

Chapter 6 Climate finance and investment in sub-Saharan Africa

FINANCE IN AFRICA

Unlocking investment in an era of digital transformation and climate transition

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Finance in Africa

Unlocking investment in an era of digital transformation and climate transition

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About the EIB Economics Department

The mission of the EIB Economics Department is to provide economic analyses and studies to support the Bank in its operations and in the definition of its positioning, strategy and policy. The department and its team of economists is headed by Debora Revoltella, director of economics.

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Chapter 6

Climate finance and investment in sub-Saharan Africa



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Chapter 6 was authored by Joana Conde and Ricardo Santos, both of the European Investment Bank. **Box 1** was written by Nxalati Baloyi and Dr Stuart Theobald, both of Krutham. **Box 2** was written by Paola Casati of the University of Bari, Taranto, Italy, and Fotios Kalantzis of the European Investment Bank.

Chapter 6

Climate finance and investment in sub-Saharan Africa

Climate change and climate risks are increasingly affecting Africa, with sub-Saharan Africa being the most exposed region in the world according to European Investment Bank (EIB) climate risk country scores. Extreme climate events have so far had a limited impact on banks. In the EIB Banking in Africa 2024 survey, only 7% of banks in sub-Saharan Africa report damage to their physical assets due to climate risks. The limited damage to physical assets experienced by banks reflects the type of physical climate risk facing Africa. African countries tend to encounter chronic physical risks related to higher temperatures, drought, desertification and rising sea levels, all of which can have a major economic impact, particularly on agriculture and productivity more broadly, but do not necessarily damage physical assets. In other regions of the world, physical climate risk is due to extreme weather events and storms.

About a third of responding banks in our survey report declines in asset quality due to climate, with the vast majority of banks identifying micro, small and medium enterprises as the most affected borrowers. On a positive note, however, 59% of banks say climate has not had a material impact on asset quality. This can be explained by the fact that banks tend to have low exposure to climate sensitive sectors, notably agriculture, in many countries.¹ Although many banks are not yet seeing the effect of climate change on asset quality, a considerable share of banks are planning on reducing their exposure to sectors that are vulnerable to climate risk, particularly physical climate risk. So even though asset quality has been partially insulated from climate risk so far, banks are already taking steps to protect themselves.

The survey reveals that offering climate products to clients or issuing green bonds on financial markets remain the exception rather than the rule for banks in sub-Saharan Africa. This is contributing to a shortage of climate finance on the continent, making the region highly reliant on international sources. Climate-related financial flows to Africa represent only 12% of the annual climate financial flows the continent needs to implement nationally determined contributions and meet its 2030 climate goals. Climate finance is dominated by public funding (90% of the total) and international funding (99% of the total). Multilateral development banks have a crucial role to play in supporting domestic market development and attracting domestic financing if Africa is to catalyse private climate financing and meet its climate finance needs.

The climate perceptions of individuals and banks have a significant bearing on climate finance outcomes. There are many barriers to scaling up green finance products offered by banks and, according to our survey, banks in sub-Saharan Africa perceive demand-side barriers (barriers originating with their clients) to be more problematic than supply-side barriers (banks' own limitations). Among client constraints, the one most relevant to green lending is the low priority attached to climate change and hence low demand experienced by banks for green products. In the survey, banks were also asked to rank themselves according to their climate ambitions. For the banks that are sceptical about climate change or only weakly engaged, internal barriers to increasing green finance are amplified, including a lack of climate-related skills. The perceptions of banks and clients of climate change are therefore a determining factor in green financing.

The chapter also contains analyses aimed at understanding the factors shaping these perceptions in different countries. Although countries in sub-Saharan Africa face significant climate risks, investment in climate transition is limited by economic and social factors such as political risks, widespread poverty and lack of affordable access to clean sources of energy. To support the greening of the financial sector,

¹ European Investment Bank (2023).

policymakers should focus on improving climate awareness and supporting the development of skills, tools and processes for banks and clients. Governments should also pursue reforms that enhance climate awareness and increase the issuance of green bonds, which, in turn, can catalyse issuance by the private sector.

Climate finance in Africa

Africa is more exposed to climate risk – especially chronic physical risk – than any other region in the world.² African countries tend to face chronic physical risks stemming from higher temperatures, wildfires, desertification, drought and rising sea levels, all of which can have a major economic impact, particularly on agriculture, but do not tend to damage physical assets. In other regions, physical climate risk is more often due to extreme weather events and storms. An analysis of climate risk on bank balance sheets in the 2023 Finance in Africa report found that banks in Africa are exposed to climate risk predominantly through lending to sovereigns and households. In contrast, the transmission of climate risk from the corporate sector to bank balance sheets is limited by the low exposure of banks to high-risk economic sectors, such as the agricultural sector. Physical risk remains, on average, a bigger issue for banks than transition risk.

