PRIVATE SECTOR FINANCING FOR CLIMATE ACTION AND GREEN GROWTH IN AFRICA

KEY MESSAGES

• **Africa has great potential and self-interest to achieve green growth.** However, despite its growing political commitment toward green growth and its rich natural capital endowment, the continent lags other regions on many green growth dimensions, in particular on the provision of green economic opportunities. Progress on efficient and sustainable resource use and on the promotion of social inclusion has not been sufficient to catch up with other world regions.

• **To close Africa’s climate financing gap by 2030, approximately $213.4 billion will need to be mobilized annually from the private sector, to complement constrained public resources.** Africa received $4.2 billion in private climate finance in 2019/2020, 14 percent of total climate finance flows of $29.5 billion. It requires $242.4 billion a year on average until 2030—$2.7 trillion over 2020–30—to implement its climate action expressed in the latest submitted Nationally Determined Contributions (NDCs).

• **In addition, Africa will require about $1.3 trillion annually to meet its sustainable development needs by 2030—and thus to achieve green growth.** Most of this finance is expected to be met through private finance. To meet these needs and given the current levels of public climate finance, private climate finance should increase by about 36 percent each year until 2030.

• **However, barriers on the supply and demand sides inhibit reaching the full potential of private investments in climate and green growth sectors in Africa.** Ineffective implementation of green growth strategies, weak regulatory structures and institutions, high perceived investment risk, and the lack of bankable project pipelines continue to impede private investment in Africa’s climate and green growth projects.

• **Despite the barriers, many investment opportunities in climate action and green growth could unlock private finance.** Sectors that will rely on climate-smart and low-carbon technologies—such as renewable energies and electric vehicles, energy-efficient buildings, climate-resilient infrastructure, improved dryland crop production, and water resource resilience—present Africa’s trillion-dollar market opportunities for the private sector. The implementation of appropriate regulatory, policy, and institutional frameworks is essential for turning them into booming markets for private investors.
Mobilizing the trillions in finance to address climate change and meet Africa’s green growth ambitions requires:

- **Balancing allocations of private sector investments across areas that generate economic, social, and environmental outcomes.** High volumes of finance are needed for sustainable infrastructure (clean energy and transport systems, green buildings, and industry). But achieving just transitions to green growth will also require countries to direct investments toward other infrastructure that generates social and environmental development outcomes—such as health, education, social protection—to catalyze private investment.

- **Using innovative financing instruments and mechanisms to leverage emerging sources of private sector financing.** Holding promise for mobilizing private financing are emerging innovative financing instruments in green and sustainable finance (social bonds, green bonds and loans, sustainability bonds and sustainability-linked bonds and loans), carbon pricing, debt-for-climate swaps, and blended finance.

Accelerating progress toward green growth by mobilizing private sector finance requires that development and climate change stakeholders in Africa work together:

- **African governments should formulate, cost, and implement long term strategies (LTS) to provide high-level and predictable policy guidance to domestic and international private and public actors on priority investment sectors.** They should also design and implement conducive policies and regulations and develop markets to attract private investments, particularly in priority sectors for climate action and green growth, while strategically deploying available public finance to direct investments toward these sectors. Given their importance in employment creation, micro, small, and medium enterprises (MSMEs) should be an integrated part of any national climate and green growth strategy, for instance, through affordable finance and skill development programs. Regional integration through the African Continental Free Trade Area (AfCFTA) will also leverage cross-boundary opportunities for private investments.

- **Multilateral development banks (MDBs) and development financial institutions (DFIs) should accelerate their alignment with the Joint MDB Paris Alignment Framework and commit to implement the Bridgetown Initiative by leveraging their convening power to de-risk investments for green growth in Africa.** This can be done through grants, concessional finance, and credit and risk guarantees that support capacity development and innovation to increase private sector confidence in African markets. This will require MDBs and DFIs to transform into institutions that are more risk-agnostic to increase investments in priority sectors.

- **International and domestic private investors should exercise stewardship to identify barriers, investment risks, and opportunities for green growth in different African contexts to inform investment decisions.** They should commit to aligning their investments with the Paris Agreement—by ensuring that financial allocations directed toward Africa embed climate risks and contribute to green transitions, sustainability, and climate resilience.

- **Credit rating agencies could expand their framework to reflect the potential for the African market.** Reforming rating procedures to ensure that risk and credit ratings include the true potential of Africa’s green growth markets would play a catalytic role to attract private sector financing for climate and green growth. The increasing calls to reform the rating agencies and the progress toward establishing an African Rating Agency are steps in the right direction.

- **Governments in developed countries should honor their Paris Agreement commitments to mobilize $100 billion of climate finance annually for developing countries.** They should also commit to a higher post-2025 climate finance target that is sufficient to meet needs in developing countries and target flows toward climate action and green growth.
THE IMPERATIVE FOR GREEN GROWTH AND THE ROLE OF PRIVATE SECTOR FINANCING

The global commitment to green growth

The world is facing complex and overlapping crises that demand careful consideration of the synergies between economic growth, social development, and environmental protection. Climate change and recent global events and risks, such as the COVID-19 pandemic and rising food and energy prices, have amplified the multiple risks the world faces. This underscores the need for responses that not only mitigate these risks but also promote recovery prioritizing social, economic, and environmental outcomes. Economic growth and sustainable development are at the heart of objectives for many state and non-state actors. Alongside these objectives is the Paris Agreement goal of limiting warming to well below 2°C through transformative actions that enable transitions to low carbon emissions.

However, development interventions have had a history of exacerbating climate risks while failing to reduce social inequalities. For example, the use of fossil fuels has driven economic growth in many developed countries, but it has also increased greenhouse gases (GHG) and environmental degradation through unsustainable resource extraction, production processes and consumption. And although climate action protects development gains, some interventions may threaten sustainable development objectives, as when transitions from fossil fuels do not account for the livelihoods of local populations or countries. Leveraging complementarities among climate action, sustainable development, and economic growth is thus crucial.

Green growth correlates positively with economic growth, climate resilience, low carbon development, and climate readiness

The African Development Bank (AfDB, or the Bank) defines green growth as "the promotion and maximization of opportunities from economic growth through building resilience, managing natural assets efficiently and sustainably, enhancing agricultural productivity, and promoting sustainable infrastructure." Green growth pathways therefore identify and address social and environmental externalities and market failures that emerge from pursuing economic growth and climate action, such as through material and energy efficiency. Green growth thus contributes toward Paris Agreement alignment and access to Paris Agreement support. Developing countries that perform well on green growth also do well on other economic development and climate resilience indicators. Indeed, green growth score of African countries over 2010–21 was correlated positively with real GDP growth, climate resilience, and climate readiness but negatively with climate vulnerability (figure 2.1).

Green growth policies have thus been highlighted as an integrated objective in key international frameworks for climate change and development, including the Rio+20 United Nations Conference on Sustainable Development in 2012, the Sustainable Development Goals (SDGs) in 2015, the Addis Ababa Declaration in 2015 on Financing for Development, the Paris Agreement, and the Sendai Framework for Disaster Risk Reduction.

Africa’s commitments to and progress toward green growth

Sustainable development, economic growth, and climate action are critical for Africa, and achieving them requires commitments to green growth

Since the beginning of the 21st century, Africa’s population has almost doubled, its GDP has quadrupled, and its GHG emissions have increased by 50 percent. Even so, Africa currently contributes only about 4 percent of global GHG emissions, much less than China (30.9 percent), the United States (13.5 percent), European Union (7.5 percent), and India (7.3 percent). It has also been severely affected by recent global events and risks, including the COVID-19 pandemic and the disruptive effects of the Russia’s invasion of Ukraine (chapter 1). So, although Africa has committed to addressing climate change, significant environmental and social issues and inequalities can be addressed only through green growth.
Africa has a great potential to pursue climate and green growth objectives to accelerate economic growth.
- First, it has some of the world’s fastest-growing economies, and its real GDP growth is projected to surpass the global average in 2023–24, even as headwinds persist. Embedding climate change in policy frameworks could catapult the continent to a higher and greener growth trajectory.
- Second is the continent’s human capital base. Africa’s population is projected to increase to 2.4 billion by 2050. With most of its today’s population being young, unlike other regions’

FIGURE 2.1 Selected correlates of green growth in Africa, average 2010–21

Note: The climate resilience index is averaged over 2010–19, and the climate vulnerability and readiness indices are averaged over 2010–20. Black lines are fitted with a 95% confidence interval.
aging populations, Africa is the current and future frontier market in green growth opportunities.

- Third, Africa hosts 25 percent of the world’s natural biodiversity and 30 percent of the world’s mineral resources, most of which is essential for a green transition.
- Fourth, Africa has a large renewable energy potential, including wind, solar, hydropower, and geothermal,\(^8\) with solar potential the world’s highest.\(^9\)
- Last, African countries have the greatest potential for investments in green infrastructure and technology due to their low levels of development, low legacy high-emissions infrastructure, and the lowest frequency of infrastructure and project finance default rates (estimated at 5.5 percent).\(^10\)

But Africa’s progress toward green growth has been slow

Transitions to green growth and desired climate actions require readiness and adequate finance. A green growth readiness assessment by the Bank and the Global Green Growth Institute (GGGI) of seven African countries—Gabon, Kenya, Morocco, Mozambique, Rwanda, Senegal, and Tunisia—indicated high political commitment to green growth, mainly supported by climate and green growth policies and strategies.\(^11\) But in several other countries, there was limited evidence that climate and green growth strategies were aligned with sectoral policies and strategies. Policies also lacked fully costed implementation plans, with technical capacity and financing gaps and weak regulations limiting some countries’ green growth readiness.

In addition to low readiness, analyses for this report show Africa’s generally low performance on most green growth dimensions. To measure Africa’s progress toward achieving green growth, this report used a Green Growth Index (GGI) constructed by the GGGI. The GGI, linked with the SDGs, is a composite index of about 40 indicators subdivided into four main dimensions.\(^12\) The GGI score is normalized between 0 and 100 and benchmarked against sustainability targets, so that the higher the score, the closer the country or region to reaching green growth or sustainability targets. Africa’s GGI score hovered at about 48–50 over 2010–21, moving from a median of 48 in 2010 to just 50 in 2021, with important cross-country heterogeneity indicated by the relative size of the interquartile range over the years (figure 2.2, left panel). On green growth achievements, Africa lags Latin America and the Caribbean, North America, East Asia and Pacific, and Europe, but performs better than the Middle East and South Asia (figure 2.2, right panel).

Africa’s progress has been slow in most green growth dimensions (figure 2.3). It underperforms on green economic opportunities, with an average score of 18.1 over 2010–21, the second lowest among world regions. Its share of exports of environmental goods in total exports—a proxy for green trade (a score of 6.2), which refers to the competitiveness of a country to produce and export environmental goods that contribute to environmental protection, climate action, green growth, and sustainable development—was on average 1.5 percent over 2010–20, compared to a minimum of 3 percent in other regions. The share of green jobs in total manufacturing employment—a measure of green employment (a score of 20.3)—averaged 2.5 percent in Africa between 2010 and 2018, less than half the average for the rest of the world (5.5 percent).\(^14\) Africa also lags other regions in green innovation (a score of 44.1), particularly energy-saving, pollution-prevention, waste recycling, green product designs, or corporate environmental management.\(^15\) The continent also underperforms on green investment (a score of 50.1) due to insufficient public and private investments to promote sustainable resource use and natural capital protection. Africa’s ratio of adjusted net savings, including particulate emissions damage, to gross national income (GNI), a proxy for green investment,\(^16\) was 3.6 percent on average between 2010 and 2021, compared with a minimum of 6 percent in the rest of the world.

Social inclusion has nevertheless improved over the past decade, from a score of 44.3 in 2010 to 47.2 in 2021, largely due to improvements in access to basic services and resources such as water, sanitation, electricity, and clean fuels, increasing gender balance and social equity. But this progress has not been sufficient for the continent to catch up with other world regions. Extreme
poverty, inequality, and undernourishment remain high. And social safety net and social protection schemes continue to exclude a large share of the population, particularly informal workers and other vulnerable people. As a result, Africa displays the lowest social inclusion score globally.

The continent performs relatively well on other dimensions of green growth. On efficient and sustainable resource use, it is almost at par with other world regions (with an average score of 57.5 over 2010–21), attributable to good performance on efficient and sustainable energy and water use due to the increasing investments in these areas. For example, average annual investments in renewable energy increased tenfold from about $0.5 billion in 2000–09 to $5 billion in 2010–20, though Africa still accounts for only 2 percent of global annual investments in renewable energy.17 Despite public efforts to reduce GHG emissions, improve environmental quality, protect national biodiversity and ecosystem and promote cultural and social value, Africa ranks 4th on progress toward natural capital protection (a score of 61.4 over 2010–2021), behind Europe and Central Asia (69.7), Latin American and the Caribbean (66.2), and East Asia and Pacific (62.4), as African countries continue to struggle to curb illicit trade and financial outflows from natural resources (chapter 3).
Rationale for private sector finance for climate action and green growth in Africa

The urgency of addressing climate change and transitioning to a greener economy requires the active participation of all actors, including the private sector.

Climate change impacts are increasing in intensity and frequency around the world, particularly in Africa, highlighting the urgency of investing in climate action and green growth. Recent reports such as the African Economic Outlook 2022 and the Sixth Assessment Report of the Intergovernmental Panel on Climate Change (IPCC) have reiterated that the climate crisis is likely to get worse and that the time for action is now. The global cost of climate inaction has been found to be far greater than the cost of action. The IPCC’s 6th Assessment Report indicates that the global economic benefits of limiting warming to 2°C are higher than the investment costs. As a global commons problem, climate change and broader transitions to green economies require active participation of all stakeholders, including the private sector, which can leverage its expertise and resources to invest in achieving net zero and green transitions.

