INTERNATIONAL MONETARY FUND

Laying the Ground for Scaling up Climate Finance in Sub-Saharan Africa

Leveraging Survey Insights and IMF Country Work to Scale Climate Finance in SSA

Edward Gemayel, Samuele Rosa, Vidhi Maheshwari, Christoph Ungerer, and Peter Lindner

WP/25/99

2025
MAY

WORKING PAPER

 WP/25/99

IMF Working Paper
African Department

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Authorized for distribution by Edward R. Gemayel
May 2025

ABSTRACT: Sub-Saharan Africa (SSA) faces growing climate vulnerability, with rising temperatures and extreme weather threatening agriculture, food security, and economic growth. These challenges worsen poverty, fiscal constraints, and limited human capital investment. To address these risks, SSA countries need to scale up green investments while ensuring debt sustainability. Given insufficient traditional public financing, a mix of grants, concessional debt, and private investments is crucial. This paper presents survey results on climate finance in SSA and introduces the Climate Finance Preparedness Index (CFPI) to assess countries' readiness for green financing, highlighting the need for policy reforms, institutional strengthening, and innovative financial products.

RECOMMENDED CITATION: Gemayel, E., Rosa, S., Maheshwari, V., Ungerer, C., & Lindner, P. (2025). Laying the Ground for Scaling up Climate Finance in Sub-Saharan Africa. IMF Working Paper No. WP/25/99. International Monetary Fund.

JEL Classification Numbers:	Q54, Q56, H63, O55, E62
Keywords:	Sub-Saharan Africa (SSA); Climate change adaptation; Climate financing; Mitigation and resilience; Public financial management (PFM)
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WORKING PAPERS

Laying the Ground for Scaling up Climate Finance in Sub-Saharan Africa

Leveraging Survey Insights and IMF Country Work to Scale Climate Finance in SSA

Prepared by Edward Gemayel, Samuele Rosa, Vidhi Maheshwari, Christoph Ungerer, and Peter Lindner[1]

[1] This Working Paper benefited from valuable consultations with climate-focused groups across several IMF departments. The survey was conducted by country teams in the African Department. Special thanks are extended to Catherine Pattillo and Montfort Mlachila for their guidance throughout the process. Appreciation is also given to Vicky Pilouzoue for her work in compiling the document, and to Golnaz Badkoubi for overseeing the questionnaire process and ensuring the integrity and accuracy of the data.

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Introduction

Sub-Saharan Africa (SSA) is highly vulnerable to climate change, requiring urgent adaptation and mitigation investments. Rising temperatures, extreme weather events, and shifting rainfall patterns disrupt agriculture, energy, and supply chains, exacerbating inflation and income instability. These shocks strain infrastructure and deepen poverty, increasing fiscal pressures and limiting long-term economic growth.

Despite these challenges, SSA has an opportunity to leverage the green transition for economic development. Expanding renewable energy, improving resource efficiency, and integrating climate resilience into planning can open new development pathways. However, given fiscal constraints (Figure 1) mobilizing green finance at scale is crucial. This requires strong governance, policy reforms, and institutional capacity to attract both public and private investments.

This note serves as both a practical guide for IMF staff engaging in climate policy discussions with SSA governments and a benchmarking analysis of climate finance readiness. To assess SSA's preparedness for attracting climate finance, the note introduces the Climate Financing Preparedness Index (CFPI), evaluating governance structures, policy frameworks, institutional capacity, and financial mechanisms.

This note focuses primarily on climate finance, which refers to financial flows directed toward mitigating greenhouse gas emissions and enhancing climate resilience. While the broader concept of green finance includes a wider range of environmental sustainability initiatives, this note primarily examines climate-related financial mechanisms, policy frameworks, and country experiences that address adaptation and mitigation challenges in SSA. In some cases, country examples may touch on broader green financing initiatives, but the central theme remains climate finance as a tool for climate resilience and economic stability.

This note makes two key contributions. First, drawing on updated data and literature, and drawing on IMF extensive work in the area (see Box 1), it assesses SSA's climate risks and their macroeconomic implications, highlighting the economic and financial costs of inaction, including GDP losses, fiscal pressures, and financial sector vulnerabilities. It also examines policy and financing strategies to scale up climate finance, emphasizing the role of public, private, and multilateral funding sources in supporting adaptation and mitigation efforts. Second, it introduces the CFPI, a novel benchmarking tool that evaluates SSA countries' readiness to attract and deploy climate finance. The CFPI assesses governance structures, policy frameworks, institutional capacity, and financial mechanisms to identify key reform priorities and provide actionable recommendations for policymakers.

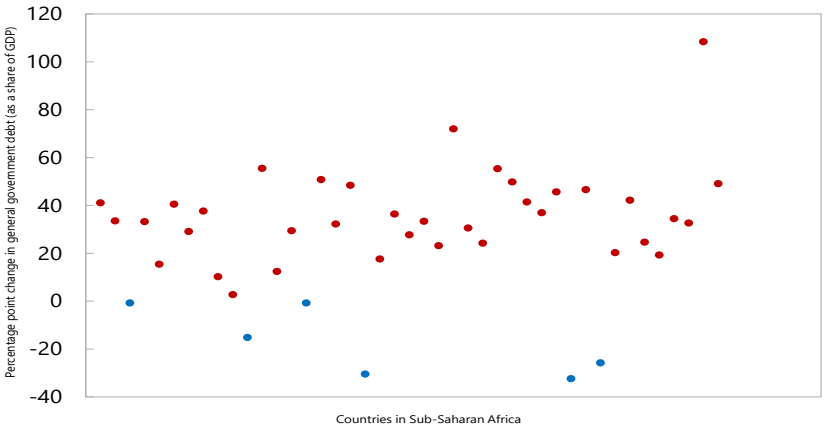
The note is structured as follows: Section 2 examines the climate risks facing SSA, highlighting the region's vulnerability to rising temperatures, extreme weather events, and shifting rainfall patterns. Section 3 analyzes the economic and financial consequences of inaction, detailing the impacts on GDP, fiscal stability, food security, and financial sector resilience. Section 4 outlines adaptation and mitigation priorities, emphasizing the need for climate-resilient infrastructure, sustainable agriculture, and renewable energy investments. Section 5 explores climate finance mobilization strategies, focusing on public, private, and multilateral funding sources, as well as policy frameworks to unlock financing at scale. Section 6 introduces the CFPI, benchmarking SSA's readiness to scale up climate finance and identifying key gaps. Section 7 concludes with policy recommendations to enhance institutional capacity and strengthen governance.

Box 1. Laying the Ground for Scaling up Climate Financing

The Fund has produced considerable research work to identify the key elements that can help scale up climate finance in SSA, also drawing from concrete policy work, and this note draws on this comprehensive research effort. The IMF's Staff Climate Notes (SCN) series and other IMF sources outline some key reform areas pertinent to advancing climate finance in SSA.

- First, mobilizing climate finance is critical for SSA countries to address vulnerabilities and transition to sustainable economic growth, as highlighted in "*Climate Change and Select Financial Instruments: An Overview of Opportunities and Challenges for Sub-Saharan Africa*."
- Second, leveraging private sector investments is vital for scaling up funding, with practical strategies explored in "*Mobilizing Private Climate Financing in Emerging Market and Developing Economies*."
- Third, integrating climate risks into the national planning cycle can enhance resilience and ensure resource efficiency, a focus in "*Sub-Saharan Africa: Building Resilience to Climate Related Disasters*"
- Fourth, increasing access to international climate funds can unlock significant financial flows, as detailed in "*Climate Change and Select Financial Instruments: An Overview of Opportunities and Challenges for Sub-Saharan Africa*."
- Fifth, progress on adaptation requires policy reforms, incentives, and partnerships between governments, businesses, and communities and public-private risk sharing, as highlighted in "*Unlocking Adaptation Finance in Emerging Market and Developing Economies*."
- Finally, transparency and accountability in the use of climate funds are essential to build trust and ensure effective implementation, as emphasized in "*Climate Change and Select Financial Instruments: An Overview of Opportunities and Challenges for Sub-Saharan Africa*."

Figure 1. Change in General Government Debt between 2010 and 2023 in SSA



Red dots indicate fiscal space shrinkage between 2010 and 2023 for most SSA countries.
Notable exceptions in blue are Botswana, DRC, Ethiopia, Guinea, São Tomé and Príncipe, Seychelles
Sources: IMF Staff Calculations

Climate Change in SSA

Sub-Saharan Africa (SSA) faces one of the most severe climate vulnerabilities globally, with rising temperatures, erratic rainfall patterns, and more frequent extreme weather events threatening its socio-economic stability (Table 1). The IPCC Sixth Assessment Report (2021) projects a temperature increase of 2°C–4°C by the end of the century under high-emission scenarios, exacerbating existing development challenges. Agriculture-dependent economies are particularly at risk, as heat stress and irregular precipitation have already reduced maize and sorghum yields by 5–10% (IPCC, 2022; Nicholson, 2023). Coastal communities in Somalia, Nigeria, and East Africa face additional threats from rising sea levels, which endanger fishing and farming livelihoods (AfDB, 2016). Without urgent adaptation measures, these climate shifts will intensify food insecurity, economic instability, and displacement across the region.

Table 1. Change in Surface Temperature in SSA (in degree Celsius)

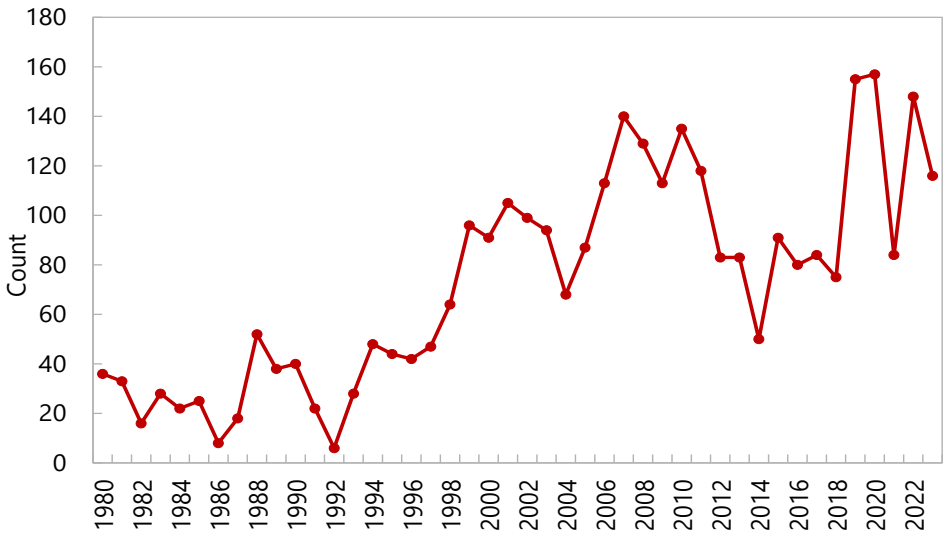
Country	F2012	F2013	F2014	F2015	F2016	F2017	F2018	F2019	F2020	F2021	F2022
Angola	0.6	1.0	0.8	1.3	1.6	0.9	1.4	1.8	1.2	1.6	1.2
Benin	0.6	0.9	0.9	1.1	1.0	1.2	1.1	1.1	1.0	1.5	0.9
Botswana	0.5	0.8	-0.1	1.5	1.5	0.0	0.7	1.5	0.5	-0.4	-1.3
Burkina Faso	0.5	0.8	0.9	1.1	1.1	1.2	1.2	1.1	1.0	1.6	0.8
Cabo Verde	1.3	1.3	1.1	1.1	1.7	2.0	0.9	1.6		1.8	1.9
Cameroon	0.4	0.7	0.9	1.2	1.2	1.2	1.2	1.5	1.3	1.5	1.0
Central African Rep.	0.5	0.9	0.7	1.0	1.2	1.2	1.1	1.3	1.1	1.3	1.0
Chad	0.6	1.0	0.9	1.3	0.9	1.0	1.5	1.3	1.2	1.1	0.7
Comoros, Union of the	0.5	0.4	0.5	0.7	0.7	1.0	0.7	1.3	1.0	0.7	0.5
Congo, Dem. Rep. of the	0.5	1.0	1.0	1.1	1.5	1.3	1.5	1.5	1.7	1.7	1.5
Congo, Rep. of	0.7	0.8	0.7	1.1	1.5	1.2	1.2	1.4	1.5	1.4	1.2
Djibouti		1.2	1.1	1.6	1.3	1.8	1.4	1.5	1.5	1.1	1.5
Equatorial Guinea, Rep. of	0.6	0.8	0.9	0.8	1.5	1.3	0.8	1.6	1.5	1.2	1.2
Eswatini, Kingdom of	0.7	0.6	0.8	1.2	1.2	0.7	1.1	1.6	0.8	0.7	1.4
Gabon	0.6	0.8	0.8	1.0	1.5	1.4	1.0	1.5	1.4	1.1	1.0
Gambia, The	0.9	1.0	1.2	1.2	1.6	1.7	1.0	1.3	1.8	1.7	1.3
Ghana	0.6	0.8	0.9	1.1	1.2	1.3	1.1	1.3	1.3	1.5	1.0
Guinea	0.6	1.1	0.9	1.2	1.2	1.5	1.2	1.4	1.3	1.6	1.2
Guinea-Bissau	0.8	1.1	1.2	1.2	1.6	1.7	1.1	1.4	1.7	1.7	1.3
Kenya	1.0	0.9	1.0	1.2	1.2	1.5	0.7	1.6	1.3	1.4	1.3
Lesotho, Kingdom of	0.7	0.9	1.1	1.5	2.0	1.2	1.1	1.7	0.8	1.2	1.4
Liberia	0.9	1.0	0.9	1.3	1.4	1.5	1.3	1.5	1.6	1.5	1.6
Madagascar, Rep. of	0.9	0.7	0.8	1.1	1.1	1.4	1.0	1.4	1.1	1.2	0.9
Malawi	0.9	0.7	1.1	1.1	1.4	1.0	1.0	1.2	1.3	0.8	0.8
Mali	0.4	1.0	0.8	1.0	1.1	1.3	1.0	1.1	1.0	1.7	0.9
Mauritania, Islamic Rep. of	0.9	1.6	1.5	1.6	1.8	2.1	1.1	1.4	1.9	1.9	1.7
Mauritius	0.7	0.8	0.9	1.2	1.1	1.3	1.1	1.5	1.1	1.0	0.6
Mayotte	0.6	0.5	0.7	0.9	0.8	1.0	0.8	1.4	1.1	0.8	0.7
Mozambique, Rep. of	0.7	0.5	0.7	1.0	1.3	0.8	0.8	1.2	1.0	0.7	0.8
Namibia	-0.1	0.8	0.4	1.2	1.5	0.8	1.1	1.8	0.6	-0.1	0.2
Niger	0.6	0.8	1.0	0.8	0.9	0.8	1.1	0.9	0.8	1.4	0.4
Nigeria	0.5	0.9	1.0	1.2	1.2	1.2	1.1	1.2	1.1	1.6	0.8
São Tomé and Príncipe, Dem. Rep. of	0.8	0.9	0.9	0.9	1.6	1.3	1.0	1.4	1.6	1.4	1.3
Senegal	0.8	1.2	1.1	1.2	1.5	1.7	1.0	1.4	1.7	1.8	1.4
Seychelles	0.9	0.7	0.9	1.2	1.1	1.2	0.9	1.4	1.4	1.0	0.9
Sierra Leone	0.5	1.1	1.0	1.2	1.1	1.7	1.2	1.6	1.5	1.6	1.3
Somalia	1.0	1.1	1.1	1.5	1.3	1.6	0.7	1.5	1.7	1.5	1.4
South Africa	0.5	0.7	0.8	1.3	1.6	1.1	1.0	1.8	0.9	0.8	1.1
Tanzania, United Rep. of	0.8	0.9	0.9	1.1	1.0	1.5	1.1	1.4	1.1	1.1	0.9
Togo	0.6	0.8	0.9	1.1	1.1	1.2	1.1	1.3	1.1	1.6	1.0
Uganda	1.1	1.1	1.1	1.2	1.3	1.7	1.1	1.6	1.2	1.5	1.4
Zambia	1.0	0.8	0.9	1.5	1.4	0.1	0.6	0.9	0.9	0.8	0.7
Zimbabwe	0.3	0.1	0.0	1.0	1.3	0.1	0.5	0.9	0.4	-0.1	-0.5

