



# Climate Financing in Africa:

Strategies for the Future

**MAY 2023**

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# Foreword

**Tackling climate change is of vital importance for Africa. The nature of the fight against climate change is not straightforward and can come at a cost. Our task must therefore be to imagine creative climate-friendly ways through which African economies can continue to blossom. One non-negotiable element towards the realisation of this goal will have to be financing that is much more substantial and sustainable than it is today.**

Governments, businesses and investors must join forces and each play their part. For governments, this means creating the appropriate national conditions - through climate policies, public financing frameworks, and green growth opportunities - in which the private sector can confidently invest. Businesses also need to consider and assess climate-related risks and opportunities in their business models, whilst investors do the same to make informed capital allocation decisions and better embed climate consideration throughout their investment portfolios.

Just as the policy and business spheres must work together to tackle climate change, we are delighted to present *Climate Financing in Africa: Strategies for the Future*: a joint report by the African Private Capital Association (AVCA) in partnership with the Tony Blair Institute for Global Change (TBI). Drawing from both public and private sector expertise, our report examines the state of climate financing in Africa and contains valuable recommendations for both governments and private sector investors. We believe this collaborative report will no doubt spur effective action and have a positive impact in Africa's fight against climate change.

We would like to extend our sincere appreciation to the industry experts and fund managers that participated in this report, as well as the AVCA members that supported this important initiative. At AVCA, our mission is to champion private investment in Africa, educating and equipping stakeholders within our industry with valuable insights to support the investment ecosystem. We are pleased to have TBI as our valued partner for this work, which exemplifies our commitment to providing topical, independent, and thoughtful research to the industry. We look forward to continuing our research and advocacy on the important role private capital can play in stimulating sustainability and climate resilience across the continent, and by extension in accelerating local economic growth.



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## 1.1 Glossary of Terms

**Climate change mitigation:** Efforts to reduce or prevent emission of greenhouse gases which can mean using new technologies and renewable energies, making older equipment more energy efficient, or changing management practices or consumer behaviour<sup>1</sup>.

**Climate change adaptation:** Changes in process, practices and structures within ecological, social or economic systems in response to actual or expected climatic stimuli to moderate potential damages or to benefit from opportunities associated with climate change<sup>2</sup>.

**Climate finance:** Local, national, or transnational financing that is drawn from public, private, or alternative sources to support climate change efforts<sup>3</sup>.

**Development Finance Institutions:** Organisations that occupy the space between public aid and private investment who share a common focus on fostering economic growth and sustainable development by servicing the investment shortfalls of developing countries and bridging the gap between commercial investment and state development aid<sup>4</sup>. These organisations include multilateral development banks (MDBs), other international and regional financial institutions, national development banks, export credit agencies, and private lenders<sup>5</sup>.

**Task Force on Climate-Related Financial Disclosures (TCFD):** a body created by the Financial Stability Board (FSB) to develop climate-related financial disclosure recommendations for companies and organisations. The TCFD's 11 disclosure recommendations are structured around four thematic areas: governance, strategy, risk management and metrics and targets. The purpose of the framework is to support and enable investors, lenders and insurance underwriters, etc) to make informed capital allocation decisions by understanding how reporting organizations consider and assess climate-related risks and opportunities.

**Nationally Determined Contributions (NDCs):** a requirement for signatories of the Paris Agreement to outline and communicate their post-2020 climate action plan to reduce greenhouse gas emissions and adapt to climate impacts on a national level, to be updated every five years. These plans are non-binding, but must set specific climate targets, define how to reach them, and institute monitoring and evaluation systems to evaluate and verify progress towards the achievement of these targets.

**Climate Resilience:** the degree to which companies, assets, the built and natural environment can anticipate, absorb, adapt to changing climate conditions.



## 1.2 Climate Change and Its Impact

For many countries around the world, climate change will negatively impact their food and water security, population health, as well as ecological systems. Developing countries are expected to bear the brunt of the effects of climate change. Out of the 20 countries worldwide that are the most vulnerable to climate change, 16 of them are in Africa<sup>6</sup>. Africa is at the frontline of the global climate emergency and is highly exposed to climate shocks with about 86 million people in Africa being displaced over the next three decades due to climate change<sup>7</sup>. Climate-induced incidents could cause other knock-on effects such as decreased agricultural output, reduction

in land available for in livestock rearing, loss of biodiversity, reduced water resource availability, and decreased structural integrity of infrastructure and buildings etc. However, financing climate actions globally continues to fall short of the agreed global climate objectives, especially for vulnerable countries in parts of Africa, Asia, Latin America and the Caribbean.

The continent is not a major contributor to greenhouse emissions that cause climate change. The United States has a population of 333 million people and was responsible for 12.6% of global carbon emissions in 2020<sup>8</sup>. In contrast, Africa has a population size of 1.4 billion but accounts for only 3.81% of global carbon emissions<sup>9</sup>. The relative funding gap in addressing climate hazards between Africa and other regions of the world is thus deserving of attention. Countries belonging to multilateral groupings and development bodies such as UN agencies have sought to address the problem by pledging funding packages aimed at assisting developing countries with their climate mitigation and climate adaptation efforts. However, for the African continent, there is evidence showing that should financing levels continue at their current trajectory, it is unlikely that African governments will have the financial capacity to meet their climate change goals and be prepared for the effects of climate change. While an average of USD632 billion between 2019 and 2020 was committed to climate financing worldwide, this amount remains inadequate with an increase of 590% needed by 2030 if global climate objectives are to be met<sup>10</sup>.

Climate financing for Africa is an issue that needs to be addressed urgently. Inadequate funding is not the only challenge: the funding that is committed has also not consistently been delivered. An Oxfam report suggests that the actual assistance received by developing countries for climate change action to be approximately US\$19 to 22.5 billion between 2017-2018<sup>11</sup>, less than a quarter of the US\$100 billion originally pledged each year<sup>12</sup>.

In addition, African government leaders and the donor community need pragmatic and innovative policies that respond to the needs of the private sector as partners in climate finance. This report provides pathways for both African governments and investors in addressing the climate financing gaps and building a resilient and sustainable framework that unlock new funding.

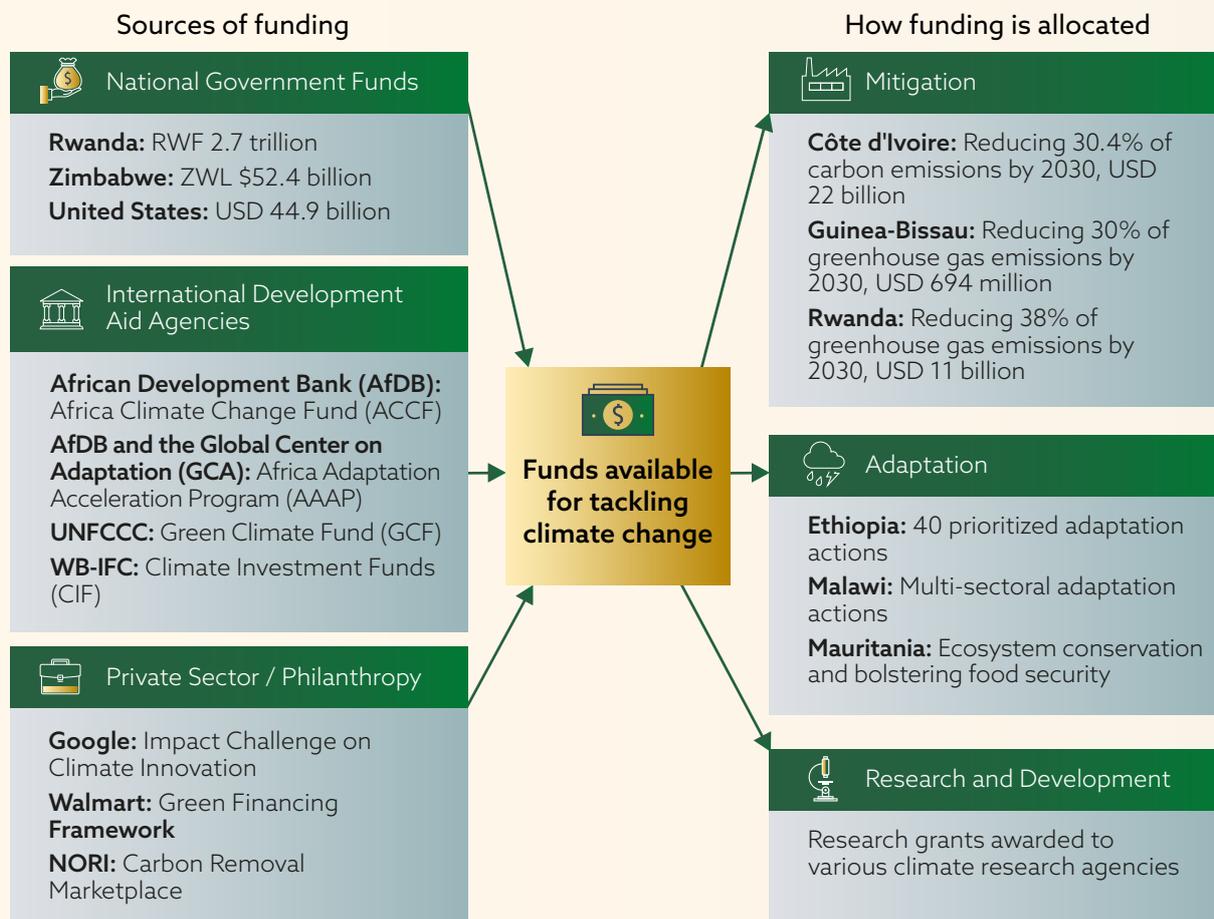


# Climate Financing in Africa

## 2.1 Climate Financing Channels

Climate funding worldwide can generally be sourced from three different channels: **national government funds**, **contributions by international development aid agencies**, and **private sector capital**. Such funding is then spent for three purposes: mitigation, adaptation, and research and development (R&D). Spending could also be cross-sectoral in nature (e.g., distributed across the agriculture and infrastructure sectors).

- **National Government Funds** are funds allocated out of the national budget for the purpose of climate finance projects, such as meeting national climate change targets. Such funds are usually raised through a combination of taxes, green bonds and other related financial instruments. Examples of national government that have allocated funds in this regard include Rwanda (RWF 2.7 trillion<sup>13</sup>), Zimbabwe (ZWL 52.4 billion<sup>14</sup>), and the United States (USD 44.9 billion<sup>15</sup>).
- **Contributions by International Development Aid Agencies and Development Finance Institutions** refers to capital that is provided on a non-commercial basis and for the purposes of development. Examples of these include the African Development Bank's (AfDB) US\$25.71 billion *Africa Climate Change Fund* (ACCF), the UNFCCC's US\$10.3 billion *Green Climate Fund* (GCF), or the joint World Bank-International Finance Cooperation US\$8 billion *Climate Investment Funds* (CIF).
- **Private Sector Capital** for climate financing are vehicles that mobilise commercial financing from investment and equity funds, commercial financial institutions, corporations and the private citizen for adaptation and mitigation-related activities. These could be private wealth or financial intermediaries with commercial interests in their investments. They provide the investment needed to spur innovation and create thriving markets for climate innovation, spanning clean energy, sustainable transport, green infrastructure or climate-resilient agriculture. Examples include Google's US\$30 million *Impact Challenge on Climate Innovation fund*.

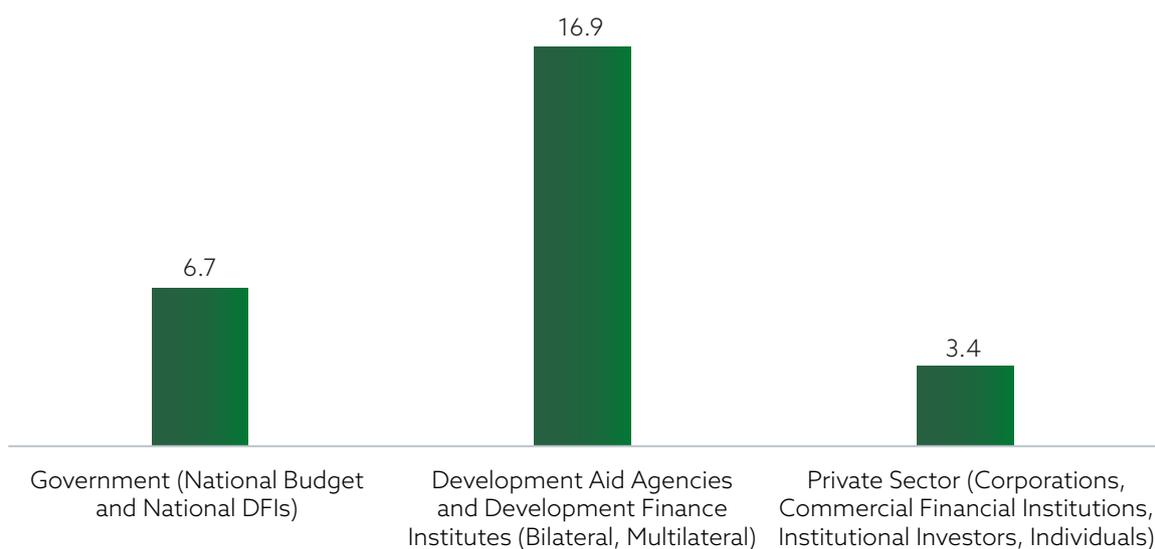


Source: Tony Blair Institute (TBI)

## 2.2 Contextualising Africa's Climate Finance

Africa's climate financing for adaptation and mitigation is generally publicly funded through a combination of grants, DFIs and national budgets. This is in sharp contrast to the climate investment environment in the economically advanced regions of Western Europe, United States, Canada, and Oceania, whose climate activities are primarily funded by private finance.

Climate finance flows in Africa, 2019/2020 (USD billion):



Source: Climate Policy Initiative

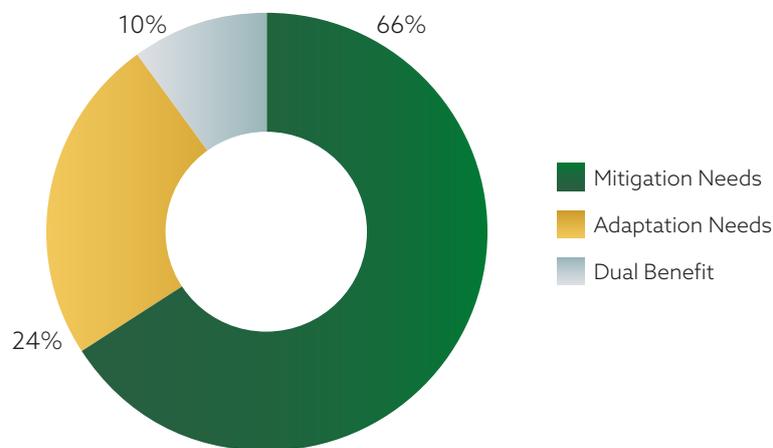
Existing levels of investment are insufficient to tackle the risk that climate change poses. The African Development Bank estimates that the total costs of climate change mitigation in Africa in the decade between 2020 and 2030 alone will be between USD\$1.3 to 1.6 trillion<sup>16</sup>. However, the report also highlights an annual financing gap of approximately US\$100 to 127.2 billion in the same decade. Such financing gaps appear to be characteristic of climate change financing for Africa. While the annual costs for adaptation in Africa is expected to be approximately 30% of global adaptation costs, the region received a mere 14% (approx. US\$1.6 billion) of non-OECD international public adaptation finance, according to the UN Environmental Programme (UNEP)<sup>17</sup>.

There is also a growing imbalance between Africa and the rest of the world regarding private-sector investments in climate technological innovation, research and development. According to a PwC report tracking climate tech investments, Africa's share of global investments for the climate technology and innovation sector stands at just 0.2%<sup>18</sup>. In contrast, the share of the US, China, and Europe took up 93% of such investments for climate mitigation and adaptation solutions, with the US and Canada alone accounting for nearly 50% (approximately US\$29 billion of VC investment). In addition to shortfalls in funding required to implement the necessary climate mitigation and climate adaptation solutions, funds for research and development are also inadequate. Over the last 20 years (between 1990-2019), Africa received just a fraction (3.8%) of climate related research funding globally with the bulk (78%) of climate R&D funding going to EU and North American research institutes.

## 2.3 Mitigation Efforts Face Greatest Funding Shortfall

Considering the growth of infrastructure presently taking place within African countries, it would be prudent to ensure that such infrastructures are 'green' and climate-friendly to ensure that they help governments better meet their declared Nationally Determined Contributions (NDCs). This is where mitigation efforts come in. However, when examining how the funding shortfall is distributed across Mitigation and Adaptation, the need for mitigation finance dwarfs that of adaptation, according to the NDCs submitted by African governments<sup>19</sup>. Mitigation measures account for two-thirds (66%) of financing needs, in contrast to Adaptation's one-quarter (24%). Initiatives that have a dual benefit (both mitigation and adaptation) account for the final 10%, as illustrated in the diagram below. Within sub-Saharan Africa, the need for mitigation-oriented financing paints an even more drastic figure as mitigations needs account for 70% or more of financing needs: 77% in West Africa, 75% in Southern Africa, 70% in Central Africa, and 57% in East Africa.

**Africa's climate financing needs by type**



Source: Climate Policy Initiative

Policy actions to address the gaps in adaptation financing should also be pursued. Repurposing climate financing to bring in domestic and international private sector financing for tech and innovation for climate adaptation will build community resilience against climate change in the long run. In the short term, mitigation financing that addresses short-term national problems such as unemployment and food insecurity should be a core component of Africa's climate financing policy agenda.

Meeting these needs through the harnessing of climate investment opportunities requires new and innovative financing structures as well as the calculated and strategic usage of public capital on an unprecedented scale<sup>20</sup>. As things stand, aligning capital and traditional financing approaches (e.g., concessional loans and grants) promises to optimise the growth of sectoral investment, hence the need to deploy new and innovative modes of climate financing structures to catalyse the local private investment needed to meet climate financing targets.

## 2.4 Systemic Challenges to Climate Financing in Africa

Broadly, the systemic challenges to climate financing in Africa can be classified into three major clusters: (1) institutional governance gaps, (2) insufficient climate data needed for climate finance modelling, and (3) financial sector maturity.

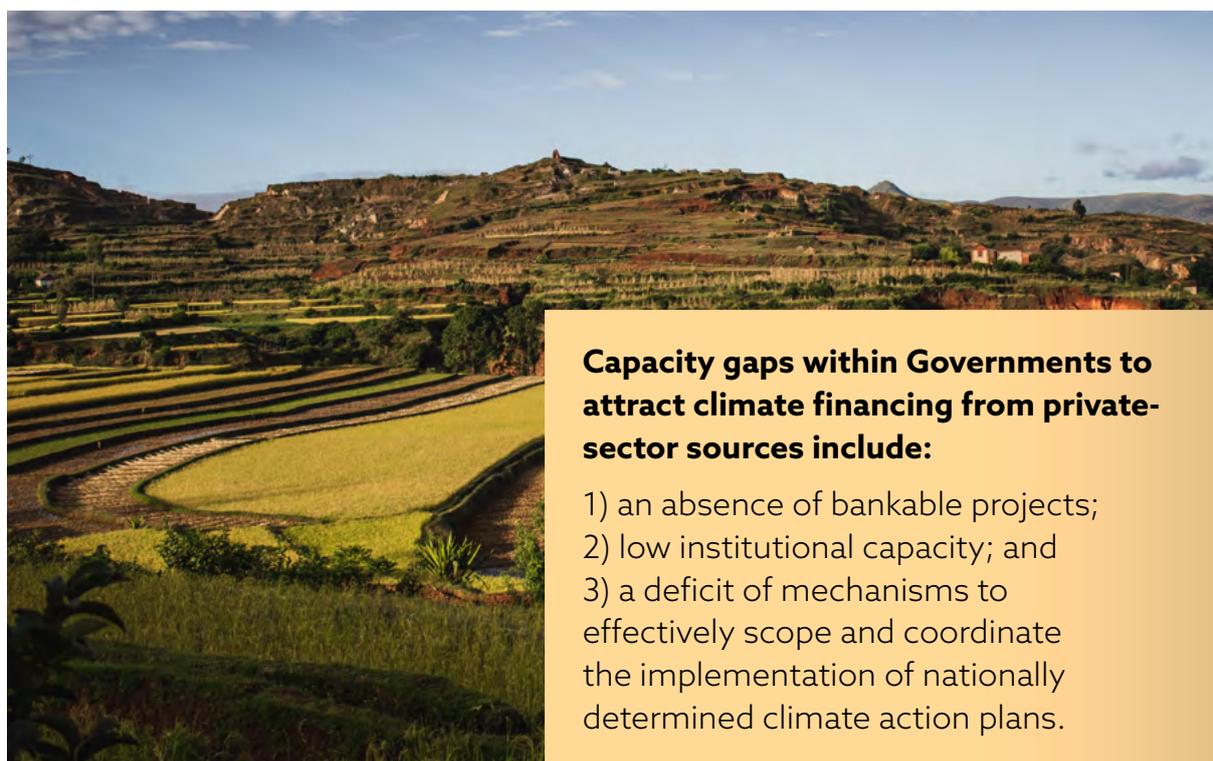
## Climate Financing Barrier (1): Institutional Governance Gaps

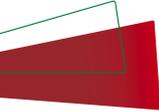
Clashing mandates between national institutions and climate relevant agencies are an institutional barrier to climate financing<sup>21</sup>. This misalignment is compounded by comparatively immature governance and regulatory frameworks in Africa. Consequently, governments often struggle to create the necessary enabling regulatory environment to attract climate financing from the private sector.