Public finance alone is insufficient to achieve Africa’s green growth agenda

The United Nations estimates that approximately $1.3 trillion will be required annually to meet Africa’s sustainable development needs by 2030. Similarly, finance needs for sectors and investments necessary for transitions to green economies are too sizable to be borne by the public sector finance alone. The Bank estimates that ensuring continental-wide access to electricity by 2030 will require $32–40 billion annually, while around $45 billion are needed per year to achieve Africa’s renewable energy goals. Overlaying these targets with those of achieving social development, reducing inequalities, and achieving cross-sectoral environmental sustainability significantly expand the anticipated cost of transitions to green growth.

Finance for climate action and green growth therefore needs to be mobilized in the billions and trillions. Given Africa’s already strained fiscal positions due to a confluence of domestic and international shocks (chapter 1), mobilizing the private sector financing becomes imperative to achieving the continent’s green growth ambitions expressed in Nationally Determined Contributions (NDCs) and other national strategies. Already, countries with climate change and green growth strategies have committed towards financing part of these using public resources. For example, about 15 percent of countries’ NDC needs are expected to be covered by domestic public sources. However, these alone will be insufficient to meet current and future financing needs. Private finance will therefore be essential for plugging the gap, and for further mobilizing additional resources to meet the growing needs.

Investment in low-carbon climate-resilient development sectors in Africa offers great opportunities of higher returns for the private sector

Africa has good potential for generating high returns on private investments, given its natural capital, the composition and size of its population, and its prospects for rapid growth. Climate-smart technologies, already cost-competitive with fossil-fuel alternatives, have the highest potential for investments and returns in Africa. For example, of total investment opportunities of about $23 trillion through 2030 in energy-efficient buildings, low-carbon transport, and renewable energies in emerging markets, $1.03 trillion are in Africa. The demand for electric vehicle batteries is projected to grow by about 22 percent a year, from about 8 million units sold in 2022 to 39 million units by 2030. Africa is at the center of this supply chain, as many African countries have at least one of the critical metals — lithium, cobalt, nickel, manganese, graphite, iron, and phosphate — needed to produce lithium-ion batteries for vehicles and electricity storage.

Private investors can contribute to climate adaptation and resilience while also generating attractive returns on investments. For example, investing $1.8 trillion between 2020 and 2030 in early warning systems, climate-resilient infrastructure, improved dryland agriculture crop production, global mangrove protection, and water resource resilience globally, can generate...
$7.1 trillion in net benefits for private investors. And upfront private investment potential to adapt to droughts and floods could amount to up to 4.0 percent of Africa’s GDP, close to $100 billion a year through 2040, about $5 billion a year (figure 2.4).

**THE PRIVATE CLIMATE FINANCING LANDSCAPE IN AFRICA**

**Financing flows for climate action and green growth in Africa**

*Climate finance flows in Africa are dominated by public finance sources, which are 6 times greater than private finance.*

Financing flows for climate action in Africa reached an average of $29.5 billion in 2019/2020, or 4.5 percent of the total global climate finance of $652.6 billion. Public finance in Africa ($253 billion, or 86 percent of the total) was on average more than six times the private finance ($42 billion, or 14 percent) in 2019/2020 (figure 2.5). North America, Western Europe, and Latin America and the Caribbean mobilized a greater proportion of climate finance from private sources, which respectively accounted for 96 percent, 59 percent and 49 percent of the total climate finance. Africa’s leverage ratio (the ratio of private to public climate finance) is, at just 0.16, the lowest among world regions. It implies that for each $1 of public finance mobilized for climate action, African countries were able to mobilize only $0.16 of private financing. In North America, the leverage ratio is 18.5, and in South Asia and Latin America, it is at least 0.5.

**Private climate finance is skewed toward a handful of African countries which concentrate more than half of all financing inflows**

More than half of Africa’s private climate finance inflows in 2019/2020 (56.2 percent) went to Egypt, Kenya, Morocco, Nigeria, and South Africa, the continent’s largest economies with more developed financial markets. At the other extreme, 34 African countries each accounted for less than 1 percent of total climate finance from private sources, with a combined share of just 12.2 percent (figure 2.6). Most of these countries are highly vulnerable to climate change, are less resilient to climate shocks, and lack sufficient climate readiness for adaptation to climate change.

**FIGURE 2.4 Upfront private investment opportunities to adapt to droughts and floods in Africa between 2021 and 2040**

![Graph showing upfront private investment opportunities to adapt to droughts and floods in Africa between 2021 and 2040](source: Bari and Dessus 2022.)
Some countries have attracted more private finance as a share of their total climate flows: Zimbabwe (48 percent), South Africa (40 percent), Djibouti (37 percent), Algeria (30 percent), and Eritrea (29 percent). But in 30 countries, the private sector contribution to total climate finance has been less than 10 percent, with 9 having no private climate financing. So, most African countries are already financing climate action through domestic public resources, with most spending 2–9 percent of their GDP on climate adaptation. The largest proportion of private climate finance in Africa has been allocated to mitigation, particularly through the energy sector, leaving other highly vulnerable sectors to climate change with only a quarter of total climate finance flows.

Mitigation projects such as renewable energy, energy efficiency and sustainable transport accounted for about 81 percent of Africa’s private climate finance flows, mostly from corporates and commercial financial institutions. Very little financing from private finance was invested in adaptation, mainly because it is seen as a risky investment due to perceived low and unstable returns. Although investment in energy systems, largely renewables, forms Africa’s biggest share of private climate finance ($3.1 billion, or 74 percent), it represents just about 13 percent of the $24 billion invested in African fossil fuel companies annually. Buildings and transport infrastructure received $0.3 billion (7 percent). Both sectors are critical for green growth, but the high capital required, governance barriers, lengthy construction processes, and lack of incentives hinder these sectors from attracting more private funding.

Agriculture, forestry, and other land use (AFOLU) and water are the most vulnerable sectors to climate change. But they respectively received only $0.3 billion and $0.4 billion in private investments in 2019–20, with more than 90 percent coming from international public financing sources (figure 2.7). Although private investment in these sectors is not well tracked, it is still relatively low because projects are often small-scale, cross-sectoral, hard to value, and difficult for financiers to invest in. Most AFOLU-related projects that received funding (such as solar irrigation) are intertwined with energy systems and water. Other cross-cutting areas such as capacity building, education, health, and food are largely driven by grants and donor funding and received only $0.4 billion. Investments in industry and ICT buildings remain very low.
Africa's average financing needs to respond adequately to climate change amount to about $2.7 trillion cumulatively over 2020–30.

**Africa’s climate financing and green growth needs**

*Africa needs about $242.4 billion annually between 2020 and 2030 to implement its NDCs and at least $1.3 trillion annually to meet sustainable development needs, and thus green growth objectives.*

Using the latest submitted NDCs as of April 2023, the Bank estimates that Africa’s average financing needs to respond adequately to climate change amount to about $2.7 trillion cumulatively over 2020–30, with a lower bound of $2.6 trillion and an upper bound of $2.8 trillion. Put annually, this boils down to $242.4 billion on average per year, with lower and upper bounds of respectively $234.5 billion and $250 billion. The NDC needs are distributed as follows: 42 percent for mitigation, 44 percent for adaptation, 13 percent for loss and damage and less than 1 percent for other needs.

**FIGURE 2.7** Sectoral breakdown of private climate finance across Africa, average 2019–20

![Sectoral breakdown of private climate finance across Africa, average 2019–20](image)

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

**FIGURE 2.8** Updated cumulative climate finance needs in Africa’s NDCs, 2020–30

![Updated cumulative climate finance needs in Africa’s NDCs, 2020–30](image)

*Source: Staff calculations based on submitted Nationally Determined Contributions (NDCs) as of April 2023, various African countries.*
other needs (particularly capacity development) (figure 2.8). This is about twice the average financing needs reported in the AEO 2022 ($1.4 trillion). The increase reflects upward revisions of some countries’ initial submissions, while others have provided quantitative estimates of various climate needs that were previously missing when computations in the AEO 2022 report were done.

These updated climate finance needs could still be underestimated due to limited statistical capacity in some countries. Some countries may have underestimated their actual needs by up to 60 percent, mostly in the areas of adaptation and other needs such as capacity building, monitoring, reporting, and verification (MRV), which are rarely quantified. And the data gaps in needs by sector are huge because more than 20 countries do not further disaggregate mitigation and adaptation needs. However, based on reported sector data under mitigation, 41 percent is allocated to transport (solely defined by South Africa), 17 percent to energy, 5 percent to industry, and less than 1 percent to buildings. The data gaps are even higher for adaptation, but the few countries that reported on this allocated most of the adaptation needs to AFOLU and water (including wastewater) sectors.

Estimating financing needs to “grow green” is more challenging than for climate action as many African countries have yet to develop and cost their Long-Term Strategies. Nor have countries with green growth strategies quantified their financing needs. The United Nations estimates that at least $1.3 trillion will be needed annually between 2020 and 2030 for reaching the Sustainable Development Goals (SDGs) in Africa, most linked to green growth. Another estimate suggests that making 35 major cities cleaner, compact, and more connected in Ethiopia, Kenya, and South Africa will require investments of $280 billion by 2050.

**Current sources of private sector finance**

*Corporations and commercial financial institutions account for the largest share of private climate finance in Africa, much of it channeled to the energy sector.*

Corporations and commercial financial institutions have accounted for the largest share of private climate finance in Africa, but institutional investors, individuals, and funds (private equity, venture capital, and infrastructure funds) are starting to invest more in the climate space (figure 2.9). For example, venture capital investments (some allocated to green growth sectors) increased between 2018 and 2021 (figure 2.10). Although venture capital
Investments picked up in 2019 to $850 million—more than five times the average annual value over 2014–2018—this was disrupted by the COVID-19 pandemic, which reduced the investments in 2020 by about 43 percent. As the African and global economies grow and recover from effects of COVID-19 and other shocks, financing from venture capital rebounded, reaching its highest level in more than eight years in 2021, with $3 billion investments and 308 deals. The energy sector was the largest recipient of the private funding in Africa, with corporations, commercial financial institutions, and households directing more than 80 percent of their funding to it. Of private investors, institutional investors channeled the largest share to the AFOLU sector.

**FIGURE 2.10** Africa venture capital investments, 2014–21

<table>
<thead>
<tr>
<th>Year</th>
<th>Number of deals</th>
<th>$ millions</th>
</tr>
</thead>
<tbody>
<tr>
<td>2014</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>2015</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>2016</td>
<td>0</td>
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<tr>
<td>2017</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>2018</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>2019</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>2020</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>2021</td>
<td>300</td>
<td>3,000</td>
</tr>
</tbody>
</table>

Source: Staff calculations based on Katz (2022).

**FIGURE 2.11** Private climate finance by instruments and sources, 2020

<table>
<thead>
<tr>
<th>$ millions</th>
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<tbody>
<tr>
<td>0</td>
</tr>
<tr>
<td>500</td>
</tr>
<tr>
<td>1,000</td>
</tr>
<tr>
<td>1,500</td>
</tr>
</tbody>
</table>

Note: Funds refer to private equity, venture capital, and infrastructure funds.

Source: Staff calculations based on CPI’s Landscape of Climate Finance in Africa database.

**Without substantial policy and market interventions, most private finance for climate action and green growth is likely to be allocated in the form of equity and non-concessional debt**. The private sector uses different financing instruments for its climate investments in Africa (figure 2.11), with 90 percent through non-concessional debt and equity (balance sheet financing and projects). The other instruments were grants (6 percent) and concessional project debt (1 percent). This is different from public finance, where grants and low-cost project debt account for more than 60 percent of total climate financing in Africa. Half of Africa’s top 250 listed firms have set emission targets, and the rest are expected to set theirs within three years. To achieve these targets, many corporates are taking steps to reduce their carbon footprint by directly improving their operations and supply chain in Africa. So far, more than 90 percent of this investment has been in energy systems, mainly renewable energy projects. Creating incentives and conditions to catalyze private investments in...
other climate-change limiting and green growth enhancing sectors—such as infrastructure, transport, and agriculture—will be important for Africa’s green and inclusive growth agenda.

**Innovative sources of private finance for climate and green growth in Africa**

*Although the global landscape for private sustainable green finance is expanding, Africa is still struggling to fully leverage this expansion and increase its share*

Private sustainable financial flows to developing economies reached $250 billion in 2021, 59 percent of it in green bonds. Green loans, sustainability bonds, sustainability-linked loans, sustainability-linked bonds, and social bonds accounted for the rest. Although most of this went to Asia and Latin America, the emergence and growth of this market show the potential of scaling these and other innovative instruments to drive climate action and green growth in Africa (table 2.1).

For green bond issuance in 2022, Africa accounted for just 0.1 percent of the global total, far below its economic size (2.8 percent of global GDP and 17 percent of the world population). Just three countries—Benin, Egypt, and South Africa—dominated the market, accounting for more than 90 percent of total green bonds in 2022, with South Africa alone accounting for more than 66 percent and Egypt and Benin for 25 percent together. In addition to Nigeria and Morocco, which have also issued green bonds, Kenya, Namibia, and Tanzania have recently entered the market, broadening opportunities for improved liquidity and pricing.

Even with this optimistic trend, the deal sizes are much smaller than the global average (less than $100 million, compared with $500 million plus). Energy continues to dominate as the preferred sector for green bond investment, though transport, buildings, water, and waste management are gradually receiving more attention. Corporates are also increasingly issuing green bonds in Africa in addition to multilateral lenders such as the AfDB and the World Bank, which have previously been the major issuers. Due to stricter regulations in bank lending, project bonds could allow project developers to get debt from corporate and institutional investors at potentially lower costs and risk-adjusted returns.