Sources: Food and Agriculture Organization of the United Nations (FAO). 2022. Temperature change with respect to a baseline climatology, corresponding to the period 1951-1980

Sub-Saharan Africa (SSA) is highly vulnerable to both slow-onset climate changes and extreme weather events, with severe consequences for livelihoods and economic stability (Figure 2). While East Africa has recently faced prolonged droughts, long-term trends in aridity and agricultural drought frequency remain complex. At the same time, extreme rainfall events are intensifying, leading to increased flooding in East Africa and coastal regions (WMO, 2023; UNFCCC, 2020). These climate disruptions are projected to displace up to 86 million people by 2050 due to water scarcity, desertification, and extreme weather (World Bank, 2021b). The economic impact is profound, particularly for

the 53% of SSA's workforce engaged in agriculture (World Bank, 2021a). Disasters such as the 2019 Mozambique cyclones and ongoing droughts in the Horn of Africa illustrate the region's heightened exposure to climate shocks (World Bank, 2021c). Beyond direct economic damages, climate change has also been linked to rising risks of violent conflict, as resource scarcity and environmental stress fuel social and political instability (Ge et al., 2022; Ide et al., 2020; Maconga, 2023).

Figure 2. Climate Related Disaster Frequency in SSA, 1980-2022



Sources: IMF Climate Change Dashboard

* *The IMF Climate-Related Disaster Frequency tracks annual climate-related disasters per country, including storms, floods, droughts, wildfires, and extreme temperatures. It helps assess economic risks and guide disaster resilience policies.*

SSA's limited adaptive capacity further exacerbates its vulnerability. Weak policy frameworks, underdeveloped financial markets, and governance constraints hinder the deployment of green investments needed for climate adaptation (IMF, 2024). Addressing these challenges requires comprehensive adaptation strategies, including climate-resilient agriculture, improved water management, and sustainable infrastructure development. Additionally, international financial support and regional cooperation will be critical to enhancing resilience and promoting long-term sustainable development.

The Economic and Social Costs of Inaction

The economic and social costs of inaction with regard to climate change in SSA will likely be substantial. They span implications for livelihoods, increases in poverty, reduced food security and health outcomes, and reduced overall economic growth (UNFCCC, 2020). As adverse climate impacts continue to intensify (Box 2) failure to act could significantly undermine the developmental progress made in the region and exacerbate existing vulnerabilities (World Bank, 2021c).

Economic Costs

The economic and social costs of climate inaction in SSA are substantial, threatening livelihoods, increasing poverty, reducing food security, and impeding economic growth (UNFCCC, 2020). As climate impacts intensify (Box 2), failing to act risks reversing development progress and exacerbating vulnerabilities (World Bank, 2021c).

Climate change is projected to reduce SSA's GDP by up to 3% annually by 2050, with severe consequences for agriculture, energy, and infrastructure (IPCC, 2021). The region's reliance on climate-sensitive sectors, particularly agriculture, fisheries, and hydropower, heightens its vulnerability. Declining crop yields for staple foods such as maize, wheat, and rice due to changing rainfall patterns and rising temperatures (ILO, 2019) will increase food insecurity, depress household incomes, and exacerbate rural poverty. The economic burden will disproportionately affect women, who form a significant share of SSA's agricultural labor force (AfDB, 2016).

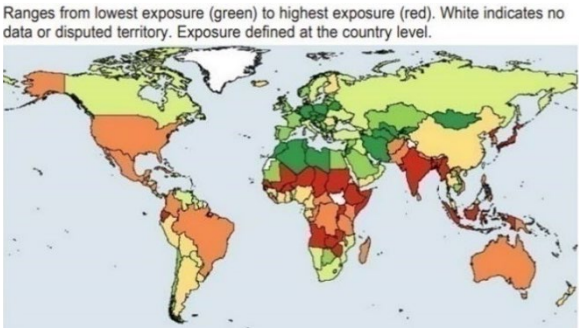
Beyond direct economic losses, climate change threatens SSA's long-term macroeconomic stability. Rising temperatures and extreme weather events reduce labor productivity, slow capital accumulation, and increase climate-induced displacement, weakening human capital formation. Damage to infrastructure raises business costs and disrupts growth, leading to economic scarring. Public finances are also under pressure, as governments must finance disaster response, infrastructure repairs, and social protection while managing declining revenues and rising debt vulnerabilities. Climate-related financial risks—such as loan defaults, asset deterioration, and insurance sector strain—further destabilize the financial system. With limited risk transfer mechanisms, SSA remains highly exposed to climate shocks, underscoring the urgent need for adaptation measures.

While mitigation efforts require substantial upfront investments, they offer long-term economic benefits, including enhanced energy security, reduced reliance on fossil fuel imports, and improved trade balances. Expanding renewable energy and energy efficiency measures can lower energy costs, improve industrial competitiveness, and attract climate finance, fostering job creation and economic resilience. For fossil fuel exporters such as Nigeria and Angola, the global energy transition poses revenue risks, highlighting the need for economic diversification (see Bogmans, C., et al. (2023). "The Impact of Climate Policy on Oil and Gas Investment: Evidence from Firm-Level Data." IMF Working Paper No. 2023/140. International Monetary Fund). At the same time, international mitigation policies create opportunities for SSA through carbon markets, green investments, and demand for critical minerals needed for clean energy technologies (see Staff Climate Note Key Challenges Faced by Fossil Fuel Exporters during the Energy Transition).

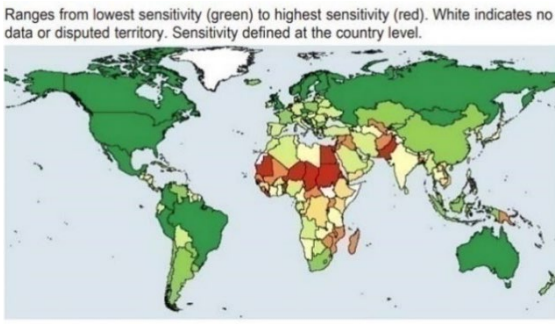
SSA's vulnerability to climate change (Figure 3) can be understood through three key dimensions: (i) exposure, the extent to which a country is affected by climate change; (ii) sensitivity, the economic and social consequences of climate effects, particularly in sectors such as agriculture and tourism; and (iii) adaptive capacity, reflecting institutional strength, resource availability, and infrastructure resilience (Figure 3). SSA ranks among the most climate-vulnerable regions globally due to high exposure, sensitivity, and limited capacity to adapt. Institutional and resource constraints further hinder resilience-building efforts, emphasizing the need for targeted investments in adaptation.

Figure 3. Vulnerability to Climate Change

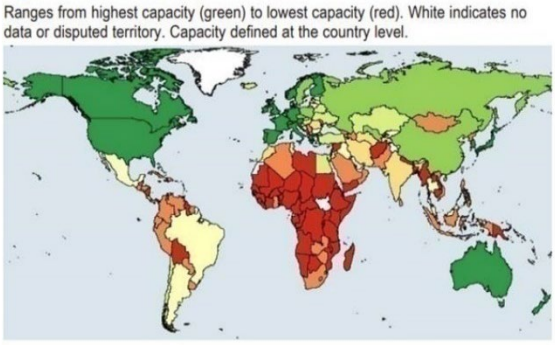
1. Climate Exposure around the World



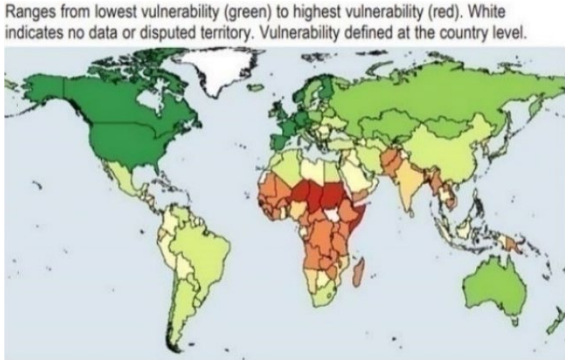
2. Climate Sensitivity around the World



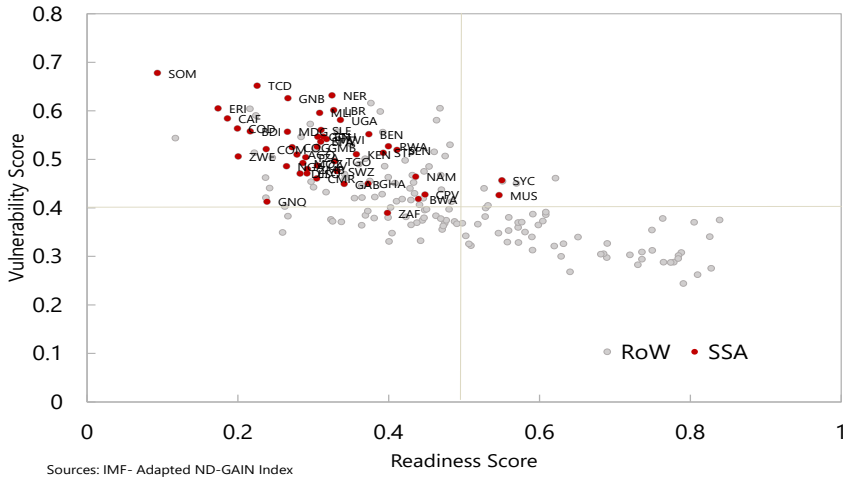
3. Climate Capacity around the World



4. Climate Vulnerability around the World



5. SSA – Readiness vs Vulnerability to Climate Change in Selected SSA vs ROW Countries – 2022



Source: J.P. Morgan, ND-GAIN, UN
A high vulnerability score reflects greater risks from climate change while a high readiness score reflects better capacity to manage climate change risks.

The economic impact of SSA's climate mitigation efforts is a primary concern, particularly given the region's fiscal constraints, energy demands, and need for investment. While mitigation requires substantial upfront costs, it can

enhance energy security, reduce reliance on fossil fuel imports, and attract climate finance, contributing to macroeconomic stability and improved trade balances. Expanding renewable energy capacity and improving energy efficiency can lower long-term energy costs, increase industrial competitiveness, and stimulate investment in green industries, creating new economic opportunities. Beyond these direct economic effects, mitigation efforts can also yield developmental benefits, including job creation, improved air quality, and greater resilience to climate shocks, reinforcing their broader long-term value (see (see Cai, K., Lemaire, T., & Thube, S. (2024). Harnessing renewables in Sub-Saharan Africa: Barriers, reforms, and economic prospects. (IMF Staff Climate Note No. 2024/005). International Monetary Fund).

Climate mitigation policies implemented in the rest of the world present both challenges and opportunities for SSA. For oil-producing nations like Nigeria and Angola, the global shift toward renewable energy and decarbonization is likely to reduce demand for fossil fuels, posing significant revenue risks (see 2023 IMF Working Paper, 'The Impact of Climate Policy on Oil and Gas Investment: Evidence from Firm-Level Data'). This underscores the urgency for these economies to diversify and reduce dependence on hydrocarbons. (See Mesa Puyo, D., Panton, A. J., Sridhar, T., Stuermer, M., Ungerer, C., & Zhang, A. T. (2024). Key challenges faced by fossil fuel exporters during the energy transition. (IMF Staff Climate Note No. 2024/001). International Monetary Fund) Conversely, international mitigation efforts could create opportunities for SSA countries to benefit from carbon markets, green investments, and increased demand for critical minerals required for clean energy technologies.

Social Costs

The social costs of climate change in SSA are equally severe, with millions of people facing greater vulnerability to poverty and inequality. Rising crop failures and water shortages will drive up the cost of living, disproportionately affecting the poor and most vulnerable. For instance, droughts and irregular rainfall threaten food security, leading to more hunger and malnutrition, particularly in Somalia, South Sudan, and the countries in the South Sahel (IMF, 2022f). In addition, more frequent extreme weather events, such as floods and cyclones, not only destroys homes but also disrupts access to education and healthcare, perpetuating cycles of poverty (AfDB, 2023). Climate-induced displacement is another pressing issue, with climate migrants becoming more common as people leave areas that can no longer support their livelihoods due to droughts or floods (World Bank, 2021b).

Long-Term Economic Costs

The long-term economic costs of inaction on climate change in SSA are substantial, posing a direct threat to economic stability, food security, and public health (IMF, 2022e). Failing to integrate climate adaptation into national policies and investment strategies could significantly reduce productivity, disrupt livelihoods, and erode economic gains (AfDB, 2023). For instance, inadequate water management in regions facing growing scarcity, such as Ethiopia—where agriculture relies heavily on the Nile for irrigation—could lead to severe economic losses, particularly in agriculture-dependent economies (ILO, 2019). Similarly, in Kenya, recurrent droughts have already exacerbated food insecurity and destabilized rural economies. Furthermore, climate-induced resource scarcity, particularly related to land and water, is expected to heighten social and economic tensions, increasing the risk of conflict and regional instability (World Bank, 2021a). Inaction will also deter investment, as businesses may become reluctant to commit capital to regions perceived as highly vulnerable to climate shocks, further slowing economic growth, and reducing long-term financial resilience (UNFCCC, 2020).

