

### **WORKSHOP REPORT**

# **Climate Risk and Finance:**

A Report on the Banking Industry's Sensitisation on Climate-related Risk Management

**JUNE 2022** 







# Climate Risk and Finance: A report on the Banking Industry's Sensitisation on the Central Bank of Kenya (CBK)'s Guidance on Climate-related Risk Management

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#### **About this Report**

This is a report on the Kenya banking industry sensitization workshop led by the Kenya Bankers Association (KBA) in partnership with Financial Sector Deepening (FSD) Kenya and the United Nations Environment Programme Finance Initiative (UNEP FI). The key objective was to equip KBA member banks with the necessary knowledge and capacities to comply with the Central Bank of Kenya (CBK)'s Guidance on Climate-Related Risk Management. The workshop was made possible with the generous financial support from FSD Kenya and the thematic expertise of UNEP FI.

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# Acknowledgements

This report was prepared by two experts on climate-related financial risks who conducted the workshop: David Carlin (TCFD and Climate Risk Programme Lead, UNEP FI) and Reuben Wambui (Africa Regional Lead, UNEP FI).

The planning of the workshop was led by Roselyne Njino (Senior Public Affairs and Communications Officer, KBA) and Ouma Olum (Climate Finance Specialist, FSD Kenya).

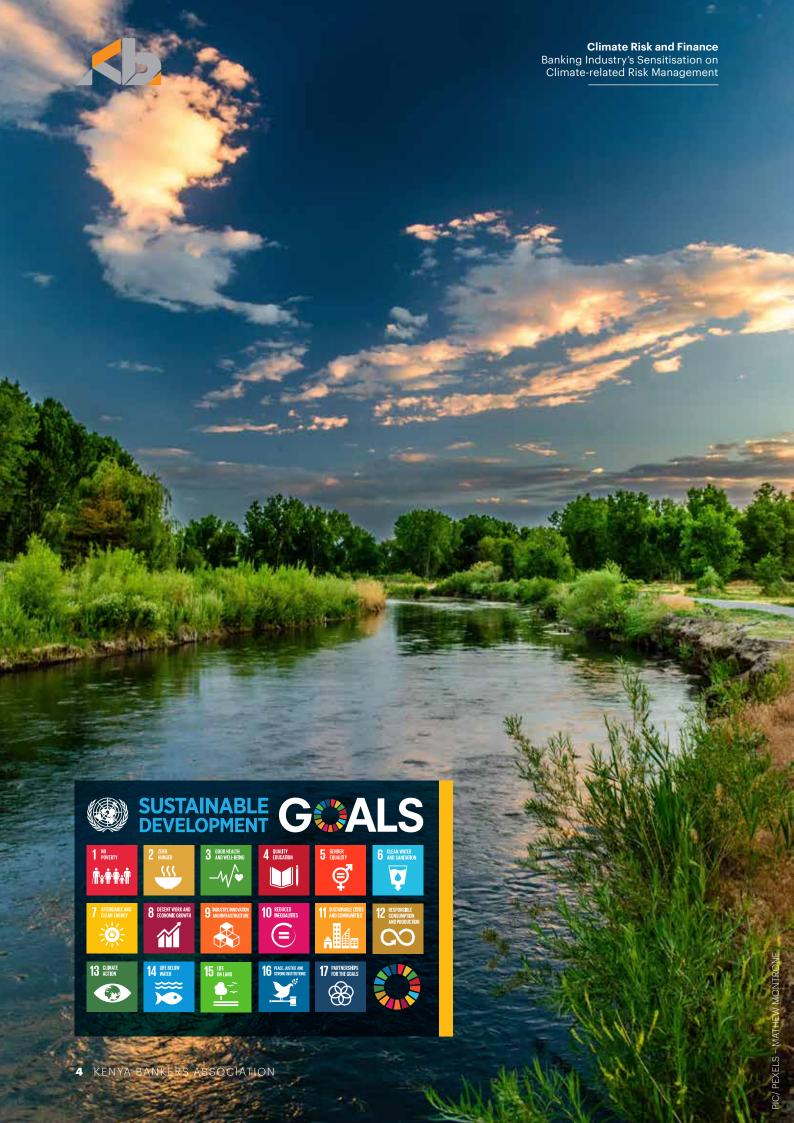
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## **SUMMARY DESCRIPTION**

his workshop titled "Industrywide Sensitization Workshop on the Central Bank of Kenya (CBK)'s Guidance on Climate-Related Risk Management" was held at Sawela Lodge in Naivasha, Kenya from 23-25 February 2022.