*Although green finance instruments are still nascent in Africa, accounting for less than 1 percent of the total global issuance, there is increasing interest in these instruments on the continent*

The market for other sustainable finance instruments such as sustainability loans and bonds, sustainability-linked loans and bonds, and social bonds remains concentrated in developed countries and led by the corporate sector. But African banks are starting to become more interested in green lending and adopting the accompanying principles, which could foster a broader investor base—institutional investors, philanthropic and impact investors, and international financial institutions—more willing to invest in sustainable finance in Africa. The keys to scaling up green finance in African banks include adopting tools to assess climate risk, sharing best practices, and adapting products for climate action projects and various clients, including micro, small, and medium enterprises.

Debt-for-nature and climate swaps have existed in different forms for decades but in recent years have gained in popularity, especially as the cost of sovereign borrowing has become prohibitive for African countries. These instruments can reduce the fiscal burden of external debt and have been used in countries such as Cameroon, Ghana, and Madagascar. Most of the swaps issued in Africa have been for deals of less than $10 million a year, much smaller than those in other regions. Since 1987, $318 million of total face value debt have been transacted through bilateral or multiparty debt-for-nature swaps in Africa. For these instruments to enable significant financial flows into climate action and green growth, more players and bigger deals ($100–$500 million) are needed. In addition, improving the financial terms—such as lowering the transaction costs, negotiating times of the debt swaps, and addressing other barriers—can significantly improve a country’s external debt profile.

The global voluntary carbon market (VCM) quadrupled in just a year, primarily driven by increased corporate pledges and higher prices, and was valued at $2 billion in 2021. In Africa, the value of...
retired carbon credits that year was $123 million. And although this is a good contribution to climate finance flowing into the region, it is much lower than the estimated potential (table 2.1). The VCM presents a good economic opportunity for Africa to generate new revenue streams and attract foreign investment for sustainable projects. But it faces integrity challenges such as lack of standardization, difficulties in determining additionality, double counting, and the risk of greenwashing. These challenges can make it difficult for buyers and sellers to determine the quality and reliability of carbon credits and can limit the scale and impact of the market. Another key challenge is that emission reduction projects are typically financed by carbon project developers from the global North, who pay African project developers relatively small amounts for the credits, which are then aggregated and sold at a significantly higher price. Pre-financing facilities can enable more African project developers to participate in this market and to sell carbon credits at a higher price.

### TABLE 2.1 Emerging innovative finance instruments for private climate finance in Africa

<table>
<thead>
<tr>
<th>Type of instruments</th>
<th>Green bonds, sustainable debt financing, such as sustainable bonds, sustainability-linked loans/bonds, social bonds</th>
<th>Debt for swaps, such as debt-for-climate/nature swaps</th>
<th>Blended financing instruments, such as guarantees, first loss</th>
<th>Carbon markets</th>
</tr>
</thead>
<tbody>
<tr>
<td>Definition</td>
<td>Debt instruments with proceeds allocated to eligible environmental and social projects or a combination of both</td>
<td>Debt forgiveness on the condition that debt repayments are instead invested in climate change adaptation and mitigation</td>
<td>Instruments that use public/donor finance to de-risk and scale up private climate investments</td>
<td>Finance generated through investment in projects that reduce GHG emissions. Purchased by corporates or international actors to reduce or offset their CO₂ footprint</td>
</tr>
<tr>
<td>Current performance</td>
<td>• 0.1 percent of global green bond issuance. Issued in 9 countries, with 3 countries accounting for more than 90 percent. • Other green finance instruments account for less than 1 percent of global issuance.</td>
<td>Few investments in the last 3 decades (typically less than $10 million per year). Most transactions concentrated in just 5 countries.</td>
<td>Leading globally (Avg. $1.5 billion) per year. Most transactions concentrated in just 5 countries.</td>
<td>11 percent of total carbon credits generated originate from Africa (global market $2 billion)</td>
</tr>
<tr>
<td>Use case</td>
<td>AFD Green Bond program ADF-guaranteed Benin SDG Bond</td>
<td>Portugal $150 million debt-for-nature swap to Cabo Verde</td>
<td>Africa Go Green Fund, Acumen Fund, African Green Bank Initiative</td>
<td>Africa Carbon Markets Initiative</td>
</tr>
<tr>
<td>Estimated potential</td>
<td>$3 trillion over 2020–30&lt;sup&gt;a&lt;/sup&gt; More than $500 million for every deal</td>
<td>High leverage ratios (5–10 times public finance)</td>
<td>$5 to $30 billion&lt;sup&gt;b&lt;/sup&gt;</td>
<td></td>
</tr>
<tr>
<td>Challenges to scaling</td>
<td>• Market conditions, policy • Insufficient regulation and governance • Smaller ticket project opportunities • Limited technical capacity • Greenwashing</td>
<td>• High transaction costs and lengthy negotiating times • Challenges in freezing up national resources • Additionality-swaps substituting already planned government expenditure</td>
<td>• Several actors, so ineffective coordination and at times unclear impact • Dependent on public/donor funding</td>
<td>• Unregulated, highly volatile market • Integrity of credits • Challenges in freezing up national resources • High capital intensity for project development and certification</td>
</tr>
<tr>
<td>Key success factors</td>
<td>• Broader sets of investors • Quality climate data/climate tagging • Attractive, bankable low-carbon projects • Bonus/penalty if sustainable target is achieved/or not • Technical assistance to governments, local and national financial institutions and projects</td>
<td>• Reduction of complexity and time • Need to be significant enough to relieve debt burden • An effective monitoring, reporting, and verification (MRV) framework</td>
<td>• De-risking/First loss fund, guarantee from public/international actors • Technical assistance/capacity building • Clear impact and additionality</td>
<td>• Increased carbon pricing • Integrate social and environmental safeguards • Strengthen VCM market strategy and regulations • Build capacity and capabilities of developers to scale up projects including technical assistance for MRV</td>
</tr>
</tbody>
</table>

Notes:


Source: Staff calculations based on data from African Development Bank, Climate Bonds Initiative, McKinsey & Co.
PRIVATE SECTOR FINANCING FOR CLIMATE ACTION AND GREEN GROWTH

The private climate finance gap is estimated to reach approximately $213.4 billion annually on average for the entire continent if the private sector is expected to cover all the residual of the financing needs (annex 2.1). As a result, the private climate finance gap is estimated to reach approximately $213.4 billion annually on average for the entire continent if the private sector is expected to cover all the residual of the financing needs (figure 2.12). Under the conservative scenario, the gap is estimated at $50.6 billion per year, rising to $104.8 billion if the private sector contributes to close half of the residual finance needs, and $159.1 billion if its share increases to 75 percent.

Southern Africa has the highest climate finance gap, with South Africa alone accounting for three-quarters of the regional average. In addition to the size of its economy and carbon footprint, South Africa’s large climate finance gap might also come from the detailed estimation of costs in its NDC, which relies on a goal-based estimation methodology with low and moderate–high mitigation scenarios, unlike most other African countries. Other countries in this region have much lower financing needs and carbon footprints, with their private financing gaps ranging from 1 percent to 10 percent of GDP (figure 2.13). East Africa has the second highest private financing gap in the continent. While all the other East African countries have a financing gap of up to 14 percent of their GDP, it reaches 39.5 percent, 54.8 percent, and 129.2 percent of GDP in Eritrea, Somalia, and South Sudan, respectively. Central, North, and West Africa have lower financing gaps than other regions in absolute terms. Most countries in these regions also have the lowest financing gaps in relative terms (2–10 percent of GDP). These financing gaps provide significant investment opportunities in specific sectors, such as phasing out fossil fuels such as coal (box 2.1).

Private climate finance flows to Africa need to increase by up to 36 percent annually to close the estimated climate finance gap by 2030

On current trends, private climate finance flows do not keep up with countries’ climate needs, jeopardizing the continent’s climate action objectives. Efforts to unlock private financing must...
therefore be urgently scaled up. This Herculean task is, however, not impossible if the barriers impeding private sector participation in climate and green growth sectors are addressed. To close the climate finance gap, private climate finance flows to Africa would need to increase annually by up to 36 percent during the current NDC implementation period (2020–30) (figure 2.14), on the assumption that public climate finance recorded in 2019–20 stays constant until 2030 and that the private sector covers the entire residual finance needs. The required annual growth rate drops to 21 percent, 28 percent, and 32 percent if the private sector’s contribution is reduced to 25 percent, 50 percent, and 75 percent, respectively.42
Private climate finance flows to Africa need to increase by up to 36 percent annually to close the estimated climate finance gap by 2030.

Note: The figures give upper bound (100 percent—very ambitious scenario) and lower bound (25 percent—conservative scenario) private finance gap as a share of GDP. 50 percent—moderate scenario—is reported in the middle. Values are expressed in percentage of 2023 projected GDP.

Source: Staff calculations using African Development Bank Statistics, submitted NDCs (as of April 2023) and CPI Landscape of Climate Finance in Africa database.

Source: Staff calculations using submitted NDCs and CPI Landscape of Climate Finance in Africa database.
The world will be better off contributing to pay for the phase-out of coal and replacement with renewables in Africa

One of the key pillars of green growth transitions is the gradual phasing out of fossil fuels and their replacement with renewable energy. But for a continent still characterized by high levels of energy poverty, it is important to consider the potential economic costs and benefits of green energy transformation. Projections indicate that, factoring in the total annual reductions over the period in which coal should be phased out (2024–2100) across coal mining companies in Africa, the total carbon emission reduction achieved by phasing out coal in Africa would be 120 GtCO$_2$.

On the cost side, phasing out coal requires new investments to build sufficient renewable energy capacity to compensate for the reduced coal production in Africa and keep up with projected growth in African energy demand. There are also opportunity costs of coal, consisting at a minimum of the missed cash flows, livelihoods, and incomes from divestments from coal phase outs. The total value of climate financing needs for Africa to replace coal with renewable energy sources is estimated to be around $2.8 trillion over 2024–2100. Put annually, this cost amounts on average to $36.4 billion (box figure 2.1.1a).

On the benefit side, phasing out coal avoids climate damages across the world from reducing coal emissions. Using the most conservative estimate by Pindyck (2019) of the average social cost of carbon, at $80/tCO$_2$, and an emission reduction of 120 GtCO$_2$, the global benefits of avoided coal emissions in Africa are conservatively estimated to be $9.6 trillion or $124.7 billion a year. Subtracting from this the present value of the costs ($2.8 trillion) gives a net gain to the world of phasing out coal and phasing in renewables in Africa of about $6.4 trillion or $83.1 billion annually, further generating $0.5 trillion in terms of avoided climate damages. So, the world will be better off contributing to pay for Africa’s phase-out. Indeed, under a Coasian approach, it is sound economic logic to compensate for the missed revenues from closing coal mines down early and for the capital expenditures required to build replacement renewables in its place, and to link these to the social benefits of avoided emissions.

One way of generating these funds is through striking blended conditional climate finance deals of non-global self-interested coalitions of the willing, with one country or region at a time, to cumulatively add up to the global deal. If financing for renewables is offered conditional on the commitment to phase out coal, then carbon leakage (the problem of coal production moving abroad when one country phases out coal) is limited. Conditional climate finance thus ensures that emission reductions are embedded in a country deal.

If Africa were to phase out coal and replace it with renewables, how would it and its financier countries stand to benefit? Africa faces a benefit gap because its costs are bigger than its benefits if it unilaterally phases out coal (box figure 2.1.1a, open red dot), even though in a global deal its benefits would have been bigger than its costs (closed red dot). There are, however, considerable benefits to other regions, such as the United States (green dot,) and Europe (light blue dot), from Africa’s coal phase out (see box figure 2.1.1a, left panel). So, advanced economies’ offering of climate finance for Africa is not just equitable (given inequalities in wealth and greater historical emissions of advanced economies) or charity, it is in their self-interest! America and Europe, for instance, could benefit around $3 trillion and $1.5 trillion from Africa’s unilateral phase-out of coal, whereas the financing needs to transition Africa away from coal are only about $2.8 trillion.

Coase’s insight applies that it is a sound economic logic to pay the polluter (pay for part of the investment costs in renewables and opportunity costs of coal) to stop polluting if that makes one (the financier country) better off. Most of the climate finance needs can be drawn from capital markets if governments de-risk investments using blended climate finance arrangements. Capital markets then come in simply because it is good business. It is in the financial incentive of coal communities to partake in such deals if they are compensated at least as much as their opportunity cost of coal.

The recently concluded blended conditional climate finance deals (as part of the Just Transition Energy Partnership) in South Africa (November 2021), Indonesia (November 2022), and Vietnam (December 2022) are evidence that phasing out coal in developing countries could be financed by developed countries. Box figure 2.1.1b gives the present value of climate finance needs to replace coal with renewables for the top nine coal mining countries in Africa, as well as for Africa as whole.
Drivers of private climate finance flows to Africa

Private climate finance flows are mainly driven by existing public climate finance, the level of a country’s development and market size, its climate and investment risk profile, and the quality of infrastructure and public institutions.

Overall, private investments in climate action and green growth are driven by macroeconomic and structural factors such as the level of investments in public finance for climate change and green growth, level of development, levels of political risk, quality of infrastructure, level of income, inflation and interest rates. This report identifies different drivers capturing the development of domestic financial systems, macroeconomic stability, the adoption of ICTs, quality of infrastructure and national public institutions or climate risk score of African countries. These factors are averaged between 2010 and 2018, to estimate how they could have influenced on private climate finance received in 2019/2020.

African countries with higher public climate finance per capita and those with higher income per capita are found to be more likely to crowd in private climate investments (figure 2.15). This highlights the important role of public sector interventions and policies that result in high public climate finance commitments thus sending positive...
Private sector financing for climate action and green growth in Africa

Signals to private sector investors about the attractiveness of investments in specific sectors.

