank for Agriculture and Agricultural Cooperatives
BAU	Business as Usual
BBOXX	Private Solar Energy Company in Rwanda
CBK	Central Bank of Kenya
CO2	Carbon Dioxide
COP	Conference of the Parties
CPI	Climate Policy Initiative
CRBD	Cooperative and Rural Development Bank
CSO	Civil Society Organization
DCED	Donor Committee for Enterprise Development
DFC	Debt for Climate Swaps
DFI	Development Finance Institution
DRC	Democratic Republic of Congo
EAC	East African Community
EACCP	East Africa Community Climate Change Policy
EA	East Africa(n)
EFT	Ecological Fiscal Transfer
EPRI	Electric Power Research Institute
EUR	EURO
FCDO	Foreign and Commonwealth Development Office
FDI	Foreign Direct Investment
FONERWA	Rwanda Green Fund
GCF	Green Climate Fund
GDP	Gross Domestic Product
GESIP	Green Economy Strategy and Implementation Plan
GHG	Greenhouse Gas
GIZ	German Development Cooperation
GOK	Government of Kenya

ICRISAT	International Crops Research Institute for the Semi-Arid Tropics
IDFC	International Development Finance Club
IFC	International Finance Cooperation
IGAD	Intergovernmental Authority on Development
IKEA	Ingvar Kamprad Elmtaryd Agunnaryd
IPCC	Intergovernmental Panel on Climate Change
IRENA	International Renewable Energy Agency
JICA	Japan International Cooperation Agency
KPI	Key Performance Indicator
KW	Kilowatt
LDC	Least Developed Country
LTWP	Lake Turkana Wind Power
M Changa	Mobile and Online Fundraising Platform
MDB	Multilateral Development Bank
MRV	Measuring, Reporting and Verification
MSME	Micro, Small and Medium-sized Enterprise
MW	Mega Watt
NAMA	Nationally Appropriate Mitigation Actions
NDC	Nationally Determined Contribution
NRDC	Natural Resources Defense Council
NSE	Nairobi Securities Exchange
OECD	Organization for Economic Cooperation and Development
PPP	Public Private Partnership
RET	Renewable Energy Technology
SDC	Swiss Agency for Development and Cooperation
SDR	Special Drawing Rights
SEI	Stockholm Environmental Institute
SeyCCAT	Seychelles Conservation and Climate Adaptation Trust
SIDA	Swedish International Development Cooperation Agency
SIDP	Sustainable Industrialization Development Policy
SME	Small and Medium-sized Enterprise
TCFD	Task Force of Climate Finance Disclosure
TDB	Trade and Development Bank
TNC	The Nature Conservancy
TUI	Touristik Union International
UNDP	United Nations Development Program
UNECA	United Nations Economic Commission for Africa
UNFCCC	United Nations Framework Convention on Climate Change
USAID	United States Agency for International Development
USD	United States Dollar
VAT	Value Added Tax

EXECUTIVE SUMMARY

East Africa (EA) recorded a decline in real GDP growth from 4.7% in 2021 to 4.4% in 2022, but this was higher than Africa's average of 3.8% and only lagged Central Africa's growth of 5.0%. The growth slowdown was due to several factors, including the global growth slowdown, higher consumer prices, adverse weather conditions and mounting public debt. Ethiopia, Kenya, Rwanda, Seychelles, Tanzania, and Uganda had the highest growth, while Burundi, Comoros, Djibouti, Eritrea, and Somalia, posted lower growth rates, with South Sudan and Sudan remaining in recession. Seychelles' estimated GDP growth was the highest, driven by tourism, fisheries, and financial services.

East Africa's real GDP was driven largely by the services sector, contributing almost half of the economic growth in 2022. The sector contributed 2.0 percentage points to GDP growth, which was, however, lower than 2.5 percentage points on average for the period 2015-2021. The region's natural and cultural attractions draw tourists from around the world, creating a demand for services like accommodation, food, and entertainment. With more people moving to urban areas, there is a greater demand for services like transportation, communication, and retail. The emergence of a middle class in the region also contributes to increased demand for services like banking, insurance, and healthcare. The services sector has greater potential for expansion and innovation than agriculture and mining, which are the traditional sources of income in East Africa.

Despite facing multiple challenges in 2022, East Africa's macroeconomic fundamentals remained relatively stable. Inflation decreased from 40.7% in 2021 to 28.9% in 2022, driven by tighter monetary policy stance in most countries of the region. The region's fiscal deficit decreased from 5.3% in 2021 to 4.3% of GDP in 2022 due to fiscal consolidation efforts and improved revenue performance, except in Kenya, Rwanda, and Uganda, where fiscal deficits were higher than the regional average because of large public infrastructure projects and debt service obligations. External sector problems still plague the region. Eight out of 13 EA countries recorded a deterioration in their current account balances due to high import bills, weak recovery of exports, and a surge in external debt service.

The region's medium term economic growth is expected to outpace that of Africa and all other regions of the continent. Economic growth in EA will accelerate to 5.1% in 2023 and 5.8% in 2024, largely driven by growth in Rwanda, Uganda, Ethiopia, Kenya, Djibouti, and Tanzania in that order. The current conflict between Sudan's military and the country's main paramilitary force is a threat to regional stability and is likely to lower these projected growth rates.

East Africa faces several external and domestic downside risks that could affect the positive economic outlook. The external risks include a global economic slowdown, rising commodity prices, persistence of Russia's invasion of Ukraine[*], international trade policies, tightening of global financial conditions, exchange rate depreciation, and a resurgence of COVID-19. The domestic risks include gaps in infrastructure, domestic conflicts and political instability, macroeconomic imbalances, and adverse impacts of climate change. New policy initiatives by EA governments and stakeholders in the short, medium, and long terms could help build resilience and sustain the positive outlook.

East Africa, like the rest of the continent, is currently experiencing a series of complex crises that require careful balancing between economic progress, social development, and environmental conservation. Adopting green growth approaches can help promote sustainable development across the continent by addressing existing and emerging development challenges without depleting Africa's natural capital or leaving economies and livelihoods more vulnerable to climate change and other environmental, social, and economic risks. However, the path towards a green transition with the triple crises of COVID-19, climate change, and the war in Ukraine presents a significant challenge for many countries across the continent. On the other hand, the region faces the dilemma of the 'paradox of plenty,' that is, countries highly endowed with natural resources but found at the bottom of the economic development ladder. This, therefore, requires a step-change, which considers natural capital as an asset class to ensure sustainable utilization. This also requires dealing with the challenges and risks of investing in natural capital, including regulatory and policy uncertainties, market failures, and social and environmental risks. Such a change would help to harness needed finance through innovative financial instruments from both the public and private sectors.

East Africa received USD 7.6 billion, which represents 26% of Africa's total climate investments in 2020, with 90% of this contributed by public actors. Nevertheless, the region is behind fulfilling its target of USD 739.4 billion required to achieve climate-resilient development during 2020-2030. In addition, East Africa was only able to fulfill about 11% of its projected annual climate finance needs of USD 67.2 billion, highlighting the urgent need for increased investment in green growth and climate resilience. The region is rich in natural resources ranging from crude oil, natural gas, minerals, forests, and wildlife. The bloc holds a significant proportion of Africa's natural resources, both renewable and non-renewable. This natural capital accounts for between 30% and 50% of the total wealth; over 70% of people living in EA depend on these. However, significant proportions of these resources are facing increasing pressure of growing human population, changing weather patterns, rampant wildlife poaching and trafficking across porous borders, and disjointed management of shared natural resources. Increasingly, the region's economies and the communities that depend on natural capital are confronting the destructive impacts of the climate crisis. Consequently, sustainable utilization of East Africa's iconic landscapes remains critical, and requires investments in natural capital.

A mix of policy interventions should be considered to accelerate the region's economic growth amid existing and emerging shocks, including boosting private sector financing for climate and green growth, and harnessing natural capital as a complementary financing option for climate and green growth. In the short-term, there is need for greater coordination between fiscal and

[*] Agreed wording at the African Development Bank Annual Meetings 2022 in Ghana - Algeria, China, Egypt, Eswatini, Namibia, Nigeria and South Africa entered a reservation and proposed "Russia-Ukraine Conflict".

monetary policies and enhanced social safety net programs that are targeted to those who need them most, particularly a universal basic income, conditional cash transfers, workfare programs, subsidies and tax credits, infrastructure development, and research and development. Enhanced policy certainty and stability, and integration of climate action and green growth policies into national and subnational development plans are needed to create an enabling environment for private investment and finance. EA governments should consider providing fiscal incentives to catalyse climate and green growth private sector capital; private investors have identified barriers and gaps that hinder them from scaling up investments and working with governments and other stakeholders to address the barriers. Frameworks for sustainable land use need to be established and/or strengthened. New business opportunities, such as investing in green technologies and infrastructure, need to be promoted. Furthermore, investment innovations, such as nature-positive projects and using natural capital, also need to be developed. Land rights linked to natural capital for solid mineral exploration and exploitation need to be robust. In addition, EA countries should strengthen enforcement of existing laws and regulations that protect natural resources and develop policy frameworks for effective natural capital financing.

In the medium term, EA governments should consider providing incentives and tax credits to encourage businesses to invest in agro-allied industrialization to help create employment opportunities and improve the economic viability of the agriculture sector, while implementing prudent monetary and fiscal policies that promote economic growth, productivity, and resilience. The authorities should also strengthen debt management capacity, fiscal discipline, and financial sector regulation, as well as improve tax collection, public financial management, and trade facilitation, and increase foreign exchange reserves. In addition, governments across the region should introduce regulations that require financial institutions to disclose their exposure to climate risks and incorporate environmental factors into their investment decisions. Authorities need to leverage the role of multilateral development banks in climate funding, notably through long-term or concessional resources that promote private sector involvement, while also encouraging private investors to provide "patient" capital to local actors, especially MSMEs. Capacities of State-owned enterprises, especially those in the realm of natural resource development, need to be strengthened to balance local and national development priorities in resource revenue generation and utilization. Civil society organizations should be strengthened to support community participation, fight corruption, and promote accountability and transparency. In addition, the EA governments must promote international standards and norms, while local authorities harness the opportunities created by regional and global markets to expand revenues from industrial development and exports.

In the long term, EA countries should develop a pipeline of bankable and investment-ready climate and green growth projects, with the goal of harnessing public-private partnerships to unlock private capital for green growth. Governments should try to integrate natural capital into national accounting systems, and design appropriate governance structures for shared and transboundary natural capital resources. They need to incorporate the contribution of natural capital to green growth by enhancing relevant institutional and legal frameworks. In addition, governments should promote the use of green technologies and innovation to reduce the environmental impact of economic development activities and invest in renewable energy to promote transition to a low-carbon economy and reduce greenhouse gas emissions.

1

EAST AFRICA'S GROWTH PERFORMANCE AND OUTLOOK

KEY MESSAGES

- **The East Africa region recorded a decline in GDP growth from 4.7% in 2021 to 4.4% in 2022, but this was higher than Africa's average of 3.8% and only lagged Central Africa's average of 5.0%.** The growth slowdown was due to several factors, including a global growth slowdown, higher commodity and energy prices stocked by Russia's invasion of Ukraine, adverse weather conditions, tightening global financial conditions, political instability, the negative effects of COVID-19, and mounting public debt. Ethiopia, Kenya, Rwanda, Seychelles, Tanzania, and Uganda were the best performers, while Burundi, Comoros, Djibouti, Eritrea, Somalia, South Sudan, and Sudan posted lower growth rates. Two countries (Sudan and South Sudan) are estimated to have remained in recession in 2022. Seychelles had the highest estimated growth of 9.5%, driven by tourism, fisheries, and financial services.

- **In 2022, the services sector contributed almost half of the GDP growth in the region while agriculture and industry contributed almost one quarter each.** The service sector contributed 2.0 percentage points to GDP growth; however, this was lower than the 2.5 percentage points on average from 2015 to 2021. The region's natural and cultural attractions draw tourists from around the world, creating a demand for services like accommodation, food, and entertainment. Furthermore, with more people moving to urban areas, there is greater demand for services like transportation, communication, and retail. The emergence of a middle class, which accounts for 22.6% of the region's population, also contributes to increased demand for services like banking, insurance, and healthcare. The services sector has greater potential for expansion and innovation than agriculture and mining, which are the traditional sources of income in East Africa.

- **Despite facing multiple challenges, East Africa's macroeconomic fundamentals remained relatively stable in 2022.** Inflation decreased from 40.7% in 2021 to 28.9% in 2022 due to tighter monetary policies in most countries of the region. The region's fiscal deficit fell from 5.3% in 2021 to 4.3% of GDP in 2022 due to fiscal consolidation and improved revenue performance, except for Kenya, Rwanda, and Uganda, where fiscal deficits were higher than the regional average because of large public infrastructure projects and debt service obligations. Eight out of 13 countries recorded a deterioration in their current account balances due to high import bills, weak recovery of exports, and a surge

in external debt service. Burundi, Rwanda, Seychelles, and Somalia recorded double digit current account deficits, while Seychelles, South Sudan, and Sudan narrowed their current account deficits due to lower spending and recovery of the services sector in Seychelles.

- **Debt and funding squeeze have put considerable pressure on the region.** The average total public debt as a share of GDP in the region remained at 57% in 2022. Eight out of 13 countries recorded a deterioration in their current account balances due to high import bills, weak recovery of exports, and a surge in external debt service. Rising international interest rates, due to higher United States (US) federal policy rate, have increased debt service costs and spreads on international borrowing. East Africa had nine countries on the Highly Indebted Poor Countries (HIPC) list, namely Burundi, Comoros, Eritrea, Ethiopia, Rwanda, Somalia, Sudan, Tanzania, and Uganda.

- **On the social front, rising food and energy prices have worsened poverty and inequality in the region, and the situation has been exacerbated by the negative effects of global shocks, such as COVID-19 and Russia's invasion of Ukraine.** Comoros, with a Gini coefficient of 45.3, is the most unequal country in East Africa, while Seychelles, with a Gini coefficient of 32.1, is the least unequal country in the region. The Gini coefficient indicates that wealth has increasingly been concentrated in the hands of a few while the majority are struggling to meet their basic needs, such as food, energy, healthcare, housing, and education. In 2023, projections show that 105.70 million people will be living in extreme poverty (representing 18.5% of the region's population), which corresponds to a 0.43% decline from 105.53 million in 2022.

- **East Africa's economic growth in 2023 and 2024 would strengthen and is expected to be the highest among all of Africa's regions.** Economic growth in the EA region will accelerate to 5.1% in 2023 and 5.8% in 2024, largely driven by a rebound in economic growth in Uganda (6.5%), Ethiopia (5.8%), Kenya (5.6%), Djibouti (5.4%) and Tanzania (5.3%) in that order. The rebound in the selected EA countries will be driven by the pandemic recovery in the services sector and the performance of exports. The current clashes between Sudan's military and the country's main paramilitary force are a threat to regional stability and is likely to lower these projected growth rates.

- **However, there are external and domestic downside risks that could affect the positive growth outlook.** External risks include a global economic slowdown, further commodity price volatility, continuation of the conflict in Ukraine, a slowdown in international trade, tighter global financial conditions, rising debt service costs, and the possible resurgence of COVID-19. Domestic risks include large gaps in infrastructure, expanded domestic conflicts and political instability, adverse climate change impacts, and a high level of macroeconomic uncertainty.

- **Medium-term projections show that East Africa will continue to post the highest inflation rates in Africa although the inflation pressure is slowly easing.** The high inflation in the region will be driven by high food and energy prices and the ongoing political instability in Sudan. Inflation is projected to fall to 21.8% in 2023 compared to 28.9% in 2022, with a further fall to 17.7% in 2024.

- **The policy measures to address inflationary pressures include pursuing prudent monetary and fiscal policies and enhancing coordination between fiscal and monetary policies.** East African countries should also consider offering incentives to encourage investment in climate-smart agriculture and coordinate policy interventions with regional and inter-national organizations such as EAC, AU, and IMF.

- **The policy measures to mitigate increased debt vulnerabilities include fiscal discipline and enhancing domestic revenue mobilization to improve the fiscal balance, as well as debt restructuring and debt management capacity building to improve the current account balance.** Other policy areas include financial sector regulation, enhancing public financial management, promoting trade facilitation, and increa-sing foreign exchange reserves. Governments should also consider digitalization of all revenue streams, reducing trade barriers, improving customs procedures, promoting regional trade agreements, and increasing accountability and transparency in budget execution.

- **To reform social safety nets and social protection programs, governments in East Africa should consider targeted programs using means-testing or other eligibility criteria.** A universal basic income, conditional cash transfers, and workfare programs are other possible interventions.

- **Policies to support agro-allied industrialization include providing subsidies and tax credits,** investing in infrastructure development, and investing in research and development to improve productivity and develop new technologies.

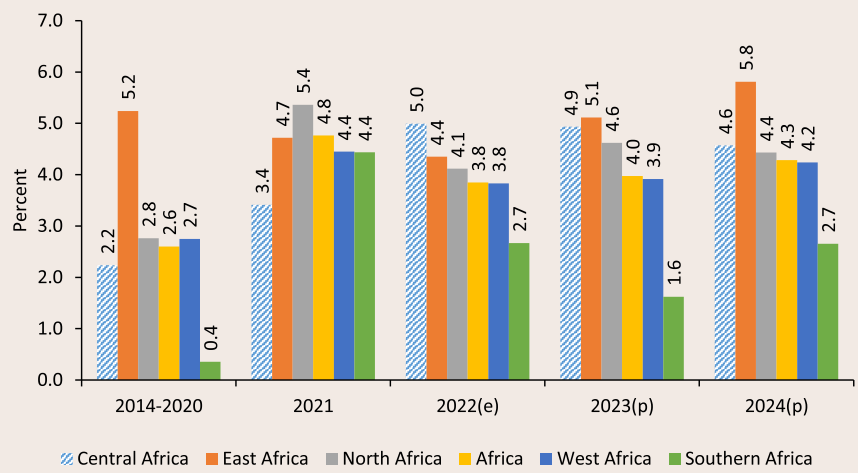
1.1 East Africa's growth performance

1.1.1 Although economic recovery in Africa slackened in 2022, East Africa was among the continent's highest growth regions

Economic growth in Africa decelerated from 4.7% in 2021 to 4.4% in 2022. This decline can be attributed to slowdown in global growth affecting exports, higher consumer prices, adverse weather conditions, and debt challenges. In 2022, the highest GDP growth on the continent was recorded in Central Africa (5.0%), followed by East Africa (4.4%) and North Africa (4.1%) (see Figure 1.1). The economic growth performance of Southern Africa (2.7%) and West Africa (3.8%) fell below Africa's average. Out of the five regions, Central Africa was the only region where growth accelerated (from 3.4% in 2021 to 5.0% in 2022). All the other regions experienced a decline in economic growth due to global shocks and pockets of insecurity. The growth outcome experienced in Central Africa was a result of the increase in commodity prices.

East Africa's economic growth will accelerate to 5.1% in 2023 and 5.8% in 2024 and is expected to be the highest among all of Africa's regions

Figure 1.1: Real GDP growth, 2014-2024 (%)



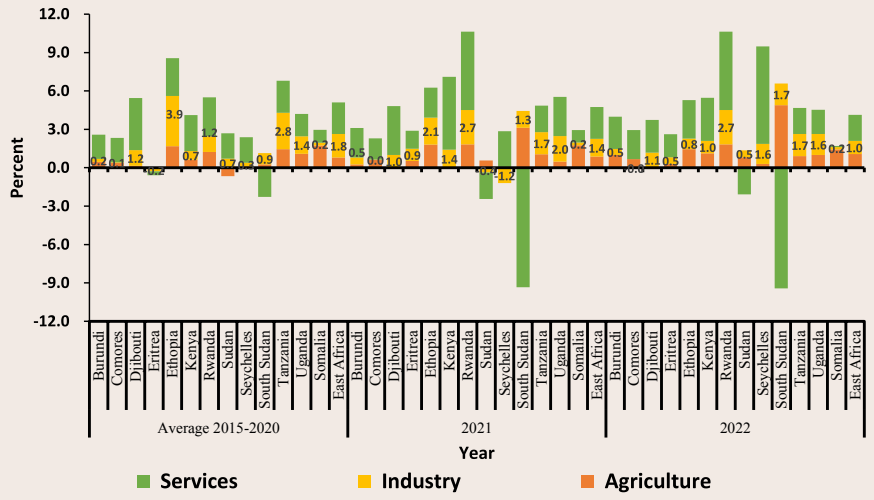
Source: African Development Bank statistics

1.1.2 On the supply side[1], the services sector was the main contributor to real GDP growth in East Africa between 2015 and 2022, driven by household consumption on the demand side[2]

In 2022, the services sector's contribution to economic growth outpaced that of agriculture and industry. The services sector contributed 2.0 percentage points to GDP growth; however, this was lower than 2.5 percentage points on average from 2015 to 2021. In comparison, agriculture and industry contributed 1.1% and 1.0% to GDP growth in East Africa, respectively. The services sector contributes more to GDP growth in the region for several reasons. First, most East African countries have historically relied on agriculture and mining as their primary sources of income, but these sectors have limited potential for growth. The services sector, on the other hand, has greater potential for expansion and innovation. Secondly, East Africa has many natural and cultural attractions that draw tourists from around the world, creating a demand for services such as accommodation, food, and entertainment. Thirdly, as more people move to urban areas, there is greater demand for services such as transportation, communication, and retail. The movement to urban areas is reflected across Africa where 40% of the population live in urban

areas, and this is expected to reach 60% by 2050. Finally, with the emergence of a middle class in the region, there is increased demand for services, such as banking, insurance, and healthcare.

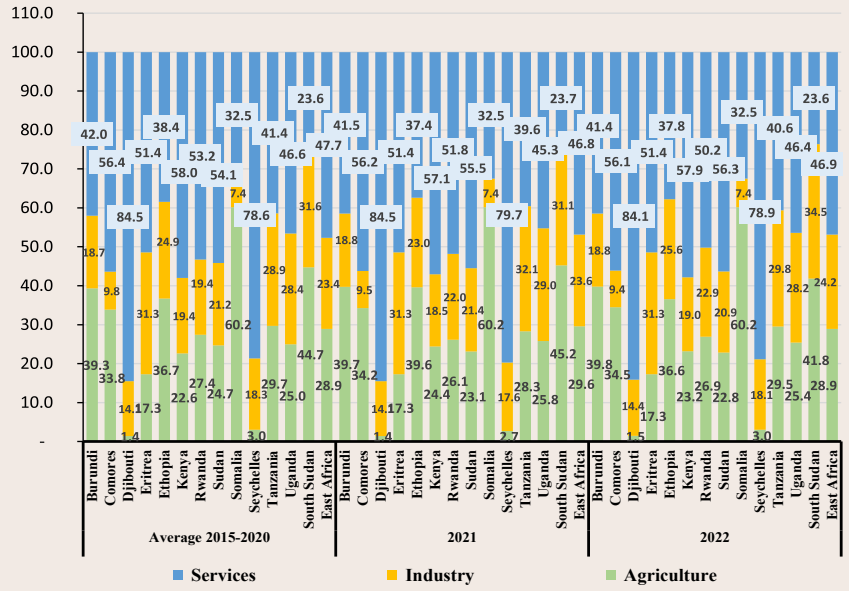
Figure 1.2: Sector breakdown of GDP growth, 2015-2022



Source: African Development Bank statistics

In 2022, the services sector was the largest contributor to GDP growth in Djibouti, Eritrea, Rwanda, and Seychelles. In these countries, the sector contributed more than two thirds of the economic growth recorded during the year. Services account for less than half of the economic growth recorded in Burundi, Comoros, Eritrea, Ethiopia, Kenya, Tanzania, Somalia, and Uganda. This is due to a rebound of tourism underpinned by economic recovery from the effects of the COVID-19 pandemic.

Figure 1.3: Sector contribution to nominal GDP at basic price (%)

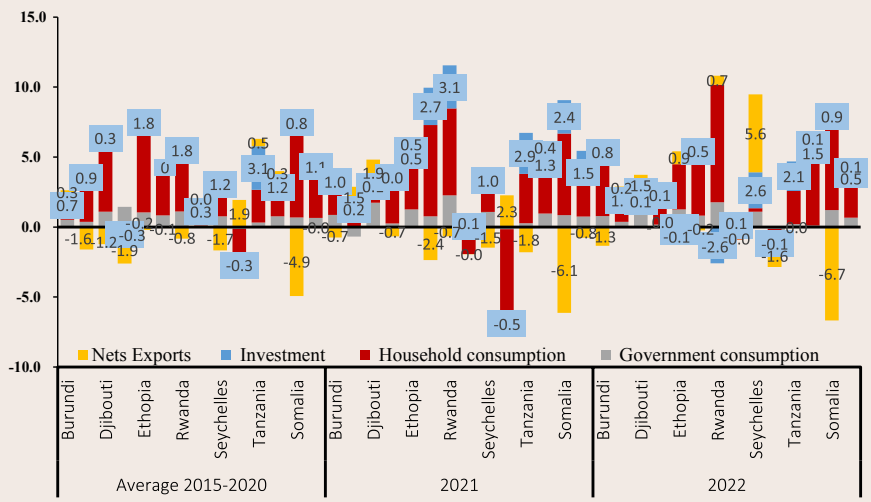


Source: African Development Bank statistics

Despite their importance, the contribution of agriculture and industry to East Africa's GDP growth in 2022 remained low. This is reflected in all the 13 countries in East Africa. During the year, agriculture was exposed to climate change and natural disasters. The region experienced droughts, floods, and other extreme weather events which had a significant impact on agricultural productivity and output. Climate change exacerbated the situation, leading to lower yields and reduced agricultural GDP growth.

On the demand side, household consumption was the main contributor to GDP growth in 9 out of the 13 countries (see Figure 1.4). The nine countries are Burundi, Comoros, Eritrea, Ethiopia, Kenya, Rwanda, Somalia, Tanzania, and Uganda. In contrast, net exports accounted for two thirds of GDP growth in Seychelles, while government consumption accounted for three fifths of GDP growth in Djibouti. In South Sudan, net exports were responsible for three fifths of its GDP contraction. In Sudan, household consumption and investment each accounted for about one third of its GDP growth.

Figure 1.4: Demand-side breakdown of GDP growth, 2015-2022



Source: African Development Bank statistics

In East Africa, household consumption was the most significant factor on the demand side and accounted for about 2/3 of 2022 GDP growth, increasing by 3.0 percentage points. This was followed by government consumption which rose at 0.7 percentage points, and investment which increased by 0.5 percentage point. Net exports rose by 0.1 percentage point.

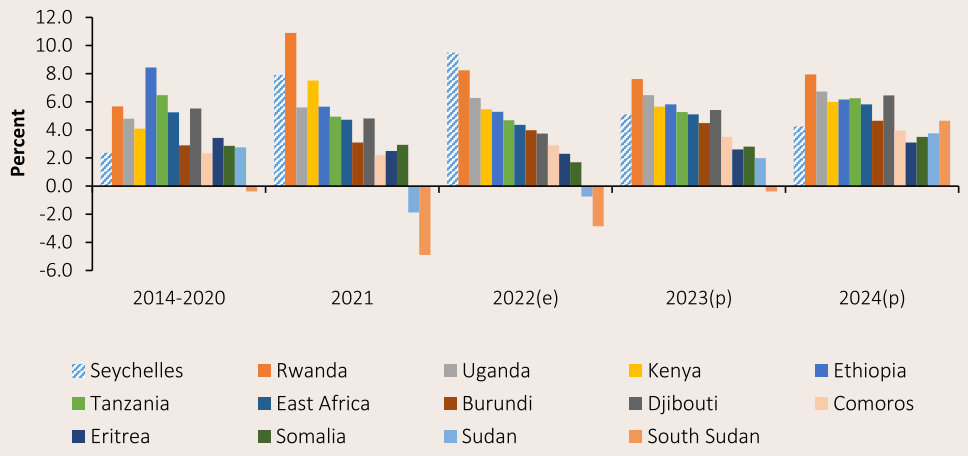
1.1.3 East Africa's real GDP experienced a slight decline in 2022 due to various factors, including a global growth slow-down, higher consumer prices, adverse weather conditions, and mounting debt

The region's GDP growth fell from 4.7% in 2021 to 4.4% in 2022. This decline was due to prolonged drought (especially in Ethiopia, Kenya, and Somalia), political instability in some countries, and rising global food and energy prices. The highest growth performers in this sub-region in 2022 were Seychelles (9.5%), Rwanda (8.2%), Uganda (6.3%), Kenya (5.5%), Ethiopia (5.3%) and Tanzania (4.7%) (Figure 1.5). The rest of the countries posted

GDP growth rates that were lower than the sub-region's average of 4.2%: Burundi (4.0%), Comoros (2.9%), Djibouti (3.7%), Eritrea (2.3%), Somalia (1.7%), Sudan (-0.7%), and South Sudan (-2.9%). In South Sudan, growth remains subdued and erratic over the past few years. The contraction of GDP growth in 2022 was due to many challenges such as extreme flooding (which led to a decline in oil production), increased food insecurity, a global commodity price shock, and a depreciation of the South Sudanese pound. The ongoing political conflict in some countries is expected to worsen the situation. In Sudan, the contraction of growth was driven by the ongoing political conflict.

Seychelles remains the most prosperous country on the African continent, with a GDP growth rate of 9.5% and GDP per capita growth of 8.9% in 2022. The country's performance was driven by a combination of sectors, particularly tourism, fisheries, and financial services. Tourism accounts for more than half of the country's GDP, and a rebound in 2022 boosted output, employment, and exports. In addition, an IMF Extended Fund Facility (EFF) was approved on 29 July 2021 and helped provide a stable macroeconomic environment. These reforms also helped the country achieve a low inflation rate, fiscal consolidation, an accommodating monetary policy, and lower debt vulnerability.

Figure 1.5: GDP growth by country, 2014-2024 (%)



Source: African Development Bank statistics

Despite relatively robust GDP growth, East Africa's average real GDP per capita growth rate fell in 2022, with only 4 out of 13 countries in the region recording an increase

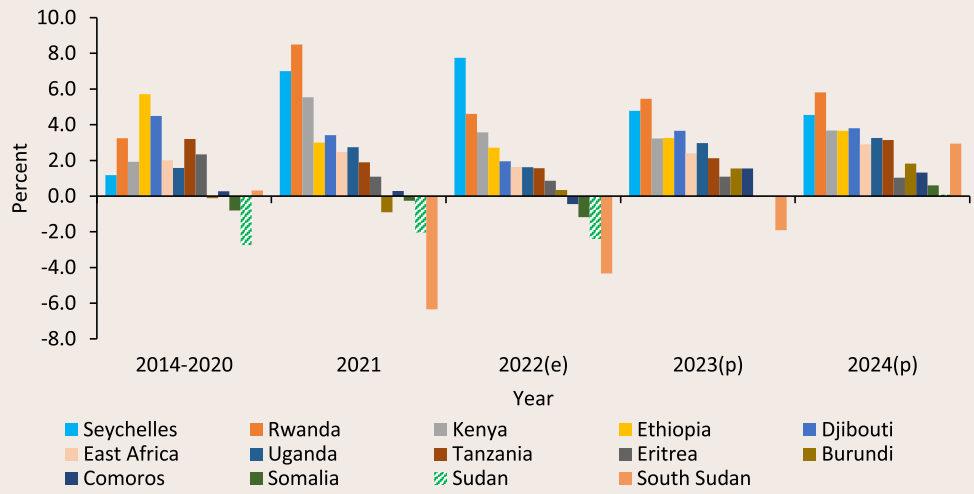
Rwanda has been one of the top performers in Africa, despite its real GDP growth slowing down from 10.9% in 2021 to 8.2% in 2022. Rwanda's growth momentum is expected to be sustained by improvements in institutional performance supported by policies to enhance investments and build resilience across the sectors. Although the services sector (especially tourism) accounts for a significant proportion of GDP, the decline in GDP growth between 2021 and 2022 was caused by rising international commodity prices and a poor harvest. These two factors in turn drove up energy, transport, and food prices. Inflation in the country rose from 0.8% in 2021 to 17.7% in 2022. Since poor people spend a larger portion of their incomes on food, increases in food prices in the country affected the poor more profoundly. The government responded to this by granting subsidies on fuel, fertilizer, seeds, and public transport. There was also increased spending on social protection and school feeding programs.

Persistent drought and conflicts in some countries in the region, among other factors, affected growth performance in Kenya, Ethiopia, and Somalia. These three countries experienced declines in growth between 2021 and 2022: Kenya's GDP growth fell from 7.5% in 2021 to 5.5% in 2022, Ethiopia's growth dropped from 5.6% to 5.3%, and Somalia's growth fell from 2.9% to 1.9%.

1.1.4 Despite relatively robust GDP growth, East Africa's average real GDP per capita growth rate fell in 2022, with only 4 out of 13 countries in the region recording an increase

The region registered a modest decline in real GDP per capita growth from 2.1% in 2021 to 1.7% in 2022 (see Figure 1.6). Only 4 out of the13 countries in the region recorded higher GDP per capital growth: Seychelles recorded an increase from 7.0% in 2021 to 8.9% in 2022, Burundi from 0.4% to 1.3%, Comoros from 0.3% to 1.1%, and Uganda from 2.3% in 2021 to 3.2% in 2022. Sudan, South Sudan, Eritrea, and Somalia recorded contractions in income per capita growth, as these countries suffered considerable internal conflict that exacerbated existing fragilities. Although growth in income per capita slowed down in the remaining 5 countries, it was still positive and therefore raised the average standard of living.

Figure 1.6: GDP per capita growth by country, 2014-2024 (%)



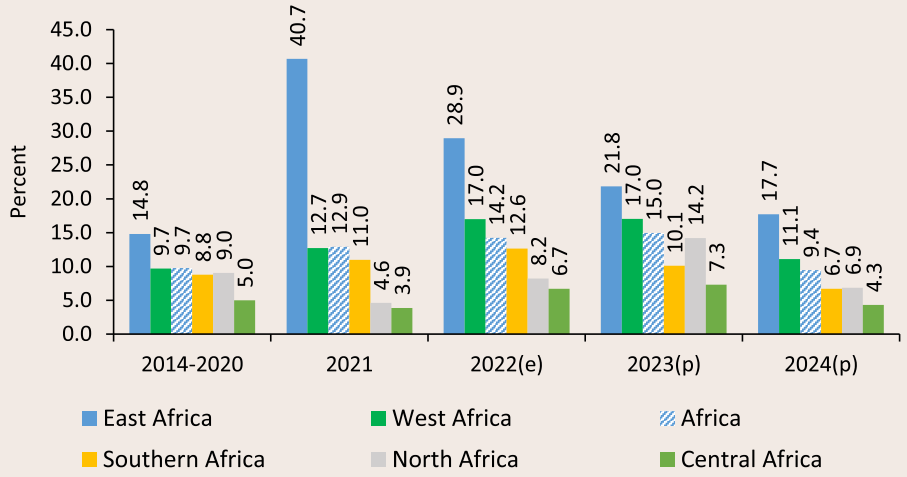
Source: African Development Bank statistics

1.2 Evolution of macroeconomic fundamentals

1.2.1 Regional conflict and instability, drought, rising US interest rates, and supply chain disruptions drove inflation and exchange rate depreciations in EA

In 2022, the regional inflation rate was estimated at 28.9%, a decline from its recent high of 40.7% in 2021. The region's inflation rate in 2022 was significantly higher than the continent's average (14.2%) and was the highest across all the sub-regions (Central Africa 6.7%, North Africa 8.2%, Southern Africa 12.6%, and West Africa 17.0%), respectively (Figure 1.7). Monetary policies were tightened in several countries in response to the inflation.

Figure 1.7: Inflation rates in East Africa and other regions in Africa



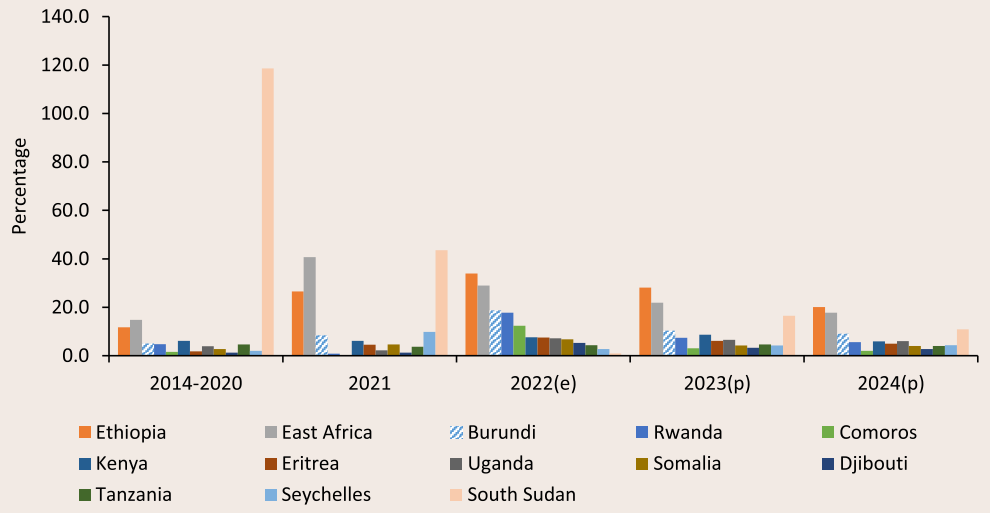
Source: African Development Bank statistics

The high average inflation rate in East Africa in 2022 was largely due to the hyperinflation in Sudan (139.0%), galloping inflation in South Sudan (43.5%), and high inflation in Ethiopia (26.6%) (Figure 1.8).

The hyperinflation in Sudan was driven mainly by: a below-average harvest in 2022, inter-communal clashes in South Kordofan, Abyei, Darfur, the Red Sea, Kassala, and Blue Nile regions, removal of fuel subsidies, and a significant currency depreciation of the Sudanese pound against hard currencies in free-market exchange rates. Nonetheless, the hyperinflation in Sudan eased in 2022 compared to the high of 359.1% in 2021 following the measures put in place by the government, in particular unification of the Sudanese pound market rate and parallel exchange rates, as well as reduction of the fiscal deficit from 4.7% in 2021 to 1.5% in 2022.

The galloping inflation in South Sudan was driven by high food prices and market asymmetries which were exacerbated by below-average harvest and the protracted conflict in the country. The 2014-2020 period shows South Sudan as an outlier with average inflation of 118%. In the subsequent years, inflation narrowed albeit in double digit. Consequently, most of the traders in the country were not able to restock on time due to supply shocks resulting in acute food shortages, hence the high food prices. In addition, the devaluation of the South Sudanese pound against the US dollar made imports more expensive. Russia's invasion of Ukraine also exacerbated the supply bottlenecks on food and refined oil imports, making them more expensive due to imported inflation.

Figure 1.8: Annual inflation by Country, 2021–2024 (%)



Note: Sudan is excluded due to extremely high inflation values
Source: African Development Bank statistics

Regional conflict and instability, drought, rising US interest rates, and supply chain disruptions drove inflation and exchange rate depreciations in East Africa in 2022

In Ethiopia, the high inflation rate in 2022 was primarily driven by high global food and oil prices and the Tigray War which threw the country into turmoil. The rise in global food and energy prices in 2022 can be largely attributed to Russia's invasion of Ukraine. However, the domestic conflict in Tigray has exerted pressure on the central government finances, widened the current account deficit, and exacerbated capital flight from foreign investors, and thereby dwindled foreign exchange reserves. The conflict has been going on since November 2020, resulting in many casualties and leaving millions of internally displaced people. Millions more have fled to Sudan as Tigray is cut off from food, medical aid, and other basic needs. The fighting has also destabilized the country's economic activities and even more so agricultural production, with many people living in famine conditions, hence the high inflation rate. The huge domestic credit expansion in the country to revive the economy also contributed to inflation.

Three countries had double-digit inflation between 10% and 20%. In Burundi, inflation rose to 18.7% in 2022 compared to 8.4% registered in 2021. Inflation was 12.4% in Comoros in 2022, a significant jump from 0.1% in 2021. Rwanda's inflation jumped from 0.8% in 2021 to 17.7% in 2022.

Inflation was single digit, but above 5.0%, in Somalia, Kenya, Djibouti, Eritrea, and Uganda in 2022. Given the global upswing in food and fuel prices resulting from Russia's invasion of Ukraine, as well as the prolonged drought in the region and negative externalities of COVID-19 on supply chains, these countries did well in managing their inflation.

1.2.2 In 2022, East African economies suffered currency depreciation due to rising debt service and US interest rates

In 2022, most of the floating local currencies in the region depreciated against the US dollar. This was largely due to the appreciation of the US dollar resulting from a sharp increase in US interest rates by the US Federal Reserve aggressively trying to curb inflation in the USA. With half of all international trade invoiced in US dollars, a stronger greenback adversely affected consumers in East Africa, who depend on US

dollars to pay for imports. The significant exchange rate depreciation across the region to was compounded by prolonged regional drought (which had an adverse effect on agricultural exports), a reduction in donor inflows across the region, higher external debt service (due to the dollar appreciation), and weaker exports because of lower growth in developed markets.

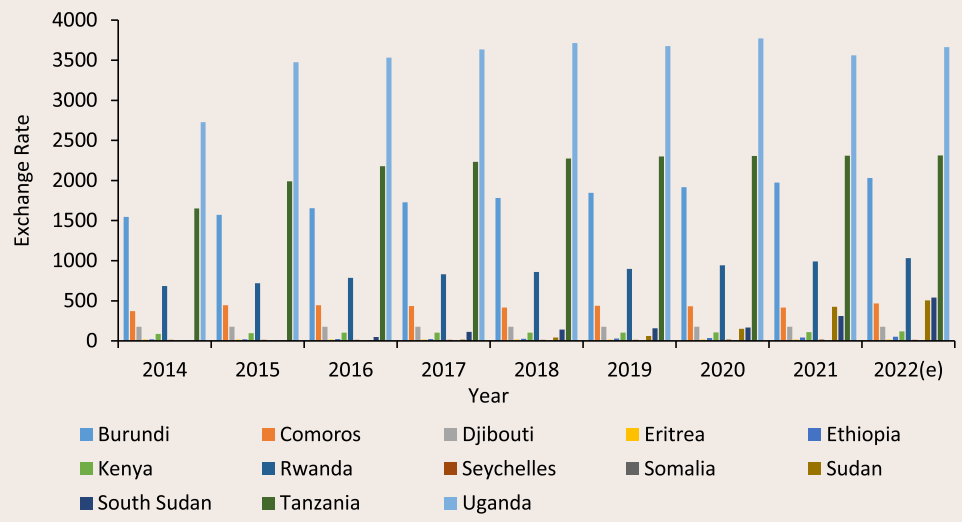
Only the pegged currencies with limited convertibility remained stable. Eritrea's nakfa and the Djibouti franc were the only stable currencies in East Africa. The Eritrean nakfa exchange rate is fixed with limited convertibility and was pegged at 15.1 per US dollar, while the Djibouti franc was pegged to the dollar at 177.7 per US dollar.

Kenya is the largest economy in the region with a floating exchange rate and recorded a depreciation of 7.5% against the US dollar (from 109.5 in 2021 to 117.7 in 2022), making it one of the worst years for the Kenya shilling. Since Kenya imports wheat and fertilizer from Russia and Ukraine, the invasion of Ukraine disrupted the global supply chains of wheat, edible oils, and fertilizer, raising their prices and Kenya's import bill on food. These trends were almost the same across the region, and generally resulted in lower net exports.

Sudan's macroeconomic situation has continued to deteriorate since the transitional civilian government was overthrown in October 2021, leading to the cessation of international financial support. The depreciation is attributed to the currency. Furthermore, the continued suspension of donor financial aid to Sudan following the military coup reduced the country's forex reserves, further exacerbating the depreciation of the pound. Sudan also recorded below-average harvests in 2022, leading to high demand for food imports, particularly sorghum and wheat, and putting pressure on the pound against the US dollar.

The Sudanese ound, the South Sudanese pound, the Seychelles' rupee, Tanzania's shilling, and the Rwandan franc depreciated against the US dollar in 2022. The Sudanese pound experienced a depreciation of 18.5% in 2022 against the US dollar as part of reforms to unify the official and parallel market exchange rates by allowing the currency to float. The South Sudanese pound depreciated by 75% against the US dollar, from 309.4 in 2021 to 541.4 in 2022, the highest depreciation in the region. This was attributed to the suspension of IMF and World Bank loans after the country failed to meet the conditionalities set by the Bretton Woods institutions. In addition, the historic flooding that occurred in 2022 affected economic activities in the country, resulting in government revenue loss. As a result, the government resumed monetary financing, leading to a sharp exchange rate depreciation against the hard currencies. The Seychelles rupee experienced a 15.6% exchange rate appreciation against the US dollar in 2022, going from 16.9 against the US dollar in 2021 to 14.2 in 2022. This is due to increased tourism earnings, the country's largest foreign exchange supplier, following the easing of COVID-19 which increased tourist numbers in the country. The depreciation of the Tanzania shilling against the US dollar was minimal, due to prudent monetary and fiscal policies, depreciating by 0.2% against the US dollar in 2022 due to a slowdown in exports. The Rwandese franc depreciated by 4.2% against the US dollar in 2022, going from 988.9 in 2021 to 1030.6 in 2022 due to a significant upswing in food, capital goods, and petroleum imports in 2022, which increased the demand for US dollars (Figure 1.9).

Figure 1.9: Exchange rate by country, 2014-2022



Source: African Development Bank statistics

The Uganda shilling depreciated by 2.9% against the US dollar in 2022. Its value fell from 3562.2 against the US dollar in 2021 to 3664.2 in 2022. This is attributed to the continuous deterioration of terms of trade in the country induced by the COVID-19 economic shocks which increased the demand for the greenback. The high cost of imports, in particular fuel, steel, and cooking oil, coupled with low export earnings of commodities, put pressure on the Uganda shilling against the dollar.

The Ethiopian Government operates a managed exchange rate for the birr while it transits to a floating exchange rate, with the government allowing the birr to depreciate gradually against the dollar, from 43.7 birr/dollar in 2021 to 51.5 in 2022. That was partly driven by weak export performance and high demand for the greenback amidst soaring fuel and food import costs. The civil war in the Tigray region also widened the gap between the official and parallel-market exchange rates between the birr and the US dollar as foreign reserves dwindled due to capital flight from investors exiting the country (Figure 1.3).

1.2.3 Most of the central banks in the EA region maintained a mixed monetary policy stance in 2022 as they tried to boost credit access amidst the COVID-19 recovery while simultaneously fighting inflation and responding to the rise in US interest rates

The EA central banks adopted accommodative monetary policies to stimulate economic recovery. In Kenya, credit to the private sector grew by 12.5% in 2022 compared to 7.5% in 2021, while commercial bank lending rates increased marginally from a weighted average of 12.1% in 2021 to 12.3% in 2022. The policy rate and the cash reserve ratio were held at 8.25% and 5.25% respectively, in 2022. The rise in private sector credit growth reflected the recovery in economic activities and increased demand for working capital while reducing bank lending to the government. In Rwanda, credit to the private sector decelerated from 12.6% in 2022 to a growth of 10.1% in 2021.