A total of **90 participants** were in attendance: 84 bank representatives from 43 banks, four KBA staff representatives, and two FSD Kenva representatives. See **Annex II** for the list of participating banks. Mobilization of the banks was done through a KBA circular sent out to all bank Chief Executive Officers (CEOs) asking each bank to nominate senior officials from the credit, risk, and compliance departments to attend the workshop. Figure 1 shows a word cloud with the job titles of the participants.

The workshop was conducted by experts from the United Nations Environment Programme Finance Initiative (UNEP FI) and received funding support from Financial Sector Deepening (FSD) Kenya.

The workshop format combined full group sessions and breakout sessions. This was to ensure that participants gained thematic knowledge on climate risk management practices and to facilitate relevant knowledge exchange and networking among industry peers on implementing the CBK Guidance.

Following the completion of the workshop the experiences of participants and the key takeaways from the sessions were summarized for inclusion in this report. In addition, the authors provided suggestions for KBA member banks and CBK on next steps in advancing climate risk practices in Kenya. A summary of the recommendations follows, with a full discussion featured in section 7.





Table 1: Suggested next steps to advance climate risk practices in Kenya's financial system

Recomendations for KBA banks	Recomendations for CBK
Join climate-related initiatives	Join climate-related initiatives
Commit to building capacity on climate-relayed topics	Commit to building capacity on climate-relayed topics
Develop a climate roadmap	Develop a climate roadmap
Governance: Develop internal governance around climate	Issue TCFD report
Strategy: Integrate climate into strategy	Conduct an assessment of climate-related systemic risks
Risk Management: Conduct analysis to support risk management	
Metrics & Targets: Commit to climate action using metrics and targets	



Figure 1: A word cloud of the participants' job titles shows that most were banking heads and managers from risk, compliance, and credit departments.

assurance & compliance

credit risk manager

lead wholesale compliance social risk officer

head of enterprise

credit administration

franchise governance officer

head - risk management chairman kib governing credit risk analysis

enterprise risk management

risk & compliance

operational risk

chief risk officer head of compliance head of risk credit policy

portfolio risk management

### credit manager manager head of credit

group head risk

deputy manager - compliance sustainability manager

head of sustainability

management & compliance

esg & sustainability credit risk analyst

risk manager

general manager risk

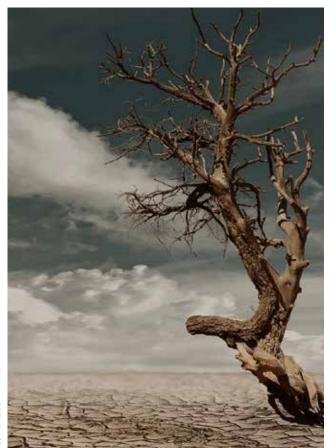
credit & legal credit risk management

Chief credit officer

manager financing analysis

head enterprise risk

team lead wholesale

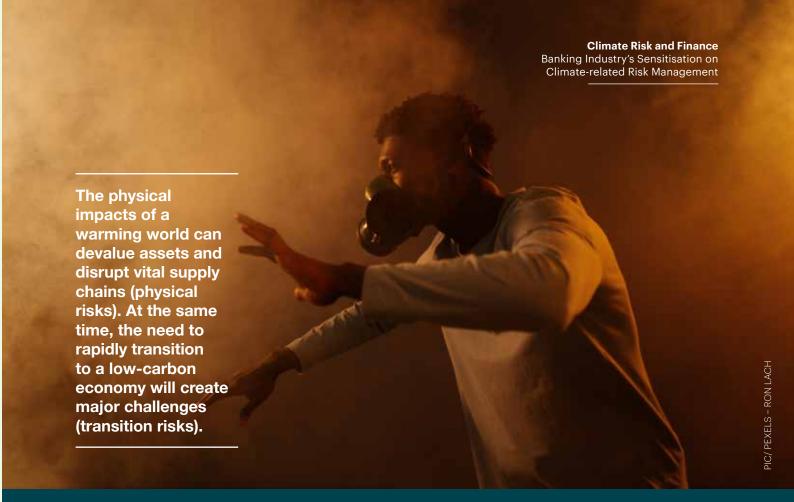


#### Section 2

# WORKSHOP **OBJECTIVES**

The workshop's objective was three-fold:

- 1) **Equip** the banking sector with the capacity to develop climate risk management implementation plans in line with the CBK Guidance
- 2) Facilitate peer exchange and networking among banking industry peers on how to approach climate action and implementation of the CBK Guidance in their banks.
- 3) **Enlighten** the banking sector on the fundamentals of climate risks and opportunities, and the Taskforce on Climate-related Financial Disclosures (TCFD) framework.