As climate risks intensify, the EIB lending survey of sub-Saharan African banks sheds light on how banks perceive climate risks, where they stand on their climate strategy and what is holding them back from increasing green finance. The survey covers the green portfolio of banks and the type of products on offer, their climate strategy, the tools available for climate risk management and impact measurement, and the role of the regulator. The main findings from the survey are that despite the potential opportunity of climate financing, most banks do not see themselves as trendsetters, and the lack of client demand and technical capacity are discouraging many banks from increasing green lending.

Bank green strategies

Although African countries are seen as being among those most exposed to physical risks in the world, African banks are not yet feeling the material consequences of extreme weather events. Only a negligible share of banks (7%) say they experienced damage to their own physical assets due to events such as storms, floods, droughts or landslides in 2023 (Figure 1). This finding³ could be explained by the high levels of physical risk in sub-Saharan Africa, mostly as a result of its chronic components (for example, water shortages or extreme heat), which are not necessarily captured by the extreme weather events mentioned in the question. Furthermore, retail banking in sub-Saharan Africa does not rely solely on branches but depends on representatives or brokers and online banking, which is widespread in some countries. Clients are therefore less reliant on traditional brick-and-mortar locations for accessing banking services. However, when comparing banks that had some damage to physical assets or some deterioration of asset quality with those that did not, we see that, on average, the former are based in countries with higher EIB country climate physical risk scores (Figure 2).

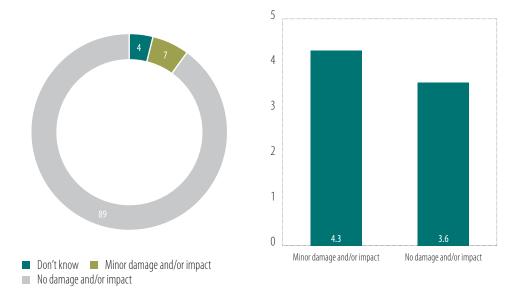
Similarly, physical risks have not materially affected asset quality for 59% of banks (Figure 3). This is a surprising result given the country climate risk scores mentioned above, but can be explained by one of the results highlighted in Finance in Africa 2023 and Figure 4 below. Briefly, despite the agricultural sector being crucial, on average, for economic activity in sub-Saharan Africa and one of the sectors most exposed to climate risk, banks have rather low exposure to such borrowers as this sector is relatively informal and considered high-risk by banks (Figure 4). However, of those experiencing declines in asset quality linked to climate, 93% identify micro, small and medium enterprises as the most affected borrowers.

² Ferrazzi et al. (2021).

³ For comparison, in a sample of non-financial firms in 41 economies in Central, Eastern and South-Eastern Europe, and in Central Asia, the Middle East and North Africa, Benincasa et al. (2024) find that 9% of companies report losses from extreme weather events in the three years preceding the interview.

Figure 1
Exposure of banks' physical assets to extreme weather events (% of responding banks)

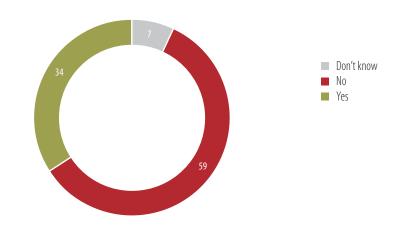
Figure 2
Average EIB country climate risk score of banks that reported no damage vs. those that reported minor damage



Source: EIB Banking in Africa survey, 2024.

Note: In Figure 2, EIB climate country scores range from 1 (least risk) to 5 (most risk).

Figure 3
Share of banks reporting asset quality deterioration due to extreme weather events (% of responding banks)



Source: EIB Banking in Africa survey, 2024.