Box 2. SSA – Impact of Climate Change

- Water scarcity and flooding are becoming increasingly severe in the Sahel region due to desertification and erratic rainfall patterns (IPCC, 2021; WMO, 2023). Projections suggest that by 2050, up to 40% of SSA's land area could experience aridification, with significant implications for food security (Nicholson, 2023; UNEP, 2023). Countries like Chad and Niger, which heavily depend on agriculture, have suffered significant economic losses from declining crop yields and livestock health. Ethiopia, reliant on Nile irrigation, faces mounting challenges as upstream water infrastructure projects intensify regional disputes (IMF, "Climate Change and Select Financial Instruments"). The impact of extreme weather events is evident in Chad, where 2024 floods affected 1.5 million people, caused 340 deaths, drowned 60,000 livestock, destroyed 160,000 homes, and submerged 25,000 hectares of crops, severely threatening future harvests (World Bank, 2023).
- Food insecurity has escalated in East Africa, where climate-induced droughts have devastated agricultural production. Kenya and Somalia have endured prolonged dry spells, leading to crop failures, food shortages, and increased reliance on food aid (AfDB, 2022). The Horn of Africa has witnessed rising malnutrition rates, particularly among subsistence farmers unable to adapt to changing growing seasons (UNEP, 2023). In Niger, recurrent droughts between 2001 and 2012 led to massive agricultural losses, often exacerbated by locust infestations—with the 2004–2005 crisis seeing one-third of agricultural losses due to locusts. By October 2021, cereal stock depletion and soaring food prices pushed regions such as Diffa and Maradi into food scarcity crises, disproportionately affecting agropastoral and pastoral households (IMF, 2022).
- Climate change is also eroding investor confidence in SSA, as infrastructure damage, energy insecurity, and regulatory uncertainty drive up business costs and deter capital inflows (World Bank, 2023). Extreme weather events—including floods, droughts, and cyclones—have disrupted transportation networks, energy grids, and agribusiness supply chains, increasing operational risks for businesses (AfDB, 2022; IMF, 2022). Hydropower-dependent economies like Zimbabwe and Zambia face drought-induced energy shortages, resulting in higher energy costs and reduced industrial competitiveness (IEA, 2023). Similarly, climate impacts on tourism—such as coastal erosion and extreme heat—have weakened investments in hospitality and infrastructure (UNEP, 2023). Beyond physical risks, regulatory uncertainty and weak climate policies have raised investment risk premiums, leading to capital outflows and declining foreign direct investment (FDI) (Moody's, 2023). Without proactive adaptation strategies, SSA risks further investment declines, ultimately weakening long-term economic growth (World Bank, 2023).

Responding to the Challenge – Mitigation and Adaptation Priorities in SSA

Estimating SSA's climate investment needs is complex due to uncertainties in climate impacts, policy shifts, and technology. The UNDP NDC database shows adaptation costs often exceed mitigation costs, given SSA's high vulnerability to extreme weather, droughts, and rising temperatures. As NDCs evolve, financing strategies are becoming more targeted (See Annex 1).

Adaptation Investment Needs

Despite urgent adaptation needs, SSA faces a critical shortage of climate finance, hindering resilience efforts. SSA requires major adaptation investments in water management, agriculture, health, and infrastructure. The UNFCCC estimates $140–$300 billion annually is needed by 2030. Yet, adaptation finance remains insufficient—only 47% of Africa's climate finance supports adaptation, compared to 54% for LDCs and 53% for SIDS (UNEP, 2024). Debt dominates adaptation financing, with 57% of funds in loan form, mostly concessional (69%), though some LDCs receive non-concessional debt (UNEP, 2024; UNCTAD, 2024). As Africa's external debt outpaces GDP growth, reliance on loans raises risks. To close the gap, SSA needs increased public-private partnerships, concessional financing, and regional cooperation to scale disaster risk reduction, resilient infrastructure, and sustainable agriculture while ensuring fiscal sustainability.

Mitigation Investment Needs

Climate mitigation investments are essential for SSA but face major financing challenges. The IMF (2023) estimates that $2 trillion annually is needed for global climate mitigation, including renewable energy, energy efficiency, and low-carbon infrastructure in EMDEs. In SSA, mitigation must also drive economic diversification, particularly in resource-rich, least-developed countries reliant on fossil fuel revenues. McGlade and Ekins (2015) estimate that up to 90% of coal, 26% of gas, and 34% of oil reserves in Africa may need to remain untouched, posing risks of stranded assets and fiscal losses as global climate policies tighten (Akiwumi, 2021). A just transition requires repurposing reserves, expanding renewable energy, and developing carbon capture technologies to sustain growth while achieving net-zero goals.

SSA holds 59% of global solar potential but only 1% of installed capacity (IRENA, 2023), presenting a vast opportunity to scale up solar, wind, and hydro energy. Wind potential exceeds 180,000 TWh annually, particularly in Kenya and Ethiopia, while hydropower provides 17% of SSA's electricity but faces risks from climate variability (AfDB, 2022).

However, financing gaps, infrastructure deficits, and political uncertainty hinder clean energy expansion. SSA's climate vulnerability—including droughts, floods, and extreme temperatures—exacerbates risks to agriculture, water, and infrastructure, complicating long-term investment. Despite urgent capital needs, UNFCCC, and UNDP stress that climate finance remains insufficient to meet SSA's mitigation and adaptation demands.

To prevent stranded assets and ensure a just transition, SSA must strengthen climate finance, improve regional coordination, and expand public-private partnerships to accelerate low-carbon industrialization and economic resilience.

Enhancing Climate Financing—a Pathway to Build Resilience

Both public and private finance play critical roles in scaling up climate financing in SSA. While public financing remains essential for adaptation and early-stage investments, private sector engagement is necessary to bridge the significant financing gap for climate mitigation and low-carbon development. Given their distinct roles, targeted policy responses are required to address the barriers facing public and private financing.

Expanding green finance in SSA is crucial for climate resilience, but financial risks must be carefully managed to preserve stability. Many SSA countries face gaps in risk-based financial supervision, with weak prudential oversight, limited regulatory capacity, and scarce supervisory resources. Financial regulators often lack the tools to assess climate-related credit, liquidity, and operational risks, while underdeveloped bond markets further constrain climate finance. Ensuring that climate finance aligns with risk-based regulations and financial stability principles is essential. Strengthening regulatory frameworks, enhancing financial disclosures, and conducting climate stress tests can improve oversight and risk mitigation. Without careful risk assessments, policies such as carbon pricing mechanisms, feed-in tariffs, blended finance, concessional loans, and debt-for-climate swaps risk distorting markets, increasing sovereign debt vulnerabilities, or misallocating resources. Additionally, strategic national priorities must be clearly defined to support climate finance while maintaining financial stability. Robust transparency and accountability measures will be key to ensuring that climate financing mechanisms function effectively without increasing financial sector vulnerabilities. The role of regulatory bodies in aligning SSA's financial sector with global prudential standards must be emphasized, particularly through initiatives such as RSF programs and green finance roundtables (See Box 3).

Box 3. The Role of the IMF's Resilience and Sustainability Facility (RSF) in Advancing Climate Finance in SSA

Regional cooperation and multilateral partnerships are critical for scaling up climate finance in Sub-Saharan Africa (SSA). The IMF's Resilience and Sustainability Facility (RSF) has been instrumental in supporting SSA countries through policy reforms across fiscal, sectoral, and financial pillars, strengthening their capacity to mobilize climate finance.

Fiscal Reforms & Climate Budgeting: Several RSF-supported countries, including Côte d'Ivoire and Senegal, have established climate finance units within their ministries of finance to enhance inter-agency coordination and align climate policies with budgetary planning (IMF, 2024a). Additionally, as part of the RSF reforms in Ivory Coast, a key measure was the establishment of a national commission to oversee climate change issues, operating under the auspices of the Prime Minister's office. This initiative, implemented last year, aims to strengthen climate policy coordination, and ensure a more cohesive and strategic approach to addressing climate challenges in the country. The Ministry of Economy and Finance (MinEcoFin) in Rwanda is in the process of setting up its climate finance, which aligns with commitments outlined in the new Climate and Nature Finance Strategy (CNFS).

Rwanda's RSF support was instrumental in developing a green taxonomy, which defines what qualifies as a green investment in alignment with national goals. This taxonomy provides clear, actionable guidelines, helping investors identify and prioritize sustainable projects.

In addition, RSF facilitated the development of policy frameworks, regulatory reforms, and capacity-building initiatives, creating a robust enabling environment for green finance. These strategic efforts laid the foundation for Rwanda to establish a green bond market, positioning both public and private sectors to capitalize on green financing opportunities in the future.

Sectoral Investments & Renewable Energy: Cabo Verde's RSF arrangement has supported ongoing work to facilitate investments in renewable energy and climate-resilient infrastructure, strengthening its ability to transition to a low-carbon economy (IMF, 2024c).

Climate Finance Roundtables & Public-Private Partnerships: Senegal has actively participated climate finance roundtables convened by the IMF, which have been instrumental in connecting SSA governments with international financial institutions and private investors to mobilize much-needed financing for climate adaptation and mitigation efforts (IMF, 2024d).

Key Trends in Climate Finance

SSA's limited access to global debt markets—driven by macroeconomic instability, high sovereign risk, and weak financial infrastructure—restricts both general capital flows and climate financing. Elevated borrowing costs, currency volatility, and low investor confidence have constrained green bond issuance, mirroring broader debt market challenges. As green finance depends on stable macroeconomic conditions and strong regulatory frameworks, addressing debt sustainability, creditworthiness, and investor protections is crucial to unlocking larger climate finance flows.

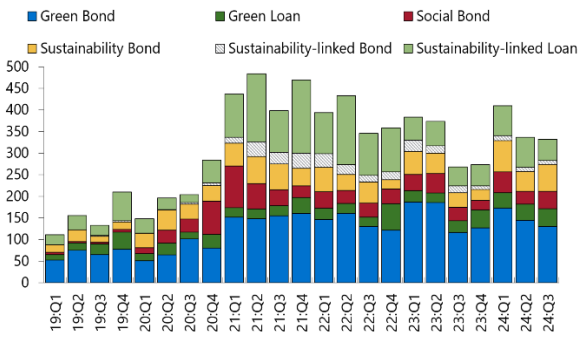
The paper acknowledges the significant gap in climate finance flows to SSA despite the region's urgent need for investment in resilience and mitigation. However, this challenge cannot be viewed in isolation from broader financial market dynamics. A fundamental constraint is that 'climate finance' is unlikely to flood into a country if 'finance' in general does not. SSA represents only a small fraction of global debt issuance, and the low levels of climate finance are not just a reflection of climate-specific challenges but also broader issues such as perceived investment risks, inadequate returns, and high financing costs. While policy reforms and institutional improvements are critical for unlocking climate finance, they must be embedded within broader strategies to enhance financial market depth, improve creditworthiness, and create a more attractive investment environment. Addressing macroeconomic stability, sovereign risk, and pricing mechanisms will be key to not only scaling up climate finance but also strengthening overall financial flows into the region. Without these foundational improvements, climate finance will continue to face structural barriers to mobilization, limiting SSA's ability to meet its climate adaptation and mitigation goals.

While green finance is often used interchangeably with climate finance, it is important to distinguish between the two. The UNEP (2016) definition of green finance extends beyond climate-related investments to include broader environmental sustainability aspects, such as biodiversity conservation and ecosystem restoration. However, this note focuses primarily on climate finance, which refers specifically to financial flows directed toward projects and initiatives that mitigate greenhouse gas emissions or enhance climate resilience. Climate finance includes funding for renewable energy, energy efficiency, sustainable agriculture, and climate-resilient infrastructure, often supported by instruments such as green bonds, sustainability-linked loans, and concessional financing mechanisms.

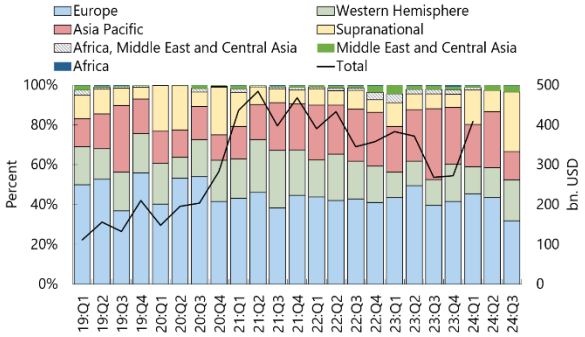
Climate finance, and green finance more in general, has experienced significant global growth, with rising investments in renewable energy, sustainable agriculture, and climate resilience projects (Figure 4). However, in SSA, climate finance remains limited and disproportionately low compared to global levels. Despite the region's acute vulnerability to climate change and the pressing need for adaptation and mitigation, financial constraints—such as weak financial markets, regulatory barriers, and restricted capital access—continue to hinder progress. As a result, while the global momentum for green and climate financing accelerates, SSA has yet to fully capitalize on available opportunities.

Figure 4. Global Green and Other Sustainable Bond Issuance

1. Global Sustainable Debt Issuance by Type
(Billions of U.S. dollars)



2. Global Sustainable Debt Issuance by Region
(Percent, Billions of U.S. dollars)



Source: Bloomberg, Green Bond issuance (public and private) by AFR entities in 2010-23

Global Trends

Climate financing is crucial for climate resilience and sustainable development in Sub-Saharan Africa (SSA), yet the region lags far behind global trends. While global green bond issuance reached $500 billion in 2022, SSA contributed just $4.2 billion between 2013 and 2021. Even in 2023, SSA issued only $1.4 billion in green bonds, a fraction of its $685.5 billion external debt (IFC, 2024; ONE Data, 2023). This highlights the urgency of scaling up climate finance across the region.

Structural barriers—underdeveloped capital markets, weak regulatory frameworks, and high perceived investment risks—limit both traditional and green finance. Green bonds remain a marginal part of SSA's debt market, with Eurobond issuances in early 2024 ($4.85 billion) exceeding SSA's total green bond issuance over multiple years (CGD, 2024). Beyond general financial constraints, specific hurdles include the lack of standardized green finance taxonomies, insufficient bankable projects, and high capital costs.

Private investment is critical for bridging SSA's climate finance gap but remains low—just 18% of Africa's climate finance came from private sources in 2021/22, compared to 39% in East Asia and 86% in North America (Climate Policy Initiative, 2024). Moreover, private funding is heavily concentrated in South Africa and Nigeria.

Laying the Ground for Climate Financing in SSA

Several reforms and plans are underway in SSA countries to create a more favorable environment for climate financing (Box 4). These initiatives aim to attract both domestic and international investment in climate-resilient, low-carbon development by strengthening regulatory frameworks, improving financial transparency, and building institutional infrastructure. However, ensuring that climate finance does not introduce new financial stability risks requires a multi-pronged approach. Many SSA authorities still face structural limitations in financial supervision, particularly in the banking sector, where risk-based oversight of climate-related exposures remains weak. Without addressing these longstanding supervisory gaps, increased climate financing—especially through public or state-affiliated institutions—risks leading to misallocated investments, heightened default risks, and governance challenges.

Strengthening prudential supervision frameworks, enhancing financial regulation, and equipping financial institutions to assess and manage climate-related risks will be critical to ensuring that climate finance supports sustainable and stable economic development. While national-level reforms such as climate finance enhanced taxonomies[2] and sovereign green bond programs (e.g., in South Africa and Kenya) are positive developments, they must be accompanied by strong governance safeguards and financial oversight mechanisms. Many SSA financial institutions lack adequate risk assessment models for green projects, which could hinder the scalability and sustainability of climate financing efforts. Strengthening corporate governance, institutional capacity, and regulatory alignment with international best practices is therefore an essential step in unlocking SSA's green finance potential while maintaining financial system stability.