Modelling climate finance projects for presentation to potential investors is also a complex and interdisciplinary process. Although African countries do have National-level Agencies or Commissions to promote investment within the country, such entities typically do not cover climate investments. Modelling climate finance projects also involves input from different ministries (Agriculture, Finance, Energy etc.) leading to questions over which government agency should lead this kind of offer creation. The challenge is further exacerbated by capacity gaps within governments, including:

1. **Limited capacity to design bankable projects that unlock investments** from both local and international DFIs agencies. Poorly packaged projects are less attractive to the green bonds markets.
2. **Low institutional capacity to comprehensively monitor climate change dynamics** from both policy and economic perspectives. This also cascades into limited capacity to ensure appropriate due diligence and accountability measures as well as targeting of suitable climate funds.
3. **Lack of mechanisms to coordinate the implementation of climate change action plans** and related projects. This also affects the state-private sector relationship as policymakers struggle to set a national agenda that is mutually beneficial.

Having adequate governance frameworks and inclusive processes are therefore a key factor for African countries' ability to adapt, cope and mitigate climate change and to enable climate-resilient development. Climate change strategies must be accompanied by relevant policies, budgetary support, and capacity-building initiatives in other governance areas such as healthcare and social protection<sup>22</sup>. Having the right governance frameworks and institutional arrangements spanning different national sectors forms a critical part of national climate change strategies.





Additionally, governments and associated organisations tend to approach climate change as an environmental issue, as opposed to a developmental one<sup>23</sup>. This approach to climate change has meant that when faced with the energy resource demands caused by a booming population, governments might pursue the cheapest sources of energy (i.e., fossil fuels) first, with the social and environmental costs of doing so treated as a problem for the future<sup>24</sup>. However, it is worth noting that governments themselves are also faced with the challenge of balancing multiple competing demands. Affordable sources of energy such as fossil fuels helps governments spur much-needed economic growth, yet risks criticism over their high volumes of carbon emissions. In this regard, African governments have much more to consider than their more developed counterparts whose industrial revolutions preceded the rise of climate-conscious socio-economic development. All of this showcases the institutional challenges that should be overcome when it comes to climate financing.

## Climate Financing Barrier (2): Insufficient Modelling Data

As per World Bank's 2021 *'Enabling Private Investment in Climate Adaptation & Resilience'* report, there is a dearth of data regarding climate risk and vulnerability at the country-level. This data is critical in informing private sector investment decision-making<sup>25</sup>. Private sector entities are likely to continue to have a limited understanding of the climate financing landscape, further limiting their ability to assess potential rates of return on investment (ROI) and to take appropriate risks.

Research has also shown the need for private sector companies to disclose relevant information. The Taskforce on Climate-related Financial Disclosures (TCFD) found that despite the level of climate-related financial disclosures growing, there remains much room for improvement<sup>26</sup>. While a majority of companies had disclosed TCFD-aligned information, such disclosures remain incomplete. Even though 80% of companies disclosed information in at least 1 TCFD-recommended category, only 4% of companies disclosed information in all 11 recommended categories. Such disclosure is important as 90% of investors and other users use climate-related financial disclosures in their decision-making process. Two-thirds of investors also indicated that such disclosures are factored into the way they priced financial assets.

Exacerbating this situation is the issue of funding. Scholarly evidence indicates that only 3.8% of climate change research funding worldwide covers African topics. Additionally, African institutions only account for 14.5% of the 3.8%, meaning that research by African institutions on Africa-related climate change topics actually constitutes only 0.55% of the global pool of research funding<sup>27</sup>. This causes a lack of contextual data, which African researchers say serves as a base for providing policymakers with the relevant data and knowledge needed for the development of climate strategies for local communities<sup>28</sup>. The lack of relevant R&D infrastructure and the data it provides often results in detrimental outcomes. For example, Africa has only 1/8th of the minimum density of weather stations recommended by the World Meteorological Organization<sup>29</sup>. This hampers data collection on historical weather patterns which could be used to inform decision-making. Stakeholders cannot develop viable projects without data and knowledge on changing local climate patterns, their effects, and how resiliency might be embedded into local societies. Without locally generated climate data & knowledge outputs, the costs needed to produce suitable climate mitigation and adaptation solutions will remain high due to information and knowledge scarcity. The problem is also further compounded by the relative lack of dedicated budgets for climate data and knowledge generation. All of this contributes to the dearth of climate-related data and knowledge in Africa, which further reduces the incentives for the private sector to invest in climate-related initiatives.

### Climate Financing Barrier (3): Weak Financial Sector

With growing levels of sovereign debt, higher debt servicing costs due to soaring interest rates and inflation, and predictions of an impending global recession, deteriorating macroeconomic conditions will continue to distort financial outlooks for African governments in the near- to medium-term. Historically, African countries have paid higher interest rates for domestic and international credit in financial markets due to associated market risks. Access to the green bond market to obtain the capital needed for green, sustainable, or social investments remains at a higher cost for high-risk countries in Africa. For instance, while African countries hold less than 1% of green bond issuances worldwide, they are paying twice the amount of what similarly rated peers would pay to access markets<sup>30</sup>.

The relative underdevelopment of Africa's financial sectors therefore contributes to the lack of private sector activity on the climate financing front. Having underdeveloped financial markets means that the typical instruments and architecture of green finance (e.g., green banks, national climate funds, safeguards to de-risk, financial regulations such as verification mechanisms and transparency guarantees) cannot be properly deployed to foster private sector climate investing. Additionally, considering that climate change initiatives often have long time horizons, the general absence of existing green investment project pipelines discourages many potential private sector investors who would have to sink high up-front costs into what amounted as a speculative project.

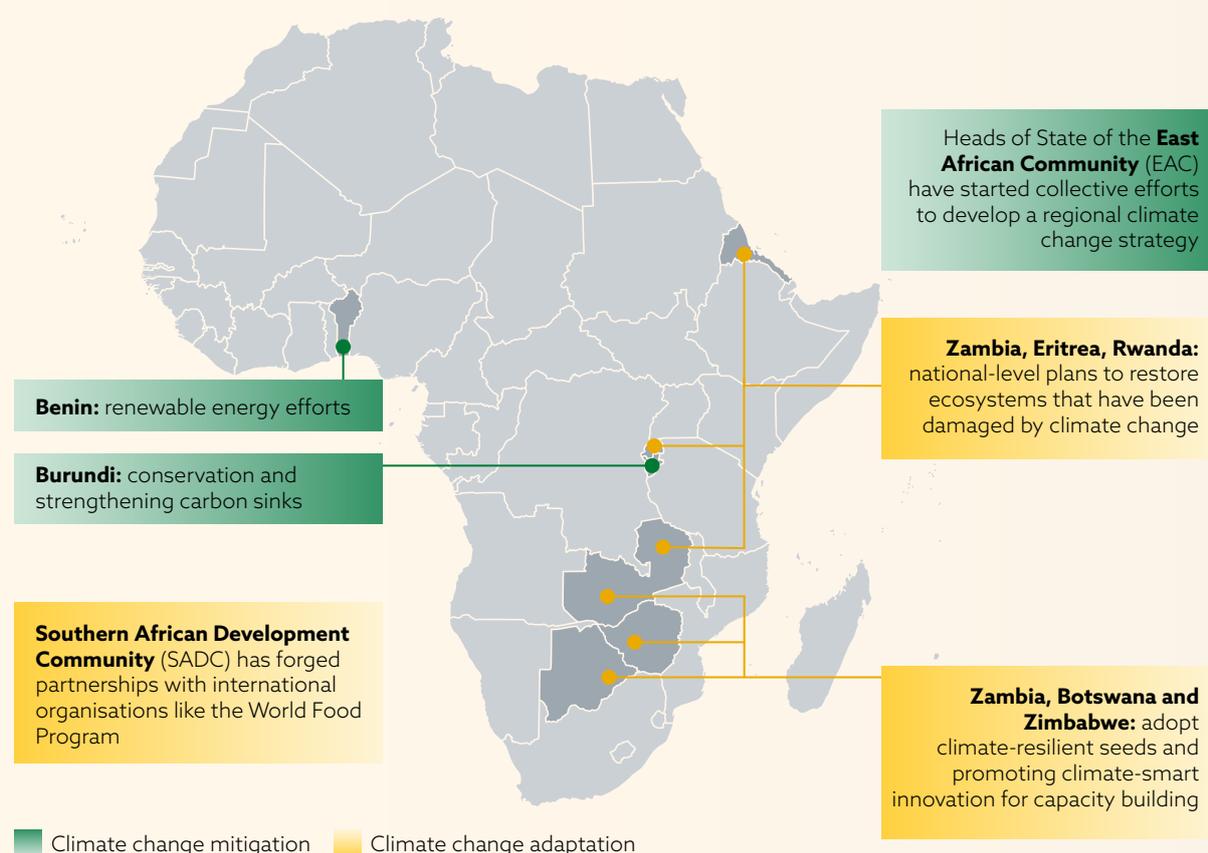


**Without locally generated climate data & knowledge outputs, the costs needed to produce suitable climate mitigation and adaptation solutions will remain high due to information and knowledge scarcity.**

# Climate Investment Policies in Africa

## 3.1 Climate Change and Policymaking in Africa: Regional and National Strategies

In response to the climate risks faced, the African Union (AU) has outlined its plans for enhancing regional climate cooperation and climate-resilient development. The AU's *Climate Change and Resilient Development Strategy and Action Plan (2022-2032)* has sought to put into place institutions and processes that enable a multilateral approach to tackling climate change and climate risk management. The African Ministerial Conference on the Environment (AMCEN) has also resulted in commitments to reduce methane and carbon emissions in the region<sup>31</sup>, as well as developing a green/blue economy and reducing land degradation and biodiversity loss<sup>32</sup>. There are also concerted efforts by various geographical groups within the continent to bolster their countries' climate change efforts. The Southern African Development Community (SADC), for example, has forged partnerships with international organisations like the World Food Program, while the Heads of State of the East African Community (EAC) have also started collective efforts to develop a regional climate change strategy, masterplan, and policy framework<sup>33</sup>.



African countries have also sought to put into place national climate change policies that are dual purpose and cross-sectoral. Such policies often cover both climate mitigation and adaptation measures. Both mitigation and adaptation contribute to a green, resilient, and sustainable development path and are equally crucial in the fight against climate change - the former allows countries to curb the rise of atmospheric temperatures further through the reduction or stabilisation of carbon emissions, while the latter bolsters the resilience of populations and bio-ecological systems against the impact of climate change.

Virtually all African countries have declared that the primary goal of their mitigation efforts will be to reduce national carbon emissions by a range of 10-50% by 2030. Examples of national efforts in support of mitigation include Benin's renewable energy efforts<sup>34</sup> and Burundi's conservation and strengthening carbon sinks<sup>35</sup>. African countries also have climate change adaptation plans and policies to accompany their mitigation counterparts. Agriculture appears to be a common theme across the climate change adaptation plans, given that it accounts for close to 25% of sub-Saharan Africa's GDP, and over 60% of the population in sub-Saharan Africa are smallholder farmers<sup>36</sup>. Adaptation efforts in this regard include national-level plans by Zambia<sup>37</sup>, Eritrea<sup>38</sup>, Rwanda<sup>39</sup> and others to restore ecosystems that have been damaged by climate change to boost the resilience of local communities against negative climate change impacts – an approach commonly known as ecosystem-based adaptation, or EBA<sup>40</sup>. Other agriculture-related climate change adaptation initiatives outlined in national plans and associated policies include efforts to adopt climate-resilient seeds<sup>41</sup> and promoting climate-smart innovation for capacity building as is the case of Zambia<sup>42</sup>, Botswana<sup>43</sup>, and Zimbabwe<sup>44</sup>. African governments consider adaptation to also be a key part of the climate change fight, together with mitigation.

## 3.2 Outcomes from COP27 and the Future of Climate Investing and Climate Policy in Africa

The recent 2022 United Nations Climate Change Conference, or COP27, further signalled the urgency of climate change for African countries and recognised the disproportionate impact it will have on the continent. Countries agreed in-principle to the establishment of a "loss and damage" fund which will provide payouts to developing countries who have incurred losses from climate-induced events such as floods, droughts, or wildfires<sup>45</sup>. The COP27 launch of the Africa Carbon Markets Initiative (ACMI) also aims to scale the voluntary carbon markets across Africa and has secured US\$200 million in advanced market commitments from global companies in support of its ambitions<sup>46</sup>. There were also significant calls for reforming the global financial architecture to better align with climate goals. More specifically, these reforms called for multilateral development banks (MDBs) and international financial institutions (IFIs) to ensure that they can meet the scale of financing needed for developing countries<sup>47</sup>.



# Africa's Climate Investment Landscape

All 54 African countries are signatories of the 2015 Paris Agreement, a legally binding international treaty on climate change whose long-term aim is to limit rising global temperatures to within 1.5°C of pre-industrial levels. **US\$2.8 trillion is needed to finance the plans for climate mitigation (also referred to as nationally determined contributions) African governments have assigned for themselves under this Agreement by 2030<sup>48</sup>.** The realisation of these country specific targets to reduce national emissions and adapt to the impacts of climate change require far more capital than is currently available, or being committed to, the continent.

This section will give a brief introduction to Africa's climate investment landscape, exploring current actors in, channels and categories of climate finance in Africa. It begins with an introduction of the breadth of capital sources for climate finance in Africa, highlights the predominant categories of climate focused and climate-aware private investing funds in Africa, and concludes by mapping the current nature of climate focused funds and private investment on the continent.



**US\$2.8 trillion is needed to finance the plans for climate mitigation African governments have assigned for themselves under this Agreement by 2030**

## 4.1 Africa's Climate Investors

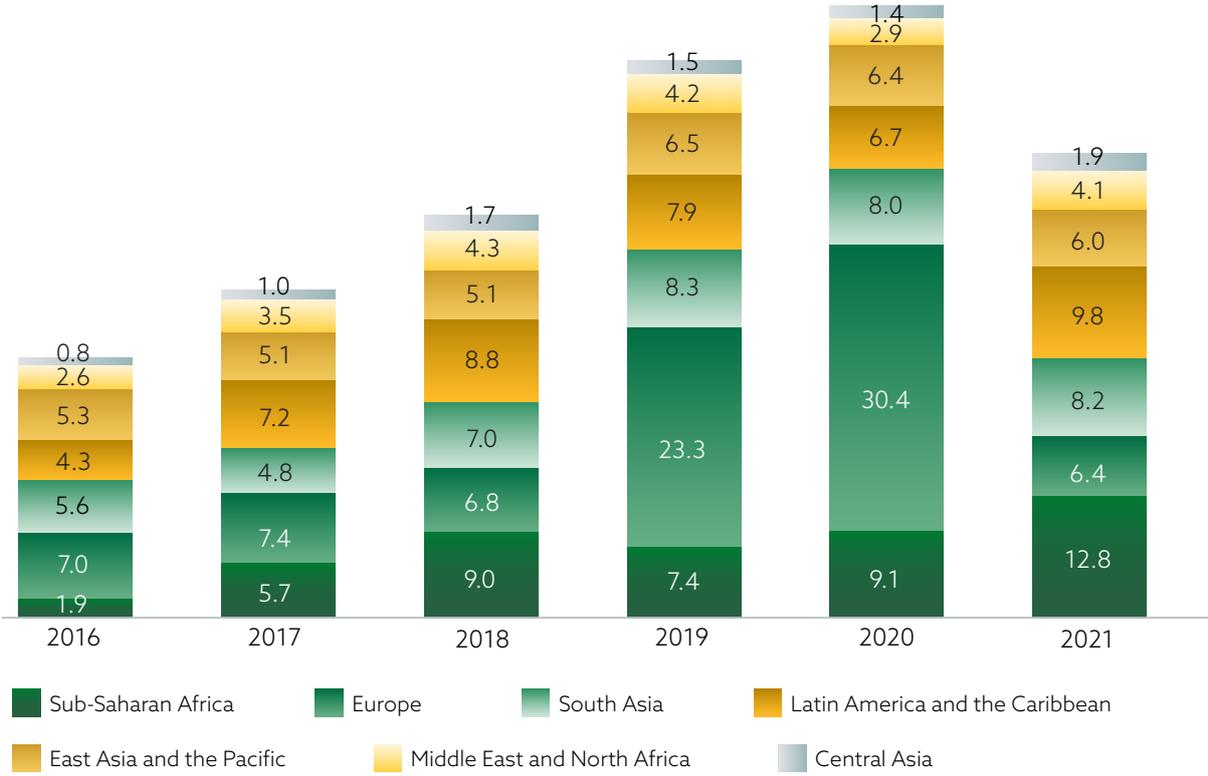
### National Governments

No longer a distant predicted future, climate change is now an imminent and alarming reality. As governments across the continent contend with declining agricultural productivity, increasing desertification, dwindling water supplies and a heightened risk of natural disasters, the necessity of increased national spending for climate resilience is now undisputed. **African governments have committed a cumulative US\$264 billion of domestic public resources over 2020 to 2030 towards climate adaptation and mitigation<sup>49</sup>.** While this figure represents a commendable effort to meet the continent's commitments under the Paris Agreement, particularly considering the constrained fiscal capacity of many African governments, it remains a far cry from the capital needed for even a partial implementation of Africa's nationally determined contributions.

### Development Finance Institutions

Africa's well documented vulnerability to the climate crisis has placed climate resilience at the forefront of Africa's sustainable development agenda in recent years. Although it only contributes less than 3% of global carbon emissions, sub-Saharan Africa is the region most vulnerable to the adverse effects of anthropogenic climate change<sup>50</sup>. In partial recognition of the burden of duty owed to support Africa's efforts to build climate resilient economies given this disproportionate burden, the 2015 Paris Agreement calls on developed nations to give US\$100 billion annually to developing countries by 2020. In this vein, **Development Finance Institutions (DFIs) committed US\$45.8 billion to sub-Saharan Africa between 2016 and 2021 to support governmental efforts to build climate resilience on the ground.**

**Exhibit 1: Evolution of Climate Finance From Development Finance Institutions, by Region, 2016 - 2021<sup>51</sup>**



Sub-Saharan Africa rose five places to become the largest beneficiary of climate investment from development finance institutions in 2021, with funding allocated to the region growing at a CAGR of 37% between 2016 and 2021.