Figure 4
Share of bank balance sheet exposure by sector (% of total exposure)

	Corporate sector									
Country	Agriculture	Mining	Manufacturing and industry	Wholesale or retail trade	Services	Other	Real estate and construction	Household	Sovereign	
Angola	3%	2%	5%	13%	3%	3%	6%	9%	56%	
Benin	2%	1%	7%	10%	18%	4%	21%	8%	30%	
Botswana	2%	2%	1%	6%	8%	4%	7%	56%	14%	
Burkina Faso	1%	4%	9%	13%	15%	8%	13%	13%	23%	
Côte d'Ivoire	3%	0%	11%	23%	18%	6%	4%	2%	33%	
Egypt	1%	0%	10%	4%	9%	0%	0%	11%	65%	
Ghana	1%	0%	4%	13%	14%	3%	3%	8%	54%	
Kenya	2%	0%	10%	12%	4%	2%	13%	11%	45%	
Mali	2%	2%	8%	29%	11%	8%	6%	1%	33%	
Mauritius	2%	0%	4%	6%	20%	0%	8%	25%	35%	
Morocco	3%	1%	8%	0%	5%	16%	8%	31%	27%	
Niger	1%	1%	5%	20%	19%	7%	10%	12%	24%	
Nigeria	5%	21%	17%	6%	25%	0%	0%	7%	18%	
Senegal	2%	1%	9%	13%	20%	7%	3%	11%	34%	
South Africa	1%	3%	4%	4%	32%	4%	5%	29%	17%	
Tanzania	4%	1%	5%	9%	27%	3%	4%	28%	17%	
Togo	0%	0%	4%	21%	14%	11%	13%	10%	28%	
Tunisia	2%	0%	24%	14%	4%	17%	5%	20%	15%	
Uganda	8%	0%	9%	11%	6%	0%	14%	12%	39%	
Zambia	5%	2%	5%	4%	6%	13%	1%	7%	58%	
Zimbabwe	25%	5%	10%	0%	25%	0%	1%	20%	16%	

Source: EIB Finance in Africa, 2023.

Most of the banks in our survey see the climate transition as an opportunity, but are more likely to be followers rather than trendsetters in their climate strategy. The climate transition is viewed as an opportunity rather than a risk by 67% of banks and generic strategic climate objectives have been defined by 79% of banks. However, when asked which climate strategy they would identify with, roughly half of the banks were sceptical about the need for a green transition or only follow existing trends in the banking sector to remain competitive. Specifically, 14% of banks reported being sceptical about the need for the green transition, not acknowledging climate change as a significant risk and not implementing any specific policies beyond existing minimum regulatory requirements, identifying themselves as "Cautious" (Figure 5). In addition, 38% of banks class themselves as "Followers" of trends in the field, with their motivation being mostly competition-based and not driven by the results of a risk assessment. In contrast, 24% of responding banks see themselves as "Promoters" – that is, trying to address climate change to some extent – and the final 24% are "Leaders" – meaning they have climate risks fully embedded in their frameworks and strategies. Although this identification is self-selected by banks, Figure 8 shows that the banks' climate actions tend to match their words, as there is a clear relationship between their own climate labelling and the share of green lending in their loan portfolios.

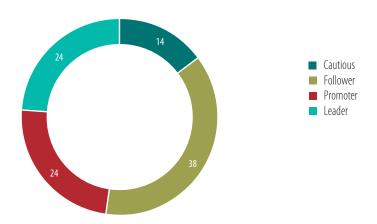
⁴ Among the following strategies:

Cautious: We do not acknowledge climate change as a significant risk for our bank and have not yet implemented any specific policies beyond any minimum regulatory requirements.

Follower: We have implemented some climate-related policies (for example, limiting carbon footprint, climate stress, pricing in climate on loans) following what other banks have done in order to remain competitive.

Promoter: We have a comprehensive strategy in place to address our impact on climate change and mitigate active risks in our portfolio. Leader: Climate change is a central consideration in all our policies and operations and is embedded in all our internal processes.

Figure 5
Share of banks that identify with a specific climate strategy (% of responding banks)

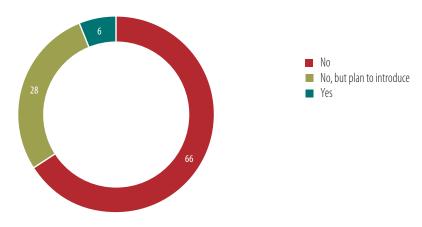


Source: EIB Banking in Africa survey, 2024.

Green funding

Only a small share of banks (6%) have issued green bonds, although another 28% of banks plan to. This leaves 66% of banks having not issued green bonds and with no plans to do so, showing that green bond issuance is still the exception rather than the rule for African banks (Figure 6). These percentages reflect results from Chapter 3, where we found that only a small group of banks with access to foreign exchange markets issued bonds in hard currency (typically the currency of issuance of environment, social and governance bonds), meaning that besides lacking an appetite for climate finance products, the small shares of banks issuing green bonds are linked to a lack of access to hard currency debt markets. This lack of private financing is also evident in the Climate Policy Initiative data on green finance flows to Africa. As detailed in Box 1 (authored by Nxalati Baloyi and Dr Stuart Theobald of the financial research and consulting firm Krutham), these flows to Africa only represent 12% of the amount required annually and are mostly from international and public sources, highlighting the need to diversify the sources of financing.