Box 4. Successful Initiative in Scaling up Green Financing in SSA

- **Nigeria's Sovereign Green Bond Program**: Nigeria became the first African country to issue a sovereign green bond in 2017, raising ₦10.69 billion (approximately USD 30 million) to fund renewable energy, afforestation, and sustainable agriculture projects. While afforestation extends beyond climate finance into broader environmental sustainability, the initiative is a useful example of how green finance mechanisms can be leveraged for climate adaptation and mitigation. A second green bond, worth ₦15 billion (around USD 41 million), was issued in 2019 to finance additional projects aligned with Nigeria's Nationally Determined Contributions (NDCs). The green bonds have funded solar energy installations in rural communities, reforestation programs, and other environmentally sustainable projects. These initiatives have helped Nigeria reduce greenhouse gas emissions and enhance energy access. They also demonstrate the country's commitment to sustainable development while attracting international attention to its green finance market.
- **Kenya's Green Bond Program** - In 2019, Kenya issued its first green bond, raising 4.3 billion Kenyan shillings (approximately USD 40 million) to finance sustainable projects, including eco-friendly student housing. The bond was listed on the Nairobi Securities Exchange and the London Stock Exchange and helped mobilize private sector investment for green projects and provided a pathway for future green bonds in the country. It also strengthened Kenya's green finance ecosystem overall, paving the way for additional investments in renewable energy, clean transportation, and sustainable agriculture.
- **South Africa's Renewable Energy Independent Power Producer Procurement Programme (REIPPPP)**: Launched in 2011, REIPPPP is a flagship green financing initiative aimed at boosting renewable energy production through public-private partnerships. The program attracted significant foreign and domestic investment, totaling over USD 20 billion, to support the development of solar, wind, and hydroelectric power projects. The REIPPPP has added over 6,000 MW of renewable energy capacity to South Africa's power grid, reduced greenhouse gas emissions, and created thousands of jobs. It serves as a model for other SSA countries looking to scale up green financing and transition to low-carbon energy systems.
- **Benin's SDG Eurobond Issuance**: In 2021, Benin became the first African country—and one of the first globally—to issue an SDG (Sustainable Development Goals) Eurobond, raising €500 million (328 billion CFA francs) with a 14-year maturity (Ministry of Economy and Finance of Benin, 2021). The bond is specifically designed to finance a portfolio of social and environmental projects that advance Benin's commitments to the SDGs, including investments in education, healthcare, clean energy, and climate resilience. Benin's robust

[2] Climate finance taxonomies are classification systems that define which economic activities and financial instruments can be considered climate-aligned or environmentally sustainable. These frameworks help investors, policymakers, and financial institutions identify, track, and scale up investments that support climate mitigation and adaptation goals. By setting clear criteria for green bonds, sustainability-linked loans, and other climate finance instruments, taxonomies promote transparency, reduce greenwashing, and ensure that financial flows contribute effectively to climate action. Examples include the EU Taxonomy for Sustainable Activities and various national taxonomies developed to align with Paris Agreement targets and sustainable finance strategies.

SDG bond framework, complemented by allocation and impact reports in 2022 and 2023, underscores the country's dedication to sustainable finance. The success of this issuance has positioned Benin as a leader in Africa's sustainable finance market and offers a model for other WAEMU (West African Economic and Monetary Union) countries seeking to leverage innovative financial instruments for development.

- **Seychelles has been a pioneer in innovative climate financing, though on a small scale.** Debt-for-Nature Swap: In 2015, Seychelles implemented a debt-for-nature swap to support marine conservation and climate adaptation. This led to the creation of the Seychelles Conservation and Climate Adaptation Trust (SeyCCAT), funded by a $15.2 million loan from The Nature Conservancy and $5 million in grants. SeyCCAT used a $20.2 million loan to repurchase $21.6 million of sovereign debt at a discount, with at least $750,000 annually allocated for ocean stewardship, blue economy, and climate adaptation. Blue Bond: In 2018, Seychelles issued the world's first sovereign Blue Bond, raising $15 million to support sustainable marine and fisheries projects. The World Bank provided a $5 million guarantee, and the Global Environment Facility offered a $5 million concessional loan. Proceeds, including grants and loans, were used to fund projects via SeyCCAT and the Development Bank of Seychelles.

Scaling up Climate Financing - Survey Results

Against this backdrop, the team sought to assess the preparedness of SSA countries to scale up climate financing and address their climate challenges. This part summarizes the key findings from the Climate Finance Survey conducted between Spring and Summer 2024, which collected insights from IMF AFR country teams across the region (Annex II). The result of the survey reflects best knowledge of Fund desks and may not necessarily represent the views of country authorities. The survey's primary objective is to strengthen the policy dialogue on climate finance between country desks and government counterparts, utilizing a structured questionnaire and new cross-country data as a foundation for more focused and actionable policy discussions. As of March 2025, the survey achieved a response rate of 86%, with 42 out of 49 SSA country teams providing comprehensive responses. These contributions offer critical insights to guide future climate finance initiatives and help shape effective strategies for scaling up climate financing across the region.

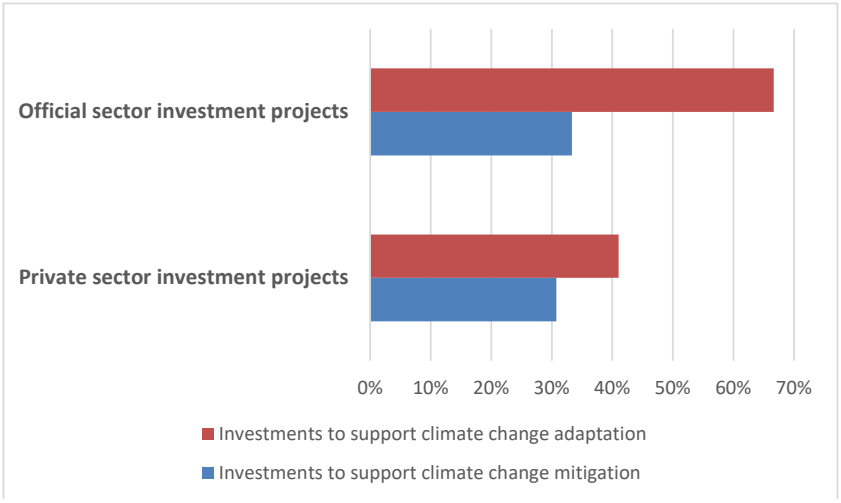
Adaptation Vs Mitigation

The trade-off between prioritizing mitigation and adaptation policies in SSA revolves around balancing long-term emissions reductions with the urgent need to build resilience to immediate climate impacts. SSA faces the complex challenge of addressing significant adaptation needs together with mitigation. On the one hand, the region must reduce greenhouse gas emissions to transition toward a low-carbon economy and contribute to global climate goals. On the other hand, SSA is highly vulnerable to the immediate impacts of climate change, such as droughts, floods, and food insecurity, which require substantial investments in resilience. These dual priorities necessitate careful decision-making, as countries must allocate limited resources between long-term efforts to mitigate future climate risks and short-term actions to protect communities and economies from ongoing and escalating climate threats. Balancing these needs is crucial for ensuring both sustainable development and the region's ability to cope with the current and future impacts of climate change.

The survey results confirm this dichotomy (Figure 5). Around 67 percent of desks report that climate finance needs in their country are largest when it comes to official sector financing for climate change adaptation projects. Even for climate-related private sector projects, multilateral development institutions (around 39 percent of respondents) and

national governments (around 28 percent of respondents) are seen as being most important relative to other funding sources. This reflects the limited set of climate-related projects that are attractive for private sector investments, particularly in the adaptation space.

Figure 5. IMF SSA Climate Finance Survey – Importance of Climate Finance Needs



Setting Up the Institutional Framework

Building the right institutions in SSA is crucial for attracting and effectively managing climate financing. Robust institutions ensure that climate finance is efficiently allocated to address the region's specific challenges, such as energy access, agricultural resilience, and infrastructure development. They also play a pivotal role in maintaining macroeconomic stability. This stability is foundational for managing credit and foreign exchange risks, which are critical concerns for investors in climate finance. Strong institutions foster a stable, transparent, and coordinated environment that boosts investor confidence, mitigates financial risks, and mobilizes both public and private capital. By laying this institutional groundwork and ensuring macroeconomic stability, SSA can scale up climate financing, enhance resilience, and progress toward sustainable, low-carbon development while avoiding financial vulnerabilities.

SSA faces significant challenges in establishing coherent climate targets, implementation strategies, and governance frameworks to scale up climate financing. While many countries have submitted Nationally Determined Contributions (NDCs) under the Paris Agreement, these targets often lack alignment with national development plans and financial strategies. Nowack et al. (2024) highlight that African NDCs and National Adaptation Plans (NAPs) frequently lack sufficient information for effective adaptation tracking due to partial coverage of the adaptation cycle and inconsistencies among components. Strengthening cross- and intra-country learning, facilitated by networks like the Adaptation Forum, could enhance coordination and effectiveness. The IMF's Staff Climate Note Climate Change and Select Financial Instruments: An Overview of Opportunities and Challenges underscores the urgent need for substantial financing across governments, businesses, and households in SSA to support adaptation and mitigation, while Harnessing Renewables in SSA: Barriers, Reforms, and Economic Prospects highlights the role of domestic and external financing in scaling renewable investments. The lack of a unified regional framework further exacerbates these challenges, as SSA countries

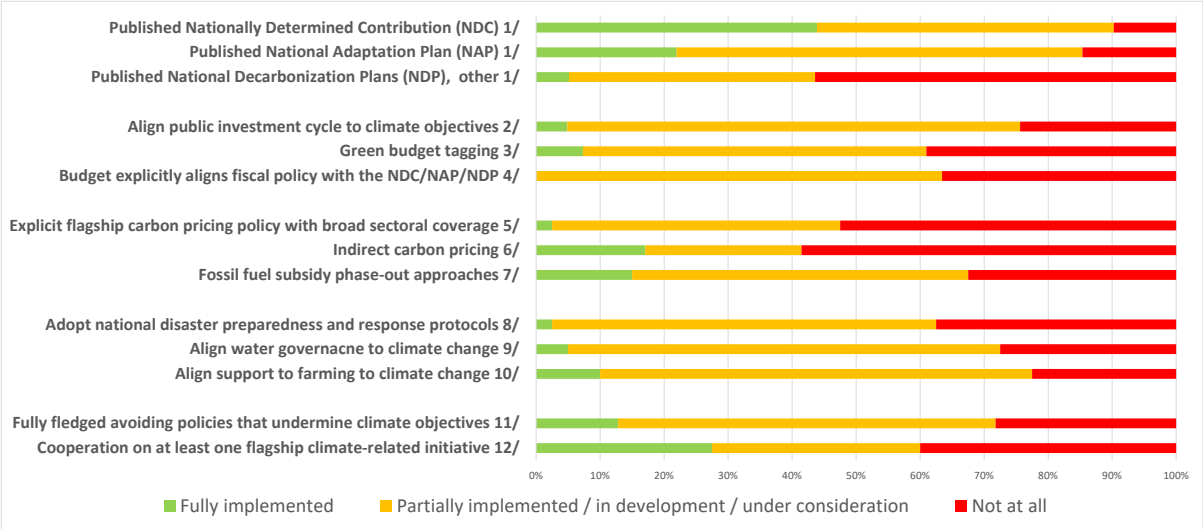
often approach climate financing independently rather than through coordinated efforts, which could enhance cross-border resource mobilization and policy harmonization.

Weak institutional structures and inconsistent regulatory environments limit the ability to attract and efficiently utilize climate financing. Although regional bodies such as the African Union and initiatives like the African Green Stimulus Program aim to provide strategic guidance, their impact remains constrained by uneven political commitment and resource allocation. Moreover, private sector involvement in climate financing is underdeveloped due to risks associated with political instability, weak legal systems, and inadequate market incentives. As a result, while there is growing recognition of the need for a comprehensive framework to link climate targets, implementation strategies, and governance structures, efforts in SSA remain at an early stage, with significant gaps in policy coherence and execution.

Moreover, robust public financial management and budgeting processes are vital for scaling up climate financing. These systems promote transparency, accountability, and efficient resource allocation to climate-related initiatives, while ex-ante and ex-post evaluations ensure the environmental impact and effectiveness of public investments are rigorously assessed. However, in SSA, weak institutional capacity, limited technical expertise, the absence of standardized green expenditure tagging, and political interference pose significant challenges to integrating and evaluating green content in public budgets and investments systematically.

Survey results show that SSA countries are making progress in establishing strategic frameworks to attract climate financing, though more efforts are needed. The survey reveals that while SSA countries are taking important steps to build the institutions needed for climate finance, more work remains. Key national planning tools, such as Nationally Determined Contributions (NDCs) and National Adaptation Plans (NAPs), have been put in place to guide and coordinate climate efforts—56% of respondents have detailed NDCs, and 33% have detailed NAPs (Figure 6). Additionally, dedicated institutional reforms are being pursued to access specific climate finance sources. Notably, 67% of respondents report having at least one national accredited entity capable of implementing projects under the Green Climate Fund (GCF) (Figure 7). These developments indicate progress but highlight the need for continued institutional strengthening to fully tap into available climate financing, with a view to improving the adequacy and effectiveness of infrastructures for financial regulation and supervision.

Figure 6. IMF SSA Climate Finance Survey – Action taken to Align Overall Strategy with Climate Objectives



1/ Includes quantitative targets and explicitly defined reform strategy to reach these targets

2/ Update of public investment management systems to ensure the project lifecycle takes into account climate change mitigation/adaptation objectives

3/ Includes (i) ex-ante tagging during budget planning and (ii) ex-post tagging when reporting on budget execution

4/ For instance: a carbon tax or emissions trading scheme

5/ Includes proper accounting for (i) spending needs to implement climate policies, (ii) climate-related taxes and (iii) fiscal risks linked to climate change

6/ Policies that increase the price of emissions but which may not have been originally introduced with an explicit climate objective), such as an excise duty on fossil fuels

7/ plan under implementation or outright no subsidy in place

8/ Adoption of a national disaster risk finance strategy, update of natural disaster early warning systems and government response/recovery protocols to support climate change adaptation

9/ Update of water management framework (access to drinking water, irrigation and/or flood drainage) to support climate change adaptation

10/ Update of government support programs for farmers (for instance grant/subsidy/training programs) to support climate change adaptation

11/ For instance, significant deforestation activity, start of new coal mining/power plants or lack of action to tackle venting/flaring emissions from other fossil fuel extraction act.