The level of development—proxied by GNI per capita—achieved during the preceding decade is also found to be positively associated with current levels of private climate finance per capita insofar as it provides a good signal of buoyancy of the economy. Unsurprisingly, countries with higher investment risk profile—one of the indicators of political risk—are less likely to attract private climate investments. Better quality of infrastructure in a country positively affects the level of private investments in climate and green growth sectors as it decreases the cost of doing business in a country and increases the firm profit and growth potential. The size of a country’s market—both domestic and foreign markets—is yet another driving factor of private climate finance in Africa. Indeed, African countries’ thin markets have regularly been cited by investors as one of the key constraints in mobilizing private finance, leading to a lack of bankable project pipelines and sizable investment opportunities. Finally, the level of a country’s climate risk index—measured using GermanWatch’s Global Climate Risk Index, averaged over 2000–19, and focusing on the level of exposure and vulnerability to extreme events such as storms, floods and heatwaves—is a push factor for private climate finance flows, due to the cost implications of climate change risks on private sector investments.

**Demand-side barriers limit the ability of African countries to engage with potential private sector investors, while supply-side barriers limit the ability of private sectors to engage with potential markets and recipients of climate change and green growth private finance**

**Barriers to mobilizing private sector finance for climate action and green growth in Africa**

Demand-side barriers limit the ability of African countries to engage with potential private sector investors, while supply-side barriers limit the ability of private sectors to engage with potential markets and recipients of climate change and green growth private finance.
Almost all African countries have developed climate change strategies, including the NDCs. But not all have green growth strategies, and most countries lack concrete action plans for mobilizing private sector finance toward specific priority sectors. Although the continent has already made a business case for private investments in climate action and green growth, many countries still lack the tools and strategies to provide long-term policy guidance on green growth investment needs and opportunities. For instance, Long Term Strategies outline long-term visions for climate action and green growth. But as of March 2023, only seven African countries have developed and communicated these strategies. The outcome is a lack of clarity on the needs and gaps in green growth transitions in most countries on the continent, which might increase country investment risk profiles and deter private actors from investing in green growth sectors. And although existing NDCs identify priority adaptation and mitigation activities and pathways, priority projects and costs of actions to meet climate action targets remain either wholly or partially unquantified.\(^{46}\) So, investors lack clear and consistent signals on the needs and the costs of investments in climate action and green growth sectors.

Another layer of barriers is the lack of standardized regulations at national, regional, and continental levels, a lost opportunity for encouraging cross-border private sector investment. Regulations incentivize private sector investments by signaling stability and political willingness to engage in green growth and an enabling environment for establishing these investments. Some African countries have tried to develop and streamline policies and regulatory structures for private investments, including targeted financial incentives to enable compliance with green growth measures. The lack of robust green growth policies and strategies and an absence of economy-wide and regional standardization in regulations is driven by structural issues such as fragmentation between national institutions and the lack of regional integration.\(^{47}\) Hence, when one sector prioritizes emission-intensive investments while another prioritizes low emission investments, this fragments available private sector finance and fails to maximize impact of investments.

Between 2010 and 2022, only 18 African countries had policies and regulations on private participation in green growth. Since 2010, there has been a steady increase in the number of policies and regulations issued by African public authorities—including governments, central banks, financial regulators, and public financial institutions—to attract private investments and finance in climate change and green growth sectors. Their objectives range from reallocating and raising capital to risk management, responsibilities of financial institutions, reporting and disclosure, and strategic resets. The number of regulations and policies in Africa has thus increased from 2 in 2010 to 41 in 2022 (figure 2.16), about 5.2 percent of all 784 policy and regulatory measures taken globally. Only a third of African countries have at least one policy or regulation specifically targeting participation of the private sector in green growth initiatives. And nearly half of these policies and regulations focus on the reallocation of capital, with very few covering risk management, reporting and disclosure, and the responsibilities of institutions in managing private sector investments. The limited coverage of policies and regulations across the continent implies the need for more comprehensive development of policies and regulations that can help address the different private sector investment needs in different contexts.

Needs for green growth in different countries would be expected to vary, with priorities changing over time, depending on success in mobilizing finance and implementing projects to address these needs. However, the absence of clear policies and strategies to provide direction on green growth agenda means that the needs of many countries remain unknown, and financing needs unquantified. Moreover, most low-income African countries and those in fragile contexts (in or emerging from conflicts) are least likely to have green growth policies or regulations, even though they equally need transitions to green growth.

Given the high perceived risk for private investments, the absence of regulations for managing exit risk remains a barrier for new and existing private investors. Exit risk emerges when investors have no clear pathways or assurances of easily exiting the markets by selling their stakes in projects and recouping their investments.\(^{48}\) Overall, the
Despite the growth in African private equity investments and bond markets, Africa has narrow and underdeveloped financial markets, which fail to assure investors of exits when the need arises. The number of exits from the continent between 2014 and 2021 was below 52 deals annually, except in 2019, when 59 exit deals were recorded, and for 2019, when the total value of exits rapidly increased to $11.6 billion. But by the first half of 2022, 22 exits were recorded, a 29 percent increase over 2021. Even in 2020 and 2021 during the crunch of the COVID-19 pandemic, when investors globally experienced liquidity challenges, the continent recorded fewer exits than in 2017.

Exit challenges are linked to several structural factors. Despite the growth in African private equity investments and bond markets, Africa has narrow and underdeveloped financial markets, which fail to assure investors of exits when the need arises. The exit challenges are a result of weak legal, accountability, and transparency frameworks that fail to clarify investors’ rights and to provide quick resolutions to issues related to investments such as labor laws and asset ownership. There is also a lack of standardization in regulations, methodologies, and taxonomies across the continent, so it is difficult to determine what counts as green investments in different jurisdictions.

The difference in definitions of green growth or investments that count toward green growth also means that investors consider these definitions project by project, not on a portfolio basis, increasing transaction costs. High transaction costs also emerge from the relatively small and dispersed securities exchanges. Although there are 27 securities exchanges across the continent, they are fragmented as securities are seen as nationally owned, which increases transaction costs when selling investments, particularly from countries without exchanges. All these are characterized by the nature of legal, regulatory, and institutional frameworks in African countries and at the regional level, most of which are weak and unable to meet the investment requirements of the private sector.

Most African countries have low technical, human, and institutional capacity, which limits the continent’s overall progress on climate action and green growth. Countries face a variety of gaps that limit the ability to identify and engage with private sector investors across the complete project value chain. A 2020 report found that 80 percent of infrastructure projects in Africa do not get past the feasibility/planning stage because they lack access to the financial resources and capacity required to complete the necessary feasibility and business planning analysis. Even for countries that have made headway in stipulating legal and regulatory reforms to address these challenges, reports indicate the limited institutional and human resource capacity in enforcing them.

The technical, human, and institutional capacity gaps are more acute within the climate action and green growth sectors. For instance, the
limited availability of skilled local personnel (or lack thereof) along the value chain can pose significant challenges to private investors to implement planned renewable energy projects, leading to delays during the project development and construction. Climate-smart agriculture projects often require skills in advanced agricultural and forestry techniques, the lack of which could inhibit the ability of private sectors to increase the quality and quantity of their production and obtain high returns on investment.

An assessment by AfDB and GGGI on green growth readiness found that Morocco, Rwanda, and Tunisia had more advanced soft infrastructure that enabled them to advance their green growth ambitions. But other surveyed countries had insufficient human resources to meet their green growth ambitions and had to implement innovative ways of addressing these gaps, for instance by mobilizing foreign specialists to train local personnel. Some of these countries also lacked the technical capacity to implement monitoring, reporting, and verification systems for green growth. These capacity limitations are present mainly because some African countries, particularly those in fragile contexts, are comparatively new to the implementation of climate action and green growth projects which contribute toward strengthening these capacities. Structurally, capacity gaps are driven by the overall drain in technical capacities toward developed countries. As most large private sector projects in Africa are financed and implemented by foreign investors, expertise for technical tasks has largely been imported into these countries as opposed to being homegrown, since locals have emigrated to developed countries.55

Project preparation costs are high for many African countries primarily due to the capacity gaps that must be addressed before a project is taken to market. Consequently, too few projects reach financial close, with one of the main reasons being difficulties in agreeing on balanced and bankable risk allocation.56 The outcome is huge project preparation costs and contracting burdens eventually and disproportionately borne by African public and private institutions, limiting their ability to further engage with the international private sector and mobilize additional resources. Capacity gaps particularly affect women-owned MSMEs, usually exhibited in the form of constrained access to credit and other forms of finance. For instance, it has been found that more than 37 percent of micro-enterprises in Africa are partly and fully financially constrained compared with 26 percent of SMEs. Additionally, 16 percent and 36 percent of MSMEs owned by women are respectively wholly or partly constrained financially compared with 14 percent and 34 percent of MSMEs owned by men.57 These capacity gaps also relate to literacy, poor record-keeping (essential for access to finance, particularly affecting micro and small enterprises), limited knowledge of the financing landscape and its requirements, and limited access to advanced technology to enable business operations and risk management.

Lack of investment-ready project pipelines is yet another important impediment to unlocking private finance. Many existing green growth project plans or strategies in most countries across Africa are still in the idea stage. They lack concrete short-term milestones and targets as well as costed investment needs necessary for evaluating the impact of investments. So, many of them are still considered by potential investors as lacking investment readiness.58 The stage of many investments has implications for the countries’ track record of delivering the project in key green growth sectors and implications for liquidity.

Most of the private financing, particularly climate finance, has gone to the energy sector. Other critical sectors for green growth such as research and development, water, and agriculture receive lower proportions of finance. The result is that green growth financing opportunities in these sectors largely remain in the early stages, increasing the projects’ risks and costs likely to be borne by private financiers. This has implications for the liquidity of such projects, which become unattractive to private investors, particularly those looking to recoup their investments in a very short time. The underlying structural driver for this gap is the lack of human and technical capacity to adequately develop and shepherd projects from idea to maturity.

Another major structural barrier to Africa’s mobilization of private sector finance is its limited access to international capital markets. Between 2007 and 2020, only 21 African countries
African countries are the lowest beneficiaries of sustainable climate finance, accounting for 0.2 percent ($4.7 billion) of total global issuances (about $2.2 trillion) of green bonds for the period 2006–22.

High public debt faced by many African countries further limits the public finance available for investments in blended financing instruments, which are important for mobilizing additional private finance for climate action and green growth. This is also a structural issue, as debt accumulated for both green and non-green investments affects lending for both types of investment. High levels of debt come with greater responsibility for the servicing of debt, mainly due to the high interest and short-term repayment terms of external debt acquired by these countries.

As discussed in chapter 1, many African countries with a medium to high likelihood of debt distress or already in debt distress have been in this situation for the past decade. This means that these countries face higher borrowing costs from domestic and international lenders, but they are also likely to lose access to financial global markets. Debt restructuring will likely increase tax rates to generate revenue to pay this debt and a reallocation of government revenue toward external debt obligations. Some African countries are spending more than 50 percent of government revenue servicing external debt, while those with unsustainable debt levels have debt servicing taking up more than 90 percent of government revenue.

This diversion of resources away from key sectors, particularly those critical for green growth in

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**FIGURE 2.17** Cumulative regional green bond issuances, 2006–22

*Green bonds issued ($ billions)*

<table>
<thead>
<tr>
<th>Region</th>
<th>Issuances ($ billions)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Europe</td>
<td>1,001.9</td>
</tr>
<tr>
<td>Asia-Pacific</td>
<td>434.2</td>
</tr>
<tr>
<td>North America</td>
<td>37.5</td>
</tr>
<tr>
<td>Supranationals</td>
<td>168.5</td>
</tr>
<tr>
<td>Africa</td>
<td>4.7</td>
</tr>
<tr>
<td>Latin America</td>
<td>512.7</td>
</tr>
</tbody>
</table>

Note: Bubble size reflects each region’s share in total global issuances of green bonds.
Source: Staff calculations based on the Climate Bonds Initiative database.
the long term, as well as reduced rates of economic growth and overall resilience to climate and economic risks, might push away potential investors fearing the risk of debt default for highly indebted countries. And as African countries have committed to unconditionally meeting on average about 15 percent of their NDC financing needs using domestic finance, the high public spending on servicing debt means that countries have limited headroom to invest in climate action identified in their NDCs through blended finance investments. These countries thus have limited capacity to de-risk investments in sectors and projects that are particularly important for climate action and green growth, such as those that provide social development outcomes but are generally too risky or provide low returns on investments for the private sector.

Supply-side barriers

International private sector investors perceive African markets as high risk, leading to a high cost of capital and high required rates of return. High risk is a structural barrier for most African countries. Most private investors, particularly large international investors, look to invest in portfolio projects that usually spread across national borders—not single projects—to leverage the economies of scale in investments and returns and to limit investment costs. As many countries across Africa still have an emerging pipeline of investments beyond the infrastructure and energy sectors, it is challenging for them to attract these types of investors. And portfolio types of investment require common regulations, standards, and policies, mostly missing across the continent due to the differences in progress in defining green growth pathways. So, investors looking to invest across borders do not see comparable definitions of what counts as green investments, nor do they see monitoring frameworks, increasing project risks.

The high perceived risks result in African countries being awarded poor and largely subjective credit ratings in international markets. For instance, most African debt issuers, including those for sustainable and green finance, are rated below investment grade by external rating agencies, leaving issuers almost entirely reliant on demand from investors willing to take on high risk investments. This in turn leads to high financing costs for investments for African countries, which reduces the returns on potential investments in relation to those in developed countries and emerging markets. Credit ratings are sensitive to even small changes in market conditions, meaning that they cannot be used to make long-term projections on investments.