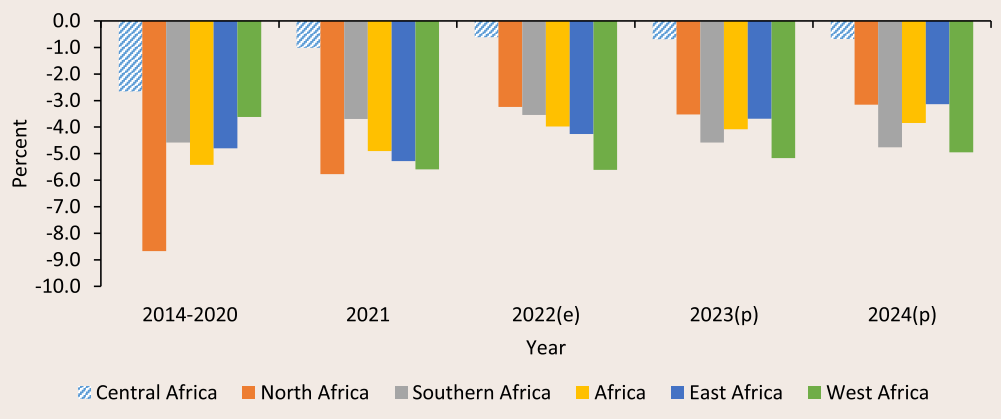
The central bank of Uganda increased its policy rate while commercial banks' credit to the private sector declined. The policy rate increased to 10% in December 2022, a 350 basis points increment from 6.5% in December 2021, on account of persistent inflationary pressures driven higher by soaring fuel and food costs. The average lending rate by commercial banks in 2022 was 18.20%, a slight reduction compared to 18.53% in 2021. Credit to the private sector grew by 9.1% in 2022 compared to 19.9% in 2021 despite an increment in the Central Bank's policy rate. The increase in policy rates led to a decline in supply of credit to most of the key sectors in 2022, with negative growth rates noticeable in the mortgage and construction sectors, trade, and business services.

1.2.4 East Africa's fiscal deficit shrunk in 2022 compared to 2021 owing to fiscal consolidation efforts, improved revenue performance, and a reduction of expenses associated with COVID-19

The East African fiscal deficit in 2022 was the second highest among all regions, only surpassed by West Africa (Figure 1.10). Central Africa's deficit was 0.5% while those of Southern Africa and North Africa were 3.5% and 3.2% respectively. The Central Africa, Southern Africa, and North Africa regions experienced improved commodity prices. The Southern and North Africa region's tourism sector rebounded after the slowdown of COVID-19 in the second half of 2022. West Africa reported a fiscal deficit of 5.6% of GDP, which was the highest in the region.

Sluggish economic growth has limited domestic revenue mobilization and COVID-19 expenditures have contributed to higher fiscal deficits in recent years. East Africa is expected to register a fiscal deficit of 4.3% of GDP in 2022 compared to 5.3% of GDP in 2021 due to a ramp-up in domestic revenue mobilization efforts and expenditure reprioritization following the slowdown in COVID-19 (Figure 1.11). The regional fiscal deficit is expected to narrow down to 3.7 and 3.1% in 2023 and 2024, in line with meeting the East Africa Community (EAC) fiscal deficit convergence criteria of 3% of GDP.

Figure 1.10: Fiscal Balance by Region, 2014-2024 (% of GDP)



Source: African Development Bank statistics

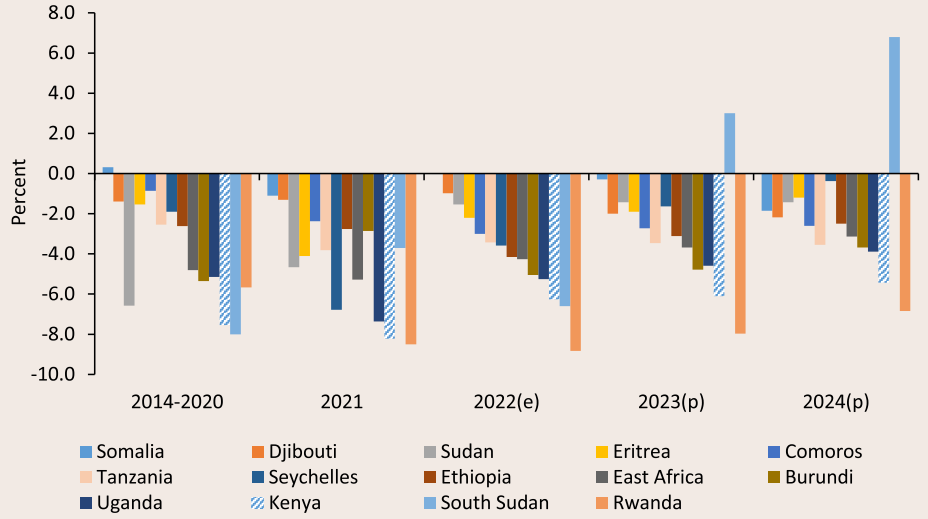
Five EA countries (Kenya, Rwanda, Uganda, South Sudan, and Burundi) reported fiscal deficits that were higher than the region's average of 4.3% in 2022. The high fiscal deficit in Kenya is attributed to revenue and expenditure mismatch. Domestic revenue collections performed well and exceeded the revised target. However, there was significant growth in recurrent and debt service expenditure. Rising domestic and commercial debt service obligations absorbed more domestic revenues due to high expenditure requirements on recurrent expenditure and large key public infrastructure projects. Nevertheless, Kenya's fiscal deficit registered a decline from 8.2% of GDP in 2021 to 6.3% of GDP in 2022 due to fiscal consolidation efforts such as reversals of tax cuts and resumption of economic activities following the relaxation of COVID-19 containment measures.

Rwanda's fiscal deficit widened from 8.5% in 2021 to 8.8% in 2022. The high fiscal deficit was due to the lagged effects of the pandemic on economic activity, which pressured the government to keep public expenditures high to stimulate the economy. In Uganda, the fiscal deficit narrowed down to 5.3% in 2022 from 7.4% in 2021. This is attributed to the national government's improvement in domestic revenue mobilization efforts, which led to increased revenue collections. This is also a result of lower COVID-19-related spending, as well as lower capital expenditure. However, the rising cost of debt service in 2022 strained fiscal liquidity and squeezed other priority domestic budgetary items. To guarantee fiscal and public debt sustainability, Uganda anticipates transitioning to lower fiscal deficit levels by 2025/26.

In Seychelles, the fiscal deficit narrowed to 3.6% in 2022 from 6.6% in 2021, owing to a rebound in tourist arrivals and the resumption of economic activities in 2022. However, the fiscal deficit remained below the regional average due to a successful recovery in the tourism sector.

In South Sudan, the fiscal deficit widened from 3.7% of GDP in 2021 to 6.6% of GDP in 2022. The higher fiscal deficit was largely a result of the deterioration in macro-economic conditions due to internal conflict coupled with erratic weather patterns, which affected economic activities and government revenue.

Figure 1.11: Overall Fiscal balance by country, 2021–2024 (% of GDP)



Source: African Development Bank statistics

1.2.5 Low-income nations that are heavily indebted have historically prioritized the sustainability of their long-term debt

The Heavily Indebted Poor Countries (HIPC) Initiative was established by the IMF and World Bank in 1996 with the goal of alleviating an untenable debt load from low-income countries. Under the debt relief initiative, governments of highly indebted low-income countries work along with multilateral financial institutions (particularly the IMF and the World Bank) to reduce their external debts to sustainable levels. Debt relief is part of a comprehensive effort to address debt overhangs in low-income countries. Such relief usually includes restructuring or reprofiling debt service along with fiscal consolidation and growth-enhancing supply-side initiatives. However, for the initiative to have a tangible impact on poverty reduction, additional money should be spent on poverty eradication programs.

Out of the 39 countries on the HIPC list, 33 countries (or 85%) are in Africa. West Africa had the highest number of countries under HIPC (14), followed by East Africa (9). Southern and Central Africa had five countries each. The nine East African Countries remaining under the HIPC initiative as of January 2023 were Rwanda, Comoros, Uganda, Ethiopia, Burundi, and Tanzania. Somalia and Sudan were interim with Eritrea at the pre-decision point (Table 1.1).

Table 1.1: African Countries under HIPC Initiative as of January 2023

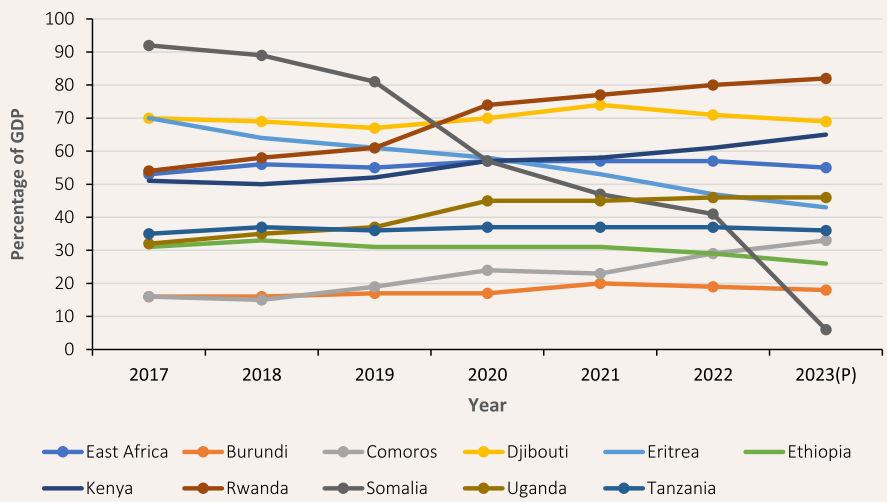
West Africa	East Africa	Southern Africa	Central Africa
Senegal	Burundi	Zambia	Central African Republic
Mali	Rwanda	Mozambique	Chad
Ghana	Somalia	Malawi	Cameroon
The Gambia	Ethiopia	Madagascar	Republic of Congo
Liberia	Comoros	São Tomé & Príncipe	Democratic Republic of Congo
Guinea	Uganda		
Guinea Bissau	Tanzania		
Côte d'Ivoire	Sudan		
Mauritania	Eritrea		
Niger			
Burkina Faso			
Benin			
Togo			
Sierra Leone			

Source: The IMF and World Bank (2023)

The COVID-19 period led to the introduction of the debt service suspension initiative (DSSI) by the G20 countries. Following the rise in spending to meet critical health-related financing with high public debt, the DSSI was introduced in May 2020. This initiative played a crucial role in mitigating the pandemic effects on East Africa regional countries. Out of 13 East African countries, 9 participated in the DSSI, namely Burundi, Djibouti, Eritrea, Ethiopia, Kenya, Rwanda, Somalia and Tanzania. The initiative helped offer fiscal space for countries to meet critical spending by deferring debt payment obligations. Although public spending remained the same, the recipient countries in East Africa were able to meet health-related budgets and provide economic stimulus packages due to participation in the DSSI program.

East African countries are facing challenges in managing their public debt due to factors such as low tax revenues, changing debt structures, and a reduction in grants from developed countries. This is compounded by high-interest loans and appreciation of hard currency debt against local currencies that has squeezed lower-income economies reliant on dollar-denominated external debt and petroleum oil imports interest rates. However, high GDP growth in the region, buoyed by the reopening of the economies after the slowdown of the COVID-19 pandemic, has assuaged the problem. East Africa's total public debt-to-GDP ratio reduced from 58% in 2021 to 57% in 2022. This was not homogenous across the region. Ethiopia, Burundi, Eritrea, Seychelles, Somalia, and Djibouti registered a debt-to-GDP ratio decline from 31, 20, 53, 364, 47, and 74% in 2021 to 29, 19, 47, 317, 41, and 71% in 2022 respectively. In Contrast, Kenya, Rwanda, Comoros, Uganda, and Sudan registered an increase in debt-to-GDP ratio from 58, 77, 45, 23, and 167% in 2021 to 61, 80, 46, 29, and 186% in 2022 respectively, while Tanzania maintained its debt-to-GDP ratio at 37% (Figure 1.12).

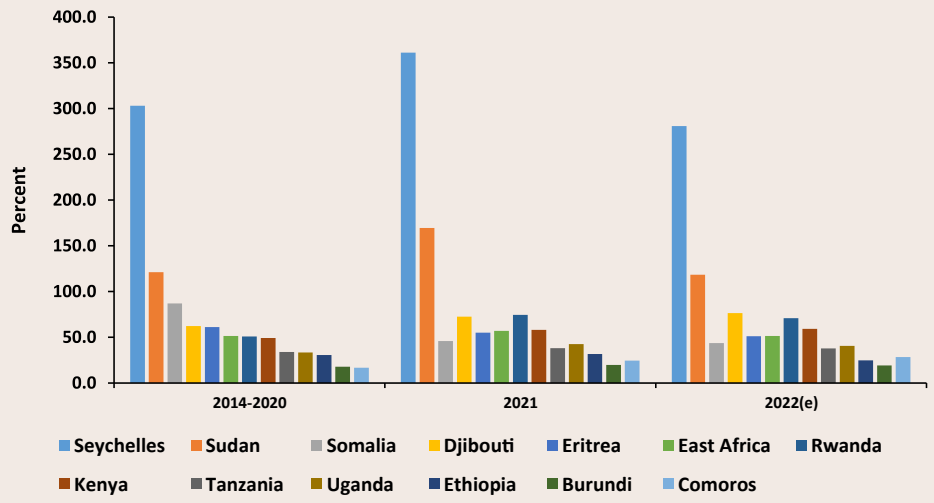
Figure 1.12: Total public debt, 2017–2023 (% of GDP)



Source: African Development Bank statistics

East Africa's external debt was 51.4% of GDP in 2022, a slight decline from 57.1% in 2021. Djibouti, Kenya, and Comoros recorded an increase in external debt (% of GDP) from 72.7, 58.2 and 24.5% in 2021 to in 76.5, 59.1 and 28.4% in 2022, while the rest of the countries in the region recorded a decline in 2022. The highest external debt burdens in 2022 (as % of GDP) were found in Seychelles and Sudan, although both declined compared to 2021: to 280.8% from 361.1% for Seychelles and to 118.5% from 169.4% for Sudan (Figure 1.13).

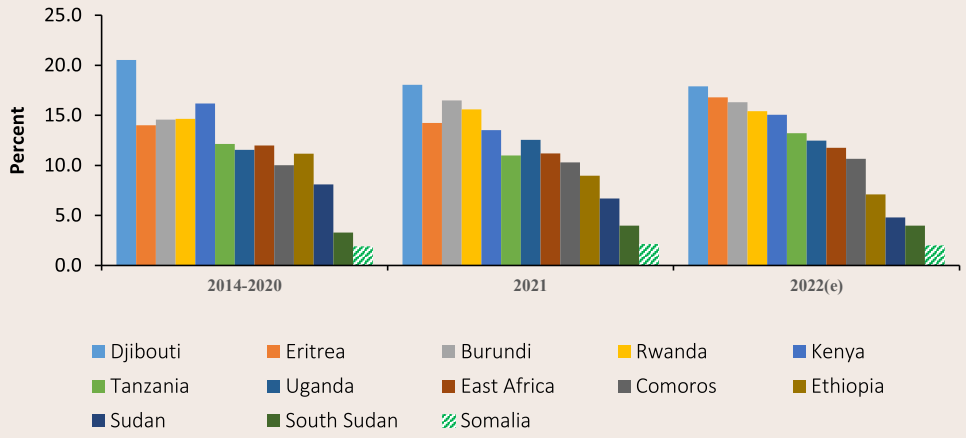
Figure 1.13: Total External Debt by Country, 2021-2022 (% of GDP)



Source: African Development Bank statistics

East African economies consider public debt a significant source of capital due to their high development expenditure and low domestic revenue base. Low tax compliance and lack of enforcement, along with high informality within the economy, have resulted in a narrow tax base and hence low tax-GDP ratios—all EA countries had tax-GDP ratios below 20% in 2022 (Figure 1.14). Furthermore, the high cost of capital-intensive imports cannot be offset by domestic revenue and must be borrowed, leading to an increase in external debt. Long-term economic growth depends heavily on the effective utilization of public debt. This is attained by financing key domestic services and infrastructure that induce private sector participation and investments. However, prolonged rise in public debt levels generates increased expenditure on debt service.

Figure 1.14: Tax-to-GDP Ratio by Country, 2014-2022 (% of GDP)



Source: African Development Bank statistics

Total debt service obligations have put undue pressure on debt sustainability for East Africa's economies. Even though the total debt service (interest and amortization) as a percentage of exports stagnated at 18% between 2021 and 2022, this was not homogenous across the region. Burundi, Comoros, Djibouti, Ethiopia, Seychelles, Sudan, and Uganda registered an increase in total debt service-to-exports ratio, while Eritrea, Kenya, and Rwanda registered a decline. The balance of trade was battered by extended drought and global supply chain logistics that affected the region's exports. This, coupled with the appreciation of the US dollar and other hard currencies against the local currencies and the aftershocks of COVID-19, increased the total debt service-to-export ratios, an important measure of debt sustainability. Similarly, most countries in the region were either in debt distress or had a high risk of debt distress in 2022 due to higher solvency and liquidity risks associated with weak export performance and higher import bills (Table 1.2).

Table 1.2: Debt Sustainability Analysis (DSA) for East African Economies

Country	Risk of External Debt Distress	Risk of Overall Debt Distress	Date of Publication
Somalia	In distress	In distress	Jun-22
Sudan	In distress	In distress	Jun-21
Burundi	High	High	Jul-22
Comoros	High	High	Sep-21
Djibouti	High	High	May-20
Ethiopia	High	High	Apr-20
Kenya	High	High	Dec-21
South Sudan	High	High	Jul-22
Rwanda	Moderate	Moderate	Jan-22
Tanzania	Moderate	Moderate	Jul-22
Uganda	Moderate	Moderate	Mar-22

Source: International Monetary Fund (2022)

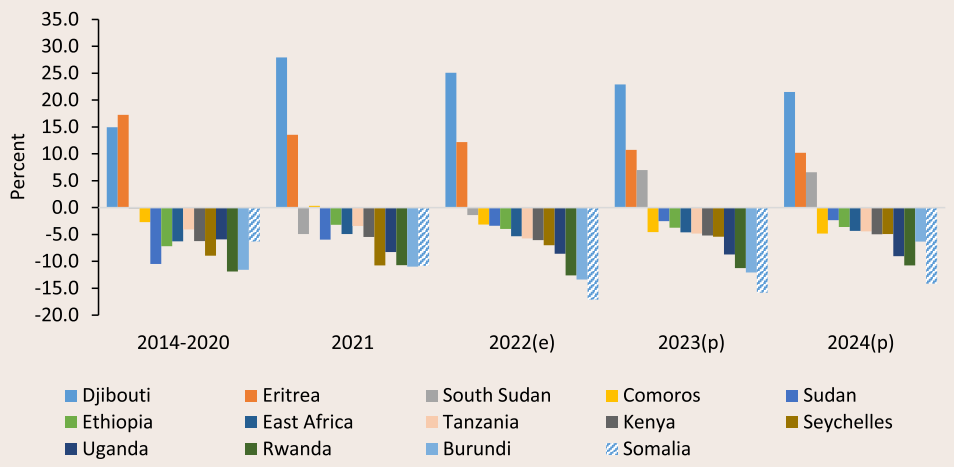
1.2.6 East Africa's current account deficit continued to widen in 2022 due to an increasing import bill arising from higher food and oil prices across the globe

Exports from East Africa did not fare well due to the prolonged drought in the Horn of Africa. This is attributed to higher import bills caused by rising commodity prices (food and oil), weak domestic production, and a slowdown in export earnings. However, the aggregate figures mask the variations across the region.

The region's current account deficit expanded from 4.9% of GDP in 2021 to 5.3% of GDP in 2022 (Figure 1.15). In 2022, eight out of the 13 countries in East Africa recorded wider current account deficits while five recorded narrower current account deficits compared to 2021. Kenya, Ethiopia, Rwanda, Burundi, Uganda, Comoros, Somalia, and Tanzania recorded a deterioration in their current

account balances. Out of these, Rwanda, Burundi, and Somalia recorded a double-digit deficit in 2022. Kenya, Uganda, Ethiopia, Comoros, and Tanzania recorded single-digit current account balance deteriorations. On the other hand, Seychelles, South Sudan, Comoros, and Sudan narrowed their current account deficit as a percent of GDP in 2022 compared to 2021. Djibouti and Eritrea were the only countries in the region with a current account surplus (Figure 1.15). The trends in current account balances across the East African economies can generally be attributed to weak recovery of export earnings, an upswing in demand for imports due to weak domestic production, and a surge in commodity prices.

Figure 1.15: Current Account Balance by Country, 2014–2024 (% of GDP)



Source: African Development Bank statistics

Several themes dominated the trends in current account balances for the region, although they affected each country to a greater or lesser extent.

High import demand due to weak domestic production: In Somalia, the current account deficit narrowed from 10.8% of GDP in 2021 to 17.1% in 2022. The deficit remained in double digits due to the country's prolonged drought that significantly affected livestock exports. Additionally, strong import demand caused by low domestic production kept the deficit in double digits.

The surge in oil and petroleum prices: In Kenya, a net oil and petroleum products importer, recorded an increase in current account deficit to 6.0% of GDP in 2022 from 5.5% in 2021. That is attributed to sharp increases in the global prices of oil and petroleum products, constituting 20% of Kenya's merchandise imports.

Weak recovery of export earnings: In Tanzania, the current account deficit widened from 3.4% of GDP in 2021 to 5.7% in 2022. That is attributed to subdued tourism receipts from due to low tourist numbers caused by COVID-19. However, the deterioration in the current account deficit was mitigated by higher earnings from gold, the leading export in Tanzania. The current account deficit was financed largely by external commercial debt as other financial flows, including FDI and grants, declined. In Seychelles, the current account deficit increased from 11.7% of

GDP in 2021 to 22.7% in 2022, the highest in the region. This is due to lower than pre-COVID-19 tourism earnings. Similarly, Burundi recorded a significant deterioration in its current account deficit from 12.6% of GDP in 2021 to 15.0% of GDP in 2022. That is attributed to the slow-down in mining and tea exports and increased imports.

Higher metal prices: Global metal prices increased in 2022, reflecting supply disruptions in the aftermath of COVID-19 and Russia's invasion of Ukraine. In Eritrea, the current account surplus narrowed down from to 13.5% of GDP in 2021 to 12.2% in 2022. This is attributed to an upswing in the prices of gold, copper ore, zinc ore, and silver that are the major exports of Eritrea and constitute 50% of Eritrea's total exports. However, the export market concentration remains a crucial source of external vulnerability for the economy, as China accounts for about 60% of Eritrea's total exports.

East Africa's fiscal deficit shrunk in 2022 compared to 2021 while the region's current account deficit continued to widen in 2022 due to an increasing import bill arising from higher food and oil prices across the globe

1.2.7 East Africa secured SDR 4.22 billion representing 11.5% of Africa's allocation and 0.64% of the global SDR allocation by the IMF in 2022

The IMF's global SDR injection in 2022 increased global liquidity and was allocated by countries' existing quotas, which represent their voting rights and relative economic position in the world economy. Africa's total SDR allocation of USD 36.71 billion represented 5.6% of the global SDRs in 2022. Within the East African region, Sudan received the largest share, equivalent to 18.92% of the total regional allocation. It was followed by Kenya (18.49%), Tanzania (13.56%), Uganda (12.31%), and Ethiopia (9.87 %), making the top five countries. Together, they received 73.16% of the total SDR allocated to the region, thereby highlighting the concentration of the allocation in the hands of only a few countries in the region (Table 1.3).

Table 1.3: IMF Special Drawing Rights allocation to East Africa, 2022

Country	SDR allocated (millions)	USD equivalent (million, USD)	Share in GDP (percentage)
East Africa	4217.1	5,829.72	1.12
Burundi	221.45	306.13	8.02
Comoros	25.56	35.33	2.56
Djibouti	45.64	63.09	1.70
Eritrea	30.4	42.02	1.64
Ethiopia	416.14	575.27	0.48
Kenya	779.9	1,078.13	0.93
Rwanda	230.37	318.46	2.79
Seychelles	30.23	41.79	2.42
Sudan	798.15	1,103.36	0.89
South Sudan	341.19	471.66	8.23
Tanzania	571.78	790.43	0.96
Uganda	519.06	717.55	1.85
Somalia	207.23	286.47	3.37

Note: SDR and USD Equivalent data is from the IMF; the share of USD Equivalent in GDP percentage is based on AfDB statistics for 2022.
Source: Author, based on data extracted from IMF, AfDB documents, and Central Banks of East African Countries.

In East Africa, most countries used the SDR allocations to finance their fiscal deficit in 2022. Kenya, as outlined in the 2023 Budget Policy Statement, used the SDR budget support to finance the 2022/23 fiscal deficit. The SDR allocations, which also form part of the country's foreign exchange reserves, have been critical in shoring up Kenya's shrinking foreign exchange reserves. Foreign reserves equivalent to at least 3 months of imports is generally desired to prevent depreciation of the local currency. Uganda similarly utilized its SDR allocations to shore up its international reserves amidst a rising current account deficit. Part of the allocation was also used to finance the budget deficit, which had risen owing to expenditure on public health systems and social protection in the aftermath of COVID-19. Rwanda used 70% of its SDR allocation in its revised FY21/22 budget to fund national development projects and meet critical socio-economic needs. The rest was used for direct budget support to offset the budget deficit and shore up the country's foreign exchange reserves.

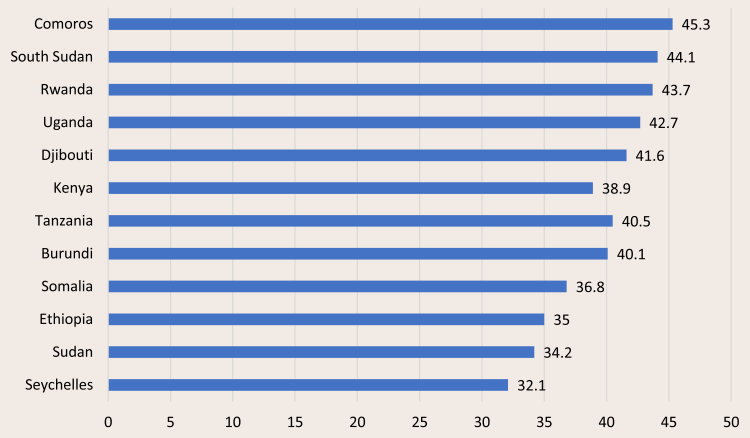
1.3 Socio-economic effects of the rising food and energy prices

East Africa's rising food and energy prices have been exacerbated by extreme poverty, high inequality, and energy insecurity. The following sub-sections highlight some of the lingering socio-economic impacts of the rising food and energy prices on poverty, inequality, and energy security in East Africa.

1.3.1 Rising food and energy prices have worsened poverty and inequality in the region

East African economies have relatively high Gini coefficients that mirror the high-income inequality and poverty in the continent. In 2023, Comoros, with a Gini coefficient of 45.3, is the most unequal country in East Africa, while Seychelles, with a Gini coefficient of 32.1, is the least unequal country in the region (Figure 1.16)[3]. The World Bank cites Slovenia with a Gini of 24.6 as one of the lowest in the world, whereas South Africa, with its Gini of 63, is considered the highest. Seychelles is ranked 124th, while Comoros is ranked 28th in the world for inequality. Most of the East African Countries are ranked between 28th and 52nd out of some 189 countries, indicating that the income is relatively concentrated in the hands of a few while the majority are struggling to meet their basic needs, such as food, energy, health care, housing, and education (Figure 1.16).

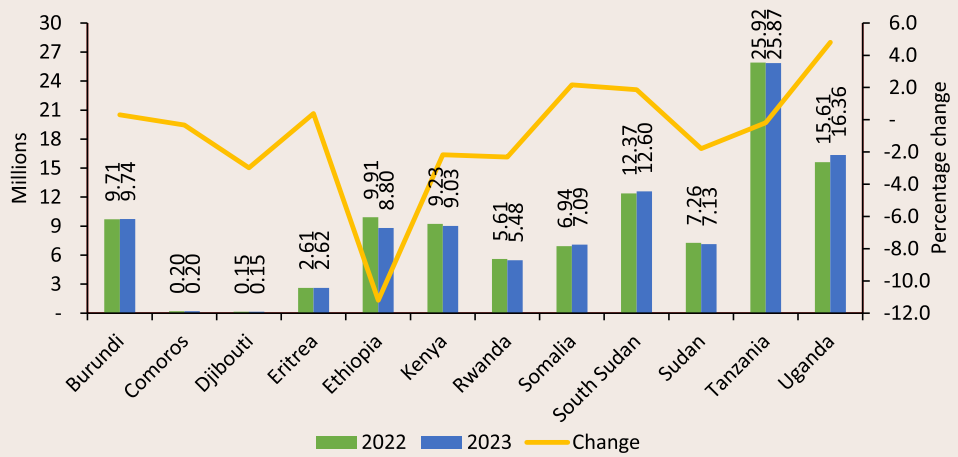
Figure 1.16: East African Economies Gini Coefficients



Data Source: Wisevoter statistics 2023

Rising energy and food prices and prolonged drought in the region, compounded by the adverse aftershocks induced by the COVID-19 pandemic, are major headwinds to reducing extreme poverty in the region. In 2023, there are 105.70 million people in extreme poverty in East Africa (representing 18.5% of the global population living in extreme poverty), a 0.43% decline from 105.5 million in 2022. Tanzania had 25.9 million people living in extreme poverty in 2022, the highest in the region. Ethiopia registered 11.2% decline in the number of people living in extreme poverty from 2022 to 2023, the highest in the region (Figure 1.17).

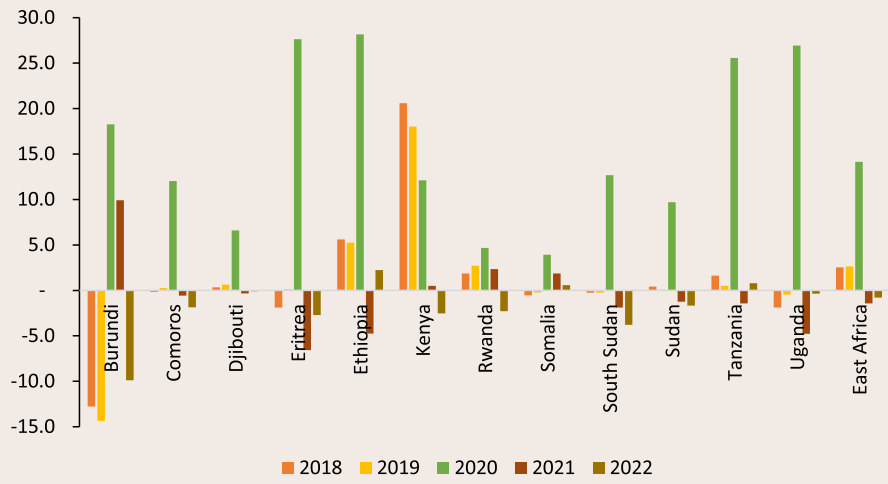
Figure 1.17: The number of people living in extreme poverty in East Africa



Source: World Poverty Clock (2023)

The unemployment rate in East Africa fell by 0.8% in 2022. This decline was smaller than in 2021, when the employment rate changed by -1.4%. This result is attributed to sustained drought in the Horn of Africa and global supply chain disruptions due to Russia's invasion of Ukraine, which had a severe negative impact on forward and backward linkages in the agricultural and energy sectors. East Africa's economy and means of subsistence are primarily reliant on agriculture. The prolonged drought in the region has disrupted livelihoods and jobs and continues to threaten millions of people with starvation. Russia and Ukraine dominate fertilizer and wheat imports in the East African region. East Africa imports 20% of total wheat consumption from Russia and Ukraine and 7% of fertilizer from Russia. The high imports of these commodities from the two countries show the exposure of the East African region to shocks. Supply chain disruptions increased the price and freight charges for fertilizer, wheat, and petroleum products, leading to skyrocketing food and energy prices and exacerbating unemployment in the region. Only Ethiopia, Tanzania, and Somalia registered an increase in the unemployment rate in 2022. Burundi (-9.9%) recorded the most significant decline in the unemployment rate due to expansion in subsistence farming, while Ethiopia (2.2%) recorded the most significant upswing in the unemployment rate in 2022 due to increased fragility from the Tigray conflict (Figure 1.18).

Figure 1.18: Change in unemployment in East Africa, 2018–2022 (%)



Source: World Poverty Clock (2023)

1.3.2 East Africa experienced various significant socio-economic shocks in 2022, including conflict, inflation, drought, grain shortages, and the impact of climate change

Since the COVID-19 pandemic, the price of essential staples, including maize, rice, sugar, and wheat, has climbed dramatically in East Africa, accounting for most of the region's overall inflation. Russia's invasion of the Ukraine has hampered international trade, increased lead times and shipping costs while depriving farmers in East Africa of access to the fertilizers and other agricultural inputs they require to grow enough food. The Horn of Africa's fifth consecutive below-average rainy season has worsened the drought situation. This has significantly impacted agricultural and animal productivity and even led to relocation, particularly among agro-pastoralists and pastoralists in Somalia, Ethiopia, and Kenya.

Despite efforts by the governments to deal with malnutrition and food insecurity challenges in the region, the situation has worsened. Severe food insecurity has become more prevalent in the region, with 82 million people facing hunger. In Ethiopia, there are reportedly 22.6 million individuals that are food insecure. It is anticipated that 6.7 million people in Somalia will experience severe levels of food insecurity. Acute food insecurity affects over 6.6 million South Sudanese, or about half of the country's population. In Kenya, Somalia, and Ethiopia, there are over 7.3 million acutely malnourished children, plus 5.5 million who are moderately malnourished. Drought is mostly, but not exclusively, responsible for the high prevalence of malnutrition. In addition to climate shocks, conflicts, and inflation, cholera and measles outbreaks have also contributed significantly to the region's food and nutrition insecurity. As a result, the purchasing power of households continues to suffer, further exposing them to the risks of food insecurity.

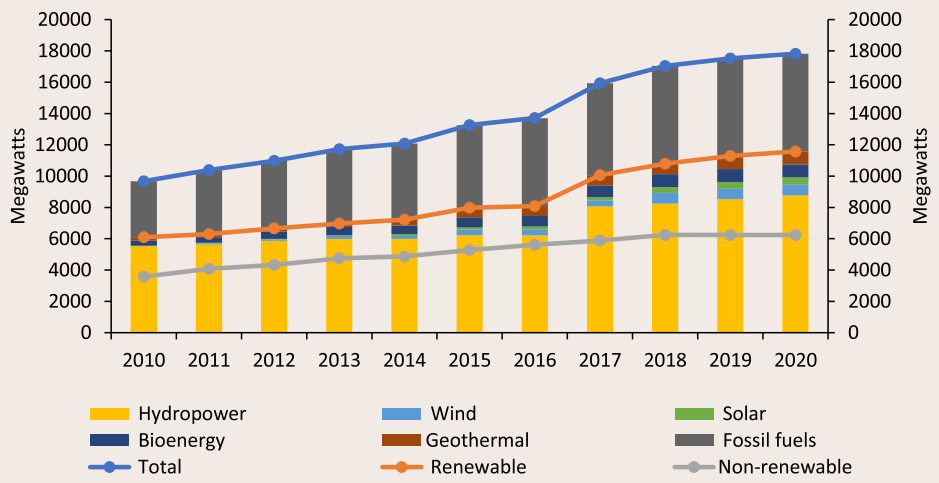
1.3.3 Higher global energy prices, global supply chain disruptions, and the strengthening of the US dollar have contributed to high energy prices in East Africa

East Africa's energy cost, especially electricity, oil, and gas, went up drastically in 2022. The region faces big challenges to energy security. The region's growing population and rapid urbanization have led to a significant increase in energy demand. However, the region's energy

East Africa experienced various significant socio-economic shocks in 2022, including conflict, inflation, drought, grain shortages, and the impact of climate change. Rising food and energy prices have worsened poverty and inequality in the region

infrastructure is insufficient to meet this demand, leading to energy insecurity. Moreover, the energy mix in EA has exacerbated the effect of climate change on energy security. The main sources of energy in East Africa are fossil fuels and hydropower (Figure 1.19). Hydropower is highly susceptible to climate change. The water levels in the major hydropower plants in the region fell due to the prevailing drought in the Horn of Africa, reducing the capacity to generate electricity. This has resulted in frequent power outages and a rise in electricity prices. Furthermore, the reliance on fossil fuels for energy generation has made the region vulnerable to fluctuations in global oil prices, making energy prices unstable and unpredictable.

Figure 1.19: Electricity installed capacity (megawatts) in East Africa (2010-2020)



Source: African Development Bank statistics

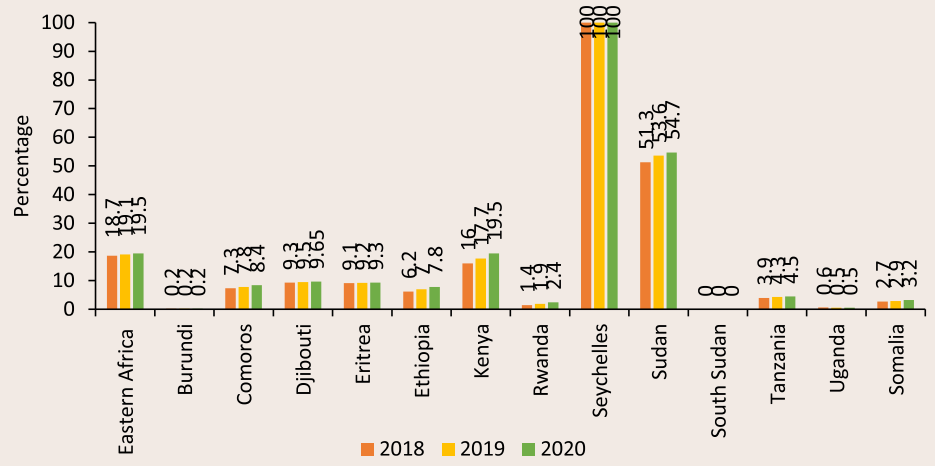
Energy insecurity has a considerable adverse impact on the economy, environment, and society in East Africa. Most notably, it hampers economic growth by reducing productivity due to power disruptions and high energy costs, which ultimately deters investors. Insufficient access to essential services, including communication, healthcare, and education, hampers societal development. Furthermore, the production of energy via fossil fuels increases greenhouse gas emissions that worsen the effects of climate change, including drought and flooding.

East Africa is vulnerable to the many impacts of climate change, and energy security is closely linked to climate change. Energy poverty is a significant challenge in the region, with many households relying on traditional biomass for cooking and heating due to the relatively high cost of electricity. This reliance on traditional biomass has led to health problems and environmental degradation. Increasing the use of cheap renewable energy sources, such as wind and solar sources, could help improve the region's energy security, reduce the region's carbon footprint, and mitigate the impacts of climate change. Furthermore, it would enhance access to electricity, with a significant impact on education, healthcare, and other social services.

The average access to clean fuels and technologies for cooking in the region stands at 19.5% of the population as of 2020. Seychelles (100%) has the highest access to clean fuels and technologies for cooking in the region. It is followed by Sudan (54.7%) and Kenya (19.5%). The remaining countries, namely Djibouti (9.7%), Eritrea (9.3%), Comoros (8.4%), Ethiopia (7.8%),

Tanzania (4.5%), Somalia (3.2%), Rwanda (2.4%), Burundi (0.2%), Uganda (0.5%) and South Sudan (0%) have access that is less than 10% (Figure 1.20).

Figure 1.20: Access to clean fuels and technologies for cooking (% of the population) in East Africa



Source: World Bank (2021)

1.4 Medium-term Economic Outlook and Risks

1.4.1 East Africa's growth is expected to outpace Africa's growth in the medium term, with the region projected to have the highest regional growth rates in 2023 and 2024

East Africa's economic recovery is regaining its pre-pandemic momentum and is projected to continue in the medium term. Compared to the other regions, EA stands out with the highest projected economic growth rates in 2023 and 2024: growth is expected to accelerate to 5.1% in 2023 and 5.8% in 2024. East Africa's growth prospects in 2023 will be driven by a rebound in economic growth in Uganda (6.5%), Ethiopia (5.8%), Kenya (5.6%), Seychelles (5.3%), and Djibouti (5.4%). East Africa's growth prospects will be held back by decline in growth Rwanda (7.6%) and Seychelles (5.1%) in 2023 from 8.2% and 9.5% in 2022 respectively.

Medium-term projections indicate that East Africa will continue to post the highest inflation rates in Africa, although inflation pressure is slowly easing. Inflation is projected to fall to 21.8% in 2023 compared to 28.9% in 2022. This will further decline to 17.7% in 2024. Inflation pressure in 2023 region emanates from four countries: Sudan (83.2%), Ethiopia (28.1%), Burundi (10.3%) and South Sudan (16.5%). In 2023, inflation in Sudan will be the second highest in Africa after Zimbabwe.

The fiscal situation in the region is set to improve in the medium term. The fiscal deficit (as a percent of GDP) in East Africa is projected at 3.7% in 2023 and 3.1% in 2024. This forecast is very close to the African averages for the two years (4.1% for 2023 and 3.8% for 2024). In 2023, all countries in East Africa are projected to record fiscal deficits, with the highest occurring in Rwanda (8.0%), Kenya (6.1%), Burundi (4.8%), and Uganda (4.6%), while South Sudan is projected to have a fiscal surplus of 3%, which will broaden to 6.8% in 2024. All other EA economies are projected to post fiscal deficits in 2024.

East Africa's growth is expected to outpace Africa's growth in the medium term, with the region projected to have the highest regional growth rates in 2023 and 2024

Current account imbalances in East Africa will be sustained in the medium term. The current account deficit in East Africa is expected to improve slightly by falling from 4.6% of GDP in 2023 to 4.3% in 2024 in line with the region's convergence criteria of 3% of GDP. In comparison, Africa's average current account deficit is estimated at 2.3% in 2023 and is projected to maintain the same level in 2024. Thus, the current account deficit of East Africa is almost double the average African current account deficit. Nevertheless, three countries in the EA region will post current account surpluses in 2023 and 2024: Djibouti (22.9% in 2023, 21.5% in 2024), Eritrea (10.8% in 2023, 10.2% in 2024), and South Sudan (7% in 2023 and 6.6% in 2024). The other ten countries will continue to record large current account deficits.

1.4.2 Risks to the outlook and tailwinds

External risks that could affect the medium-term outlook include global economic slowdown, commodity price fluctuations, Russia's invasion of Ukraine, international trade policies, and a resurgence of COVID-19. Any slowdown in the global economy could adversely impact the export-driven economies of East Africa, as it could lead to a decline in demand for their products, resulting in reduced revenue and economic growth. Since most East African countries are reliant on commodities such as oil, minerals, and agricultural products, fluctuations in commodity prices (partly arising from Russia's invasion of Ukraine) could affect their revenue and economic growth prospects. The prolonged uncertainties arising from Russia's invasion of Ukraine could lead to higher oil prices, which could in turn increase the cost of importing fuel and hurt the region's economy. Risks associated with COVID-19 to economic growth in East Africa are significant and could impact the region's development prospects in the short and medium term. Governments in the region need to continue to implement measures to mitigate the impact of the pandemic on their economies and prioritize investments in key sectors to drive economic growth.

Domestic risks that could affect the growth outlook include lack of infrastructure, conflicts and political instability, macroeconomic uncertainty, and climate change. Inadequate infrastructure, such as poor road networks, inadequate power supply, and limited access to finance, could limit economic growth in East Africa. Political instability in Sudan would not only lead to domestic social unrest and disrupt economic activities but could spill over into neighbouring countries. East Africa is susceptible to refugee inflows and cross-border conflicts, which could disrupt economic activities in the region. Inconsistent fiscal and monetary policies could create uncertainty among investors and businesses, limiting economic growth. East Africa is particularly vulnerable to climate change, which could adversely affect agricultural productivity, reduce water availability, and increase the frequency of natural disasters, thereby hurting the region's economic growth.

Several tailwinds could boost East Africa's medium-term outlook, particularly strong economic growth, infrastructure development, diversification of the economy, increased regional integration, and favorable demographic trends. The region has been experiencing strong economic growth in recent years, and this trend is expected to continue in 2023. Similarly, East African countries are investing heavily in infrastructure development, particularly roads, railways, ports, and airports. This is expected to boost economic activity by improving transportation and connectivity, reducing trade costs, and increasing access to markets. East African countries are diversifying their economies beyond traditional sectors such as agriculture and mining, and are investing in sectors such as

manufacturing, services, and technology; this is expected to create new opportunities for businesses and contribute to long-term economic growth. East African countries are also working towards deeper regional integration through initiatives such as the African Continental Free Trade Area (AfCFTA) and the East African Community (EAC) Common Market Protocol. These initiatives are aimed at reducing trade barriers and promoting intra-regional trade that could boost economic growth in the region. East Africa has a young and growing population, which offers opportunities for economic growth through increased consumer demand and a growing labour force. With proper investment in education and training, this demographic trend could help drive economic growth in the medium term.

1.4.3 Probable short, medium, and long-term effects of Russia's invasion of Ukraine

Russia's invasion of Ukraine is a complex geopolitical issue that will continue to affect global commodity prices, agricultural inputs, wheat imports, financial sector stability, energy prices, and supply chains. However, the impact on East Africa will depend on various factors, such as the types of commodities involved, their sources, and the level of trade relations between East Africa and two countries (Russia and Ukraine). Some possible short-term, medium-term, and long-term effects of the conflict on East African countries are presented below.

In the short term, there are possibilities of sustained pressure on the prices of fuel, fertilizer, and wheat. Russia is third largest oil producer in the World and a significant producer of fertilizer. Russia and Ukraine accounted for a marginal import to East Africa region at 2.3% in 2022. However, imports from the two countries are concentrated in wheat at 20% and fertilizer at 7%. Oil and wheat prices spiked after Russia's invasion of Ukraine but have subsequently drifted lower. Fertilizer prices rose sharply in 2021 and 2022 and remain high. Any further disruptions in the supply of oil, wheat, and fertilizer due to Russia's invasion of Ukraine may lead to another sharp rise in their global prices, which would have a direct impact on EA countries. Any rise in global commodity prices due to the conflict could also lead to an increase in inflation in East Africa. A sharp increase in these prices could affect the financial stability of households and businesses, especially those vulnerable to inflationary pressures.

The Ukraine conflict could lead to further disruption of supply chains, which may impact the financial sector. The disruption could affect the financial stability of some sectors in East Africa, as they may experience delays or disruptions in the delivery of critical inputs, such as technology, equipment, or services. Disruption in the supply chains could lead to an increase in operational costs for businesses in the financial sector in East Africa. This increase could be due to the need to find alternative sources of inputs, reorganize production processes, or invest in new technologies or equipment.

In the medium term, mineral prices may increase, foreign investment may fall, borrowing costs may go up, and supply chains may be reorganized. Russia is a major producer of minerals such as nickel, copper, and platinum. Any disruption in its production and supply could lead to fluctuations in global mineral prices, which could affect East African countries that trade in these minerals. The conflict could also lead to a reduction in foreign investment in East Africa, as investors may become more risk-averse and seek safer investment opportunities. This reduction could affect the financial stability of some sectors, especially those that are heavily reliant on foreign investment,

such as infrastructure and real estate. Any increase in global interest rates due to the conflict or the US Federal Reserve could lead to an increase in borrowing costs in East Africa. This increase could affect the financial stability of businesses and households that rely on borrowing to finance their operations or purchase assets. In addition, the conflict could lead to a reorganization of supply chains in the financial sector in East Africa, as businesses seek to mitigate any negative impact of the conflict on their operations. The reorganization could involve finding alternative sources of inputs or services, reconfiguring production processes, or diversifying supply chains to reduce dependence on any one supplier or region.