12/ For instance: IMF RSF, WB DPL and/or JETP), strengthening the credibility of the national climate strategy

Figure 7. IMF SSA Climate Finance Survey – Dedicated Institutional Capacity

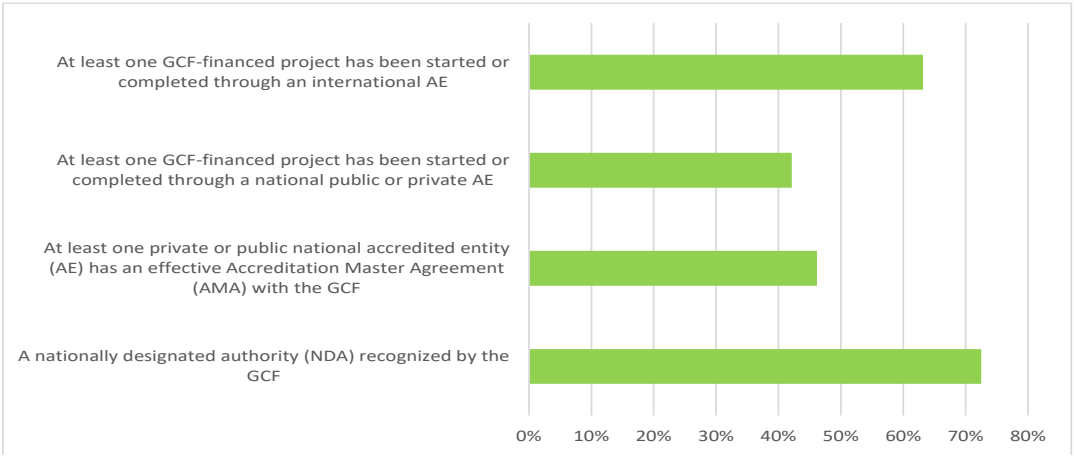


Table 2. IMF SSA Climate Finance Survey – Status of Explicit Tax Legislation

	Implemented	Under development	Under consideration	None of the above
South Africa	1			
Kenya		1		
The Gambia		1		
Democratic Republic of Congo		1		
Namibia		1		
Nigeria		1		
Uganda		1		
Benin			1	
South Sudan			1	
Gabon			1	
Guinea			1	
Cabo Verde			1	
Côte d'Ivoire			1	
Madagascar			1	
Mozambique			1	
Tanzania			1	
Togo			1	
Sierra Leone			1	
Senegal			1	
Angola				1
Botswana				1
Burkina Faso				1
Burundi				1
Cameroon				1
Chad				1
Comoros				1
Eswatini				1
Equatorial Guinea				1
Guinea-Bissau				1
Lesotho				1
Liberia				1
Mali				1
Mauritius				1
Niger				1
Republic of Congo				1
Rwanda				1
Sao Tome and Principe				1
Seychelles				1
Eritrea				1
Uganda				1
Zimbabwe				1
Total	**1**	**6**	**12**	**22**

Choosing the Policy Instruments

To drive private sector investment in climate action, SSA countries must implement a range of policy instruments that align private sector goals with national climate objectives. Rather than relying mainly on subsidies—which are often fiscally unfeasible for many countries in SSA—governments should focus on removing barriers to renewable energy development, as renewable energy is already the lowest-cost source of electricity generation (IRENA, 2024). Policy tools such as green bonds, carbon pricing mechanisms, feed-in tariffs, and tax incentives for green investments can effectively reduce risks and incentivize sustainable practices without imposing unsustainable fiscal burdens. Additionally, phasing out fossil fuel subsidies can level the playing field and further support the transition to renewable energy.

Robust regulatory frameworks are also essential to ensure transparency, reduce investor uncertainty, and promote the sustainability of climate-related projects. By prioritizing these approaches, SSA governments can attract private capital and foster long-term environmental and economic resilience across the region.

The survey results suggest that AFR countries are deploying a range of policy instruments, but subsidies are still prevalent (Tables 2 and 3).

Subsidies are most prominent, reflecting political economy dynamics. Policy makers focus attention on encouraging climate change mitigation in the electricity, transport, and building sectors.

However, even politically difficult reforms like carbon taxes are under discussion in many countries – suggesting that there is momentum. Out of the survey respondents, a carbon tax is in effect in South Africa and under development in Kenya, the Gambia, DRC, Namibia, Nigeria, and Uganda. It is under consideration in other eleven SSA countries.

The survey underscores a clear and predictable policy framework **is essential to** attracting private sector investment in climate resilience in SSA. Establishing well-structured tax, subsidy, and regulatory instruments can reduce uncertainty, lower adaptation costs, and mitigate financial risks, creating a stable environment for long-term investment. Targeted fiscal incentives**, such as** tax breaks for sustainable practices and subsidies for climate-resilient infrastructure, can drive private sector participation, while strong regulatory measures, including building codes, energy efficiency standards, and land-use policies, help integrate climate resilience into economic activities. In a region highly vulnerable to climate change, these policies can influence infrastructure development, insurance markets, and investment decisions, strengthening economic stability and climate adaptation. Ensuring alignment with global best practices will be key to scaling up climate finance and unlocking sustainable growth opportunities**.**

Table 3. IMF SSA Climate Finance Survey – Climate Policies in Place to Increase the Profitability of Climate-Friendly Sector Investments

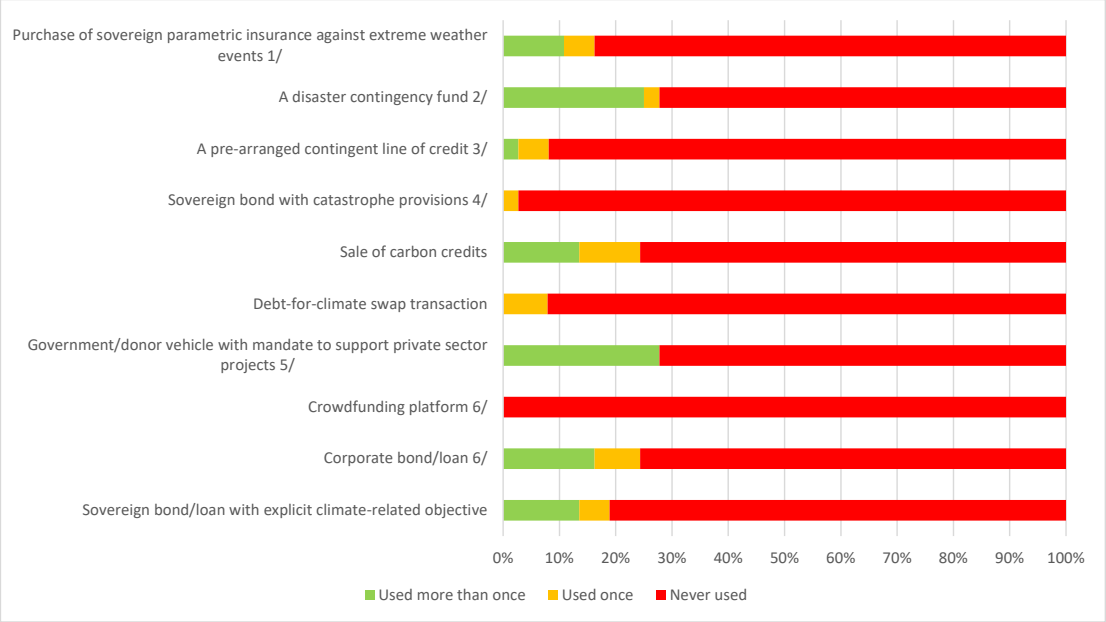
Policy instrument deployed (% of respondents)	Tax instrument (ex: explicit carbon tax)	Subsidy instrument (ex: subsidy/tax relief)	Regulation (ex: minimum energy efficiency standards)
Encourage shift of electricity generation mix towards solar and wind power	21.6%	43.2%	32.4%
Encourage greater vehicle fuel efficiency and/or electrification of the vehicle fleet	24.3%	21.1%	29.7%
Encourage building energy efficiency upgrades and/or electrification of heating/cooling systems	5.4%	16.2%	27.0%
Encourage industrial sector energy efficiency upgrades and/or electrification	13.5%	18.9%	21.6%
Encourage improving the resilience of the building stock to extreme weather events (for instance by changing the quality and location of the building stock)	5.4%	5.4%	21.6%
Encourage adoption of private sector insurance against climate-related extreme weather events (for instance property or casualty insurance for households or crop insurance for farmers)	8.1%	8.1%	16.7%

Choosing the Climate Finance Products

SSA has a range of climate finance products that can help bridge financing gaps and support a low-carbon, climate-resilient economy. Key climate finance products in SSA include green bonds for renewable energy and infrastructure, climate adaptation funds such as those from the Green Climate Fund (GCF), and blended finance to attract private sector investment. Other tools, such as climate-smart agriculture financing, sustainability-linked loans (SLLs), Development Impact Bonds (DIBs), and carbon markets, offer diverse avenues for financing climate action and generating revenue through carbon credits. Additionally, public-private partnerships (PPPs) play a crucial role in fostering collaborative investments in climate-related infrastructure. Together, these products create a comprehensive financial ecosystem that can support SSA's transition to a sustainable, low-carbon future.

The survey highlights that several SSA countries are piloting innovative climate finance products, offering important lessons for scaling up climate financing across the region (Figure 8, Table 4). Countries such as Benin, Kenya, Namibia, Nigeria, and South Africa are exploring sovereign bonds with climate objectives, while Cabo Verde and Seychelles are testing debt-for-climate swaps. Additionally, Benin, Ghana, Kenya, Namibia, Seychelles, South Africa, and Uganda are utilizing government/donor financial vehicles to support private sector investments in climate-friendly projects. These varied approaches provide valuable insights into how different climate finance products can be effectively deployed. Understanding the success factors for these instruments will be crucial for expanding and optimizing climate finance in the region.

Figure 8. IMF SSA Climate Finance Survey – Use of Flagship Financial Products with Explicit Climate/Transition/Green Sustainability Label



1/ Includes explicit climate-related objective
2/ Including climate-related objectives through equity/debt co-financing (for instance a National Green Bank) or through de-risking guarantees (for instance against default/FX/regulatory/counterparty risks)
3/ Provisions in which private/official lenders lighten debt service requirements in the event of a natural
4/ Line of credit that can be drawn on when climate-related natural disasters materialize
5/ A fund the budget can draw on when climate-related natural disasters materialize
6/ Including membership in regional insurance risk pooling facilities like the African Risk Capacity (ARC

Table 4. IMF SSA Climate Finance Survey – Specific Climate Finance Products in Selected Countries

	Angola	Benin	Botswana	Burkina Faso	Burundi	Cabo Verde	Chad	Comoros	Côte d'Ivoire	Equatorial Guinea	Ghana	Guinea	Guinea-Bissau	Kenya	Lesotho	Madagascar	Mali	Mauritius	Mozambique	Namibia	Niger	Nigeria	Senegal	Seychelles	South Africa	Tanzania	Togo	Uganda	Zimbabwe
Sovereign bond/loan with explicit climate-related objective	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1	1	0	1	1	0	0	0	0
Corporate bond/loan 1/	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0	1	0	1	0	1	0	1	0	0	1	1	0	0	0
Crowdfunding platform 1/	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Government/donor vehicle with mandate to support private sector projects 2/	0	1	0	0	0	0	0	0	1	0	1	0	0	1	0	1	0	0	0	1	0	0	0	1	1	0	0	1	0
Debt-for-climate swap transaction	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
Sale of carbon credits	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	1	1	0	0	1	0	1	0	0	1	0	0	1	0
Sovereign bond with catastrophe provisions 3/	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
A pre-arranged contingent line of credit 4/	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	1	0	0	0	1	0
A disaster contingency fund 5/	0	1	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	1	1	1	0	0	1	0	1	0	1	0
Purchase of sovereign parametric insurance against extreme weather events 6/	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	1	0	0	0

1/ Includes explicit climate-related objective
2/ Including climate-related objectives through equity/debt co-financing (for instance a National Green Bank) or through de-risking guarantees (for instance against default/FX/regulatory/counterparty risks)
3/ Provisions in which private/official lenders lighten debt service requirements in the event of a natural disaster
4/ Line of credit that can be drawn on when climate-related natural disasters materialize
5/ A fund the budget can draw on when climate-related natural disasters materialize
6/ Including membership in regional insurance risk pooling facilities like the African Risk Capacity (ARC) group)

Institutional Challenges in Climate Finance

Weak financial systems and governance structures remain major obstacles to climate finance mobilization in SSA. The reality for many SSA countries is that basic preconditions for scaling up climate financing are not met. Many financial systems lack deep capital markets, face high credit risks, and struggle with weak financial supervision. Before expanding climate financing, SSA policymakers must first address existing deficiencies in risk-based supervision and financial infrastructure. From an implementation perspective, certain climate finance instruments require deeper risk assessments, particularly in the SSA context:

Carbon pricing mechanisms, while effective in high-income economies, require strong fiscal institutions, enforceability, and market depth—conditions that many SSA economies lack. The administrative capacity to implement carbon taxes and emissions trading schemes remains limited, raising risks of distortions and noncompliance, with poorly designed taxes potentially placing disproportionate burdens on low-income populations. Similarly, feed-in tariffs and renewable energy subsidies, though instrumental in incentivizing green energy deployment, carry significant fiscal risks. Without careful structuring, these mechanisms could create unsustainable fiscal liabilities, particularly in SSA economies constrained by tight public finances. Blended finance and sustainability-linked loans offer a means to mobilize private capital, yet they also introduce new credit risks. The absence of robust credit risk assessment tools for green projects in SSA increases the likelihood of mispriced risks and nonperforming loans within climate finance portfolios.

Development impact bonds and debt-for-climate swaps, while promising in theory, demand a sophisticated financial infrastructure that remains underdeveloped in many SSA countries. Poorly designed debt swaps could exacerbate sovereign debt risks, particularly if they fail to attract sufficient private sector participation. Likewise, concessional loans for green investments, if not carefully managed, may distort credit markets by encouraging investments that would otherwise be unviable under normal market conditions. Without strong due diligence frameworks, such lending could undermine financial stability and increase vulnerabilities in SSA's banking system.

Survey results indicate that many SSA authorities lack the supervisory tools and institutional capacity to manage climate-related financial risks effectively. While some progress has been made in integrating climate finance into national development plans, the capacity for risk-based supervision remains limited across most SSA financial systems.