Figure 6
Share of banks that issue green or environment, social and governance bonds (% of responding banks)



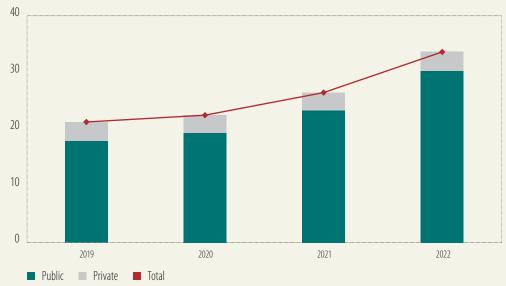
Source: EIB Banking in Africa survey, 2024.

Box 1

The role of multilateral development bank finance flows on the mobilisation of climate financing⁵

Finance flows to Africa in 2019-2022 only represent 12% of the estimated \$277 billion a year the continent needs to implement nationally determined contributions and meet 2030 climate goals, according to data from the Climate Policy Initiative. Climate finance in Africa remains disproportionally public and international as opposed to private and domestic (90% public vs. 10% private; 99% international vs. 1% domestic). The climate finance needs of Africa may be met by including multilateral development bank flows as part of a more sustainable solution focused on supporting domestic market development and crowding in domestic financing.

Figure 7
Total climate finance: Africa 2019-2022



Source: Climate Policy Initiative Global Landscape of Climate Finance data (2023).

Public climate finance flows

In Africa, multilateral development banks are the largest source of international public climate finance (49%), followed by bilateral development partners including bilateral development finance institutions (22%), international governments (16%) and multilateral climate funds (3.5%). Multilateral development banks channelled their investments through a variety of financial instruments. Debt accounted for 77% of the funding (47% market rate debt and 30% concessional debt), followed by grants (20%) and equity financing (3%). Climate flows from multilateral development banks are almost evenly split between mitigation and adaptation financing, with 52% going to adaptation initiatives, 46% to mitigation and the remaining 2% to projects with dual effects (Climate Policy Initiative, 2023).

Private climate finance flows

In Africa, 50% of private climate finance was mobilised from corporations, and the remainder from households (20%), commercial financial institutions (13%), institutional investors (12%) and funds (5%). About half of Africa's private climate finance was mobilised from domestic sources, 39% from international sources and the balance from undisclosed sources.

⁵ Data for the box comes from the Climate Policy Initiative (2023).

The share of private sector climate finance in Africa (10%) is much lower than the global average (50%) and other developing regions, including South Asia (37%), East Asia and Pacific (39%) and Latin America and the Caribbean (49%). Private climate finance is also concentrated in a few African countries with developed financial markets and greater investable opportunities, for example, South Africa, Nigeria, Kenya, Morocco and Egypt. In contrast, for other African countries, the actual and perceived risks – including currency instability and convertibility, information asymmetries, illiquid and nascent bond markets, the lack of a bankable project pipeline, regulatory and governance issues, and the lack of technical capacity and transparency – reduce private investor appetite for expanding investments to Africa.

Crowding in private sector investments for financing sustainable development

To reach its climate targets, Africa's climate financing must increase at least ninefold, and African government public financing alone will not suffice. Attracting private sector finance and investment is therefore crucial, with multilateral development banks catalysing the process. By design, multilateral development banks leverage other sources of funding, finance a portion of the total project costs and mobilise additional investments through syndications and other pooled funding models. This funding approach, coupled with supportive guidance and risk mitigation, attracts more project funding.

Moreover, multilateral development banks investing in new sectors or high-risk regions can lead to additional projects and new investors through a demonstration effect. South Africa's Renewable Energy Independent Power Producer Procurement Programme (REIPPPP) presents a case study to that effect and an example followed by countries such as Chile and the United Arab Emirates. As the race to meet climate goals intensifies, multilateral development banks should be supporting domestic institutional development, which is critical for increasing private sector participation in Africa.