In the long term, agricultural prices may increase, new trade arrangements may emerge, and dependence on Ukrainian wheat imports by to East Africa will fade. The conflict could lead to a decrease in agricultural production in Ukraine, which could affect global food prices in the long term. The decrease in production could be due to various reasons, particularly the displacement of farmers, damage to farmland, or lack of access to essential resources. East African countries that import food products from Ukraine may experience a long-term rise in agricultural prices. In the long term, the conflict could lead to a shift in global trade relations. To mitigate any negative impact of the conflict on wheat imports, East African countries may seek to increase their domestic wheat production. This increase in production could lead to more jobs and income for farmers and contribute to the long-term food security of the region. However, this would require investment in agriculture infrastructure and technology, which could take time and resources. The conflict could also lead to investment in technology in the financial sector in East Africa, as businesses seek to improve their supply chain management capabilities. This investment could involve adopting new technologies to track and manage supply chains or investing in research and development to find alternative sources of inputs or services. East African countries may seek to establish new trade agreements with other countries to mitigate any negative impact of the conflict on their commodity prices. This shift in trade relations could have both positive and negative effects on the East African economy, depending on the terms of the new agreements.

1.5 Policy options to address macroeconomic and socio-economic challenges of rising inflation and subdued growth

1.5.1 Monetary, fiscal, and structural policy mix and policy coordination to address rising inflation

Short-term policies

Pursuing prudent monetary and fiscal policies that promote economic growth, productivity, and resilience are critical to addressing the continued inflationary pressures caused by high food prices. For countries with high inflation rates such as South Sudan and Ethiopia, raising the policy rates in the short-term will help anchor inflation expectations and drive inflation downwards. This should be supported by clear coordination with tighter fiscal policy focusing on priority spending in critical projects to achieve the desired outcomes.

The use of macroprudential policies to complement monetary actions will enhance financial stability in East African region. Policies that improve capital and liquidity in the financial sector are essential to support East Africa regional countries to achieve price stability in situations of high inflation. Countries with double digit inflation such as South Sudan, Ethiopia, Burundi and Rwanda to consider

building financial stability to cushion themselves against any fiscal risks that may arise. To mitigate the negative effects of fiscal risks, in the short-term, countries in East African region to consider domestic debt restructuring to avoid the occurrence of financial stability risks and achieve the debt target requirements.

Medium-term to long-term policies

Prudent monetary and fiscal policy mix that promote sector productivity to build resilience are important to achieve growth. Such measures include offering incentives to encourage investment in climate-smart agriculture in countries such as Kenya, Ethiopia, Tanzania, Uganda to improve the production of staple foods within the region. Governments in East Africa need to consider investment in infrastructure, such as roads and electricity, to reduce the cost of doing business and increase productivity. Regional governments also need to consider implementing policies to promote competition in markets that could help to reduce prices and promote efficiency. Regional governments could work to improve the ease of doing business in East Africa to attract investment and improve economic performance.

Coordination between fiscal and monetary policies should be enhanced in several ways. First, governments and central banks must continue to work together to coordinate fiscal and monetary policy interventions to ensure that their policy actions are aligned and complement each other. Secondly, East African countries could work together to coordinate policy interventions to address inflationary pressures in the region. Finally, regional organizations such as the East African Community (EAC) and the African Union (AU) could work with international organizations such as the International Monetary Fund (IMF) to coordinate policy interventions to address inflation in East Africa.

1.5.2 Options to mitigate tightening financial conditions

Short-term policies

Policy measures to mitigate increased debt vulnerabilities include strengthening debt management capacity, debt restructuring, strengthening fiscal discipline, and enhancing financial sector regulation. Governments of countries like Kenya, Ethiopia, and Tanzania, need to consider strengthening their debt management capacity to ensure effective monitoring and management of debt levels to reduce the risk of mismanagement or corruption. They could also consider refinancing or restructuring their debt to reduce debt service costs and improve debt sustainability. Governments can improve fiscal discipline to ensure that public spending is focused on priority areas and avoid excessive borrowing. They could also strengthen financial sector regulation to reduce the risk of financial sector instability that can lead to debt crises.

Medium-term to long-term policies

Policy measures to enhance domestic revenue mobilization, fiscal balance, and current account balance include improving tax collection, enhancing public financial management, promoting trade facilitation, and increasing foreign exchange reserves. Governments in East Africa should improve tax collection by strengthening tax administration, expanding the tax base, and reducing tax exemptions and incentives. Tax collection could also be enhanced through digitalization of all revenue streams to enhance efficiency and granting of incentives for formalization of informal sector enterprises. EA countries should consider enhancing public financial management to improve budget execution, reduce wasteful spending, and increase accountability and transparency.

Boost regional trade to build resilience to negative shocks such as the COVID-19, Russia's invasion of Ukraine and global economic slowdown. EA governments should also promote trade facilitation by reducing trade barriers, improving customs procedures, and promoting regional trade agreements. They should increase foreign exchange reserves to strengthen the balance of payments and reduce the impact of external shocks.

Simplifying the debt restructuring process and reforming the debt architecture will reduce debt distress levels and build fiscal space among developing countries to achieve economic growth. The current global debt architecture is facing significant challenges due to reduction in concessional loans and prolonged period of debt restructuring negotiations. Reforms on the debt architecture will help EA governments access international resources at affordable terms to finance critical infrastructure projects and build human and institutional capacity. The reforms should focus on strengthening capacity for regional multilateral financial institutions and review of global rating landscape that is used by many lending agencies to assess solvency of countries.

1.5.3 Reforming social safety nets and social protection programs, as well as supporting agro-allied industrialization

Short-term policies

Although specific policy measures to reform social safety nets and social protection programs will vary depending on the country and context, some proposed interventions include targeting those in need, implementing a universal basic income (UBI), conditional cash transfers (CCTs), workfare programs, agricultural subsidy programs and tax credits, infrastructure development, and research and development. EA governments can ensure that social safety net programs are targeted to those who need them the most. This could be done through means-testing or other eligibility criteria. They can also consider UBI, CCTs and workfare programs. UBI is a cash transfer program that provides a basic income to all citizens, regardless of their employment status or income level. It could be considered to provide a basic level of support for all citizens. CCTs provide cash transfers to households on condition that they meet certain requirements, such as sending their children to school or attending health clinics. This can help to improve the health and education outcomes of the population. Workfare programs provide cash transfers to individuals in exchange for work. This can help to create employment opportunities and provide a source of income for those who are able to work.

Medium-term to long-term policies

Policy measures to support agro-allied industrialization include providing subsidies and tax credits to encourage businesses to invest in agro-allied industrialization. This can help to create employment opportunities and improve the economic viability of the agriculture sector. In addition, EA governments can invest in infrastructure development, such as roads, power, and water supply, to support agro-allied industrialization. This could help to reduce the cost of production and make the industry more competitive. They could also invest in research and development to improve agricultural productivity and develop new technologies for agro-allied industrialization.

2

PRIVATE SECTOR FINANCING FOR CLIMATE AND GREEN GROWTH IN EAST AFRICA

KEY MESSAGES

- **East Africa received USD 7.6 billion, which represents 26% of Africa's total climate investments in 2020,** with 90% of this contributed by public actors and the private sector accounting for only 10%. Nevertheless, the region is behind in fulfilling its target of USD 739.4 billion required to achieve climate-resilient development over 2020-2030. Furthermore, in 2020, East Africa could only cover about 11% of its estimated annual climate financing needs of USD 67.2 billion. The resulting annual climate finance gap of USD 59.6 billion highlights the urgent need for increased investment in green-growth and climate resilience.

- **To close the climate financing gap in East Africa, about 50% (USD 29.4 billion annually) will need to come from the private sector.** Although governments have committed 11% of their budgets to achieve their climate and green growth needs and developed nations have committed to mobilize climate finance, these commitments only account for less than one quarter of the overall financing needs. Therefore, private investment and finance for climate action and green growth is critical. Investments in key sectors, such as renewable energy, sustainable agriculture and infrastructure, and forestry, could enhance East Africa's potential to deliver green economies if deliberate efforts are directed towards fostering the success of innovative instruments for private sector financing of green growth.

- **Tanzania has the lowest climate vulnerability and the highest Green Growth Index score in East Africa;** this illustrates a strong relationship between green growth and the ability to cushion against climate change. Burundi, with the lowest GDP per capita and equally low Green Growth Index score, has the least climate readiness and faces the greatest risks from climate change.

- **Private sector-led financing for climate action and green growth in East Africa faces several barriers that require targeted interventions.** These barriers include inadequate enabling policy and regulatory frameworks, limited access to finance and technical expertise, and weak risk management mechanisms. To overcome these challenges and release private

sector investment in climate action and green growth in East Africa, it is essential to implement a wide range of policy interventions. However, coordination is essential to ensure regional coherence for optimal implementation of climate and green growth interventions.

- **Scaling up private climate finance in East Africa will require a multisector approach with improvements across different stakeholders** including governments, multilateral development banks (MBDs), and private actors, as summarized below.

  - East African governments should design, cost, and implement long-term economy-wide strategies, consistent with the recommendations of the Independent High-Level Expert Group on Climate Finance that provide high-level and predictable policy guidance to domestic and international public and private stakeholders on key investment sectors.
  - National authorities should formulate and implement enabling regulatory and policy frameworks and develop markets to attract private investments and finance, particularly in priority climate and green growth sectors, while utilizing public resources to incentivize investments in these sectors. Considering their contribution to employment generation, micro, small, and medium enterprises should beintegrated into national climate and green growth strategies, particularly through access to affordable finance and skill development interventions. The African Continental Free Trade Area offers a framework for harnessing multi-country private sector investment opportunities.
  - Multilateral development banks (MDBs) and development financial institutions (DFIs) should expedite compliance with the Joint MDB Paris Alignment Framework and commit to implement the Bridgetown Initiative by harnessing their convening power to de-risk green growth investments in East Africa. This can be achieved through grants, concessional funding, and use of financial structures that eliminate barriers to investment, such as guarantees and other risk-sharing instruments to leverage emerging sources of private sector financing. However, this will require MBDs and DFIs to transform into more risk agnostic institutions to scale up investments in priority sectors.
  - International and domestic private sector actors should clearly outline the opportunities and needs, barriers, investment risks and gaps that hinder them from scaling up investments and share key information on previous projects and investments to help other stakeholders understand how existing and future project pipelines can be better matched with investment opportunities. They should also commit to aligning their investments with the Paris Agreement, including through ensuring that private finance and investments in East Africa consider climate risks and advance green transitions, sustainability, and climate resilience.
  - Furthermore, it is important to diversify allocations of private sector investment and finance to maximize economic, social, and environmental outcomes. Whereas significant investments are required for sustainable infrastructure (such as clean energy and transport systems, green buildings, and industry), achieving just transition to green growth requires countries to channel investments to other infrastructure that generate social and environmental development outcomes to trigger private investment.
  - Developed country governments should honor their Paris Agreement commitments to mobilize USD 100 billion of climate finance on an annual basis for developing countries. Furthermore, they should prepare to commit to a higher post-2025 climate finance target that is adequate to respond to developing country needs, and channel flows to climate action and green growth.

2.1 Introduction: The imperative for green growth and the role of private sector financing

2.1.1 Green Growth in East Africa

The African Development Bank (AfDB) 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" (African Economic Outlook, 2023). Adopting green growth approaches can help promote sustainable development across the continent by addressing existing and emerging development challenges without depleting Africa's natural capital or leaving economies and livelihoods more vulnerable to climate change and other environmental, social, and economic risks (AfDB and GGGI, 2021). However, the path towards a green transition with the triple crises of COVID-19, climate change, and Russia's invasion of Ukraine presents a significant challenge for many countries across the continent.

East Africa's economies face four common challenges that justify a strong, inclusive green growth agenda: reliance on agriculture for livelihoods, natural resource dependence, energy, and water scarcity. Therefore, to achieve green and climate-resilient development, East African countries need to leverage green growth pathways by leveraging key sectors such as renewable energy, sustainable agriculture, sustainable infrastructure, and forestry (AfDB, 2014). Additionally, a recent publication by McKinsey proposes that delivering energy access, building more resilient and productive economic capacity, improving health and quality of life in core areas such as sanitation and transportation, and opening major new export sectors across Africa are among the green growth opportunities that could deliver sustainable development, boost resilience, and abate emissions (Bouchene et al., 2021).

To build an inclusive green economy in East Africa, it is important to adopt a comprehensive approach that involves all stakeholders and promotes the role of private sector financing to accelerate the transition. The region can leverage six key sectors - renewable energy, agriculture, green industrialization, sustainable transport, sustainable tourism, sustainable construction, and the blue economy - to achieve a sustainable and thriving green economy.

To leverage the region's potential in green industrialization, several East African countries have already put in place policies and regulatory frameworks, for example the Ethiopian Industrial Parks Development Corporation (IPDC) framework which culminated in the establishment of an eco-industrial park in Hawassa. The park is powered mainly by hydroelectricity and features several energy-saving innovations in factory lighting and shared infrastructure. The potential for renewable energy is also immense; for instance, Kenya has an ambitious target of producing 5,000 MW from geo-thermal sources by 2030 capable of powering 15 million homes. Rwanda's National Strategy for Climate Change and Low Carbon Development (2011) has proposed the introduction of renewable energy feed-in tariffs and the promotion of public–private partnerships.

Private sector investments in agriculture could enhance the sector's resilience to climate risks and increase its contribution to green growth across East Africa. For countries like Burundi, Eritrea, and Uganda where 70-90% of the country's employment relies on the agricultural sector, private capital injection could lead to greater job creation and contribute to poverty reduction, further promoting sustainable development and inclusive economic development

in the region. East African countries that lie on key trade corridors in the region, such as Djibouti and Rwanda, have great potential for green growth in the freight transport sector as these countries are major transit hubs in the region. East African countries such as Ethiopia, Kenya, Somalia, and Tanzania have the potential to steer East Africa's maritime transport towards sustainability by embracing decarbonization, alongside digitalization and innovative technology, particularly automation.

The potential for sustainable tourism in East Africa is significant in countries like Comoros, Kenya, Seychelles, and Tanzania with rich natural attractions and cultural heritage. Research indicates that sustainable tourism practices, including eco-tourism, can contribute to the conservation of natural resources, support local livelihoods, and enhance the sector's resilience to climate change impacts (Toubes and Araújo-Vila, 2022). Sustainable blue economy in general holds significant potential in East Africa where estimates indicate that the sector contributes well over USD 10 billion each year to the region's economy (UNECA, 2016).

East Africa is well placed to advance its pursuit of climate and green growth ambitions to deliver inclusive and sustainable growth.

- First, the region's real GDP growth is projected to surpass the continental and global average over 2023-2024, despite the persistent headwinds. East Africa's GDP of over USD 550 billion represents about 20% of the continent's market size. Thus, integrating climate action and green growth into policy frameworks could further accelerate inclusive and sustainable growth.

- Second is the region's human resources. East Africa's population of over 400 million could double by 2050[4]. This predominately young population should catalyze green growth opportunities.

- Third, East Africa is endowed with significant natural resources, several of which are critical for the transition to green growth[5]. About 25% of Tanzania's land is gazetted as game reserve or national park and comprises the largest game reserve in the world.

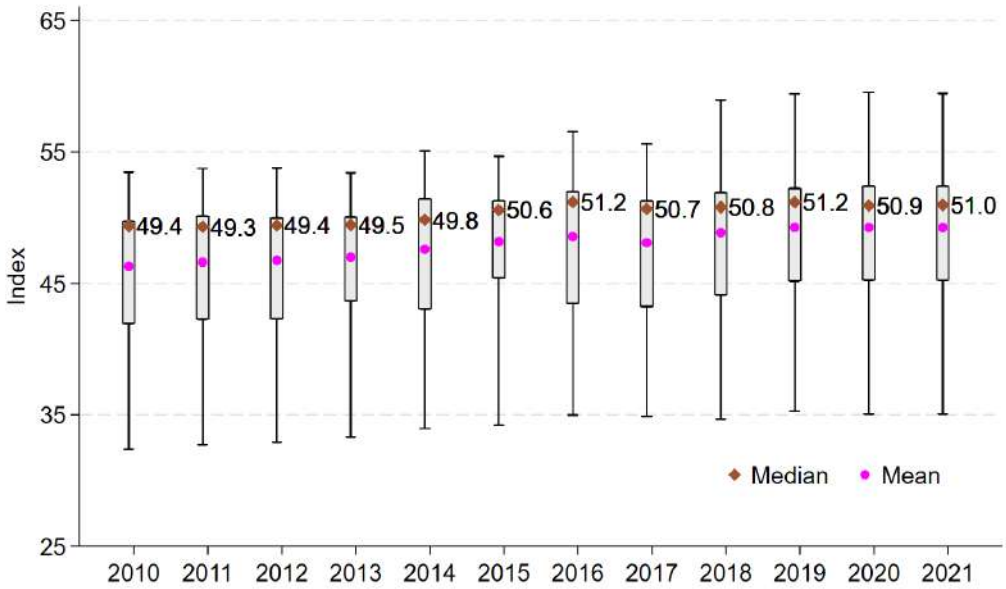
- Fourth is the renewable energy potential comprising geothermal, hydropower, solar and wind. East Africa is home to the continent's largest wind farm, the Lake Turkana wind plant in Kenya[6].

- Fifth, just like elsewhere on the continent, East Africa's low levels of development, low-legacy high-emissions infrastructure, and the relatively low default rates for infrastructure and project finance provide great potential for investments in green infrastructure and technology[7].

2.1.2 Progress towards green growth

The Green Growth Index Report 2021 of the Global Green Growth Institute (GGGI) indicated that East Africa's progress towards green growth has been slow over 2010-2021. The Green Growth Index (GGI) is aligned with the SDGs and provides a composite index of about 40 indicators grouped in four dimensions[8]. Normalized between 0 and 100, the GGI score is contrasted with sustainability, such that the higher the score, the closer the proximity of a country or region to achieving green growth or sustainability ambitions. East Africa's GGI average score ranged between 46 and49 over 2010-2021, oscillating from a median of 49 in 2010 to 50 in 2021, amid noteworthy cross-country heterogeneity as illustrated by the inter-quartile range (Figure 2.1).

Figure 2.1: Green growth index in East Africa, 2010-21



Source: Staff calculations based on Global Green Growth Institute database

Five countries (Burundi, Ethiopia, Kenya, Tanzania, and Uganda) out of the 13 East African countries are ranked among the good performing countries in Africa on the GGI[9]. Tanzania tops the African list in 2020, having nearly reached its target for gender balance, with the highest score in social inclusion. Tanzania has performed well in sustainable energy and material use efficiency and has the second-highest score for green investment. Despite Tanzania's commendable achievements, its GGI still stands at a modest 56.1 out of 100 for the 2010-2021period. This score indicates that the country is only about halfway towards reaching its sustainability and green growth targets. Hence, while we celebrate the progress made, there is still significant work to be done for Tanzania to fully realize its green growth and sustainability objectives. Rwanda leads in natural capital protection in East Africa and has developed Natural Capital Accounts (NCA) for land, water, minerals, and ecosystems. However, data gaps affect the relevance of indicators in the Green Growth Index (GGGI, 2020), and the current index covers only seven out of the 13 East African countries.

Green growth supports climate resilience and readiness and reduces vulnerability. Analysis of Green Growth Index, climate vulnerability, climate readiness, and GDP per capita for the seven ranked East African countries (Table 2.1) shows that Tanzania, with the lowest climate vulnerability and the highest GGI score, has the highest green growth score and the ability to cushion against climate change. Burundi, with the lowest GDP per capita and equally low GGI score, has the least climate readiness and faces the greatest risks from climate change. Africa will require approximately USD 1.3 trillion annually to meet Africa's sustainable development needs by 2030, and hence achieve green growth. Most of these finance needs are expected to be met through the mobilisation of private finance. To meet these needs and given current levels of public climate finance, private climate finance should increase annually by about 36% until 2030. (AEO, 2023).

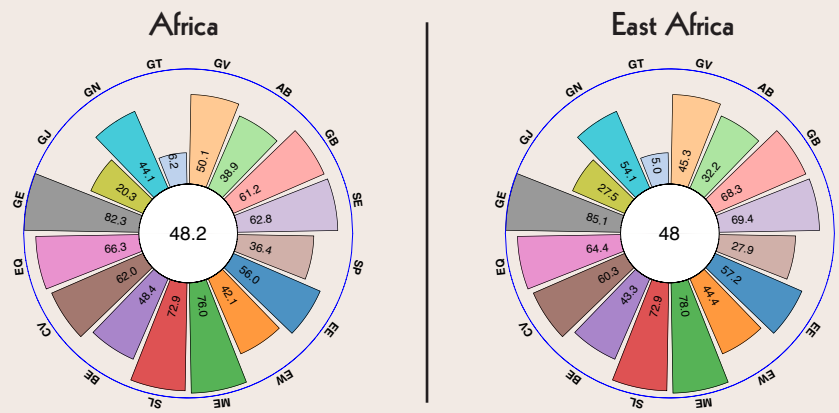
Table 2.1: Green Growth Index, GDP per capita, Climate Vulnerability Index, and Climate Readiness Index of five East African countries, average 2010-2021

Country	Green Growth Index	2021 GDP Per capital (USD)	Climate Vulnerability Index[10]	Climate Change Readiness Index	Climate Resilience Index
Burundi	43.73	221.5	55.95	24.92	15.85
Ethiopia	50.27	925.1	57.0	29.74	17.52
Kenya	50.15	2,081.8	53.59	27.23	32.79
Rwanda	50.20	822.3	59.58	38.94	36.68
Sudan	34.11	751.8	61.94	25.41	31.21
Tanzania	56.12	1,099.3	52.93	29.88	24.0
Uganda	51.19	883.9	58.14	27.96	24.99

Source: Compiled by the author, using data from various sources. Only EA countries with a Green Growth Index score are presented in Table 2.1. Average for 2010-2021. Current USD

East Africa's GGI score of 48 over 2010-2021 largely mirrors Africa's average of 48.2 (Figure 2.2). Across the continent, East Africa only ranks ahead of North Africa (42.9) and lags behind Central Africa (51.5), Southern Africa (49.3), and West Africa (48.2). East Africa's score is mainly driven by its good performance on greenhouse gas emission reductions (GE), material use efficiency (ME), and sustainable land use (SL). However, East Africa faces challenges in green trade (GT), green employment (GJ), social protection (SP), and access to basic services and resources (AB).

Figure 2.2: Distance to targets of green growth indicators in Africa and East Africa, average 2010–2021



*Notes: **AB:** Access to basic services and resource. **BE:** Biodiversity and ecosystem protection. **CV:** Cultural and social value. **EE:** Efficient and sustainable energy use. **EQ:** Environmental quality. **EW:** Efficient and sustainable water use. **GB:** Gender balance. **GE:** Greenhouse gas emissions reductions. **GJ:** Green employment. **GN:** Green innovation. **GT:** Green trade. **GV:** Green investment. **ME:** Material use efficiency. **SE:** Social equity. **SL:** Sustainable land use. **SP:** Social protection.*
Source: African Economic Outlook, 2023.

2.1.3 Significance of private sector financing

East Africa's sustainable development requires addressing climate change and promoting green growth, which will require significant resources. The 2023 Africa Economic Outlook report estimates that Africa requires an average of USD 2.67 trillion over 2020- 2030 to implement its climate action as expressed in the latest submitted Nationally Determined Contributions (NDCs). Therefore, Africa needs to mobilize USD 242.4 billion annually to supplement constrained public resources (African Economic Outlook, 2023). With the unfulfilled promise of mobilizing USD 100 billion in climate finance by developed countries and fiscal constraints in most African countries, alternative financing sources from the private sector are needed.

The private sector has a critical role to play in unlocking financing for climate action and green growth in East Africa. Some examples to showcase the private sector's potential contributions to sustainable development include: Lake Turkana Wind Power - Kenya's largest single private investment, adding renewable energy equivalent to 17% of Kenya's installed electricity generating capacity; BBOXX—a Rwandan enterprise - provides affordable, solar-powered electricity to off-grid communities in Rwanda and has raised over USD 50 million in funding from private investors; and green buildings are taking shape in the region, such as the construction of green student hostels by private investors in Kenya.

Private sector financing can mobilize finance, promote innovation, create jobs and economic growth, reduce climate risks, and promote public-private partnerships. Therefore, it is critical to leverage private sector financing and strategic public sector-driven collaborations (see Box 2.1) to enable climate-resilient development and green growth in East African economies.

Box 2.1: Public Sector-Intergovernmental organization collaboration to catalyze private sector investments in climate and green growth for climate resilience

The public sector and intergovernmental organizations can collaborate to encourage private sector investment in climate action and green growth. Take for instance, the partnership between the UNDP NDC Support Programme, Private Sector Foundation Uganda (PSFU), and the Government of Uganda through the Ministry of Water and Environment's Climate Change Department. The programme is currently supporting the private sector and government institutions to establish a National Green Investment Fund that will support financing and investments in both public and private sector green growth and low carbon technologies.

Such an initiative can help enhance climate resilience in the country by supporting the development of an enabling environment for private sector investment in climate adaptation and resilience. This could include support for regulations to incentivize private sector investments and access to finance, as well as capacity building activities to support companies in developing bankable project ideas to access climate finance. By mobilizing private sector investment in climate adaptation and resilience, these initiatives could help build the country's capacity to respond to and recover from the impacts of climate change.

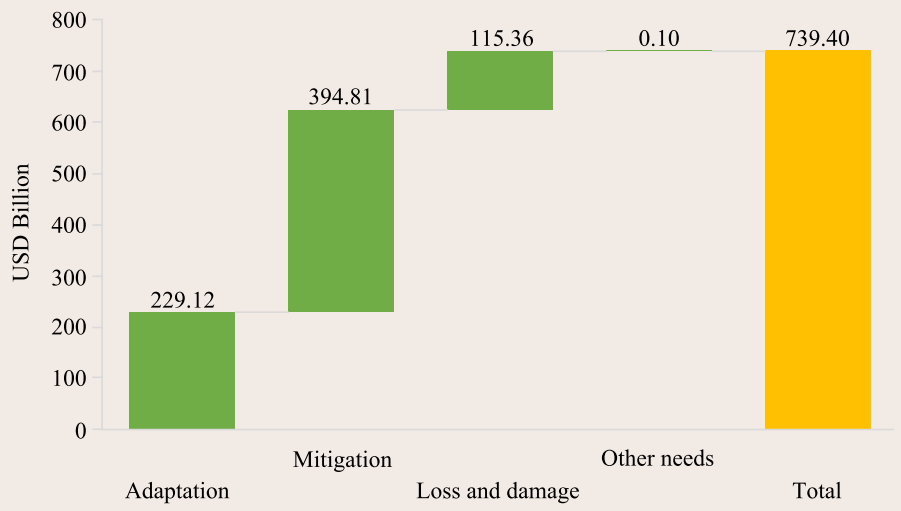
2.2 Private sector financing landscape in East Africa

2.2.1 Financing needs for climate action and green growth in East Africa

East Africa requires an estimated USD 739.4 billion between 2020 and 2030 to implement its Nationally Determined Contributions (NDC)[11]. However, the region received only USD 7.6 billion in climate finance flows in 2019/20 (CPI, 2022), which is less than 1% of global climate finance flows. The annual climate finance needs for African countries are more than 8 times the annual climate flows for 2019/2020, indicating the huge financing gap for African countries to finance their NDCs and green growth (AEO 2023). Domestic and international private sector finance would significantly help to close the huge climate finance gap in East Africa; an enabling environment would therefore be created. Figure 2.3 below illustrates the cumulative climate finance needs for the region for the 2020-2030 period.

East Africa requires an estimated USD 739.4 billion between 2020 and 2030 to implement its Nationally Determined Contributions. However, the region received only USD 7.6 billion in climate finance flows in 2019/20, which is less than 1% of global climate finance flows

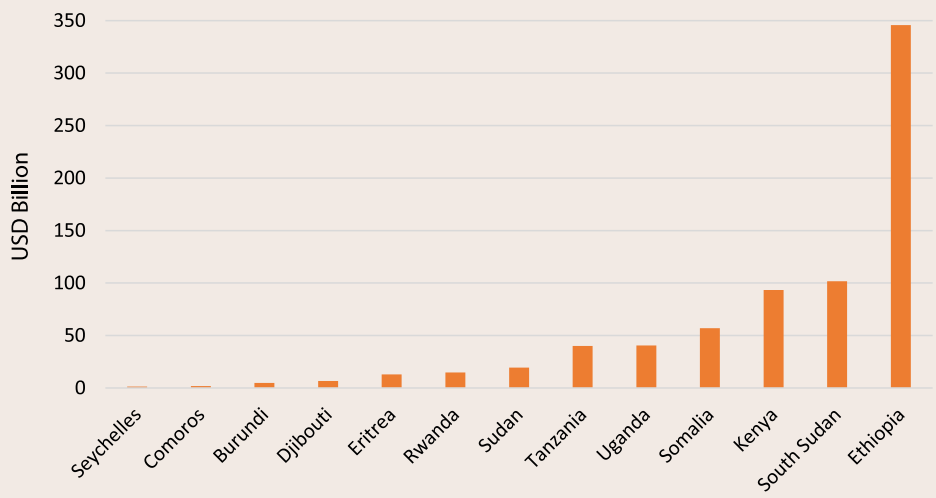
Figure 2.3: Cumulative climate finance needs for the 2020-2030 period, USD Billion



Source: Computations based on CPI's Climate Finance Needs of Africa and AfDB

Out of East Africa's total climate finance needs of USD 739.4 billion, Ethiopia (46.8% of total), South Sudan (13.8%), and Kenya (12.6%) accounted for almost three quarters (73.1%) of total climate finance needs for the region. This is also attributed to the large size of these countries and huge mitigation needs. For example, Ethiopia's mitigation needs stood at USD 275 billion, which was 80% of its national climate finance needs. On the other hand, climate finance was lowest for Comoros (0.2% of total), Seychelles (0.2%), and Burundi (0.6%) partly due to relatively small economies and limited technical capacity to estimate climate finance needs. Figure 2.4 below shows the East Africa countries' climate finance needs.

Figure 2.4: East Africa's average climate finance needs – 2020-2030, USD Billion



Source: CPI's Climate Finance Needs of Africa

East African governments plan to allocate 11% of their national budgets on average to finance their respective NDCs. These allocations are far below their climate finance needs and form significant proportions of their respective GDPs. Three Eastern African countries led by South Sudan, Somalia, and Seychelles have annual climate finance needs that exceed 50% of their current GDP. Therefore, they will require significant domestic and international public and private support for the successful implementation of their NDCs and for achieving green growth and sustainable development. Other countries such as Kenya, Djibouti, Sudan, and Rwanda, whose annual climate needs are less than 10% of their GDP, are better positioned to mobilize domestic finance and attract international public and private finance for climate action and green growth. The climate needs for East Africa are estimated to be higher than reported due to limited data and lack of reporting on loss and damage, which requires further attention.

The adaptation sectors with high needs in East Africa are Agriculture, Forestry, and Other Land Use (AFOLU), ecosystem and biodiversity, disaster prevention and risks assessment, coastal zone, water, and infrastructure, and other cross-cutting sectors. The country with the highest climate resilience needs is South Sudan at 75% of the total climate action needs. The underlying climate resilient development sectors with high needs were AFOLU, energy, industry, and transport (CPI, 2022). The future of Africa is urban, with an estimated population expected to reach 2.5 billion by 2050. Therefore, sustainable infrastructure, including energy systems, transport, construction, and industry, will require the highest proportion of total financing needs, accounting for approximately 57% of the total. These key sectors are crucial for the development of the region and ensuring a sustainable future.

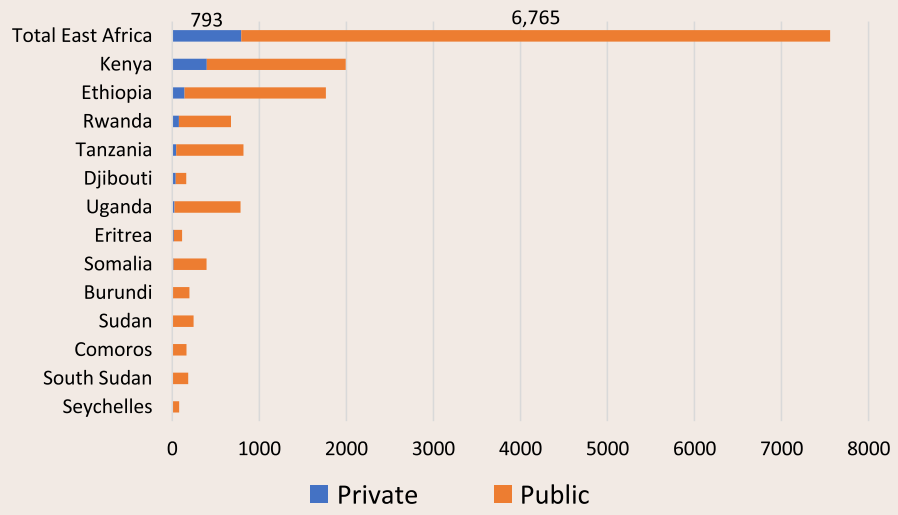
2.2.2 East Africa's finance flows to climate action and green growth

Over the past decade, climate finance flows to Africa have increased fourfold to reach USD 29.5 billion out of the global flows of

USD652.6 billion in 2019/2020 (CPI, 2022). However, Africa still faces a huge climate finance gap, with only 4.5% of global climate finance flows being directed to the continent. Public finance sources remain the dominant source of climate finance in Africa, contributing 86% of the total, with international public sector sources leading the way. Private sector finance accounts for only 14% of the total climate investments, mainly in the form of loans and equity.

East Africa received 26% (USD 7.6 billion) of Africa's total climate investments in 2020, with Kenya and Ethiopia leading the way with USD 2.0 billion and USD 1.8 billion respectively. Fig.2.5a shows the region's country distribution of the climate flows. The largest share of climate finance flows in East Africa went to adaptation (52% of the total), confirming investments in the region's priority adaptation sectors due to its vulnerability to climate change. Mitigation received 39% of the total, while cross-cutting objectives accounted for 9%.

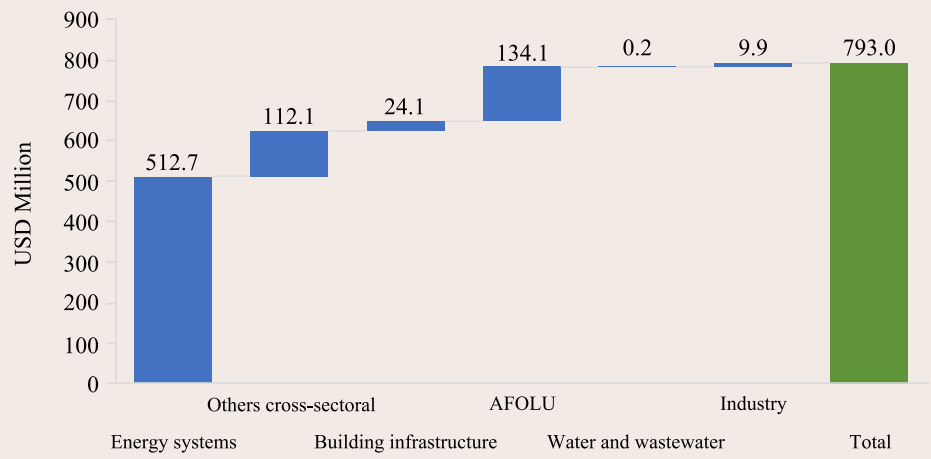
Figure 2.5a: East Africa climate flows 2019/20, USD Million



Source: AEO and CPI's Landscape of Climate Finance in Africa database

Mitigation, particularly through the energy sector, accounts for the largest share of private finance in East Africa, which leaves other highly vulnerable sectors with about one-third of total climate finance flows. Mitigation projects, particularly renewable energy and energy efficiency, accounted for 65% of East Africa's total private climate finance flows (Figure 2.5b), largely from corporations and commercial financial institutions. The limited private financing to adaptation is because it is considered a risky investment as returns are perceived to be low and unstable. The absence of investment ready and bankable adaptation projects is another hinderance. Building infrastructure received only USD 24.1 million (3%) although it is a key sector for green growth. The high capital requirements, weaknesses in the enabling governance frameworks, and protracted construction processes are among the key hinderances to crowding in additional private finance and investment.

Figure 2.5b: Sector breakdown of private climate finance across East Africa, average 2019–20



Source: Staff calculations based on the Climate Policy Institute's Landscape of Climate Finance in Africa database.

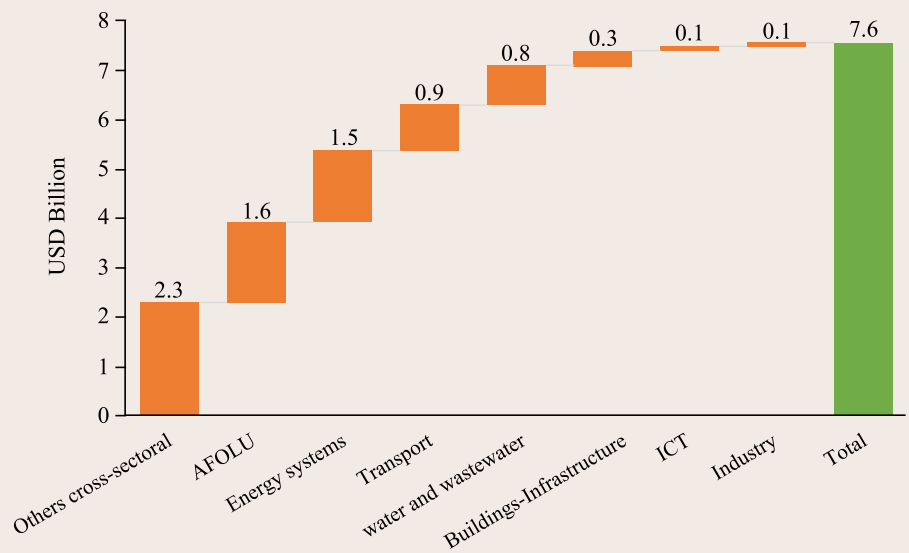
Despite being the most vulnerable, Agriculture, Forestry, and Other Land Use and Fisheries (AFOLU) and water received only USD 134.1 million (16.9% of total) and USD 0.17 million in private finance and investments in 2019/2020 respectively, with over 80% coming from institutional investors. However, the bulk of AFOLU-affiliated projects that receive private financing, for instance solar irrigation, are also interlinked with energy systems and water, which would affect accuracy in reporting. Overall, private investment in AFOLU and water is not adequately captured considering that the projects are typically low value, small-scale, and multi-sector, which makes them hard to value and relatively unattractive to private investors[12]. Other cross-cutting areas, particularly capacity building, education, health, and food, received USD 112.1 million (14.1% of total private finance), largely in the form of grants and development partner funding.

Several factors affect climate flow to the region, particularly economic size, financial sector depth, and quality of the institutional and regulatory frameworks. Ethiopia and Kenya received the highest private finance, 68% of total private finance to East Africa, because of their relatively large economies, more advanced financial markets, conducive regulatory environment and large infrastructure, and renewable energy project pipelines. Governments in the region need to do more to catalyze private investments to these sectors by implementing policy and regulatory frameworks and providing risk enhancement facilities, such as insurance and guarantees. The most vulnerable countries in the region, such as Sudan, South Sudan, Eritrea, and Comoros, receive the least climate investments due to their weak institutional frameworks and human capacities, which make it challenging to mobilize both public and private finance.

For total public and private climate investments, besides other cross-cutting areas, AFOLU received the largest share in East Africa in 2020, accounting for 21% of the total (Figure 2.6). The energy sector received the highest share of mitigation investments at 19%. The transport sector followed with 12%, and water and wastewater received 11% (CPI, 2022). Although AFOLU sectors are the most

vulnerable to climate change, investments in these sectors remain insufficient, with only 21% of climate finance flows directed towards them. Agriculture is the backbone of East Africa's GDP and is at high risk due to droughts and locust invasions. Therefore, more private sector investment in digital agriculture and soil management, for instance, is crucial for the sustainable development of East Africa's agricultural sector. By leveraging advanced technologies, local farmers can optimize crop yields, conserve water resources, and reduce environmental degradation. Since East Africa faces challenges, such as climate change, rapid population growth, and food insecurity, private sector involvement can provide the required resources and innovation to facilitate the adoption of digital agricultural practices. These investments not only help create a more efficient and productive agricultural industry, but also contribute to improving the livelihoods of small-scale farmers, fostering rural development and ensuring food security for the region.

Figure 2.6: East Africa climate flows by sector 2019/20, USD Billion

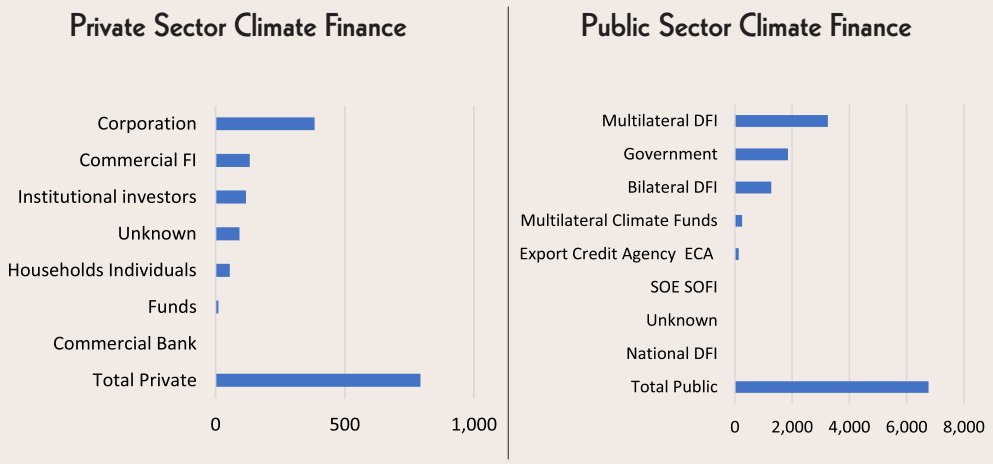


Source: CPI's Landscape of Climate Finance in Africa database

2.2.3 Sources of private sector climate finance and deployment of innovative finance instruments in East Africa

Private finance for climate action in the East Africa region accounted for only 10% (USD 793 million) of the total climate finance flows, with public finance being six times higher. The public sector contributed USD 6.7 billion (86% of the total finance flows), with international public actors, such as multilateral and bilateral finance institutions, making up 67%. Figure 2.7 shows the region's key sources of public and private sector finance flows. The major sources of private sector climate finance in East Africa were corporates (48%), commercial financial institutions (17%), and institutional investors (15%), with only about 7% coming from households and individuals.

Figure 2.7: Public and private sector sources of climate finance in East Africa, USD Million

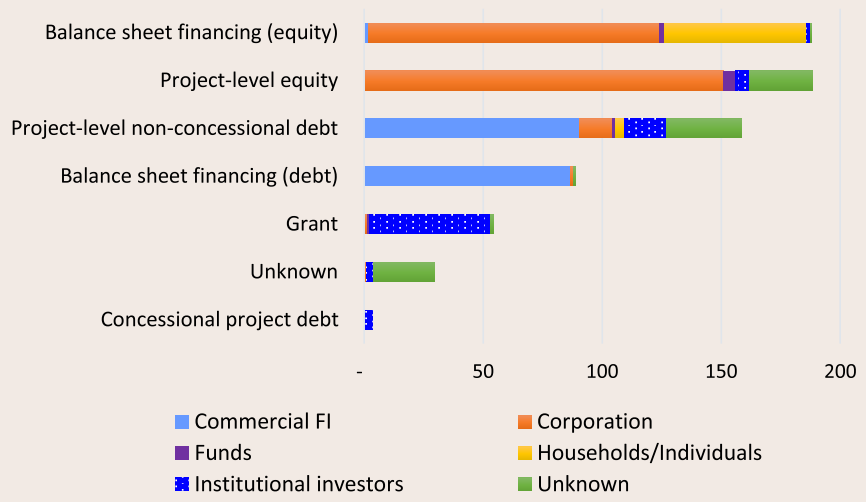


Source: Computations from CPI's Landscape of Climate Finance in Africa database

Various factors determine the preferred source of climate and green growth funds in East Africa, such as the political climate, size of private sector entities, sector concentration, type of financing instrument needed, perceived risks, and pricing. Large regional and local commercial banks tend to obtain funding from multilateral development banks (MDBs) and development financial institutions (DFIs), whereas medium-sized banks often prefer to source funds from investment funds. Small and medium-sized enterprises (SMEs) primarily seek finance from commercial banks, microfinance institutions, and investment funds. East Africa has yet to tap the potential of the asset management sector, particularly pension funds, insurance, and capital markets, as a source of private sector finance.

The financing instruments that are mostly used in East Africa by private actors are equity 47% (USD 376 million) and debt 32% (USD 250 million) (Figure 2.8). Grants accounted for only 7% (USD 54 million) of private finance in the region. Corporates provided finance in the form of equity, while commercial FI's were the main source of debt for both project-level and balance-sheet financing. Institutional investors provided the largest proportion of grants, as well as debt and equity. An example of an equity investment in 2019, M-KOPA, a Kenyan pay-as-you-go solar company, secured USD 20 million in equity financing from several investors to expand its operations across East Africa. Similarly, the African Development Bank approved a USD 20 million equity investment in the Climate Investor One (CI1) Fund, which finances renewable energy projects in East and Southern Africa.

Figure 2.8: East Africa private climate finance by instruments and sources 2019/20, USD Million



Source: Computations from CPI's Landscape of Climate Finance in Africa database

Various instruments are used by the private sector to finance its climate investments in East Africa, with close to 80% through non-concessional debt and equity

Box 2.2: Seychelles, debt-for-climate swaps

The 2015 Seychelles transaction involved the Government of Seychelles and TNC (The Nature Conservancy) to buy back USD 21.6 million of public bilateral debt, primarily to Paris Club creditors, for USD 20.2 million (a discount of 6.5%). The Government of Seychelles used private philanthropic funding and loan capital raised by TNC's NatureVest conservation investment unit to buy the debt through a newly established Seychelles Conservation and Climate Adaptation Trust (SeyCCAT). In return, the government issued two promissory notes amounting to the same USD 21.6 million, to pay off the TNC loan and to endow SeyCCAT.

SeyCCAT became the new owner of the debt, to which the government will pay back over a longer tenure, providing a cash-flow relief on repayments. The government committed to protect 30% of its waters, protect 15% of its high biodiversity areas, and adopt a marine spatial plan to guide the update of coastal zone management, fisheries, and marine policies. Since 2015, in line with its commitment under the debt swap, Seychelles has progressed from protecting 0.04% to 30% of its national waters. Seychelles developed the "Seychelles Blue Economy Strategic Policy Framework and Roadmap" in 2018 which provided the required foundation for an integrated approach to ocean-based sustainable development bringing together economy, environment, and society, hence the success of this intervention.

2.2.4 Fostering the use of innovative instruments for private sector financing of green growth

The East African region boasts considerable potential for green growth investment prospects. However, to unlock this potential, innovative financing strategies are needed. Traditional financial tools, such as concessional loans and grants, have not sufficiently tackled the financial barriers that have hampered investment in the region. To stimulate

large-scale investment in green growth solutions, it is crucial to embrace innovative climate finance frameworks that enhance capital efficiency and address these obstacles. At the same time, the selection of suitable financial instruments and mechanisms must be tailored to the specific context of each investment opportunity. For example, carbon finance presents a viable solution to the ongoing revenue risk associated with high climate impact projects, such as clean cookstove distribution, land restoration, and forest conservation. This report presents four pioneering financial instruments that have been introduced throughout the region. According to a 2020 study by the Global Green Growth Institute, innovative financial instruments could potentially mobilize up to USD 2.5 trillion in green investments globally by 2030. Table 2.2 summarizes the innovative instruments and details, including the key success factors and challenges, as presented in Appendix 2.1.