Strategy and Governance

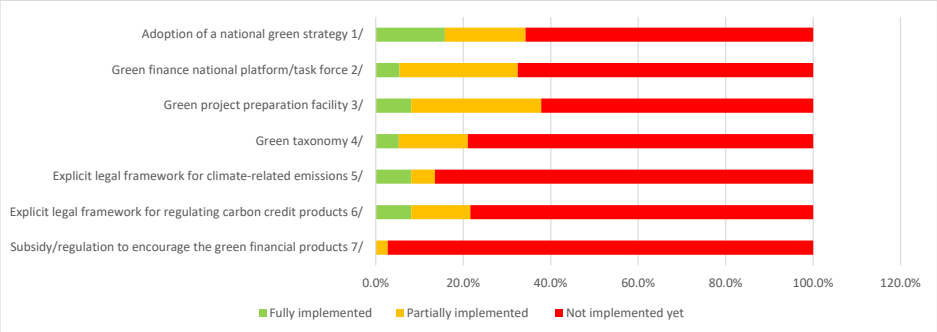
Effective governance and strategic planning are key to attracting climate finance and ensuring long-term sustainability in SSA. A clear strategic vision and robust governance framework are essential for scaling up climate financing in SSA, particularly in a region where political cycles can be fragile. Investors prioritize countries with well-defined mitigation and adaptation objectives, as policy predictability and strong institutional capacity are critical to reducing investment risk. According to the International Finance Corporation (IFC, 2023) green investors assess regulatory stability, policy coherence, and government commitment when allocating climate finance. Eyraud et al. (2021, IMF Working Paper) further highlight that clear policy frameworks, climate finance strategies, and institutional transparency significantly influence investment decisions in sustainable projects. Countries with transparent decision-making processes, dedicated climate finance institutions, and cross-sector coordination mechanisms—such as green finance ministries or climate investment committees—are better positioned to attract and sustain green investment flows. For example, Benin's Sustainable Development Goal (SDG) bond issuance (2021) and South Africa's Just Energy Transition Investment Plan have successfully mobilized climate finance through structured governance mechanisms and well-defined investment pathways (World Bank, 2023).

The survey results indicate that while significant initial steps have been taken to establish a strategic and institutional framework for supporting climate financing, there is still ample room for improvement (Figure 9). Approximately 40% of respondents report having fully or partially implemented a national climate strategy, along with the creation of a national climate finance platform or task force. These platforms play a crucial role in fostering collaboration among

stakeholders, including government entities, private sector participants, and civil society, to drive climate financing initiatives. Additionally, about half of the respondents have successfully established a climate project preparation facility, which is instrumental in attracting private investment and engaging multilateral and bilateral agencies. This facility helps streamline project development, ensuring alignment between investors' climate priorities and the country's sustainable vision.

Despite these advancements, challenges remain. Notably, few respondents indicated having an explicit legal framework aimed at reducing greenhouse gas emissions or bolstering a carbon credit market, both of which are vital for creating an environment conducive to long-term investment in climate initiatives. Furthermore, there is an absence of mechanisms to promote innovative climate finance products tailored to the local context. This gap highlights the need for comprehensive legislative and regulatory reforms that would provide clearer guidelines and incentives to encourage the growth of a diverse array of climate financial products, enhancing the overall investment climate for sustainable development within these nations. Addressing these shortcomings will be essential for realizing the full potential of climate financing and achieving meaningful progress in combating climate change in the region.

Figure 9. IMF SSA Climate Finance Survey – Steps Taken to Facilitate the Use of Financial Products with Explicit Climate/Transition/Green Sustainability Label



1/ Published document that sets out the government's strategy to encourage climate finance (for instance a green finance roadmap)
2/ National platform/task force operational to coordinate the implementation of the national climate finance strategy
3/ Facility operational, identifying list of climate-related investment project opportunities
4/ Green taxonomy published, establishing a framework for identifying climate-informed investments
5/ Primary/secondary legislation establishes explicit framework for sovereign and corporate bonds/loans with explicit climate-related label3
6/ Primary/secondary legislation establishes explicit framework regulating carbon credit products
7/ Subsidy/regulation to encourage the use of flagship financial products with explicit climate/green/sustainability label (for instance privileged

The Financial Landscape

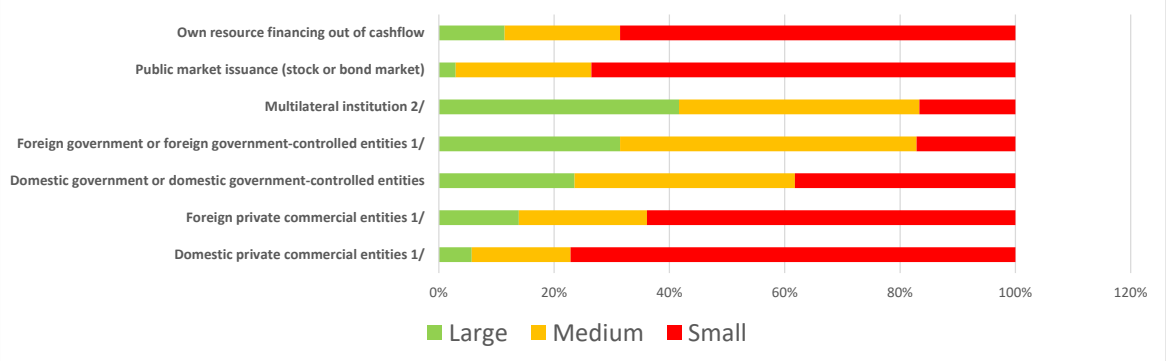
Attracting climate-related private sector investment in SSA is hindered by various challenges associated with different financial instruments. These include high perceived risks such as political instability, low credit ratings, and underdeveloped financial markets. Moreover, the fragmented nature of climate finance initiatives across SSA reduces the effectiveness of individual national efforts in mobilizing large-scale financing. Regional collaboration is essential to enhance economies of scale, improve financial resilience, and strengthen the regulatory framework for climate finance in SSA. Cross-border initiatives can improve financial efficiency and facilitate investment by pooling resources and harmonizing policies. Priority actions include Developing regional climate finance mechanisms such as cross-border climate bonds and joint access to international climate funds to increase funding efficiency. These mechanisms would allow multiple SSA countries to jointly issue climate-focused bonds, reducing borrowing costs and attracting larger institutional investors. Harmonizing climate risk regulatory frameworks through regional bodies, including ECOWAS,

the East African Community (EAC), and the Southern African Development Community (SADC). A common regulatory approach to green bond standards, climate disclosure requirements, and risk mitigation frameworks can reduce investment barriers and align SSA's financial system with global best practices. Expanding regional climate insurance facilities to protect vulnerable economies from climate-related financial losses. Strengthening regional risk-pooling mechanisms, such as the African Risk Capacity (ARC), can enhance financial resilience and provide a safety net for countries facing climate disasters. While broader climate finance initiatives remain relevant, prioritizing climate risk within regional financial integration ensures that SSA's regulatory frameworks align with international best practices in climate finance supervision and investment mobilization. Strengthening cross-border cooperation will unlock larger pools of capital, facilitate the flow of climate finance, and enhance the region's ability to address both adaptation and mitigation challenges.

In SSA, the landscape of climate financing is heavily dominated by funding from external sources rather than domestic private sector involvement (Figure 10). According to survey results, over 90% of the climate financing in the region originates from multilateral institutions or foreign governments, highlighting a reliance on international support to meet climate-related financial needs. Furthermore, approximately 70% of respondents report that their primary source of climate financing comes from direct governmental support or entities controlled by the government. This reliance on public funding is compounded by the limited role of direct public market issuance, which remains minimal—a result of weak market infrastructure and the absence of a cohesive green taxonomy that could help clarify investment opportunities and attract a broader range of investors.

The limited role of foreign and domestic commercial entities in SSA's climate financing reflects structural barriers rather than untapped liquidity, emphasizing the need to address investment constraints. While SSA faces significant liquidity challenges (IMF, 2023; World Bank, 2023), private sector engagement depends on expanding financial instruments, de-risking investments, and strengthening regulatory frameworks, rather than assuming surplus capital. Underdeveloped capital markets, high investment risks, and limited climate finance instruments have constrained private flows (CPI, 2024). However, improving market infrastructure, establishing a clear green taxonomy, and enhancing regulations can reduce risk perceptions and attract private capital. Leveraging blended finance, public-private partnerships, and risk-sharing mechanisms can help diversify funding sources and scale climate finance, despite existing liquidity constraints. Strengthening financial sector depth, credit enhancement tools, and policy alignment remains key to bridging financing gaps and driving a low-carbon transition.

Figure 10. IMF SSA Climate Finance Survey – Relative Importance of Financing Sources



1/ Loan/equity financing
2/ For instance the World Bank Group (WBG) International Finance Corporation (IFC))

Towards a Climate Finance Preparedness Index

The survey provided valuable insights, based on concrete experience from country teams, into the most impactful **measures and policies implemented by authorities to catalyze climate finance.** Key trends and impactful policies include the following:

- Institutional Frameworks and Capacity Building, including the establishment of climate finance or climate change units (e.g., Zimbabwe's Climate Finance Unit, Uganda's Climate Change Department) and Specific training for national technicians and institutions on resource mobilization and accreditation for managing climate funds (Senegal, Mali).
- Legislative and Policy Frameworks, including the adoption of national strategies and plans such as National Adaptation Plans (NAPs), Nationally Determined Contributions (NDCs), and dedicated climate change laws (e.g., Benin, Ghana) and the development of enabling legislation for climate finance tools, including carbon trading regulations (Zimbabwe, Ghana).
- Financial Instruments and Market Initiatives provided valuable hands on experience and enhanced understanding of market practice, including issuance of green bonds (e.g., South Africa, Kenya), the establishment of climate funds, such as Namibia’s Green Climate Fund or Angola's Climate Fund.
- Several countries indicated that other enabling measures included the approval of tax incentives for renewable energy investments (various countries), the Integration of climate parameters into macroeconomic and fiscal planning (Uganda, Senegal), and the promotion of PPPs for renewable energy and infrastructure projects, emphasizing private sector participation (Ghana, Angola).
- Strengthening the climate financing and sustainable development framework marked an important step for some, including the establishment of financing mechanisms like the Climate Finance Facility by the Development Bank of Southern Africa to de-risk private investments and the adoption of sustainable finance guidelines and principles by financial institutions (Ghana).
- Countries generally recognized the importance of engaging with regional and multilateral institutions. The value of collaboration with international entities like the World Bank, African Development Bank (ADB), and Green Climate Fund (GCF) for technical assistance and funding is evident (Kenya, Zimbabwe, Benin). At the same time, several county specific programs helped lay the ground for climate financing, including in programs like Kenya's Financing Locally Led Climate Action (FLLoCA) to drive adaptation and green enterprise initiatives at community levels.
- Some country-specific experience stands out for their advancement. Benin developed a robust legislative framework, issued an SDG Eurobond, and established the Caisse des Dépôts et Consignations du Bénin for climate-related investment. Zimbabwe is implementing its NDCs with a strong focus on renewable energy, sustainable waste management, and afforestation. Ghana: Leveraged its Carbon Market Framework for partnerships and substantial funding under Article 6 of the Paris Agreement.

Teams also indicated that efforts to scale up climate financing in SSA face significant challenges, including constrained financial resources, capacity limitations, and competing development priorities. While countries like Angola have integrated climate action into broader national strategies, leveraging public-private partnerships and targeted frameworks like the National Strategy for Climate Change (ENAC), others, such as Burundi and Mali, are

hindered by political instability, limited financing, and an array of pressing policy priorities. Innovative mechanisms, such as debt-for-climate-investment swaps, are being explored in countries like São Tomé and Príncipe, but implementation often remains complex and resource-dependent.

A key strategy for advancing climate financing involves creating enabling environments through land security, tax incentives for climate-related imports, and risk-mitigation instruments. Countries like Ghana have deployed guarantees, concessional loans, and blended finance models to attract private sector investment in renewable energy and infrastructure, while Benin explores climate finance facilities with technical support from development banks. However, many countries still struggle with weak institutional coordination, inadequate data on private sector participation, and limited adoption of de-risking mechanisms, emphasizing the critical need for capacity-building and international development support.

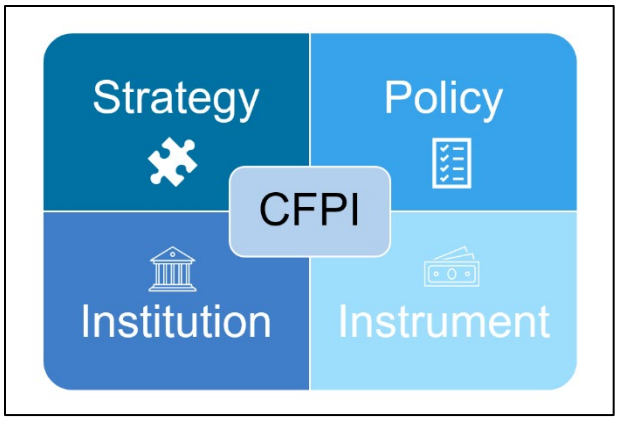
The results of the SSA Climate financing Survey offer a useful tool for developing a holistic understanding of countries' preparedness to scale up climate financing, serving as both a diagnostic and benchmarking tool. While individual metrics provide granular insights into specific dimensions such as policy frameworks, institutional readiness, and financial instruments, there may be value in aggregating these results into a unified, comprehensive index. A Climate Finance Preparedness Index could synthesize these elements, enabling a comparative analysis across nations and guiding teams in identifying strengths and weaknesses relative to peers. Such an index would support strategic planning and policy reform by providing a clear benchmark for progress and prioritizing interventions to accelerate climate financing adoption.

The team considered that, in laying the groundwork for increasing climate financing in SSA, the policy makers should consider the following four key dimensions, which are directly covered by the survey design:

Designing Conducive Green Policies: This dimension is critical as it establishes the foundational regulatory framework that encourages green investments. Policymakers must create laws and incentives that promote renewable energy, sustainable land use, and climate adaptation. A well-defined policy landscape not only attracts domestic investments but also foreign investments, fostering an environment supportive of sustainable development.

Defining and approving country climate strategies: After establishing conducive policies, countries need to articulate comprehensive climate strategies that set specific targets for sustainability and outline pathways to achieve them. These strategies should be inclusive, reflecting the input of various stakeholders, and should focus on aligning national priorities with global climate goals. Successful implementation depends on clear communication and strong political will.

Completing preparatory institutional steps: Institutions play a vital role in facilitating the use of climate financial products, particularly those aligned with the Green Climate Fund (GCF). This includes building capacities within financial institutions to manage and deploy climate finance effectively, establishing governance frameworks, and ensuring compliance with GCF standards. Adequate institutional readiness is essential for maximizing the potential of climate financing.



Approving climate finance flagship financial products: The development and approval of innovative financial products specifically designed for green initiatives can significantly enhance access to capital. This includes instrumentsl like green bonds, sustainability-linked bonds, and loans, as well as blended finance mechanisms. Policymakers should ensure these products are structured to meet market needs while driving investments in climate-resilient projects.

Against this background, the proposed Climate Finance Preparedness Index (CFPI) is designed to aggregate and normalize responses from country teams across these four key dimensions of climate financing readiness (Annex III). In the dimension of enabling policies, for example, each approach—such as tax instruments, subsidies, and regulations—carries equal weight of 33%, reflecting the count of possible answers. Similarly, within each of these approaches, the six responses are assigned identical weights to ensure a balanced evaluation. In other dimensions, such as the design of a strategic framework, weights decrease systematically, ranging from a full score of 100% for fully implemented components to a score of 20% for those merely under consideration. The results for each participating country are subsequently summed across all dimensions and normalized to provide a comprehensive assessment of readiness. Countries scoring within the range of 50 to 100 are classified as "well-prepared," indicating a strong capacity for climate financing implementation. Those with scores between 20 and 50 are categorized as "somewhat prepared," reflecting moderate readiness, while countries scoring below 20 are classified as "not prepared," highlighting significant gaps in their climate financing capabilities. This structured approach ensures that the index provides a clear and comparable measure of each nation's preparedness for advancing climate financing initiatives.