Green lending

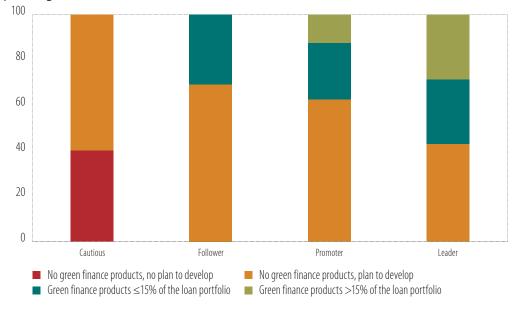
For the most part, banks still do not offer green loans, but there seems to be a relationship between the climate strategy of banks and the share of green loans in their portfolio. Among the banks responding to our survey, 61% do not offer any green finance products, although they plan to begin lending for climate-related projects. In addition, of the 21% of banks that do offer such products, green loans are a small share of the loan book (less than 15%). However, looking at the strategic label that each bank identifies with, as we move from the group of "Cautious" banks to that of "Leaders," an increasing number of banks offer green loans, and these products represent a progressively larger share of the loan portfolio (Figure 8). Indeed, no banks in the Cautious group currently offer green products for customers, whereas nearly half of the Leaders group offer green products, with green loans constituting more than 15% of the loan book for about one-quarter of the banks in this category.

Banks have made progress in established best-banking practices in the climate field but still have a long way to go in fully tackling climate risks. Given the relatively small share of banks offering green financial products, banks seem to be advanced in so-called established best practices for green banks – with 40% providing technical assistance, 63% training staff on climate issues and 73% having a boardendorsed climate strategy (Figure 9). However, the industry representativeness of these results should be viewed with caution, as this sample of surveyed banks includes a considerable share of respondents that have relationships with international financial institutions and are therefore more likely to have

⁶ To simplify, we split the actions taken by a bank to help with climate transition in two: established actions, which do not impose a structural change in banking practices and are commonly found in the banking sector; and emerging actions, of which there are fewer examples in the industry and which may require some modifications in the way business is conducted.

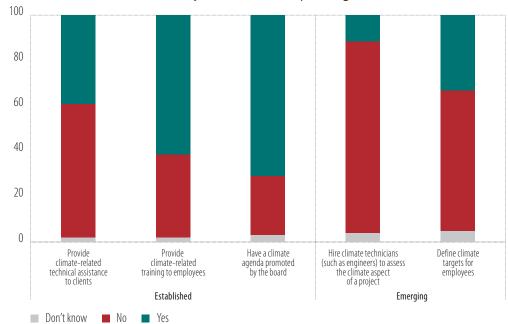
previously received credit lines destined for green projects. Nevertheless, observations on emerging trends in climate assessment, such as having specific climate targets or hiring engineers or other experts, are more in line with other results in this chapter as only 12% of banks hire climate technicians (such as engineers) and 35% include climate as a key performance indicator for staff.

Figure 8
Offering of green products (Y-axis) depending on the climate strategy label (X-axis) (% of responding banks)



Source: EIB Banking in Africa survey, 2024.

Figure 9
Prevalence of climate-related best practices (% of responding banks)

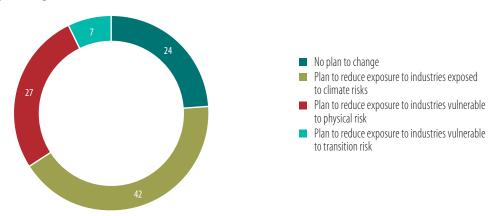


Source: EIB Banking in Africa survey, 2024.

A large share of banks (76%) plan to curtail lending to sectors of the economy that are exposed to climate risk (Figure 10). This is particularly applicable to physical climate risk, with banks appearing less concerned about transition risk. The apparent lack of interest in transition risk may be because although the direct consequences of physical climate change are already felt, the structure of the economies has not yet changed, so banks cannot risk shifting their sector priorities to cope with transition risk without losing market share and competitiveness. This finding is in line with the results from the EIB country climate risk model (Ferrazzi et al., 2021), showing that physical risk is more prevalent than transition risk in sub-Saharan African economies, even though banks report that physical climate change has a limited effect on asset quality.

Figure 10

Banks' plans for changing their loan exposure to climate-sensitive industries (% of responding banks)



Source: EIB Banking in Africa survey, 2024.

The toolkits banks use for climate risk assessment and monitoring still have gaps, particularly for assessing the climate risks of the existing loan portfolio, but banks are addressing this. Most banks (71%) do not have suitable tools (like scenario analysis or stress testing) for monitoring their evolving exposure to climate risks, but plan to introduce them. However, banks are more advanced in assessing climate risks for new projects, with 53% of banks reporting that they are at least partially equipped for evaluating the climate risks of new projects.