Table 2.2: Innovative instruments/mechanisms for private sector climate finance

Type of instrument	Carbon markets	Climate risk insurance	Climate-related bonds (Green, Blue, & Sustainability Bonds)/ GBS Bonds	Climate-related debt swaps
Current performance	**Carbon markets offer an incredible opportunity to unlock billions for the climate finance needs of East African** economies while expanding energy access, creating jobs, protecting biodiversity, and driving climate action. Eleven percent of the total carbon credits generated originate from Africa (Global market USD 2 billion). Kenya, for instance, issued an estimated 26 million credits in total for the period from 2016 to 2021[13].	**23 African financial regulators** for insurance are members of the International Association of Insurance Supervisors (IASA), an international standard setting body for insurance supervisors. IASA recently prepared an Application Paper to support insurance supervisors in their efforts to integrate climate risk considerations into the supervision of the insurance sector[14].	The global GBS bond market has grown substantially in recent years, but SSA sovereign issuance remains limited. Sub-Saharan African countries have taken varied approaches to kickstarting green and sustainability bond issuance, including top-down incentives, and building national and supranational frameworks[15].	While most of Africa's scarce experience with debt swaps has been with debt-for development or debt-for-health swaps (dating back to the late 1980s), interest in debt-for-climate swaps is growing. **Cameroon, Ghana, Kenya, Madagascar, Nigeria, and Zambia** undertook debt-for-nature swaps between the late 1980s and early 2000s[16].
Use case	Africa Carbon Markets Initiative (ACMI) has an ambitious goal of producing over 1.5 billion credits annually in Africa that has the potential to unlock over USD 120 billion in funds and support over 110 million jobs by 2050.	FSD Africa is working on setting up a local underwriting pool that will provide de-risking solutions to enable the crowding-in of private capital to renewable energy projects in Kenya[17].	Benin's EUR 500 sovereign sustainability bond. In Seychelles, the Blue Carbon Seychelles program is exploring innovative financing mechanisms, such as blue carbon bonds, to support the conservation and restoration of the country's coastal ecosystems.	The Seychelles tripartite debt-for-climate swap facilitated by The Nature Conservancy in 2015 for Seychelles (TNC, a US conservation group). The TNC raised USD 28 million (USD 23 million from investors and USD 5million from donors) to acquire USD 30 million of Seychelles' debt from its creditors at

				a discount. The debt was then restructured to USD 15 million. Seychelles repaid the loan through a trust that transferred the payments to investors. The savings from this operation were in turn invested in ocean conservation (CBD 2016).
Estimated potential	USD 5-30 billion[18]	Insurance penetration is exceptionally low in Africa at 0.8%, compared to Asia's average of 1.8%, Europe's 2.7%, and North America's 4.1%[19]. Insurance penetration is concentrated in a few major markets in East Africa like Kenya. The potential for growth is immense.	In Africa, GBS bond issuance is quite small (0.3% of total African bond issuance) and is dominated by South Africa and East African countries like Kenya and Seychelles. Moreover, the greenium has so far been small relative to countries' debt burdens[20]. However, sustainability/social bond issuance is even more limited. Accordingly, the potential for the deployment of this instrument is still significant.	**Many East African countries have sovereign debt levels at or above 100% of their GDP. Total government debt in East Africa varied significantly from one country to another.** It was estimated to reach 186% of Sudan's GDP in 2022. On the other hand, it amounted to 31% of Comoros' GDP. Government debt was projected to increase in Comoros, Ethiopia, Kenya, Rwanda, and Uganda in comparison to 2021[21]. Consequently, these countries are spending more on repaying their debts than fighting climate change. Hence there is a significant need for swaps.

Source: compiled by the author from various sources

The success of innovative sources and mechanisms for private sector financing in East Africa depends on several factors (see Box 2.3) including conducive policies and regulations such as Kenya's GESIP 2016-2021 and the East African Community (EAC) Climate Change Policy Framework that support private sector investment in climate finance and green growth projects, capacity-building, and awareness-raising activities for stakeholders. The EAC Climate Finance Mobilization and Access Project aims to strengthen the capacity of Partner States to access and manage climate finance from various sources.

Box 2.3: Factors that determine the level of private sector investments in climate action and green growth in any country or region:

- ***Government policies and regulations:*** The policies and regulations implemented by the government can have a significant impact on the level of private sector investments in climate action and green growth. Policies such as carbon pricing, renewable energy targets, and green finance initiatives can create incentives for private sector investment. The Uganda Climate Change Act that came into force in 2022, for instance, provides a legal framework and the required enabling environment for climate action and financing.
- ***Market demand:*** The level of demand for sustainable products and services can drive private sector investments in climate action and green growth. Consumers are increasingly interested in sustainable products and services, and companies that respond to this demand can benefit from increased sales and market share. A recent report from Aspen Institute indicates that green entrepreneurship in Kenya offers a USD 123 billion market opportunity. The most significant market opportunity is found in the waste management and circular economy sector (USD 54 billion), followed by sustainable agriculture and aquaculture (USD 33 billion) and water management (USD 22 billion).
- ***Access to finance:*** Access to finance is critical for private sector investments in climate action and green growth. Availability of funding from banks, investors, and other financial institutions can support the growth of sustainable projects and initiatives. The African Green Bank Initiative recently launched by AfDB provides a model for deploying green financing across the continent which includes technical assistance to governments and financial institutions in creating and capitalizing green facilities, co-investing alongside those in green projects, and providing de-risking instruments to increase private sector mobilization.
- ***International or regional agreements and commitments:*** International agreements, such as the Paris Agreement, can create a framework for countries to reduce greenhouse gas emissions and promote sustainable development, which could in turn encourage private sector investment in climate action and green growth. Regional examples include the Africa Adaptation Acceleration Program (AAAP) which is a joint initiative of the African Development Bank and the Global Center on Adaptation (GCA). It aims to mobilize USD25 billion, over five years, to accelerate and scale climate adaptation action across the continent.

The private climate finance gap is projected to reach USD 59.6 billion annually on average for the East Africa region

2.3 Private sector financing gap for climate action and green growth

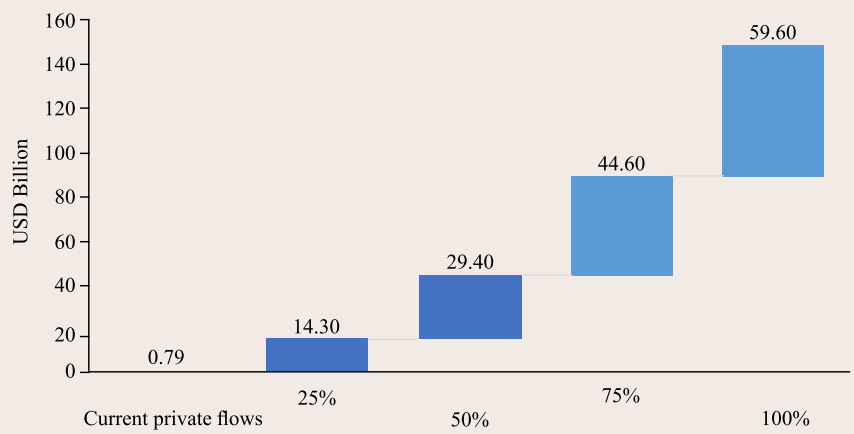
2.3.1 Financing gap for green growth in East Africa

East Africa's private climate finance gap is projected to reach USD 59.6 billion annually over the 2020-2030 period, ranking as the second largest gap on the continent after the Southern Africa region. The African Economic Outlook (AEO) 2023 projects that private sector contributions will account for between 25% and 75% of the residual of the financing needs – the difference between climate finance needs and public climate finance flows, based on current global trends in private climate finance. Four scenarios are considered:

- A conservative scenario where the private sector contributes to closing 25% of the residual climate finance needs. This is approximately 15 percentage points higher than the current share in the climate financing mix.
- A moderate scenario with a 50% contribution from the private sector, consistent with the average current contribution globally.
- An ambitious scenario, in which the public sector accounts for 25% of total climate finance.
- A very ambitious scenario where the private sector covers the entire shortfall in public resources to bridge the region's climate finance gap.

Consequently, the private sector finance gap is projected to increase by about USD 59.6 billion per year on average for the East Africa region if the private sector covers all the residua financing needs (Figure 2.9). Under the conservative scenario, the gap is projected at USD 14.3 billion annually, increasing to USD 29.4 billion if the private sector contributes to bridge half of the residual finance needs, and USD44.6 billion if its share rises to 75%.

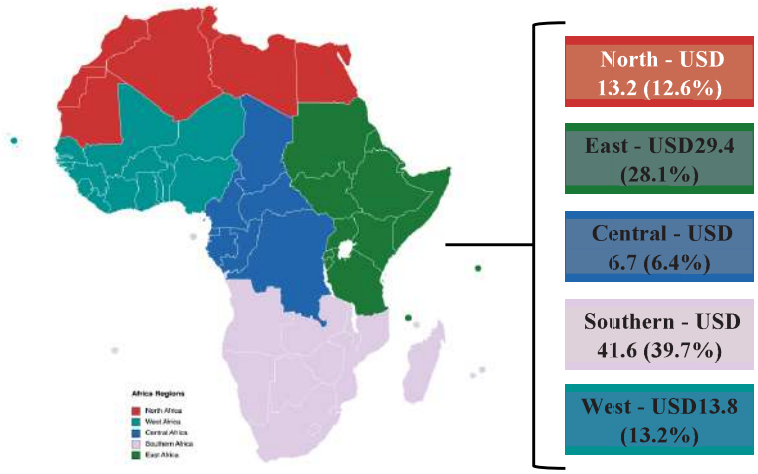
Figure 2.9: Estimated annual private climate finance gap for selected rates of the potential contribution of the private sector to the residual climate finance needs



Source: Compiled from AEO 2023 data

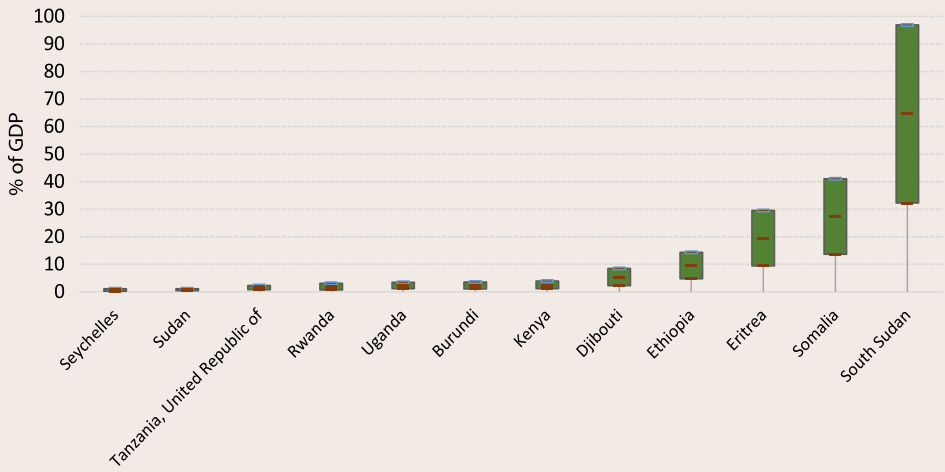
Assuming a moderate scenario with a 50% private sector contribution to closing the residual climate finance needs, East Africa has the second highest private sector finance gap in the region, after Southern Africa (USD 41.6 billion) (Figure 2.10). Three countries in East Africa, namely South Sudan, Somalia, and Eritrea, have very high private sector finance gaps representing 129.2%, 54.8%, and 39.5% of their GDP respectively (Figure 2.11). Most EA countries have low financing gaps of under 10% of GDP.

Figure 2.10: Private climate finance gap across the five African regions (USD Billion)



Source: Compiled from AEO 2023 data. Notes: assumes 50% scenario (private sector will cover 50% of the residual financing needs)

Figure 2.11: Private sector climate financing gap in East Africa



Source: Compiled from AEO 2023 data. Notes: The upper bound represents the very ambitious 100% scenario) and the lower bound refers to the conservative 25% scenario private finance gap as a percentage of GDP. The moderate 50% scenario is reported in the middle. Values are presented as shares of 2023 projected GDP

Finance gaps differ across East African countries, and the private sector's contribution to climate action is minimal in most cases (Table 2.3). Policies and regulations targeting net-zero, market building, direct investment, and blended finance should be implemented to foster private-sector financing of green growth.

Table 2.3: East Africa's total climate finance gaps

Country	Total Finance Needs (USD billion)	Annual Finance Needs (USD billion)	2020 Finance Inflow (USD billion)	Annual Finance Gap (USD billion)	Annual Private Finance Gap (USD billion), under 50% scenario*
Burundi	4.70	0.43	0.19	0.24	0.11
Comoros	1.69	0.15	0.16	0	0
Djibouti	6.72	0.61	0.16	0.45	0.21
Eritrea	12.84	1.17	0.11	1.06	0.52
Ethiopia	345.69	31.43	1.76	29.66	14.76
Kenya	93.34	8.49	1.99	6.49	3.05
Rwanda	14.67	1.33	0.67	0.66	0.29
Seychelles	1.24	0.11	0.08	0.03	0.01
Somalia	57.02	5.18	0.39	4.79	2.39
South Sudan	101.70	9.25	0.18	9.06	4.53
Sudan	19.32	1.76	0.24	1.51	0.75
Tanzania	39.94	3.63	0.82	2.81	1.38
Uganda	40.47	3.68	0.78	2.90	1.43
TOTAL	**739.4**	**67.2**	**7.6**	**59.6**	**29.4**

*Source: CPI's The State of Climate Finance in Africa: Climate Finance Needs of African Countries and Landscape of Finance in Africa 2019/20 Database: AEO 2023. *50% scenario assumes that the private sector covers 50% of the residual financing needs*

The private sector in most East African countries makes a significant contribution to the region's GDP, offering an opportunity for governments to leverage the sector to fund climate action. In fact, data show that in seven out of the thirteen East African countries, where data was available, the assets of the banking sector are up to 103 times (Seychelles) greater than the climate finance gap when evaluated as a percentage of GDP. This means that if at least half of these assets could be dedicated to green growth-oriented investments, the green finance gap across the region would be eliminated. Table 2.4 provides a comparison of the total banking sector assets as a percentage of GDP and the climate finance gap as a percentage of GDP.

Table 2.4: Total banking sector assets as % of GDP vs climate finance gap as % of GDP

Country	Banking sector assets as % of GDP (a)	Climate finance gap as % of GDP (b)	Potential of banking sector assets to bridge the climate finance gap (a)/(b)
Seychelles	165.40	1.6	103
Burundi	70.80	4.9	14
Kenya	65.70	5.3	12
Rwanda	47.80	4.2	11
South Sudan	46.80	129.3	0.4
Uganda	31.20	4.6	7
Tanzania	25.80	3.0	9

Source: Author computations using data from World Economic Outlook Projections (2023)[22] and CPI's The State of Climate Finance in Africa: Climate Finance Needs of African Countries

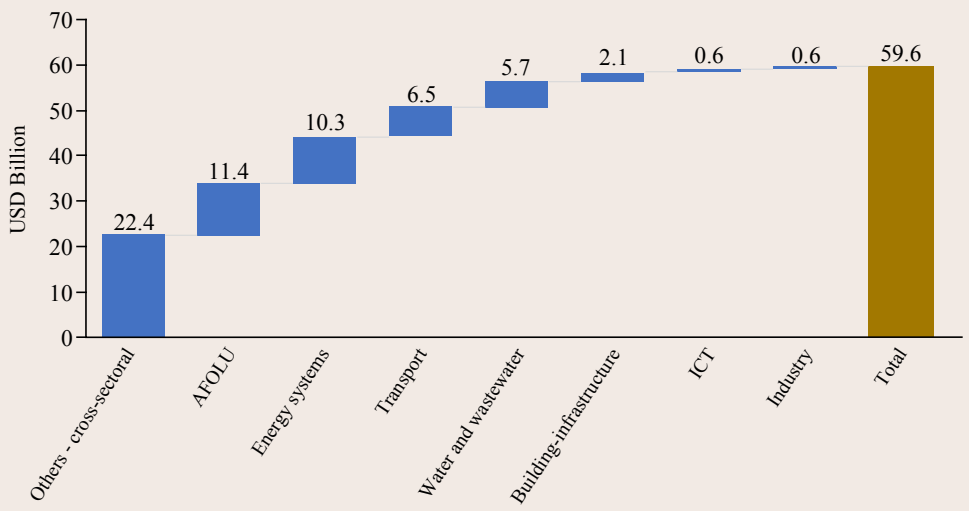
Some countries in East Africa, such as Ethiopia, South Sudan, and Kenya, have significant financial needs for climate projects, with their combined needs totalling about USD 49.2 billion per year. While South Some countries in East Africa, such as Ethiopia, South Sudan, and Kenya, have significant financial needs for climate projects, with their combined needs totalling about USD 49.2 billion per year. While South Sudan's needs amount to an average of USD 9.2 billion per year, this figure represents 129% of its national GDP. Similarly, Rwanda's needs are estimated at USD 1.3 billion, which is approximately 4.2% of its GDP. Eritrea and Somalia face significant challenges, as their climate-related needs amount to an annual average of 39% and 54% of GDP respectively. This high percentage suggests that their national resources,including financial and technical capacities, may be insufficient to support their climate efforts. As a result, these countries will likely require significant external support from both private and public sources. It is important to note, however, that GDP is not the sole determinant of a country's ability to finance climate projects from its own resources. Factors such as technical capacity and the availability of expertise to implement projects should also be considered when assessing a nation's capacity to address climate challenges. In the case of Uganda, although the country plans to allocate only 2% of its GDP to climate projects, whichis lower than the climate needs of 4.6% of GDP, it is

crucial to recognize that other factors beyond GDP can influence its ability to finance and implement these projects[23].

2.3.2 Sector-level financing gaps

The priority sectors in East Africa, particularly AFOLU, energy, and transport, have the largest climate finance gaps in the region (Figure 2.12), hampering green growth development. The AFOLU sectors in East Africa, accounting for 25% of GDP and employing 63% of the workforce, require significant climate investments due to the sectors' high potential for cost-effective climate adaptation and mitigation solutions. Additionally, these sectors are more vulnerable to climate change impacts, such as drought and floods, which negatively affect agricultural production, food access, and economic stability. The lack of adequate financial support, attributed to limited resources, competing priorities, and challenges accessing international funds, coupled with weak institutional capacities, contribute to the high climate finance gaps in the region's AFOLU sectors.

Figure 2.12: Annual climate finance gap by sector in USD Billion



Source: Author's computations using data from CPI's The State of Climate Finance in Africa: Climate Finance Needs of African Countries database

2.4 Leveraging private sector financing for green growth in East Africa

2.4.1 Barriers to the development of private sector finance for climate and green growth in East Africa

Despite considerable efforts by East African nations to bolster private sector investments in climate action and green growth, numerous challenges and obstacles persist in the development of private sector finance for these areas. Although these barriers currently hamper the closing of the financing gap in East African countries, they can also serve as catalysts for driving private sector investments in green growth and climate-resilient development in the region. Key factors contributing to these challenges include:

a) Absence of effective implementation policies of green growth strategies and weak regulatory structures

Although all East African countries have established strategies for climate action, the absence of effective implementation policies for green growth and weak regulatory structures are significant barriers to the development of private sector finance for climate resilience and green growth investments. Clear and consistent policy frameworks and regulations that incentivize private-sector investment in climate solutions are crucial for attracting private-sector investment (CPI, 2017). Unfortunately, such frameworks are often absent in the region, which creates uncertainties for investors. In the absence of clear policies, investors find it difficult to assess the risks and returns on investment in climate solutions, which has led to underinvestment in the sector. In East Africa, Ethiopia, Kenya, and Rwanda, have robust regulatory frameworks that have helped them to lead in the region's mobilization of domestic and international private finance (CPI, 2022). However, the lack of horizontal linkages across countries and policies limits regional policy coherence (Price, 2018). As a result, private sector investment in climate-resilient and green growth projects is limited, hampering the transition to more sustainable economic models. However, some East African countries, such as Kenya and Rwanda as shown in Table 2.5 below, have a well-established green growth policy and regulatory frameworks.

b) The lack of clear guidelines on green growth priority sectors means that green growth needs for the region remain unknown

Without a clear understanding of the green growth needs of the region, investors are unable to make informed decisions about where to invest their resources. In addition, many private sector investors in East Africa do not fully understand the potential risks and opportunities associated with climate change and green growth (GOK et al., 2021). This limits their ability to identify and prioritize investments in this area. The private sector in most East African countries is still hesitant to invest in green business mainly due to failure to understand a green business case, the rigid risk assessment criteria, and lack of proven green business models (Kaimuru, 2020). A recent report by AfDB highlights the need for greater clarity on the green growth priorities for East African countries, as well as the establishment of clear frameworks and guidelines to guide investment decisions (AfDB, 2022). The absence of such guidelines leads to uncertainty and lack of investor confidence, which ultimately hinders the development of private sector finance for climate resilience and green growth in the region. Kenya's Central Bank in 2021 issued climate risk-related management and disclosure guidelines that require banks to develop climate risk strategies, develop tools for managing the risks, and create awareness and capacity within the banks (CBK, 2021).

c) Mismatch between the demand and supply of project pipelines and limited clarity on the risk profiles of green projects

According to a report by the Climate Policy Initiative, there is often lack of bankable projects in the region, and those that do exist may not meet the risk criteria of private sector investors. Furthermore, there is frequently lack of coordination between project developers and potential investors, resulting in a mismatch in expectations and lack of clarity about the potential risks and rewards of different projects. This issue is exacerbated for small and medium-sized enterprises (SMEs) in East Africa, which constitute a significant proportion of the region's private sector. Due to their small size, these SMEs have limited capacity to mobilize finance from large domestic and international private sector sources, whose ticket sizes range between USD 10 and 100 million (AEO 2023). High upfront costs associated with greener solutions and technologies, such as renewable energy technologies (RETs), present another challenge. Green growth-oriented SMEs attempting to

venture into these sectors may struggle to be cost-competitive. For instance, unit costs for investing in various renewable energy technologies are as follows: solar PV USD 12,000-15,000 per KW; solar water heating USD 810-1,500 per KW; small hydros USD 2,500-5,000 per KW (Ayebazibwe, 2020). This has hindered countries with significant renewable energy potential, such as Uganda, from attracting sufficient investment in the sector. Similarly, the private sector in Kenya, Ethiopia, and Rwanda has been reported to shy away from investing in rural solar electrification due to high upfront costs (Mugisha et al., 2021).

d) High levels of external debt and insufficient access to capital reduces the potential pool of domestic green investors

Many countries in the East African region have high levels of debt, which can lead to lack of fiscal space for investment in green growth and climate resilience projects. East Africa's public debt has increased since 2010, with the total public debt-to-GDP ratio estimated at 57% in 2022, which is considered high. Eight of the 13 EA countries are at high risk of debt distress, and two are in debt distress, with only Tanzania and Uganda at moderate risk of debt distress. High levels of debt can make it more difficult for East African countries to attract private sector investment, as investors may perceive the risk of default as too high. This ultimately hinders the development of private sector finance for climate resilience and green growth in the region. Additionally, many potential private sector investors in East Africa face significant barriers to accessing finance, particularly high-interest rates, collateral requirements, and limited access to capital markets. This limits their ability to acquire sufficient funding needed for investments in climate-friendly projects. Eritrea, for example, has one of the smallest financial sectors in East Africa and is largely bank-based, offering a limited range of financial services (Mungai and Da Silva, 2021). This has been a hindrance to private sector players in the country who can potentially invest in climate action and green growth, due to limited access to finance and a small market base.

e) Low technical, human, and institutional capacity

Many government institutions and private sector players, including SMEs, lack the technical expertise and knowledge needed to develop and implement sustainable and climate-resilient projects. In addition, weak institutional frameworks and limited resources can make it difficult for these entities to effectively coordinate and implement sustainable development initiatives. According to a report by the United Nations Economic Commission for Africa, building technical and institutional capacity is critical for promoting sustainable development in the region. However, this requires significant investments in training and education, as well as in the development of supportive institutional frameworks. Without these investments, the development of private sector finance for climate resilience and green growth in East Africa will be severely hindered. Furthermore, lack of technical capacity is particularly evident in relatively newer sectors such as the blue economy, in which sufficient research has yet to be done. This makes it difficult for green entrepreneurs to identify and develop viable projects that can attract financing. These issues are exacerbated by lack of strong institutional arrangements and inter-agency coordination on the government side, which creates adverse conditions for private sector engagement in climate and green growth investment (IAD, 2020).

f) Limited access to international capital markets

Inadequate access to international capital markets is a significant barrier to private sector finance for climate resilience and green growth

in East Africa. Many countries in the region have limited access to international capital markets, making it difficult to raise the funds needed to finance sustainable development initiatives. According to a report by the World Bank, the cost of borrowing in local markets in East Africa is often high, at least 13%, reflecting the limited availability of capital and the high perceived risk of investing in the region. As a result, private sector investment in climate resilience and green growth projects may be limited, hindering the transition to more sustainable economic models. Between 2007 and 2020, only 21 African countries, including a few from East Africa (Ethiopia, Kenya, Rwanda, and Seychelles) accessed international debt markets, many for the first time. The instrument of choice has been Eurobonds (foreign currency bonds issued in global financial centres). In 2008, however, the World Bank launched its Green, Social, and Sustainable Bonds to serve sustainable investment needs of developing countries. In 2018, the World Bank allocated USD 1.5 million from its Green bond to finance Seychelle's Third South-West Indian Ocean Fisheries Governance and Shared Growth Project (SWIOFish3) which aims to improve the management of marine areas and fisheries in targeted zones and strengthen fisheries value chains in the Seychelles.

2.4.2 Ongoing interventions to unleash private sector financing for green growth and climate resilient development in East Africa

In East Africa, private sector financing plays a vital role in driving economic growth and development. However, the previously discussed obstacles contributing to the widening private sector financing gap in the region must be addressed to facilitate increased investments in green growth and climate-resilient development. Recognizing the significance of private sector financing for achieving these goals, East African countries have in recent years implemented various measures aimed at unlocking private sector investments and financing for climate change. These measures include:

- **Developing climate-smart policies and regulations.** Countries in East Africa have developed policies and regulations that encourage private sector investment in climate change projects. Some of these are listed in Table 2.5 below. In Kenya, for example, the government has developed a National Green Fiscal Incentives Policy Framework that is aimed at catalyzing private sector investments in Kenya. The private sector regulators, such as the Central Bank of Kenya, in October 2021 issued climate risk management guidelines to commercial banks in Kenya to develop climate risk management strategies and embed them into their business strategies and report on climate risk disclosures using the Task Force of Climate Finance Disclosure framework-TCFD (CBK, 2021). Djibouti has established a National Climate Change Committee (CNCC) responsible for climate change related policy, coordination, and action. However, more effort is still required to ensure integration of Djibouti's National Climate Change Strategy goals to support sector and regional plans along with private sector funders and donors in line with financial opportunities. Ethiopia has adopted a national climate-resilient green economy strategy which aims to promote sustainable economic growth while reducing greenhouse gas emissions and building resilience to climate change. The strategy is supported by a range of policy and regulatory measures, including tax incentives, subsidies, and standards for energy efficiency and renewable energy. Comoros, for instance, has an Environmental National Policy and a Framework Law on Environment. However, all required orders and secondary legislations have not yet been drafted, and the legislation should be revised to be more specific on

environmental impact assessment and GHG emissions, and to integrate climate change concerns in general. In 2009, the East Africa Community developed its own Climate Change Policy (EACCCP) to improve the region's adaptive capacity and build resilience to the adverse effect of climate change (Apollo and Mbah, 2021). Countries in the region also established the Eastern Africa Climate Smart Agriculture Platform (EACSAP) in 2014 to promote agricultural productivity, adaptation, and resilience to climate change through technological innovation (Apollo and Mbah, 2021; Price, 2018). To make these interventions impactful, Apollo and Mbah (2021) underscore the need for collaboration among the government, private sector, civil society, and educational institutions for optimal implementation of existing Strategies.

Table 2.5: Examples of East African Countries' Green Growth and Climate Policy and Regulations

Country	No	Green Growth and Climate Policy and Regulations
Ethiopia	2	i. Climate Resilient Green Economy Strategy 2011 ii. Long Term Low Emission and Climate Resilient Development Strategy (2020-2050)
Kenya	7	i. Guidance on Climate-related Risk Management under Section 33(4) of the Banking Act. ii. Environmental, Social and Governance (ESG) Disclosures Guidance Manual iii. The Kenya Green Bond Programme iv. The National Policy on Climate Finance v. The Stewardship Code for Institutional Investors vi. Climate Change Fund Under Climate Change Act 2016 vii. Sustainable Finance Guiding Principles for Banks in Kenya
Rwanda	3	i. Rwanda Sustainable Finance Roadmap ii. National Bank of Rwanda's Regulation on Publication of Financial Statements and Other Disclosures iii. Green Growth and Climate Resilience National Strategy for Climate Change and Low Carbon Development
Seychelles	1	i. Seychelles' Sovereign Blue Bond

Source: Green Finance Platform Financial Measures database
https://www.greenfinanceplatform.org/financial-measures/browse

- **Establishment of green-growth incubation and networking hubs to provide technical assistance to support the design and implementation of green-growth oriented projects.** This could include offering training and capacity-building programs to help investors (supply-side of capital) and green entrepreneurs (demand-side of capital) develop the skills and knowledge needed to identify and develop viable projects that can attract financing. For instance, in Kenya, the government, in partnership with development partners and the private sector, launched initiatives such as the Kenya Climate Innovation Center (KCIC), which provides incubation, capacity building,

and financing for innovative climate-smart business ideas. Since 2012, KCIC has supported over 290 climate enterprises and created more than 20,000 direct and indirect jobs. Similarly, Tanzania has established the Tanzania Climate Business Network (TCBN), which brings together businesses, investors, and policymakers to create a platform for sharing information and collaboration on climate-related initiatives. African Venture Philanthropy Alliance (AVPA) is implementing an impact investing Leadership Development Program which seeks to educate investors on impact investing risks and opportunities across Africa. Multilateral and bilateral financial institutions, such as the African Development Bank (AfDB), European Investment Bank (EIB), and World Bank, have already been providing technical assistance to private institutions and commercial banks in East Africa to support them in building technical capacity to develop green project pipelines and attract climate finance.

- **Offering fiscal and other incentives.** East African governments are experimenting various financial incentives to help encourage private sector investments in green growth. The instruments include offering subsidies, tax breaks, or low-interest loans to investors interested in investing in renewable energy technologies. For example, in Tanzania, the government has exempted renewable energy equipment from import duty and VAT making it more affordable for private sector investors. This has mainly targeted solar energy, where value added tax and import tax for main solar components, such as panels, batteries, inverters, and regulators, have been exempted to permit end- consumers to get photovoltaic systems at affordable prices (Bishoge et al., 2018). Uganda has introduced a feed-in tariff system for renewable energy projects, which provides a guaranteed price for electricity generated from renewable sources. The system has helped to attract private sector investment in the renewable energy sector and has supported the development of a range of projects, including small-scale hydropower, solar, and biomass. In 2021, the Kenya Finance Act amended the First Schedule of the Value Added Tax Act to exempt specialized solar and wind energy equipment from taxation. This change was made after a 14% VAT was imposed on solar equipment in 2020, which made solar products less affordable and discouraged progress towards achieving universal electrification.

- **Facilitating access to capital for domestic green investors.** Some East African governments and financial institutions are developing and implementing measures that make it easier for green entrepreneurs to access finance. This could include offering lower interest rates, reducing collateral requirements, and improving access to capital markets. National climate funds to mobilize and channel finance towards climate change projects can help accelerate access as well. For example, in Rwanda, the government has established the Rwanda Green Fund (FONERWA), which is a dedicated climate fund that mobilizes resources for green projects, provides financing to private sector investors, and supports climate and environmental education. Tanzania has established a national climate change trust fund that aims to mobilize public and private resources to finance climate change projects. The fund provides grants and concessional loans to support adaptation and mitigation projects, and is also designed to attract private sector investment. For countries like Eritrea, where the financial sector is small and largely bank-based, offering a limited range of financial services, efforts could be made to expand the range of financial services available and improve access to finance for private sector players interested

in investing in climate action and green growth. Some notable initiatives across Africa include the Africa Green Finance Coalition (AGFC) which aims to bring African countries together to pool resources, share learning, and create a pathway for increased flows of green investment capital to the continent.

- **Building partnerships with private sector** actors. East African countries have also built partnerships with private sector actors to unlock private sector investment in climate change. For example, in Uganda, the government has partnered with the private sector to establish the Uganda Green Growth Development Facility, which provides financing and technical assistance to private sector investors in green projects to help in delivering on the objectives of the Uganda Green Growth Development Strategy.

- **Developing innovative finance instruments such as green bonds.** Some East African countries have also developed green bonds to raise funds for climate change projects. For example, in Kenya, the government issued a USD 30 million green bond in 2019 to finance climate change mitigation and adaptation projects. Kenya's first green bond issued in 2019 raised USD 41.45 million to build environmentally friendly student accommodation in Nairobi.

Box 2.4: Performance of the private sector in East Africa as compared to elsewhere in Africa and beyond

East Africa- The Private sector in East Africa invested USD 711 million (11%) of the total climate flows in the region. The countries with high private sector finance were Kenya 55%, Ethiopia 19%, Rwanda 10%, and Tanzania 6%. The highest contributors were corporates 48%, commercial FI's 17% and institutional investors 15%. Most private finance in the region was in mitigation sectors USD 409 million (57%), against adaptation USD 157 million (22%) and cross-cutting USD 151 million (21%). The main sectors were: AFOLU 21%, energy 19%, transport 12%, and water and waste 11%. (CPI, 2022).

Africa- The Private sector in Africa invested USD 4.2 billion (14%) of the total climate flows in Africa. Globally, other regions' private climate investments were higher, such as Latin America and Caribbean (49%), East Asia and Pacific (39%), and South Asia (37%). The highest contributors were corporates 39%, commercial banks and FIs 26% and institutional investors and households 10%. Most private finance in the region was in mitigation sectors USD 14.6 billion (49%), against adaptation USD 11.4 billion (39%). The top sectors invested in were energy 32%, AFOLU 16%, transport 9%, water and waste 9%, and cross= cutting USD 3.2 billion (11%) (CPI, 2022).

Rest of the World- Globally, the private sector climate finance flows in 2019/20 were USD 310 billion (49%) of the total global climate flows. The highest contributors were corporates 40%, commercial banks and FI's 39%, and households 18%. Private sector investments in mitigation sectors were USD 571 billion (90%), against adaptation USD 46 billion (7%), and cross-cutting USD 15 billion (2%). The top sectors that received climate investments were energy 58%, transport 31%, infrastructure and industry 6%, water and waste 4%, etc. (CPI, 2021).

2.4.3 Opportunities for increasing private sector investments in climate and green growth sectors in East Africa

East Africa, endowed with extensive natural resources and a rapidly growing population, represents a considerable opportunity for green growth, specifically in sectors like sustainable agriculture, renewable energy, information and communications technology (ICT), and transport infrastructure. With the region's growing commitment to sustainable development, there is an unparalleled opportunity to drive private sector investment, which could significantly contribute to East Africa's transition to climate-resilience and green growth. By leveraging opportunities in the green growth sectors, East Africa stands poised to dramatically amplify the mobilization of private sector finance for climate action and green growth.

i. Sustainable agriculture

The agricultural sector is primed to significantly influence climate and green growth in East Africa due to its vulnerability to climate change and substantial contribution to the region's economic growth. Agriculture is a cornerstone of economies in the region, accounting for an average of 25% of GDP and employing over 60% of the population[24]. The sector presents a compelling case for private sector climate investments considering its high annual climate finance gap of USD 11.4 billion (19.1% of the total annual climate finance gap).

The region's over 400 million population could double by 2050, representing strong demand for food and potential for private investments in agriculture. The East Africa region has been a significant recipient of agriculture-related financing, with 44% of total agriculture-related financing deals in Africa between 2010 and 2020 being allocated to the region[25]. There are myriad opportunities in this sector, including agro-processing and agri-business, as well as innovations in agricultural technologies such as sustainable irrigation systems that conserve water and improve productivity. Other opportunities comprise development of drought and pest-resilient seed crops, and the provision of finance to SMEs in agri-business, which typically face challenges accessing finance.

A case in point is the Community Agricultural Infrastructure Improvement Programme in Uganda, valued at USD 83.3 million. Jointly funded by the African Development Bank (AfDB), the International Fund for Agricultural Development (IFAD), and the Ugandan Government, the project involved the rehabilitation of rural roads to enhance market linkages for rural farmers and reduce transportation costs, construction of markets, and installation of agro-processing machines. This initiative resulted in increased incomes for farmers and creation of employment for communities in infrastructure maintenance.

ii. Energy sector

East African nations have a unique opportunity to leapfrog in their energy transitions and industrialize through renewable energy, although substantial private investments are required to realize this potential. The region is abundantly endowed with renewable energy resources that could underpin a low-carbon, sustainable development path. Nonetheless, the energy sector has an equally high annual climate finance gap of USD 10.3 billion (17.2% of the total annual climate finance gap), which is an opportunity for private sector climate investment.

According to the International Renewable Energy Agency (IRENA), East and Southern African countries possess vast potential for renewable energy development. Kenya is

leading the charge, already generating 90% of its energy from renewable sources through the support of DFIs and private sector investments. Other East African countries can leverage their abundant natural resources – geothermal, solar, and water – to scale up renewable energy generation, provided that regional plans are effectively coordinated. These plans are crucial for ramping up the use of renewables for power generation, strengthening regional power supplies, meeting national climate commitments, and ensuring energy security.

Given the assessed potential and falling costs, the African Clean Energy Corridor (ACEC) countries could cost-effectively satisfy more than 60% of their electricity needs with renewables by 2040. This figure represents around three times the share of installed renewables capacity seen in the region today. Reduced generation costs, coupled with an increase in renewable capacity, presents a significant opportunity for private sector investments. Private sector-funded renewable energy projects in East Africa provide key case studies. For instance, the Sustainable Energy Fund for Africa (SEFA) is a multi-donor special fund managed by the African Development Bank, which delivers catalytic finance to unlock private sector investments in renewable energy and energy efficiency[26]. Another is GET FiT, a program that seeks to leverage private investment for renewable energy in East Africa by removing barriers to renewable energy financing. This initiative works to enhance the capacity and practices of regulatory agencies, thereby creating a more conducive environment for private investment in small-scale renewable energy projects[27].

iii. ICT

Private investments in ICT are critical for maximizing the sector's potential to significantly impact climate resilient development in East Africa, given its influence on climate action interventions, economies, and livelihoods. Over the past few decades, East Africa has seen substantial growth in the ICT sector, a key driver of economic growth in the region, with revenues growing at an average rate of up to 40%[28]. The region's vast potential for ICT is hinged on the abundant availability of digital skills, skilled workforce, and innovation capacity. These are critical elements in unlocking the potential of ICT for regional economies and making it an attractive sector for private investments. Kenya, for instance, is at the forefront of East Africa's ICT sector, with the government's projected spending on the sector reaching approximately USD 210 million[29]. ICT plays an instrumental role in the management of climate and green growth in East Africa. In terms of adaptation, ICT enhances resilience and agricultural productivity through the provision of timely weather information to farmers, tracking of livestock, monitoring of pests and diseases in crops and animals, and the implementation of smart irrigation systems, among others.

iv. Transport infrastructure

Investments in sustainable transport infrastructure are key to unlocking green growth in East Africa, given the sector's interconnectivity with other sectors. Transport infrastructure hold transformative potential for the region's economic growth, social development, and environmental sustainability. While significant strides have been registered in the transport sector in recent years, the pace of growth falls short of regional needs. Furthermore, the transport sector's relatively high annual climate finance gap of USD 6.5 billion (11% of the total annual climate finance gap) offers substantial opportunities for private sector climate investment and finance.

Investment opportunities are ripe in the development of resilient transport infrastructure that aims to reduce emissions and enhance the

efficiency of transport systems, which explains why several countries in the region are developing Standard Gauge Rail (SGR) lines. The Mombasa-Nairobi SGR in Kenya was completed in 2017, and the extension from Nairobi to Naivasha was inaugurated in 2019, expanding the line's coverage on the northern transport corridor to about 578 kilometres. Tanzania has embarked on the construction of a 2,561-kilometre SGR linking the port of Dar es Salaam to Mwanza on Lake Victoria along the central transport corridor, with envisaged extensions to Burundi, the Democratic Republic of Congo, Rwanda, and Uganda. Tanzania's SGR investment is estimated at USD 10.04 billion, with significant potential for private investment in the eventual spurs to neighbouring countries. Uganda is also expected to commence the construction of USD 2.2 billion 273-kilometre rail line linking Kampala with the country's border with Kenya at Malaba. This development is expected to catalyse the construction of the Naivasha-Malaba SGR in Kenya, thereby connecting Uganda's capital with the port of Mombasa. These rail lines are part of the network that also includes the 756-kilometre Addis Ababa – Djibouti railway, which should reduce the carbon footprint, improve connectivity, and bolster trade, tourism, and socioeconomic development in the region.

2.4.4 Pathways to leverage existing investment opportunities and increase private sector finance for climate action and green growth in East Africa

East African countries are uniquely positioned to take advantage of the growing interest in sustainable development and to increase the mobilization of private sector finance for climate and green growth by leveraging various opportunities in the ecosystem. With abundant natural resources, a rapidly growing population, and growing awareness of the need for sustainable development, East Africa can unlock the full potential of private sector finance in the region and become a global leader in climate-resilient and sustainable economic growth by considering the following interventions:

i. Policies, regulatory structures, and fiscal incentives for green growth

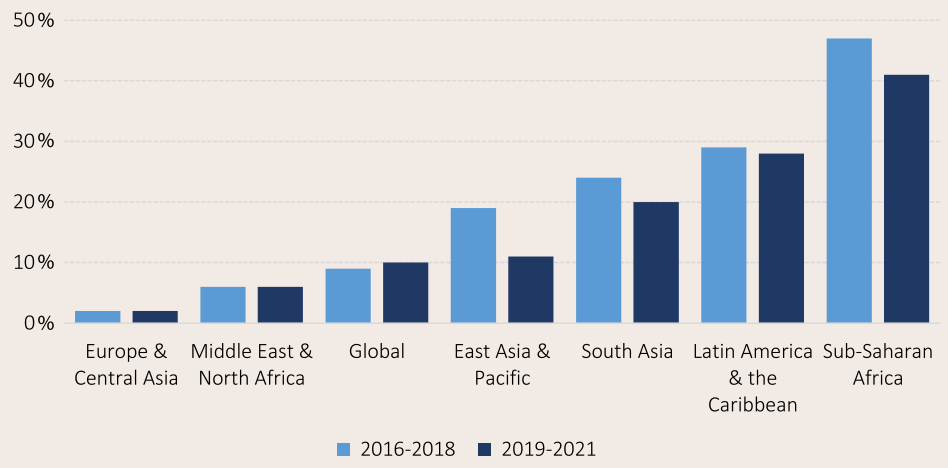
Developing regulations, standards and policies on green growth investments and pursuing cross-regional and continental standardization of policies and metrics could provide positive signals to private sector investors. Some East African countries have taken steps towards developing policies to enhance fiscal incentives for mobilization of private sector finance. To realize its bold climate finance ambitions, Kenya published a draft National Green Fiscal Incentives Policy Framework on 30 January 2023 for public comments. The policy framework aims to identify and prioritize the implementation of green fiscal actions that will enable Kenya to seize the opportunities available to accelerate the transition to a low-emission development pathway and enhance environmental sustainability. Other countries, like Ethiopia, are providing incentives to attract private sector investment into low-carbon emission and climate-resilient development. The Government of Ethiopia has, for instance, provided various incentives for investment in biofuels production. The biofuel sector not only seems promising in addressing the energy security issue but also creates more jobs and income that could support the country's goal of poverty reduction. It is reported that over 500,000 hectares of land have already been offered for biofuels investment. Despite the promise of attracting and mobilizing external and even domestic private sector finance, fiscal incentives still need to be focused and their usefulness assessed against their effects on green growth.

ii. Increasing the use of blended finance instruments

Over the past seven years, Africa has registered the highest deals in blended finance for climate

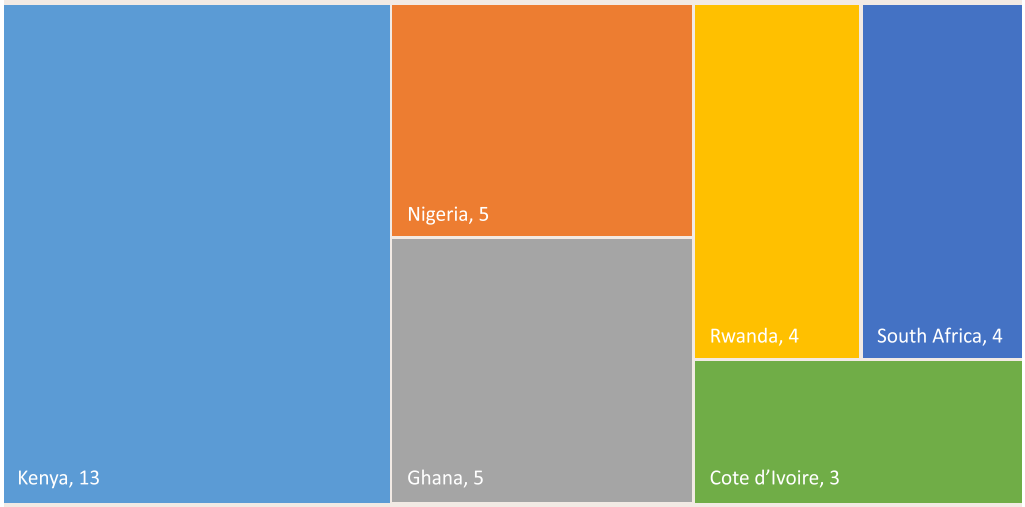
change, Sub-Saharan Africa alone accounting for 41% of blended finance deals, followed by Latin America and the Caribbean at 28% (Figure 2.13). Consequently, the volume of blended finance has also been higher. Specifically, SSA alone mobilized over USD 1.5 billion from climate blended finance vehicles in 2019-2021. A recent report by Convergence (2022) revealed that Kenya continues to be the most frequent recipient country of blended capital in recent years. Their record shows 34 successful transactions between 2019 and 2021 in Africa (see Figure 2.14). It is apparent that East African countries should increase the use of blended finance instruments for climate action investing because they can help to mobilize private sector investment in sustainable development initiatives. By combining public and private resources, blended finance instruments can help to mitigate the risks associated with sustainable development investments and make them more attractive to private sector investors.

Figure 2.13: Proportion of climate blended finance deals by regional breakdown



Source: Convergence, 2022

Figure 2.14: Number of climate blended finance transactions in Africa, 2019-2021



Source: African Economic Outlook, 2023

EA countries need to commit to promoting multi-country programming, especially in green growth sectors to expand the market size for small countries to further bolster private sector investments. However, multi-country private climate finance remains low in Africa, accounting for about 8% of overall private climate finance in 2019/2020 (AEO, 2023). The African Continental Free Trade Area (AfCFTA) provides an opportunity for cross-border investments, with its potential to become the world's largest free trade area and a single market of goods and services worth USD3.4 billion for more than 1.3 billion Africans. To increase private climate finance in Africa, several measures can be taken. Development partners could employ blended financing structures with higher leverage ratios while prioritizing the participation of private insurance and partial guarantees. Additionally, supporting capacity building within domestic finance institutions and creating a pipeline of investable opportunities could enhance private sector participation. Information exchange platforms could also be established to improve transaction visibility and attract more investors.