**Multilateral Climate Funds**

Another medium for this required international support of Africa’s (and other developing regions) low-carbon and climate-resilient transition is in the form of multilateral climate funds. **A total of 20 multilateral climate funds with a cumulative disbursement value of US\$2.2 billion<sup>52</sup> pooled from a coalition of international donors either target Africa specifically, or include Africa as a regional focus.**

**Private Sector**

The private sector has also been swept up in the rising tide of climate finance in recent years, albeit with a disproportionate focus towards mitigation. As the momentum of the global transition to a Net-Zero future accelerates, the necessity for climate resilient assets has led to their emergence as an investment opportunity for private capital. Notably, **private climate finance provided and mobilised by developed countries for climate action in developing countries stood at US\$13.1 billion in 2020, increasing by close to 30% between 2016 and 2020<sup>53</sup>.**

The spectrum of climate-related private investment funds, each employing unique strategies to address various sustainability objectives, can be divided into the following broad categories:

**Exhibit 2: Categories of Climate Focused and Climate-Aware Private Investing Funds<sup>54</sup>**



**LOW CARBON**

Low Carbon funds typically make sector-agnostic investments in companies with reduced carbon intensity and/or carbon footprint relative to a benchmark index.

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**CLIMATE CONSCIOUS**

Climate Conscious funds typically target companies that consider climate change in their business strategy. These companies need not be solely climate focused but are better prepared for the transition to a low-carbon economy than mainstream companies given their climate consciousness. Because of the large subset of companies that meet this description, climate conscious funds share an overlapping or hybrid profile to low carbon and climate solution funds.

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**CLIMATE SOLUTIONS**

Climate Solutions funds only target companies that are contributing to the transition to a low-carbon economy through their products and services and in companies that will benefit from this transition.

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**GREEN BONDS**

Although Green Bonds share the same structure, risk, and return features of traditional bonds, they differ in the intended purpose of their proceeds. Green bonds raise funding exclusively for projects with a sustainable development focus and a positive climate and environmental outcome. Green Bonds are typically earmarked for high return but low risk projects, particularly within the Renewable Energy, Clean Transportation, Green Buildings, Water and Sanitation sectors.

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**CLEAN ENERGY & TECH**

Clean Energy & Tech funds typically make sector-specific investments the Renewables space, targeting companies that contribute to or facilitate the clean energy transition.

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These climate categories are relatively fluid, in that private capital funds in each category type can invest in companies whose goods and services provide solutions for climate change mitigation and / or adaptation.

## 4.2 Africa's Climate Investment Landscape

All five of these themes are visible in Africa's climate investment landscape and will be discussed in turn, in order of their predominance.



### Clean Energy and Tech

Clean energy funds are a dominant force in the continent's climate investment landscape. The necessity for clean and renewable energy solutions in Africa is at an all-time high. The demand for reliable and affordable energy has grown concomitantly to the continent's economic growth, industrialisation, increasing urbanisation and rapid population growth in recent years. The already compelling case for the adoption of modern renewable energy in Africa is compounded given the sheer breadth of Africa's renewable resources, spanning bioenergy, hydropower, solar, wind and geothermal energy.

Accordingly, investors are betting big on clean and renewable energy to plug Africa's energy deficit and support the continent's strides towards electrification. Slightly less than **US\$150 billion of private capital is projected to enter the African energy market by 2028**<sup>55</sup>. In all likelihood, a significant proportion of this will be channelled to renewable energy ventures, given scientific advancements in renewable energy technology making it a highly accessible and newly affordable source of electricity in Africa. The popularity of funds raising clean energy funds in Africa's climate investment landscape is visible in the sectoral breakdown of private capital fundraising for 2021. Illustratively, **53% (US\$2.3 billion) of the total private capital fundraising value reported in Africa in 2021 originated from sector specific funds in the Renewable Energy sector**<sup>56</sup>.

Clean and renewable energy funds currently fundraising include the US\$300 million *Pan-African Renewable Energy Fund (PAREF)* launched by Harith General Partners and Anergi Group in June 2022 to accelerate renewable energy adoption across Africa. Other examples are the US\$150 million *CrossBoundary Energy Access Fund* which serves as Africa's first project financing facility for mini-grids launched by CrossBoundary in 2019, as well as the US\$80 million target fundraise by *Serengeti Energy* to increase its portfolio of renewable energy projects in Africa. Given the number of specialised vehicles raising exclusively clean and renewable energy focused funds currently on the market, we can expect this already significant sub-category of Africa's climate investment landscape to continue its ascent in the near- and long-term future.

Underpinning the economic viability of Africa's renewable energy solutions is a wave of innovative power generation technologies making renewable energy cost competitive to conventional fossil fuels<sup>57</sup>. Demonstratively, solar electricity costs fell by 82% between 2010 and 2019, while electricity generation costs from wind projects saw contraction of 50-60% in the same period<sup>58</sup>. Given the galvanising force of digitalisation and technology developments in reducing costs for renewable energies, clean technology funds are becoming a prominent feature of Africa's climate investment landscape. A good example is in the disbursements made within Africa's share of the *Climate Investment Funds (CIF)* - a multilateral climate finance mechanism at the forefront of climate action in developing countries, of which the private sector is the biggest financial contributor. Of the CIF's four key programs in Africa, Clean Technology has seen the most investment by far at US\$2.31 billion, significantly outpacing the combined commitments made to the Forest Investment, Climate Resilience and Renewable Energy programs, which jointly comprise US\$626 million (as of December 2021)<sup>59</sup>.



## Climate Solutions

A small but growing number of Climate Solutions funds have emerged in recent years as capital allocators mobilise resources to support Africa's growing entrepreneurial talent pioneering climate resilience in their local communities. Examples of climate solutions funds active in Africa's climate investment landscape includes the *E3 Low Carbon Economy Fund I*, a venture capital fund investing in new generation climate smart and climate transition businesses in Africa. This fund continues the legacy of Energy Access Ventures (now rebranded to E3) to invest in companies with digitised, decentralised and decarbonised innovative business models, following the successful US\$90 million final close of its maiden fund in 2017. Another example is the US\$30 million pre-seed fund and accelerator from Catalyst Fund launched in October 2022 to back high-impact tech startups providing climate solutions that improve the resilience of underserved, climate-vulnerable communities across Africa.

Signalling the growing interest in companies that are contributing to the transition to a low-carbon economy is the entrance of corporate venture capital in the climate solutions space. The launch of the Diageo Climate Solutions fund by multinational alcoholic beverage company Diageo PLC in August 2022 is a notable example. The fund is targeted at early-stage companies and innovators deploying technology to enhance farmer resilience to water, climate, and biodiversity impacts in Africa.

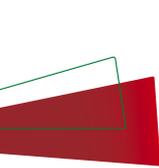


## Climate Conscious

Climate conscious funds typically target companies that consider climate change in their business strategy and have overlapping foci with low carbon and climate solution funds, given the breadth of companies that meet this description. As demonstrated further in Section 5, awareness of climate impact (i.e. the specific risks and opportunities of climate change) amongst the private sector and private investors active on the continent has grown significantly in the last few years.

**“The level of awareness has skyrocketed. It’s front and centre, people now have a better understanding of what it entails. Some of the big institutional investors – pension funds and asset managers – that didn’t want to hear our story 12 years ago are now well aware of climate-conscious investing and are interested in it. A lot of them have set up divisions or subsidiaries within their firms to launch resource-efficient or climate funds. You see it all the time now: new divisions, new funds, and new managers are focusing on the climate investment theme. Climate consciousness has definitely gained a lot more traction and interest globally and, while it’s still unfolding, the pure commercial reality of it is now also being accepted.”**

- Marc Immerman, Managing Principal of Metier Sustainable Capital, Metier



As climate consciousness continues to penetrate in the industry, a broader swathe funds and fund managers will begin to fall into this category. Examples of private capital fund managers that have adopted a climate lens in their investment philosophy and can now be deemed climate conscious includes AfricInvest, one of Africa's first private capital fund managers and an early pioneer in the industry. The firm, which targets growth-capital investments in small and medium-sized enterprises on the continent, announced its plans to begin work on the *AfricInvest Climate Fund*, which will focus on investments in climate change mitigation and adaptation solutions<sup>60</sup>. Another example is impact investor LeapFrog Investments, which launched a new climate strategy in November 2022 to support companies and technologies that enable both mitigation of and adaptation to climate change by lower-income people<sup>61</sup>. Their climate strategy is self-described as “a natural extension of the firm's 15-year journey as a pioneer of impact investing”<sup>62</sup>, broadening the firm's investment strategy which previously focused on high-growth, purpose-driven companies in the Healthcare and Financial Services sectors in emerging markets.



## Low Carbon

Low Carbon funds are a relatively niche subset of climate-themed investment funds in Africa. Although Africa is presently the lowest contributor of greenhouse gas emissions globally, the continent's rapidly growing economies, ambitious development goals and expanding population means its energy consumption will rise significantly in the next few decades. As the continent with arguably the most ground to cover from a socio-economic development perspective, key to the achievement of the Net-Zero agenda and fulfilment of global climate targets is ensuring that Africa's development trajectory coincides with a just energy transition. Despite this impetus for a low carbon development path, companies advancing products or services with a reduced carbon footprint received the lowest proportion of private capital deal activity by both volume and value in Africa between 2002 and 2022. That said, this cohort saw the most development of all the climate categories, growing at a CAGR of 23% in the same period (discussed in more detail in Section 4.3).

Companies and projects in the low carbon category are not only accelerating Africa's transition to carbon neutrality by 2050, they are also uniquely placed to earn additional revenue with carbon credits. Companies active in this space include *KOKO Networks*, a Kenyan climate tech startup that distributes liquid ethanol cooking fuel as a cheaper and cleaner alternative to charcoal. The company's Koko Climate division produces and trades carbon credits which are “verified through a UNFCCC Clean Development Mechanism programme and then traded into global compliance and voluntary markets” according to CEO and co-founder Greg Murray<sup>63</sup>. Another is *Powerstove Energy*, a Nigerian manufacturer of smokeless, tech-enabled biomass cookstoves that also generates electricity. The company's proprietary software tracks, quantifies and monetises carbon credits from their clean cookstoves, with revenue generated from selling carbon credits going into research, development, and financing of their product. The Africa Carbon Markets Initiative launched at COP27, which aims to scale voluntary carbon markets across Africa to unlock US\$6 billion in revenue by 2030<sup>64</sup>, will likely increase the demand and financing for companies and projects in Africa delivering co-benefits beyond emission reductions. Private capital investors already active in this space include Persistent Energy Capital, a venture builder which seeks positive impact by promoting carbon-neutral economic development as well as the Spark+ Africa Fund, a US\$70 million impact investment fund financing low-carbon companies that offer next-generation, distributed cooking energy solutions to the mass market in sub-Saharan Africa.



## Green Bonds

Green bonds are fixed-income instruments that raise capital from investors through the debt capital market, specifically earmarked to finance projects that generate positive environmental and climate outcomes. Their appeal lies in their structure, which enables investors to balance risk-adjusted financial returns with environmental benefits and disperse ownership of debt across investors. A robust secondary market for bonds promotes liquidity, offering an avenue for investors that may prefer short-term exit strategies to still satisfy internal ESG or green investment mandates. Finally, the stringency of proceeds uses and reporting requirements for green bonds also offer improved risk assessment in an otherwise opaque fixed income market<sup>65</sup>.

Africa's first green bond, which was also the first such issuance from an emerging market, was issued in South Africa in 2012<sup>66</sup>. As of September 2022, over 50 green bonds have been issued on the continent from a range of sovereign, supranational and commercial actors<sup>67</sup>.

ISSUER TYPE	CUMULATIVE VALUE
Sovereign	US\$1.44 billion
Commercial & Private Investors	US\$3.79 billion
Supranational	US\$3.695 billion

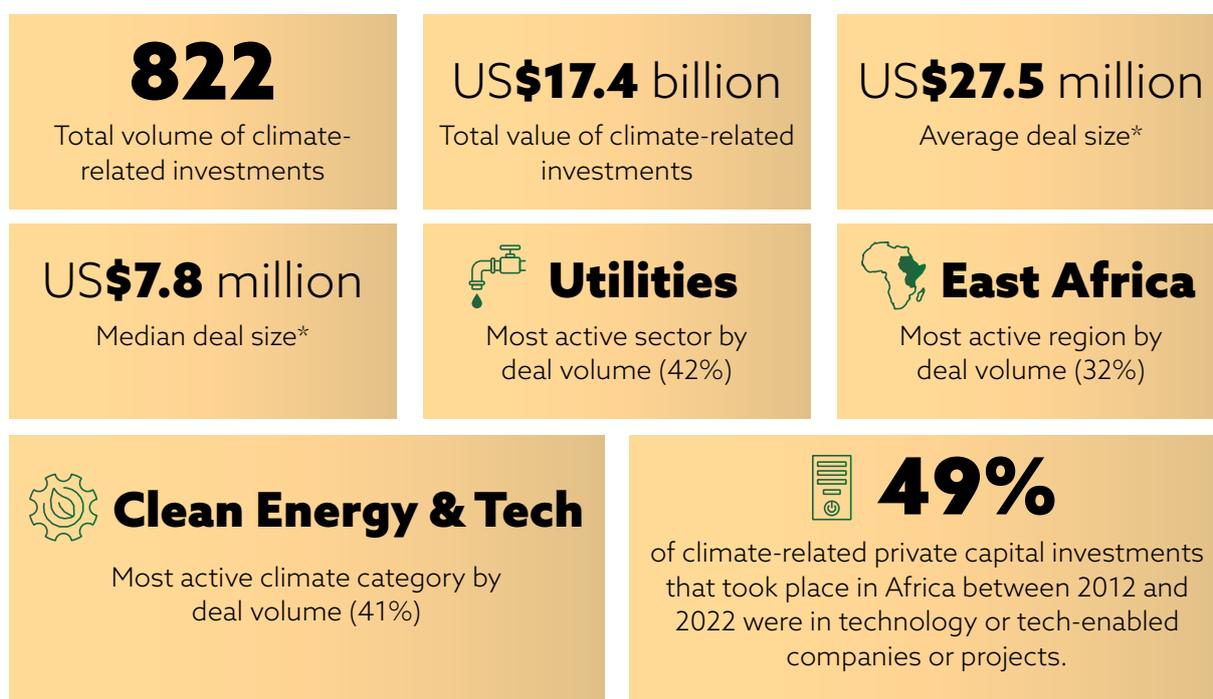
While innovative, green bonds remain a relatively under-utilised financial instrument in Africa's climate landscape for a number of reasons, including: the nascency of the continent's capital markets; the high up-front and ongoing costs related to labelling, certification and reporting of green bonds; and challenges related to managing and tracking proceeds. To date, there have only been four sovereign issuers of Green, Social, and Sustainable (GSS) bonds in Africa<sup>68</sup>, with the governments of Benin (2021), Egypt (2020), Seychelles (2018) and Nigeria (2017) having raised sovereign green bonds.

The uptake of green bonds amongst sub-national actors is more prominent, with financial institutions and corporations making use of green bonds with increasing frequency in recent years. In 2018, Nedbank successfully raised *The Renewable Energy Bonds*, becoming the first private sector institution to raise a green bond that was Climate Bonds Certified in South Africa<sup>69</sup>. In 2019, the US\$40 million *Acorn Green Bond* became Kenya's first (and thus far only) green bond, earmarked to finance environmentally friendly student accommodation. In Morocco, approximately 5 green bonds raising over US\$400 million cumulatively have been issued to date, the most recent being the MAD1 billion green infrastructure bond raised by The National Railways Office in July 2022 to finance an electrified high-speed train line project. In addition to the preceding, Cote D'Ivoire, Mauritius and Namibia are the only other countries to have successfully raised a green bond<sup>70</sup>. Overall, although green bonds remain an under-explored frontier for mobilising public sector resources for sustainable and climate financing in Africa, the private sector is leveraging this instrument with increasing scale and frequency.

## 4.3 Africa's Climate Investment Flows

Africa is home to a veritable fount of climate-related investment opportunities, from sustainable agribusiness to renewable energy, waste management and electric mobility, amongst several others. Climate consciousness has percolated into Africa's private investment landscape with increasing depth in recent years, and private capital investors are responding to the developmental and moral imperative to contribute towards the realisation of a climate-resilient future on the continent. Private capital investors across a broad cross-section of sectors, asset and stage focuses are adopting a climate lens to their investment approaches. This section maps the current nature of these climate focused private investments on the continent, exploring the asset classes, sectors and geographies that successfully raised private capital in the last decade.

### Key Findings 2012-2022:

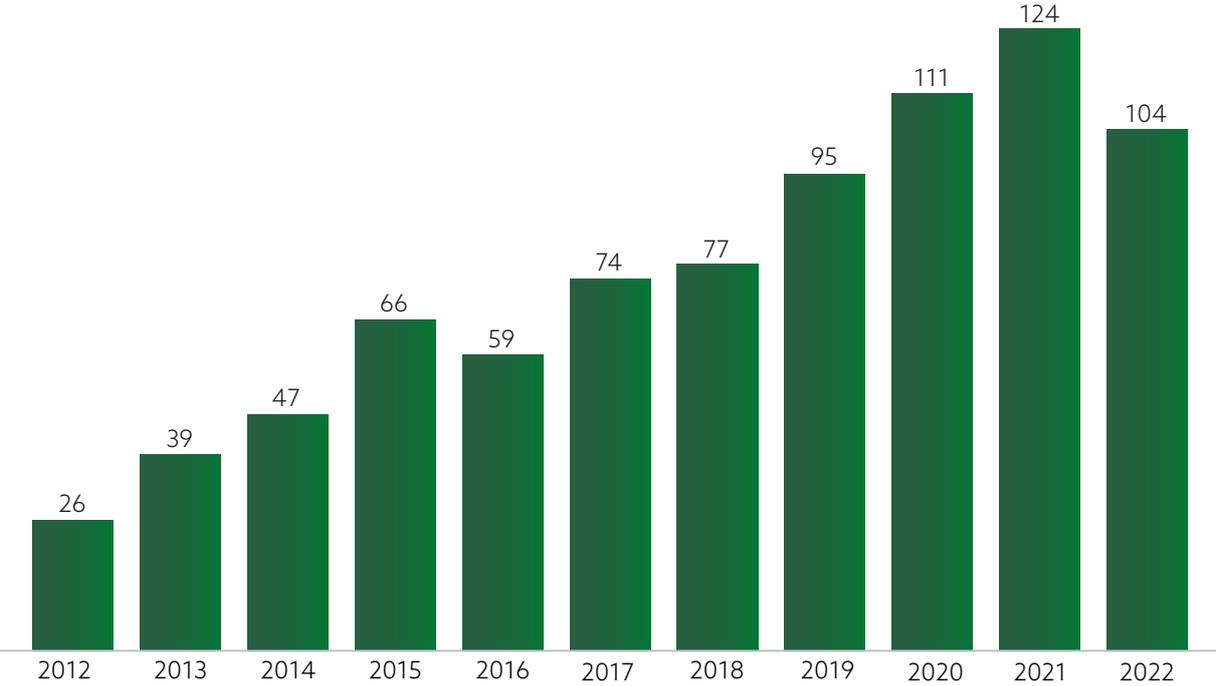


\* Please note the average and median are calculated excluding deals where the deal value is not disclosed.

### Climate Investment Flows by Asset Class

The preceding decade has seen close to a four-fold increase in private capital allocated to climate-related assets, projects and companies in Africa. A total of 822 climate-related investments with a cumulative value of US\$17.4 billion took place on the continent between 2012 and 2022, with deal activity largely maintaining a steady upward trend in that time. The evolution of deal activity has been modest (at a CAGR of 15%), and this growth trajectory reflects the similarly slow moving / gradual permeation of climate consciousness amongst investment managers allocating on the continent.