While the Climate Finance Preparedness Index (CFPI) is based on responses from Fund country teams, efforts have been made to ensure the reliability and consistency of the assessment. The survey was designed with structured, objective criteria that minimize subjectivity, focusing on quantifiable indicators such as the presence of climate strategies, regulatory frameworks, and financial instruments. Additionally, the index does not aim to provide a definitive ranking but rather serves as a diagnostic tool to help identify gaps and benchmark progress over time. To mitigate concerns about expertise variability and evolving familiarity with climate finance, the survey methodology includes standardized guidance for respondents, ensuring comparability across country teams. Periodic refinements to the framework, along with engagement with external climate finance experts and country authorities, will further enhance its robustness. Rather than a self-referential exercise, the index is intended to facilitate informed policy dialogue, enabling countries to track improvements, align strategies with best practices, and unlock greater climate financing opportunities.

The CFPI indicates that the majority of countries in SSA fall below the minimum standard of preparedness necessary for effectively scaling up climate financing (Figure 11). More than 13 countries have CFPI scores below 20 on the normalized scale, highlighting significant opportunities for action across all four dimensions crucial for climate financing readiness (Figure 12). While these countries may possess some strategic frameworks, primarily related to their commitments to producing Nationally Determined Contributions (NDCs), they typically lack concrete policies and flagship programs necessary for implementation. Approximately 16 countries score between 20 and 50 on the CFPI, indicating that they have developed solid strategic frameworks and implemented some noteworthy policies, such as targeted subsidies, sector-specific efficiency requirements, or taxation aimed at reducing greenhouse gas emissions. 13 countries boast scores above 50, showcasing an advanced level of preparedness characterized by not only robust strategic and policy frameworks but also the establishment of dedicated institutions to facilitate the scaling-up process and attract increased green investment. Additionally, these countries have already implemented specific financial instruments that support their climate financing initiatives, positioning them as leaders in the region. It is noteworthy that the index aligns closely with the list of countries—Nigeria, Kenya, South Africa, Benin, and Seychelles—highlighted in Box 3 as having successfully engaged in climate financing.[3]

Figure 11. IMF SSA Climate Finance Survey – Preparedness Index

[3] We have analyzed the consistency between the Climate Finance Preparedness Index (CFPI), the Notre Dame Global Adaptation Initiative (ND-GAIN) Readiness Index, and the Climate Policy Initiative (CPI), providing infographic on the share of climate finance which are met. Overall, we observe good alignment between the CFPI and CPI, as both methodologies produce a similar ranking of countries in the upper half. However, the ND-GAIN Readiness Index covers a significantly broader spectrum of factors beyond the CFPI survey, including Business Environment, Investment Freedom, Political Stability, Governance, and Social Inequality. Given this wider scope, a strong correlation between ND-GAIN and CFPI is neither expected nor necessary. While CFPI focuses specifically on assessing institutions, policies, and instruments related to climate finance, ND-GAIN provides a more comprehensive evaluation, integrating socio-economic, institutional, and governance dimensions.

Figure 12. IMF SSA Climate Finance Survey - Preparedness Index Sub-Component Breakdown

Countries	RSF Arrangement	Policies	Strategies	Products	Institutions	Total
Angola		0.00	0.01	0.00	0.00	0.01
Benin	Yes	0.28	0.17	0.08	0.25	0.77
Botswana		0.00	0.04	0.00	0.18	0.21
Burkina Faso		0.05	0.11	0.00	0.25	0.41
Burundi		0.00	0.05	0.00	0.25	0.30
Cabo Verde	Yes	0.03	0.11	0.03	0.03	0.19
Cameroon	Yes	0.02	0.07	0.00	0.13	0.21
Chad		0.00	0.06	0.00	0.00	0.06
Comoros		0.00	0.04	0.01	0.18	0.23
Côte d'Ivoire	Yes	0.10	0.09	0.05	0.18	0.41
Democratic Republic of Congo		0.00	0.06	0.01	0.13	0.19
Eritrea		0.00	0.00	0.00	0.08	0.08
Eswatini		0.00	0.02	0.00	0.00	0.02
Gabon		0.00	0.11	0.01	0.00	0.11
Ghana		0.18	0.12	0.04	0.25	0.58
Equatorial Guinea		0.00	0.02	0.00	0.03	0.04
Guinea		0.07	0.07	0.00	0.00	0.14
Guinea-Bissau		0.00	0.13	0.00	0.25	0.38
Kenya	Yes	0.08	0.12	0.07	0.25	0.52
Lesotho		0.00	0.05	0.00	0.18	0.23
Liberia		0.00	0.01	0.00	0.00	0.01
Madagascar	Yes	0.30	0.07	0.11	0.13	0.60
Malawi		0.00	0.00	0.00	0.00	0.00
Mali		0.00	0.05	0.00	0.00	0.05
Mauritius		0.02	0.12	0.05	0.13	0.31
Mozambique		0.03	0.08	0.02	0.25	0.38
Namibia		0.05	0.13	0.13	0.25	0.55
Niger	Yes	0.00	0.11	0.06	0.00	0.17
Nigeria		0.05	0.09	0.09	0.25	0.48
Republic of Congo		0.00	0.06	0.00	0.00	0.06
Rwanda	Yes	0.05	0.14	0.05	0.08	0.32
Sao Tome and Principe		0.07	0.05	0.00	0.13	0.24
Senegal	Yes	0.05	0.10	0.00	0.25	0.40
Seychelles	Yes	0.13	0.11	0.07	0.08	0.39
Sierra Leone		0.00	0.10	0.01	0.03	0.13
South Africa		0.17	0.17	0.12	0.25	0.71
South Sudan		0.00	0.06	0.01	0.20	0.26
Tanzania	Yes	0.07	0.09	0.06	0.25	0.47
The Gambia		0.02	0.11	0.02	0.13	0.27
Togo		0.02	0.05	0.00	0.00	0.06
Uganda		0.13	0.15	0.05	0.25	0.58
Zimbabwe		0.13	0.05	0.00	0.03	0.21

While the focus of this paper is not on countries with Resilience and Sustainability Facility (RSF) arrangements, it is important to acknowledge the potential influence of RSF-related reforms on countries' climate finance readiness. The IMF's research and policy work linked to the RST—such as the RST Interim Review and the Climate Finance Roundtables—offer valuable insights into how these mechanisms impact countries' ability to attract climate finance. Some of the regulatory and institutional reforms introduced under RSF-supported programs could have directly enhanced countries' scores in the CFPI. Notably, Table 4 shows that several of the green-marked countries with developed climate finance products are countries with RSF countries, and Figure 11 highlights Benin—an RSF country—as the highest-scoring nation. Moreover, out of the 13 countries classified as "well-prepared," six are countries, and all 11 RSF countries in the region score above the minimum readiness threshold of 20.

Box 5. Successful Initiative in Scaling up Green Financing in SSA

A key innovation of IMF RSF programs—the climate finance roundtables—has helped SSA countries mobilize investment by connecting governments, multilateral development banks and development finance institutions (DFIs), private investors, and philanthropies. For example, Senegal's roundtable facilitated access to blended finance for renewable energy, while in Rwanda the EIB, various DFIs, and the IFC provided more than US$200 million in support of financing private sector climate projects. Cabo Verde's roundtable supported efforts to scale up green bond issuance, while Mauritius leveraged IMF engagement to develop climate risk stress testing for its financial sector. Benin's roundtable helped align its SDG bond framework with climate financing priorities, strengthening investor confidence. Success factors include strong government leadership, clear investment pipelines, and regulatory stability. Expanding such financing platforms and associated project preparation facilities can help SSA nations strengthen their climate finance strategies, project pipelines, and help attract much-needed capital for adaptation and mitigation.

Conclusion

Scaling up climate finance in Sub-Saharan Africa (SSA) is essential for addressing both climate adaptation and mitigation challenges, yet significant barriers remain. The region's vulnerability to climate change, compounded by macroeconomic instability, limited institutional capacity, and fragmented policy frameworks, has constrained its ability to attract sufficient investment. While SSA has taken steps to align national climate strategies with global best practices—such as integrating Nationally Determined Contributions (NDCs) and National Adaptation Plans (NAPs)—progress remains uneven. The findings of this paper highlight the need for stronger governance frameworks, enhanced financial regulation, and clearer policy signals to mobilize both public and private sector climate finance. A predictable investment environment, combined with targeted de-risking mechanisms and regulatory coherence, is critical to scaling green finance across the region.

Despite the challenges, there are promising developments. Sovereign green bonds, climate resilience funds, carbon markets, and blended finance instruments have begun to play a role in financing SSA's climate agenda. However, weak financial supervision, underdeveloped capital markets, and high borrowing costs continue to limit the impact of these instruments. The survey results indicate that countries with stronger institutional capacity and financial market depth are better positioned to access international climate finance. Furthermore, the IMF's Resilience and Sustainability Facility (RSF) has been instrumental in supporting policy reforms, green budgeting, and climate investment planning, laying the groundwork for broader climate finance mobilization. Strengthening regional cooperation, harmonizing green finance taxonomies, and expanding risk-sharing mechanisms will be crucial for attracting long-term, scalable investments in climate resilience and low-carbon development.

Recommendations

The survey identifies four key recommendations for improving SSA's climate finance preparedness:

Strengthen Institutional Capacity and Financial Market Infrastructure. Survey results reveal that regulatory gaps, weak financial supervision, and underdeveloped capital markets hinder climate finance in SSA. Policymakers must build institutional capacity and deepen financial markets to attract private investment. Training for regulators and financial institutions should focus on climate risk assessment, stress testing, and regulatory compliance to align with global standards. However, strengthening institutions alone is not enough—SSA must also expand green financial instruments to address market weaknesses. Key measures include:

- Developing climate bond frameworks aligned with international taxonomies to scale up green bond markets.
- Enhancing credit risk mitigation tools, such as climate risk guarantees and blended finance solutions, to de-risk investment.
- Strengthening secondary markets for climate-related financial instruments to improve liquidity.
- Integrating climate financial risks into banking supervision, ensuring alignment with international regulatory frameworks such as those of the Basel Committee on Banking Supervision (BCBS).
- Establishing dedicated climate finance units within ministries of finance and financial regulators to improve inter-agency coordination, facilitate project approvals, and disseminate best practices.

2. Develop Coherent Policies and Incentives to Unlock Private Capital. Survey results show that regulatory gaps, weak supervision, and shallow capital markets limit climate finance in SSA. Policymakers must build institutional capacity, enhance regulation, and expand green financial instruments to attract private investment. Training should focus on climate risk, stress testing, and compliance to align with global standards. Key measures include:

- Targeted tax incentives for renewable energy, climate-resilient agriculture, and low-carbon transport, addressing country-specific financing gaps identified in the survey.
- Risk-sharing mechanisms, such as government-backed climate insurance and guarantees, to reduce perceived investment risks in climate-sensitive sectors.

- Leveraging global climate finance initiatives—such as the Resilience and Sustainability Facility (RSF), Green Climate Fund (GCF), and climate finance programs at the World Bank and IMF—to secure concessional funding and technical assistance.

Expand Access to Adaptation Financing. Survey results indicate that adaptation financing gaps are particularly severe in SSA, with country teams consistently highlighting limited private sector participation. Given SSA's acute vulnerability to droughts, floods, and extreme weather events, expanding adaptation finance is critical to resilience-building. To scale up adaptation financing, SSA governments should:

- Establish national climate adaptation funds to support climate-resilient infrastructure, sustainable agriculture, and water resource management, responding to survey findings on investment gaps in these areas.
- Integrate adaptation finance into local capital markets through climate resilience bonds and sustainability-linked loans, addressing the survey-identified need for more structured financial instruments.
- Enhance project bankability by incorporating climate risk assessments and feasibility studies, making adaptation projects more attractive to investors.
- Strengthen collaboration with global adaptation finance institutions (e.g., Green Climate Fund (GCF), Adaptation Fund) to mobilize concessional financing,

Strengthen Regional Cooperation to Maximize Climate Finance Mobilization. Survey results indicate that fragmented climate finance efforts in SSA reduce effectiveness, creating inefficiencies in accessing global funding. A regional approach can increase financial stability, enhance market efficiency, and reduce investment risks. To strengthen regional climate finance mobilization, SSA should:

- Leverage regional platforms to jointly access global climate funds, ensuring efficient and equitable allocation of resources across countries.
- Develop a unified approach to climate risk regulation and supervision, aligning SSA's financial sector with international climate finance standards—an issue identified as a key constraint in the survey.
- Scale up regional insurance solutions to mitigate financial risks from extreme climate events, addressing survey concerns over inadequate risk-sharing mechanisms.