## **BACKGROUND AND CONTEXT**

ow more than ever, financial actors have recognized the existential risks that climate change and associated systemic risk factors pose to society and the economy. The physical impacts of a warming world can devalue assets and disrupt vital supply chains (physical risks). At the same time, the need to rapidly transition to a low-carbon economy will create major challenges (transition risks). Both physical and transition risks increasingly pose material financial losses that directly and indirectly impact the financial system, with systemic consequences for financial stability. As a result, financial institutions are seeking to better understand and enhance their preparedness to climate risks and opportunities.

Beyond the financial actors, financial regulators and industry associations are increasingly recognizing the risk that climate change poses to the financial system and financial stability. Notably in 2015, the Financial Stability Board (FSB) established the Task Force on Climaterelated Financial Disclosures (TCFD) to develop voluntary disclosure recommendations for use by companies in reporting climate-related financial risks.

In 2017, eight founding central banks and supervisors established the Network of Central Banks and Supervisors for Greening the Financial System (NGFS) with the aim of scaling up green finance and developing recommendations for central banks' role in climate risk management.

As of April 2022, the NGFS had grown to 114 members that include 12 African regulators: Central Bank of Kenya, Bank of Mauritius, Bank of Ghana, Banque Centrale de Tunisie, Bank Al-Maghrib, Central Bank of Seychelles, Central Bank of Egypt, Central Bank of Mauritania, Central Bank of Nigeria, Financial Regulatory Authority of Egypt, South African Reserve Bank, and the Central Bank of West African States.

Locally, the CBK released the "Guidance on Climate-Related Risk Management" as a guiding framework for all regulated banks. This was a significant milestone towards integrating climate risk considerations in Kenya's banking d further mainstreaming sustainable business practice.



# AGENDA AND SESSIONS

DAY 1:	WEDNESDAY, 23 FEBRUARY: ARRIVAL AND CHECK-IN	
DAY 2:	THURSDAY, 24 FEBRUARY: FULL DAY	
0900 - 0930	Opening Remarks & Welcome Plans for the day – Moderator  The opening remarks were delivered by Ms. Roselyne Njino (Senior Public Affairs and Communications Officer, KBA) who welcomed all participants to the workshop and set forth the agenda. This was followed by remarks from Mr. Ouma Olum (Climate Finance Specialist, FSD Kenya) who expressed FSD Kenya's commitment to support this initiative to further enhance sustainability in Kenya's banking industry.	
0930 - 1100	Session 1 (full group): Introduction: Climate Science, Climate Risks, and Climate Opportunities This session introduced the participants to the latest developments in climate science and the steps that the global community is taking to combat climate change. It helped inform the participants about the ways to categorise different climate risks and their implications for financial institutions. It also covered significant commercial opportunities that climate change presents.	
1100 - 1130 Tea Break		
1130 - 1300	Session 2 (full group): Climate Risk Regulatory Developments: Global and Local Trends This session helped the participants to appreciate the ways in which financial supervisors are attempting to manage the risks that climate presents to financial systems. It focused on emerging global trends in climate disclosure requirements and climate stress testing. Examples given came from regulators around the world as well as across Africa. The session then presented an overview of the CBK Guidance.	
1300 - 1400	00 - 1400 Lunch break/Networking	
1400 - 1515	Session 3 (full group): TCFD Framework and Good Practices in Climate Risk Reporting In this session, the participants were introduced to the Taskforce on Climate-Related Financial Disclosures (TCFD) framework for climate risk disclosure. It covered the four pillars of the TCFD disclosure: governance, strategy, risk management, and metrics & targets, by providing specific good practice examples from the work of leading institutions.	
1515 - 1530	Break	









#### **1530 - 1700**

#### Session 4 (breakout session): Deep-dive into CBK Guidance and Breakouts on Implementation

In this session, the participants dived deeply into specific elements of the latest CBK Guidance. The different components of the guidance were addressed along with strategies for implementing them. The Participants got into breakout sessions to discuss the challenges and exchange ideas on how to integrate the Guidance requirements into current risk management practices within their banks.