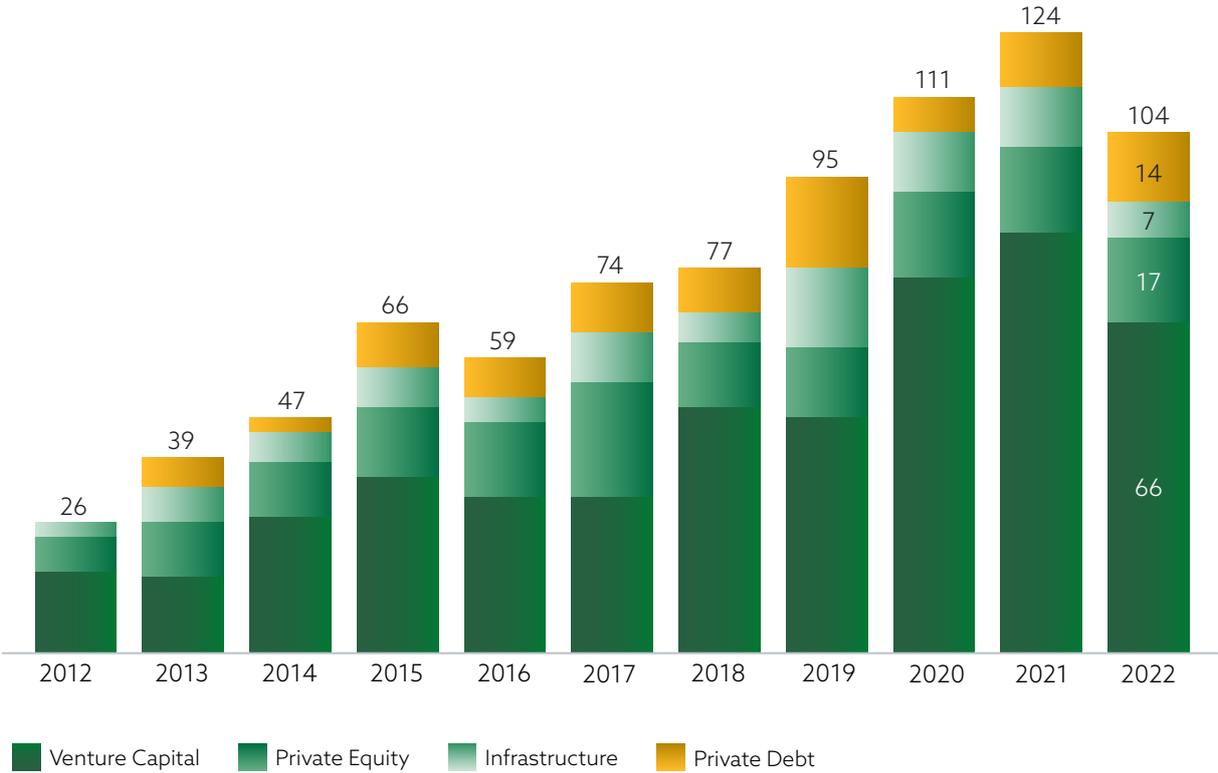
**Figure 1: Volume of Climate-Related Private Capital Deals Reported In Africa, By Year**



Mirroring trends in the wider configuration of Africa's private capital ecosystem, venture capital leads the charge of climate-related investments that took place in Africa between 2012 and 2022, accounting for an annual average of 56%. However, venture capital only becomes a noticeable cornerstone of the climate investing ecosystem from 2020 onwards, where the pace of venture capital deal making thereafter assumes over two thirds of annual deal volumes reported on the continent. These venture capital investments were largely in early-stage companies in the Information Technology sector (for companies operating in the Semiconductors & Semiconductor Equipment and Software & Services sub-industries) as well as the Consumer Discretionary Sector (specifically the Consumer Durables & Apparel sub-industry).

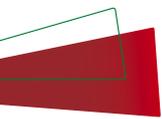
Next is private equity, which routinely drew the second largest proportion of private capital allocated to climate resilient assets and companies in Africa in the last decade. Although far from uniform, private debt strategies have been a feature of Africa's climate investing ecosystem since the early-2010s. Key players within this asset class include *Lion's Head Global Partners*, *responsAbility Investments*, *SunFunder* and the *Electrification Financing Initiative (ElectriFI)*. Examples of recent private debt transactions include the US\$23 million debt funding round in June 2022 for *Yellow*, a South African FinTech startup delivering energy financing products to low-income households in Malawi and Uganda. Another is the US\$425 million senior and mezzanine funding for independent power producer *Genser Energy Ghana* from a consortium of international banks and funds in July 2022. The transaction is part of Genser's decarbonization strategy to achieve net zero carbon emissions by 2035<sup>71</sup>. Given the significance of energy infrastructure investments facilitating renewable energy on the continent and the resource intensity of the same, it is likely that appetite for and uptake of private debt will only intensify to meet the need for concessional, patient climate capital in project finance.

**Figure 2: Volume of Climate-Related Private Capital Deals Reported In Africa, By Year and Asset Class**

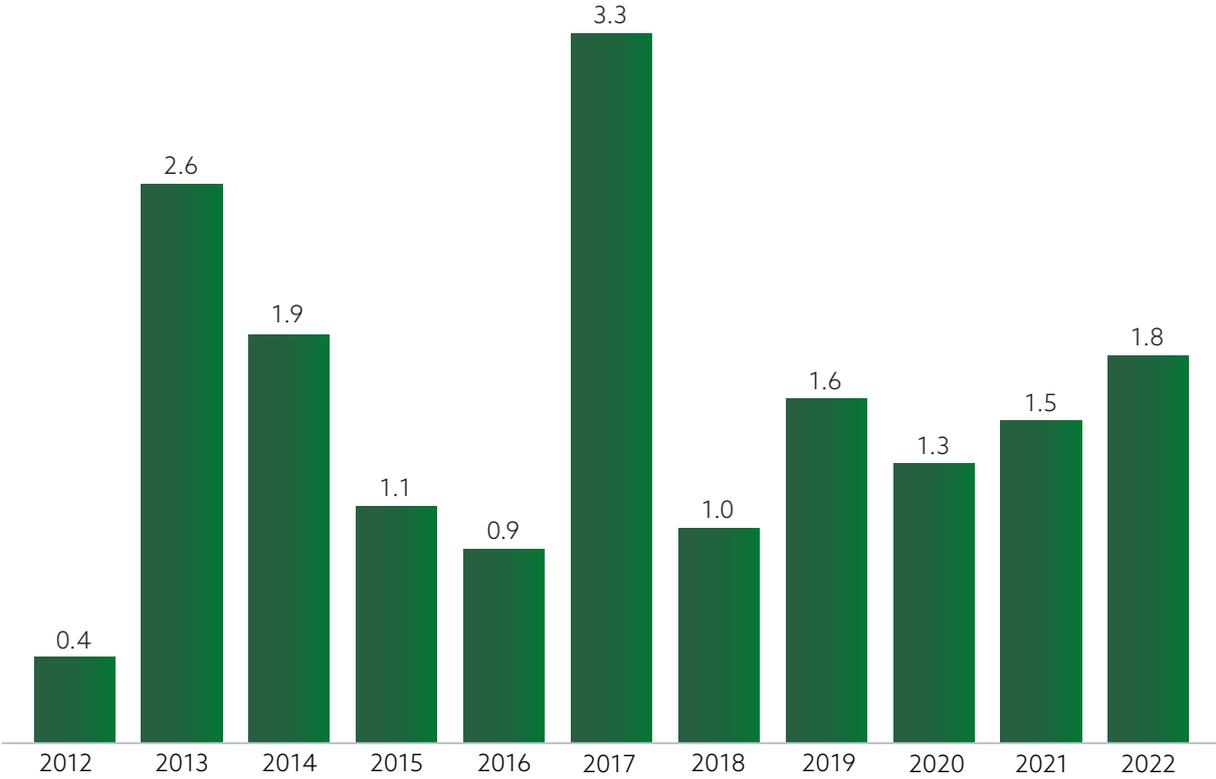


When broken down by deal value, the evolution of climate-related deal activity in Africa’s private capital industry reveals a more fractured picture. Steady annual growth is only visible in the period between 2020 and 2022, with the preceding years characterised by fluctuating aggregate deal values. In spite of this uneven development, a modest upward concave growth curve is visible with the value of climate related investments growing at a CAGR of 14% in the decade between 2012 and 2022. Two years stand out as outliers in this period: 2013 and 2017. A strong private equity performance in 2013 and the large contribution of deals from the infrastructure asset class in 2017 account for the elevated deal values in these years. Excluding the preceding, private capital deal values for climate-related investments in Africa averaged US\$1.3 billion annually between 2012 and 2022.

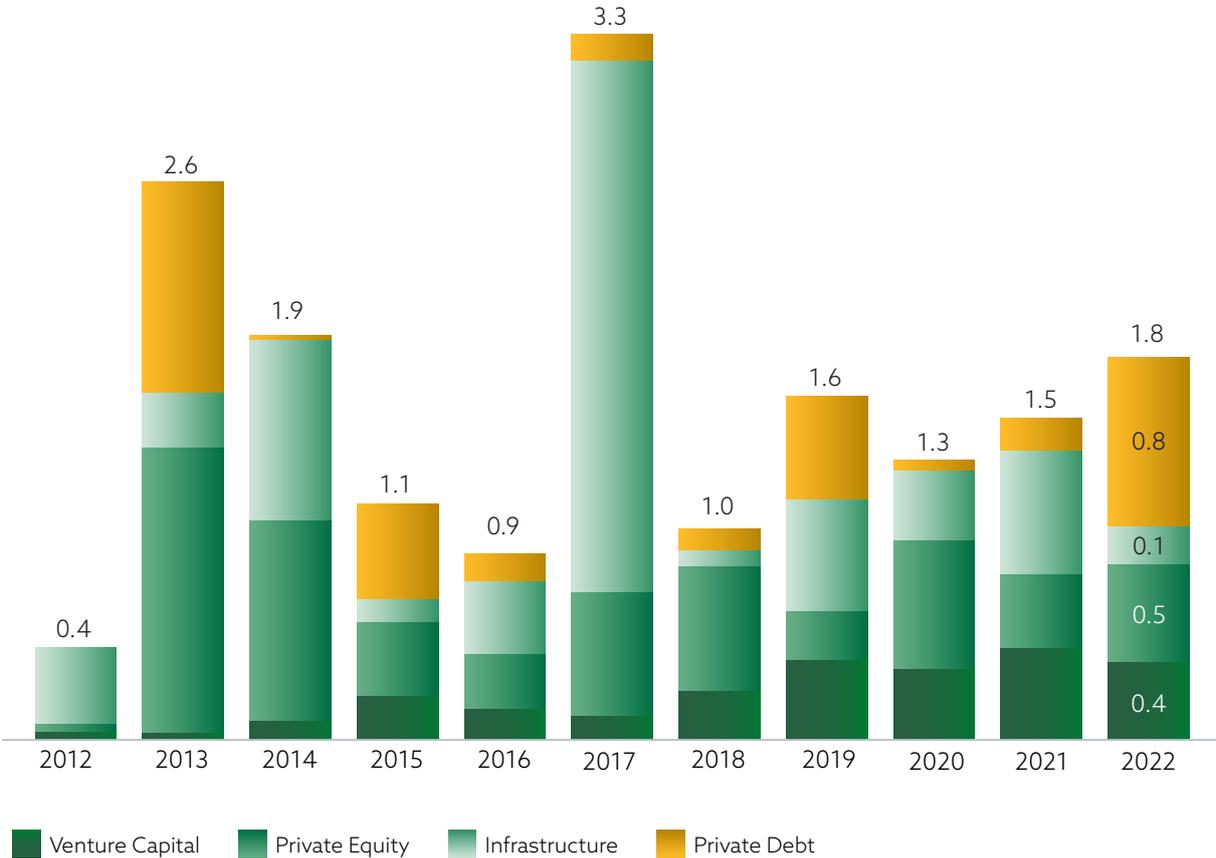
Africa’s private capital industry has historically focused on supporting small and medium sized enterprises, leading to a prevalence of deals with smaller ticket sizes befitting the size and needs of these enterprises. The same is visible in the repartition within the climate investing ecosystem, where 65% of all deals with disclosed funding fall in the US\$10 million and under category. Only 6% of private capital deals with disclosed funding in climate-related projects or companies between 2012 and 2022 were in excess of US\$100 million, with almost the entirety of deals in this subject going towards the (re)financing of renewable energy infrastructure projects. The only exception to this is the US\$238 million multi-currency receivable financing facility for solar home lighting and power products developer *d.Light* in June 2022.



**Figure 3: Value of Climate-Related Private Capital Deals Reported In Africa, By Year (US\$ bn)**



**Figure 4: Value of Climate-Related Private Capital Deals Reported In Africa, By Year and Asset Class (US\$ bn)**



## Climate Investment Flows by Climate Category

Companies that contribute to or facilitate the clean energy transition in the Clean Energy & Tech category were the largest recipients of private capital in Africa, with the exception of 2022. A total of 333 deals with a cumulative value of US\$14 billion fell into this category – accounting for 41% of the total volume and a substantial 81% of the total value of climate-related private capital deal activity in Africa between 2012 and 2022. While the production costs of renewables have fallen significantly with the introduction of technology, clean-energy projects remain capital and resource intensive, hence this category’s command of such a high proportion of total deal value. Examples of companies in this category that recently raised funding include:

Virunga Power	Serengeti Energy	CrossBoundary Energy Access (CBEA)
A distributed renewable energy company. Virunga Power received a US\$50 million investment from Gridworks (a British International Investment Company) in December 2022 to fund new projects in Burundi, Malawi, Zambia and Kenya <sup>72</sup> .	A sub-Saharan Africa independent power producer. Serengeti Energy received a US\$80 million investment from Swedfund, Proparco (both DFIs) and STOA, a French impact investment fund in June 2022 <sup>73</sup> .	Africa’s first project financing facility for mini-grids. CBEA announced US\$25 million of new senior debt funding commitments from a consortium of investors in June 2022, enabling the company to make deployments to its near-term pipeline of solar powered mini-grids <sup>74</sup> .
 Climate Category: <b>Clean Energy &amp; Tech</b>	 Climate Category: <b>Clean Energy &amp; Tech</b>	 Climate Category: <b>Clean Energy &amp; Tech</b>

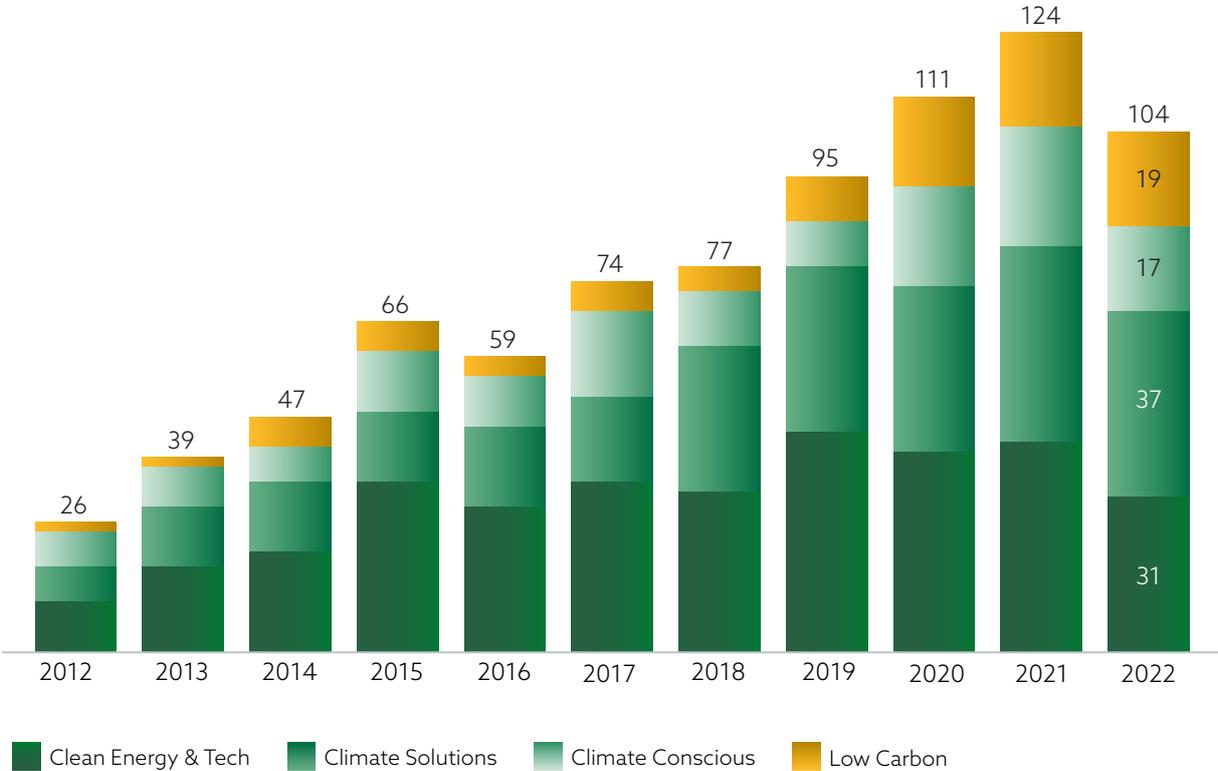
Companies providing Climate Solutions were the second largest recipients of private capital in Africa and were the subject of growing investor interest over the years, coming to eclipse the Clean Energy & Tech category in 2022. A total 251 deals with a cumulative value of US\$2.3 billion fell into this category – accounting for 31% of the total volume and 13% of the total value of climate-related private capital deal activity in Africa between 2012 and 2022. Examples of companies that contribute to, or benefit from, the transition to a low-carbon economy through their products and services that recently raised funding include:

Sistema.bio	BBOXX	Aceleron
A biodigester manufacturer that enables farmers to convert waste into renewable energy and organic fertilizer. The company raised a US\$15.6 million Series B round in February 2022 to scale its waste-to-energy technology <sup>75</sup> .	A manufacturer of decentralized energy systems created to improve access to energy. BBOXX secured a US\$15 million local currency loan from SBM Bank and GuarantCo in January 2022 <sup>76</sup> , closing out the year with another EUR11 million loan from the Off Grid Energy Access Fund in November 2022 to ramp up their clean electrification delivery in Togo <sup>77</sup> .	A clean technology company manufacturing sustainable, recyclable lithium batteries. Aceleron raised a £5 million Series A in January 2022 to accelerate battery innovation in Africa <sup>78</sup> .
 Climate Category: <b>Climate Solutions</b>	 Climate Category: <b>Climate Solutions</b>	 Climate Category: <b>Climate Solutions</b>

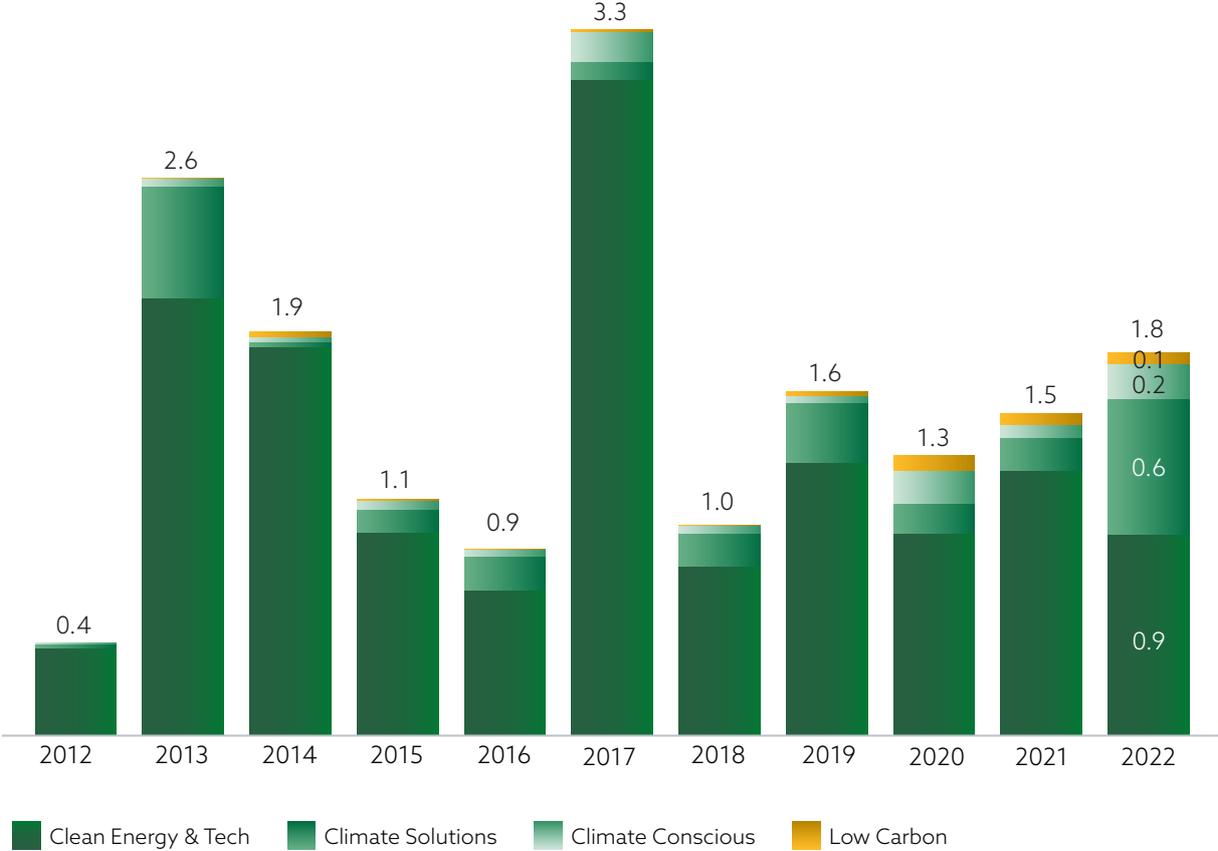
Although companies in the Low Carbon category received the lowest proportion of private capital deal activity by both volume and value, this cohort saw the most development of all the climate categories, growing at a CAGR of 23% between 2002 and 2021. A total of 96 deals with a cumulative value of US\$0.3 billion fell into this category – accounting for 12% of the total volume and 2% of the total value of climate-related private capital deal activity in Africa between 2002 and 2022. Examples of companies advancing products or services with a reduced carbon intensity / footprint that recently raised funding include:

Shift EV	BasiGo	BURN Manufacturing
An Egyptian electric mobility startup. The company raised a US\$9 million Series A funding round in April 2022 led by Algebra Ventures and other investors.	A Kenyan e-mobility startup developing electric buses for bus owners. The company raised a US\$6.6 million seed round in November 2022 to begin commercial delivery of locally-manufactured electric buses and charging infrastructure.	A manufacturer of clean-burning biomass, electric and LPG cookstoves designed to provide clean cooking services. BURN Manufacturing raised US\$4 million in June 2022 to finance the expansion of its business in new markets, including Somalia, Ghana, Nigeria, Mozambique, and the Democratic Republic of Congo. <sup>79</sup>
 Climate Category: <b>Low Carbon</b>	 Climate Category: <b>Low Carbon</b>	 Climate Category: <b>Low Carbon</b>

Figure 5: Volume of Climate-Related Private Capital Deals Reported In Africa, By Climate Category



**Figure 6: Value of Climate-Related Private Capital Deals Reported In Africa, By Climate Category (US\$ bn)**



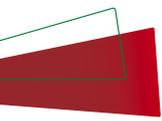
**Climate Investment Flows by Sector**

Utilities (42%), Information Technology (18%), and Consumer Discretionary (13%) were the three most active sectors by volume for climate-related private capital investments spanning 2012 and 2022. Capitalising on the depth and breadth of renewable energy sources the continent has to offer, deals backing renewable electricity producers were the driving force for the prominence of the Utilities sector in Africa’s climate ecosystem. Funding recipients in this sector were a varied combination of independent power and renewable electricity producers harnessing the power of Solar (49%), Wind (13%), Geothermal (8%), Hydropower (7%) and Biomass (6%) energy solutions. Examples of renewable projects and companies that received funding in the last few years include:

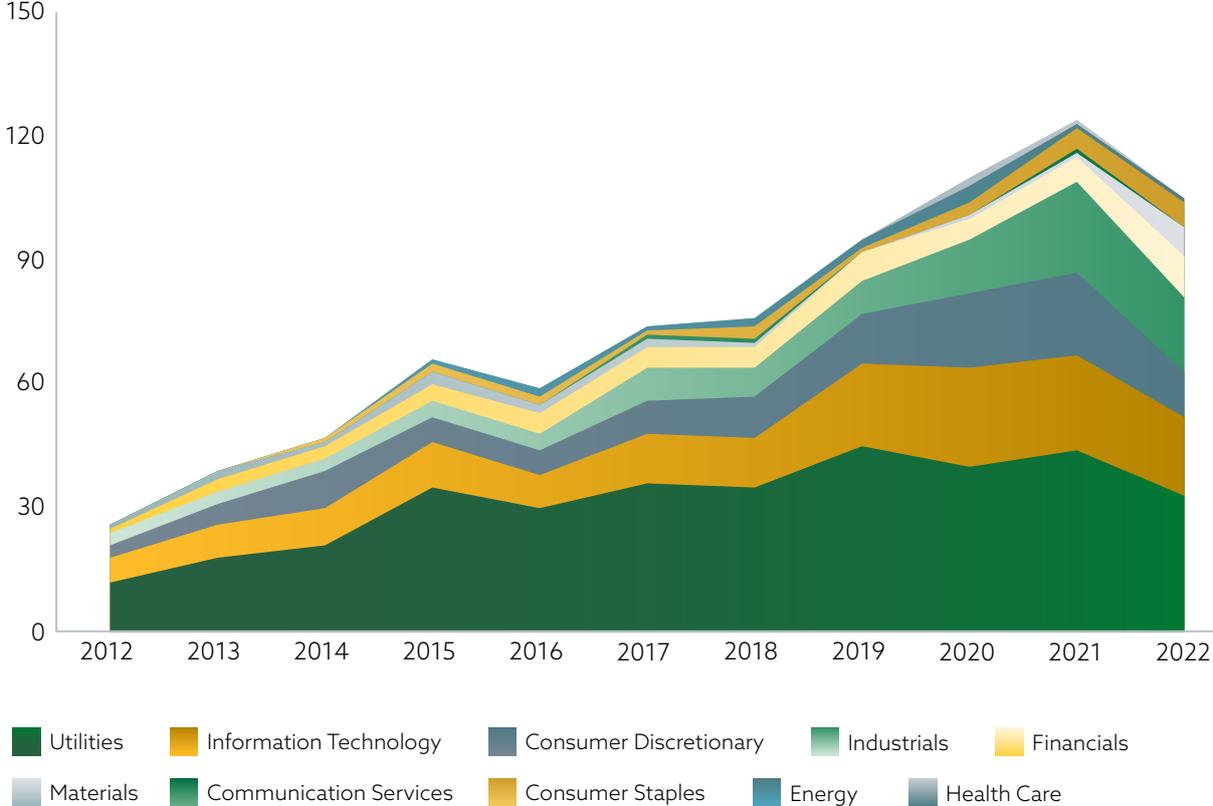
RENEWABLE CATEGORY	PROJECT NAME	HQ COUNTRY	DEAL DATE	DEAL VALUE (US\$ MN)	DESCRIPTION
 <b>Wind</b>	Sidi Mansour Windfarm	Tunisia	Jun-20	40.0	30 MW wind farm in Northern Tunisia.
	Windlab Africa	South Africa	Aug-22	55.0	Developer and financier of wind projects and farms in East and Southern Africa.

RENEWABLE CATEGORY	PROJECT NAME	HQ COUNTRY	DEAL DATE	DEAL VALUE (US\$ MN)	DESCRIPTION
 <b>Solar</b>	Empower New Energy	Pan-Africa	May-22	74.0	Renewable energy investment company with a focus on solar projects for commercial and industrial energy users in Africa.
	Infinity Solar	Egypt	Nov-22	41.5	Developer and financier of renewable energy solutions that facilitate long-term clean power to Egypt.
 <b>Biomass</b>	BIOVEA Energie	Côte d'Ivoire	Jun-21	220.0	Developer and operator of a 46 MW biomass power plant project in Côte d'Ivoire.
	Freetown Waste Transformers	Sierra Leone	May-22	2.9	Waste-to-value solution provider turning organic waste into electricity.
 <b>Geothermal</b>	Corbetti Geothermal Project	Ethiopia	Jun-14	-	1000+MW geothermal project in the Corbetti Caldera region of Ethiopia.
	Menengai Geothermal Project	Kenya	Dec-22	108.0	Greenfield geothermal project in Kenya.
 <b>Hydropower</b>	Achwa 1 Hydropower Project	Uganda	May-19	70.0	112 MW run-of-river hydropower platform in Northern Uganda.
	Asonha Energie	Gabon	Jul-21	196.6	Developer and operator of the first private sector led hydro plant in Gabon.

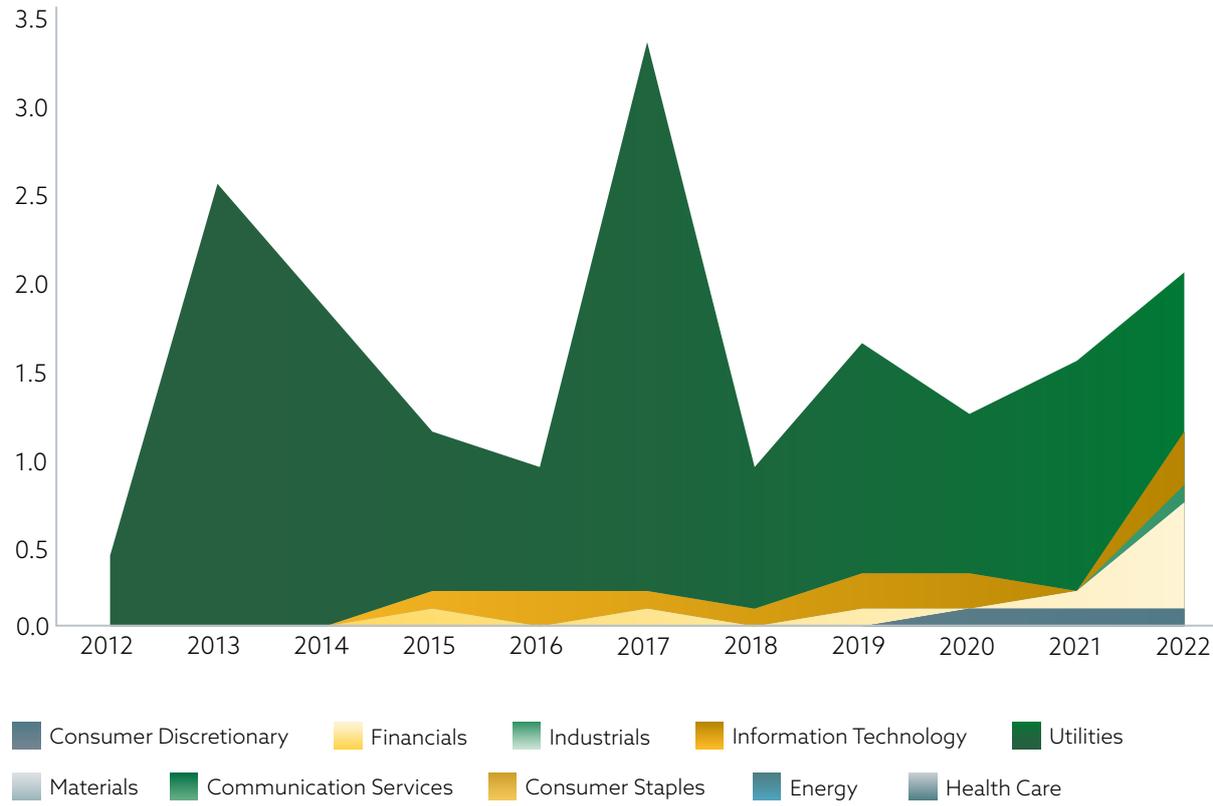
By deal value, the Utilities sector consistently assumed the lion's share of annual aggregates, accounting for a colossal 84% (US\$14.6 billion) of the total sum of private capital deal in climate-related projects and companies in Africa between 2012 and 2022. Despite these investments in renewable energy systems facilitating Africa's climate transition, it nevertheless falls short of Africa's needs in this regard, which are estimated at US\$ 133 billion<sup>80</sup>.



**Figure 7: Volume of Climate-Related Private Capital Deals Reported In Africa, By Sector**



**Figure 8: Value of Climate-Related Private Capital Deals Reported In Africa, By Sector (US\$ bn)**



Information Technology was the second most popular sector by both deal volume and value, drawing a total of 152 deals with a cumulative value of US\$1.3 billion between 2012 and 2022. Companies manufacturing Semiconductors & Semiconductor Equipment (i.e. the raw material and equipment used in the solar power industry, including solar modules and cells) attracted the bulk – 55% – of deal activity in this sector. Examples of deals in this category include the US\$26 million equity investment in *Azuri Technologies*, a developer of solar systems supplying energy to rural off-grid communities in Africa (2019); the US\$1.5 million seed investment *Auxano Solar*, a Ugandan manufacturer and designer of solar panels (2020); and the US\$8 million Series A in *SolarPanda*, a Kenyan designer and manufacturer of pay-as-you-go solar home systems (2022). The surge of companies producing solar-based products and harnessing technological solutions to reduce the productive costs of solar energy is a major driving force for the exponential rise of solar energy solutions amongst renewable options in Africa.

Another growing vertical within the Information Technology sector are companies providing smart energy management solutions. These tech-enabled platforms and software monitor energy consumption and improve efficiency real-time controls to minimize energy consumption and wastage for a lower carbon footprint. These service providers fall within the Software and Services sub-industry, which only accounted for a handful of deal activity in the early 2010s, but grew at a CAGR of 67% between 2016 and 2022. Examples of energy management companies that have received private capital funding include Nigeria’s *SHYFT Power Solutions* that provides integrated software solutions to optimize energy asset performance; UK-based smart metering technology company *SteamCo* which has operations throughout sub-Saharan Africa, and Kenya’s low-cost metering solutions developer *SparkMeter*.

Finally, Consumer Discretionary was the third most popular sector by both deal volume and value, drawing a total of 108 deals with a cumulative value of US\$0.3 billion between 2012 and 2022. Climate-related companies that received private capital investments in this sector covered a broad range of consumer goods and services, including:

Consumer Durables & Apparel		Automobiles & Components
 <p><b>Biomass / Clean Energy Cookstoves</b></p> <p>Clean cookstoves ensure a more efficient combustion of fuel, improved heat transfer leading to reduction in fuel demand, and lower emissions of climate pollutants (carbon dioxide and black carbon emissions).</p>	 <p><b>Lithium Batteries</b></p> <p>Lithium-ion batteries can store energy from renewable resources, are greener to manufacture, biodegradable, recyclable and emission-free. They are also the most efficient power source for other climate-smart innovations, including electric vehicles and solar applications.</p>	 <p><b>Electric Vehicles</b></p> <p>Electric vehicles can produce zero tailpipe emissions, and thus a cleaner alternative to petrol or diesel cars. Recharging using renewable energy sources further lowers the carbon intensity of using electric vehicles.</p>
 <p>Climate Category: <b>Low Carbon</b></p>	 <p>Climate Category: <b>Low Carbon</b></p>	 <p>Climate Category: <b>Low Carbon</b></p>



## SECTOR SPOTLIGHT: CLEANTECH

**49% of climate-related private capital investments that took place in Africa between 2012 and 2022 were in technology or tech-enabled companies or projects.**

CleanTech emerged as the most active vertical amongst technology or tech-enabled companies that successfully raised private capital in the last decade. A largely sector and asset agnostic vertical, CleanTech refers to companies that harness or develop technology which seeks to improve environmental sustainability or to reduce the negative environmental impact of natural resources consumed through human activities. CleanTech deal activity will likely continue its ascent in forthcoming years, as impact investors motivated to meet Africa's sustainable development agenda back the growing number of companies and projects delivering innovative, effective, and sustainable solutions to pressing socio-environmental challenges. Notable CleanTech deals that took place recently include the US\$19 million Series C round in Kenyan sanitation and waste management company Sanergy, as well as the US\$6.2 million Series A in Romco Group, a clean-tech metals recycling company.

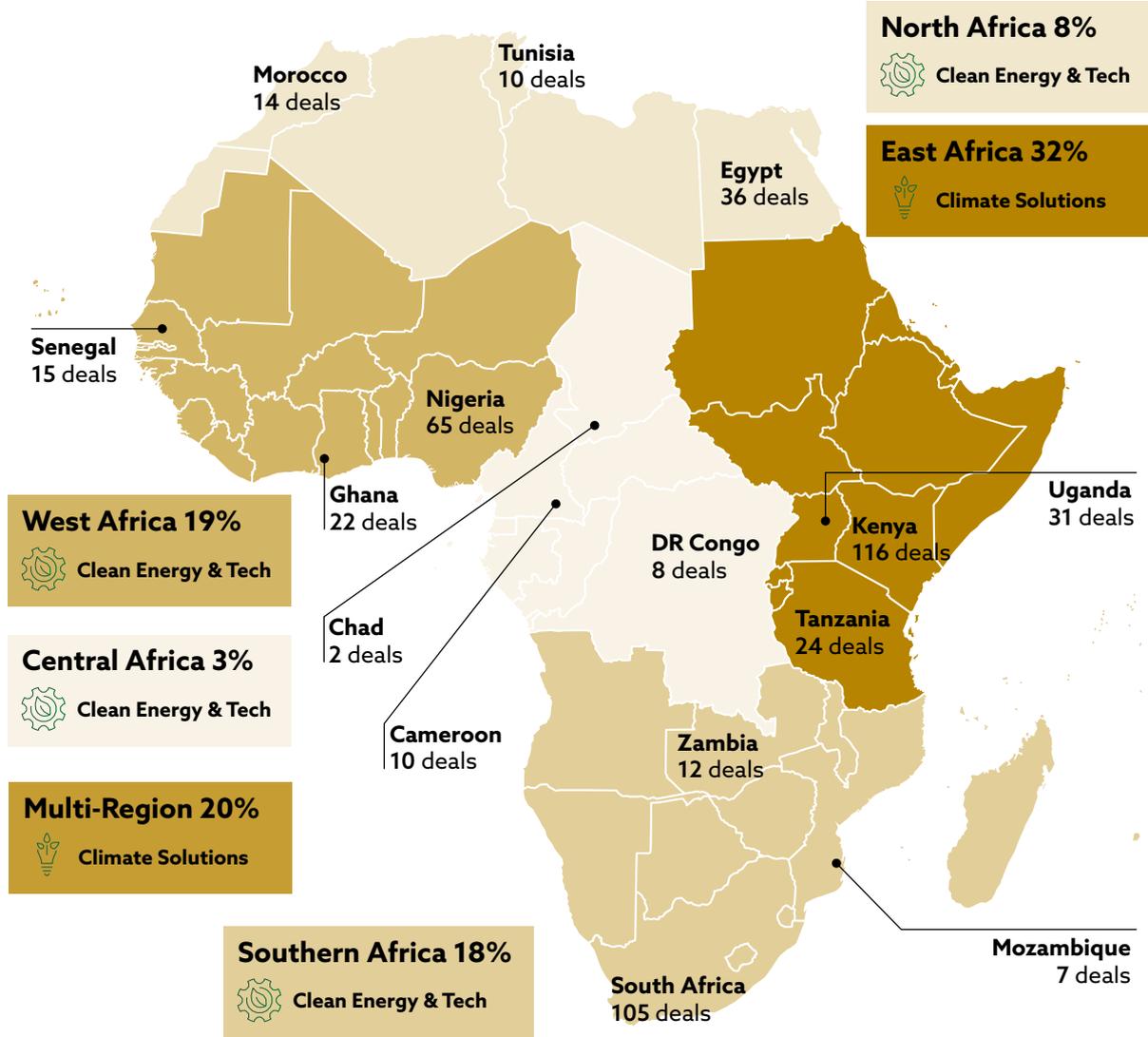
### Climate Investment Flows by Geography

From a regional perspective, East Africa was a hub for climate-related investments and received the largest proportion of climate-related private capital investments (33%) between 2012 and 2022. East Africa eclipsed Southern Africa in 2014 and has consistently claimed the top spot by deal value thereafter. The region owes its prominence in Africa's climate financing ecosystem to Kenya's popularity amongst impact and climate-focused investors. Notably, Kenya accounted for 44% of the total volume and 48% of the total value of deals within the region. Kenya is a leader in clean energy development in Africa, with more than 90% of its on-grid electricity coming from renewable sources. In line with the local government's *Vision 2030 Agenda*, Kenya updated its NDC Targets in 2021 and committed to reduce its already low greenhouse gas emissions a further 32% by 2030<sup>81</sup>. The prioritisation of low-carbon, climate resilient development and public investments by the Kenyan government in recent years, which sets the East African country on track to meeting all five climate action targets set out in SDG 13 by 2030, was a driver of private capital investment activity in East Africa in the decade between 2002 and 2022.