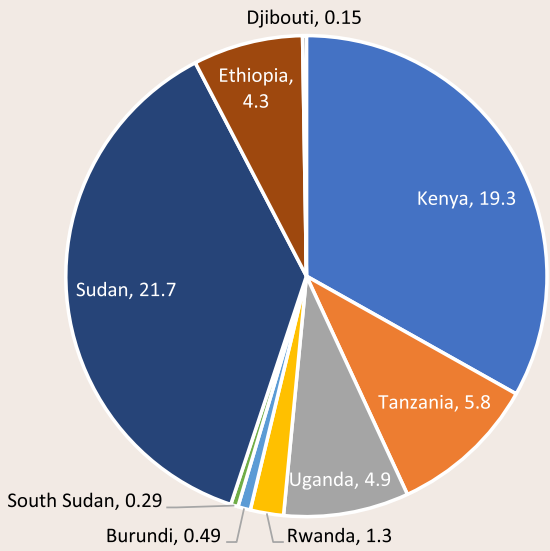
Whereas infrastructure receives the largest proportion of climate blended finance, particularly in developing countries, there is need to ensure that allocation is diversified to other social sectors that are important for green growth, such as agriculture, fisheries, and health. According to the data from World Bank's Private Participation in Infrastructure (PPI) Database, Kenya received a total of USD 720 million for infrastructure investments in form of blended finance in 2020. During the same year, Somalia received investments of USD 773 million, Burundi received USD 15.7 million, Tanzania USD 1.2 million, and Ethiopia USD 271 million. Furthermore, between 2016 and 2021, Ethiopia received approximately USD 103 million private sector impact investments in agriculture (CGIAR, 2023).

iii. Strengthening domestic financial institutions to address the MSME finance gap

The domestic banking sector can play a significant role in addressing the financing gap faced by impact oriented MSMEs in East Africa (Fig 2.15). According to the International Finance Corporation (IFC), 40% of formal micro, small and medium enterprises (MSMEs) in developing countries have an unmet financing need of USD 5.2 trillion every year. The financing gap for MSMEs in East Africa is a combined USD 58.2 billion. In response to this challenge, a coalition of 20 development finance institutions came together in 2020 and committed over USD 5.55 billion in financing for MSMEs in Africa between mid-2020 and the end of 2021. This shows that there is potential for the domestic banking sector to work with development finance institutions to mobilize additional finance towards sustainable development in developing countries.

Despite an increase in banking activities across Africa, banking is still dominated by government institutions with a limited range of financial products, and thus, not suited for the needs of the domestic private sector. To adequately capture the potential contribution of banks to green growth, innovations in this sector are required, as well as robust legal, institutional, and regulatory frameworks that can unlock capital flows to key sectors that are critical for green growth at country and regional levels. De-risking mechanisms, such as the use of guarantees by public actors, could be used to leverage more financing at better terms for different actors, including MSMEs. The African Development Bank has made private sector development one of its key priorities for reducing poverty and supporting sustainable growth on the continent. This shows that there is potential for collaboration between public actors and the domestic banking sector to mobilize additional finance towards sustainable development in East Africa.

Figure 2.15: East Africa MSMEs' financing gap, USD Billions



Source: SME Finance Forum Database (https://www.smefinanceforum.org/data-sites/msme-finance-gap)

iv. Expanding the use of sustainable finance instruments such as green bonds and loans and sustainability-linked loans

Expanding the use of sustainable finance instruments, such as green bonds and loans, can be leveraged to increase the mobilization of private sector finance for climate and green growth in East Africa. For example, in Kenya, the government issued a USD 30 million green bond in 2019 to finance climate change mitigation and adaptation projects. Kenya's first green bond issued in 2019 raised USD 41.45 million to build environmentally friendly student accommodation in Nairobi. Acorn Projects Limited, a corporate entity, issued a five-year green bond worth KES 4.3 billion (about USD 41.5 million) to finance green and environmentally friendly buildings for 5,000 students in Nairobi. The successful issuance of Acorn's green bond was a significant step in the development of green finance in East Africa. The development of a market for green bonds in East Africa with Kenya as the leading hub therefore appears to be on course[30]. Rwanda launched its Green Bond Facility during COP 27 in Egypt. The new financing facility for only private-sector green projects will be managed in partnership with the Development Bank of Rwanda. The facility will operate under the green bank model and is seeking USD 100 million to start operations. Green financial markets are growing rapidly globally. Assets of funds with an environmental, social and governance (ESG) mandate have grown by 170% since 2015. Hedging instruments, such as catastrophe bonds and indexed insurance, can help insure against increasing natural disaster risk, while other financial instruments such as green stock indices, green bonds, and voluntary de-carbonization initiatives can help re-allocate investment to "green" sectors. Climate Bonds Initiative and FSD Africa launched Africa Green Bonds Toolkit[31] in 2020 to provide the African capital markets with guidance on how to issue green bonds that are in line with international best practices and standards. Africa has seen 20 green bond issuances since 2012, accumulating a total amount of USD 2.78 billion. South Africa is the country which has issued the most, with USD 2.189 billion issuances in eight deals, followed by Nigeria in second place, with USD 136 million. The Africa Development Bank (AfDB) is the leading issuer on the continent, having issued USD 2.6 billion from 18 deals. This shows that

there is potential for expanding the use of sustainable finance instruments to mobilize additional private sector finance towards sustainable development in East Africa.

v. Tapping into the expanding global and domestic private equity and venture capital appetite for markets in East Africa

Private equity and venture capital can play an important role in bridging the SME finance gap and accelerating green growth in sectors that contribute towards social development in East Africa. Private equity financing of small and medium-sized enterprises (SMEs) in developing economies of East Africa can bring knowledge and expertise to the companies in which they invest. Furthermore, the design of private equity and venture capital facilitates the provision of patient risk-agnostic finance, which is, for example, essential for supporting renewable energy (AEO, 2023). Through active participation on the board of directors or in partnership with management, private equity investors equip companies with critical improvements in governance, financial accounting, access to markets, technology, and other drivers of business success. Technical assistance, when partnered with private equity, can unlock more investor commitments, and considerably enhance the ability of SMEs in emerging markets to raise private equity capital. Technical assistance provides funding that allows private equity funds to extend their reach to smaller companies. Technical assistance can mitigate some level of risk and increase the probability of successful investments by funding targeted operational improvements of investee companies. For example, in Ethiopia, a World Bank project generated a USD 200 million credit facility supporting seven leasing institutions and introducing four new leasing products into the market: hire purchase, finance lease, micro leasing, and agri leasing. As of June 2019, 7,186 MSMEs have accessed finance valued at over USD 147 million.

vi. Harnessing the emerging carbon markets

The launch of the Africa Carbon Markets Initiative (ACMI) presents an opportunity for countries to direct investments into protection and growth of the region's natural capital and in supporting social development. ACMI aims to support the growth of carbon credit production and create jobs in Africa. Its ambition is for the growth of African voluntary carbon markets to produce 300 million carbon credits annually by 2030, unlock USD 6 billion in revenue by 2030, and support 30 million jobs by 2030. Considering that the global voluntary carbon market is worth USD 2 billion, scaling up the current market in East Africa to achieve ACMI ambitions will require significant steps to address regulatory, institutional, integrity and technical capacity barriers to capitalise on the potential that exists. Furthermore, regulatory frameworks that spell out rules for generation of credits for markets and responsibilities for various stakeholders are needed. For example, ACMI has identified 13 action programs to support the growth of voluntary carbon markets across Africa. In addition to the plan by ACMI, some countries in the region are working to strengthen their position to take part in carbon markets. In this context, the Nairobi International Financial Centre (Kenyan government) is working with AirCarbon Exchange (ACX) to develop a Kenyan carbon exchange which will seek to support project developers by sourcing and undertaking transactions through a blockchain based global platform[32].

vii. Using South-South collaboration to bolster private sector investments

The East African region could establish a regional Green Growth Fund, like the EU green growth Fund established to mitigate climate change and promote sustainable economic growth (NDC Partnership) that aggregates financing from different sources, such as the government,

development partners, and private sector investors. The fund could then be used to invest in green growth projects that have been developed through a regional project preparation facility. The facility could be established to assist local developers to prepare bankable green growth projects that are aligned with the national and regional priorities and provide technical assistance to ensure their successful implementation. The fund could be structured as a blended finance vehicle, combining concessional and market-rate financing, and offer guarantees to mitigate risks for private sector investors. This approach could help East Africa to attract private sector investors seeking opportunities at a regional scale and help to unlock financing for green growth projects that might have been considered too risky or not economically viable in the absence of such financing facilities. Box 2.5 below presents approaches to mobilization of private sector financing climate action and green growth in developing countries.

Box 2.5: Addressing barriers and leveraging opportunities for mobilizing private sector finance for climate action and green growth. Examples from other developing countries

Increasing the use of blended finance instruments- The National Fund for Energy Management in Tunisia:

The Tunisian Government's goal is to reduce the country's dependence on oil and gas and promote renewable energy. To that end, it has adopted a law for an "energy conservation system" and established a funding mechanism – the National Fund for Energy Management – to support increased capacity in renewable energy technologies and improved energy efficiency. The fund's initial resources were from the national government and public sector USD 530 million, USD 1,660 million from private sector funds, and USD24 million from international partners. As of 2016, forty renewable energy projects had been completed using this fund. The fund was structured with a replenishment mechanism based on a duty levied on the first registration of private, petrol-powered, and diesel-powered cars and on import duty or local production duty of air-conditioning equipment with the exclusion of those produced for exports. The energy savings expected to result from the Solar Energy Plan could reach 22% for 2016, with a reduction of 1.3 million tonnes per year of CO2 and the excess energy generated is exported, hence increasing the economic growth of the country. This demonstrates a case of country policy and public sector finance catalysing private sector finance. In this case, the private sector finance was triple the public sector (UNEP, 2020).

Strengthening domestic financial institutions to address the MSME finance gap- JICA's Financing Scheme for Energy Savings Projects in India:

This is a case that helped to unlock finance for MSMEs in India. A green credit line provided by JICA's Financing Scheme for Energy Savings Projects in India through three phases of EUR 660 million loan facility made available to the Small Industries and Development Bank of India (SIDBI) to support micro, small, and medium-sized enterprises (MSMEs) investments for environmental improvements and energy efficiency. The credit line provided for simple eligibility criteria for project appraisal, a restricted list of preapproved equipment and other standard financial criteria requirements by the Development Bank of India. The simplified eligibility criteria helped to streamline the project approval process and enabled quicker approval and disbursement of loans. This resulted in approximately 5,000 MSMEs accessing finance within the first and second phases of the project (Morgado and Lasfargues, 2017).

Using South-South collaboration to bolster private sector investments- The Africa Enterprise Challenge Fund catalysing private sector investments:

An example of a challenge fund is the Africa Enterprise Challenge Fund (AECF), which is a USD 244 million fund that targets innovative investments in agriculture, renewable energy, adaptation, as well sector-related rural financial services, and communications systems. It awards grants and repayable grants through competitions to private companies that wish to implement innovative, commercially viable, high-impact projects in agribusiness and renewable energy in Africa. The fund has financed over 200 projects since its initiation in 2008, with private sector companies committing a minimum 50% of the costs in each case. The fund also had a good impact on business performances, measured by turnover and profitability, with 56% of AECF-funded companies that were three years old or older having had positive revenue growth rates from inception.

Policies, regulatory structures, and fiscal incentives for green growth- The Thai Rice NAMA:

Many developing countries, through the implementation of Nationally Appropriate Mitigation Actions (NAMAs), are moving towards low-carbon development paths and involving the private sector to take advantage of the arising opportunities as demonstrated in the Thailand case studies. The Thai Rice NAMA (Nationally Appropriate Mitigation Action) is a joint project funded by NAMA Facility and the Thai Government to encourage smallholder farmers to implement low emissions technologies and practices in paddy rice cultivation. The NSP (NAMA Support Project) works with farmers, farmers' associations, and external service providers to develop incentive schemes and financial support. The NAMA Facility approved USD 17.3 million for this project and the Thai Government committed to leverage an additional USD 27.7 million per year to the project. The NSP (NAMA Support Project) expects to generate an additional USD 23.8 million direct financial investment from the private sector. The funding from the NAMA facility is provided through the subsidized loans program implemented by the Bank for Agriculture and Agricultural Cooperatives (BAAC). The funding from the Thai Government covers the costs of agriculture extension services to promote the adoption of low-emissions paddy rice cultivation technologies and practices and technical support to implement the NAMA Support Program (Khatri-Chhetri et al., 2021).

2.5 The role of DFIs and MDBs in mobilizing private sector finance for East Africa's green growth

2.5.1 DFIs and MDBs: Catalysing development and international public finance for climate action and green growth in East Africa

DFIs and MDBs have been instrumental in channelling private sector financing towards climate transitions and green growth in East Africa. They have successfully established blended financing structures, altering the risk-return profile to favour climate transition in the region. However, private sector investment in adaptation has historically been limited. For instance, out of the total USD 30 billion spent on adaptation during 2017-2018, only about USD 500 million, a meagre 1.6%, originated from private adaptation spending (EIB, 2021). This underscores the fact that DFIs and MDBs play a significant role in catalyzing the private sector to mobilize additional finance for climate action and green growth:

- **Credit Lines:** DFIs and MDBs provide green credit lines to large commercial banks to on-lend to the private sector corporates,

SMEs, etc. For example, in 2020, the Eastern and Southern Africa Trade and Development Bank (TDB) and AFD (Agence Francaise De Development) signed a USD150 million credit line to finance green infrastructure in Africa. Most of the facility (80%) was dedicated to the financing of eligible climate projects, according to streamlined International Development Finance Club (IDFC) and Multilateral Development Banks (MDB) accorded principles. International Finance Corporation (IFC) also provided financing to support the development of renewable energy projects in East Africa. For instance, in 2019, IFC invested USD10 million in the Alten Africa Solar Power Fund, which will develop a 45 MW solar power plant in Uganda.

- **Green Bonds:** DFIs and MDBs issue green bonds to raise capital for climate and environmental projects. These bonds are certified to ensure the funds are used for environmentally beneficial purposes. For example, the African Development Bank (AfDB) issued its first green bond in 2013, which raised USD 550 million to finance renewable energy projects in Africa (Clapp and Pillay, 2017). In 2018, the IFC issued its largest green bond to date, raising USD 1 billion to finance climate-smart projects in emerging markets. In June 2022, the African Development Bank debuted a 2-year theme bond valued at 19 billion Ugandan shillings (UGX) equivalent to USD 5.07 million[33]. This marks the first issuance of an ESG bond by an MBD in an African frontier currency.

- **Risk sharing facilities:** DFIs and MDBs provide risk mitigation instruments such as guarantees, insurance, and credit enhancements to reduce the risks associated with climate and environmental projects, making them more attractive to private sector investors. DFIs and MDBs are increasingly investing in countries that are higher risk, suggesting an overall increase in risk appetite (Attridge and Gouett, 2021). For instance, AfDB is developing a counter-guarantee facility to the African Guarantee Fund[34] (AGF). The risk sharing facility (RSF) will also be supported by the Green Climate Fund (GCF) under the leveraging energy access finance framework. The RSF aims to support access to finance for SMEs in decentralized renewable energy for solar home systems, green mini-grids, and captive commercial/ industrial solutions. Over USD 250 million is expected to be catalysed in local currency financing from AGF's partner financial institutions during a 5-year investment period in several countries including Ethiopia and Kenya.

- **Capacity building:** DFIs and MDBs provide much-needed technical assistance and capacity building to help countries develop the necessary infrastructure and regulatory frameworks. For instance, AfDB's institutional support to Ethiopia during 2015-2021 accompanied the country to develop the PPP legal and institutional framework to complement government's efforts in diversifying the sources of development financing. The PPP enabling environment has crowded-in private sector resources, particularly in the telecom sector, and is expected to catalyse private investment and finance in renewable energy and green transport infrastructure projects.

- **Co-financing:** DFIs and MDBs work with private sector investors to co-finance climate and environmental projects, sharing the risks and rewards of the investment. The AfDB and its partners launched the Desert to Power Initiative in 2019 to develop and provide 10 gigawatts of solar energy by 2030 across 11 countries where 64% of the population live without electricity. Four

of the 11 countries covered by this USD 20 billion intervention are in East Africa, namely Djibouti, Eritrea, Ethiopia, and Sudan. Furthermore, the European Investment Bank (EIB) has funded geothermal power plants in Kenya and solar power facilities in Uganda.

2.5.2 The role of the African Development Bank in unlocking private climate finance in East Africa

AfDB promotes green growth and climate resilient development in East Africa, contributing to numerous green projects. These include renewable energy generation via solar, wind, and geothermal sources, along with energy efficiency upgrades in transmission and transportation. The Bank also encourages biosphere conservation and the reduction of emissions from industrial processes and solid waste management through incineration and landfill gas capture, among others. Additionally, AfDB invests in urban development, especially in improving urban drainage systems to combat climate change impacts and emphasizes water conservation through supply management and farming techniques.

As of April 2023, AfDB's energy portfolio in East Africa amounted to USD 3.0 billion, of which 35% is for generation, 27% for electricity access, 24% for regional integration (power interconnections), 11% for transmission and distribution, and 2% for studies, capacity building and technical assistance. Renewable energy (solar, wind, geothermal and hydro) accounts for 94.3% of the total power generation financing (USD 990 million). Furthermore, out of the total renewable energy financing, hydro accounts for 69.2%, wind 18.9%, solar 10.8%, and geothermal 1.1%. AfDB has supported key energy sector flagship projects in the region including the Lake Turkana wind project in Kenya and Uganda's Bujagali hydropower project.

AfDB's commitment to green growth signifies a crucial part of its comprehensive strategy to hasten the sustainable transition throughout East Africa. This is achieved by amplifying both the scale and the impact of investments, aligned with the implementation of the Ten-Year Strategy (TYS) 2013-2023 and the High 5s[35], which aim to accelerate the implementation of the TYS. According to estimates from Map Africa, AfDB implemented 42 High-5 projects in Kenya, 32 in Ethiopia, 7 in South Sudan, 15 in Djibouti, and 19 in Sudan. Building on these successes, AfDB is well positioned as a key catalyst for enhanced financing towards climate transitions and green growth in East Africa by continuing to:

- **Provide climate finance** - enhanced to at least 40% from own resources, allocation from managed climate funds. AFDB should increase climate flows to the East African private sector by deploying climate finance to commercial banks using debt, concessional loans, grants, etc., partnering with the private sector through public, private partnership (PPPs) to invest in large capital-intensive green projects that require patient capital and blended finance to enable private sector participation.

- **Strengthen regional private sector regulators** e.g., capital markets and stock exchanges—because a thriving East African capital market would play a huge role in catalyzing private sector climate investments such as green bonds, sustainability bonds, carbon market, etc. There is an opportunity for the creation of a regional stock exchange market that would ensure that no East African country is left behind.

- **Develop and pilot specialized financial products:** AfDB can develop specialized financial products that meet the needs of private sector investors interested in climate action and green growth, such as green

bonds, climate resilience funds, and sustainable infrastructure financing.

- **Increase risk-sharing mechanisms:** AfDB can increase its risk-sharing mechanisms, such as partial risk guarantees, credit guarantees, and insurance products, to mitigate risks and make it more attractive for private sector investors to invest in climate action and green growth projects.

- **Build local capacity:** AfDB can invest in building local capacity in climate action and green growth financing by providing technical assistance, training, and support to local banks, microfinance institutions, and project developers.

- **Support innovation:** AfDB should invest more in innovation in climate action and green growth financing by investing in research and development, promoting new technologies and business models, and encouraging experimentation and learning.

- **Increase transparency and accountability:** AfDB can increase transparency and accountability in its climate action and green growth investments by publishing detailed information about its financing activities, tracking, and reporting on outcomes, and engaging with stakeholders to solicit feedback and improve performance.

2.5.3 Collaboration among DFIs and MDBs to enhance private sector climate finance

Collaboration among development finance institutions (DFIs) and Multilateral Development Banks (MDBs) is essential to enhance private sector climate finance in East Africa. Launched at the COP27 in Egypt, the Bridgetown Initiative proposed an approach for MDBs and DFIs to scale up and respond to the financing requirements in developing countries by first, providing emergency liquidity to developing countries to stem the debt crisis, second, by expanding multilateral lending to governments and lastly, mobilizing private savings for climate action and green growth[36] (AEO, 2023). The AEO 2023 specifies five key actions needed to fulfil these ambitions: (i) becoming less risk averse; (ii) increasing the use of results-based payment instruments; (iii) building capacity in mainstreaming low-carbon, climate-resilient perspectives in policymaking; (iv) strengthening mandates, incentives, and internal capacity; and (v) working closely with governments to develop enabling policies and regulations to scale up private climate investment. Realizing these actions requires MDBs and DFIs mainstream into their operations the six building blocks of the Joint MDB Paris Alignment Framework. The key tenets highlight the importance of ensuring that developing countries' transition to low-carbon development places equal emphasis on mitigation, adaptation, and resilience. It is also important to note that climate finance, engagement, and policy development support and reporting are integrated into the operations of MDBs and DFIs. However, achieving these ambitions requires EA countries to develop their long-term strategies to inform these institutions on the key areas for investment (AEO, 2023). By working together, DFIs and MDBs can leverage their collective expertise and resources to support governments in creating an enabling environment for private sector investment in climate action and green growth. Some of these strategic collaborations worth mentioning are:

- **Developing toolboxes and enhancing partnerships for climate action:** For example, the DFIs+ Adaptation and Resilience Collaborative, a group of G7 development finance institutions that has put forward a practical plan to accelerate investments in adaptation and resilience in East Africa. The plan aims to leverage the toolboxes to reach

networks of the organizations involved, galvanize the practical collaboration and partnerships needed to develop domestic markets for adaptation and resilience business solutions, and accelerate their uptake.

- **Partnership on climate finance research:** For example, the 2020 Joint Report on Multilateral Development Banks' Climate Finance showed that climate finance to low- and middle-income economies committed by major MDBs rose to USD 38 billion. The total climate co-finance committed during 2020 alongside MDB resources was USD 85 billion. MDB climate finance and climate co-finance totaled more than USD 151 billion. The amount of private direct mobilization stood at USD 5.9 billion. A report like this is important in accelerating climate finance for Africa because it provides valuable data and insights on the current state of climate finance and the role of MDBs in mobilizing private sector finance for climate action. By tracking and reporting on climate finance commitments and co-financing, the report helps to identify trends, gaps, and opportunities for increasing private sector investment in climate action. The report also serves as a tool for accountability and transparency, allowing stakeholders to track the progress of MDBs in meeting their climate finance commitments. By providing a comprehensive overview of climate finance flows, the report can help inform decision-making by governments, MDBs, and other stakeholders on how to accelerate private sector investment in climate action in Africa.

- **DFIs collaborating to help the demand side of capital understand their ecosystem for enhanced access to climate and impact financing:** DFIs have a crucial role in accelerating climate finance in East Africa. In this regard, the Norwegian African Business Association (NABA) hosted an event that exemplified how DFIs can collaborate to enhance access to impact investments in the region in July 2021. The event aimed to help potential investees understand the strategies, criteria, and priorities of Nordic DFIs operating in East Africa. Representatives from IFU, Swedfund, Finnfund, and Norfund - Nordic Development Finance Institutions - shared their East Africa mandates and how they are working together to accelerate climate finance in the region. The event was an excellent opportunity for companies interested in partnering with DFIs or establishing investable projects to learn from the experiences of these institutions. Box 2.6 shows how banks can facilitate one of the innovative financing mechanisms that mobilize the private sector.

Box 2.6: How banks can facilitate one of the innovative financing mechanisms that mobilize the private sector e.g., SDRs, debt-for-climate swaps, nature-for-climate swaps

The huge climate finance gap for Africa is eight times Africa's annual climate needs while East Africa's is higher at ten times the region's annual climate needs. The climate finance gap is further worsened by the debt distress of most African countries. Therefore, this gap can only be bridged if MDBs and DFIs deploy innovative financing mechanisms, such as debt-for-climate swaps, SDRs, etc. to unlock additional finance towards climate and nature and catalyse private sector finance.

The MDBs and DFIs can facilitate the debt for climate swaps through:

i. Restructuring government debt held by domestic and international private financiers to unlock, redirect, and release some finance that goes towards climate and nature activities. OECD bilateral and some multilateral organizations, such as the IMF, are already doing this. In 2015, Seychelles did a debt-for-climate swap for USD 28 million.

ii. Working with countries to broaden adaptation investments that support vulnerable people's livelihood as part of green stimulus measures to support green recovery post-COVID-19 through debt-for-climate swaps e.g., GCF-green stimulus programme.

iii. Providing incentives to private sector actors to participate fully in sovereign debt relief efforts for low-income countries.

iv. Providing technical assistance for capacity building to support countries in debt restructuring would help to increase the number of countries willing to do debt-for-climate swaps which would result in lower restructuring costs and shorten the time required to release much needed liquidity.

2.6 Policy Recommendations

To effectively mobilize and scale up private finance for climate action and green growth across East Africa, all actors, including national governments, civil society, domestic and international private sectors, MDBs and DFIs, developed country governments, and regional economic communities, should play active roles as appropriate. Several short-, medium-, and long-term policy options to increase private sector financing of climate-compatible and green growth in East Africa are proposed and discussed here.

East Africa Governments:

Develop national architecture to crowd-in private financing for climate action and green growth, including from domestic private sector actors.

In the short term:

- Develop and cost long-term economy-wide strategies, consistent with the recommendations of the Independent High-Level Expert Group on Climate Finance[37], to inform domestic and international actors about EA countries' climate action and green growth priorities. These priorities should also be translated into sector strategies, plans, and regulatory frameworks implemented via a whole-of-government approach to maximize synergies.
- Strengthen governance and accountability mechanisms, particularly impact monitoring and evaluation, with explicit benchmarks for institutions in charge of managing these finances, to ensure that private investment and finance yields maximum impact for climate action and green growth. This will bolster the incentives for the private sector

East African governments should develop national architecture and accelerate the deployment of blended finance instruments to crowd-in private financing

to invest in climate action, including adaptation, which is critical for building resilience to climate shocks.

In the medium term:

- Implement PFM reforms to ensure that the required public resources are invested in climate action and green growth. Further-more, provide fiscal incentives to catalyze climate and green growth private sector capital: These could include tax credits, deductions, accelerated depreciation allowances, or tax exemptions on capital gains or income generated by companies that invest in renewable energy, energy efficiency, and/or other environmentally friendly projects. Kenya's Draft Fiscal Policy Incentives Policy Framework 2022, which seeks to provide a framework for fiscal incentives to attract private sector investment in a low carbon emission, climate-resilient, and environmentally sustainable economy, could be replicated across the region. Another notable example is Tanzania's "GreenEnergy Financing Facility" (GEFF), which was established in 2017 to provide concessional financing for renewable energy projects[38].

- Formulate and implement enabling regulatory and policy frameworks and develop markets to attract private investments and finance mainly in priority climate and green growth sectors while catalyzing and utilizing public resources to incentivize investments to these sectors. Considering their contribution to employment generation, micro, small, and medium-sized enterprises should be integrated into national climate and green growth strategies, particularly through access to affordable finance and skill development interventions. The African Continental Free Trade Area offers a frame-work for harnessing cross-boundary private sector investment opportunities.

- Introduce green finance regulations that require financial institutions to disclose their exposure to climate risks and to incorporate environmental factors into their investment decisions. One way to achieve this is by establishing a dedicated regulatory body at national level to oversee the development and implementation of green finance regulations, standards, and guidelines. For example, in Kenya, the Capital Markets Authority has developed guidelines on green bonds to provide clarity on the issuance and trading of these bonds. Similarly, the Central Bank of Kenya and the Nairobi Securities Exchange have issued guidelines on climate risk management and ESG disclosures and reporting, which will go a long way in greening the financial sector and unlocking private sector investments. Another option is to introduce regulatory measures that incentivize green investments, such as tax incentives and subsidies. In Rwanda, for instance, the government offers a 50% tax waiver on all import taxes for renewable energy equipment and accessories. This has helped to reduce the cost of investing in renewable energy projects and made them more attractive to private investors.

Accelerate the deployment of blended finance instruments to crowd-in additional private investment and finance.

In the short term:

- EA countries should study the diverse types of private investment, enablers, and barriers, as well as the private sector risk profiles and returns. This will also inform the appropriate catalytic reform actions for mobilizing the desired private investments.

In the medium term:

- Establish national standardized blended finance vehicles that offer competitive returns and deploy these vehicles for maximum development impact including through ensuring that investments illustrate financial and non-financial additionality and are commensurate with climate action and green growth needs. These outcomes should inform balanced allocation of blended finance to infrastructure financing, as well as social development and environmental management interventions.

MDBs and DFIs (including AfDB)

Support EA countries to achieve and maintain debt sustainability and contribute to efforts to improve the enabling environment for investments in climate action and green growth.

In the short term:

- Expedite alignment with the Joint MDB Paris Alignment Framework and commit to aligning support with the Bridgetown Initiative by ensuring that climate action is embedded in development financing and deploying catalytic instruments to catalyze incremental funding from the private sector for EA countries.

In the short- to-medium term

- Boost climate funding in the region by providing long-term and concessional funding and using financial structures that address barriers to investment, such as guarantees and other risk-sharing instruments. They should also roll out sustainable debt mechanisms to countries at high risk of debt distress, including through the development of capital markets and issuance of local currency denominated debt.

In the medium-to-long term

- Champion global efforts to support EA countries in establishing an enabling business regulatory environment for climate investment, as well as supporting progress towards a low-carbon pathway for the region. Achieving this objective will need MDBs, DFIs, and EA countries to collaboratively work together to periodically assess national climate and investment risk profiles, develop remedial approaches, and harness opportunities for bolstering climate resilience.

Scale-up risk agnostic catalytic funding that can more effectively illustrate the potential of EA's green economy for private investment and finance.

In the short-to-medium term:

- Increase the deployment of risk agnostic instruments, including guarantees and other risk-sharing instruments, to moderate the risks borne by private investors notably during early-stage investments. They should also develop and implement initiatives such as project preparation facilities, grants, and other concessional financing to support capacity development for project development.

In the medium-to-long term:

- Invest in bridging data deficiencies, notably data on climate risks and private sector financing to facilitate evidence-based policy responses.

Domestic and international private sector

Provide leadership in the identification of barriers, drivers, investment risks, potential and opportunities for resilient and green growth in diverse EA country contexts to underpin investment decisions.

Development finance institutions and multilateral development banks should scale-up risk agnostic catalytic funding that can illustrate the potential of the region's green economy for private investment and finance

In the short-to-medium term:

- Clearly outline the needs, barriers and gaps that hinder them from scaling up investments in the region and work with governments and other stakeholders to address these barriers. The private sector, both domestic and international, has a lot of feedback on what has worked and the areas that need improvement for them to channel investments to these countries. This feedback is vital for other stakeholders, such as governments. who need to create a favorable policy environment and targeted incentives to enable more private climate investment.

- Share key information on previous projects and investments to help other stakeholders understand project eligibility, risk profiles, minimum ticket sizes. This data will help governments understand how existing and future project pipelines can be better matched to investment opportunities.

- Change corporate strategies to enable allocation of own capital to climate-relevant investments. Kenya Commercial Bank (KCB) group, which operates across East Africa. began by adopting a long-term, sustainability-oriented mindset. This entailed setting ambitious environmental, social, and governance (ESG) targets and incorporating them into their core business strategies. By conducting thorough risk assessments and aligning their goals with global frameworks such as the Paris Agreement, corporations across the region can identify and prioritize climate-relevant investments that offer both financial returns and environmental benefits.

- Commit to aligning their investments with the Paris Agreement, including through ensuring that private finance and investments in East Africa consider climate risks and advance green transitions, sustainability, and climate resilience.

In the medium-to-long term:

- Diversify allocations of private sector investment and finance to maximize economic, social, and environmental outcomes. Whereas significant investments are required for sustainable infrastructure (such as clean energy and transport systems, green buildings, and industry), achieving just transitions to green growth requires countries to channel investments to other infrastructure that generate social and environmental development outcomes to trigger private investment.

- Provide "patient" capital to local actors, especially MSMEs. While larger enterprises and international private actors are more attracted to the implementation of larger mitigation projects which have bigger returns and reduced risk, smaller adaptation and mitigation projects will be implemented by local private sector actors, including MSMEs. However, the high interest rates, requirements, and procedures for accessing the existing funds make it impossible for these actors to access financing. Providing patient capital can release low-cost capital allowing for a longer repayment period and enabling domestic actors to increase their financing and implementation of climate projects in East Africa.

Developed country governments

Meet the international climate finance commitments and scale-up investments for climate action and green growth.

In the medium-to-long term:

- Honor their Paris Agreement commitments to mobilize USD 100 billion of climate finance on an annual basis for developing countries and make efforts to ensure balance in support to mitigation and adaptation. Get ready to

commit to a higher post-2025 climate finance target that is adequate to respond to developing country needs and channel flows to climate action and green growth.

- Considering that developed country governments account for the bulk of shareholders of MDBs and DFIs, they should spearhead conversations and actions that facilitate reduction of risk aversion in MDBs and DFIs, including through allocation of additional callable capital to MDBs, reducing capital adequacy ratios, and rationalizing profitability targets for DFIs.

All stakeholders

Develop and enhance partnerships in project development, financing, and implementation.

In the medium-to-long term:

- **Develop a pipeline of bankable and investment ready climate and green growth projects:** East African governments, AfDB, regional economic blocks like EAC, international development organizations, DFIs, and the local private sectors should collaborate to establish a pipeline of bankable and investment-ready projects in three critical areas: (i) energy transitions and sustainable infrastructure; (ii) climate change adaptation and resilience; and (iii) restoration of natural capital (through agriculture, food, and land use practices) and biodiversity. Continentally, the African Union, the African Development Bank Group, and Africa50—in partnership with several global partners—have launched the Alliance for Green Infrastructure in Africa (AGIA), an initiative to help scale up and accelerate financing for green infrastructure projects in Africa. The Alliance seeks to raise up to USD 500 million of early-stage project preparation and development capital. The goal is to boost project bankability and generate up to USD 10 billion in investment opportunities for the private sector. The EA governments and their development and private sector partners can support AfDB's efforts with AGIA, by forging an EA regional alliance for green infrastructure investment. This alliance could help amplify AGIA goals at the regional level by collaborating to identify and prioritize projects that can contribute to green transition and leverage regional potential in green growth investment opportunities to identify and mobilize private sources of financing.

- **Harness public-private partnerships (PPPs) to unlock private capital for green growth:** PPPs can stimulate innovation and create new markets across the region. EA governments, for instance, can provide financial and non-financial support for research and development in the early stages to trigger technological breakthroughs and reduce the risks associated with private sector investment. As these technologies mature, the public sector can adopt policies that provide clear and stable policy frameworks to unlock capital for green growth. Providing a continuous signal of sufficient investment certainty to the private sector will also help build confidence and ensure an enabling environment for further innovation.

3

NATURAL CAPITAL FOR CLIMATE FINANCE AND GREEN GROWTH IN EAST AFRICA

KEY MESSAGES

- **The East African (EA) countries and the communities that depend on natural capital are confronting the destructive impacts of the climate crisis.** Natural capital provides options for addressing the climate finance gap amidst tightened global financing conditions. EA holds a considerable proportion of Africa's natural resources, both renewable and non-renewable, ranging from crude oil, natural gas, geothermal, land, minerals, forests, and wildlife. The region also has the second longest river, the Nile, with significant renewable energy potential. Natural capital accounts for between 30% and 50% of total wealth in EA and over 70% of EA's population depend on natural capital.

- **EA's measured natural capital is estimated at USD 6.64 trillion during 2009-2018,** with renewable resources accounting for 98.5% of the total. Non-renewable resources, including mineral and fossil fuels, were estimated at USD 101 billion, equivalent to 1.5% of total natural capital. The region can draw on this immense natural capital to attract investment and accelerate economic growth, including through enhancing the institutional and regulatory environment. Nonetheless, EA has enormous potential in yet to be quantified and unutilized natural wealth that is currently not captured by the existing natural capital accounting methods. Consequently, the values of natural capital wealth used in this report are only indicative, with the actual natural capital values likely to be significantly higher.

- **Natural capital has potential of catalyzing improvements in livelihoods, job creation, and sustainable development, thereby enabling EA countries to overcome key development challenges.** Investment in natural capital can support countries to address macroeconomic imbalances and lay a foundation for inclusive growth. Investment in natural capital will also reduce climate change vulnerabilities and promote low-carbon, climate-resilient economies while ensuring sustainable development, livelihood improvement, energy security, and job creation. Public-private partnerships (PPPs) can facilitate the mobilization of private sector financing for natural capital investments by facilitating risk sharing and promoting opportunities for knowledge and technology transfer.

- **The EA region can avoid the resource curse by considering natural capital as an asset class to ensure sustainable utilization.** Through this approach, natural capital values are reflected in policy trade-offs and financial choices through incorporation into national accounts to inform public and private sector decision-making. This approach also responds to challenges and risks of investing in natural capital, including regulatory and policy uncertainties, market failures, and social and environmental risks. This step-change could unlock additional financing through nature-positive transitions and by catalyzing innovative financial instruments from the public and private sectors.

Harnessing EA natural capital for climate finance and green growth requires diverse policy actions by various stakeholders:

- EA governments and the global community should unlock new business opportunities, invest in green technologies and infrastructure, and promote investment innovations in natural capital and nature-positive projects. EA countries should scale up the preparation of bankable natural capital projects to tap into financing sources and instruments dedicated to low-emissions and climate-resilient development, such as the Green Climate Fund or the Global Environment Facility. Furthermore, developing green and carbon financing mechanisms will help to unlock private capital for green growth and sustainable development.
- The global community should honor commitments in international conventions including the agreement to establish a Loss and Damage Fund, the Global Biodiversity Framework, and the Paris Climate Agreement. Developed country governments need to set up a Global Nature Fund, which will consider and catalyze nature preservation and sustainable natural resources management. Realizing this ambition will entail financing the Global Biodiversity Framework and committing to mobilizing the annual financial needs of USD 200 billion.
- Development partners' sustained support in building government capacities remains critical, notably on the tradeoffs in natural resource revenue utilization, for instance for immediate development financing versus longer-term savings, including through sovereign wealth funds. The government and its development partners should also assess the role of state-owned enterprises, notably in natural capital operations, and implement the required remedial actions including institutional and human capacity strengthening.
- EA governments should invest in data collection to inform more comprehensive and accurate valuation and measurement of natural capital including integrating natural capital and ecosystem services into national accounts using the UN System of Environmental Economic Accounting. Ethiopia, Rwanda, and Uganda are among the EA countries already working on mainstreaming natural capital in national development.
- EA governments should improve financial and economic governance to enhance competitiveness and help to attract private investment and finance. Effective environmental, social and governance management systems should be implemented to ensure that revenues from natural resource extraction are utilized sustainably for maximum developmental impact. It will also be important for EA governments to deploy appropriate natural resource policies and instruments to finance sustainable and green growth, including fiscal policies and instruments to increase resource revenues and expand linkages with industrialization. It is equally important to review existing local content, value addition, and capacity needs to inform the required refinements.

3.1 Introduction: the case for natural capital as a key source of financing for climate-compatible and green growth in East Africa

The East Africa region, like other regions in Africa, is rich in natural resources ranging from crude oil, natural gas, minerals, forests, and wildlife. The bloc holds a significant proportion of Africa's natural resources, both renewable and non-renewable, called natural capital. Natural capital describes natural assets such as air, soil, plants, water/rivers, and all living things. It is comprised of all the ecosystem services that natural assets provide. Ecosystem services describe the flow of benefits which we gain from this natural capital. Examples of ecosystem services include provisioning services (such as food or water), regulating services (such as reducing regulating flooding or air quality), supporting services (such as photosynthesis and soil formation) and cultural services (such as sense of place recreation and aesthetic quality). Natural capital accounts for between 30% and 50% of the total wealth of the EA region. Over 70% of people living in EA depend on these. However, significant shares of these resources are unsustainable, while others are lost through illegal activities and mismanagement. Continently, USD 195 billion of natural capital is estimated to be lost annually through illicit financial flows, illegal mining, illegal logging, illegal trade in wildlife, unregulated fishing, environmental degradation, and loss, among others.

Today most of the EA countries are bedevilled by weak investment growth and macroeconomic instability, which weigh on economic activity. Inflation remains persistently high and above target despite early and sizable interest rate increases. Recent reports by the World Bank show that the economic growth in sub-Saharan Africa is set to slow down from 3.6% in 2022 to 3.1% in 2023. The real gross domestic product (GDP) growth of East Africa would decline to 3.0% in 2023 from 3.5% in 2022. The report further shows that investment growth declines across the sub-regions, both in resource-abundant and resource-scarce countries[39]. Added to these challenges is climate change, which has harmed human well-being in the EA region through consequences such as crop failure, flooding, loss of livelihoods, and respiratory illnesses with consequential damage. Amid the unfavourable global financial conditions and high levels of debt, the EA region has a climate financing gap estimated at an average of about USD 59.6 billion per year for 2020-2030[40]. In 2050, adaptation investment needs in EA would range between 0.3% of the gross regional product (GRP) in a low-warming scenario, and 0.6% in high-warming scenarios[41].

There is an urgent need to change this situation and restore macroeconomic stability. The rising gap between developmental needs and available financial resources provides the cogent reason to include natural capital in support of investment for the countries in EA region and Africa generally. Converting the rich natural capital into other forms of capital remains the most viable option to address the fiscal challenges and deepen structural reforms to foster inclusive growth. This simultaneously addresses climate change and brings about a low-carbon, climate-resilient economy, while ensuring sustainable development, livelihood improvement, energy security, and job creation. However, the EA region faces the dilemma of the 'paradox of plenty,' that is, countries highly endowed with natural resources but found at the bottom of economic development. To deal with the various challenges therefore requires a step-change which considers natural capital as an asset class to ensure its protection while used. This would help to also deal with the challenges and risks that include regulatory and policy uncertainties, market failures, and social and environmental risks.

This chapter, therefore, highlights the importance of natural capital as a financing option

for climate and green growth in East Africa. It provides evidence of the available natural capital present in the region and the opportunities inherent in them. It also highlights the past activities regarding extraction and related challenges such as rents and illicit trade. It concludes with policy recommendations to be implemented in partnerships and collaborations among stakeholders, including governments, MDBs and other financial institutions, civil society organizations, private sector actors, and local communities.

3.2 The Natural Wealth of East Africa

Natural capital accounts for between 30% and 50% of total wealth in the region and most of the population depends on forests and woodlands for their livelihoods

The EA region is endowed with rich natural resources that include iconic wildlife species, watersheds, arable lands, and minerals, and many others. The EA landscape is characterized by varied topography, from highly mountainous areas to savannah plains, arid deserts, and extensive wetlands. These diverse conditions have agro-pastoral, and agricultural livelihoods, nearly all of which are dependent on the bimodal or single rainy seasons that help shape its agro-ecological zones. The 13 EA countries namely: Burundi, Comoros, Djibouti, Ethiopia, Eritrea, Kenya, Rwanda, Seychelles, Somalia, South Sudan, Sudan, Tanzania, and Uganda, could be described by their distinctive stylized features in terms of being resource-rich (oil and mineral exporters), resource-scarce, land-locked (resource-rich and resource-scarce), and coastal (resource-rich and resource-scarce). These constraints are compounded by spatial and social factors, such as the large number of landlocked countries (5 out of 13), the geographic isolation of small island States, and vulnerabilities to domestic and external shocks.

Broadly defined as natural capital, these natural resources are an important source of revenue and critical to East Africa's economic growth. The use of the term 'natural capital' emphasizes that it is a capital asset, like physical capital (roads and buildings) and human capital (knowledge and skills)[42]." As an asset, natural capital provides current, future, or potential economic benefits and requires that its protection is incorporated into investment priorities.

The natural capital in East Africa comprises renewable and non-renewable assets. The renewable natural capital stocks/assets such as fisheries, forests and other ecosystems deliver goods and services in perpetuity, provided they are properly managed. The non-renewable natural capital such as minerals or oil, is finite and their use leads inevitably (even with partial recycling) to a decline in the useful stock of the resource, constraining its use for future generations. The EA region is endowed with precious metals, semi-precious metals, as well as metallic and industrial minerals. The EA region is also endowed with rich biodiversity and natural resources. It is host to some of Africa's largest freshwater lakes and wetlands supporting fisheries, agriculture, and tourism, as well as climate-sensitive ecosystems. The three most notable water bodies and systems of relevance to the East Africa region include: Lake Tanganyika (Tanzania, the Democratic Republic of Congo, Zambia and Burundi) - the greatest single reservoir of fresh water on the continent and the second deepest in the world, Lake Victoria (Kenya, Tanzania and Uganda) - Africa's largest lake and the world's second-largest freshwater lake, and the Nile River Basin (Egypt, Sudan, South Sudan, Eritrea, Ethiopia, Kenya, the Democratic Republic of the Congo, Burundi, Rwanda, Uganda, and Tanzania) – the source of the Nile, the longest river in the world.

As in most African countries, natural capital accounts for between 30% and 50% of total wealth in the EA region. Over 70% of people living in sub-Saharan Africa depend on forests and woodlands for their livelihoods. African Natural Resources Management and Investment Centre (2023) projections indicate that revenues from oil, gas and mineral discoveries in Africa

could generate between 9% and 31% of additional government revenue in several countries over the first ten years of production. For instance, like other EA countries, much of Rwanda relies directly or indirectly on natural capital to supply water security, food security, energy security, and the reduction of disaster impacts.

Unfortunately, the region's iconic landscapes and the communities that depend on natural capital are suffering from the destructive impacts of the climate crisis and nature loss. The pressure of growing human populations, changing weather patterns, rampant wildlife poaching and trafficking across porous borders, mismanagement and disjointed management of shared natural resources threaten these vital resources. The 2022 report on "Protecting Natural Capital in East Africa: The Cost of Inaction" noted that failing to protect East Africa's landscapes will cost the region more than USD 11.3 billion per year over the next few decades[43].

The mismanagement of natural capital in the region has also occurred because its total value is hardly reflected in policy trade-offs and financial choices. Up until now, the value of natural capital has often been neglected in traditional assessments of economic progress (GDP), with no account in budget resource allocation and development planning, and even policy and decision-making processes. To deal with this challenge, the UN System of Environmental-Economic Accounting (SEEA) has been developed. This assists countries to incorporate natural capital into their national accounts[44]. In EA, a growing number of countries, such as Ethiopia, Rwanda, and Uganda, are adopting the SEEA framework.

Natural capital as a share of total wealth has been declining over time across EA countries[45]. In value terms, with an inference based on available data for eight countries drawn from the Wealth Account of the World Bank (World Bank, 2021b), within a decade (2009 – 2018), the region's total measured natural capital was estimated at USD 6.64 trillion, with renewable resources accounting for 98.5% of the total. Non-renewable resources, including mineral and fossil fuels, were estimated at USD 101 billion, equivalent to 1.5% of total natural capital. Ethiopia, Kenya, and Tanzania had significant natural capital that contributed to their overall wealth (Figures 3.1a and 3.1b). The uptick in natural capital could be attributed to high commodity prices and demand for natural resources. The decline in the subsequent years was driven largely by rapid population growth, weaknesses in natural capital governance, and illegal activities, which led to the depletion of resources.