#### **DAY 3:**

#### FRIDAY, 25 FEBRUARY: HALF DAY

#### 0900 - 1000

#### Session 5 (full group): Climate Scenarios, Stress Testing and Data: A Primer

This session provided the participants with some initial perspectives on the transition and physical scenarios commonly used to conduct climate scenario analysis. Relevant transition models from the Network on Greening the Financial System. (NGFS) and the International Energy Agency (IEA) were featured. Guidance was also provided on available open-access sources of physical risks data.

#### 1000 - 1115

#### Session 6 (full group): Key Climate Metrics and Performance Indicators

This session focused on the important topic of climate metrics and performance indicators. The first portion of the session discussed existing regulation and guidance around calculation of financed greenhouse gas (GHG) emissions. The second portion of the session detailed the set of key climate risk and alignment metrics that are useful for both TCFD reporting and internal decision-making.

#### 1115 - 1145

#### **Tea Break**

#### 1145 - 1300

#### Session 7 (full group structured Q&A): Climate Risk Integration and CBK **Guidance: Taking the Next Steps**

This final session offered the participants the opportunity to ask questions about how they could effectively integrate climate risk into their business and operations going forward. It also provided a chance to explore questions around the implementation of CBK's Guidance and set the participants on an effective course to progress in their climate knowledge and climate ambition.

#### 1400

#### **Closing remarks**

The closing remarks were delivered by Mr. Kennedy Mutisya Njino (CFO, KBA) who thanked all participants and proposed the setting up of an industry working group on climate-related risk management that would be hosted under the KBA Sustainable Finance Initiative (SFI). This was followed by remarks from Ms. Tamara Cook (CEO, FSD Kenya) who congratulated the participants on their commitment to understanding how to mitigate climate risks but also how to explore new opportunities presented by the green transition of the economy.





## POST-WORKSHOP EVALUATION

t the end of the workshop, a survey was sent out to all 84 bank participants. Feedback was collected regarding the workshop content and future needs. 30 participants provided feedback (36% response rate).

A total of eight questions was asked to evaluate various aspects of the workshop and potential next steps:

#### 1) Participant's satisfaction - Overall

With regard to satisfaction, majority of the participants were largely satisfied with the overall workshop. 80% of the respondents rated the satisfaction level highly as either 1 or 2 on the rating scale.

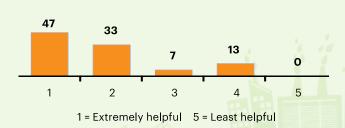
Figure 2: Satisfaction (%)



#### 2) Peer Interactions - Usefulness

With regard to peer interaction, the results mirror that of the question above on satisfaction with majority of the respondents finding the peer interaction largely useful.

Figure 3: Peer interaction (%)



#### 3) Self-assessment - level of understanding of the different topics

Most of the topics were well understood with high scores of 1 and 2 from over 70% of the respondents.

Topics in which the participants could benefit from further understanding are GHG emissions and carbon accounting, and scenario analysis and stress testing. This is confirmed by the sentiment during the breakout sessions as the above topics are technical and require more time and practice, to achieve greater levels of understanding. These are the same topics in which the participants indicated in the next question that they would benefit the most from further training.

Although these are technical topics whose implementation may be the focus of specialist colleagues within the banks, a high-level appreciation of how these topics impact the climate risks and regulatory expectations faced by banks is of relevance throughout the organization. As a result, it would be valuable to offer specific implementation training to the specialist colleagues responsible for overseeing these issues and more general guidance to senior members of the bank on how these topics may impact climate risk management and strategy.

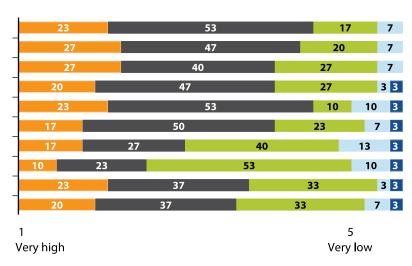
Most of the topics were

well understood with high scores of 1 and 2 from over 70% of the respondents.