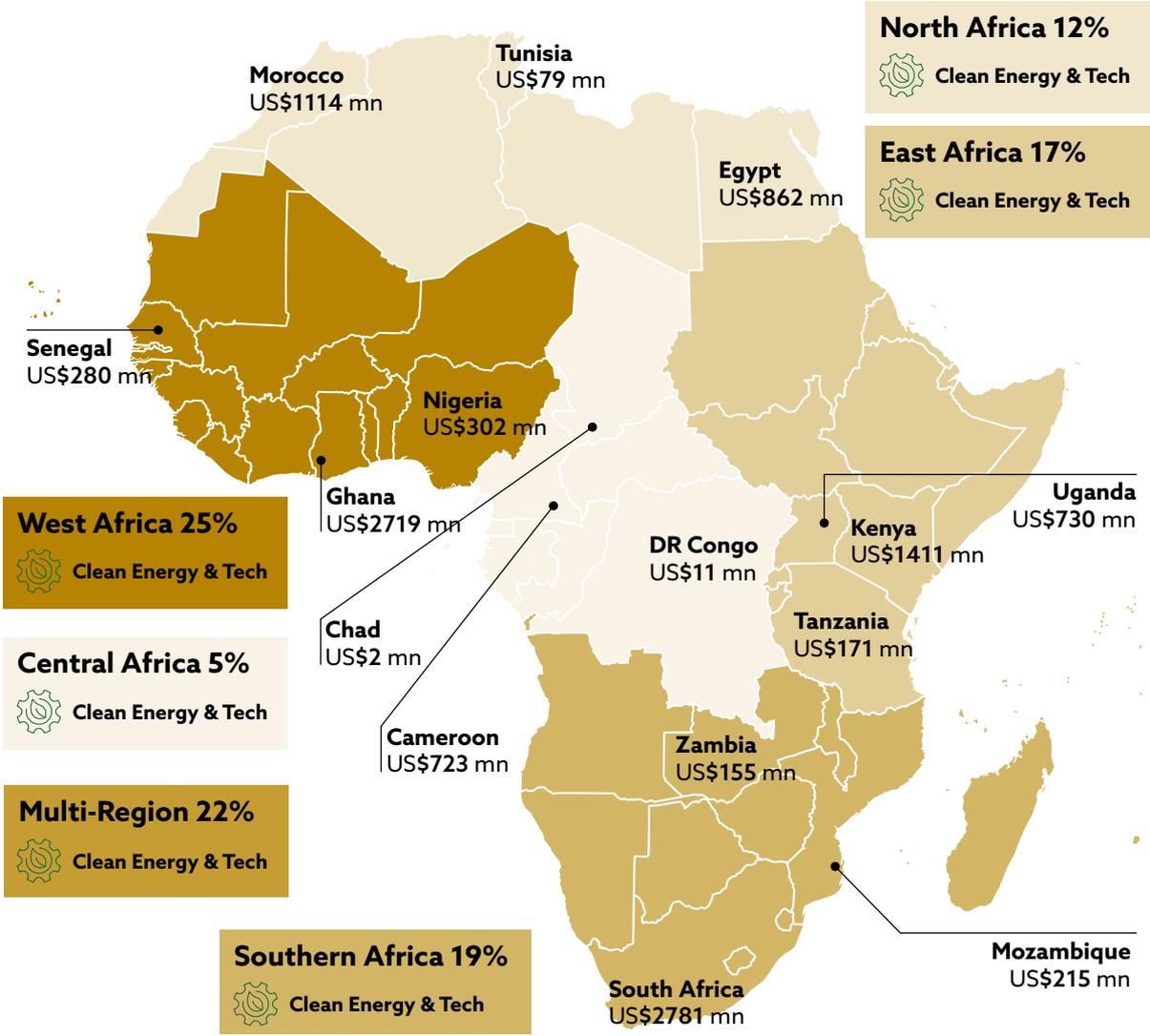
By deal value, West Africa was the leading force on the continent, drawing 25% of the total value of climate-related private capital investments which took place on the continent in the last ten years. Deal activity in Ghana specifically was responsible for US\$2.7 billion of the US\$4.4 billion of private capital investment West Africa accumulated in this period. This was made possible by a series of large infrastructure investments including US\$2 billion in TC'S Energy to fund of the development of the Seawave Power Project in August 2017, as well as the US\$425 million senior and mezzanine funding for independent power producer Genser Energy in July 2022. Additionally, almost half (44%) of infrastructure investments recorded on the continent in 2021 were in West Africa<sup>82</sup>. Worth noting is the regional heterogeneity of climate-related private capital investments in West Africa, which showed more variation / diversification than any other region. More specifically, 11 countries in West Africa were recipients of climate-related private capital investments in the last decade, spanning regional heavyweights such as Nigeria and Ghana as well as frontier markets in Francophone West Africa such as Burkina Faso, Mali and Benin.

In third place, Southern Africa attracted 18% of the total volume of climate-related private capital investments in Africa between 2012 and 2022, and a similar proportion (19%) of aggregate deal values in the same period. As the largest economy in the region, South Africa cornered the Southern African market, accounting for two thirds of deal volume and 86% of deal value therein. Southern Africa slid to 3rd place in the continental climate finance arena, which it continues to occupy, in 2016. This coincides with the slowdown of the South Africa Renewable Energy Independent Power Producer Procurement Programme, a government initiative designed to facilitate private sector investment into grid-connected renewable energy generation, which stalled in 2015<sup>83</sup>. This led to a decrease in private participation and investments in utility-scale renewable energy projects and may be influencer of Southern Africa’s gradual descent over time as a leading recipient of private capital deal activity in climate-related companies, assets and projects, given the region’s inter-relatedness with South Africa.

**Figure 9: Share of Climate-Related Deal Volume in Africa by Region and Category; Top 3 Countries By Volume, 2002-2022**



**Figure 10: Share of Climate-Related Deal Value in Africa by Region and Category (US\$m); Top 3 Countries By Value, 2002-2022**



\* Please note that the top 3 countries highlighted in each region for Figures 9 and 10 exclude climate-related private capital deal volumes and values where recipient startups are headquartered in Africa, but operational in more than one country on the continent. Values that meet this criteria fall into the "Multi-Region" category.

# Climate Integration in African Private Capital

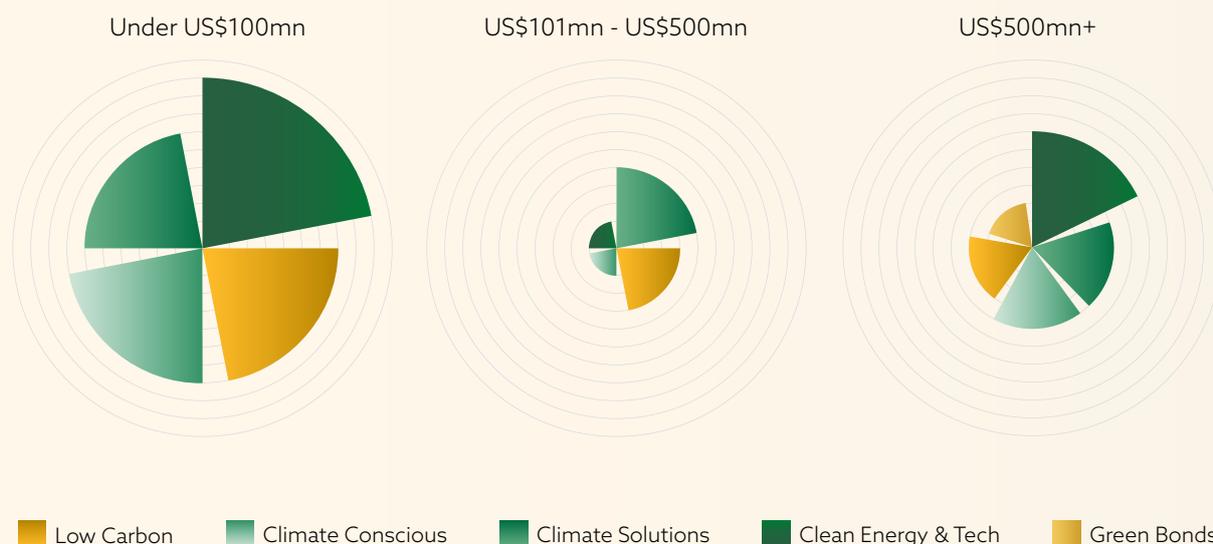
Driven by survey responses and in-depth interviews from 24 climate-focused investors, this section seeks to evaluate the degree of climate consciousness amongst private investors active on the continent to better understand if, and how, private capital is responding to the realities, risks and opportunities caused by anthropogenic climate change.

## 5.1 Africa's Climate Funds



49 private capital investors with approximately US\$275 billion in collective assets under management are active in Africa's climate ecosystem. As Figure 1 illustrates, the majority of assets in Africa's climate funds are spread across the Low Carbon, Climate Conscious, Climate Solutions and Clean Energy & Tech categories. While innovative, Green Bonds have yet to penetrate Africa's climate landscape to a significant degree for a number of reasons, including: the nascency of the continent's capital markets; the high up-front and ongoing costs related to labelling, certification and reporting of green bonds; and challenges related to managing and tracking proceeds (discussed further in Section 3). Understandably, therefore, only climate-conscious or climate-focused private capital fund managers managing more than US\$1 billion in assets have a climate investing strategy focusing on raising green bonds.

**Figure 1: Assets in Africa's Climate Funds by Climate Category\***



\* Please note survey respondents were encouraged to select all relevant categories that aligned with their climate investment strategy. Accordingly, in some instances the AUM above below may include respondents that selected more than one climate category as their strategy focus.

## 5.2 Climate Awareness & Internal Buy-In

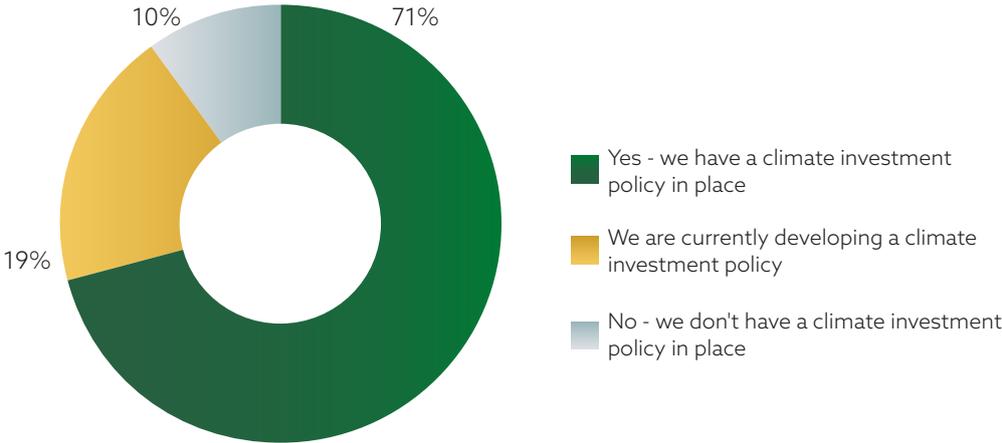
**90%**  
of the climate-conscious or climate-focused private capital fund managers surveyed either have a climate investment policy in place, or are in the process of developing and instituting one.

Climate investment policies at the firm level ought to outline how climate considerations will be integrated in the organisation’s governance mechanisms, structure, investment activities, and values. At the portfolio level, climate investment policies should also highlight how climate consideration will be applied throughout the investment lifecycle: from initial investment evaluation, to due diligence and value creation practices, and finally exit

structures. Recognising the importance and advantages of having a clear direction for the integration of climate considerations into investment processes, 71% of survey respondents have developed an internal climate policy or action plan, while close to another fifth have similar plans underway.

Given the rapidly evolving landscape and rising expectations for private capital related to climate, just over half of respondents that identified as having a climate policy in place also have internal leads or teams dedicated to climate to better integrate and establish the policy’s cross-functional integration within the organisation.

**Figure 2: Organisational Implementation of a Climate Investment Policy**



**48%**  
Almost half of the climate-conscious or climate-focused private capital fund managers surveyed have board or executive level engagement with climate matters on a quarterly basis.

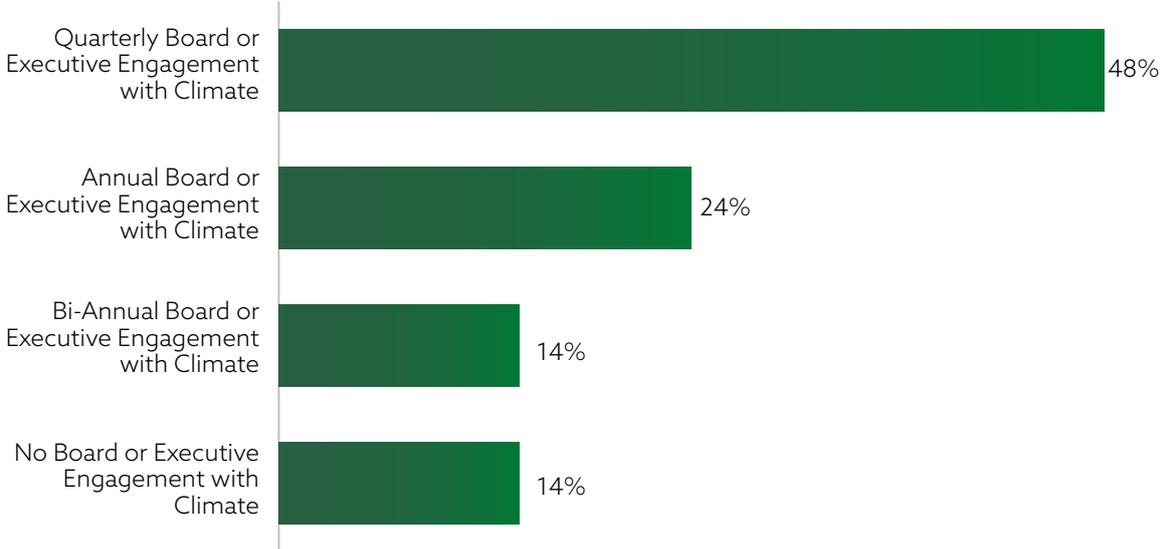
Beyond creating and embedding climate considerations within business strategy and investment policies, these considerations need to be clearly registered and recognised as a Board responsibility for climate action to become fully incorporated into the firm’s investment processes and operations<sup>84</sup>. The United Nations Principles for Responsible Investment (UNPRI) note that private capital fund managers ought to demonstrate a

systematic approach towards, and active management of, climate change risk assessment at both the fund and portfolio level. Good practice in this regard includes assigning accountability to a director to signal top-level intent and requiring a review of climate-related performance with senior management or the Board on an annual basis at minimum<sup>85</sup>.

Regular senior management or board-level engagement with climate is also an indicator of the importance given to climate considerations and the degree of climate alignment amongst senior leadership. Engagement of this nature was largely strong amongst the private capital investors surveyed, where only 14% reported no board or executive engagement with climate. However, the

frequency of engagement amongst those that do vary fairly significantly: 48% do so on a quarterly basis, while close to a quarter only do so on an annual basis.

**Figure 3: Frequency of Board Engagement with Climate Matters**



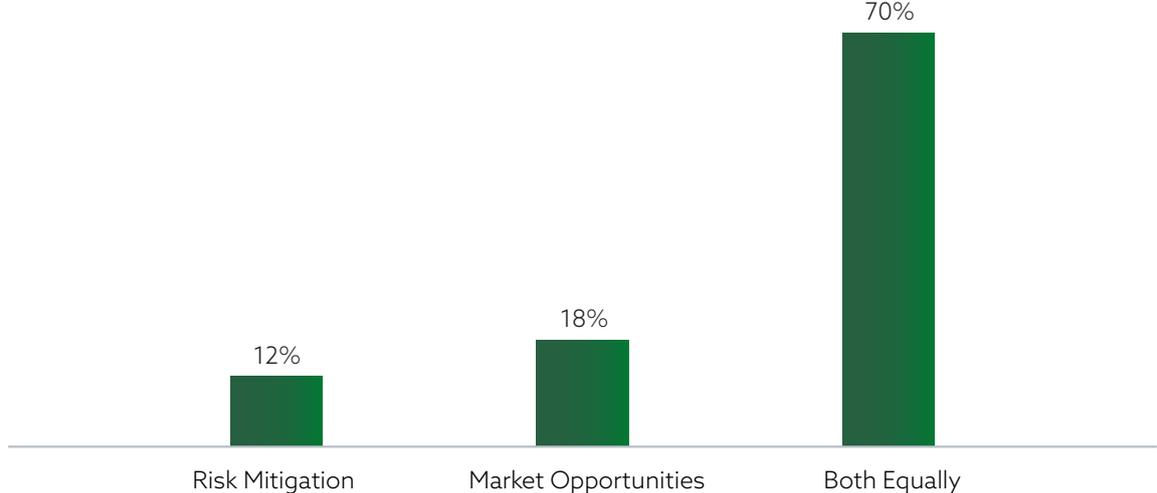
### 5.3 Opportunities for Climate Investing

**70%**  
Private capital investors in Africa give equal countenance to both risk and opportunity in relation to climate change and its impact.

Close to three quarters of respondents consider climate change from dual lens of both a source for risk mitigation and market opportunities. This is significantly higher than figures recorded in AVCA's 2020 climate change survey, where only 53% of survey respondents held this view<sup>86</sup>. Only 12% of the climate-conscious or climate-focused private capital fund managers

surveyed view climate change solely in terms of risk mitigation, down from 34% which held this view in 2020's survey. The preceding indicates that private capital investors in Africa's climate ecosystem are embracing a more multi-dimensional view of climate change and its impact, seeing it as not just a threat to asset and portfolio performance but also potentially an avenue for market opportunity to be part of the transition to Net-Zero and climate resilience.

**Figure 4: Perceptions of Climate Change**



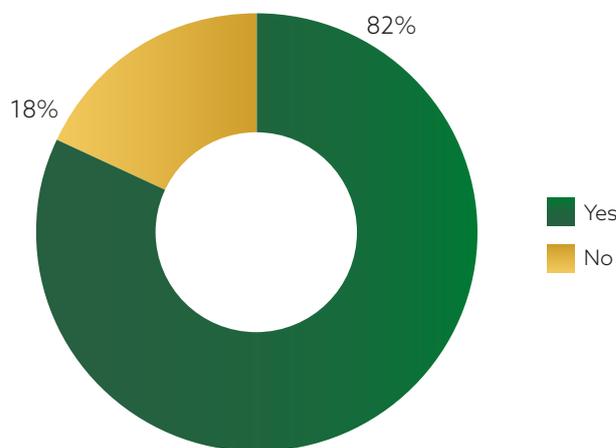
**82%**

A significant majority of investors believe there is a strong business case and sufficient financial incentive for private investment in climate.

While the planetary need for a global transition to a sustainable, low carbon future is undisputed, establishing a compelling commercial or business case is critical to mobilizing private sector investment for climate action. For climate focused investors, the business case for climate is readily apparent. However, for mainstream investors early in

the process of integrating climate considerations into investment decision making, translating the importance of climate integration into financial metrics and making a strong business case that climate considerations are material is key to secure internal-buy at every level in for climate-related investments<sup>87</sup>. On a positive note, awareness of the significant commercial opportunity the low carbon transition presents is particularly high amongst survey respondents, four out of five of which believe there is a clear, compelling business case for climate investment in Africa.

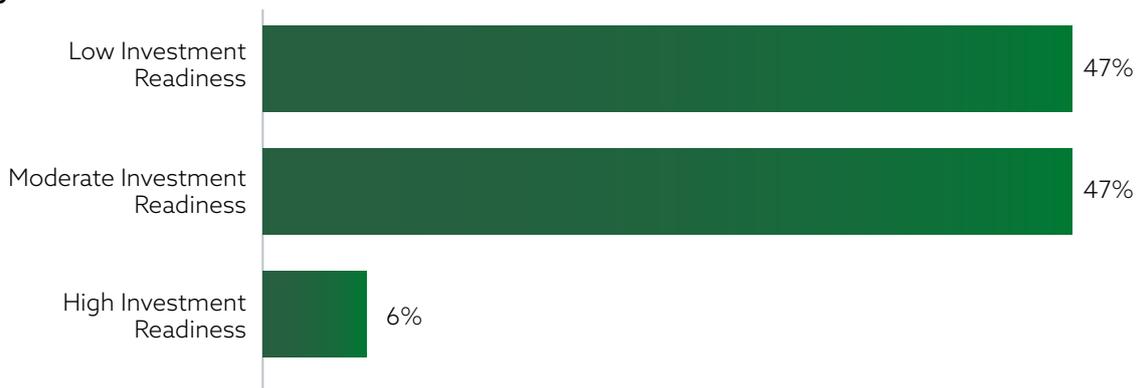
**Figure 5: The Business Case for Climate-Related Investment in Africa**



However, opinion is divided on the degree to which the continent is ready to leverage investment towards climate resilience, relative to its climate vulnerability. An equal proportion of respondents are of the opinion that Africa has a low-moderate readiness to capitalise on private investment in climate related companies, projects and assets, despite its disproportionate vulnerability to the adverse impacts of climate change.