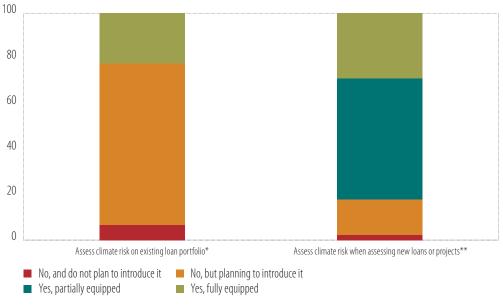
Banks identify client-related factors as the biggest barriers in further increasing green lending. Clients' lack of technical capacities for making bankable climate investment proposals is cited by 56% of banks as one of their top-three barriers to lending. EIB (2024) show that this is an experience shared by a markedly different sample of public development banks in Latin America and the Caribbean in response to a similar survey. Sub-Saharan African banks say that another important constraint is clients' view of climate adaptation as a low priority, with the largest number of banks ranking it as their biggest constraint. This finding raises various questions: Why is green loan demand low when the share of African people affected by climate change is high? To what extent are individuals' climate preferences shaped by political and social factors? In Box 2 at the end of this section (authored by Paola Casati of the University of Bari, Taranto, Italy, and Fotios Kalantzis of the EIB), we explore these questions using data from the 2022-2023 EIB Climate Survey to assess how climate perceptions in Africa and other economic and social factors limit demand for investment in the green transition.

Beyond client-related factors constraining green lending, banks also face internal challenges. According to our Banking in Africa 2024 survey, banks lacking access to long-term capital that can match the long-term horizon of climate investments is the most significant internal challenge (Figure 12), highlighting an action point for international financial institutions. Other factors such as the banks' own risk management and

monitoring capacities, misalignment of climate and commercial goals and uncertainty around disclosure of climate-related data also feature as constraints but not to the same extent as client-related factors.

Figure 11

Banks' climate risk monitoring for new and existing loans (% of responding banks)

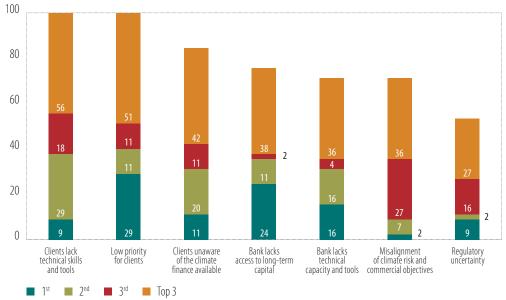


Source: Note: EIB Banking in Africa survey, 2024.

* Toolkit for this analysis includes scenario analysis and stress testing.

**Yes, partially equipped = reviews sustainability before origination, does not monitor. Yes, fully equipped = reviews sustainability before origination and does monitor.

Figure 12
Share of banks that identified each factor as a top-three constraint (% of responding banks)



Source:

EIB Banking in Africa survey, 2024.

The strategic ambitions of banks appear to be related to the type of climate obstacles they face. Looking into the sample of banks and the strategic label they identified with, the groups of banks that are less engaged on climate (identifying themselves as "Cautious" or "Followers") exhibit some differences to the banks that identify themselves as "Leaders" or "Promoters." While the top two constraints overlap for both samples, the less-engaged segment of banks attaches greater importance to internal constraints on green lending, such as their own lack of technical capacity for managing climate risks and the lack of long-term capital. This observation again reinforces how engagement – by the clients and the banks – is having a considerable influence on green lending volumes. Furthermore, multilateral development banks and international financial institutions should support these banks, potentially via credit lines and technical assistance programmes, as they could disproportionately benefit from these initiatives.

Regulatory incentives are crucial for increasing climate disclosures. Expanding a green finance industry requires data and toolkits for predictions. Since a lack of data is a problem in many countries when trying to calibrate climate tools, increasing the availability of climate-related data would be a vital resource for the banking industry. In our survey, banks were asked about the constraints on lending, and uncertainty about regulatory reporting requirements was ranked last, possibly because most banks (56%) already make some form of climate disclosures – either in their annual report (26%) or upon the request of the central bank or supervisory entity (30%). The former most often report on a voluntary basis, whereas those that report directly to the regulator usually do so because it is a legal requirement. If more regulators slowly pushed for increased climate disclosures, the 44% of banks that do not report on climate at all would be incentivised to make information available. Such disclosures would considerably enlarge the knowledge base available to banks, increase transparency in the sector, and help banks – and indirectly, their clients – become familiar with the green taxonomy.