Figure 4: Self-assessment - level of understanding of the different topics (%)

Climate science and intro to climate risk TCFD pillars & recommendations Global & local trends in climate risk regulation Climate data requirements Climate risk integration in business Key performance metrics & indicators GHG emissions and carbon accounting Scenario analysis and stress testing Climate risk disclosures & reporting Climate-related initiatives e.g., PCAF, NZBA



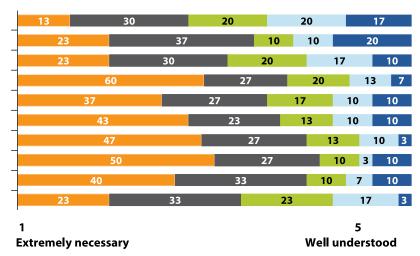
#### 4) Need for further training

With regard to further training, there was great appetite for more training on the following 4 topics:

- Scenario analysis and stress testing
- GHG emissions and carbon accounting
- Climate data requirements
- Key performance metrics and indicators

Figure 5: Need for further training (%)

Climate science and intro to climate risk TCFD pillars & recommendations Global & local trends in climate risk regulation Climate data requirements Climate risk integration in business Key performance metrics & indicators GHG emissions and carbon accounting Scenario analysis and stress testing Climate risk disclosures & reporting Climate-related initiatives e.g., PCAF, NZBA





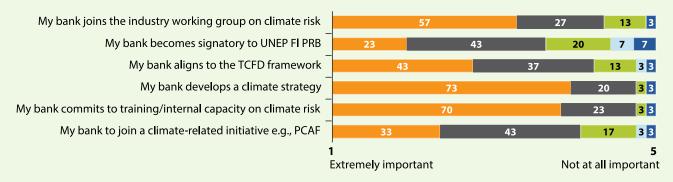
#### 5) Banks' next steps

From the survey, the participants indicated the following as the most favored next steps to further their banks' capacity for climate risk management:

- My bank develops a climate risk strategy (this favored next step is in line with the CBK Guidance)
- My bank commits to training and internal capacity on climate risk
- My bank joins the industry working group on climate risk

There is also a high interest expressed by the participants to align banks' reporting to the TCFD framework and to join climate-related initiatives like the Partnership for Carbon Accounting Financials (PCAF).

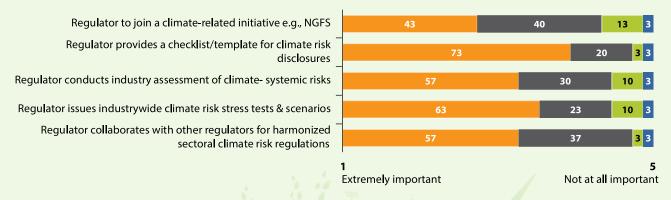
Figure 6: Banks' next steps (%)



#### Regulatory next steps

With regard to regulatory next steps, the most favored action by the participants was for CBK to provide a checklist or template for climate risk disclosures.

Figure 7: Regulatory next steps (%)

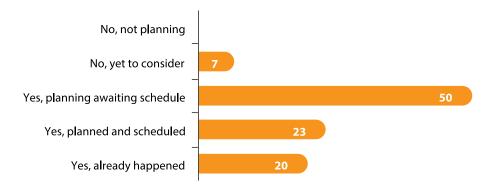


#### 6) Internal bank training or debrief session

93% of the participants who responded have already conducted and/or are planning debrief sessions with their colleagues.







#### 7) Any other feedback or comments

A lot of the written feedback was that the time was limited and that much more time could have been allocated to have the workshop over more days and sessions. Consequently, there were multiple suggestions to consider more industry workshops on climate-related topics. Results from question #4 are indicative of what topics to consider and prioritize for the future.

Note: There might have also been a misinterpretation of the scale by some participants. For example, one of the participants (Respondent 7) who rated the satisfaction as a 4 (low score) in question 1 provided written feedback to question 8 that "The delivery of content in the workshop was excellent."



## **LESSONS LEARNED**

his section covers the lessons learned from the workshop during both the full-group sessions and the breakout discussions among the industry peers.