Only 6% of the climate-conscious or climate-focused private capital fund managers surveyed would categorise Africa's readiness to leverage investment towards climate resilience as 'high'. This cohort identified Agriculture and Renewable Energy as the sector focus of their organisation's climate-related investments in Africa.

**Figure 6: Africa's Investment Readiness**





Investors see climate-lens investing opportunities for Africa in **Renewable Energy, Agriculture** and **Transportation**.

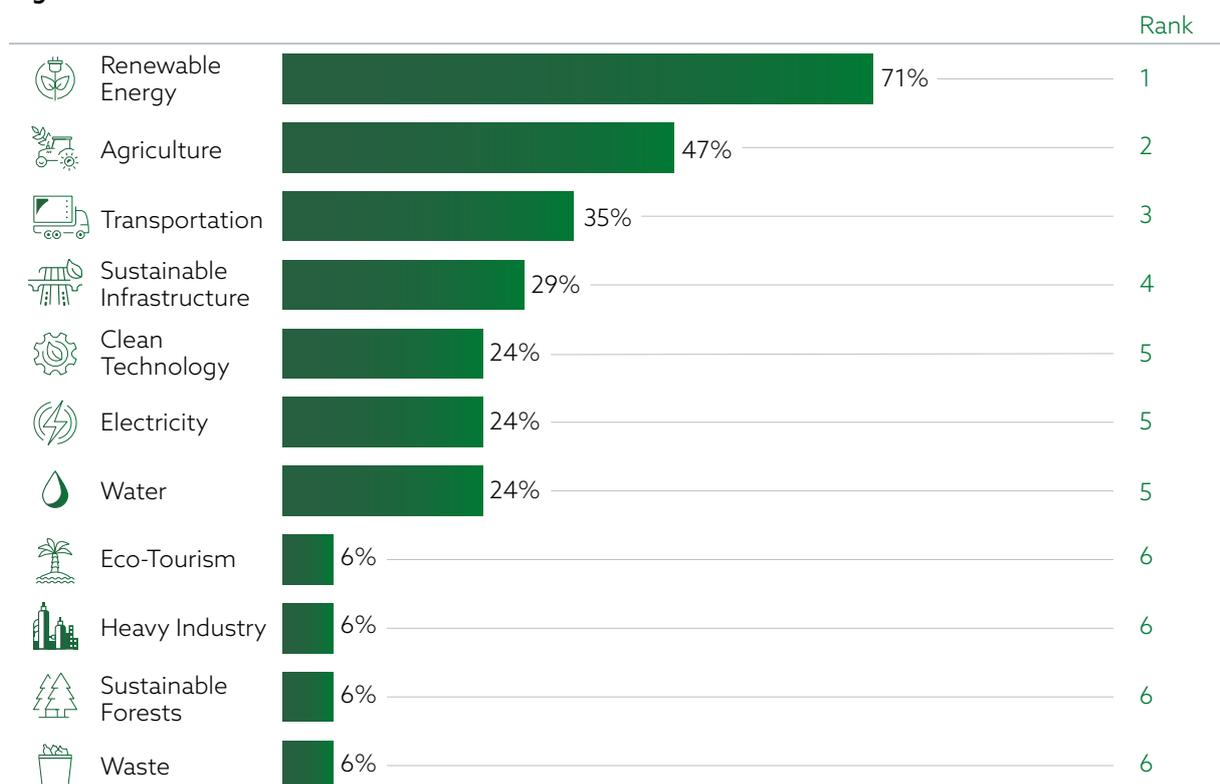
Renewable Energy was selected by close to three quarters of survey respondents as having the most opportunities for climate investments in Africa, but investors also recognised the potential in Agriculture (47%) and Transportation (35%). The popularity of Renewable Energy for climate investing in Africa is unsurprising, given the wealth of solar, geothermal and wind resources available on the continent, and the legacy of renewables in Africa’s journey to electrification thus far.

The attractiveness of the Agriculture sector for climate investment is apt, given that several African economies are heavily dependent on rain-fed agriculture. The sector is central to the continent’s economic activity, accounting for 15% of Africa’s GDP, rising to 23% when localised to sub-Saharan Africa<sup>88</sup>. Solar-powered irrigation, crop insurance for farmers, regenerative agricultural practices to improve yields and technologies for soil fertility improvement, soil and water conservation have transformed the Agriculture value chain and played a catalytic role in the resurgence of investor interest in the sector from a climate lens.

Similarly, innovations in and the electrification of modern transportation are responsible for the fact that 35% of participants view Transportation as having the most opportunities for climate investment in Africa. The value-add of these innovations is enhanced by supportive public policy, such as in Kenya where the local government introduced reduced duty for electric vehicles with electric motors, with the Ministry of Transport also implementing an EV policy<sup>89</sup>.

However, while energy, agriculture and transportation might present the most obvious opportunities for climate smart investing, climate risks impact every sector. Recognising the need for climate action and improving awareness of the scope of climate conscious investment as a value creation opportunity has the potential to drive much needed capital into a variety of sectors and verticals to close the climate funding gap in Africa.

**Figure 7: Most Attractive Sectors For Climate Investment In Africa**



# 5.4 Barriers to Climate Investing

## Limited investment-ready projects

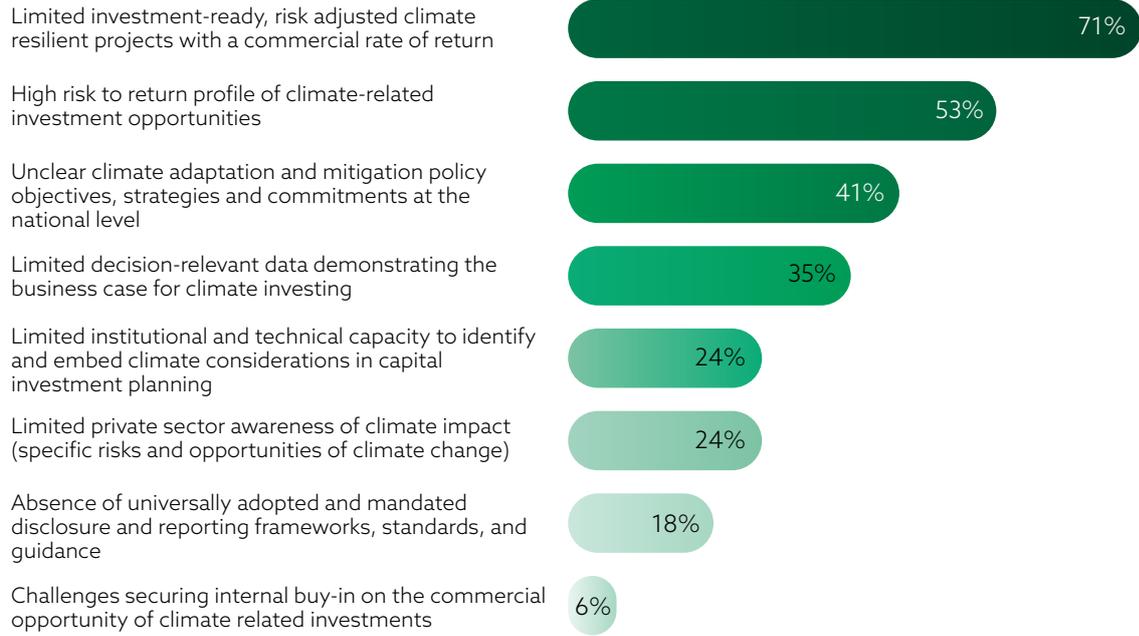
A paucity of investment-ready projects; a high risk to return profile; and unclear climate response frameworks at the national level were the most salient barriers identified that prevent private investment in climate.

A perceived lack of investment-ready, risk adjusted climate resilient projects with a commercial rate of return was identified by the largest cohort of survey respondents as a barrier preventing private investment in climate in Africa. This perception is unsurprising given the overwhelming majority of respondents that only placed the continent’s readiness to leverage investment towards climate resilience in the low-moderate category.

A high risk to return profile of climate-related investment opportunities was also identified by investors as an inhibitor of private capital in the industry. Of note, all of the survey respondents that hold this view also identified Renewable Energy as their sector focus for climate-related investments. Investing in renewables is often associated with elevated financial risk (inflation, exchange rate, capital transfer) and project risk (grid access, political risk, market access for independent power producers). However, it is likely that this perception of elevated risk will ebb in the medium-term future as blended finance mechanisms to de-risk climate investments and innovative products (such as first-loss protection or performance guarantees) become more prominent features in Africa’s climate ecosystem.

Notably, a knowledge barrier (i.e. limited private sector awareness of climate impact) was not a particularly strong concern for survey respondents, illustrating a generally strong perception of climate consciousness in Africa’s private sector. Similarly, the absence of universally adopted disclosure and reporting frameworks was only selected as a barrier to private investment in climate by 18% of those surveyed. This suggests that while this lack of uniformity is of some concern, it is not sufficient to deter private sector engagement in climate-related investments.

**Figure 8: Barriers Preventing Private Investment in Climate**



# 5.5 Climate Risk Assessment & Portfolio Management

**53%**

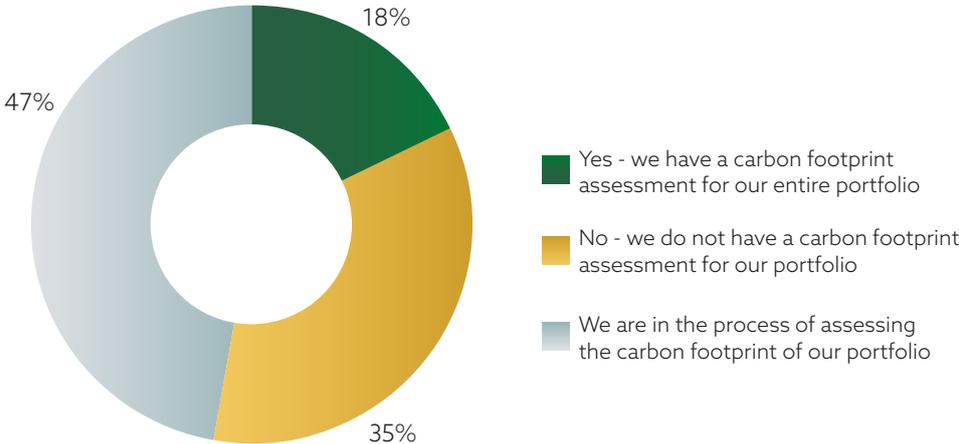
Close to two thirds of investors have a carbon footprint assessment for their entire portfolio or are in the process of doing so; while another 47% have, or are in the process of, undertaking climate risk assessments for their entire portfolio.

Reflecting the difficulty of the exercise, only 18% of the climate-conscious or climate-focused private capital fund managers surveyed have a carbon footprint assessment for their entire portfolio. A carbon footprint measures the amount of carbon dioxide (CO<sub>2</sub>) released into the atmosphere as a result of the activities of an individual, organisation or community. Therefore, an organisational carbon footprint assessment quantifies the greenhouse gas emissions arising from its core activities over a

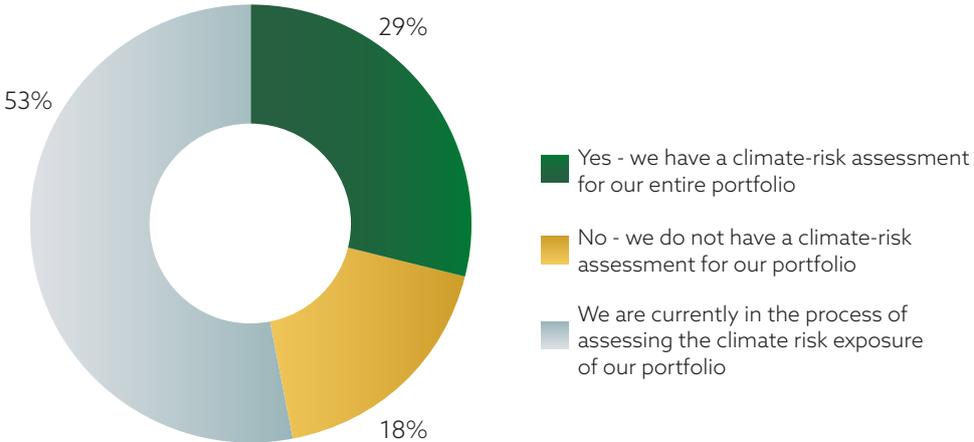
defined period, reported in tonnes of carbon dioxide equivalent (tCO<sub>2</sub>e). However, the minority that have conducted this assessment do so on a regular basis, continually reassessing portfolio progress after the initial footprint exercise. A slightly higher proportion (29%) have conducted a climate-risk assessment for existing portfolio companies. Seperate to carbon footprint assessments, climate-risk assessments are systematic processes that measure an organisation’s vulnerability to climate-related impacts (both in the near and long term). The results of these assessment then enable the organisation to develop plans to avoid or manage these risks.

The largest group of survey respondents are those in the process of evaluating their portfolio’s carbon footprint (47%) and similarly those in the process of assessing the climate risk exposure of their portfolio (53%). This is a promising result and is evidence of increasing investor impetus to understand, manage, and subsequently mitigate against climate risk at the portfolio level as a tool for value creation.

**Figure 9: Investor Uptake Of Portfolio Carbon Footprint Assessments**



**Figure 10: Investor Uptake Of Portfolio Climate Risk Assessments**

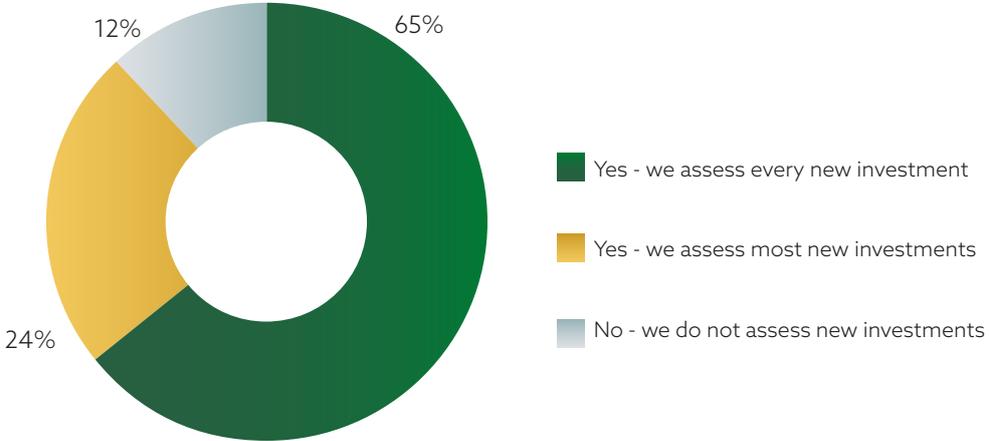


**9 out of 10**  
private capital investors surveyed always or mostly conduct climate-risk and opportunity assessments when considering new investments

While only a minority of survey respondents have conducted a climate risk assessment for the entirety of their existing portfolio, the opposite is true for their prospective investments. 89% of participants conduct climate-risk and opportunity assessments for all or most of the new investments they consider, suggesting that investors are adopting more of a forward-looking approach towards the institutionalisation of climate risk assessments.

For some of the 65% of survey respondents that assess every new investment, this process is also an informative exercise. Slightly over two thirds of this cohort have made changes to their investment strategy or decision-making based upon these assessment of climate risk, illustrating the iterative nature of climate investing which requires near constant revision and reformulation to keep pace with the rapidly evolving landscape private capital landscape related to climate.

**Figure 11: Climate-Risk And Opportunity Assessments For New Investments**



# 5.6 Goal Setting

When asked about the development of short or long term climate goals with a corresponding climate action plan at both the firm and portfolio level, survey responses were close to evenly divided. At both the firm and portfolio level, the largest proportion have developed climate goals. However, the presence of short or long term climate goals with a corresponding climate action plan is more prevalent at the portfolio level (69%) than at the firm level (56%). This suggests that investors prioritise instituting climate resilience as a value creation strategy for their portfolio companies, with the concern to do the same across their own organisation only being of secondary or marginal importance.

Interestingly, however, is the preference exhibited by the climate conscious or climate-focused investors surveyed not to publish a climate report or make public disclosures on progress made towards achieving these goals. Only 35% of investors currently make public disclosures of their progress in achieving their organisation's climate goals, with the remainder opting to eschew the pressures of public accountability by keeping these records internal to the organisation.

Figure 12: Organisational Development Of Climate Goals

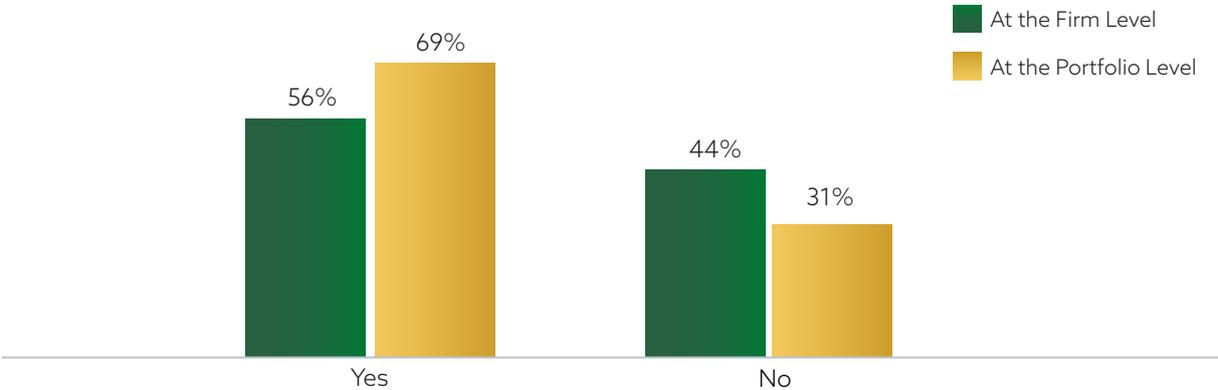
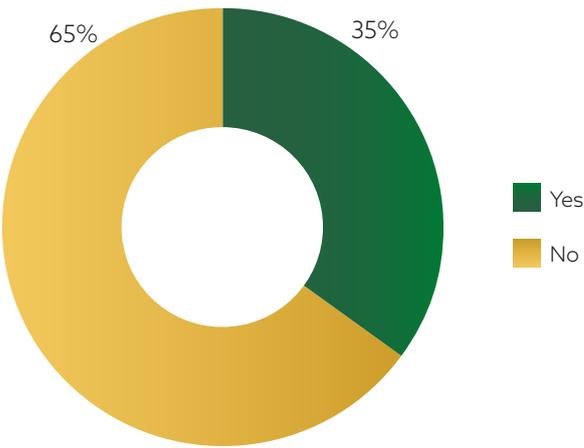


Figure 13: Public Disclosure Of Climate Goals



# Solutions & Strategies for The Future

From devastating floods across West and Central Africa, increasing desertification and drought in East Africa, and dwindling water supplies in parts of Southern Africa, the effects of climate change are no longer a distant predicted future but an imminent and alarming reality. Understanding and addressing these risks, both present and future, is critical to the long-term resilience of our societies and economies. Section 6 outlines actionable insights and strategies for stakeholders in the policymaking, public and private sectors to incentivise climate investing and facilitate increased awareness of climate-related risk and opportunity within the operations, governance, and investment frameworks of these entities.