However, EA's natural wealth is yet to be accurately quantified, and the estimates provided here are only indicative. It is important to note that EA has significant potential in unquantified and yet to be utilized natural wealth, including water, land, minerals, oil, gas, sunlight, wind, biodiversity, and associated ecosystem services. Current approaches do not yet cover the entire value of natural resources that are critical to well-being, including water, air, and sunlight. In this context, the values of natural capital wealth used in this report should be considered as lower-bound estimates, with the actual natural capital values likely to be significantly higher. Going forward, countries including in EA should build their statistical and data capacity to accurately measure their natural wealth, including adapting SEEA.

The region's total measured natural capital was estimated at USD 6.64 trillion, with renewable resources accounting for 98.5% of the total, although actual natural capital values are likely to be significantly higher

Figure 3.1a: EA Average natural capital (2009-2018), USD Billion

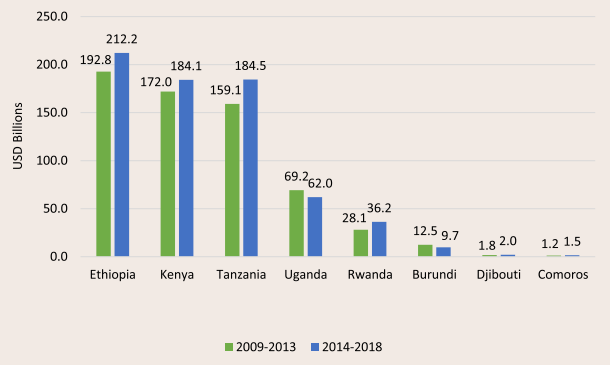
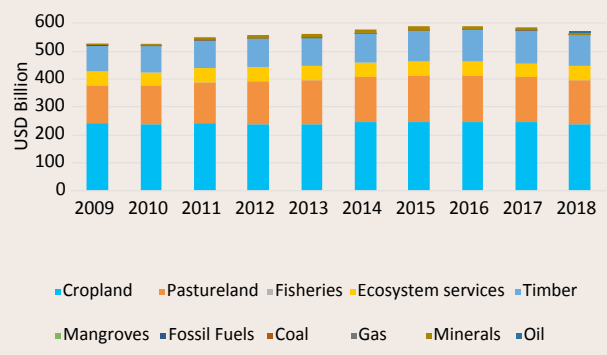


Figure 3.1b: EA Natural Capital (Billions of constant USD 2018)

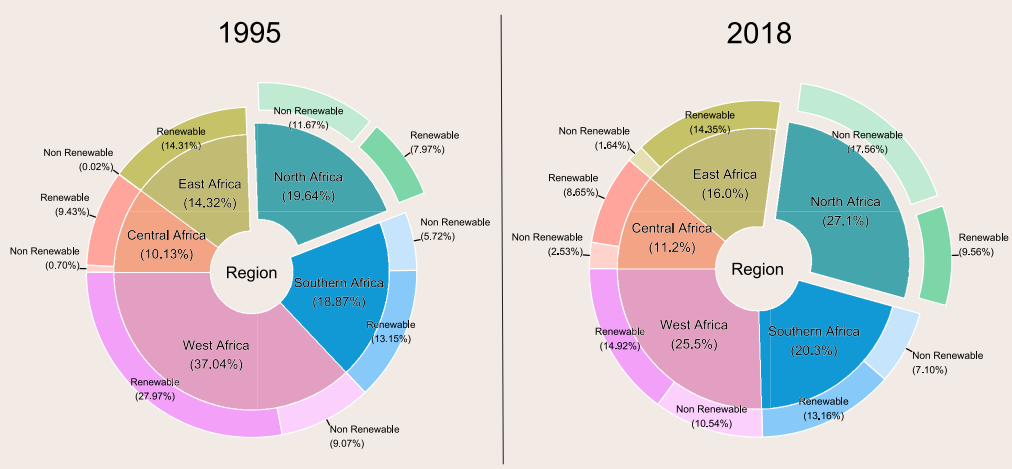


Source: African Economic Outlook (AfDB 2023)

Natural capital per capita decreased from USD 2,448 in 2009-2013 to USD 2,363 in 2014-2018

EA's measured natural capital rose by 2% (driven by the exploitation of non-renewable assets) and renewable assets increased by 0.04% (see Figure 3.2). Compared to the other regions in Africa, EA accounted for about 16% of the natural capital in 2018. North Africa, the richest region, accounted for 27.1% in 2018, followed by West Africa with 25.5%, Southern Africa (with 20%) and then Central Africa (11.2%).

Figure 3.2: Distribution of value of natural capital in Africa between 1995 and 2018 by region



Source: African Economic Outlook (AfDB 2023)

Kenya, Rwanda, and Tanzania had the highest average natural capital per capita between 2009 and 2018, while Burundi lags the region. Natural capital per capita, which measures the value of a society's stocks of natural assets by population, differs across EA countries. On average, Kenya has the highest value of natural capital per capita, which was USD 3,984 between 2009 and 2013 and USD 3,756 between 2014 and 2018. Rwanda's natural capital per capita

rose from USD 2,726 on average between 2009 and 2013 to USD 3,104 between 2014 and 2018, while Tanzania's increased from USD 3,476 between 2009 and 2013 to USD 3,480 between 2014 and 2018 (see Figures 3.3a and 3.3b). Burundi had the least average natural capital per capita, four times lower than Kenya's natural capital per capita and thrice lower than Tanzania and Rwanda. As illustrated in Figure 3.3a, some countries experienced a reduction in the average natural capital per capita between 2009 and 2018, notably Kenya, Ethiopia, Uganda, and Burundi. Considering that a large share of the population in East Africa depends on natural resources for their livelihoods, a reduction in the value of natural capital is expected to aggravate poverty and income inequality, as well as increase vulnerability to climate change risks.

Figure 3.3a: Natural Capital per capita in East Africa (constant 2018 USD) - selected countries

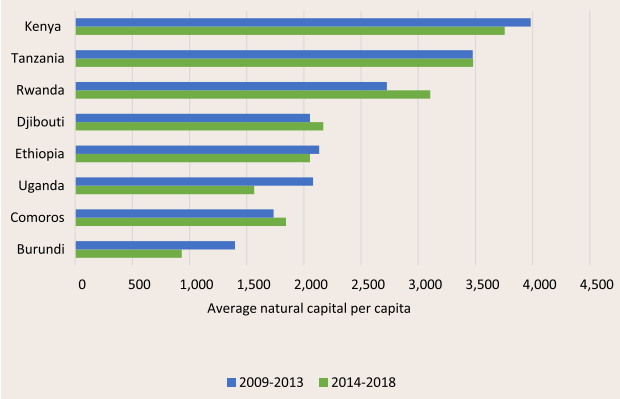
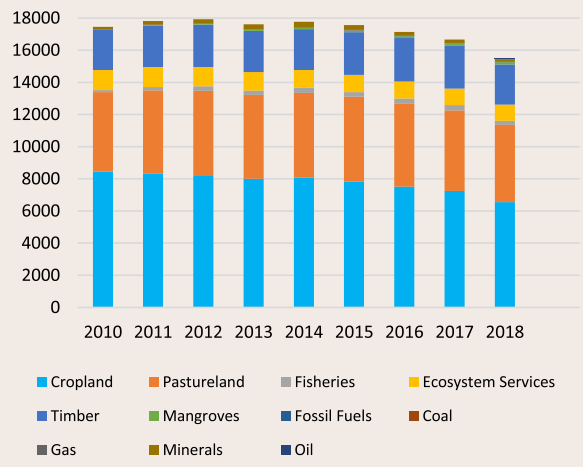


Figure 3.3b: Natural Capital per capita in East Africa (constant 2018 USD)

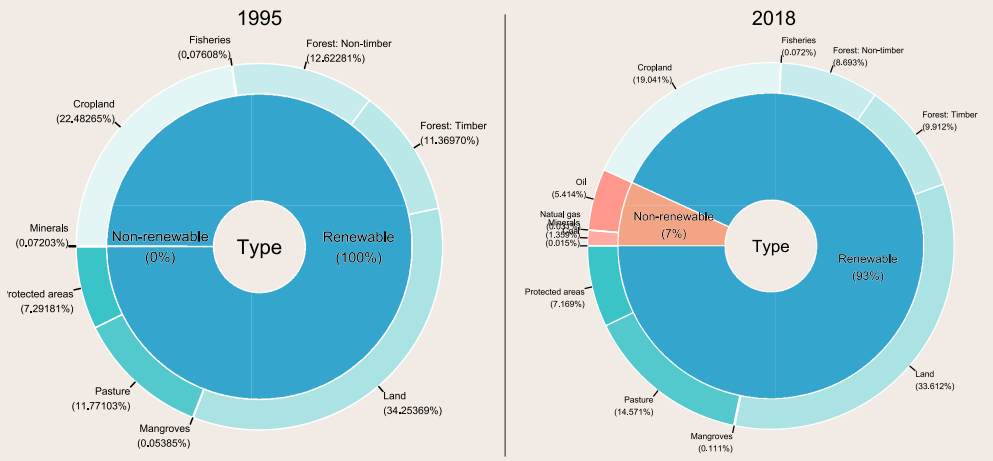


Source: African Economic Outlook (AfDB 2023)

3.2.1 Renewable natural capital in the EA region

Renewable assets dominate the total natural capital of the EA region, accounting for about 99% of the region's total in 1995 and declining to 93% in 2018. EA's renewable assets are dominated by cropland, pasture, timber, and protected areas (Figure 3.4). The region's renewable natural capital includes a wide variety of forests that support a wealth of biological diversity. The marine waters at the coast provide food, employment, and a source of foreign exchange for several countries in the region. The coastal beaches are a major tourist attraction in both Kenya and Tanzania[46].

Figure 3.4: Value of natural capital in East Africa by type



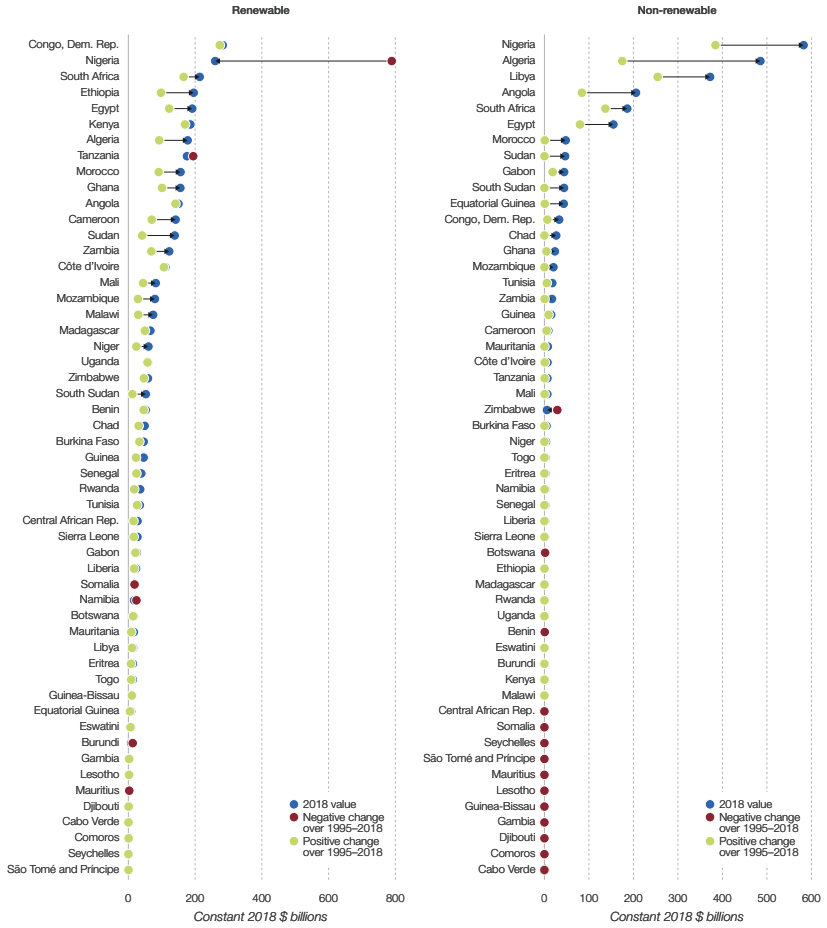
Source: AfDB Staff calculations using data from World Bank (2021b)

The EA region remains among the good performers in terms of changes in the value of renewable assets. The value of renewable assets decreased in six countries in Africa, three of which were EA nations – Burundi (-37%), Somalia (-4%), and Tanzania (-10%) and the other three were non-EA countries – Nigeria (-67%), Namibia (-29%) and Mauritius (-26%) (Figure 3.5). However, renewable assets registered growth in the remaining ten EA nations, supporting the relatively high share of renewable assets in the EA region as depicted in Figure 3.2. For example, the value of renewable assets increased for South Sudan, Comoros, and Djibouti by 333%, 258%, and 119% respectively between 1995 and 2018. Ethiopia and Kenya, the two biggest economies in the region, have ambitious renewable energy goals and supportive policies[47]. At the same time, Seychelles' Nationally Determined Contribution (NDC) goals include using 15% renewable energy by 2030[48]. Therefore, given the advantages of a green transition and the abundance of renewable resources, the rising values demonstrate the EA countries' growing interest in continuing to invest in renewable assets.

Box 3.1: The value of renewable natural capital in East Africa relative to other forms of capital

Capital, in whatever form, natural or non-natural capital, contributes to economic growth. However, the EA region is endowed with abundant natural capital. A transboundary landscape assessment spanning Burundi, Kenya, Rwanda, South Sudan, Tanzania, and Uganda estimated the value of natural capital in East Africa to be between USD 1.1 billion to over USD 50 billion. The Great East Africa Plain's annual regional value is estimated at USD 6.58 billion. The Northern Savanna's annual regional value is estimated at USD 3.46 billion. The Albertine Rift Forest's annual regional value is estimated at USD 1.19 billion. The Rweru-Mugesera-Akagera Wetlands' annual regional value is estimated at USD 64.4 million. In contrast to EA natural capital, financial capital or investment capital remain low in the region unable to match up with the natural capital. Although Foreign Direct Investment (FDI) grew by 35% to USD 8.2 billion in 2021 (UNCTAD, 2022), this was below the contribution of total natural resource assets of the region of over USD 20 billion.

Figure 3.5: Changes in the value of natural capital for African countries, 1995-2018



Source: African Economic Outlook 2023

As a group, EA countries performed quite well when the change in natural capital per capita is closely examined. In per capita terms, renewable assets in the EA rose for four countries, Djibouti, Seychelles, South Sudan, and Sudan. Seychelles' value of renewable natural capital per capita increased by 179% during 1995 - 2018, the highest amongst EA countries. This is no surprise considering that Seychelles' population has remained moderate over the years and the country has implemented a renewable resource policy. The country introduced the world's first debt refinancing for ocean conservation, such that one-third of its ocean territory is protected against climate change and unregulated economic exploitation[49]. The country remains committed to climate change adaptation: in 2021, it finalized a climate change strategic plan with targets for adaptation programs in transport, energy, and infrastructure. Hence, Seychelles' natural capital is yielding the desired welfare and economic effect and likely to meet its SDG 13 by 2030.

In aggregate terms, improvements in the value of renewable assets in the EA region may be adduced to recent policies supporting efficient resource management. For instance, Rwanda has received several awards for promoting and investing in renewable resource management. These awards include the Future Policy Award from the World Future in 2011 (as the cleanest capital after banning non-biodegradable plastic bags and its massive reforestation and tree-planting drive) and the Green Globe Award (for restoring nearly abandoned wetlands

Improvements in the value of renewable assets in the region are partly due to recent policies supporting efficient resource management, although exploration and production of oil and gas are lower in the region than elsewhere on the continent despite the discovery of large quantities of these non-renewable resources

to global standards that could support fisheries and hydropower). Rwanda committed itself to a restoration drive to maintain its wetlands, lakes, and natural forests and upgrading some forests to national parks. As a result, these parks have contributed to the growth of the tourism sector. In fact, as of 2014 and 2015, foreign exchange generated from these national parks was between USD 304.9 million and USD 318 million respectively[50]. Although renewable energy dominates total energy consumption, its share decreased during 2010-2019. This share declined from 90% in 2010 to 77% by 2019 for Rwanda, from 94% to 88% for Ethiopia, and from 93% to 90% for Uganda, in part due to inadequate policy enablers for renewable energy (see Appendix 3.3).

3.2.2 Non-renewable resources in EA region

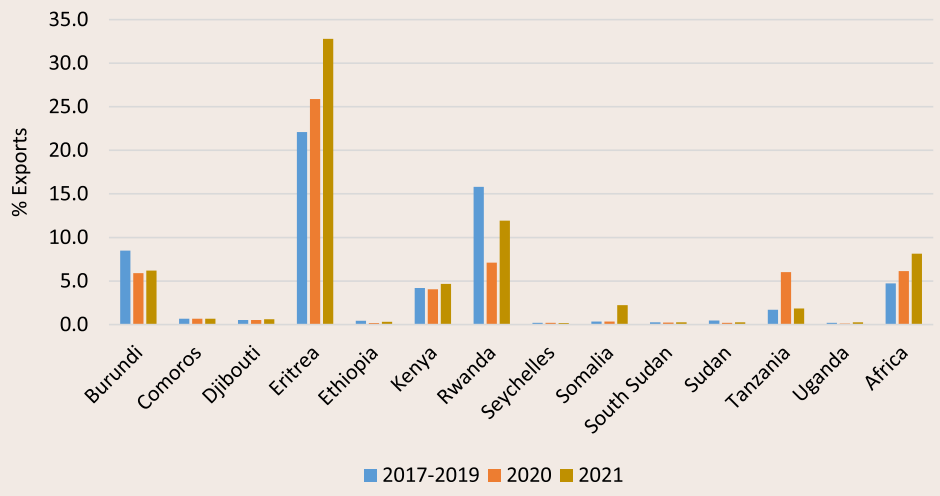
The EA region is endowed with precious metals, semi-precious metals, as well as metallic and industrial minerals. This range of minerals includes fluorspar, titanium, and zirconium, as well as gold, cobalt, nickel, diamonds, copper, coal, and iron ore, which are abundant in the region. Precious metals such as gold are found in large deposits in Kenya, Tanzania, and Uganda. Four EA countries (Somalia, Seychelles, Djibouti, and Comoros) had a poor or even non-existing non-renewable assets. For instance, Somalia has few mineral resources that include some deposits of tin, phosphate, gypsum, guano, coal, iron ore, and uranium with low quantity and quality for mining[51]. Djibouti has few natural resources; the country exploits salt with few exports and the remaining is marketed through the informal sector of the economy.

The discovery of large quantities of oil and gas deposits in the region has also added to the stock of industrial minerals with the potential of generating a large windfall of public revenues. Sudan and South Sudan have been top players in the non-renewable asset space, with both countries being the region's largest producers of oil and gas. With a refining capacity of 90,000 - 95,000 barrel per day (bpd), Sudan exported USD 317.0 million in crude oil in 2020. In 2021, its oil fields produced 59,000 bpd[52]. After Nigeria and Angola, South Sudan has the third-largest oil deposits in sub-Saharan Africa, with an estimated 3.5 billion barrels of reserves. South Sudan's oil and gas assets are still largely unexploited at almost 90%[53]. For example, Uganda has a reserve of 2 billion barrels of oil and expected government revenues of USD 3.2 billion annually until 2040. In Kenya, it is estimated that there will be USD 10.0 billion in government revenue during the anticipated 30-year oil production period.

Despite the discovery of oil and gas, exploration and production are still significantly lower in EA than elsewhere on the continent. The average percentage of natural gas export to total merchandise export between 2011 and 2021 was 0.16% and 0.14% in Tanzania and Ethiopia, the highest natural gas exporters in the EA region. Natural gas can bolster short-term energy security and generate revenues to finance investment in adaptation. Developing a national oil and gas strategy consistent with national development ambitions, including climate resilience and green growth, will enable EA countries to deploy these finite natural resource revenues towards climate and green growth. This will be very important for EA countries as they seek to ensure that the limited life span of their potential oil and/ or natural gas output can support broad-based growth in their economies and the region[54] while supporting environmental sustainability. Although oil discoveries have added a plus to the region's trade, the EA metalliferous ores remain one of the most traded minerals in international markets. Metalliferous ores (and scrap metal), with large deposits in Burundi, Eritrea, Kenya, and Rwanda, are the region's major non-renewable export, representing half (4.8%) of Africa's total exports (8%) in 2021 (Figure 3.6). The potential income from the

extractives sector, if used properly, could enable countries to fund physical and social infrastructure, thereby reducing poverty and promoting inclusive and sustainable growth.

Figure 3.6: Export of metalliferous ores and metal scrap



Source: Calculation from the AfDB Statistical Database

3.3 Approaches to increase the contribution of natural capital to financing climate and green growth in East Africa

Investing in natural capital for the EA countries provides the opportunity to further reorient their economy towards a greener and more climate-resilient economy as presented by the abundant natural resources. Such investment in natural capital portends massive economic, social, and environmental benefits and outcomes for the EA region. It also serves to stem natural capital and biodiversity losses as countries exploit nature to finance national development priorities.

3.3.1 Opportunities in non-renewable resources

EA countries need to harness the opportunities regional and global markets create to increase exports. Currently, the region lags in exporting some non-renewable resources, especially oil and gas and metallic resources, due to either limited technical know-how or the inability to meet market access requirements. However, it should be noted that promoting exploration, extraction and export of oil and gas will also raise concerns about stranded assets. The EA region can tap into the regional and global market of its non-renewable resources within and beyond Africa (Box 3.2). Climate friendly uses of natural gas include fertiliser production, liquified natural gas for cooking, and electricity generation to support renewable energy deployment. By replacing polluting kerosene and wood fuel in cooking, natural gas can contribute to stemming deforestation and addressing indoor-air pollution responsible for deadly respiratory diseases.

EA countries can cash in on the global green mineral boom, although about 70% of the EA's exports are unprocessed commodities. This situation must change with the right policies prioritizing industrialization and value-addition in mining and other resource sectors. Besides the oil in South Sudan, EA countries such as Uganda and Burundi host significant

volumes of copper, rare earth elements and iron ore, which will be needed for the energy transition. Admittedly, Uganda's deposits are currently not mined, but the rare earth deposits are being mined in Burundi. Thus, besides mineral rents that Africa does not control due to governance challenges, mineral beneficiation is critical for EA's structural transformation. The global shift to renewable energy sources is a great opportunity for EA to transition to a resource-intensive development pathway while also promoting decarbonization. Battery and electric vehicle initiatives provide a huge opportunity for Africa, which has already triggered an enormous surge of investment in green minerals. Several innovative financing mechanisms are emerging to support initiatives such as the battery and electric vehicle value chains. Enabling policies and regulatory frameworks are necessary to catalyze these initiatives and crowd-in the required financing.

Box 3.2: Harnessing non-renewable resources for low-carbon transition in East Africa

Growth across the countries and sectors has remained sluggish, dragged down by uncertainty in the global economy, the underperformance of the continent's largest economies, high inflation, and a sharp deceleration of investment growth, reports the Africa's Pulse, the World Bank's April 2023 update. According to the report, while the economic growth in sub-Saharan Africa is set to slow down from 3.6% in 2022 to 3.1% in 2023, the real gross domestic product (GDP) growth of East Africa will decline to 3.0% in 2023 from 3.5% in 2022. There has also been a decline in investment growth. This decline has been broad-based across the sub-regions, resource-abundant and resource-scarce countries, and types of investors (public, private, and foreign). Slower investment growth in sub-Saharan Africa is holding back long-term growth of output and per capita income.

There is an urgent need to cash in on the opportunities presented by the EA's natural resource wealth which holds significant untapped economic potential. The resource-rich countries can take advantage of the rising demand for minerals and metals linked to the global transition to a low-carbon economy (such as cobalt, copper, and lithium) to increase fiscal resources, create new regional value chains that produce jobs, and accelerate energy access on the continent.

However, to ensure that the apparent "resource curse" is turned into a "resource opportunity," good sector governance, appropriate taxation to capture a greater share of resource rents, and regional cooperation and investments are needed. For instance, the availability of battery-mineral and electric-vehicle (EV) cuts across East Africa into Central, East, and Southern Africa and requires regional cooperation to manage the value chains across the countries and regions more efficiently.

AfCFTA provides a platform to facilitate the development of regional green mineral value chains and the associated socio-economic opportunities

AfCFTA provides a platform to facilitate the development of regional green mineral value chains and the associated socio-economic opportunities. Through AfCFTA, several innovative financing mechanisms have been developed to support initiatives such as the battery and electric vehicles value chains. However, there is a need to invest in training and capacity building to tap the full benefits of the available minerals. Capacity building should be designed to promote natural resource governance, environmentally sustainable, safe, and socially responsible mining, and inclusion of mining communities as beneficiaries.

Although the value of mineral wealth is relatively low in the EA region, EA countries can also benefit from the huge global minerals

market (see Figures 3.7a and 3.7b). As depicted in Figure 3.8, in 2021, the global gold mining market was worth about USD 221,220 million driven by increased disposable incomes worldwide, changing consumer preferences and rising population of high-net-worth individuals[55]. Similarly, the global iron ore mining market was valued at about USD 2,675 million in 2021 and is expected to reach about USD 4,596 million by 2029, with a constant average growth rate (CAGR) of 7% by 2029[56]. For the forecast period of 2021 to 2028, the global market for tantalum is anticipated to expand at a rate of 4.70%. Tantalum is a very important mineral used in the global electronic industry. It is crucial in producing next-generation semi-conductors, allowing technology companies to create chips with ever-increasing knowledge densities.

Figure 3.7a: Value of Mineral Wealth in East Africa (Billions of Constant USD 2018)

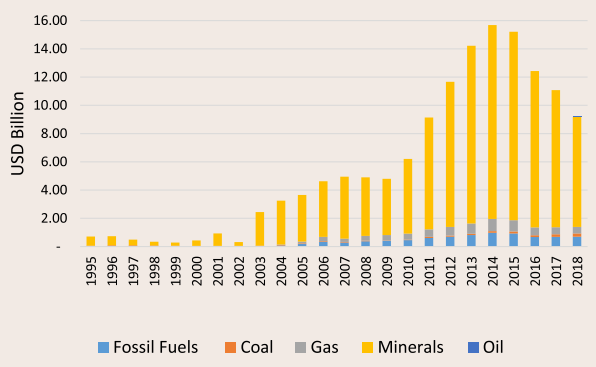
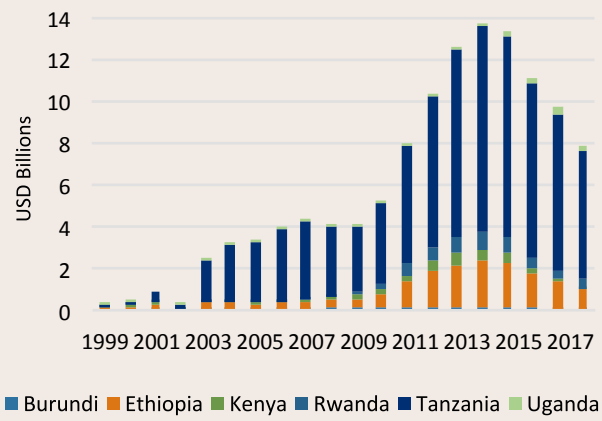


Figure 3.7b: Value of Mineral Wealth in East Africa by Country (Billions of Constant USD 2018)



Source: World Bank (2021b)

Figure 3.8: World market value of main non-renewable resources in the EA Region in Millions, 2021-2029

Source: globe newswire and maximizemarketresearch.com.

Geothermal sources in the EA region provide potential opportunities to raise funds to support the transition to a low-carbon pathway. Geothermal energy is considered clean, virtually inexhaustible, and with much less negative environmental impact than hydrocarbons. Further investment in hydrocarbons is expected to stagnate over time as the world moves away from fossil fuels. This is not so with geothermal sources, considered one of the best options for African countries to satisfy their energy demands using renewable energy resources. EA economies use available geothermal resources to generate an estimated 630 MW of power annually. Kenya is among the leading countries in harnessing geothermal energy, which accounts for over 40% of the country's energy mix. Kenya's progress in geothermal applications ranks among the top ten globally[57]. Ramping up investments in geothermal energy will enable the EA region to enhance energy security and reduce costly energy imports.

EA countries must deploy several fiscal instruments to extract resource rents from their non-renewable resources sustainably. EA countries have lost considerable tax revenues due to inadequate capacity to collect and account for resource revenues. The results of a 10-year (2002-2011) study published by Global Financial Integrity (GFI) 2014 reported that Kenya, Tanzania, and Uganda lost USD 435, USD 248, and USD 243 million respectively on average per year in potential tax and tariff revenue due to inadequate control on international trade and business activities. Apart from the three countries, most EA countries have lost revenue because of governments' inability to monitor, negotiate, and collect taxes effectively. EA countries face similar challenges due to inadequate human resources to implement these fiscal policies and enforce tax compliance. Also, the EA countries' inability to maximize extractive sector rents results from a variety of factors, including their inability to successfully negotiate favourable contracts with investors, and inadequate capacities and data to support fiscal modelling. Investors frequently take advantage of these flaws to engage in tax evasion and avoidance, illicit financial flows, and other illegal activities that deprive countries of considerable sums of money. Development partners can support capacity building efforts to enhance domestic resources mobilization.

Innovative financial instruments can generate revenue for resource rich countries, such as signature bonuses, production bonuses, royalties, indirect taxation, resource rent taxes, production sharing, social investments/infrastructure State participation, among others (Appendix 3.2). Each instrument serves specific objectives and can incentivize private investment and finance for climate and green growth. Signature bonus is a one-time fee for the assignment and securing of a license, paid irrespective of economic success for the contractor or licensee. In 2022, Somalia signed an oil exploration agreement for seven blocks with Coastline, an upstream oil and gas company focused on East Africa. Somalia received a signature bonus of around USD 7 million[58]. A royalty is a right to receive payment based on a percentage of the minerals produced or of the revenues or profits generated from the sale of those minerals or other products at a mine. Tanzania's Mining Act of 2010 (and revised in 2017) requires all producers to pay royalty fees on the gross value of minerals produced in Tanzania. Kenya's 2016 Mining Act enshrines taxation of royalties on mineral rights holders.

3.3.2 Opportunities in renewable resources

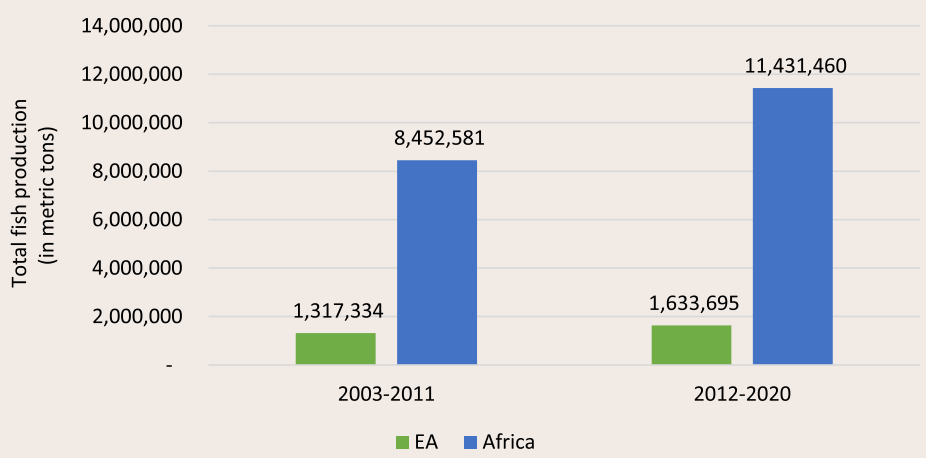
Opportunities for increasing the contribution of renewable natural resources to financing climate and green growth lie in various sectors. According to USAID[59], the renewable resources of EA responsible for providing ecosystem services, are valued at USD 11.3 billion and regulating services alone accounts

for 72.3% of the total value at USD 8.18 billion per year. These also offer unique opportunities to ensure a reliable and steady supply of clean water to people and businesses, pollution control, pollination, water purification, enhancing climate resilience through carbon sequestration and controlling soil erosion. There are opportunities also from exports earnings (timber, fisheries), blue economy sectors (tourism, transport, trade) or ecotourism.

Opportunities in Fisheries and Aquaculture

Fisheries and aquaculture are important for the sustainability of livelihood in the EA region. The fisheries sector employs about 17% of the total population in Seychelles[60] and this is increasing in the entire region due to growing fish demand. Due to increasing population growth and a vibrant economy, the total demand has increased in fisheries production[61]. However, fish supply is still low in the EA region given the several opportunities to boost sustainable fish production. As depicted in Figure 3.9, between 2003 and 2011, Africa produced an estimated 8.4 million tons of fish, while the EA region supplied 1.3 million tons representing around 15% of African production. Less than a decade later, Africa's production increased to 11.4 million tons and EA production rose to 1.6 million tons.

Figure 3.9: Total fish production in the EA region and in Africa



Source: Author's calculation from the AfDB Statistical Database

In value terms, EA countries earn differentially, especially for fish fillet, the largest area of trade apart from live and processed fish. Tanzania is among the highest fish fillet export earners at around USD 83.6 million, ranking the country 38th in the World and 1st in EA (Table 3.2).

Table 3.1: Estimated earnings from trade in fish fillet and live fish in EA countries 2021

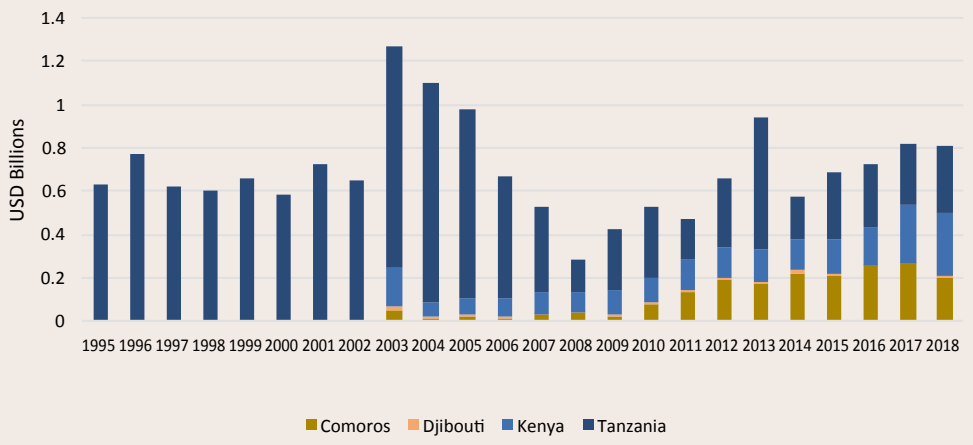
Country	Export (USD million)	Import (USD million)	Global Ranking
Burundi	-	-	-
Comoros	0.13	0.24	218th***
Djibouti	0.37	0.14	314th**
Ethiopia	1.1	0.62	161st
Eritrea	-	-	-
Kenya	12.80	3.16	68th**
Rwanda	0.36	4.26	121st**
Seychelles	16.6	0.19	63rd**
*Somalia	0.17	0.25	95th
South Sudan	-	$137	-
Sudan	0.53	0.38	138th**
Tanzania	83.6	0.90	38th
Uganda	37.5	0.96	53rd

*Live fish, ** export *** import

Source: The Observatory of Economic Complexity (OEC)

Average availability of fish in Africa is around 10 kg/year per capita, while in EA region it is still well below 3 kg, except for Seychelles (55 kg) and Comoros (15 kg) and Uganda (11 kg). Due to the region's closeness to tributary bodies and other characteristics, EA countries have a very strong comparative advantage in fish production. On average between 2002 and 2020, Tanzania produced 519,530 metric tons of fish, followed by Uganda's 483,843 metric tons and Kenya with 155,164 metric tons per year. Seychelles remains the most efficient fish producer in the region given its limited resources but a well-protected terrestrial and marine area – the 4th in the region. The value of capture fisheries in East Africa (Billions of Constant USD 2018) is portrayed in Figure 3.10.

Figure 3.10: Value of capture fisheries in East Africa (Billions of Constant USD 2018)

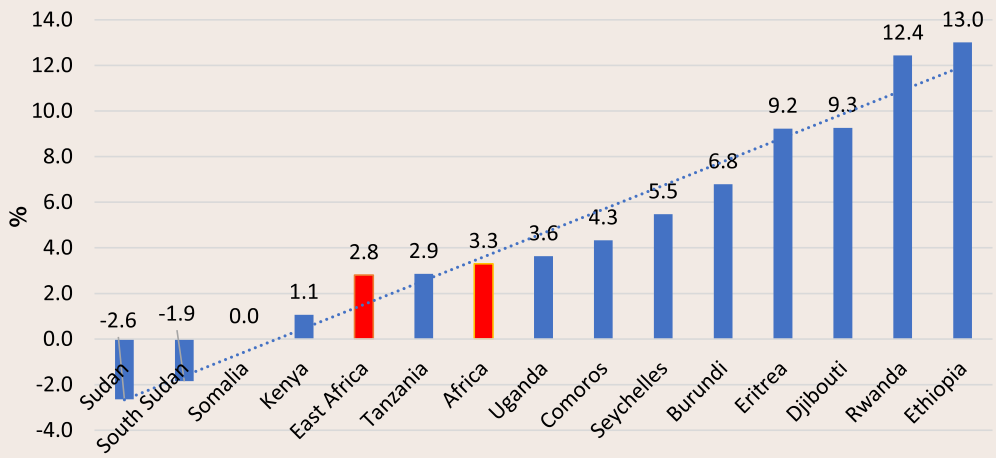


Source: World Bank (2021b)

Average growth rate of fish production in the EA region shows a significant differential progression. On average, within a decade (2010-2020), overall fish production grew at 2.8% in the EA region compared to 3.3% growth in Africa. Ethiopia and Rwanda had the highest growth rate of fish in the EA region (Figure 3.11), which is at least six times higher than theregional average and four times higher than the continental average. While Burundi, Comoros, and Seychelles had moderate average fish production, Sudan, Somalia, and Kenya had less than 2% growth in fish production between 2010 and 2020. Sudan and South Sudan had zero average growth rate of fish production, with both countries depending significantly on fish imports. For instance, with the largest inland waters of 9,503 per 1000 hectares, Sudan had the highest freshwater withdrawals of 317% of all internal water resources, with a fish production twice less than Kenya. However, Seychelles remains the most efficient fish producer in the region, given its least resources but a well-protected terrestrial and marine area. The value of captured fisheries in East Africa (Billions of Constant USD 2018) is portrayed in Figure 3.10. Environmentally sustainable aquaculture practices should be pursed to support the growth in fish production.

The fisheries sector, if well managed, has the potential to contribute to financing climate and green growth as part of natural capital through several opportunities, including the Blue Growth Initiative (BGI)[62]. The Food and Agricultural Organization (FAO) Blue Growth Initiative (BGI) emphasizes the need for growth, particularly in the fisheries and aquaculture sectors, to maximize economic and social benefits while minimizing environmental degradation from these sectors. The Blue Economy describes the sustainable use and conservation of aquatic resources in marine and freshwater environments. The United Nations Economic Commission for Africa estimates that Eastern African economies earn well over USD 10 billion annually from the Blue Economy. These earnings have the potential to finance green growth and address climate change through, for example, contributions and investments in Green Banks and National Climate Change Funds and Green Bonds.

Figure 3.11: EA region average growth rate of fish production, 2003-2020



Source: Author's calculation from the AfDB Statistical Database

Dealing with Illegal, Unreported, and Unregulated Fishing (IUU) in the EA region. IUU fishing is a global problem threatening ocean ecosystems and sustainable fisheries[63]. Poor ocean governance enables IUU fishing which negatively impacts on seafood value chains, the environment, society, and global food security[64]. Analysis of industrial IUU fishing in East Africa reveals that it is often facilitated by corruption. Evidence suggests that this occurs through the abuse of power and position by 'kingpins', who regularly wield control through intimidation and sharing the spoils of corruption within established networks. This enables corrupt industry players to secure illegal access to fishery resources and services and protection from oversight, investigation, and enforcement. The following approaches have been suggested to disrupt corruption in fisheries: strengthening on-the-ground anti-corruption capacity, fostering national interagency cooperation and increasing international cooperation, improving oversight of fishery agents, and supporting regional monitoring, control and surveillance centers and task forces[65].

Forestry resources opportunities

Opportunities for the forest resources to contribute to green growth lies in trading of forest products, including wood and non-wood products. According to the African Natural Resources and Investment Centre[66] from 2011 to 2020, the region enjoyed a total trade surplus of USD 1.24 billion (USD 124 million per annum) from trade in eight primary and secondary wood products. However, over the same period, the industry suffered huge trade deficits of USD 5.39 billion (USD 539 million per annum) from trade in six tertiary wood products. The over USD 4.4 billion trade deficits from wood products suggests regional demand that can be substituted by revamping the timber industry and producing more tertiary wood products. Furthermore, the huge trade deficit points to a weak industrial capacity and a loss of job opportunities and wealth creation within the region.

Forest resources have contributed to the GDP of EA countries and provided foreign

exchange earnings through export. Between 2008 and 2017, forestry on average contributed over 3-7% to the GDPs of Kenya, Rwanda, and Tanzania and over 10% to the GDPs of Burundi (21%), Ethiopia (14%), Somalia (14%) and Uganda (13%). Countries with the lowest contributions from forestry to GDP are the Seychelles (0.1%), Sudan (1.3%), Djibouti (0.8%), Comoros (2.0%) and Eritrea (2.6%)[67]. Despite its contribution to GDP, agriculture, forests, and other land uses contribute between 20 and 24% of the Global Greenhouse emissions. Sustainable management and restoration of forests and associated ecosystems is therefore critical for green growth[68].

Wildlife and associated landscapes opportunities

Ecosystem assessments show that wetland, savanna, plains, and forest landscapes generate benefits valued at USD 300, USD 500, USD 700, and USD 1500/ha/year respectively. For coastal and island countries, marine and coastal ecosystems are equally important. For example, Seychelles derives up to 20% of its GDP of USD 13,000 per capita from its marine and costal ecosystems. In the Comoros[69], the fisheries sector from the marine landscape alone currently contributes 24% to the nation's agricultural GDP and 7.5% to the national economy overall. Opportunities for green growth lies in the wildlife-based tourism, which is currently recovering from the impacts of COVID-19 pandemic. Ecosystem landscapes in wetlands, savanna, plains, and forests can offer green jobs in ecotourism and sport hunting for instance in Tanzania where this practice is legal. As the agricultural sector is hit with the impacts of climate change, the wildlife sector fares economically better particularly in lands with little rainfall[70]. Large investments in agriculture, such as the Tanzania's Southern Agriculture Growth Corridor (SAGGOT), has the potential for maintaining biodiversity and ecosystems to ensure the sustainability of ecosystem services from wildlife reserves within the corridor. Investments for food and nutrition security with opportunities for export earnings, using REDD+ to help finance transitions to low-emission energy systems, and designating wildlife corridors in conjunction to maintain biodiversity improve tourism revenues and minimize human-wildlife conflicts[71] and are unique opportunities for green growth in the corridor.

Ecotourism opportunities

Ecotourism, a form of sustainable tourism, provides potential and real opportunities for economic growth, especially to the communities in the EA region. EA region has a plethora of iconic natural resources and wildlife that provide opportunities for visiting to understand and appreciate nature with no or very limited negative impact impacts on the local community and wildlife. Some of the significant ecotourism sites in East Africa include the Maasai Mara National Reserve in Kenya, Serengeti National Park in Tanzania, Bwindi Impenetrable Forest in Uganda, and the Volcanoes National Park in Rwanda. The Maasai Mara National Reserve, which is the most popular among tourists, is known for its diverse wildlife including birds, lions, elephants, buffaloes, and leopards. The Economic Road Map and Visions of the East African Community Member States (Kenya, Tanzania, Uganda, Rwanda, and Burundi) view tourism development as a key pillar for national development. These countries also see it as a mechanism to alleviate poverty, generate foreign revenue for the government, and contribute to wildlife conservation. Tourism is a key sector in EA small island developing states such as Seychelles. In fact, Seychelles (62%) is amongst the most tourism-driven countries in terms of the sector's contribution to national GDP, while intraregional tourism is strong in the East African Community[72].

The region's nature-based tourism industry, which is almost entirely dependent on wildlife and protected areas, contributes 7.5-10% of the GDP to the region and supports local communities who depend on natural capital for their livelihoods. According to the Bank of Tanzania Monthly Economic Review, travel receipts from tourism almost doubled to USD 2,560.7 million in 2022 from USD 1,310.3 million in 2021, consistent with the rise in the number of tourist arrivals after lifting COVID restrictions. It is estimated that revenues from tourism will reach 19.5% of GDP in 2025/2026 from the current 17.5%. In Kenya, earnings from tourism rose to USD 2.13 billion in 2022 compared to USD 1.16 billion in 2021 according to the Tourism Research Institute (TRI), in part due to the COVID-19 pandemic. In Rwanda, the recent economic updates (2023) show that tourism is a major source of Rwanda's foreign exchange earnings and tends to generate a higher proportion of formal sector jobs than other sectors. Nature-based tourism (Gorilla trekking is the main attraction) accounts for 80% of leisure and business visitors in Rwanda[73]. Annual visitation to Rwanda's three national parks (Volcanoes National Park, Akagera National Park, and Nyungwe National Park) rose from 43,083 in 2008 to 107,976 people in 2022. Over the same period the revenues of these national parks increased from approximately USD 8.20 million to USD 27.3 million[74].

In terms of opportunities, it is important to charge international visitors enough (to extract at least some of their consumer surplus), and to ensure that revenues are retained in the countries and not "leaked" to international travel agencies. To make ecotourism serve as an important driver of inclusive growth, job opportunities, and wealth creation, there is need to strengthen intersector and regional linkages. EA countries should build on existing efforts to foster joint projects for infrastructure development and investment in the ecotourism sector amongst members.

Green and blue bonds

As EA renewables sector begins to take off, green and blue bonds can create an opportunity for the region's governments to generate more of the finance it needs for renewable resources programs. Kenya has become the first nation in Africa to release a green bond, marking a significant development for the country's financial services industry. Kenya's place as a regional leader in environmentally friendly financing choices has been strengthened by this new green finance instrument, which has also reaffirmed Kenya's commitment to making a positive difference in national development. A USD 4.3 million green bond was the first to be released in October 2019. The Dutch Development Bank, the Climate Bonds Initiative, and the Kenya Securities Exchange worked together to create the Green Bond Program which offered technical support to prospective issuers, issuer training, policy research, and green finance regulations. The Republic of Seychelles issued the first sovereign blue bond in history in 2018, a ground-breaking financial product created to finance marine and fisheries initiatives with a long-term commitment to sustainability. The bond, which collected USD 15 million from foreign investors, shows how nations can use capital markets to finance the sustainable exploitation of marine resources. Climate finance flows are important as back up to green bonds. The three main recipients of public climate finance in the region who are members of the East Africa Community are Kenya, Tanzania, and Rwanda (75% of inflows) with main sectors of inflows being agriculture, energy generation, renewable sources, water supply and sanitation and energy distribution. Thus, given the attempts by Kenya and Seychelles to enter the bond market, other EA countries

can follow the same course to improve their ecosystem.

Debt-for-nature swaps

Public debt has increased in East Africa since 2010 and was estimated at an average of 57% of GDP in 2022, which has constrained fiscal space for growth-enhancing and poverty-reducing expenditure. Debt-for-climate swaps and debt-for-nature swaps seek to expand the fiscal space to bolster resilience without triggering a fiscal crisis or sacrificing spending on other development priorities. Creditors provide debt relief in return for a government's commitment to, say, decarbonize the economy, invest in climate-resilient infrastructure, or protect biodiverse forests or reefs[75].