#### 1. Banks are at different stages on their climate action journey

The climate action journey is a spectrum and unsurprisingly, banks are at different stages. While, for instance, some banks already have environmental conservation as part of their sustainability strategy, some banks have not embarked on any climate-related goals or initiatives. Similarly, while some banks have joined or considered joining climate-related initiatives, some only had their first interaction with the topic of climate-related risk management during the workshop. Such in climate-related initiatives include: Partnership for Carbon Accounting Financials (PCAF), Net-Zero Banking Alliance (NZBA), Taskforce on Nature-related Financial Disclosures (TNFD), etc.

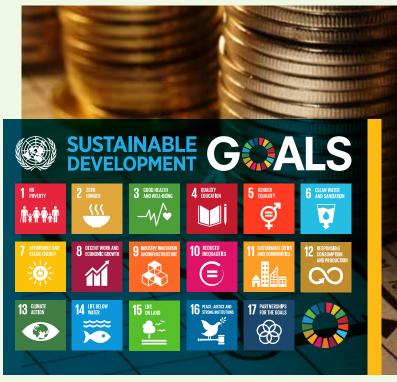
#### 2. Banks are understanding the need to integrate climate considerations in their business model

Participants identified bank policies and frameworks likely to be affected by climate considerations

- Risk management framework
- Risk appetite framework
- Environmental and social (E&S) policy
- Credit policy
- Stress testing policy
- Strategic plan

Management could use the following feedback processes within the bank in their implementation

- ESG checklists
- ESG templates
- Risk reports
- Training feedback



- Customer surveys
- 3. Banks are understanding the need for executive sponsorship for climate initiatives by the board and senior management

There is consensus that executive sponsorship will be critical for climate-aligned business objectives to be met by bankers. Organizational initiatives without executive sponsorship are likely to die off.

Possible involvement of senior management in implementation of a climate risk strategy

- Defining climate risk strategy
- Approving climate risk policy and limits
- Training and capacity building across the
- Allocating budget and resources to building capacity
- Setting climate-aligned business targets

Possible approaches that banks will seek to leverage to integrate climate considerations include:

- Internal bank training e.g., Training of Trainers (ToT) model
- Identify and empower climate risk champions



- Embed climate considerations into KPIs
- Embed climate considerations into roles and responsibilities for colleagues
- Engage industry peers via industry forums
- Leverage external expertise/consultants

#### 4. Banks are identifying challenges of incorporating climate risks into governance practices

Some of the foreseen key challenges include:

- Lack of executive sponsorship at the C-suite level
- Lack of climate knowledge and awareness at the board and management level
- Climate risk seen as a "soft risk" and its crosscutting nature has not been fully understood
- Data availability and quality limitations of own and client systems
- Regulatory uncertainty (especially on required disclosures)

Banks could use the following financial metrics to assess the materiality of climate risks and opportunities

- Change in profitability and cash flow
- Impact on revenue due to climate opportunities
- Impact on cost from carbon price, business interruption, contingency, repairs
- Impairment charges due to assets exposed to physical and transition risks
- Carrying amount of assets due to exposures to physical and material risks
- Expected portfolio value given climate risks and opportunities

#### 5. Banks are realizing climate action within their organizations will require involvement across multiple departments and teams

Most banks sent two representatives which usually included someone from credit, risk and/ or compliance as well as someone in the bank whose job description include sustainability if there was such a position. The training workshop gave them the ability to interact and consider how the strenaths of their different departments could complement each other in identifying both the risks and the opportunities for climate mitigation and adaptation.

#### 6. Banks are identifying policies and frameworks to guide their climate-elated risk management

During the discussions, participants started identifying some key elements for their implementation plans. Below are some of the issues discussed to guide banks' climate-elated risk management:

#### Sample climate action objectives

- Integrate the CBK climate guidance into all bank's operations
- Be the go-to bank for green finance products and offerings
- Increase adaptation finance by X%

#### Some key stakeholders identified

- Board
- Management
- Business Teams (relationship managers, etc.)
- Climate Risk/Sustainability Teams
- Shareholders
- Customers
- Regulators
- Suppliers and Contractors

#### Potential approaches to climate-aligned goals

- Support adaptation and resiliency efforts in communities of bank footprint
- Reduce exposure to environmentally harmful activities
- Improve energy efficiency to cut bank's operational emissions
- Develop green product offerings
- Give preferential rates to customers with 'green' initiatives

This section covers specific recommendations from UNEP FI for KBA member banks and for the Central Bank of Kenya regarding climate



# **RECOMMENDATIONS:**POTENTIAL NEXT STEPS

his section covers specific recommendations from UNEP FI for KBA member banks and for the Central Bank of Kenya regarding climate risk practices. These recommendations represent potential next steps in keeping with global leaders on climate risk and disclosure.