Annex 1. NDC Adaptation and Mitigation Needs

Annex 1. Table 1.1. SSA- Adaptation and Mitigation of Investment Needs to Meet the Paris Commitments 1/
Preliminary
Based on the National Determined Contributions 2/

	Total Amounts in Billion USD			Percent GDP (2023)		
	Total	***Mitigation***	***Adaptation***	***Total***	***Mitigation***	***Adaptation***
Angola	$ 44.10	$ 44.00	$ 0.10	57%	56%	0%
Benin	$ 10.40	$ 8.60	$ 1.80	53%	44%	9%
Botswana	$ 18.40	$ 18.40		89%	89%	0%
Burkina Faso	$ 4.00	$ 1.30	$ 2.70	19%	6%	13%
Cabo Verde	$ 2.20	$ 1.10	$ 1.10	87%	43%	43%
Cameroon	$ 57.70	$ 25.80	$ 31.90	117%	52%	65%
Central African Republic	$ 1.80	$ 1.30	$ 0.50	69%	49%	19%
Chad	$ 20.87	$ 6.70	$ 14.17	118%	38%	80%
Comoros	$ 1.30	$ 0.90	$ 0.40	97%	67%	30%
Congo (Democratic Republic)	$ 48.68	$ 25.60	$ 23.08	335%	176%	159%
Congo (Republic)	$ 3.80	$ 0.00	$ 3.80	5%	0%	5%
Cote d'Ivoire	$ 22.00	$ 10.00	$ 12.00	36%	16%	20%
Eswatini (Swaziland)	$ 1.50		$ 1.50	31%	0%	31%
Ethiopia	$ 316.00	$ 275.50	$ 40.50	203%	177%	26%
Gambia	$ 0.40		$ 0.40	17%	0%	17%
Ghana	$ 15.50		$ 15.50	23%	0%	23%
Guinea	$ 14.80	$ 13.80	$ 1.00	64%	60%	4%
Guinea-Bissau	$ 0.73	$ 0.66	$ 0.07	37%	33%	3%
Kenya	$ 61.60	$ 17.70	$ 43.90	64%	18%	45%
Liberia	$ 0.49	$ 0.40	$ 0.09	11%	9%	2%
Madagascar				0%	0%	0%
Malawi	$ 46.30	$ 41.80	$ 4.50	497%	448%	48%
Mali	$ 9.00	$ 1.00	$ 8.00	43%	5%	38%
Mauritania	$ 44.90	$ 34.30	$ 10.60	459%	350%	108%
Mauritius	$ 6.50	$ 2.00	$ 4.50	44%	14%	31%
Mozambique	$ 7.59		$ 7.59	36%	0%	36%
Namibia	$ 5.33	$ 3.61	$ 1.72	43%	29%	14%
Niger	$ 9.90	$ 3.20	$ 6.70	59%	19%	40%
Nigeria	$ 177.00			68%	0%	0%
Rwanda	$ 11.04	$ 5.68	$ 5.36	86%	44%	42%
Sao Tome and Principe	$ 0.15	$ 0.15		23%	23%	0%
Senegal	$ 13.00	$ 8.70	$ 4.30			
Seychelles	$ 0.67	$ 0.33	$ 0.34	32%	16%	16%
Sierra Leone	$ 2.70		$ 2.70	74%	0%	74%
South Africa	$ 267.00		$ 267.00	71%	0%	71%
South Sudan	$ 10.70	$ 10.40	$ 0.30	169%	164%	5%
Tanzania (United Rep. of)	$ 19.20			26%	0%	0%
Togo	$ 5.50	$ 2.70	$ 2.80	60%	30%	31%
Zambia	$ 35.00			133%	0%	0%
Zimbabwe	$ 4.80	$ 4.80		25%	25%	0%

Annex 2. Scaling up Climate Financing Survey Template

This web-based 10-question survey collects data on the enabling environment for climate finance in AFR.[1] Country teams are requested to complete the survey in discussion with relevant government counterparts. The results of the survey will be published in an AFR departmental paper or working paper. The ultimate objective of this survey is to help country desks strengthen their climate finance policy dialogue with government counterparts, leveraging a structured questionnaire and new cross-country data as entry point for further policy discussions.
In a first step, country teams are encouraged to download the full survey word template (link to the print version of the survey here) and pre-fill the survey based on their own existing knowledge and desk research. In a second step, country teams can then decide – reflecting country specificities - how to efficiently engage with government counterparts and other partners, such as the World Bank, to close information gaps and validate the survey responses. In a third and final step, country teams are requested to submit their final survey responses through this web interface. Please note that answers need to be submitted in a single continuous online session. Partial survey responses are not stored.

The survey is organized around these key dimensions defining preparedness for scaling up climate financing. The questions are listed in the reminder.

- Policies
- Alignment of Strategies and Objectives
- Financing Needs
- Use of climate finance products
- Preparatory steps
- Risks related to climate finance products
- Institutional capacity
- De-risking and credit enhancements

1. POLICIES - Which of the following key climate policies are in place to increase the profitability of climate-friendly private sector investments? This can help attract private climate finance at scale. [Multiple choice for each – yes/no]			
Objective of the policy instrument	**Tax instrument (ex: explicit carbon tax)**	**Subsidy instrument (ex: subsidy/tax relief)**	**Regulation (ex: minimum energy efficiency standards)**
Encourage shift of electricity generation mix towards solar and wind power	yes/no	yes/no	yes/no
Encourage greater vehicle fuel efficiency and/or electrification of the vehicle fleet	yes/no	yes/no	yes/no
Encourage building energy efficiency upgrades and/or electrification of heating/cooling systems	yes/no	yes/no	yes/no
Encourage industrial sector energy efficiency upgrades and/or electrification	yes/no	yes/no	yes/no
Encourage improving the resilience of the building stock to extreme weather events (for instance by changing the quality and location of the building stock)	yes/no	yes/no	yes/no
Encourage adoption of private sector insurance against climate-related extreme weather events (for instance property or casualty insurance for households or crop insurance for farmers)	yes/no	yes/no	yes/no
Other	"Please specify in this text field"		

2. ALIGNMENT STRATEGIES & OBJECTIVES: Which of the following actions have been taken to align the overall government strategy/systems with climate objectives? This can crowd in private sector and official climate finance, providing assurances that specific climate finance interventions fit into a coherent national climate strategy. [Multiple choice – fully implemented / partially implemented / under development but not implemented yet / under consideration / none of the above]

- Published Nationally Determined Contribution (NDC) with quantitative targets and explicitly defined reform strategy to reach these targets
- Published National Adaptation Plan (NAP) with quantitative targets and explicitly defined reform strategy to reach these targets
- Published National Decarbonization Plans (NDP) or other government document beyond the NDC/NAP with quantitative targets and explicitly defined reform strategy to reach these targets
- Budget explicitly aligns fiscal policy with the NDC/NAP/NDP, accounting for (i) spending needs to implement climate policies, (ii) climate-related taxes and (iii) fiscal risks linked to climate change
- Explicit flagship carbon pricing policy with broad sectoral coverage, such as a carbon tax or emissions trading scheme
- Indirect carbon pricing (policies that increase the price of emissions but which may not have been originally introduced with an explicit climate objective), such as an excise duty on fossil fuels
- Fossil fuel subsidy phase-out plan under implementation (or no subsidy in place)
- Update of public investment management systems to ensure the project lifecycle takes into account climate change mitigation/adaptation objectives
- Green budget tagging, including (i) ex-ante tagging during budget planning and (ii) ex-post tagging when reporting on budget execution
- Adoption of a national disaster risk finance strategy[2], update of natural disaster early warning systems and government response/recovery protocols to support climate change adaptation
- Update of water management framework (access to drinking water, irrigation, and/or flood drainage) to support climate change adaptation
- Update of government support programs for farmers (for instance grant/subsidy/training programs) to support climate change adaptation
- Avoidance of actions that actively undermine the climate objectives (for instance, significant deforestation activity, start of new coal mining/power plants or lack of action to tackle venting/flaring emissions from other fossil fuel extraction activities)
- Cooperation on at least one flagship climate-related initiative (i.e., IMF RSF, WB DPL and/or JETP), strengthening the credibility of the national climate strategy
- Other (please specify in text field)

3. FINANCING NEEDS - How would you rank the importance of climate finance needs in the following sectors of the economy? [Ranking – from highest to lowest importance (1, 2, 3, 4)]		
	Investments to support climate change mitigation	**Investments to support climate change adaptation**
Private sector investment projects		
Official sector investment projects		

4. For the climate-related private sector investment projects currently active in the country, how would you assess the relative importance of the following financing sources? [Multiple choice – large / medium / small role]

- Loan/equity financing from domestic private commercial entities
- Loan/equity resource financing from foreign private commercial entities
- Loan/equity/grant financing from domestic government or domestic government-controlled entities
- Loan/equity/grant financing from foreign government or foreign government-controlled entities
- Loan/equity/grant financing from multilateral institution (for instance the World Bank Group (WBG) International Finance Corporation (IFC))
- Public market issuance (stock or bond market)
- Own resource financing out of cashflow
- Other3 (please specify in text field)

5. USE OF CLIMATE FINANCE PRODUCTS - Which of the following flagship financial products with explicit climate/transition/green/sustainability label have already been used? Explicit labeling and/or official sector participation can help catalyze climate-informed financing. [Multiple choice – used more than once/ used once/ not used yet]

- Sovereign bond/loan with explicit climate-related objective
- Corporate bond/loan with explicit climate-related objective
- Crowdfunding platform with explicit climate-related objective
- Government/donor vehicle with mandate to support private sector projects with climate-related objectives through equity/debt co-financing (for instance a National Green Bank) or through de-risking guarantees (for instance against default/FX/regulatory/counterparty risks)
- Debt-for-climate swap transaction
- Sale of carbon credits4
- Sovereign bond with catastrophe provisions, in which private/official lenders lighten debt service requirements in the event of a natural disaster
- A pre-arranged contingent line of credit that can be drawn on when climate-related natural disasters materialize
- A disaster contingency fund the budget can draw on when climate-related natural disasters materialize
- Purchase of sovereign parametric insurance against extreme weather events (including membership in regional insurance risk pooling facilities like the African Risk Capacity (ARC) group)
- Other (please specify in text field)

6. PREPARATORY STEPS - Which of the following preparatory steps have been taken to facilitate the use of financial products with explicit climate/transition/green/sustainability label? [Multiple choice – fully implemented / partially implemented / not implemented]

- Published document that sets out the government's strategy to encourage climate finance (for instance a green finance roadmap)
- National platform/task force operational to coordinate the implementation of the national climate finance strategy
- Green project preparation facility operational, identifying list of climate-related investment project opportunities
- Green taxonomy published, establishing a framework for identifying climate-informed investments
- Primary/secondary legislation establishes explicit framework for sovereign and corporate bonds/loans with explicit climate-related label5
- Primary/secondary legislation establishes explicit framework regulating carbon credit products
- Subsidy/regulation to encourage the use of flagship financial products with explicit climate/green/sustainability label (for instance privileged capital requirements for private financial institutions holding these financial products or tilting of the central bank portfolio towards such assets)
- Other (please specify in text field; in particular: Are you aware of any other impactful or innovative climate finance initiative initiated or being considered by the authorities)

7. RISK RELATED TO GREEN FINANCIAL PRODUCTS - How do you rank the importance of the following risks linked to flagship financial products with explicit climate/transition/green/sustainability label? This should consider both the probability of the risk materializing and the potential impact on the economy if the risk materializes. [Ranking – from highest to lowest importance (1, 2, 3…)]
• Risk of greenwashing or governance risks (for instance climate finance not effectively contributing to the achievement of the intended climate objective) • Fiscal risks for the authorities (for instance from explicit or implicit government guarantees for climate-related investment projects) • Risk of distracting policy makers from other more impactful reform initiatives • Financial risks to the private sector • Other risks (please specify in text field)

8. INSTITUTIONAL CAPACITY - Accessing official sector climate finance often requires upfront dedicated institutional capacity building. Taking the Green Climate Fund (GCF) as an illustrative example, which of the following applies?6 If teams are not aware of GCF activities in their country, they can start by reviewing the GCF website for information and then follow up with country authorities to confirm the latest status. [Multiple choice – yes/no]
• A nationally designated authority (NDA) has been recognized by the GCF7 • At least one private or public national accredited entity (AE) has an effective Accreditation Master Agreement (AMA) with the GCF8 • At least one GCF-financed project has been started or completed through a national public or private AE • At least one GCF-financed project has been started or completed through an international AE

Few open questions were also included.

9. IMPACTFUL MEASURES- What do you consider as the most impactful measures/policies taken by the authorities to catalyze climate finance? Please outline these measures here. [Unrestricted text field]
10. DE-RISKIN AND CREDIT ENHANCEMENT - What de-risking or credit enhancement instruments are used to mobilize funding? [Unrestricted text field]
11. **Would you like to provide any additional comments or clarifications to your survey responses? Please submit these here. [Unrestricted text field]**

Annex 3. Climate Preparedness Index

We have built a new index that measures preparedness to scale up climate financing based on the dimensions of strategy, policy, institutions, and financial instruments, using a weighted average approach. This approach ensures that the contributions of each dimension to the overall score reflect their relative importance. These dimensions are well captured in our framework for scaling up climate financing in SSA (Q1, 2, 4, and 6).

Rationale

- Scaling up climate financing in SSA requires establishing the foundational elements that enable institutions to sustain growth through needed reforms and assure the private sector that actions in this area will be maintained over the long term. This differs from the requirements of more advanced economies, which have relied for many years on mature institutions and regulations.

- Prioritizing strategy, policy, institutions, and financial instruments as key dimensions in creating an index for climate finance scale-up readiness in SSA countries is critical. These dimensions collectively capture the fundamental elements needed for effective and sustainable green finance ecosystems, especially in countries just beginning to invest in this area.

- A well-defined strategy provides the vision and direction needed to align national development goals with climate finance objectives, while sound policies establish the regulatory and incentive frameworks that attract and guide investments.

- Strong institutions are essential to implement these strategies and policies effectively, ensuring governance, accountability, and coordination among stakeholders.

- Finally, accessible, and innovative financial instruments operationalize these frameworks, mobilizing both domestic and international capital to scale up climate initiatives.

The Proposed Index

Therefore, we define the Index as follows:

〖GFPI〗_i = w_s*S+w_p*P+w_i*I+w_f*F

Where

S: Score for the strategy dimension (normalized to a range of 0 to 1).

P: Score for the policy dimension (normalized to a range of 0 to 1).

I: Score for the institutions dimension (normalized to a range of 0 to 1).

F: Score for the financial instruments dimension (normalized to a range of 0 to 1).

GFPI〗_i = Climate financing Preparedness Index Score of country i. w_s,w_p,w_i,w_f are the weights assigned to each dimension with 〖SUM(w〗_s,w_p,w_i,w_f) = 1

Steps in Calculation

Normalization of the data.

We normalize each dimension's indicators (e.g., green policies, institutional quality) to a scale of 0 to 1.

Taking an indicator x, we follow this simple process:

$$x\_normalized = (x - x\_min)/(x\_max - x\_min)$$

Computation by dimension

We compute the score for each dimension S,P,I,F as weighted average of its sub-indicators.

Index score

Finally, we bring the dimension scores and weights into the formula to compute the final index score.

Proposed Weights

Our proposal with regard to strategy, policy, institutions, and instruments is as follows.

- We suggest that the **Strategy** dimension be given a weight of 0.25. The main rationale is that a coherent and well-articulated national climate finance strategy is foundational as it enables the setting of priorities, mobilizes stakeholders, and aligns resources with climate goals.
- For the **Policy** dimension we suggest a weight of 0.30, slightly higher than the Strategy. The rationale is that having strong policies in place to support climate financing is critical to creating an enabling environment for scaling up market response in this area. Policies incentivize private sector engagement, align investments with sustainable goals, and ensure compliance with global standards.
- For the dimension related to **Institutions** we suggest a weight of 0.25. Institutional capacity remains a priority in low-income countries as it determines the ability to implement strategies and enforce policies effectively. Without strong institutions, strategies and policies may fail to translate into action
- Finally, preparedness in terms of specific Financial Instruments is also important, and we propose a weight of 0.20. The availability and accessibility of **financial instruments** are essential but dependent on the strategy, policy, and institutional framework. They operationalize climate financing but require foundational support to be effective, particularly in countries at the very early stages of scaling up climate financing and with relatively underdeveloped institutional frameworks.

To summarize, higher weight for policy reflects the critical need for clear and actionable frameworks to guide all stakeholders and attract green investments. Equal weights for strategy and institutions suggest their complementary roles: strategy provides direction, while institutions ensure execution. Lower weight for financial instruments recognizes their importance but suggests they are a downstream factor dependent on the other three dimensions

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PUBLICATIONS

Laying the Ground for Scaling up Climate Finance in Sub-Saharan Africa
Working Paper No. WP/2025/099