Recognition of the magnitude and importance of climate and nature for the future sustainability of regional member countries that will help countries reduce their reliance on foreign debt and build resilience. Specific AfDB interventions include financing strategies tailored to countries with security-related issues (security-investment-indexed bond), natural resource-rich countries (resource-backed loans) and supporting countries facing climate and biodiversity issues (debt-for-climate-and-nature swaps)[76]. In a report released on 13 October 2022, the African Development Bank (AfDB), in partnership with the Potomac Group and the World Wildlife Fund (WWF), recommends that African States turn to debt-for-nature/climate swaps to *"mobilize biodiversity financing for nature-friendly projects on a case-by-case basis, as tailored solutions are needed for optimal results.[77]"*

Some East African countries have already completed debt-for-nature swaps with commercial and bilateral creditors such as Tanzania (with commercial banks and Russia) and the Seychelles, a Commonwealth Small State, who became the first ever country to successfully undertake a debt-for-nature swap to protect the world's oceans in 2018. This was a compelling example of leveraging a country's assets as part of the Blue Economy Sector – a comparative advantage for Large Ocean States.

3.3.3 Opportunities in resource conservation and restoration

Up to 65% of productive land is degraded, while desertification affects 45% of Africa's land area. And while the overall trend is moving downward, net loss of forests is still increasing in Africa, with four million hectares of forest disappearing every year. So, there is clearly a need for ecosystem/landscape conservation and restoration. In EA, the landscape authorities and stakeholders have taken some initiatives to restore previously degraded landscapes, mitigate threats and enhance resilience to climate change. In Uganda, the government has pledged (Bonn Challenge - a global effort intended to restore 150 million hectares of the World's deforested and degraded land by 2020 and 350 million hectares by 2030) to restore 2.5 million hectares of deforested and degraded land by 2020. The AFR100 (the African Forest Landscape Restoration Initiative) is a country-led effort to bring 100 million hectares of land in Africa into restoration by 2030. For the eight countries in the EA region participating in the AFR 100 initiative (Burundi, Ethiopia, Kenya, Republic of Sudan, Rwanda, Somali, Tanzania, and Uganda), total commitments amount to 47.9 million hectares, close to 50% of the total Africa restoration pledge by 2030. For EA, Ethiopia and Sudan lead the efforts regarding the contribution of each EA country, in million hectares of land per year. These efforts contribute to global initiatives in addressing climate change (The Paris Agreement), Africa's Agenda 2063 (The Future we Want), Sustainable Development Goals, Bonn Challenge, the African Resilient Landscapes

Initiative (ARLI), the Post 2020 Global Biodiversity Framework and the Sendai Framework for Disaster Risk Reduction (2015-2030).

Some EA countries in the region are dominated by dry landmass. These include Djibouti, Ethiopia, Eritrea, Kenya, Somalia, South Sudan, Sudan, and Uganda, which are dominated by dry landmass. This requires actions that target rangeland and woodland management, water availability and access, biodiversity, and the control of invasive species for the natural resource base and ecosystem services for livestock production. For millennia, pastoralism has adapted to the dryland and dominated the region's livestock production[78].

Africa Open Data for Environment, Agriculture and Land (DEAL) by the Great Green Wall programme provides opportunities for capacity development in using digital technologies for conservation and restoration. The initiative has made Africa the first continent to complete the collection of accurate, comprehensive, and harmonized digital land use and land-use change data. It provides a detailed snapshot of the continent, captured through more than 300 000 sampling points collected by 350 operators in two years. The EA region can leverage this to harness natural capital opportunities by optimizing resource efficiency and productivity gains by greening value chains. This could also be leveraged to reduce the fiscal cost of subsidies through realignment. Furthermore, it could leverage global financing options for green growth, building targeted public-private partnerships, and harness other budgetary and environmental policy tools.

3.3.4 Opportunities from International Agreements

International agreements and the associated Conference of Parties offers Africa leaders the opportunity to negotiate changes that are in favour of Africa. This include making finance available and boosting non-financial efforts, such as education. It is generally accepted that Africa's contributions to greenhouse gas emissions causing global warming are among the lowest globally (about 4% globally). Without financial support, climate change is projected to push tens of millions more Africans into extreme poverty by 2030.

Opportunities from the Paris Agreement

Without financial support, climate change is projected to push tens of millions more Africans into extreme poverty by 2030[79]. To tackle climate change and its negative impacts, globally, world leaders reached a breakthrough historic Paris Agreement at COP21 on 12 December 2015 in Paris which entered into force on 4 November 2016. Today, 194 Parties have joined the Paris Agreement including the EA countries. Article 2.1c requires making finance flows consistent with a pathway towards low greenhouse gas emissions and climate-resilient development, creating opportunities and alignment for climate finance. The Paris Agreement provides a strong framework for financial, technical, and capacity-building support to countries that require this, in Africa and elsewhere. It reaffirms that developed countries should take the lead in providing financial assistance to more vulnerable and less-equipped countries, to fund measures both for mitigation of and adaptation to the effects of climate change. This includes transfer of technology, for which a mechanism and framework is defined. As the Article 6 rulebook gains traction, flows of funding and technology from the developed world to Africa would need to increase, if those countries are to fulfil their obligations under the Paris Agreement. At COP27, negotiators were able to thrash out more of the practicalities involved, operationalizing a lot of crucial guidance on reporting requirements, enabling greater progress in the coming years

based on productive discussions on crucial low-emission development activities, improved access to finance and resources, as well as conductive domestic institutional set-ups—translating into practical climate action[80].

Opportunities from carbon markets

All Eastern African countries intend to participate in Article 6 and have established readiness activities. And this has happened through cooperation with the Eastern African Alliance (EAA), UNFCCC regional collaboration centre, and several development partner activities. No country has fully established all participation requirements, but all of them are working towards this objective. However, some countries have already taken steps towards active Article 6 pilot activities, such as Ethiopia and Kenya. Additional bilateral cooperation initiatives are being discussed between several ITMO buyer countries and Eastern African States but have not yet decisively moved ahead. Additional efforts and opportunities for accessing carbon market revenues can also be found in several member States. Some countries, such as Sudan, are exploring ways to strengthen access to climate finance resources, e.g., from the GCF. Most Eastern African countries explicitly mention their interest in using international market-based mechanisms to achieve their NDCs. The regional NDCs estimate that circa USD 394.2 billion will be required for mitigation and adaptation actions across all sectors and countries until 2030[81]. Kenya, Rwanda, Tanzania, and Uganda Airlines are already participating in Carbon Offsetting and Reduction Scheme for International Aviation's (CORSIA) voluntary pilot phase (2021- 2023).

To enable the voluntary carbon market (VCM) in the context of the Paris Agreement, Kenya, one of the East African countries, joined other African countries (Malawi, Gabon, Nigeria, and Togo) to launch the Africa Carbon Markets Initiative (ACMI) at COP27 in Egypt in 2022. The ACMI, which seeks to unlock USD 6 billion in revenue and create 30 million jobs by 2030, is intended to produce 300 million carbon credits annually[82]. If well operated, the collaborative efforts through ACMI would ensure that the African nations get the right price for trading their carbon on the global credit markets. VCMs allow capital to flow to projects that reduce/avoid or remove/sequester carbon and to propel new carbon capture technologies[83]. VCM will also create an opportunity for East Africa countries to develop carbon projects that could channel international investment to address environmental challenges. In fact, the carbon markets could be leveraged to drive development priorities such as expanding energy access, improving health through clean cooking, and creating jobs[84].

The abundant natural resources in East Africa present opportunities to generate carbon credits from various project types, encompassing forestry and land use, agriculture, blue carbon, renewable energy, household devices, transport, livestock, waste management, industrial gases, and engineered carbon dioxide removal. To support a wide range of audiences, including investors, policymakers, academics, and other stakeholders, the East African Alliance on Carbon Markets, working with other partners, developed carbon market profiles that cover seven countries in the region: Burundi, Ethiopia, Kenya, Rwanda, Sudan, Tanzania, and Uganda. They offer a comprehensive overview of the current state of the carbon markets in each country, including details on market mechanisms, Article 6 readiness, and project types.

A key challenge identified in the report profiles by the Alliance for responsible authorities is establishing institutional frameworks and oversight for the diversity of Article 6 cooperative approaches, including the VCM. It recommends that the region build on its substantial pipeline and expand to additional activity

types aligned with NDCs and Article 6 rules, carbon market implementation at scale[85]. Also, high integrity carbon credits need to be generated to accelerate investments and financing for sustainable development. KPMG Advisory Services Limited (Kenya) has noted that to benefit from carbon market, there is need for a multifaceted approach with the aim of tapping into the continent's abundant resources.

Opportunities from European Union Carbon Border Adjustment Mechanism (CBAM). The EU brought about the Carbon Border Adjustment Mechanism (CBAM) within the EU Green Deal to combat climate change and address potential carbon leakage. It serves as a supplemental measure to and mirrors the EU ETS. It imposes a charge on the embedded carbon content of certain imports that is equal to the cost imposed on domestic goods under the ETS, with adjustments being made to this charge to consider any mandatory carbon prices in the exporting country[86].

Using a general equilibrium model, UNCTAD, in a study, looked at the potential effects of a CBAM on international trade, carbon dioxide (CO2) emissions, income and employment, with a particular focus on developing and vulnerable countries such as those in the EA region. The study confirms that introducing carbon pricing and a CBAM helps reduce CO2 emissions inside and outside the European Union. International trade patterns change in favour of countries where production is relatively carbon efficient[87]. Thus, mechanisms for ensuring carbon efficiency across sectors that emit carbon are vital to tapping into the opportunities of the CBAM. Article 6.2 of the Paris Agreement describes cooperative approaches that parties may engage in that involve internationally transferred mitigation outcomes (ITMO). This sets the foundations of the accounting framework behind international cooperation and EA countries need to understand this as well for effective engagement with the EU.

Opportunities from AfDB's Adaptation Benefits Mechanism (ABM)

The ABM builds upon a non-market mechanism of the Article 6 of the Paris Agreement. It is designed to enable actors to purchase a wide range of 'adaptation benefits' from private or public sector project developers. The ABM, which is managed by the AfDB, provides an innovative mechanism for mobilizing new and additional public and private sector finance for enhanced climate change adaptation action across Africa. This provides opportunity to speed up transformation to low-carbon, resilient and sustainable development across Africa including the EA region by giving value to resilience. The ABM is a results-based, non-market finance mechanism that channels resources to projects enabling communities, economies, and ecosystems to adapt and build resilience to the negative impacts of climate change (AEO, 2023). It aims to de-risk and incentivize investments by facilitating payments for delivery of adaptation benefits.

Opportunities from Loss and Damage Fund of COP 27

At COP 27 in Sharm El-Sheik, Egypt in 2022, a breakthrough agreement was reached to provide "loss and damage" funding for vulnerable countries hard hit by climate disasters. This fund seeks to provide financial assistance to developing countries that are most affected by losses and damages from climate change including rising sea levels, higher temperatures, and extreme weather events. Parties also agreed on the institutional arrangements to operationalise the Santiago Network for Loss and Damage to catalyse technical assistance to developing countries that are particularly vulnerable to the adverse effects of climate change[88].

The loss and damage fund allows EA countries to address the impacts on communities whose lives and livelihoods have been ruined by the very worst impacts of climate change. Drought, floods, and other climate change-related disasters are common in the EA region, for instance, in Somalia, the Horn of Africa and Kenya. However, many aspects of its governance are still to be resolved, and how much money is to be raised and from where are uncertain. These issues are expected to be finalised at COP28.

Opportunities from Convention on Biological Diversity

To address the loss of biodiversity and restore natural ecosystems by 2030 at the United Nations Convention on Biological Diversity (CBD) Conference of Parties (COP15), held in Montreal in December 2022, at least 188 world leaders adopted the Kunming-Montreal Global Biodiversity Framework (GBF). The GBF replaces the CBD's Strategic Plan for Biodiversity 2011-2020 and its Aichi Targets. The ambitious target of the GBF provides opportunities for the EA countries to ensure a healthy natural ecosystem that reduces direct and indirect climate risks and provides amenities for the people and economy. The GBF targets progressively phasing out or reform, by 2030, of subsidies that harm biodiversity by at least USD 500 billion per year while scaling up positive incentives for biodiversity conservation and sustainable use. It targets to mobilize by 2030 at least USD 200 billion per year in domestic and international biodiversity-related funding from all sources – public and private. It also intends to raise global financial flows from developed to developing countries particularly least developed countries, small island developing States, and countries with economies in transition, to at least USD 20 billion per year by 2025 and to at least USD 30 billion per year by 2030.

The inherent opportunity for the EA countries is massive financial flows for investment in nature-based solutions (NbS), expected to double urgently by 2025 and triple by 2030. NbS play a significant role in addressing a broad range of societal challenges, from managing water scarcity to reducing disaster risk to poverty alleviation. The World Economic Forum (WEF) estimates that nature-positive policies could attract more than USD 10 trillion in new annual business value and create 395 million jobs by 2030 (WEF 2020a).

For the EA countries to benefit from the opportunities the GBF provides, it is critical for them to rapidly align policies, regulations, economic activity, and financial flows with biodiversity values and with the Paris Agreement. Governments must lock in binding targets on biodiversity loss, take urgent action to raise ambition and implement emissions reduction targets in line with the Paris Agreement and act on land restoration commitments. These targets must be underpinned by broad-based resource mobilisation from all sources (public and private)[89]. Increasingly international attention demands that official development assistance (ODA) makes all financial flows nature or biodiversity positive. This is expected to help *reform harmful subsidies, reduce investment risk, and support financial innovations to i ncrease capital flows towards natural capital protection.*

Global initiatives such as the Reducing Emissions from Deforestation and Forest Degradation plus (REDD +) and related or similar programs, provide opportunities to mobilize resources to support nature in countries such as Kenya, Rwanda, Tanzania, and Uganda, which are REDD+ countries. To mine opportunities, Tanzania, for instance, has revealed that the costs of REDD+ implementation in Tanzania are estimated to range from

USD 4.8-13.8 per carbon ton equivalent (tCO2) depending on the location and carbon sequestration rates. The UNFCCC's decision at COP 21, the Paris Climate Agreement (UNFCCC, 2015), also recognized the continued importance of adequate financial resources for the implementation of REDD+ and the results-based payments for REDD+. Large amounts of funds are needed to finance all phases of REDD+ – readiness, capacity building, and piloting.

EA countries should seek opportunities to earn carbon credit from sequestration. Carbon sequestration is the process of capturing and storing atmospheric carbon dioxide. It is one method of reducing the amount of carbon dioxide in the atmosphere to reduce global climate change.

The EA countries do not produce a lot of energy that emits carbon and thus seek to rely on putting carbon into ecosystems such as soils in their ambitious mitigation measures[90], i.e, sequester carbon in soils. In 2014, Kenyans earned the first-ever carbon credits from sustainable farming. Over 60,000 farmers were involved in the Kenya Agricultural Carbon Project (KACP), which spans 45,000 hectares and supports more productive, environmentally sound, and sustainable agricultural practices. After years of land degradation, many farmers battled to produce enough food for their families. The project issued its first carbon credits under the Verified Carbon Standard (VCS) for sequestering carbon in the soil. The credits represent a reduction of 24,788 metric tons of carbon dioxide, equivalent to emissions from 5,164 vehicles in a year. The carbon credits generated were estimated at USD 600,000. This proves that sound environmental practices make good business practices.

Rigorous, accurate and low-cost carbon monitoring system is needed to ensure adequate and healthy carbon storage in soils and vegetation for climate-change mitigation and soil health. This helps policymakers verify the effectiveness of their efforts when they seek international climate financing. To develop the first high-resolution carbon monitoring system for East Africa that combines "bottom-up" ecological modelling with "top down" satellite data, a three-year, USD 1 million NASA grant that includes a study area of Ethiopia, Kenya, Tanzania and Uganda that have experienced deforestation and also contains many large-scale land restoration and land-based climate mitigation programs, but lacks systems for quantifying regional carbon stocks and fluxes commenced in 2021 by Cornell University[91].

The Great Green Wall Initiative provides funding opportunities for carbon sequestration through tree plantation for 11 beneficial countries. Four of these countries are EA countries, namely Djibouti, Eritrea, Ethiopia, and Sudan. The initiative aims to restore 100 million hectares of currently degraded land, sequester 250 million tons of carbon, and create 10 million green jobs by 2030. However, for the opportunities to be realised, communities living along the Wall will need fertile lands to grow trees and climate resilience in a region where temperatures are rising faster than anywhere else on earth. The support from international conventions such as UNCCF, UNCCD, and CBD and initiatives such as the Bonn Challenge and AFR100 for landscape restoration provides avenues to ensure finance raising that needs to be harnessed.

3.4 Governance of natural wealth in East Africa

East Africa is rich in natural resources, including minerals, oil, gas, geothermal, land, timber, and fisheries. Extracting these resources can contribute to the region's economic development, job creation, and poverty reduction. However, the exploitation of this natural capital poses significant social and environmental risks, including land degradation, deforestation, loss of habitats,

water pollution, and displacement of local communities and even conflicts, and inequalities. In addition, like other African countries, the countries in EA face the dilemma of the 'paradox of plenty' – countries highly endowed with natural resources but found at the bottom of economic development.

Most of the East African countries have not realized the full potential of their natural endowments and are suffering enormous losses due to weak natural resources governance. This section therefore discusses the governance of natural capital amongst the East African countries and highlights two important channels.

3.4.1 Natural resource and rent capture in East Africa

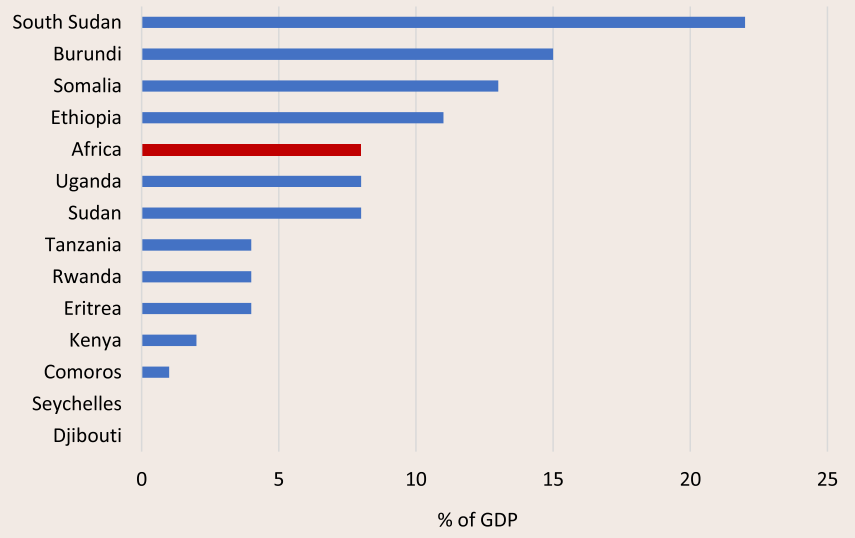
Natural resources give rise to economic rents. In several African countries, earnings from natural resources, especially from fossil fuels and minerals, account for a sizable share of GDP. Much of these earnings come in the form of economic rents - revenues above the cost of extracting the resources. Rents from non-renewable resources - fossil fuels and minerals - as well as rents from overharvesting of forests indicate the liquidation of a country's capital stock. When countries use such rents to support current consumption rather than to invest in new capital to replace what is being used up, they are, in effect, borrowing against their future[92].

Available data on natural resource rents as a share of GDP during 2002-2020 reveal that several countries in the EA region have higher shares compared to the 8% average for Africa. South Sudan has the highest average share of natural resource rents in GDP at 22% (Figure 3.12), followed by Burundi (15%), Somalia (13%), and Ethiopia (11%). Tanzania (4%), Djibouti (0%), Seychelles (0%), and Comoros (1%) ranked below the continental average. In 2002, Burundi maintained the highest share of total natural resource rent to GDP of 24.3% and remained the top two in 2020 at 12.4%. Total natural resource rent represents one-tenth of Uganda's (14.2%) and Sudan's (12.4%) GDP in 2002 and 2020 respectively. However, in some of these EA countries, even with these resource endowments, revenue mobilization remains low due to institutional and other capacity weaknesses. Nonetheless, a few countries, such as Seychelles and Comoros, have developed enabling policy and institutional frameworks, which have allowed them to harness their natural capital. Seychelles has developed an integrated blue economy, with the fishing industry as the primary source of income, while the Comoros' economy is based primarily on agriculture, fishing, and forestry.

Generally adequate policy frameworks and good governance that capture natural resources rents have become vital for natural resources to contribute to economic development in the EA region. These will also deal with the issues of low value-addition, corruption, price volatility, poor linkage of nature with the rest of the economy and the Dutch disease (the syndrome of rising real exchange rates and wages driving out pre-existing export and import-competing industries), which have been identified as reasons why natural resources do not contribute to African economic development[93]. For the EA region, the development path for any investment must ensure that natural resources are managed more efficiently so that any rents earned are maximised. The rents resulting from the depletion of natural capital should also be invested in other productive assets in the economy that will ensure green growth and resilience building by the countries.

Several East African countries have not realized the full potential of their natural capital endowments due to weak natural resources governance

Figure 3.12: EA Countries' average share of natural resource rent to GDP between 2002 and 2020



Source: AfDB Statistics Department, compiled from World Bank WDI

3.4.2 The paradox of resources curse or paradox of plenty

The resource curse (also known as the paradox of plenty) refers to the failure of many resource-rich countries to benefit fully from their natural resource wealth and for governments in these countries to respond effectively to public welfare needs[94]. The resource curse has crippled many nations since their independence. Some EA countries, such as Sudan and South Sudan, have rich natural resource sectors heavily dependent on exports and generate substantial government revenue. However, paradoxically these resources have given rise to political unrest, economic stagnation, and deteriorating environmental conditions. The major causes of the resource curse include, but are not limited to, the lack of strong legal and political institutions, the presence of multiple power groups (actors), and dictatorial and repressive governments. All these causes stem from poor leadership and weak governance in many EA countries.

For several EA countries with enormous wealth and rich natural resources, the paradox of plenty/ resource curse has appeared to be a burden. The vital issue or challenge has always been how governments administer resource wealth and use natural resource revenues, resulting in a resource curse amid plenty. Some of the countries have experienced the resource curse; they receive significant windfall gains from natural resources and have worse developmental outcomes. Typically, predatory elites in these countries have fuelled patronage and the unproductive use of natural resource rents leading to corruption, civil unrest, and in some cases, the emergence of autocratic regimes. EA countries must understand that the "natural resource curse" can be avoided with the proper knowledge, institutions, and policies.

3.4.3 Taxonomy of revenue leakages in natural resource trade

Extent and forms of leakages

This relates to the challenge of illicit trade, financial outflows, corruption, and lack of transparency, and their effects on financing for climate and green growth in East Africa. Illicit Financial Flows (IFF)/Illicit money is "money

that is illegally earned, transferred, or utilised"[95]. IFF "include, but are not limited to, cross-border transfers of the proceeds of tax evasion, corruption, trade in contraband goods, and criminal activities such as drug trafficking and counterfeiting"[96]. These could also include illicit tax and commercial practices that include trade mis-invoicing, trade mispricing, and transfer mispricing between multi-national entities – all linked to the trade of goods (and services) and are, therefore, forms of illicit trade flows.

AfDB (2016) estimated that Africa loses USD 120 billion per annum or 5% of GDP to the illicit trade in natural resources. Most of these revenue leakages are from extractives – mining and petroleum. It should also be noted that illicit resource outflows, including capital flight, are rising steadily. In fact, Africa is said to have lost over USD 1 trillion in illicit flows[97].

Over the last 50 years, Africa is said to have lost USD 1 trillion in illicit flows. EA's extractive sector (mining, oil, and gas) remains particularly vulnerable to leakages. EA region forms part of the African continent, where it is estimated that out of USD 1.2 trillion from selling oil, gas, and minerals, only 22% of the proceeds end up in national treasuries. From tax avoidance rampant in EA, significant revenue from natural resources is also lost[98].

The twin challenges of illicit financial flows (IFF)[99] and illicit trade siphon off considerable revenues derived from exploitation of natural resources in Africa, including the EA region. These illicit fund flows are driven by corruption[100] and tax evasion. Usually, the regions' illicit financial outflows within the natural resources sector works through these two approaches- through legal or illegal activities. As illustrated in Appendix 3.1, while some activities may seem legal, there are high levels of tax avoidance undertaken through incomplete tax declarations. Illegal activities may occur through illegal tax and commercial practices, illegal markets, earning through corruption and exploitation-type and terrorism financing.

Illicit natural resources trade negatively affects climate and green growth financing in the EA and deprives EA governments of needed resources to finance climate change issues. This trade includes trade in wildlife, forestry, and fishery. Over the past three decades, Kenya has lost more than half of its wildlife resources. The main threats to Kenya's wildlife continue to be the trafficking of wildlife goods. These dangers have significant effects on the nation's growth and tourism-based economy (World Bank, 2018). Elephant tusks, pangolin scales, hippo teeth, and other wildlife products are all heavily trafficked in the EA area (Jacopo, C. & Claudia, B.C, 2019).

Corruption and lack of transparency in management of natural capital affect climate and green growth finance. The misuse of climate funds especially negatively impacts future green and climate interventions; as donors and funders suffer the loss due to misuse of funds, they restrict financing. This corruption is usually perpetrated by criminal networks that frequently operate more freely with the tacit or active collaboration of officials who are meant to regulate natural resources, enforce regulations, and/ or investigate and prosecute illegal acts. The failure to reduce corruption makes addressing illegal natural resources trade a significant challenge (OECD 2018). Transparency remains as important as ever in the EA region, especially as the extractive and energy sectors are rapidly evolving, with steady growth in renewables and escalating demand for critical minerals. Yet, weak governance and corruption remain significant challenges as the sector evolves. Political commitment to strong and transparent government systems are necessary to ensure that the natural resource sectors contribute to sustainable development and generates revenues for infrastructure, jobs, and public services.[101]

Aside improving transparency and accountability in the resource rents, the region cannot optimise benefits unless it aligns its industrial policies with current trends and opportunities in the energy transition. As stated earlier, the region possesses some of the green minerals needed for the energy transition such as copper, iron ore and rare earth elements. A regional approach to their exploration towards minerals-based industrialization will be the way forward. This way, local content and other industrial linkages can be improved for job creation among other benefits.

Sources or Actors in IFF

Corporate leakages: Commercial tax evasion, transfer pricing within the corporations, circumventing embargoes or sanctions, mis-invoicing, false declaration of shipment items to pay lower tariffs, etc., are corporate leakages that border on IFF.

Organized crimes: Money laundering creates cash reserves that can be used or transferred without legal obstacles. This includes money laundering that could manifest itself through the supply of illegal goods and services, such as prohibited and restricted goods (drugs, weapons, human trafficking), and proceeds from fraud and corruption.

Corruption and bribery: continue to plague the entire world, including the EA region. Global commodity trader Glencore admitted in 2022 that it paid bribes in five African nations, including one in EA, to secure oil contracts and avoid government audits[102].

Domestic and international actors: These leakages are made possible through domestic and international efforts or collaboration. At the domestic level, leakages are made possible by players at the high-level that include a network of powerful and politically well-connected actors within and outside the State in secrecy. Internationally, leakages are made possible by powerful corporate networks and their local enablers. Thus, tackling these leakages requires a broader understanding of the actors involved and their motivations and structures (financial intermediaries) in EA and offshore countries where illicit finance flows to.

Drivers of leakages

IFF has several drivers which include low or poor governance, corruption, weak enforcement, and regulatory institutions and structures. Others include misuse and criminal exploitation of trade agreements and zones, loopholes in and between national and international legislations, tax incentives especially if abused or used in conjunction with tax holidays, double taxation agreements (DTAs), the existence of financial secrecy jurisdictions and/or tax havens and low risk, high reward dynamics associated with illegal and related activities.

3.4.4 Strengthening natural capital contribution to green growth through governance

Strengthening administrative and legal frameworks

To address the various challenges regarding natural capital, governments and stakeholders in the region have developed institutional and legal frameworks for the sustainable management and extraction of natural resources. *Institutional frameworks* refer to the structures, processes, and actors in managing natural resources. In East Africa, these frameworks include administrative and legal instruments. Some of the critical institutional frameworks for natural resource management in East Africa include National Environmental Management Authorities (NEMAs) which are statutory bodies established by the various EA countries to oversee environmental management and conservation. Also established are Forestry and Wildlife Departments for managing forests and wood-

land resources and for the conservation and management of wildlife resources. Community-based organizations (CBOs) are also involved in natural resource management, conservation, and protection, and they work closely with government agencies and other stakeholders.

The mandate of the government stakeholders at all levels should be strengthened and made more collaborative, as some work in silos. Also, institutional reforms—delineating policy and regulatory functions e.g., to overcome potential overlaps in mandate across various government institutions and departments—to avoid conflicting functions in policy-making, regulation, licensing, and commercial aspects have become relevant. International best practice institutional arrangements call for separation of various organizations' policy, regulatory and commercial responsibilities. At the government level, for instance, in most cases, while the Ministries have the mandate to formulate policies, specific Agencies/Departments are mandated to implement such policies, enact regulations, and enforce them. Other agencies have been created as State-owned enterprises (SOEs) with the mandate to carry out commercial activities on the government's behalf, wholly or partially owned by the government. However, in some countries, these Ministries, Departments and Agencies (MDAs) either work in silos or conflict with their mandates as they work.

Strengthening Capacity to implement and benefit from international agreements

There is a need to strengthen the capacity of EA countries' governments to understand the implications and consequences of international agreements such as the Paris Agreement and the Global Biodiversity Framework. It is generally accepted that lack of institutional capacity partly limited African countries, including EA nations, from benefiting from past international agreements. The limited capacity to negotiate better positions is considered one of the reasons. For instance, capacity strengthening is needed in the complexity and importance of related international investment frameworks. That is, it is necessary to increase the government's capacity to negotiate, renegotiate, and assess the agreements or fully appreciate their implications.

The Africa NDC Hub found that 58% of Nationally Determined Contributions (NDCs) explicitly mentioned capacity-building needs as constraining implementation and that these were both important and urgent. Virtually all the EA countries that ratified the Paris Agreement have indicated their willingness to trade carbon based on Paris Agreement Article 6 mechanism. Without capacity enhancement, the EA region may not benefit from trade in carbon credits. There is a range of things to know about the mechanism, such as how to meet the eligibility requirements and develop and operate registries and MRV systems.

Furthermore, capacity building in East African government institutions is necessary to harness the revenues from natural capital to promote green growth through benefits from international agreements. For instance, such capacity building can focus on the Paris Agreement Article 6. Article 6 governs carbon markets and recognizes that some Parties pursue voluntary cooperation in implementing their nationally determined contributions to allow for higher ambition in their mitigation and adaptation actions and promote sustainable development and environmental integrity. Thus, capacity building for the EA countries enables them to fully participate in Article 6 mechanisms. Capacity to deploy nature-based solutions that would help achieve mitigation outcomes of billion tons of CO2-equivalent per year. Box 3.3 contains some additional reasons and why capacity needs to benefit from international agreements – to ensure sustainable financing for resilience and adaptation.

There are also legal frameworks (laws, regulations, and policies) that govern the management and extraction of natural resources in East Africa, such as Forest Laws and Regulations like the Forest Act of Kenya, the Forest and Game Protection Act of Uganda, and the Forest Act of Tanzania. It is interesting to note that forest policy in most countries in East Africa is generally aligned with two regional forest policies adopted by the East Africa Community (EAC) and the Intergovernmental Authority on Development (IGAD). Both regional policies recognize the importance of forests and the need to maximize the contribution of the forest sector to improve people's livelihoods, food security and promote nature conservation.

Box 3.3: Capacity needs to benefit from international agreements – to ensure sustainable financing for resilience and adaptation

International environmental agreements (IEAs) are treaties negotiated, signed, and ratified by individual nation-states to address transboundary environmental issues. However, while countries enter into this agreement there is a need to fully understand such agreements. In the International Law arena, most countries are signatories to the Vienna Convention on the Law of Treaties (VCLT) which regulates international agreements between states. Membership in this convention symbolizes a country's intention to be bound by its provisions. Failure to abide by it such a country goes against the principle of pacta sunt servanda which requires that "every treaty in force is binding upon the parties to it and must be performed by them in good faith'' (Sandra, E., 2020). Against this backdrop, capacity needs to be built to benefit from international agreements. EA countries must learn to negotiate terms in these agreements that especially affect their sustainability issues, and economy.

The capacity needed may include negotiation skills, benefit sharing, sustainable financing for resilience and adaptation, scientific and technical education and training in conservation and sustainable use, and research in fields where they are needed.
and regions more efficiently.

The existing laws and regulations like the Environmental Impact Assessment (EIA) regulations in virtually all these countries, should be enforced. The EIA laws provide a pre-project development platform for integrating economic growth and development with natural capital. This integration, which means green growth, makes it possible for natural capital to continue to provide the resources and environmental services for the needs of such projects and enhance the well-being of man. It should also be noted that the EIA process helps shape acceptable trade-offs in proposed projects through stakeholder engagement. It offers several opportunities in the process, such as providing written or verbal comments on a draft document. It must be noted that the EIA document often appears difficult, too technical, long, and hard to read for an average person in most project-proposed locations. This implies less contributions from such stakeholders. Strategic Environmental and Social Assessments (SESA) is another relevant and related policy necessary to harness natural capital for green growth. SESA is particularly suitable for larger programmes and initiatives that affect a whole sector or even more. For example, Tanzania recently discovered substantial natural gas deposits in the country's offshore waters. SESA and ESIA are instruments that could assist the Tanzanian Government, which has developed a natural gas policy to ensure the country benefits from its natural gas resources while promoting sustainable development.

At the regional level, the 13 countries are characterized by overlapping memberships in four African Union-recognized regional economic communities. These regional economic communities are essential, especially for the governance of shared and transboundary natural capital resources. The linkages should be enhanced and used to support the efficient management of natural resources, especially cross-border illicit trade. New approaches in legal and institutional frameworks for efficient natural resource governance in East Africa require sustained political will and coordination among various stakeholders. These approaches recognize the complexity and interdependence of social, economic, and environmental factors and promote collaborative, adaptive, and community-based approaches to natural resource management.

Strengthening institutional capacity

Efforts are underway to strengthen the institutional capacity of regulatory bodies and improve the technical expertise of staff working in the extractive industries. This includes initiatives to improve governance and management of natural resources in the region.

Environmental, Social and Governance (ESG)

ESG imperatives must be made to play a prominent role in decision-making across the East African mining sector. There is intensified awareness from all stakeholders. As economies emerge from the global pandemic and countries grapple with climate change, ESG has continued to play a core role in mining across Africa with investors, funders and consumers placing greater trust in organisations that show a long-term interest in these standards[103].

Granted, the extraction of natural resources in East Africa has significant potential to contribute to economic development and poverty reduction, it also poses significant social and environmental risks. Hence effective ESG management systems are essential to ensure that the benefits of natural resource extraction are shared equitably and sustainably.

Local content, value addition, and capacity needs

For value addition that leads to sustainable development and culminates in job creation, economic growth, environmental protection and long-term gains, there is a need for robust local content policies and laws in the EA region. This will ensure maximizing the potential sustainable development gains. Through this, local industrial development is stimulated with increased local capability, enhanced local skilled workforce and a competitive supplier base. This must be seen as the minimum requirements for doing business with host countries and national companies by would be investors in the natural capital sector. To make the most of local content policies in natural resources, the policies need to be integrated within national industrial, economic, or planning policies to facilitate linkages with other sectors of the economy. Industrial policies laced with green agendas should focus on the mineral sectors that are expected to rise in demand by various stakeholders. Local content participation must be seen from the lens of a value-adding activity. Value addition through local experience is critical to ensuring an energy transition that translates into huge opportunities for all. However, it is pertinent to point out that successful local content policies should be realistic, particularly in terms of required local capacity.

Supporting Community-Based Governance as Community-Based Natural Resource Management (CBNRM)

The approach involving local communities in the management and conservation of natural resources (Fabricius & Collins, 2007). The approach recognizes that local communities are

the custodians of natural resources and that their participation in the management and conservation of these resources is essential for their sustainability. This includes initiatives aimed at promoting the involvement of communities in resource management and ensuring that they are adequately consulted and compensated for the impacts of resource extraction.

Sovereign Wealth Funds (SWF)

Sovereign Wealth Funds (SWFs) are an important source of financing that can support Africa's sustainable development and green growth. Capacity building is needed to harness the opportunities tied to natural capital. According to PwC, African SWFs managed USD 300 billion in 2020, representing a significant source of investible capital for the continent[104]. In a listing of 27 Sovereign Wealth Fund Profiles in Africa, The Sovereign Wealth Fund Institute included the following EA countries: Ethiopian Investment Holdings (Ethiopian Investment Holdings) with current Assets of USD 38,500,000,000, Petroleum Revenue Investment Reserve (Uganda Petroleum Fund) with Current Assets of USD 120,541,000 and Fonds Souverain de Djibouti (Djibouti Sovereign Fund) with Current Assets of USD 120,000,000[105]. With investment already in SWF, as shown by these three countries, EA countries could leverage this to raise and mobilise national savings that simultaneously meet development needs through natural capital investment.

Lessons can also be learnt from the case of existing natural resource-linked SWF in Africa, Botswana's Pula Fund, which relies upon diamond proceeds and has helped the country to manage its resource wealth well. Also, Nigeria's Sovereign Wealth Fund is a signatory to the Santiago Principles of the International Monetary Fund / International Forum of Sovereign Wealth Funds (IFSWF). This puts Nigeria to deliver its ESG objective through a three-pronged approach of providing investments that supports the global effort to curb emissions[106]. However, governance challenges, as in other emerging markets, according to the World Bank, are a critical impediment that inhibits the flow of SWF capital into long-term sustainable development sectors. The World Bank suggested using robust independent governance frameworks to attract private capital for impact investing through Innovative public-private partnership mechanisms. Also, promoting an institutional framework that enhances collaboration between experienced investors will equip and better position the EA SWFs to unlock significant private capital, pool scarce resources, and contribute to accelerating green recovery and sustainable development. For natural capital investment, there is a need to develop SWFs' credible track records through concrete steps to strengthen capacity, augment governance systems, and operationalize transparent processes to bolster accountability[107].

Integrating natural capital in EA Sovereign Credit Ratings

Integrating natural capital practices in African sovereign credit ratings and incorporating natural capital into decision-making formed Pillar 3 of the Natural Capital in African Development Finance (NC4-ADF) Programme. The NC4 ADF program was launched on September 9, 2021, and had four strategic pillars. These provided leading steps to mainstream natural capital in African development finance, with the objectives to raise awareness, build consensus and generate knowledge, tools, and capacity to finance Africa's natural wealth to drive sustainable development. For explicit incorporation of natural capital in sovereign credit ratings for the African countries, NC4-ADF programme-initiated discussions with the three dominant credit rating agencies in the world, namely: Moody's, Standard & Poor's (S&P), and Fitch. EA countries need to see how to leverage the groundwork laid by this project through capacity enhancement.

Sustainable Agriculture and Land Management

Agriculture is a critical sector for investment and generating economic wealth as a key employer for most of the EA region's rural populations. This requires capacity strengthening across the entire value chain to harness the various opportunities and ensure green growth. Granted that the *"service sector in East Africa contributed almost half of the economic growth in 2022, outpacing agriculture and industry."* Without investing in innovations in the agricultural sector, such as digital agriculture, and soil management, other natural resources will be hard to maintain as agricultural land use competes with different benefits. Thus, investment in agriculture is a critical component of supporting the growth of the service sector and ensuring stability in many fragile regions of East Africa. This also requires sustainable land management (SLM) which involves natural resource management, soil and water conservation and management, and integrated landscape management (ILM). SLM involves a holistic approach directed at achieving productive and healthy ecosystems by integrating social, economic, physical, and biological needs and values, and it contributes to sustainable and rural development[108]. The dominated dryland landmass that dominates many of the countries requires actions that target rangeland and woodland management, water availability and access, biodiversity, and the control of invasive species for the natural resource base and ecosystem services for livestock production[109].

3.4.5 Approaches to deal with illicit financial flows and corruption

Policy action is needed to curb Illicit Financial Flows (IFFs) and secure resources for sustainable development in the EA region. However, as pointed out by UNCTAD, this requires better data and a better understanding of IFFs – their types, volume, impacts, channels, origins, and destinations. It noted that IFFs are not easy to track or measure as an illicit phenomenon.

The EA region needs a theory of change that serves to improve domestic resource mobilisation and debt management to support economic resilience. The AfDB's ANRC is at present demonstrating this through the Governing Natural Resource Outflows for Enhanced Economic Resilience in Fragile and Transitional African Countries (GONAT) project. The project runs from 2023 to 2024 and covers six transitional countries: The Central African Republic (CAR), Chad, the Democratic Republic of Congo, Mozambique, Sierra Leone, and Zimbabwe. It builds on the Centre's prior work on the illicit natural resources trade in Africa (2016) and resource-backed loans (2021).

To strengthen transparency and governance in natural resources sectors and address corruption to realize the aspirations of the EA bloc, the Extractive Industries Transparency Initiative (EITI) provides a framework-a global standard for oil, gas, and mineral resources governance. The EITI is built on the premise that a country's natural resources belong to its citizens. When implemented by a government, the EITI ensures transparency and accountability about how a country's natural resources are governed. The EITI standard also requires public officials — politically exposed persons (PEPs) — to be transparent about their ownership in oil, gas, and mining companies. In the region, only Ethiopia and Tanzania have committed themselves to EITI standards. Uganda joined EITI in August 2020 and is expected to publish an EITI report by February 2022.

3.5 Political Economy as an enabler for natural capital and private finance in East Africa

East Africa's abundant natural resources must be genuinely developed to enhance climate resilience and green growth by strengthening the political economy in various countries. It also requires redefining the region's economic model to leverage natural capital and designing financial systems to redirect critical nature-based investments. However, for a few countries, natural capital has suffered degradation due to several dimensions of political economy notably insecurity and political disagreements, which are holding back the prospects for sustainable governance. For instance, Somalia's land degradation rate is 22.7%, one of the highest among its neighbouring countries. Excluding the effects of degradation, Somalia's land resources are estimated at USD 222.3 billion[110]. This implies that the political economy must be suitable and favourable to promote sustainable natural capital management and restore land productivity for sustainable development.

The political economy of natural resources in any region, including EA, is about the interplay between politics and each country's valuable natural assets. Government action is crucial for better performance in the natural resource extraction sector because of the strong interconnection between political factors and resource extraction and management. Under the right conditions, proper political administration and natural resources can combine to accelerate economic growth. Mlambo (2022) reported a positive relationship between the efficient functioning of government and resource rents. Therefore, transforming the region abundant natural resources into infinite wealth requires robust political environments and the economic systems, that is, an enabling political economy. Political economy is critical in preventing the 'resource development curse' and other challenges such as corruption, regional and ethnic competition for resources, macroeconomic instability, and conflicts, among others, which stifle socioeconomic transformation.

There is optimism that EA's natural resources will contribute to climate resilient and inclusive socioeconomic transformation. The case of Botswana has demonstrated that natural resources can jump-start economic development without a "resource curse". EA is endowed with several resources whose global demand is expected to surge in line with the energy transition processes. Such minerals include lithium, copper, nickel, and rare earth elements required for green technologies like wind turbines, solar panels, and batteries. Nonetheless, EA needs to strengthen its institutional, legal, and regulatory frameworks to harness this potential.

The political environment or economy that creates a virtuous circle of green growth and shared prosperity is paramount. Generally, good governance is critical for transforming natural resource endowments into infinite wealth[111]. A 2018 Oxford Institute for Energy Studies report[112] examined the relationship between government policy and renewable energy investment in Ethiopia and Kenya and confirmed that policies affect political, security, and regulatory frameworks, and thus influence investment behaviour. Furthermore, diverse country outcomes could reflect different political, regulatory, and security climates. For instance, in Ethiopia, the renewable energy sector is steadily opening to private investment and the emphasis is on large, utility-scale projects. In Kenya, private companies have been present for decades, and the country has become a hub for innovation in commercial off-grid and micro-grid systems.

The EA region needs to create a political economy that ensures the rule of law, effective institutions, efficient public administration, and responds to corruption. These enablers are important for private investment and finance, including in natural capital, and sound macro-

fiscal management of resource revenues[113] helps to ensure macroeconomic stability and sustainable economic transformation. Building strong institutions to implement the relevant natural capital regulatory frameworks enables national authorities to respond to illicit trade and financial flows and develop SWF to mitigate the effects of commodity boom-and-bust cycles, channel resource rents into productive capital.

Cross-border collaboration on natural capital management thrives under strong political economy and maximizes developmental impact. In this context, harmonizing natural capital legal and regulatory frameworks and well as fiscal regimes like mining taxes and royalties would be useful. A regional approach to the extractives sector would facilitate the development of natural capital value chains, associated benefits including industrialization and job creation. In this regard, AfCFTA offers opportunities for developing the mine-to-market value chain across the continent. This is because resource-driven development is more tractable with greater access to larger markets and the ability to pool resources, skills, and comparative advantages. A regional approach to natural capital value chain development also reduces leakages such as illicit trade and financial flows. EA countries should build on the African Union's Agenda 2063, in collaboration with RECs notably the East African Community, Southern African Development Community, and IGAD to promote conflict management, cross-border natural resource management, and economic integration[114,115].

3.6 Policy Recommendations

EA countries have abundant natural capital, a critical source of livelihoods, biodiversity, and ecosystem services that can support climate finance and green growth. However, several actions are needed to harness this potential as discussed in this section.

East African Governments

Short-term policy options:

Develop and/or strengthen policies and regulations that promote sustainable land use practices to protect natural capital. This includes establishing incentives for sustainable land use practices such as tax credits and other fiscal incentives that promote the conservation of natural capital. Communities should be supported to implement sustainable agriculture models strengthened by climate smart agriculture together with sustainable land management (SLM) for land restoration and the protection of the environment. SLM often provides positive and lasting contributions toward societal well-being and sustainability—including multiple benefits such as job creation, disaster risk reduction, climate change mitigation, and adaptation for current and future generation[116].

Design policy frameworks for effective natural capital financing. This includes the enablers for innovative climate finance instruments. Furthermore, strengthen the linkages between the natural capital and sustainable and/or sustainability-linked financing is critical, but could require integrating natural capital into sovereign credit ratings EA countries. The foundation laid through the Natural Capital in African Development Finance (NC4-ADF) Programme[117] to integrate natural capital practices in African sovereign credit ratings should be strengthened by MBDs including the AfDB in conjunction with rating agencies.

Invest in data collection to inform more accurate valuation and measurement of natural capital including integrating natural capital and ecosystem services into national accounts. Furthermore, governments and private sector actors should institutionalise natural capital accounting in policy and business decision making. This ensures that the EA governments integrate the value of natural

In the short term, governments should develop policies and regulations that promote sustainable land use practices and invest in data collection for more accurate valuation and measurement of natural capital

capital, often neglected in 'traditional assessments of economic progress such as GDP, budget resource allocation and development planning, and policy and decision-making processes. EA Countries such as Ethiopia, Rwanda, and Uganda are already using the UN System of Environmental Economic Accounting (SEEA) to incorporate natural capital into national accounts. The private sector also needs to understand better how to effectively adopt a natural capital approach using available tools for natural capital accounting. This enables businesses to consider their impacts and dependencies and thus incorporate natural capital in decision-making. However, capacity development in generating the required data to inform natural capital accounting is necessary.