Box 2

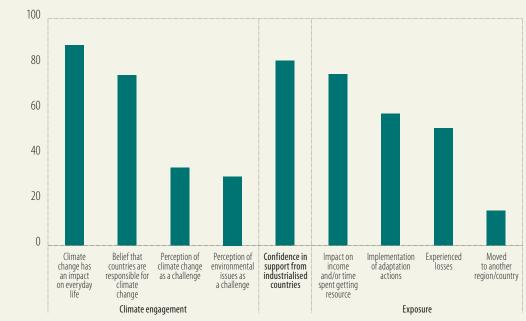
How climate perceptions in Africa shape preferences and demand for investment in the green transition

As the global community faces increasing pressure to move to cleaner energy sources, understanding the behavioural foundations of energy technology choices is key to designing effective policies and actions to promote sustainable energy transitions. Although there is a growing body of research analysing the drivers of climate change beliefs, the literature exploring the role of climate behaviours in shaping energy technology preferences remains limited. This gap is particularly evident in developing economies, where the relationship between individual climate change-related actions and the adoption of renewable energy technologies is crucial to achieving Sustainable Development Goal 7 (Ensure access to affordable, reliable, sustainable and modern energy for all). In Africa – where energy access is often limited and unreliable – renewable energy technologies offer promising solutions. However, the adoption of these technologies is influenced by a complex interplay of economic, social and demographic factors. This box considers various perspectives on energy technologies and aims to connect individuals' preferences for renewable energy with climate change awareness and exposure. By empirically examining these factors, pathways for accelerating the deployment of renewable energies and enhancing their social acceptance can be identified. The evidence and analyses presented in this box offer guidance for policymakers and stakeholders engaged in shaping the future energy landscape of Africa.

Data used in these analyses are from the EIB Climate Survey 2022, including 6 105 responses across ten countries. First, to capture the nuanced concept of climate change perceptions, a structural equation modelling approach was employed. This approach allows us to model climate engagement as a latent variable, based on responses to several questions in the survey: the perception of climate change and environmental issues as main challenges, the perceived impact of climate change on everyday life, and beliefs about anthropogenic causes of climate change. Similarly, the analysis includes a set of indicators for capturing climate change exposure (for economic and social disruptions), and perceptions related to political and social issues. The model also includes a variable that captures

confidence in industrialised countries' efforts to combat climate change. In a second step, the variables created from the survey are used to predict renewable energy preferences using a multinomial logistic regression model.

Figure 13
Climate engagement and climate exposure indicators among individuals in Africa (% of respondents)



Source: EIB Climate Survey 2022/2023 – Africa.

According to the EIB Climate Survey 2022, most respondents (74%) recognise climate change as a human-caused phenomenon, with around 34% considering it among the top five challenges facing their country (Figure 13). A large proportion of respondents (87%) see climate change affecting their everyday life, indicating a substantial level of awareness and concern about climate change and its effects. In addition, 82% of respondents trust the efforts of industrialised countries in combating climate change, underscoring a reliance on global initiatives for climate change mitigation. This high level of trust may reflect the perception that industrialised nations, which are responsible for significant emissions, also have the resources and technology needed to address the climate emergency. More than half of the respondents have experienced climate change-related losses (51%) and 75% reported that climate change had affected their income and the time spent acquiring resources (Figure 13). Furthermore, almost 60% of respondents have already taken adaptation actions, highlighting proactive efforts at the individual level.

The results of the structured equation modelling analysis offer a detailed understanding of the factors influencing climate engagement (Figure 14a). Measuring climate exposure helps identify the extent to which individuals are affected by climate change and how this affects their attitudes

and behaviours. Climate exposure has a strong positive effect on climate engagement, indicating that higher perceived risks from climate change correlate with increased engagement with climate issues. This finding suggests that personal experiences with extreme climate-related events drive increased concern and involvement in climate action.

However, a closer analysis of whether the preferences for energy sources match this climate engagement provides surprising results (Figure 14b). The multinomial logistic regression reveals that individuals who are more exposed to climate risks (climate exposure index) still tend to prioritise fossil fuels over renewable energy sources. Conventional fuels typically have lower upfront costs, making them more accessible for small-scale and individual use than renewable energy sources. In contrast, there is a positive association between climate engagement and preferences for renewable energy, indicating that higher climate engagement correlates with greater support for renewable energy technologies over fossil fuels. This finding underscores the importance of enhancing climate engagement to foster public support for renewable energy adoption, highlighting the need for targeted educational and awareness programmes.