African countries could save nearly $74.5 billion in excess interest if credit ratings were based on more objective assessments of risk. They could benefit from an autonomous African credit rating agency that engages with international credit rating agencies to ensure that ratings are more informed by Africa’s macroeconomic conditions. This could be particularly important to lower the cost of borrowing for African countries, which remains prohibitively higher than in other world regions and is often not synchronized with countries’ degree of climate vulnerability and readiness. Indeed, African countries, which have greater vulnerability to climate impacts, tend to have higher sovereign borrowing costs—while countries well prepared to deal with the risks of climate change, mostly developed countries, enjoy low borrowing costs. African countries on the other hand, are often encumbered by high cost of debt.

Some private actors, particularly those recently committing to greening their investments, have limited experience in African markets. Although many private institutions have committed to channeling their investments to sectors that generate low carbon development outcomes, most have limited experience operating in the green growth landscape and particularly in the African market. So, they are likely to be cautious when making investments in green growth in Africa, and will prioritize investments in proven markets, technologies, or sectors while avoiding other markets that potentially have greater impact for green growth on the continent. For investors new to African markets, perceived risks and international credit ratings play a big role in determining whether (or not) to invest in African climate action and green growth markets. For many, this is a hindrance, as these investors fail to gain confidence in market performance.
An underlying structural driver is asymmetric or limited information about the performance of investments in different African markets. So, international investors looking to invest in Africa rely on credit ratings developed by international rating institutions, which rely on sparse data and subjective assessments to assign these ratings. And when these investors invest in Africa and other developing country markets, they require extremely high rates of return (figure 2.19).

Cross-cutting barriers
Since most investments in climate change and green growth are new and emerging, they lack data and information about the performance of investments in specific markets, particularly in least developed country contexts. And coupled with the limited availability of comprehensive historical data and information on climate change risks, there is limited understanding on how climate change risks affect different types of investments. So, neither the African stakeholders nor private investors can clearly articulate and implement mechanisms to address these risks.

Sector-specific opportunities for increasing private investments in climate and green growth sectors

Agriculture and water
The agricultural sector is perhaps the greatest lever for generating green growth outcomes from private sector investments. Being the continent’s major income generator as well as having the highest potential for transitions to low emissions, it is an opportunity for private sector to be part of this transition. Africa’s agricultural sector

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Africa’s agricultural sector and agribusinesses have the potential to transform into a $1 trillion market by 2030, while its internet economy could reach $180 billion by 2025.

Technologies with investment opportunities for climate-smart agriculture include smart and renewable energy-powered irrigation, biocontrol products. They also include precision applicators that increase agricultural input efficiency, renewable energy cold storage and post-harvest handling solutions, and digital platforms that bundle information on climate-smart goods and services and help to minimize transaction costs for consumers and providers while increasing scale of reach. And they include climate-resilient livestock feed, smart systems for pest and weed control, livestock management technologies or different herd sizes, and soil management solutions as well as investments in the water and sanitation sector.

**Information and communication technologies**

The investment in fourth industrial revolution technologies (such as robotic trees, parasitic drones, air-cleaning buses, and air-separation plants) is already growing, but has potential to expand with Africa not just as a technology consumer but also as a producer. The ICT market in Africa (excluding North Africa) is expected to grow from $95.4 billion in 2020 to $104.2 billion by 2023, and its internet economy has the potential to reach $180 billion by 2025. But it is important to ensure that the continent has the potential to use these technologies, through investments in infrastructure and skills. The intended shift from pure consumption to a mix of production and consumption means that private investments can be used to develop the skills and entrepreneurial systems that drive innovation.

**Urban development and transport**

The African continent is rapidly urbanizing, accompanied by increasing demand for low-carbon transport options and private sector investment opportunities that promote climate resilience in these areas. While there are regional differences in the projected rates of urbanization, it is estimated that 50 percent of the African population will be urban residents by 2030 and 65 percent by 2060. With this increasing urban population comes opportunities for private investments, in the provision of basic services such as access to water, sanitation, housing, climate-resilient transport, and infrastructure to reduce inequalities.
and contribute to green growth. For example, the investment opportunities across 35 major cities in Ethiopia, Kenya, and South Africa for the generation of more compact and connected cities could generate more than $1.1 trillion in benefits for the private sector by 2050.69

Energy
Private investments can also be directed to the generation and provision of low-emissions energy source to achieve universal energy access and meet the increasing energy demand from industry. This provides an opportunity for the private sector in solar energy technologies that reduce dependence on biomass. Already, these technologies are cost-competitive across many parts of Africa, meaning that they provide very attractive returns. Africa has 44.8 percent of the total global technical potential of renewable energy, more than any other continent (chapter 3), so private investments in this sector can supply the rest of the world. This, coupled with the continental gap in access to energy, presents a significant opportunity for private sector along the entire energy value chain from generation, to storage, and to consumption.

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

Energy
Private investments can also be directed to the generation and provision of low-emissions energy source to achieve universal energy access and meet the increasing energy demand from industry. This provides an opportunity for the private sector in solar energy technologies that reduce dependence on biomass. Already, these technologies are cost-competitive across many parts of Africa, meaning that they provide very attractive returns. Africa has 44.8 percent of the total global technical potential of renewable energy, more than any other continent (chapter 3), so private investments in this sector can supply the rest of the world. This, coupled with the continental gap in access to energy, presents a significant opportunity for private sector along the entire energy value chain from generation, to storage, and to consumption.

Education
Meeting the green industrialization needs of the continent will require skills, particularly among the African youth who form the greatest proportion of the population and the backbone of the African economy. Green skills are needed for meeting the innovation and technology demands that come with the transition to green growth, and private finance will be important in establishing centers for innovation and in providing skill training. Equipping the labor force with green skills can be integrated into the education system, as can acquiring skills and expertise outside the classroom.

Health
Africa’s pharmaceutical industry reached $28.6 billion in 2017, from $5.5 billion a decade earlier, and is predicted to be worth $56–$70 billion by 2030.70 However, as much as 70 to 90 percent of drugs consumed in most African countries are imported.71 The projected increase in population on the continent, coupled with projected climate change risks that affect health, means that there are significant opportunities for investments in low carbon climate resilient health systems in Africa. This potential is an opportunity for the private sector to invest in the production of pharmaceuticals and health service provision so as to be cost-efficient and generate maximum returns. Investment opportunities in the health sector lie in providing smart technologies for screening and treating illness and disease, creating services that increase wellness, producing pharmaceuticals using locally sourced products, and training healthcare workers that to meet the growing demand for healthcare.

Policies, regulatory structures, and fiscal incentives for climate and green growth
Developing regulations, standards, and policies for climate and green growth investments and pursuing cross-continental standardization of policies, metrics, and taxonomies will provide positive signals to private investors. First, African countries need robust green growth frameworks for shaping narratives and progress on climate action and green growth. These frameworks are made up of legal, regulatory, and institutional frameworks that leverage the synergies between climate action and green growth. They should ensure transparency, stability, and predictability, and are useful for building investor confidence in domestic and regional markets.72 They should also be developed for all sectors of the economy that contribute toward green growth, not just the energy sector.

Second, African countries need to develop roadmaps for investments in climate action and green growth by articulating and costing their Long-Term Strategies to provide guidance to private investors on priority green growth sectors and areas for investments. These roadmaps and strategies should be based on good practice recommendations. They should be developed in consultation with diverse national and international stakeholders, have clarity on financing and other resource needs for its implementation, be
embedded into national and sectoral planning systems so that it can inform resource allocation, and demonstrate strong country and institutional ownership.\textsuperscript{73} Besides developing green growth strategies and climate action plans, countries need to develop comparable regulations across different green growth sectors. That will make it easier for investors to determine what count as investments that contribute to climate and green growth across the continent. Taxonomies are essential for defining terms, outlining expectations, and developing more comprehensive classification systems.\textsuperscript{74}

Although green taxonomies have been under consideration for some time across the continent, only South Africa has so far developed a taxonomy for green investments. Countries should develop national green taxonomies, green and sustainable finance standards and frameworks that complement those developed by international organizations to align with international best practice. In doing so, countries can ensure that the governance of private finance is streamlined, while also demonstrating transparency and accountability in mobilizing and using private investments and attributing impacts.

Although many African countries have still not implemented comprehensive fiscal incentives for private finance, some show that there is still an opportunity for others to do so. Ghana, Kenya, Mauritius, Morocco, Rwanda, and Tunisia have devised policies and mechanisms to offer fiscal incentives to attract external private investments. For example, Kenya, Morocco, Rwanda, and Tunisia have duty and value added tax (VAT) exemptions for renewable energy and energy efficiency-related investments. Ghana, Mauritius, South Africa, Uganda, and Zambia have used auctions to enhance renewable energy generation. Kenya and Morocco have removed pre-existing incentives for activities that disincentivize green growth, such as subsidies on petroleum products.

In some cases, fiscal incentives could have greater costs than benefits. For example, they may be made available to investors that would have invested anyway or whose investment decisions are influenced by other factors, such as geographical location, and not whether (or not) they receive these incentives.\textsuperscript{75} African countries thus need to think carefully about how these incentives should be designed and offered. Tax incentives to firms are one and often not the determining factor for private investment decisions. Some investors (such as those that are efficiency-seeking) may be more sensitive to incentives than others (such as market-seeking or natural resource-seeking). But that the effect of these incentives on investments in low-income countries is smaller than that in high-income countries, and most firms would invest even without incentives.\textsuperscript{76} Tax incentives targeted at sectors producing for domestic markets or extractive industries generally have little impact, while those geared toward export-oriented sectors and mobile capital appear more effective.\textsuperscript{77} Mainly, this is because private sector investments in general, and in green growth in particular, depend more on the quality of institutional and policy frameworks and on other factors of production such as infrastructure and labor.

The common narrative is that African countries need to eliminate harmful subsidies, but this should instead be framed as the need to align fiscal reforms with green growth objectives in both the short and long terms. These strategies should identify clear roles for different energy sources and the mechanisms for phasing them in or out. Other types of incentives have also been offered in some countries. For example, some African countries have been offering R&D incentives to private sector investors in sectors or industries that have strong links to green growth or that are conditional on achieving specific outcomes. South Sudan provides a 100 percent R&D tax reduction for private investments. Tunisia gives a 50 percent bonus for companies investing in R&D in sectors central to its green growth objectives.

Managing exit risk and overall private sector confidence in African green growth markets will require stronger governance mechanisms based on accountability and transparency to ensure that the needs of both African countries and private investors are met.
streamlining the business environment ensure efficiency, generating clear policies on areas such as labor markets and ownership of foreign assets, as well as promoting transparency in procedures for both investors and governments.

**Increasing the use of blended finance**

Overall, climate and green growth investments can be too risky for private investors mainly because they leverage new technologies and business models. In such cases, singly relying on markets to eliminate or reduce these risks is suboptimal. Blended finance can reduce these risks and ensure that they achieve the desired outcomes. Blended financing instruments typically combine concessional public finance resources with other forms of private finance. Between 2016 and 2021, Africa accounted for more than 41 percent of all blended finance deals globally, indicating the potential for scaling up these instruments. Over the past seven years, Africa has registered the most deals in blended finance for climate change. Sub-Saharan Africa accounts for 41 percent of total deals, followed by Latin America and the Caribbean at 28 percent (figure 2.20). So, the volume of blended finance has also been higher. Sub-Saharan Africa alone mobilized more than $4.5 billion from climate-blended finance vehicles in 2019–21 (figure 2.21), just behind transactions with a global focus ($5 billion). Kenya, Rwanda, Nigeria, South Africa, Ghana, and Côte d’Ivoire, in that order, rank among the top 10 in mobilizing blended finance globally.

**Increasing leverage ratios of blended finance, alongside the impact of investments, to unlock billions and trillions of private climate finance**

One of the main challenges in blended finance is the low leverage ratio: public finance investments in projects do not generate a higher proportion of private finance. Blended financing instruments have a key role in growing private climate finance. These instruments have allowed public actors such as MDBs and DFIs to leverage more private financing by taking on some of the political, governance, and economic risks associated with climate projects. Of the $4.5 billion of climate blended finance in Sub-Saharan Africa over 2019–21, more than three-quarters went to renewable energy projects. But even at this scale, the leverage ratio of private-to-public finance is still very low.

In addition to increasing leverage ratios, countries need to ensure that blended climate finance is impact-informed, important since the global private sector landscape is transitioning into impact-oriented investments. The African continent, as a geographic frontier, offers great opportunities for generating impact, which can be the basis for engagement with the private sector. As

<table>
<thead>
<tr>
<th>FIGURE 2.20 Proportion of climate blended finance deals by region</th>
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<td><strong>Percent</strong></td>
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<tr>
<td>Europe and Central Asia</td>
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<td>2016–18</td>
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Source: Convergence 2022.
countries have already committed to unconditionally meet 15 percent of their NDC costs through public finance, they can direct part of this finance to blended finance instruments to mobilize private finance toward key sectors for climate and green growth. Because this committed finance is scarce, it will need to be used effectively. One way to advance the effectiveness of public finance used for blending instruments is ensuring that both needs (desired impact for climate action and green growth) and markets (private sector risk appetite) inform the allocation of finance.

Maximizing opportunities from blended finance requires that countries ensure that this finance generates additionality and proportionality through developing robust country tools and methodologies to allocate public finance to different blended finance instruments and deals. Globally, blended finance through projects, funds, and facilities accounts for 95 percent of blended finance mobilized between 2016 and 2021. African countries can tap into this trend to generate much-needed private finance.

**Blended finance can increase private participation in infrastructure for green growth**

Blended finance can particularly be useful in increasing the private participation in infrastructure projects in Africa, which are one of the lowest regions globally (figure 2.22) and have been on a downward trend. Existing private participation is now mostly focused on financing energy infrastructure, with limited investments in social infrastructure and other hard infrastructure in sectors such as agriculture, which are equally important for green growth (figure 2.23). In addition, although most private participation in infrastructure (PPI) projects in Africa are greenfield, the total volume

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**FIGURE 2.21 Climate blended finance by region, 2019–21**

![Chart showing blended finance by region](chart)

Source: Convergence 2022.