In the long term, governments should improve national governance frameworks and design appropriate governance structures for shared and transboundary natural capital resources

Medium-term policy options:

Build government capacities on balancing local and national development priorities in resource revenue generation and utilization. Government and its partners should train government officials on trade-offs related to how resources are apportioned between local and national priorities as well as to longer-term savings through, for instance, SWFs. Developing strategies and options for saving and investing in natural capital to ensure that citizens benefit from innovative fiscal management, both now and in the future, is equally important. The government and its development partners should also assess the status of SoE operations and implement the required remedial actions including institutional and human capacity strengthening.

Strengthen the capacity of CSOs to provide a supportive role in raising relevant issues in cordiality and ensuring that community participation, anti-corruption, and transparency actions are prioritized. The government and its development partners should enhance the capacities of CSOs as they play a very important role in ensuring that governments implement policies and laws related to sustainable utilization of oil, natural gas, and other natural resources. In addition, through stakeholder engagement, approaches to working productively with local communities should be developed to ensure that their interests are considered at the inception of natural capital exploration and production activities.

Harness the opportunities created by regional and global markets and resource extraction to expand revenues from industrial development and exports. EA countries including the private sector should leverage AfCFTA and international trade agreements accruing to Least Developed Countries under the World Trade Organization. The EU offers valuable lessons in this context, notably on partnerships for the sustainability of joint investments including on natural capital.

Adopt international standards and norm-setting networks—beyond individual countries' policies and laws on corruption and transparency. For example, EA countries should advance transparency through international norms by signing or joining relevant initiatives such as the EITI. In addition, government capacities should be strengthened, notably in transparency and effective natural resource revenue mobilization and utilization.

Long-term policy options:

Design appropriate governance structures for shared and transboundary natural capital resources. Relatedly, RECs and EA governments should strengthen regional cooperation and coordination to promote the sustainable management of shared natural resources, such as rivers, lakes, and wildlife corridors, and green industrial development. Capacities of government officials need to be strengthened notably in data generation and management to inform enhanced understanding of IFFs – their types, volume,

impacts, channels, origins, and destinations. The EITI framework provides an important benchmark for strengthening transparency and governance in natural resources sectors and addressing corruption. Furthermore, it is important to work towards regional cooperation and industrial development to manage the multi-country and cross-regional value chains more efficiently, such as, for battery-mineral and electric-vehicles that extend beyond East Africa into Central East and Southern Africa.

Strengthen natural capital's contribution to green growth through improved governance, notably by enhancing the relevant institutional and legal frameworks. EA governments and the private sector should collaborate to support the efficient management of natural resources, especially in combating cross-border illicit trade. Effective ESG management systems should be implemented to ensure that revenues from natural resource extraction are shared equitably and sustainably for maximum developmental impact. It will also be important for EA governments to review existing local content, value addition, and capacity needs across countries in the region and implement the required refinements. Transparent governance frameworks improve competitiveness and help to attract private capital for impact investing through innovative public-private partnership mechanisms. Finally, developing green and carbon financing mechanisms will help to unlock private capital for green growth and sustainable development.

MDBs, DFIs (including the AfDB), and global community

Medium to long term policy options:

Unlock new business opportunities, invest in green technologies and infrastructure, and promote investment innovations in natural capital and nature-positive projects. MDBs, DFIs, and other FIs should assess their ongoing and planned project portfolios to understand their dependencies and impact on natural capital. Building capacities of staff in the design and management of bankable nature solutions is equally important. EA countries could also tap into innovative and large-scale financing sources and instruments at the global level that are dedicated to low-emissions and climate-resilient development, such as the Green Climate Fund or the Global Environment Facility, by scaling up the preparation of bankable natural capital projects.

Honor commitments in international conventions including the agreement to establish a Loss and Damage Fund, the Global Biodiversity Framework, and the Paris Climate Agreement. Developed country governments ought to set up a Global Nature Fund, which will consider and catalyze nature preservation and sustainable natural resources management. Realizing this ambition will entail financing the Global Biodiversity Framework and committing to mobilizing the annual financial needs of USD200 billion.

Champion coordination among actors, including national governments, regional and international organizations, and the private sector to finance sustainable management of EA's natural resources. Effective natural resources governance requires preserving biodiversity and ensuring sustainable, equitable, and inclusive resource exploitation. Local communities and indigenous populations, especially in ecologically fragile areas should be incorporated in natural resource management strategies.

Support the development of nature responsive fiscal policies and instruments. MDBs and DFIs need to support EA countries in designing suitable fiscal policies and instruments that will facilitate value addition to natural resources, bolster revenues, maximize the utilization of natural capital and ecosystem services, and expand linkages with industriali-

Development finance institutions, multilateral development banks and the global community should honor international commitments, unlock new business opportunities, invest in green technologies and infrastructure, and promote investment innovations in natural capital

zation. Furthermore, EA countries should be supported in building institutional and human capacities including in international negotiations related to natural resource use and management. MDBs and DFIs should play a leading role in de-risking climate and nature related investments, for example through the Adaptation Benefits Mechanism, to scale up international financing for climate adaptation, mitigation, and nature.

All stakeholders (EA Governments, MDBs/DFIs, domestic and international private sector)

Medium to long term policy options:

Promote the use of green technologies and innovation to reduce the environmental impact of economic development activities and invest in renewable energy to promote the transition to a low-carbon economy and reduce greenhouse gas emissions. EA governments, private sector, MDBs, DFIs, and other FIs should adopt policies to support the use of biodegradable packaging, water resources conservation, renewable energy, and recycling programs to foster the sustainable utilization of natural capital. Establishing incentives for sustainable land use practices will help to promote the conservation of natural capital. These incentives could include tax credits or other financial incentives for landowners who use sustainable farming practices or protect forests and other natural resources. EA governments should also consider providing fiscal incentives for entrepreneurs that invest in clean energy technologies such as solar, wind, hydropower, and geothermal.

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ANNEXES

Appendix 1.1: East Africa statistical annexes

Table 1: Basic indicators, 2022

	Population (thousands)	Land area (km^2 thousands)	Population density (people per km^2)	Gross domestic product[a] ($ millions)	Gross domestic product per capita[a] ($)	Average annual real GDP growth, 2020-22
Burundi	12.890	26	502	10.782	8.36	3.5
Comoros	837	2	450	3.208	3.834	2.7
Djibouti	1.121	23	48	6.574	5.865	5.1
Eritrea	3.684	101	36	7.637	2.073	3.7
Ethiopia[b]	123.380	1.129	109	357.509	2.898	8.7
Kenya	54.027	569	95	312.884	5.791	4.9
Rwanda	13.777	25	558	37.993	2.758	6.7
Seychelles	107	0	233	3.669	34.250	4.2
Somalia	17.598	627	28	20.664	1.174	3
South Sudan	10.913	632	17	7.061	647	-2.8
Sudan	46.874	1.849	25	203.829	4.348	0.4
Tanzania	65.498	886	74	208.755	3.187	6.2
Uganda	47.250	201	236	132.362	2.801	4.8
East Africa	**397.955**	**6.070**	**66**	**1,312.927**	**3.299**	**4.8**
Africa	**1,424.855**	**29.614**	**48**	**8,298.147**	**5.824**	**3.5**

a. Based on purchasing power parity valuation.
b. Based on fiscal year data (September-August).
Source: UNDESA 2022, African Development Bank Statistics and estimates and various domestic authorities.

Table 2: Real GDP growth, 2014–24 (%)

	2014	2015	2016	2017	2018	2019	2020	2021	2022 (estimated)	2023 (projected)	2024 (projected)
Burundi	4.2	-0.4	3.2	3.8	5.3	4.5	-0.3	3.1	4.0	4.5	4.6
Comoros	2.1	1.1	3.3	3.8	3.8	2.0	0.2	2.2	2.9	3.5	4.0
Djibouti	7.1	7.5	7.1	5.5	4.8	5.5	1.2	4.8	3.7	5.4	6.5
Eritrea	3.09	-20.6	7.4	-10.0	13.0	3.8	-0.5	2.5	2.3	2.6	3.1
Ethiopia[a]	10.3	10.4	7.6	9.6	6.8	8.4	6.1	5.6	5.3	5.8	6.2
Kenya	5.0	5.0	4.2	3.8	5.6	5.2	-0.3	7.5	5.5	5.6	6.0
Rwanda	6.2	8.9	6.0	4.0	8.6	9.4	-3.4	10.9	8.2	7.6	8.0
Seychelles	4.5	4.2	5.1	2.8	3.7	4.9	-8.6	7.9	9.5	5.1	4.2
Somalia	2.5	4.4	4.6	2.4	3.7	2.7	-0.3	2.9	1.7	2.8	3.5
South Sudan	2.9	-0.2	-13.5	-5.8	-2.4	3.4	12.9	-4.9	-2.9	-0.4	4.6
Sudan	7.0	4.0	3.6	4.7	2.8	-1.3	-1.6	-1.9	-0.7	2.0	3.8
Tanzania	6.7	6.2	6.9	6.8	7.0	7.0	4.8	4.9	4.7	5.3	6.3
Uganda	8.4	6.1	0.2	6.8	5.6	7.6	-1.2	5.6	6.3	6.5	6.7
East Africa	**7.3**	**6.0**	**4.7**	**5.9**	**5.6**	**5.4**	**1.9**	**4.7**	**4.4**	**5.1**	**5.8**
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 (September-August).
Source: African Development Bank statistics, estimates, and projections and various domestic authorities.

Table 3: Demand composition and growth rate, 2021–24

	2021							2022 (estimated)				2023 (projected)				2024 (projected)		
	Final consumption		Gross capital formation		External sector		Total final consumption	Total gross capital formation (% real growth)	External sector		Total final consumption	Total gross capital formation (% real growth)	External sector		Total final consumption	Total gross capital formation (% real growth)	External sector	
	Private	Public	Private (% real growth)	Public	Exports	Imports			Exports	Imports			Exports	Imports			Exports	Imports
Burundi	86.0	18.9	10.6	3.8	8.2	27.4	4.8	3.7	8.3	4.9	4.6	3.5	6.2	3.1	4.7	3.1	5.9	2.4
Comoros	91.2	10.5	11.0	3.5	11.7	28.0	1.5	4.5	3.6	0.5	1.9	4.8	4.8	0.8	1.8	6.8	7.2	1.7
Djibouti	64.1	20.8	2.0	5.6	139.7	132.2	1.9	7.5	10.8	5.5	5.5	2.2	8.9	11.0	5.5	2.2	8.9	3.6
Eritrea	69.9	22.8	2.8	1.9	30.9	28.2	3.4	1.0	3.0	2.7	2.7	1.3	6.0	3.9	2.2	5.2	4.0	2.4
Ethiopia[a]	72.2	8.8	8.5	19.5	7.6	16.7	4.6	-0.5	4.1	5.7	5.7	-1.2	6.8	-2.6	6.3	-0.4	3.4	-3.0
Kenya	72.5	12.1	13.2	7.2	43.1	48.2	3.3	-3.0	10.7	3.2	3.2	5.6	5.7	1.0	2.9	6.6	5.7	1.0
Rwanda	72.5	17.0	13.8	12.3	19.5	35.2	11.8	-9.9	30.1	3.7	3.7	6.6	15.6	3.7	5.1	7.6	10.9	3.7
Seychelles	50.9	27.3	23.3	11.0	108.9	121.4	1.9	7.7	11.8	1.3	1.3	6.5	6.0	3.5	0.8	2.5	5.6	3.5
Somalia	140.5	8.9	6.1	10.2	20.1	85.8	4.1	5.4	1.2	4.6	4.6	4.8	2.1	6.4	5.1	4.1	0.4	6.2
South Sudan	96.2	23.8	0.0	6.9	21.1	48.0	-1.1	-1.7	0.5	0.1	0.1	0.5	4.2	6.5	5.2	6.5	4.2	6.5
Sudan	96.1	0.7	3.5	4.1	5.6	10.0	-0.4	-2.5	5.2	2.6	2.6	2.0	-22.1	-6.9	4.4	3.4	-22.4	-7.6
Tanzania	44.5	32.4	20.3	7.8	43.1	48.2	4.8	-12.3	-5.6	1.5	1.5	3.5	7.0	3.5	1.6	4.5	8.0	6.2
Uganda	74.5	8.2	19.6	6.7	14.3	20.6	4.0	5.8	3.3	3.2	3.2	5.4	10.4	4.1	4.2	5.9	6.7	4.4
East Africa	**73.1**	**9.4**	**14.7**	**11.0**	**12.6**	**20.8**	**4.3**	**0.1**	**6.4**	**4.5**	**4.5**	**3.1**	**2.1**	**-0.6**	**4.9**	**4.2**	**0.8**	**-0.6**
Africa	**66.4**	**12.8**	**14.6**	**9.2**	**22.0**	**24.9**	**4.7**	**5.9**	**12.9**	**3.4**	**3.4**	**3.4**	**4.5**	**2.5**	**3.3**	**6.0**	**3.0**	**3.7**

a. Based on fiscal year data (September-August).

Source: African Development Bank statistics, estimates, and projections and various domestic authorities.

Table 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
Burundi	19.9	22.7	-2.9	19.1	24.2	-5.1	18.5	23.3	-4.8	18.6	22.3	-3.7
Comoros	17.1	19.5	-2.4	17.7	20.7	-3.0	17.9	20.6	-2.7	17.7	20.3	-2.6
Djibouti	20.9	22.2	-1.3	20.7	21.7	-1.0	20.4	22.4	-2.0	20.0	22.2	-2.2
Eritrea[a]	33.3	37.4	-4.1	36.7	38.9	-2.2	35.6	37.5	-1.9	35.2	36.4	-1.2
Ethiopia[b]	11.0	13.8	-2.8	8.5	12.7	-4.2	9.6	12.7	-3.1	9.7	12.2	-2.5
Kenya[a]	16.1	24.4	-8.2	17.5	23.8	-6.3	17.2	23.3	-6.1	16.9	22.3	-5.4
Rwanda	26.0	34.5	-8.5	25.8	34.6	-8.8	24.3	32.3	-8.0	23.7	30.6	-6.8
Seychelles	38.4	45.2	-6.8	37.9	41.5	-3.6	37.6	39.2	-1.6	36.9	37.2	-0.4
Somalia	4.9	6.0	-1.1	7.2	7.3	0.0	6.5	6.8	-0.3	4.2	6.1	-1.9
South Sudan	37.0	40.7	-3.7	28.2	34.8	-6.6	35.7	32.7	3.0	31.7	24.9	6.8
Sudan	7.5	12.2	-4.7	5.4	7.0	-1.5	5.0	6.4	-1.4	4.2	5.7	-1.4
Tanzania[a]	13.5	17.3	-3.8	16.2	19.6	-3.4	14.5	18.0	-3.5	14.0	17.6	-3.5
Uganda[a]	14.1	21.5	-7.4	14.2	19.4	-5.3	13.8	18.4	-4.6	13.5	17.4	-3.9
East Africa	**13.9**	**19.2**	**-5.3**	**13.1**	**17.4**	**-4.3**	**12.7**	**16.4**	**-3.7**	**11.8**	**14.9**	**-3.1**
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 (July-June).
b. Based on fiscal year data (September-August).
Source: African Development Bank statistics, estimates, and projections and various domestic authorities.

Table 5: Monetary indicators

	Inflation (%)				Exchange rate (Local currency unit per US dollars)			
	2021	2022 (estimated)	2023 (projected)	2024 (projected)	2019	2020	2021	2022 (estimated)
Burundi	8.4	18.7	10.3	9.0	1 845.5	1 915.1	1 973.5	2 031.8
Comoros	0.1	12.4	3.1	2.0	439.4	431.1	415.7	464.7
Djibouti	1.2	5.3	3.2	2.8	177.7	177.7	177.7	177.7
Eritrea	4.5	7.5	6.1	5.0	15.1	15.1	15.1	15.1
Ethiopia[a]	26.6	34.0	28.1	20.1	29.1	34.9	43.7	51.5
Kenya	6.1	7.6	8.6	5.9	102.0	106.2	109.5	117.7
Rwanda	0.8	17.7	7.4	5.6	899.5	943.3	988.9	1 030.6
Seychelles	9.8	2.8	4.3	4.4	14.0	17.6	16.9	14.2
Somalia	4.6	6.8	4.2	4.0	1.0	1.0	1.0	1.0
South Sudan	43.5	0.9	16.5	10.9	158.0	165.9	309.4	535.7
Sudan	359.1	139.0	83.2	75.5	60.5	150.4	425.6	504.5
Tanzania	3.7	4.3	4.7	4.0	2 300.5	2 306.1	2 309.6	2 313.8
Uganda	2.2	7.2	6.5	6.0	3 676.5	3 772.9	3 562.2	3 664.2
East Africa	**40.7**	**28.9**	**21.8**	**17.7**	-	-	-	-
Africa	**12.9**	**14.2**	**15.1**	**9.5**	-	-	-	-

a. Based on fiscal year data (September-August).
Source: African Development Bank statistics, estimates, and projections; various domestic authorities; and the International Monetary Fund International Financial Statistics database.

Table 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)
Burundi	-723	-843	-813	-746	-418	-579	-585	-340	-11.0	-13.4	-12.1	-6.3
Comoros	-224	-234	-284	-292	5	-40	-60	-68	0.4	-3.2	-4.5	-4.8
Djibouti	-494	-640	-687	-752	974	900	892	919	28.0	25.1	22.9	21.5
Eritrea	141	95	131	102	299	291	287	292	13.5	12.2	10.8	10.2
Ethiopia[a]	-10 671	-13 988	-14 020	-13 925	-3 191	-5 200	-5 775	-6 204	-3.2	-4.0	-3.7	-3.6
Kenya	-11 065	-11 760	-12 352	-12 906	-6 027	-6 963	-6 315	-6 663	-5.5	-6.0	-5.2	-5.0
Rwanda	-1 659	-2 130	-2 222	-2 248	-1 187	-1 787	-1 755	-1 847	-10.7	-12.6	-11.3	-10.8
Seychelles	-507	-762	-789	-806	-139	-139	-121	-121	-10.8	-7.0	-5.4	-4.9
Somalia	-4 130	-5 013	-5 058	-5 245	-1 306	-1 291	-1 235	-1 414	-17.1	-15.8	-14.1	-15.0
South Sudan	-118	688	452	328	-291	-110	491	467	-4.9	-1.4	7.0	6.6
Sudan	-3 855	-3 750	-4 126	-4 268	-2 620	-2 883	-2 503	-3 516	-6.0	-3.4	-2.5	-2.3
Tanzania	-3 358	-5 038	-5 457	-5 401	-2 395	-4 839	-4 463	-4 486	-3.4	-5.7	-4.8	-4.4
Uganda	-3 046	-3 765	-5 272	-6 209	-3 553	-4 864	-5 490	-6 228	-8.3	-8.6	-8.7	-9.0
East Africa	**-39 711**	**-47 140**	**-50 499**	**-52 366**	**-19 849**	**-27 504**	**-26 631**	**-29 208**	**-4.9**	**-5.3**	**-4.6**	**-4.3**
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 (September-August).
Source: African Development Bank statistics, estimates, and projections.

Table 7: Intraregional trade, 2021 (USD millions)

	Exports to															
	Burundi	Comoros	Djibouti	Eritrea	Ethiopia	Kenya	Rwanda	Seychelles	Somalia	South Sudan	Sudan	Tanzania	Uganda	East Africa	Africa	World
Burundi	-	0.0	0.0	-	0.1	2.4	0.8	0.2	0.6	-	2.2	2.3	11.9	20.5	29.4	156.1
Comoros	-	-	-	-	0.1	0.0	-	-	-	-	-	0.1	-	0.1	1.6	33.0
Djibouti	-	-	-	-	2 118.8	-	-	-	-	-	-	2.3	-	2 121.1	2 142.5	3 279.9
Eritrea	-	-	3.6	-	-	-	-	-	-	-	-	-	-	3.6	4.3	583.4
Ethiopia	0.0	0.3	74.1	-	-	21.1	1.0	-	4.1	-	1 115.0	1.5	3.9	1 221.2	1 275.4	3 949.0
Kenya	60.9	1.1	5.6	1.0	69.6	-	354.5	3.9	115.7	146.8	72.9	379.9	752.5	1 964.5	2 671.5	6 751.4
Rwanda	5.4	-	-	0.2	64.3	42.7	-	-	0.6	10.1	2.5	29.7	11.1	166.5	563.2	1 562.5
Seychelles	0.2	0.0	-	-	0.0	0.1	0.0	-	-	-	0.0	0.2	0.1	0.6	79.2	463.8
Somalia	-	-	-	-	-	0.7	0.0	-	-	-	-	0.0	-	0.7	24.8	450.0
South Sudan	-	-	-	-	0.0	0.0	0.0	-	-	-	0.0	0.0	2.0	-	2.2	486.4
Sudan	-	-	-	-	45.6	5.0	-	-	-	9.7	-	-	0.8	61.1	461.8	4 452.4
Tanzania	113.1	4.5	0.2	-	1.1	365.0	288.5	0.3	0.5	7.5	6.8	-	390.7	1 178.3	2 366.2	6 390.9
Uganda	78.8	-	0.0	-	27.0	564.4	1.8	0.0	1.6	526.7	50.7	116.1	-	1 367.1	1 845.8	4 193.2
														8 105.5	11 467.8	32 751.8

	Imports to															
	Burundi	Comoros	Djibouti	Eritrea	Ethiopia	Kenya	Rwanda	Seychelles	Somalia	South Sudan	Sudan	Tanzania	Uganda	East Africa	Africa	World
Burundi	-	-	0.0	-	0.4	73.3	20.1	0.0	-	-	0.4	126.8	66.6	287.6	383.9	1 028.9
Comoros	-	-	-	-	0.2	1.3	-	-	-	-	-	4.2	0.0	5.7	28.6	313.3
Djibouti	-	-	-	-	218.6	12.6	-	-	-	-	-	-	0.0	231.2	530.7	4 010.7
Eritrea	-	-	34.6	-	0.4	14.5	0.2	-	-	-	-	1.2	1.3	52.2	112.1	1 134.8
Ethiopia	-	-	45.7	-	-	65.3	0.1	0.0	0.6	0.0	65.1	4.8	1.5	183.0	1 001.1	17.161.2
Kenya	3.9	0.0	1.9	0.0	9.8	-	33.0	0.3	0.8	0.6	2.3	399.9	339.9	792.5	1 888.4	19 594.1
Rwanda	0.2	-	0.0	0.0	0.8	340.4	-	0.0	0.0	0.4	7.2	293.4	1.2	643.5	985.2	2 895.1
Seychelles	0.4	0.0	-	-	0.0	2.4	-	-	-	-	0.0	0.0	0.1	2.9	133.4	1 133.5
Somalia	-	-	-	-	-	25.1	0.2	-	-	-	-	0.1	-	25.4	40.1	1 220.0
South Sudan	-	-	-	-	1.7	117.6	17.0	-	-	-	1.2	1.4	304.7	-	444.9	1 108.9
Sudan	0.7	-	-	-	63.8	86.0	1.3	-	0.1	-	-	0.1	47.9	199.8	813.7	9 237.9
Tanzania	1.9	0.0	1.2	-	2.3	321.9	21.3	0.0	0.0	0.1	0.0	30.9	85.3	465.0	1 367.4	10 873.3
Uganda	0.8	-	-	-	2.1	766.6	3.3	0.1	-	-	0.0	788.1	-	1 561.1	2 263.9	8 784.1
														4 450.1	9 993.4	78 495.7

Source: United Nations Conference on Trade and Development.

Table 8: Labor indicators, 2022

	Population growth rate (%)	Urban population (% of total)	Age distribution			Fertility rate (births per woman)
			0-14	15-64 (% of population)	65 and older	
Burundi	2.7	14.2	45.8	51.7	2.5	5.0
Comoros	1.8	32.4	38.0	57.7	4.3	3.9
Djibouti	1.4	71.9	30.4	65.1	4.5	2.8
Eritrea	1.8	65.7	39.2	56.8	4.0	3.8
Ethiopia	2.6	21.7	39.6	57.2	3.1	4.1
Kenya	1.9	30.1	37.8	59.3	2.9	3.3
Rwanda	2.3	17.6	38.5	58.3	3.2	3.7
Seychelles	0.6	52.7	23.1	68.7	8.2	2.3
Somalia	3.1	46.0	47.2	50.3	2.6	6.2
South Sudan	1.5	27.3	43.9	53.2	2.9	4.3
Sudan	2.7	35.0	40.9	55.6	3.5	4.4
Tanzania	3.0	37.3	43.4	53.5	3.1	4.7
Uganda	3.0	27.8	44.8	53.5	1.7	4.5
East Africa	**2.6**	**29.1**	**41.3**	**55.7**	**2.9**	**4.2**
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.

Table 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
Burundi	2020	62.8	2013	65.1	2020	40.1
Comoros	2013	42.4	2014	18.6	2014	45.3
Djibouti	2017	21.1	2017	19.1	2017	41.6
Eritrea	-	-	-	-	-	-
Ethiopia	2015	23.5	2015	27.0	2015	35.0
Kenya	2015	36.1	2015	29.4	2021	38.9
Rwanda	2016	38.2	2016	52.0	2016	43.7
Seychelles	2018	25.3	2018	0.5	2018	32.1
Somalia	-	-	-	-	-	-
South Sudan	2016	82.3	2016	67.3	2016	44.1
Sudan	2009	46.5	2014	15.3	2014	34.2
Tanzania	2017	26.4	2018	44.9	2018	40.5
Uganda	2019	20.3	2019	42.2	2019	42.7
East Africa	**-**	**-**	**-**	**-**	**-**	**-**
Africa	**-**	**-**	**-**	**-**	**-**	**-**

a. Defined as two-thirds of average consumption.
b. Based on income distribution.
Source: Various domestic authorities and the World Bank.

Table 10: Access to services

	Telecommunications, 2021				Population using at least basic drinking water services, 2020 (%)	People using at least basic sanitation services, 2020 (% of population)
	Fixed telephone subscriptions (per 100 people)	Mobile-cellular subscriptions (per 100 people)	Internet users (%)	Access to electricity, 2020 (% of population)		
Burundi	0.1	61.7	5.8	11.7	62.2	45.7
Comoros	0.9	103.9	27.3	86.7	-	-
Djibouti	2.5	44.3	68.9	61.8	76.0	66.7
Eritrea	1.8	49.7	21.7	52.2	-	-
Ethiopia	0.7	53.6	16.7	51.1	49.6	8.9
Kenya	0.1	122.8	28.8	71.4	61.6	32.7
Rwanda	0.1	81.0	30.5	46.6	60.4	68.8
Seychelles	17.6	172.7	81.6	100.0	-	100.0
Somalia	0.5	51.8	-	49.7	56.5	39.9
South Sudan	-	30.5	-	7.2	41.0	15.8
Sudan	0.3	75.6	-	55.4	60.4	36.9
Tanzania	0.1	85.0	31.6	39.9	60.7	31.8
Uganda	0.2	65.7	10.3	42.1	55.9	19.8
East Africa	**0.4**	**72.8**	**21.3**	**48.9**	**54.1**	**25.6**
Africa	**2.3**	**78.8**	**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.

Table 11: Health indicators

	Life expectancy at birth, 2022 (years)			Prevalence of undernourished, 2020 (% of population)	Health personnel, 2011–21 (per 100,000 people)	
	Total	Male	Female		Medical doctors	Nurses and midwives
Burundi	62.0	60.1	63.9	-	6.5	75.8
Comoros	63.7	61.5	66.1	-	28.3	159.0
Djibouti	62.9	60.3	65.5	13.5	20.3	66.2
Eritrea	66.6	64.5	68.7	-	8.2	144.3
Ethiopia	65.6	62.6	68.9	24.9	10.4	77.0
Kenya	62.1	59.6	64.7	26.9	22.6	119.9
Rwanda	67.1	64.8	69.2	35.8	11.6	93.3
Seychelles	71.7	68.2	76.0	-	210.7	922.4
Somalia	56.1	54.1	58.2	53.1	2.3	11.3
South Sudan	55.6	54.0	57.0	-	4.0	35.8
Sudan	65.6	63.0	68.2	12.8	26.3	114.0
Tanzania	66.8	64.7	68.9	22.6	5.0	55.0
Uganda	63.6	61.5	65.7	-	15.8	168.6
East Africa	**64.3**	**61.9**	**66.9**	**25.0**	**13.2**	**91.9**
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.

Table 12: Major diseases

	Healthy life expectancy at birth, 2019 (years)			Prevalence of HIV, ages 15–49, 2021 (% of population)	Infant mortality rate, 2021 (per 1,000 live births)	Under-five mortality rate, 2021 (per 1,000 live births)
	Total	Male	Female	2021	2021	2021
Burundi	55.6	54.0	57.2	0.9	37.6	52.6
Comoros	59.0	58.3	59.6	0.1	39.3	49.7
Djibouti	57.0	57.2	58.9	0.7	45.9	54.1
Eritrea	55.7	53.9	57.7	0.5	28.9	38.1
Ethiopia	59.9	59.0	60.8	0.8	34.3	46.8
Kenya	57.7	56.4	58.9	4.0	28.0	37.2
Rwanda	60.2	59.0	61.4	2.3	29.7	39.4
Seychelles	64.0	61.9	66.4	-	12.0	13.9
Somalia	49.7	48.3	51.3	0.1	71.1	111.8
South Sudan	53.7	52.9	54.5	2.1	63.8	98.7
Sudan	59.9	59.6	60.3	0.1	38.9	54.9
Tanzania	58.5	57.6	59.3	4.5	41.1	47.1
Uganda	58.2	56.1	60.4	5.2	31.2	42.1
East Africa	**58.4**	**57.3**	**59.5**	**2.3**	**36.4**	**50.8**
Africa	**57.2**	**56.3**	**58.1**	**2.7**	**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.

Table 13: Education indicators

	Estimated adult literacy rate, 2011–21 (% ages 15 and older)			Gross enrolment ratio, primary, 2011–21 (%)			Government expenditure on education as a percentage of GDP, 2012–22 (% of GDP)
	Total	Male	Female	Total	Male	Female	
Burundi	74.7	81.3	68.4	115.1	114.4	115.9	5.1
Comoros	62.0	67.0	56.9	99.5	99.6	99.4	2.5
Djibouti	-	-	-	73.2	76.3	70.0	3.8
Eritrea	76.6	84.4	68.9	68.4	73.6	63.1	-
Ethiopia	51.8	59.2	44.4	119.4	125.2	113.5	3.7
Kenya	82.6	85.5	79.8	103.2	103.0	103.4	5.1
Rwanda	75.9	78.7	73.3	131.3	132.7	130.0	4.0
Seychelles	96.2	95.8	96.7	100.8	98.7	130.0	5.5
Somalia	-	-	-	-	-	-	0.0
South Sudan	34.5	40.3	28.9	73.0	85.3	60.4	1.6
Sudan	60.7	65.4	56.1	79.0	81.7	76.1	-
Tanzania	81.8	85.5	78.2	96.9	95.5	98.4	3.4
Uganda	79.0	84.0	74.3	102.7	101.3	104.1	2.6
East Africa	**76.0**	**72.1**	**62.0**	**104.4**	**106.4**	**102.1**	**3.8**
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.

Table 14: Labor 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	
Burundi	78.9	80.6	52.1	79.7	81.5	78.0	1.0
Comoros	40.3	29.5	10.9	44.2	33.3	55.1	8.8
Djibouti	22.6	11.3	3.1	31.4	18.2	45.0	27.9
Eritrea	72.5	65.7	60.7	77.6	70.9	84.7	6.6
Ethiopia	77.3	71.1	65.6	80.6	75.0	86.2	4.0
Kenya	70.3	68.5	36.6	74.4	72.7	76.1	5.5
Rwanda	47.8	41.6	33.7	54.9	48.6	61.8	13.0
Seychelles	-	-	-	-	-	-	-
Somalia	27.2	15.7	10.3	34.0	21.2	46.9	20.0
South Sudan	61.7	60.9	49.3	70.9	70.9	71.0	13.0
Sudan	39.6	20.5	17.4	48.8	29.4	68.6	18.7
Tanzania	80.3	76.0	66.2	82.6	78.9	86.6	2.8
Uganda	66.8	64.3	49.9	69.7	67.6	72.0	4.3
East Africa	**70.3**	**61.2**	**55.6**	**71.7**	**65.7**	**77.8**	**7.0**
Africa	**61.2**	**49.4**	**44.4**	**62.6**	**53.9**	**71.8**	**7.4**

Source: International Labour Organisation ILOSTAT database.

Appendix 2.1: Innovative instruments/mechanisms for private sector climate finance

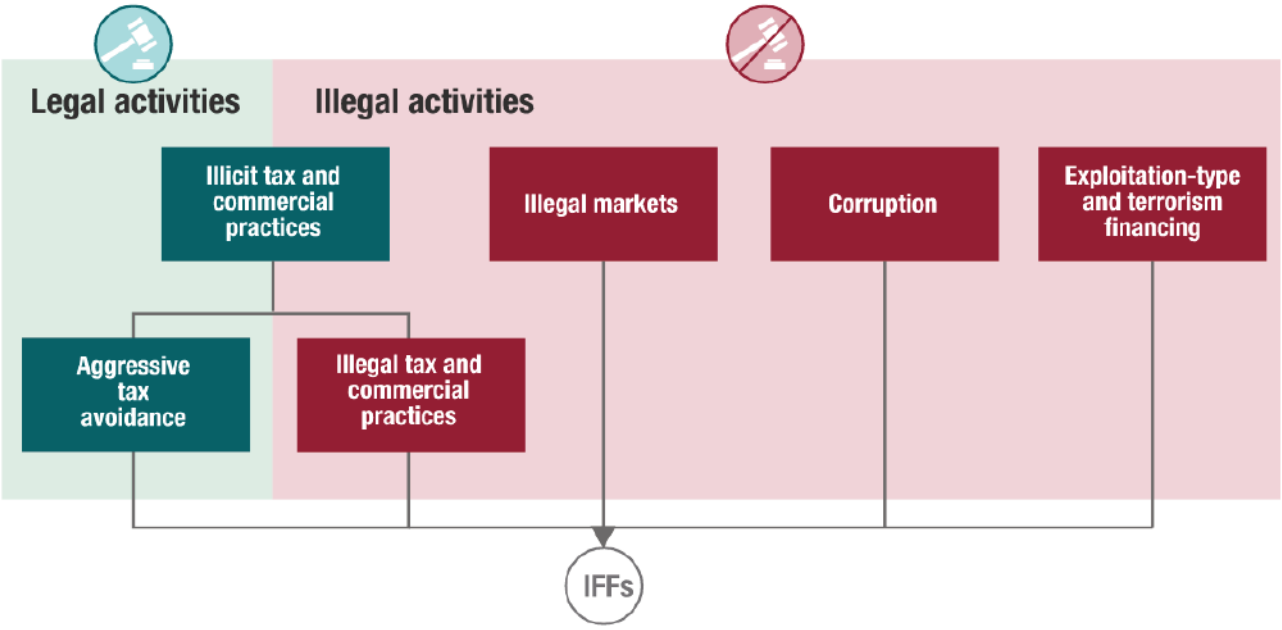
Type of instrument	Carbon markets	Climate risk insurance	Climate-related bonds (Green, Blue, & Sustainability Bonds)/ GBS Bonds	Climate-related debt swaps
Definition	Finance generated through investment in projects that reduce GHG emissions. Purchased by corporates or international actors to reduce or offset their Carbon footprint.	Provides financial protection to individuals and businesses against losses caused by climate-related disasters, such as floods and droughts.	**Green bonds** aim to finance environmental and climate projects. **Blue bonds** finance investments in ocean health and other sustainable blue economy projects (World Bank 2018). Sustainability-linked bonds[118] can include green, blue, or social and development objectives—such as SDG bonds, which are linked to progress toward the issuer's SDG goals.	Instruments structured as bipartite swaps (creditor-debtor) and tripartite swaps (creditor-debtor-third party) used to reduce sovereign risk while advancing adaptation or mitigation efforts. Swaps are useful when climate adaptation is efficient and fiscal risks are high (but not necessarily unsustainable) with the swap generating fiscal space beyond what is needed to finance the climate investment.
Current performance	**Carbon markets offer an incredible opportunity to unlock billions for the climate finance needs of East African** economies while expanding energy access, creating jobs, protecting biodiversity, and driving climate action. 11% of total carbon credits generated originate from Africa (Global market USD2 billion). Kenya, for instance, issued an estimated 26 million credits in total for the period from 2016 to 2021[119].	**23 African financial regulators** for insurance are members of International Association of Insurance Supervisors (IASA), an international standard setting body for insurance supervisors. The IASA recently compiled an Application Paper to support insurance supervisors in their efforts to integrate climate risk considerations into the supervision of the insurance sector[120].	The global GBS bond market has grown substantially in recent years, but SSA sovereign issuance remains limited. Sub-Saharan African countries have taken varied approaches to kickstarting green and sustainability bond issuance, including top-down incentives and building national and supranational frameworks[121].	While most of Africa's scarce experience with debt swaps has been with debt-for development or debt-for-health swaps (dating back to the late 1980s), interest in debt-for-climate swaps is growing. **Cameroon, Ghana, Kenya, Madagascar, Nigeria, and Zambia** undertook debt-for-nature swaps between the late 1980s and early 2000s[122].
Use Case	Africa Carbon Markets Initiative (ACMI). ACMI has an ambitious goal of producing over 1.5 billion credits annually	FSD Africa is working on setting up a local underwriting pool that will provide de-risking solutions to enable	Benin's €500 sovereign sustainability bond. In Seychelles, the Blue Carbon Seychelles program is	The Seychelles tripartite debt-for-climate swap facilitated by The Nature Conservancy in 2015

	in Africa that has the potential to unlock over USD 120 billion in funds and support over 110 million jobs by 2050.	the crowding-in of private capital to renewable energy projects in Kenya[123].	exploring innovative financing mechanisms, such as blue carbon bonds, to support the conservation and restoration of the country's coastal ecosystems.	for Seychelles (TNC, a US conservation group). The TNC raised USD 28 million (USD 23 million from investors and USD 5 million from donors) to acquire USD 30 million of Seychelles' debt from its creditors at a discount. The debt was then restructured to USD 15 million. Seychelles repaid the loan through a trust that transferred the payments to investors. The savings from this operation were in turn invested into ocean conservation (CBD 2016).
Estimated potential	USD5 to USD30 billion[124] .	Insurance penetration is exceptionally low in Africa at 0.8%, compared to Asia's average of 1.8%, Europe's 2.7% and North America's 4.1%[125]. Insurance penetration is concentrated in a few major markets in East Africa like Kenya. The potential for growth is immense.	In Africa, GBS bond issuance is quite small (0.3% of total African bond issuance) and is dominated by South Africa and East African countries like Kenya and Seychelles. Moreover, so far, the greenium has been small relative to countries' debt burdens[126]. While sustainability/social bond issuance is even more limited. Accordingly, the potential for the deployment of this instrument is still significant.	Many East African countries have sovereign debt levels at or above 100% of their GDP. Total government debt in East Africa varied strongly among countries. It was estimated to reach 186% of Sudan's GDP in 2022. On the other hand, it amounted to 31% of Comoros' GDP. Government debt was projected to increase in Comoros, Ethiopia, Kenya, Rwanda, and Uganda compared to 2021[127]. Consequently, these countries are spending more on repaying their debts than fighting climate change. Hence there is a significant need for swaps.
Challenges to scaling	• Unregulated, highly volatile market • Integrity of credits • Challenges in freeing up national resources • High capital intensity for project	• Risk information sharing could be an entry point, where the knowledge and expertise of the insurance industry is used to build risk	• An underdeveloped climate information architecture • Inadequate technical support to prepare sovereign issuance. • Inadequate national	• A recent IMF report found that they have not always been successful in restoring debt sustainability or mobilizing

	development & certification.	management and planning capacity. • The availability and accuracy of current risk information poses a key barrier • very limited experience in risk-based planning and lack adequate risk information.	sustainable bond frameworks, as well as support initiatives aiming at developing local capital markets infrastructure.	additional climate financing[128]. • Experts have also raised questions around whether linking debt relief to climate or other green or social conditionality may even push countries into shallower restructurings than they would otherwise need[129].
Key success factors	• Increased carbon pricing • Strengthening VCM market strategy • Build capacity and capabilities of developers to scale up projects including technical assistance for MRV.	• Support collection of better climate risk and weather information • Helping governments develop integrated risk management strategies • Financial institutions in Africa are working to create a local underwiring pool providing de-risking options supporting the crowding-in of private money in the development of renewable energy. • Engage in developing enabling environment through technical assistance, education initiatives[130].	• Strengthen the role of public development banks to play a catalytic role to support the growth of GBS bonds • Put importance in tailoring issuance to local contexts • Develop and adopt sufficient risk mitigation strategies • Carry out capacity development to address supply constraints • Promotion of transparency and taxonomies.	• They can still be useful instruments if they are deployed under the right circumstances. They are most effective in contexts where a country needs support reprofiling or restructuring a specific instrument, rather than for countries where a more systemic restructuring exercise is warranted to restore sustainability. • They must be designed so that the debt relief has material impact on the sovereign outlook and does not just kick larger debt sustainability issues down the road. Finally, they must mobilize investments above and beyond what a standard grant could have generated.

Source: compiled by author from various sources.

Appendix 3.1: Activities that may generate illicit financial flows



Source: https://unctad.org/statistics/illicit-financial-flows

Appendix 3.2: Fiscal instruments exist that can generate revenue for the resource endowed countries

Mechanism	Description	Prevalence Number of countries	
		Mining	Petroleum
Signature bonus	Up-front payment for acquiring explorations rights. Commonly used as a bid parameter (Notably for petroleum in the US offshore continental shelf). Petroleum in the US offshore continental shelf)	1	16
Production Bonus	Fixed payment on achieving certain cumulative production or production rate	None	10
Royalties	Specific (amount per unit of volume produced) Ad-valorem (percentage of product value) Ad-valorem progressive with price Ad-valorem progressive with production Ad-valorem progressive with operating ratio/profit Royalty applied to operating margin (net profits royalty)	2 17 1 3 2	1 31 9 8 1 0
State, provincial, and/ or local CIT'	Rate of corporate income tax at the state, provincial, or local level in addition to federal level. Common in Canada and the U.S as a province/state resource charge in addition to federally imposed CIT	2	5
Variable income tax	CIT where the tax rate increase with the ratio of taxable income to revenue, between an upper and lower bound	3	None
Resource rent taxes	Cash flow with accumulation rate/uplift. Can be assessed before or after CIT. Cash flow with limited uplift on losses (UK). (surcharge tax on cash flow) Allowance for Corporate Capital Allowance for Corporate Equity	5 None None None	5 2 1 1
Other additional income taxes	Other profit taxation mechanisms that do not fall under any of the categories above	1	3
Production sharing	Fixed production share Cumulative production R-Factor: ratio of cumulative revenues to cumulative costs Rate of return, pm-or post-tax Production Level	None None None None None	5 None 13 3 13
State participation	Free equity: government receives percentage of dividends without payment of any costs Carried equity: government contributions met by investor and recovered from dividends with interest Paid equity: government pays its sham of costs	2 3 None	None 8 19
Social investments/infra-structure	Resource companies build infrastructure or make other social investments (hospitals, schools, etc).	1	6

Source: Committee of Experts on International Cooperation in Tax Matters Thirteenth Session New York, 5-8 December 2016, Proposed Guidance on Fiscal Take in the Extractive Industries, E/C.18/2016/CRP.21

Appendix 3.3

Renewable energy consumption (% of total final energy consumption)										
Country Name	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Burundi	92.57	91.65	91.45	91.08	91.28	91.15	89.52	88.12	85.58	84.77
Comoros	66.39	69.35	67.85	62.51	66.02	64.17	60.5	56.42	55.01	53.43
Djibouti	32.54	33.93	32.48	34.04	30.82	28.18	24.91	24.13	27.84	27.92
Eritrea	81.07	79.71	78.14	78.14	77.8	77.56	77.31	75.37	74.03	73.67
Ethiopia	94.11	93.56	93.3	92.49	91.25	91.56	90.49	90.22	89.42	88.92
Kenya	76.5	77.31	78.71	76.73	74.95	72.04	70.94	71.3	72.47	68.08
Rwanda	90.66	89.64	88.78	88.47	87.95	86.31	86.23	85.98	84.5	77.86
Sudan	61.32	63.68	63.76	64.7	64.91	63.02	59.52	60.47	61.27	62.23
Somalia	93.57	93.64	93.9	94.4	94.64	94.5	94.78	94.9	94.93	95.03
South Sudan	-	-	30.56	30.13	19.85	26.7	28.79	28.63	28.65	26.65
Sychelles	0.71	0.85	0.78	1.48	1.37	1.36	1.22	1.25	1.24	1.47
Tanzania	89.73	88.47	86.15	85.39	85.37	84.62	85.7	84.92	85.24	85.22
Uganda	93.18	92.79	92.95	92.55	91.84	91.07	90.83	90.76	90.07	90.22

Source: https://data.worldbank.org/indicator/EG.FEC.RNEW.ZS.

ENDNOTES

[1] GDP was estimated from the supply side (Sectoral GDP) which entails agriculture, industry and services

[2] GDP was also estimated from the demand side (expenditure) which entails household consumption, government consumption, investments and net exports

[3] Figure 4 showcases the Gini coefficient (0-100) which measures inequality levels in a country. The higher the figure the higher the inequality levels in a country.

[4] UNDESA (2022)

[5] https://www.eac.int/why-invest-in-eac/natural-resources

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[7] African Economic Outlook (2023)

[8] The 4 dimensions are, each with several sub-indicators: i) efficient and sustainable resource use, related to efficient and sustainable energy, water and land use as well as material use efficiency; ii) Natural capital protection, comprising indicators capturing environmental quality, GHG emission reductions, biodiversity and ecosystem protection, and cultural and social value; iii) green economic opportunities, referring to green investment, trade, employment, and innovation; and iv) Social inclusion, encompassing indicators reflecting access to basic services and resources, gender balance, social equity and social protection.

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[15] Belianska et al., 2022

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[95] Dev Kar, lead economist at Global Financial Integrity (GFI),
[96] UNDP
[97] https://au.int/en/documents/20210708/report-high-level-panel-illicit-financial-flows-africa
[98] https://au.int/en/documents/20210708/report-high-level-panel-illicit-financial-flows-africa
[99] Money that is illegally earned, transferred or utilized. These funds typically originate from three sources: commercial tax evasion, trade mis invoicing and abusive transfer pricing; criminal activities, including the drug trade, human trafficking, illegal arms dealing, and smuggling of contraband; and bribery and theft by corrupt government officials.
[100] For instance, the analysis of industrial illegal, unreported, and unregulated fishing in East Africa reveals it is often facilitated by corruption. Evidence suggests this occurs through the abuse of power and position by 'kingpins', who regularly wield control through intimidation and sharing the spoils of corruption within established networks(Stop illegal fishing, 2021)
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[118] Sustainability-linked bonds are, by contrast, outcome-based instruments, which incentivize the issuer's achievement of environmental, social, or governance targets, for example, through lower coupon payments.

[119] https://bit.ly/3U5wcms

[120] The IASA Application Paper on the Supervision of Climate-related Risks in the Insurance Sector https://bit.ly/3G8BuHK

[121] Belianska et al., 2022

[122] See Thapa 1998, WWF 2006, Freeland and Buckley 2010, and CBD 2013

[123] FSD Africa https://bit.ly/40vwftY

[124] McKinsey and Vivid Economics (2022)

[125] Surminski et al. (2019) insurance-as-a-catalyst-for-using-climate-risk-information-for-government-planning-and-decision-making. LSE Working Paper 327

[126] See Chamon et al., 2022

[127] https://bit.ly/42YsLlm

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[130] Source: Surminski and Vivid Economics for KfW 2018

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