The analysis also highlights significant regional and socio-demographic disparities. Residing in a sub-Saharan African country is associated with lower climate engagement and a higher probability of prioritising fossil fuels. This result can be attributed to severe electricity access issues in sub-Saharan Africa, which force reliance on fossil fuel-powered generators. Moreover, men are more likely than women to prefer renewable energy technologies. This means that gender disparities and regional challenges must be addressed while raising awareness to effectively promote the adoption of renewable energy.

Perceived political challenges exhibit a significant negative relationship with climate engagement. This finding suggests that individuals in regions characterised by political instability or corruption may prioritise immediate well-being and economic concerns over long-term environmental engagement. However, although they exhibit lower climate engagement, individuals seeing political issues (such as corruption) as major challenges in their country are more likely to prioritise renewable energy. This preference likely stems from the unreliable fossil fuel electricity supply in poorly governed countries, driving a desire for renewable options that will enhance energy security and access and political stability. Similarly, social priorities emerge as a robust predictor of renewable energy preferences. Individuals prioritising improvements in healthcare, education, clean water, and food access are more likely to support renewable technologies, reflecting an understanding that sustainable energy solutions are integral to broader social and economic development goals.

In summary, although countries in sub-Saharan Africa face significant climate risks, investment in climate transition in this area is limited by other economic and social factors, and integrated policies that address climate and socio-political challenges are needed. Enhancing climate education is crucial to increasing awareness and understanding of climate change, potentially then driving support for renewable energy technologies. In addition, addressing immediate needs by providing solutions for those directly affected by climate change may help build support for long-term renewable energy adoption. The complex interplay between climate perceptions, political views and social priorities underscores the need for multifaceted strategies that consider the diverse factors influencing energy preferences. By leveraging political support, addressing social needs and enhancing climate engagement, policymakers can develop more effective and inclusive energy policies that align with environmental and socioeconomic goals.

Figure 14 Drivers of climate engagement (14a) and renewable energy preferences (14b) a. Drivers of climate engagement Climate engagement Climate exposure Political challenges Social priorities Confidence in support from industrialised countries Gender (female) Having children below 18 Location in sub-Saharan Africa Own calculations based on the EIB Climate Survey, 2022. $Climate\ engagement\ is\ estimated\ using\ a\ structural\ equation\ model, where\ social\ priorities\ are\ a\ latent\ variable\ capturing\ above the social\ priorities\ are\ a\ latent\ variable\ capturing\ above\ based on the social\ priorities\ are\ a\ latent\ variable\ capturing\ above\ based on the social\ priorities\ are\ a\ latent\ variable\ capturing\ above\ based on\ based\ on\ based\$ Note: respondents' need to prioritise improvements in social infrastructure (access to healthcare, education, clean water and food) considered as a key challenge in their country, and where political challenges are a latent variable capturing respondents' perception of political challenges related to security, terrorism, corruption and stability. The analysis also included a set of country-level variables: gross domestic product (GDP) per capita (current US dollar), population density, $share of renewable\ energy\ in\ total\ final\ energy\ consumption\ and\ the\ ElB\ transition\ risk\ and\ physical\ risk\ scores\ (ElB,2021).$ b. Renewable energy preferences Renewable energy preferences vs. fossil fuels Large-scale renewable energy Small-scale renewable energy Nuclear energy Climate engagement Climate exposure Political challenges Social priorities Age Gender (female) Having children below 18 Location in sub-Saharan Africa GDP per capita Population density Renewable energy consumption Transition risk Physical risk Positive Significance No significance Source: Own calculations based on the EIB Climate Survey, 2022 Renewable energy preferences are estimated using a multinomial logistic regression. In this model latent variables are

now considered as composite indicators to predict renewable energy preferences.

Policy priorities

The analyses in this chapter show that to support the greening of the financial sector, policymakers should focus on promoting climate awareness and backing the development of skills and tools for banks and clients. The main message emerging from our survey is that although banks are reporting a lack of long-term capital as an obstacle to green lending, non-finance obstacles are more significant. Tackling these obstacles with technical assistance and the development of skills and tools is as important as the provision of long-term finance.

More broadly, the greening of sub-Saharan African economies will need more than bank financing alone. Governments in the region should first pursue reforms to increase climate awareness, while addressing the economic and social priorities of their populations. Against this backdrop, multilateral development banks continue to have a critical role to play in Africa providing affordable and long-term financing, building capacity and catalysing much needed private sector investments.

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Chapter 6 Climate finance and investment in sub-Saharan Africa