**FIGURE 2.22 Number of public-private partnership projects by region, 1990–2022**

![Chart showing number of projects by region](chart)

Source: Staff calculations based on World Bank’s Private Participation in Infrastructure (PPI) Project Database.
Although infrastructure receives the largest proportion of climate-blended finance, particularly in developing countries, allocations need to be diversified to other social sectors important for green growth, such as agriculture, fisheries, and health. According to the World Bank’s PPI database, of the 495 greenfield PPPs either concluded or ongoing in Africa (between 2019 and 2022) for a total value of $113 billion, 371 were in the energy sector ($78 billion), more than ports and roads and railways. And the investments were in the form of equity not debt, even though the global debt markets are the deepest globally for infrastructure financing. African infrastructure is attracting equity financing because most of the projects are greenfield financing, where upfront financing is required to get the project operationalized and which discourages debt investors because the risk is too high (due to construction and political risk).

African governments should strategically deploy public finance while leveraging multistakeholder platforms for generating blended finance

Scaling up private finance for climate action and green growth through blended instruments requires that governments strategically deploy available climate finance. This in turn requires governance and accountability systems that enable...
the allocation and use of public finance for pre-identified climate action and green growth objectives. Central to this deployment is a need for African countries to strengthen their public finance management systems through strengthening tax bases and legislative oversight of budget allocation and spending. Another important layer is the need to mainstream climate action and green growth into public finance management across the public finance cycle—from strategic planning all the way through to budget preparation and approval, budget execution, accounting and monitoring, evaluation and audit, policy review, and other policy interfaces such as through climate-responsive fiscal decentralization.

Many countries are implementing some of these measures. Benin, Cabo Verde, and Uganda have climate change policies and plans, and Ethiopia, Mozambique, and Rwanda have plans that communicate the financial implications of their implementation. Mozambique is reported to have developed climate-informed macroeconomic forecasts, while Cabo Verde implements climate budget tagging. Countries should develop or leverage existing multistakeholder platforms for blending finance for climate action and green growth. Investment platforms create a marketplace for public and private investors, accelerating the blending process. Such platforms should be designed to enable the development of commercially viable projects, while ensuring that financial allocations reduce the country and currency risk of investments while also promoting portfolio investments and not just single project investments.

**Strengthening domestic financial institutions to address the financing gap for climate action and green growth**

African firms, regardless of their size and sector, rely most on internal funds, such as retained earnings and informal sources to finance both their investment and working capital. Africa has the lowest share of firms that obtain financing from private commercial banks for their working capital (7.7 percent), just over half the average of 14.6 percent in other world regions (figure 2.24). Between 2010 and 2021, about 32 percent of African firms identified access to finance as a major obstacle for their business, against 21.8 percent in Latin America and the Caribbean, 17.5 percent in South Asia, 15.5 percent in Europe and Central Asia, and 11.1 percent in East Asia and Pacific. Addressing this constraint will require African public sector institutions to create favorable conditions to incentivize private sector financiers to serve domestic firms, particularly those in climate and green growth sectors.

![Figure 2.24 Financing sources of investment and working capital of firms by region, average 2010–21](image)

Source: Staff calculations using World Bank’s Enterprise Surveys.
The domestic banking sector can be developed to address the financing gap for climate action and green growth. Most domestic private finance in Africa is obtained from banks, so strengthening the domestic private sector’s contribution to green growth will need to leverage this opportunity. Retail and corporate banking in Africa holds more than 90 percent of financial sector assets.\textsuperscript{82} Taking advantage of this potential for green growth will require that countries work on expanding the breadth of financing instruments, enhancing financial inclusion and encouraging banking innovations.

Commercial financial institutions, mostly banks, are investing more in energy systems and cross-cutting sectors. But due to their responsibility to seek market or even higher-than-market returns for investments, they are very risk averse, requiring that they invest in bigger ticket projects with high returns. And most banks have limited (due diligence and technical) capacity and no formal mandate to embed climate and green growth into their investment decisions.\textsuperscript{83} The potential recipients of this finance, especially MSMEs, often cannot afford the high cost of these loans. Moreover, MSMEs in the AFOLU sector often cannot provide financial records and collateral to access them in the first place. The informal sector is likely to be overlooked by financial institutions, so there is a need to strengthen the provision of private finance to these actors.

De-risking mechanisms for green finance such as guarantees by public actors, could leverage more green financing at better terms for different actors. In 2020, 44 percent of private flows to least developed countries were mobilized by guarantees issued by DFIs.\textsuperscript{84} This shows the potential that exists for public actors to use guarantees to catalyze more private climate finance for green growth that is affordable and inclusive. And due to the long-term nature of some climate-related and green growth projects, patient capital is critical to realize their benefits.

Just as central banks are responsible for monitoring and managing climate change risks in the financial systems, they can also strengthen sustainable finance systems by creating more ESG-friendly financial systems and regulations. For example, central banks also determine countries’ monetary policies and incentives to ensure that they favor investments in climate action and green growth.

Institutions for supporting innovations will be essential for identifying areas where private sector investments can have the greatest benefit. Green industry facilities and green banks are an option for advancing access to finance for climate action and green growth on the continent. The Kenya Climate Innovation Center and Nigeria Climate Innovation Center show how countries are generating investment opportunities for the private sector and promoting start-ups and MSME investment in climate action. There is interest in these institutions, but more needs to be done to ensure that they are spread across different parts of the continent depending on climate action and green growth needs.

**Expanding sustainable finance instruments, such as green finance**

Institutional investors provided more than 90 percent of grants and all of the project debt and channeled most of it to energy and AFOLU sectors. But pension funds, insurance companies and sovereign wealth funds (SWFs) see Africa as one of the least attractive investment markets. Ticket sizes tend to range from $10–$100 million (quite large), making it difficult to invest in smaller ticket sizes (less than $1 million) climate finance opportunities that currently exist in Africa.\textsuperscript{85} For the Bank, the average ticket size of approved projects with at least 30 percent of climate finance content averaged $18 million over 2018–22, with a median of $6.5 million and a maximum of $268.5 million (figure 2.25).

Unlocking more capital from institutional investors remains a critical part of financing not just climate action and green growth but also the SDGs. But finance from SWFs should be based on sound macroeconomic and political safeguards to ensure that the financial reserves are allocated toward green growth. Institutional investors will be very important for mobilizing domestic private sector finance through domestic capital markets. Institutional investor interest is increasing in alternative assets—those that fall outside of traditional asset classes, and include private equity, venture capital, securities, and other vehicles that have designated proceeds for infrastructure financing.\textsuperscript{86} Although alternative assets made up
an even smaller share of assets under management in African markets, the proportion has been increasing over the past few years. Their growth is mostly driven by national initiatives to direct institutional investors into these alternative assets. But enhancing these investments—particularly in asset classes directly linked to climate action and green growth—will require conducive regulatory environments and macroeconomic conditions. And these investors will need to have solid information to be able to evaluate the risks and potential returns from these asset classes.87

International and domestic capital markets offer an opportunity for African countries to expand their use of domestic green bonds while addressing the currency risk that comes with bonds offered in foreign currency. Many countries are already offering bonds in domestic currency while targeting the domestic private sector. Capital markets in Africa are mainly stock exchanges and bond markets, with bond issuances mostly by governments and only a few large corporations listed on domestic stock exchanges.88 There are now 28 stock exchanges with listed equity and bonds in Africa, which have raised over $1 trillion in finance through bonds.89 But these exchanges are smaller than other frontier markets in developing countries: other than the Johannesburg and Casablanca stock exchanges, the other exchanges have very small listings.

The continent already has some good experiences in engaging with innovative climate finance mechanisms, and these can inform future directions of innovative finance for climate action and green growth. Examples this include the issuances of green bonds in Kenya, Namibia, Nigeria, and South Africa,90 the first initial public offering on the Blu-X sustainable finance platform in Cabo Verde (first blue bond at the Ocean Summit) in January 2023, and the utility financing for energy efficiency and access in Kenya, through auctions to finance renewables. Other examples are local currency green bonds in Nigeria and South Africa. In both cases, the governments created regulatory and institutional frameworks to enable the use of these innovative mechanisms.

**Tapping into private equity and venture capital**

Although small, Africa’s private equity and venture actors are a critical source of financing for young and innovative firms.91 African venture capital is still small but has grown over the past decade. Specifically, the number of venture capital transactions in Africa reached a record 308 deals in 2021, a 34 percent increase from 2020 (see figure 2.10). However, given Africa’s growing demand for green and innovative technologies, accompanied by the demonstrated venture private and equity capital investor interest in Africa, there is scope to expand the volume of finance. A more diversified investor base would bridge the existing MSME finance gap and accelerate green growth in sectors that contribute to social development. The design of private equity and venture capital enables the provision of patient risk-agnostic finance, essential for supporting renewable energy and the digital economy.

Besides private equity and venture capital, there is need to create opportunities for MSMEs to engage with other types of investors, such as angel investors and enabling their access to other financing mechanisms such as guarantee instruments, revenue-based financing etc. Unlocking private sector finance on the continent requires provision of non-financial technical support that is essential for further developing the capacity of these institutions to become competitive in the expanding climate action and green growth.
Africa’s past experiences from participation in carbon markets have not generated the expected results, so there is a need for a step change if the continent is to fully capitalize on the emerging potential for carbon markets.

Cautiously engaging with the emerging carbon markets

The Africa Carbon Markets Initiative is an opportunity for countries to direct investments into the protection and growth of their natural capital. Africa’s carbon sink stock can be leveraged to generate finance and enable investments in sectors such as natural resources and biodiversity conservation, which have both environmental and social development outcomes. With existing methodologies, Africa could generate about 2,000 MtCO₂eq, worth $40 billion annually by 2030. With new or nascent methodologies, it could generate an additional 400 MtCO₂eq across the continent, worth more than $7 billion annually by 2030, with the greatest benefits obtained from livestock management and agricultural and soil carbon sequestration. When fully developed, the carbon markets could provide significant opportunities for African countries to mobilize climate finance for development and improve their risk ratings by re-basing their GDP in the light of the positive externalities associated with the carbon sequestration value of forest ecosystems.

However, Africa’s past experiences from participation in carbon markets have not generated the expected results, so there is a need for a step change if the continent is to fully capitalize on the emerging potential for carbon markets. Africa accounted for only 10 percent of all Clean Development Mechanism (CDM) projects issued in developing globally between 2010 and 2021. The private finance generated from the growing carbon markets ultimately depends on the global price of carbon. But African countries can increase their benefits from current markets by expanding the scope of production of credits, increasing regulatory structures for credits and ensuring that credits meet the social and environmental quality needed for the global market.

In addition, the development of country plans for carbon markets will support the production and sale of carbon credits by identifying and assigning responsibilities to different national and local institutions, identifying the different sets of incentives for participation in the carbon markets, and identifying conditions for participation in the carbon market space.

Leveraging intra-African collaboration to enhance continental private investments

Africa needs regional project preparation facilities to tap into continental private investment opportunities for climate and green growth. As many domestic and international investors are looking to invest at the regional scale to take advantage of the market scale, regional project pipelines will be important. One way to advance pan-African collaboration is through the development of dedicated regional funding, project preparation, and capacity development mechanisms. The mechanism should have specialized units for supporting low-income countries and those emerging from conflicts, as they will have much more nuanced barriers and needs.

Africa’s strongest regional collaborations present an opportunity for countries to work together to generate a more nuanced understanding of the barriers and opportunities for private investments within states and across common markets. This would involve leveraging regional economic and research institutions to develop stronger links between research and governance and the private sector. For instance, the Alliance for Green Infrastructure in Africa, a partnership between the African Union, African Development Bank Group, and Africa50, launched in 2022, aims to raise up to $500 million in project development and preparation funds to generate up to $10 billion in sustainable green infrastructure. The Africa Investment Forum (AIF)—a multistakeholder transactional platform and investment marketplace—is
dedicated to advancing projects to bankable stages, raising capital, mobilizing private sector, and accelerating the financial closure of deals.\textsuperscript{95} And through the AU, African countries are working to develop the African Credit Rating Agency, a pan-African partnership which could enable countries to access private sector finance and strengthen links between the continent’s and global financial markets.\textsuperscript{96}

As countries recover from the economic effects of the COVID-19 pandemic and the 2022 energy and food crisis, these regional facilities can leverage the FDI outflows from African countries. Although Africa is a net recipient of FDI flows, some African countries have, over the past decade, proven themselves as potential sources of FDI outflows. And even though recent economic crises have shrunk the total volume of FDI outflows within the continent, countries are showing signs of recovery (figure 2.26). Before COVID-19, Togo, South Africa, Egypt, Morocco, and Ghana were the highest sources of FDI outflows in the continent. But their outflows fell by two-thirds in 2020 to $1.6 billion from $4.9 trillion in 2019.\textsuperscript{97} Outflows from Togo, the highest source of outflows for this period, were directed at other African countries.

As countries recover from the pandemic and private sector actors’ balance sheets begin to demonstrate improving liquidity, it is expected that FDI outflows will begin to increase too. African investors can be encouraged to invest on the continent through special trade agreements. Strengthened regional integration through the AfCFTA is a good starting point for advancing these trade agreements.

African countries should commit to supporting cross-border programming, particularly in green growth sectors, to increase the market size for small countries and further attract private sector investments. The top-5 destination countries—South Africa, Nigeria, Kenya, Morocco, and Egypt—concentrated about 56 percent of all inflows received on the continent on average in 2019/20 (considering only country inflows). So, multi-country projects could be a promising avenue for African countries with thin local markets to explore. But multiple-country private climate finance is still nascent in Africa, accounting for only about 8 percent of overall private climate finance in 2019/2020. The African Continental Free Trade Area (AfCFTA) will be a game changer, creating the world’s largest free trade area and a single market for goods and services worth $3.4 trillion for more than 1.3 billion Africans.