## 6.1 Investor Recommendations

This section reflects on and summarises insights gleaned from the interviews conducted with climate conscious fund managers, drawing on wider research to highlight lessons learned, best practices and recommendations for aligning African private capital with the goals of the Paris Agreement and the Net-Zero Agenda and increasing climate integration in the industry.

### 1) Challenges and Solutions

Interview respondents were asked to recount some of the challenges they encountered when incorporating climate considerations in investment strategies, which are featured and discussed in more depth in Chapter 4 of this report. Reflecting on these challenges, these fund managers at the forefront of climate investing in Africa highlighted practical actions private capital fund managers can take to better understand and address climate related risks and opportunities at three levels: in their own firms, across their target sectors, and across their existing investment portfolios.

#### Understanding Climate Risk and Opportunity at the Firm Level

**Recommendation:** Create an environment that enables the firm to evaluate risk and experiment with new ideas, approaches, and strategies to mitigate these risks in a safe and structured way.

"Our US\$250 million-target *ARM-Harith Cities and Climate Transition Fund* was designed in collaboration with the Global Innovation Lab for Climate Finance. We applied to the accelerator before we begun fundraising, two years before we were ready with the Fund. However, we had such a robust outing by the time of market launch because we were part of an accelerator and able to test so much in that world. From a practical perspective, finding a way to experiment and test in a safe and structured environment is critical. **Being proactive and dedicating resources to a new strategy even before it's fully framed requires agility but gives organisations the ability and freedom to experiment with new ideas, approaches and strategies in a structured way.**"

**Tariye Gbadegesin**, Managing Director & Chief Executive Officer, ARM-Harith Infrastructure Investment

## Understanding Climate Risk and Opportunity in Target Sectors

**Recommendation:** Understanding the nature of climate-related impact is a complex exercise that can be simplified by taking a “sum of its parts” approach. Separate climate-related risks into two categories: material transition and physical risk, breaking each down even further into smaller buckets centred around core considerations.

“Understanding transition risk can be quite daunting – the questions are big and embedded within fast-moving legal, policy, technology and market dynamics, and it can be hard to know where to begin. Key to understanding and addressing climate risk is breaking down these bigger questions into much simpler ones at the fundamental level. What is the role of your investment in the energy transition, both in the short term (between now and 2030) and in the longer term (2030 to 2050)? What role will your target sector and its wider supply chain play in this transition – will they benefit from transition tailwinds, or are they fighting against it? Simply understanding the role that your investment, and the wider sector it is embedded in, may play will help you understand whether its value will appreciate or depreciate in the transition to a lower carbon economy. The answers to these questions may not be a straightforward yes or no – they’re more likely to be “yes” or “proceed with caution” sort of answers. Assessing transition risk is similar to FX forecasting in this way. Neither give definitive yes or no answers to any investment, but they may serve as really important factors in your decision making.”

**James Magor**, Sustainability Director, Actis

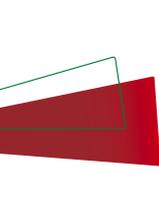
## Understanding Climate Risk and Opportunity at the Portfolio Level

**Recommendation:** In addition to evaluating risk, appreciate the complexity of what a just transition can mean when assessing climate-related opportunities that factor into investment decision making.

“Climate is a broad investable universe. There are parts where technology and business models have evolved to the point that what was once seen as the green premium has become the green discount – where innovation has created more sustainable solutions at lower prices. These are simply scalable businesses and opportunities, not just climate opportunities. There are industries raising billions of dollars that didn’t exist a few years ago. **Look at those trends, understand those trends, and you will identify a whole host of investable business models that don’t need long time horizons and huge amounts of subsidies.**

There is also need for a deeper and more nuanced appreciation of the complexity of what a just transition might mean in different portfolio companies, sectors and geographies. We need investors who are consciously trying to make better outcomes, investing across the spectrum. That means not only investing in traditionally green assets and companies that are already succeeding on the climate side, but also investing in the de-carbonisation of high-emitting industries and the companies that are creating change at the consumer level, to drive the consumption habits of the future.”

**Phyl Georgiou**, Head of Climate Strategy & Operations, LeapFrog Investments



## 2) Climate Risk Assessment & Portfolio Management

Interview respondents were also asked about their portfolio management processes, and the degree of consideration given to assessing climate risks and opportunities in their investment processes at present. Compared to their peers, many of the fund managers interviewed for this report demonstrated increasingly mature investment approaches for the integration of ESG and climate considerations, with an excerpt of leading practice highlighted below.

**Recommendation:** Integrating a climate lens into due diligence, risk management and portfolio management processes cannot be a passive strategy. Embedding climate considerations should be treated as a deliberate and targeted action plan for both the fund and its portfolio.

“For investments, it started with the flagship US\$411 million AfricInvest Fund IV, a Pan African generalist fund targeting mid-cap companies. That’s where we started to behave differently, act deliberately, and put our money where our mouth was. Before we invested in any team with this fund, we committed to measure the company’s carbon footprint to establish a baseline, enabling us to track how much more carbon we were emitting into the environment, and whether we can reduce the carbon footprint. We also developed deliberate action around climate in our value creation plan, which we had never done before. Historically, our value creation strategies centred around commercial values, financial engineering values and governance values. But we have now integrated climate considerations and values into our value creation efforts for our portfolio, treating it as a very deliberate action and not a passive strategy.”

**George Odo**, Senior Partner & MD for East Africa, AfricInvest

When asked what tools, resources, or frameworks they relied on to conduct these climate assessments and reporting measures, interviewees identified the UN Principles for Responsible Investment (PRI), the Task Force on Climate-related Financial Disclosures (TCFD) and the UN Sustainable Development Goals (SDGs). However, a selection of the climate-conscious fund managers interviewed for this project recommended customisation of these frameworks to ensure best-fit and maximum utility for climate investors in the African context.

**Recommendation:** Where possible, customise external climate risk assessment and reporting frameworks to your individual fund.

“Frameworks and guidelines for the assessment of climate risk and opportunity are useful. Actis are long-term members of UNPRI and we derive a lot of value from our membership. However, if you want very detailed tools that inform the decision-making process and help explain those decisions to relevant stakeholders, then taking something off the shelf probably only does 50% of the job. These frameworks will still need to be made applicable to your individual fund for best results, and to ensure maximum practicality and utility for your teams. At Actis, we’ve had more success working with in house, bespoke tools that were developed with external expertise. We’ve gone further to create publicly available explainer videos to demonstrate how our tools work, because we think sharing what these tools are and how they inform our investment decisions removes ambiguity and generates investor and public confidence.”

**James Magor**, Sustainability Director, Actis

**Exhibit 1: The Actis Transition Tool**

CATEGORY	DEFINITION	ASSET TYPES
Green	Assets that are aligned with Paris / the Net Zero transition	<ul style="list-style-type: none"> <li>• Renewable Power</li> <li>• Energy Storage</li> <li>• Electricity Transmission and Distribution</li> </ul>
Olive	Assets that have an important role in the next few decades while lower carbon alternatives are developed. Some olive assets will become obsolete and reduce in value, while others (smart olives) can be adapted to have a role in a low carbon world and will increase in value.	<ul style="list-style-type: none"> <li>• Transport Infrastructure</li> <li>• Digital Infrastructure</li> <li>• Buildings</li> <li>• Gas Power Plants</li> </ul>
Non-Green	Assets that are misaligned with Paris / the Net Zero transition	<ul style="list-style-type: none"> <li>• Coal Power Plants</li> <li>• Oil Production &amp; Refineries</li> <li>• Oil Power Plant</li> </ul> <p>(including any asset that solely and directly enables the above categories).</p>

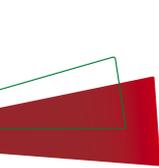
Source: [Actis](#)

“Where you can get external data on an input basis, you should use it. And when assessing physical climate risk, which is harder to do internally because it requires huge datasets, then external climate risk reporting makes more sense. That said, because there is such a close alignment between climate impact and commercial success, a lot of the risk assessments you’re doing on both sides are the same. Take an investment in electric vehicles for example – you generate greater impact the more units you replace with electric vehicles, which also helps your bottom line and translates to commercial success. A lot of the understanding of a business, which is an important part of commercial due diligence, itself comes from the climate assessment, which is very detailed. Given that identifying the nexus of commerciality and climate impact is the very essence of what we’re trying to do as climate investors, developing an in-house climate reporting and assessment framework rather than outsourcing makes the most sense. On the other hand, one has to be open to using external inputs, because we recognise that integrating a parallel climate due diligence, assessment and reporting framework is resource intensive and a lot to ask of an internal team.”

**Diana Fox Carney**, Chair of Climate, Energy Access and Resilience (CLEAR Fund), Helios

### 3) Climate Policy, Internal Alignment and Goal Setting

Recognising the importance and advantages of having a clear direction for the integration of climate considerations into investment processes, interviewees were asked to give their perspectives on the most important practices fund managers should include or consider when developing an internal climate policy or action plan.



**Recommendation:** Ensure your climate policy is science-based, considers the value of investing across the full spectrum of opportunity in the low-carbon transition, and accounts for regional variation in your investment geographies.

“The challenge we encountered when conceptualising our environmental and climate policy was capturing the reality that deals come in all shapes and sizes, and companies are in all different phases of their green evolution. It’s critical that impact investors also play a role in the transition. If you only worry about the CO<sub>2</sub> intensity of your AUM, then you would never invest in companies that have high emissions today. The greatest cost to people and planet comes from avoiding taking action in the sectors or markets where there is huge potential for abatement and, resultingly, value creation between now and 2050. Climate policies also need to account for geographic variation, particularly for climate-conscious investors with a wide geographic remit. What a just transition looks like in South Africa differs to what it looks like in Nigeria or Vietnam. There needs to be care to be balanced and context specific with the articulation of a climate investing policy.”

**Phyl Georgiou**, Head of Climate Strategy & Operations, LeapFrog Investments

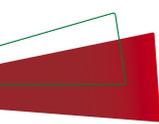
However, developing a climate policy is only the first step in the journey towards the integration of climate considerations in an organisation’s structure, values and human resources. More challenging is establishing the cross-functional integration of climate policy within the organisation, ensuring frequent and thorough engagement with it at both senior management level and throughout the organisation. The following are recommendations to ensure internal alignment and adoption of climate policy once it’s been instituted.

**Recommendation:** Invest in firm-wide climate training to develop universal expertise within the organisation and allocate dedicated in-house climate leads or teams.

“We’ve embarked in an institution-wide training on climate. We’ve already conducted a series of training that were compulsory for all the investment officers, and are now taking a smaller group into more specialised training to develop expertise within the team. We did this in the early days with ESG champions, and now we’re developing climate champions within the firm as well, who will be leading the battle from the front of the investment teams.”

**George Odo**, Senior Partner & MD for East Africa, AfricInvest

**Recommendation:** Climate investors should ensure the driving force of the organisation’s climate agenda comes from senior leadership. If there is demonstrable intent and a strategic adoption of a climate lens from the top, its strategic importance will eventually infiltrate throughout the organisation.

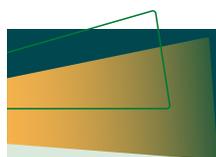


“ There are different ways to achieve cross-functional integration in an organisation. At its core, it’s more a business question than it is a climate question - how do you get an organisation to adopt new behaviours, new cultures, new technologies? If you’re a small team, knowledge sharing is key. Invite and encourage all staff to join climate-related webinars, working groups, and research events. Over time, as more people join in, listen, and participate, then climate awareness and consciousness will start to sink in. If you’re a larger organisation, another approach is to create a smaller team that become the organisation’s climate sustainability experts. But what is most important, whichever method is used, is demonstrable intent and strategic adoption from the top. For African private capital right now, it is one thing to see climate investing on the rails, and another entirely to adopt it, define a strategy works for you, and identify how to optimise yourself in this emerging context. What ought to be consistent in both small and large organisations is that the driving force of the climate agenda comes from senior leadership. The absolute will and conviction of senior leadership positioning climate as existential and fundamental to the core of the organisation forms concentric circles that ensures its strategic importance is continually expressed and infiltrated throughout the organisation.”

**Tariye Gbadegesin**, Managing Director & Chief Executive Officer, ARM-Harith Infrastructure Investment

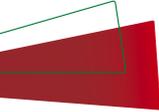
#### 4) Summary of Best Practices

The table below provides a summary of the preceding recommendations and leading practice identified by interviewed fund managers, as well as those in supporting literature, for how the private capital industry can capitalise on the investment opportunities associated with Africa’s Net Zero transition whilst overcoming the systemic risk posed by climate change.



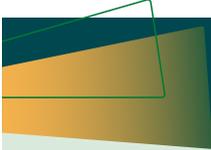
### UNDERSTANDING CLIMATE RISK AND OPPORTUNITY

- Create an environment that enables the firm to evaluate risk and experiment with new ideas, approaches, and strategies to mitigate these risks in a safe and structured way.
- Adopt a “sum of its parts” approach to simplify the process of understanding and evaluating climate-related impact, distinguishing between material transition and physical risk.
- Acknowledge the complexity of what a just transition can mean when assessing climate-related opportunities that factor into investment decision making. This includes engaging with high-emitting companies or those with a large carbon footprint to support their transition in addition to companies already offering low carbon solutions and technologies.



## CLIMATE RISK ASSESSMENT & PORTFOLIO MANAGEMENT

- Embed evaluations of climate-related risk (both transition and physical) and opportunities into existing and new investments and throughout legal, investment and risk due diligence processes.
- Establish a baseline carbon footprint for the entire portfolio at the outset, reassessing periodically to track performance and progress over time.
- Develop value creation strategies that engage and support portfolio companies in their efforts to build climate resilience and transition to low carbon models.
- Make use of industry-leading frameworks and standards (such as the UNPRI or TCFD) to direct internal risk assessment and reporting activities and external engagement with portfolio firms. Where possible, customise these frameworks to your individual fund.

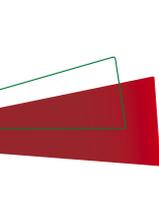


## CLIMATE POLICY, INTERNAL ALIGNMENT AND GOAL SETTING

- Create an internal climate policy or action plan (either standalone or embedded within a wider ESG framework), ensuring that it is reviewed and updated on a regular basis.
- Set short- and long-term science-based climate targets for both the firm and the fund, developing a corresponding climate action plan for their implementation\*.
- Prioritise regular senior management or board-level engagement with climate through the creation of climate-dedicated board committees and/or leads that review climate-related performance of the firm and the fund on an annual basis at minimum\*\*.
- Invest in firm-wide climate training (i.e., board, senior management, and investment teams) to develop universal expertise within the organisation, allocating dedicated in-house climate leads or teams.
- Align investment practices with the objectives of existing and emerging global climate action targets (such as those outlined in the Paris Agreement), including portfolio-wide carbon neutrality by 2050 or earlier\*.

\* Source: Ceres Sustainable Institute

\*\* Source: UNPRI



## 6.2 Policy Recommendations

In light of the challenges to fostering climate finance presented in Section 2 of this report, we recommend that governments should consider the following approaches and ideas to plug institutional capacity and knowledge gaps, ensure better streamlining of public finances towards the climate change issue, and aligning Official Development Assistance (ODA) with innovative “green growth” opportunities.

### **Governments should plug institutional capacity and knowledge gaps regarding climate change**

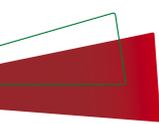
To overcome institutional capacity challenges in bolstering climate finance, governments should seek to ensure that they have the necessary knowledge needed to make climate-related decisions. This can be achieved by embedding climate action and climate finance advisors within ministries. These advisors will serve as subject-matter experts for government officials and ensure that climate decisions remain technically sound. For example, considering that governments continue to subsidise fossil fuels at the expense of the environment and other cleaner forms of energy, such advisors can ensure that such energy subsidies are better aligned with climate change risks (i.e., how and when should fossil fuels be subsidised). The cross-cutting nature of climate action and climate finance work can also help governments realise that climate change is an issue of national development and not merely an environmental one and thus requires coordinated multi-ministry efforts. The establishment of ‘Climate Delivery Labs (CDLs)’ can also help bolster climate project delivery efforts in this regard. CDLs focus on the potential implementation barriers and provide advice on the necessary interventions needed for these barriers to be overcome. Other institutional-level improvement includes standardising and streamlining processes for climate financing, together with having mechanisms in place for allocating windfalls to vulnerable communities.

Additionally, given that the lack of climate-related information at the local level further hinders the government’s ability to make fully-informed decisions, governments should actively build up citizen knowledge by publicising the effects of climate change on society. This can be done by supporting the establishment and operations of institutions to inform citizens regarding the sector-agnostic nature of climate change. Enabling citizen involvement on climate change through civic engagement initiatives helps provide a pool of ‘local expertise’ in which governments can tap upon in policy design<sup>90</sup>.

### **Governments should adopt a ‘green budgeting’ approach to public finance management**

In order to ensure that national budgets are properly utilised for climate financing, governments should consider the adoption of green budgeting, otherwise known as climate budgeting or green public finance management (GPFM). Green budgeting broadly involves greater integration of climate change with a country’s public finance management<sup>91</sup>. This integration should be closely aligned with a country’s national context and process and intended to be a gradual process.

While we recognise that different African countries might have different approaches and capacities in Public Finance Management (PFM), governments should nonetheless start by clearly outlining strategic priorities pertaining to climate change to better help guide public spending decisions. This should be an inclusive process that engages relevant stakeholders and pools together their collective expertise and knowledge. Climate change and national climate policies tend to have unequal effects on different societal segments. Tools for climate-responsive budgeting such climate public expenditure and institutional reviews (CPEIRS), damage assessments, and fiscal incident analysis could be utilised to improve national budgeting<sup>92</sup>.



Government should also (re-)orient their national accounting and financial reporting systems to better capture relevant financial data that is related to climate change - a process known as “green budget tagging”. There are various green budgeting resources made available by international organisations like the World Bank, IMF, UNDP, and OECD<sup>93 94</sup>. Benefits that arise from green budget tagging include allowing countries to improve their climate budgeting monitoring and evaluation systems as well as complementing other policy levers such as climate change regulations<sup>95</sup>. For the medium- to long-term, this can help the government better streamline its finances and explore ways in which additional public finances can be allocated to support areas such as climate research and innovation. Adopting green public finance management also strengthens the government’s ability to bolster its green finance architecture and fostering more private sector climate investing.

### **Align official development assistance with innovative and inclusive “green growth” opportunities**

Given that contributions by international development aid agencies is one of the sources of climate financing, governments should seek to ensure that development aid is aligned with innovative and inclusive green growth opportunities. Aligning official development assistance (ODA) with innovative and inclusive “green growth” opportunities is also a sensible move considering various global developments – such as the Global Green Growth Institute (GGGI) partnership with the African Development Bank<sup>96</sup>, or the OECD Development Assistance Committee (DAC)’s announcement that it will ‘align development co-operation with the goals of the Paris Agreement on Climate Change’<sup>97</sup>. To do so, governments should utilise funds (e.g., Special Climate Change Fund<sup>98</sup> and the Least Developed Countries Fund)<sup>99</sup> made available by agencies such as the Global Environment Facility to co-finance innovative national and regional projects in support of climate change response. Additionally, countries should also take advantage of climate funding accelerator programs hosted by international development agencies to drive national climate innovation. These programs include the IMF Climate Innovation Challenge<sup>100</sup>, GEF Challenge Program for Adaptation Innovations<sup>101</sup>, UNDP-UNICEF Green Shark Challenge<sup>102</sup> as possible funding avenues for bolster their climate innovation. Countries will also do well to utilise the Technology Facilitation Mechanism (TFM)<sup>103</sup> as established through the 2015 Addis Ababa Action Agenda (AAAA)<sup>104</sup>. The TFM organises the annual Multi-Stakeholder Forum on Science, Technology, and Innovation for the SDGs (STI Forum) which enables countries to benefit from knowledge-sharing and technology-transfer for climate innovation and technologies. The AAAA’s framework also outlines key action areas on guiding climate financing (as part of wider financing for development initiatives, otherwise known as FfD) towards climate innovation.



#### **Policy Recommendations:**

Governments should plug institutional capacity and knowledge gaps regarding climate change

Governments should adopt a ‘green budgeting’ approach to public finance management

Align official development assistance with innovative and inclusive “green growth” opportunities

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[Click Here to Access Report Annex & Supplementary Data](#)

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