Technical support for policy and project development will also be important if African countries are to further mobilize private sector finance for climate action and green growth. This requires that funds be set aside to support policy development.

\textbf{FIGURE 2.26} FDI outflows from Africa, 2017–21

\begin{figure}
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\includegraphics[width=\textwidth]{fdi_outflows.PNG}
\caption{FDI outflows from Africa, 2017–21}
\end{figure}

Source: Staff calculations based on UNCTADStat data.
and project origination. MDBs are planning to create a facility of around $250 million to support the preparation of Long-Term Strategies. When this is operational, it will provide an opportunity for African countries to leverage these funds for capacity development to accelerate the development of their strategies.

**THE ROLE OF MDBs AND DFI IN MOBILIZING PRIVATE FINANCE**

DFIs and MDBs are key players in unlocking international and development finance. Around one-third of private finance mobilized by DFIs and MDBs targeted climate action in 2018–20, with Africa among the main recipients. Of $48.6 billion of annual private finance mobilized by official development finance institutions on average over 2018–20, about $15.5 billion (32 percent) targeted climate actions—with $12.2 billion (25 percent) for mitigation only, $1.8 billion (4 percent) for adaptation only, and $1.5 billion (3 percent) for mitigation and adaptation (figure 2.27). It was distributed almost evenly across the world's main regions, with Africa, Asia, and Latin America and the Caribbean receiving the largest shares. Africa received about $4.2 billion annually (the same as Asia), while Latin America and the Caribbean benefited from $3.8 billion. Official development assistance-eligible European countries got $1.6 billion a year on average, and the remaining $1.7 billion was unallocated. The top-5 African recipients were Mozambique with $839 million (20 percent of Africa’s total), South Africa $365 million (8.7 percent), Egypt $331 million (7.9 percent), Kenya $314 million (7.5 percent), and Nigeria $274 million (6.5 percent). The concentration in those countries could be primarily the result of local market dynamics, the availability of investment opportunities, and the development of large-scale industrial projects.

Despite increased official development finance for climate-related projects, the total mobilized appears modest—and falls far short of Africa’s climate finance needs. So, it is essential to develop and implement policies and instruments that improve the redistribution of private climate finance both geographically and sectorally. These

**FIGURE 2.27 Geographical distribution of private climate finance mobilized by official development finance institutions, average 2018–20**

<table>
<thead>
<tr>
<th>Region</th>
<th>Value ($ billions)</th>
<th>Percent</th>
<th>Share</th>
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<tbody>
<tr>
<td>Africa</td>
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<tr>
<td>Asia</td>
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<td>Europe</td>
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<td>Latin America and the Caribbean</td>
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<tr>
<td>Global</td>
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Source: Staff calculations based on OECD (2023).
Instruments could provide soft commercial loans to African carbon project developers to generate and sell their emission reductions at the market price. They could be guarantees to facilitate lending to carbon project developers by de-risking climate projects. Non-market instruments, such as the Adaptation Benefits Mechanism being piloted by the Bank, could also channel private sector finance into adaptation. Risk-sharing remains critical to encourage private sector investment; therefore, policies that help identify and manage risk are relevant. For example, concessional loans, guarantees, first loss equity, and grants are all important, and MDBs and DFIs could facilitate their implementation.

In addition to private sector finance, are potential sources of increased public finance from official development finance institutions. Some have been highlighted in the recent Bridgetown Initiative, put forward by the government of Barbados, and are being further considered in the light of the calls to reform the World Bank and by implication other MDBs. Paragraphs 40 and 41 of the Sharm-El-Sheikh Implementation Plan call on MDBs and their shareholders to reform and improve the efficiency of the provision of climate finance. Specific examples include access to Special Drawing Rights, which could finance debt-for-nature or debt-for-climate swaps. And there is a significant call to introduce climate disaster debt clauses into loan agreements, to delay interest payments on loans in the event of a climate or other disaster. These could be NPV-neutral if repayment terms are extended, or public funds could make them so. The Bridgetown agenda team estimated that disaster risk debt clauses could have freed up $1 trillion of liquidity in developing countries during the COVID-19 outbreak, and MDBs are being encouraged to deploy such clauses.

Five actions and policies to enable DFIs and MDBs crowd-in more private climate finance

The Bridgetown Initiative, unveiled at COP27 in Egypt, proposes a three-step process for MDBs (and DFIs) to step up and address the financing requirements of developing countries: First, provide emergency liquidity to developing countries to stop the debt crisis. Second, expand multilateral lending to governments. And third, mobilize private savings for climate action and green growth. Five actions and policies will be needed to meet these objectives.

Becoming less risk averse

MDBs and DFIs should become less risk averse as donors and the international financial community take the necessary steps to enable the financial institutions to maintain their credit ratings and continue to source climate finance at the cheapest rates. Needed first is a review of MDBs’ capital adequacy ratios, an indicator of MDB risk aversion. An independent expert review found that these ratios are too conservative and could be reduced without affecting the credit ratings of these institutions. That would increase the amount of capital available for lending to developing countries, particularly for climate action and green growth. Linked to this is the need for donor countries to set realistic and achievable DFI profitability targets, which determine cost of capital to developing countries.

Second, as highlighted in the Report of the Independent High-Level Expert Group on Climate Finance, MDBs also need to shift from project-based finance to financing the system-wide sustainable transition. They should do this mainly through leveraging the largely untapped potential to pool and diversify risks across the development finance system to create new asset classes for private institutional investors. This should involve the use of more innovative financing mechanisms, such as mobilizing non-voting capital and risk transfers to the private sector, to increase available capital from MDBs.

Overall, reducing risk aversion requires tailor-made capital and liquidity frameworks to reassess regulatory capital and other prudential norms for MDBs and DFIs. For example, shareholders should encourage MDBs and DFIs to leverage their own resources with ambitious targets for mobilizing private capital through a range of de-risking measures. They should also agree on a time-bound plan to implement the recommendations of the G20 Capital Adequacy Review, including greater use of shareholder guarantees to enable them to lend more with the existing capital without threatening their long-term financial integrity.
Last, donor countries should reduce the profitability targets of DFIs. British International Investment (BII, formerly CDC) lowered its profitability target from 10.6 percent to 3.5 percent for its main portfolio—the Growth Portfolio and to at least break-even for its entire portfolio, enabling it to invest in areas with higher risks and the likelihood of losses. Financing system-wide transformations by MDBs also requires identifying areas for national priority for green growth and targeting them for financing from origination, planning, development, and operations.

Alternative financing mechanisms—say, through voluntary carbon markets, adaptation benefit mechanisms, and financing debt-for-nature swaps—can also be a way for MDBs and DFIs to become more risk averse. To engage in voluntary and Article 6 market and non-market mechanisms, DFIs and MDBs will need to recognize and value cash flows from the sale of nonconventional assets, including voluntary emission reductions, mitigation outcomes, and certified adaptation benefits. Similar flexibility will be required if these financial institutions are to finance debt-for-nature swaps and value biodiversity. In 2016, Seychelles’ $21 million debt-for-nature conversion directed the debt relief achieved on debt service to fund climate change adaptation, sustainable fisheries, and marine conservation projects. The recent success of the US Development Finance Corporation’s guarantee to close debt-for-nature swaps in Barbados and Belize increased calls for other MDBs like the AfDB to scale up this financing tool for countries such as Gabon and Kenya. The Bank is evaluating how to deploy its partial credit guarantee to backstop the sovereign issuance.

MDB and DFI member countries need to strengthen their Paris Agreement participation and documentation, specifically their LTSs, NDCs, and National Adaptation Plans. This suite of documents will communicate to the international community which green growth and low emission climate resilient pathways countries will rely on in the future. The information will also make planning and investing much easier for the private sector. Shareholders should encourage MDBs and DFIs to leverage their own resources with ambitious targets for mobilizing private capital through a range of de-risking measures. MDBs and DFIs should also agree on a timebound plan to implement the recommendations of the G20 Capital Adequacy Review, including greater use of shareholder guarantees to enable them to lend more with the existing capital without threatening their long-term financial integrity.

**Increasing the use of results-based payment instruments**

As highlighted in the AEO 2022, the global climate finance architecture is simply too complicated and bureaucratic, seriously limiting its effectiveness, particularly in low-income, climate-vulnerable countries. International climate funds typically do not give grants to private operators. Most women and youth in Africa are unbankable, lacking assets to serve as collateral or technical project preparation skills. And many adaptation projects are perceived as not economically feasible, either because they contribute to the global good and do not generate any or sufficient revenues or because they target the most poor and vulnerable communities living at subsistence level and cannot invest or pay back commercial loans. There is renewed interest in using results-based payment instruments where the private sector shoulders all the implementation risk and gets paid on delivery of the agreed results. Voluntary carbon markets, the Sustainable Development Mechanism under the Paris Agreement, and the Adaptation Benefits Mechanism are examples of results-based payment instruments. As noted, projects under these mechanisms still need short-term project finance, and this is something the MDBs and DFIs should be able to provide.

**Building capacity in integrating low-carbon, climate-resilient perspectives into policymaking**

Climate finance is becoming increasingly important in mobilizing and committing finance. MDBs, DFIs, and other public and private financial institutions need to build capacity to include low-carbon and climate-resilient metrics in investment and policymaking decisions. This calls for training and awareness raising across the entire sector, strengthening of tertiary education to ensure that new graduates are well equipped to deal with the new reality of investment decision-making. And MDB and DFI decision-making processes need to be reviewed to ensure that the right kinds of
projects are appraised and supported. Putting in place the enabling factors for MDBs to respond to the need for climate finance has implications for staffing and organizational structure. To participate in the Article 6 market and non-market approaches, Regional Member Countries need support to build their internal capacity. Establishing local financial institutions such as national green banks and national development banks (with mandates for financing climate action and green growth) can help create an investment ecosystem fit for purpose in a climate-constrained future.

**Strengthening mandates, incentives, and internal capacity**

MDB and DFI activities are often dependent on and strongly influenced by their shareholder and client governments through, for instance, the provision of capital and the review of policies and projects. To enable these institutions to attract more climate co-finance, particularly from the private sector, their shareholder governments must give them stronger and more coherent mandates to deliver transformative climate action and green growth outcomes. This can be achieved by systematically integrating climate and green growth goals with underlying development objectives, reflecting this in their corporate KPIs, and putting in place supportive internal incentive systems to encourage staff to scale up climate action. MDBs and DFIs must have the adequate internal capacity and staff skillsets to move beyond traditional projects in infrastructure, transport, and energy when assessing investment opportunities. And they must also be able to dedicate efforts to other areas of intervention centered on climate change and green growth.

**Working closely with governments to develop enabling policies and regulations to scale up private climate investment.**

Given the existing large climate finance needs, there is an urgent need for MDBs and DFIs to focus more on new investors and sources of climate finance. This will require that they work in tandem with African governments to develop enabling policies and regulations to scale up private investments, propose risk-mitigation instruments such as guarantees, and prioritize concessional finance through blended finance. Such collaboration will also help to easily aggregate small-scale climate investment projects into large-scale bankable projects that could attract the private sector through, say, blended finance vehicles. And by working more closely with their shareholder governments, MDBs and DFIs could facilitate the standardization of the terms and conditions related to low-carbon and green growth projects to unlock private investment, including those with different instruments, approaches, and contractual agreements.

Achieving these action points will require that MDBs and DFIs to integrate the six building blocks of the Joint MDB Paris Alignment Framework into their operations. The principles underscore ensuring that developing countries’ transition to low-carbon development through an equal emphasis on mitigation, adaptation, and resilience. They also acknowledge that climate finance, engagement, and policy development support and reporting are integrated into the operations of MDBs and DFIs. But for them to achieve these goals, African countries will first need to develop their LTSs to guide these institutions on priority areas for investments.

**The transformative role of the African Development Bank in unlocking private climate finance**

The African Development Bank is already heavily involved in climate change and green growth

The Bank has committed to align its operations with the Paris Agreement, and in November 2021, it approved its climate change and green growth policy strategy and framework. In addition, the Bank has targets for climate finance and several flagship initiatives designed to deliver on those targets. Significant initiatives include:

- The use of the climate safeguard screening system to ensure that all projects are aligned with the goals of the Paris agreement.
- The African Adaptation Acceleration Program to double adaptation finance in Africa to $25 billion by 2025.
- The Bank’s own target to mobilize $25 billion by 2025 with equal shares to mitigation and adaptation.
The climate action window within ADF 16, which will mobilize significant amounts of new and additional climate finance.

Other flagship initiatives such as The Alliance for Green Infrastructure in Africa, the Sustainable Energy Fund for Africa, the African Financial Alliance on Climate Change, Desert to Power, Great Green Wall, and many others.

Through its 2021–25 Private Sector Development Strategy, the Bank aims to address the barriers to private sector involvement in green growth financing through policy support, infrastructure development, and support to private enterprises across value chains, SMEs, entrepreneurs, and multinationals. In addition, the Bank is working toward “greening” the financial sector through lending and the creation of a dedicated credit facility to support African financial institutions and SMEs to access climate finance and promote green investments in the continent. It is also supporting the African financial sector to identify and manage climate related risks in their portfolio and new lending. And it has mobilized African sovereign investors, pension funds, and insurance investment pools by signing a Letter of Intent with Africa50 (Africa’s premier infrastructure investment platform) and the Africa Sovereign Investors Forum to cooperate on developing and financing green(er) and climate resilient infrastructure across the continent.

The Bank has several innovative financing mechanisms to scale up climate co-financing across the continent

Over the past decade, the Bank has increasingly sought to leverage its equity and balance sheet to assist African countries with climate financing through several key mechanisms/initiatives, including blended finance, rechanneling SDRs through MDBs, issuing hybrid capital, balance sheet optimization initiatives, the ADF-16 Replenishment, and ADF market leveraging to allow the Fund to tap capital markets directly. For instance, through its BSO initiatives, the Bank seeks to crowd in private partners to finance development, including climate projects. Using this approach, the Bank in 2018 executed the Room 2 Run Program,106 the first structure between a multilateral and the private investor market. The program provided a $1 billion synthetic securitization transaction (SST) covering about 45 private sector loans from the Bank’s existing portfolio. The SST involved private investors assuming emerging market risks on a portfolio of infrastructure projects in Africa, creating at least $650 million in additional lending headroom for the Bank to specifically target, on a best-effort basis, renewable energy transactions using the unlocked risk capital.

Building on the initial success, the Bank has since launched two additional Room 2 Run Program rounds. With the second offering, the Bank, in collaboration with institutional investors, created credit insurance structured to cover a portion of the Bank’s portfolio of non-sovereign operations in Africa. This transaction released sufficient capital to make almost $500 million in additional lending headroom for the Bank through rating substitution effects. In addition, the other lending facility has afforded the Bank and institutional investors to lengthen insurance terms and lower insurance and financing costs, leading to more trade and investment and among the private sector and the African region.

With the third and latest offering, the Bank, the government of the United Kingdom, and three globally recognized insurance companies have initiated a new and innovative risk-sharing transaction known as the Room to Run Sovereign. This transaction is structured to allow the Bank to reduce the risk capital currently consumed by its sovereign operations, thus creating headroom to enable up to $1.8 billion in additional lending operations in priority sectors, particularly climate finance, to support the Bank’s commitments to scaling up mitigation and adaptation projects across the continent.

Beyond BSO initiatives, the Bank has sought to mobilize additional resources for climate finance by strategically deploying its Partial Credit Guarantee (PCG) to help sovereigns and corporates access the international capital markets under newly adopted Environmental, Social, and Governance (ESG) Frameworks through green bonds. Several countries ranging from Angola to Benin to Egypt, are already adopting ESG Frameworks with the goal of mobilizing resources specifically for climate-resilient and sustainable investment projects. The Bank’s PCG helps sovereigns crowd in commercial bank liquidity into such projects at longer tenors and much-improved interest rates.
All financing under this proposed structure will be exclusively earmarked for eligible expenditures in sectors aligned with their country’s green framework. Moreover, by working with MDBs like the Bank on an unfunded basis, the client and other stakeholders often benefit from the Bank’s support in showcasing Environment and Social best practices in such operations. The Bank is also pioneering the development of green banks across the continent to attract private sector financing for climate and green growth (box 2.2).

Several options are in the making to re-channel SDRs through the IMF’s existing Poverty Reduction and Growth Trust for low-income countries as well as the Resilience and Sustainability Trust, the Bank is actively advocating a third mechanism, the re-channeling of a new general allocation through the MDB route, providing a unique opportunity for the Bank to leverage the resources and channel them to programs aimed at mobilizing development finance for projects geared to climate change and green growth. The advantages of the MDB re-channeling option are numerous and compelling, as MDBs present the best value proposition and most efficient vehicle for the SDR reallocation to developing countries.

**Collaboration between different MDBs and DFIs to generate common frameworks for allocation of funds**

The Bank works closely with other regional and multilateral development banks to share knowledge and experience on Paris alignment and mobilize resources for climate change. For example, the banks are working to create a long-term strategy facility designed to mobilize resources to enable the MDBs to work together to develop long-term strategies in many developing countries. The MDBs work together to improve access to international climate finance, from the green climate fund.

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**BOX 2.2 The African Green Bank Initiative**

Among the chief hindrances to climate financing in Africa are the lack of tailored investments to suit country-specific conditions, limited capacity of local financial institutions and insufficient trust from private investors in green investments. In that regard, green bank models have shown great promise in helping African countries access and mobilize climate finance, especially from private sources. The green bank model, initially developed in the UK and the US, has since spread to other parts of the world such as Asia and South America. With the GCF-Development Bank of Southern Africa Climate Finance Facility and the Rwanda Green Investment Facility, Africa is also creating regional/national Green Finance Facilities.

As part of its new strategic framework on climate change and green growth adopted in October 2021, the Bank is committed to provide concrete, innovative solutions that will increase the share of global climate finance benefiting the African continent. To accelerate the development of local Green Finance Facilities throughout the continent, it launched the African Green Bank Initiative at COP27.

Supported by the African Green Finance Facility Fund (AG3F), the Initiative is fully integrated within AfDB’s architecture as a pillar of African Financial Alliance on Climate Change (AFAC), which aims at engaging with African financial institutions to promote investments in climate transition throughout the continent. Pursuant to AFAC’s key objectives, The Initiative will contribute to deepen the current policy dialogue with key counterparts regarding climate change, help in building adequate capacities of African financial Institutions to mainstream green investments, and address climate risks in their decision-making processes.

The African Green Bank Initiative is dedicated to structuring an enabling policy environment and conductive ecosystem of local Green Finance Facilities (GFFs). Based on a blended finance approach on both uses and sources of funds, this network of GFFs will help by customizing investments to local needs and creating a pipeline of bankable projects to enable more climate finance mobilization toward a climate-resilient, Paris-aligned, green, and sustainable growth.
and climate investment funds to the adaptation fund. The Bank collaborates on the preparation of investment plans and country platforms. Information sharing will become important, especially as pressure builds to develop Long Term Strategies. MDBs and DFIs can also work together to crowd in commercial banks, which generally avoid investing in climate and growth sectors. These banks are often aware of new opportunities brought about by growth transitions but face barriers relating to weak customer demand for climate-risk-related products, the lack of data, tools, and models for understanding and assessing climate risks, and the lack of technical skills in the commercial banking sector.

**POLICY RECOMMENDATIONS**

Different stakeholders can take a range of actions both in the short, medium, and long terms to collectively contribute to the mobilization of private finance for climate action and green growth.

**African national governments**

*Develop country architecture to mobilize private financing for climate action and green growth, including domestic financial institutions*

- In the short term, they should develop and cost —in line with the recommendations of the Independent High-Level Expert Group on Climate Finance — Long Term Strategies to provide strong signals to domestic and international stakeholders on countries’ climate action and green growth priorities, and translate these into sectoral strategies, plans and regulations. Strategies should be comprehensive and cover all sectors and be fully mainstreamed into the whole economy, not developed and implemented in silos.
- They should also strengthen governance and accountability systems to ensure that proceeds from private finance generate the expected and maximum impact for green growth, as through impact monitoring and evaluation frameworks that have clear metrics and transparency and accountability systems for institutions managing this finance. As highlighted in the Sharm El-Sheikh Guidebook for Just Financing, these enabling policy and regulatory reforms will create incentives for the private sector to invest in adaptation, a sector often neglected.
- They further need to implement public financial management systems to ensure that adequate public finance is allocated and deployed toward climate action and green growth.
- In the medium term, they should enhance the expansion of domestic financial and non-financial institutions within countries and at the regional level, including green innovation centers, to provide specialized and targeted financial products to enable and enhance green investments to different groups of private actors, including large enterprises and formal and informal MSMEs.

**Advance the use of blended finance instruments to leverage additional private finance**

- In the short term, African countries should develop a deep and contextual understanding of different types of private sector investors (present and potential), specific barriers, and private sector risk profiles and return thresholds.
- A medium-term strategy could be to establish national standardized blended finance vehicles that offer attractive returns, and use these vehicles effectively by ensuring that financial allocations demonstrate additionality and proportionality. The potential impact of these investments should inform the allocation of finance for blending, particularly by ensuring a balance between infrastructure financing and social development and environmental management projects.

**MDBs and DFIs (including the AfDB)**

*Support country efforts to address debt sustainability and create an enabling environment for climate investment*

- In the short term, they need to commit to aligning operations with the Bridgetown Initiative agenda, through reorienting balance sheets toward funding climate and development finance while supporting innovative financing
mechanisms that can unlock additional affordable capital from the private sector for African countries.

- They should also, in the short-to-medium term, expand issuance of concessional finance for climate action and green growth projects to avoid pushing countries into further debt while also enhancing the roll-out of sustainable debt mechanisms to countries at risk of debt distress, for instance through domestic capital markets based on local currency.
- They should further, in the medium-to-long term, lead global efforts to support African countries in creating a conducive environment for climate investment and in advancing their transition to a low-carbon pathway. This will require constant interactions by MDBs and DFIs with African countries and complementary engagements of all stakeholders to objectively assess country climate and investment risk profiles over time, develop mechanisms and tools to address them, and identify opportunities to enhance resilience.

*Provide risk-agnostic catalytic capital that can demonstrate the potential of the African green growth landscape for private investments*

- MDBs and DFIs should increase, in the short-to-medium term, the use of risk-agnostic instruments, such as guarantee instruments, to reduce the level of risk borne by private investors and provide affordable capital, particularly in early-stage investments, and develop and roll out finance mechanisms for project development to unlock the project development gap—as through grants, guarantees, and concessional financing to support capacity development.
- And they should invest, in the medium-to-long term, in plugging data gaps, such as data on climate risks and capacity building, to enable more effective policymaking.

*Domestic and international private sector*

*Exercise stewardship that drives accurate identification of barriers, investment risks, and opportunities for green growth in different African contexts to inform decisions on investments.*

- Over the short-to-medium term, they need to identify and articulate barriers and opportunities to investments to African country governments and other stakeholders, and work with MDBs and country governments to manage, reduce, and share risks to investments.
- Credit rating agencies need to expand their framework to better reflect the potential for the African market. In the medium-to-long term, this could involve reforming rating procedures to ensure that risk or credit ratings include the true potential of African green growth markets. The increasing calls for the reform of rating agencies and ongoing progress toward the establishment of an autonomous African Rating Agency are steps in the right direction.

*Developed country governments*

*Meet international climate finance commitments and increase investments toward green growth*

- Developed countries should, without delay, meet the $100 billion global climate finance target identified in the Paris Agreement, and take steps to balance investment in adaptation and mitigation. Prepare to commit to a higher post-2025 climate finance target that is sufficient to meet the needs in developing countries.
- With developed country governments making up majority of the shareholders of MDBs and DFIs, they should urgently champion discussions and actions that enable reducing the risk aversion of MDBs and DFIs through allocating more callable capital to MDBs, lowering MDB capital adequacy ratios, and reducing the profitability targets of DFIs.
ANNEX 2.1 METHODOLOGY FOR CALCULATING THE PRIVATE SECTOR FINANCING GAP

In this report, private climate financing is assumed to be a complementary option to public climate finance, with public actors (such as national, bilateral, and multilateral DFIs, MDBs, governments, and national and multilateral Climate Funds) taking the primary responsibility for driving and implementing national climate actions. To estimate the contribution by the private sector, climate finance mobilized by public entities was first subtracted from each country’s climate finance needs to determine the residual required to be covered by non-public resources, including the private sector and other actors such as philanthropic foundations or any other types of international support. In the two extreme cases, we considered that respectively 0 percent and 100 percent of the residual needs—the difference between climate finance needs and public climate finance flows—would be financed by the private sector. The intermediate cases refer to a mix of private and non-private resources. The assumptions for main cases are as follows.

**Conservative scenario.** The contribution from the private sector is 25 percent of the residual finance needs, and public actors cover 75 percent. In this case, the private contribution is projected to grow by about 10 percentage points from current levels to reach close to its pre-pandemic level in Sub-Saharan Africa (22.5 percent on average between 2018 and 2019).

**Moderate scenario.** The contribution from the private sector to financing Africa’s climate needs is at par with public actors (50 percent each). This is in line with the current private climate finance contribution globally, which was 49 percent on average in 2019/2020.\(^{111}\)

**Ambitious scenario.** The contribution from the private sector is set at 75 percent of the total finance needs, and public actors account for only a quarter of the total climate finance needs. This is in line with African countries’ financial conditionalities to fulfil their NDCs: while African countries committed to mobilize on average 15 percent of climate finance needs from the public sources, the remaining 85 percent should come from international support, and it is estimated that 75 percent of the financial conditionality should come from the private sector.\(^{112}\)

**Very ambitious scenario.** 100 percent of the residual climate finance needs is covered by the private sector. This scenario considers that private investors take full advantage of all existing investment opportunities across all climate and green growth sectors in the continent and that African countries put in place a conducive business environment that address existing barriers to private investments.
NOTES

1. IRP 2019.
4. de Serres et al. 2010.
5. OECD 2013.
6. Based on Our World In Data database.
7. UN DESA (2022).
8. IRENA and AfDB 2022.
12. The 4 dimensions are, with 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. For more discussions on the index, see Acosta et al. (2022).
17. IRENA and AfDB 2022.
18. IPCC 2022.
22. IFC 2016.
23. GCA 2019.
24. CPI 2022a.
25. AAI 2022.
27. Wodajo 2021.
30. CPI 2022c.
34. Ehlers et al. 2022.
35. Climate Bonds Initiative 2022.
41. ACMI 2022.
42. If only the 2023–30 period is considered, then the required annual growth rate would become 30.9 percent, 41 percent, 48 percent and 53 percent if the private sector’s contribution is 25, 50, 75 percent, 100 percent, respectively.
43. For a detailed literature review on the macro-economic determinants of private sector investment, refer among others to Suhendra and Anwar (2014), Groh et al. (2018) and Osei-Kyei and Chan (2017).
44. OECD 2023.
46. CPI 2022e.
50. AVCA 2022.
51. AVCA 2022.
52. Katz 2022.
54. AfDB and GGGI 2022.
57. IFC (2017).
58. Eyraud 2022.
60. United Nations Inter-agency Taskforce on Financing for Development 2021.
61. EIB 2022.
62. EIB 2022.
63. UNDP 2023a.
64. UNDP 2023b.
65. AUDA-NEPAD (2022).
67. IFC and Google (2020)
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