#### **Recommendations for KBA Member Banks**

# 1. Join climate-related financial initiatives and working groups

The number of climate-related financial initiatives is growing rapidly across the world. Development financial institutions (DFIs) are supporting the convening of regional banks to discuss their common climate challenges. Organisations like UNEP FI and the Principles for Responsible Investment (PRI) offer specific resources and working groups for firms looking to improve their climate risk management practices through expert consultations and peer discussions.

Kenyan banks could build on their Sustainable Finance Initiative (SFI) to create a national climate finance working group. Similar groups have been convened by national banking associations in various countries. A dedicated climate-related financial working group can focus on the implementation of the TCFD recommendations and the development of effective and locally relevant climate risk management practices for Kenya's financial sector. This working group can be convened by the KBA. Given the urgency of climate-risks, the working group's members should consider committing to issuing a TCFD report within twelve months of joining the program. The working group can hold implementation sessions featuring expert speakers to help the firms continue to progress in their climate risk assessment, management, and disclosure.

A related suggestion would be the establishment of a regulatory-industry working group to explore climate-related issues. This is the structure of the Climate Financial Risk Forum (CFRF) in the U.K. that has successfully brought regulators and industry leaders together in joint learning exercises. Such a group could be a joint initiative of KBA and the Central Bank of Kenya.

#### 2. Commit to building capacity on climaterelated topics

Capacity-building programmes should begin with executives and boards in order to raise awareness of the importance of climate risks and opportunities to the bank's future. Trainings should include exploration of the key risks faced by the organization, development of initial action plans to address these risks, and guidance on how to integrate climate considerations into firmwide strategy. These senior leaders would then have the necessary knowledge and understanding that would enable them to support and champion climate-related initiatives in their respective firms including allocating the necessary budgets.

Trainings are also critical for those expected to lead in implementing the CBK Guidelines at the bank. These include members of the sustainability and risk teams who are likely to be writing the TCFD report. Trainings for these groups should cover Kenya's climate risks, relevant climate data and climate scenarios for Kenya, global practices around climate risk identification and assessment, and guidance on writing a TCFD report.

Beyond the core individuals working on climate, training should be extended to colleagues throughout the bank. As examples, business line colleagues will need to understand how climate impacts their strategy and client engagement and audit colleagues will need to know how to assess the quality of climate-related financial analyses. Widespread climate awareness will allow for effective integration of climate practices across the firm. Specific capacity building initiatives can include:



- Client engagement training for business line colleagues- how to support client adaptation plans and obtain the data needed to evaluate client risks.
- Risk modeling- how to integrate climaterelated risk drivers into existing models and understanding commonly used methodologies for physical and transition risks assessment.
- Climate opportunity identification- how strategy-setters can identify potential climate-related opportunities and position the business to capitalize on them.

Firms must also be willing to commit adequate resources to enable their climate teams to be successful. Climate teams should be sufficiently staffed and should include team members with climate-specific skill sets and experience. This may require an expansion of current climate teams or the hiring of new colleagues. Necessary resources also include data and technical tools that allow meaningful insights to be gleaned from climate risk analysis.

#### 3. Develop a climate roadmap

Banks in Kenya should also develop an internal climate disclosure roadmap. This roadmap should be reflective of their climate ambitions over the coming years and also adapted to incorporate regulatory requirements from the Central Bank of Kenya. A comprehensive climate roadmap should include three areas: climate risk, climate alignment, and climate finance. Goals and targets can be associated with each area, and should be supported by specific, actionable, and time-bound initiatives.

For climate risk, the roadmap may include plans to issue a TCFD disclosure, plans to conduct an internal stress test, and plans to reduce exposures in at-risk sectors.

The roadmap may include plans to assess the firm's exposure to climate related vulnerabilities, gain familiarity with models and data required to support effective assessments, identify high risk sectors, develop action plans to work with clients and communities to bolster resiliency and advance adaptation.

On the topic of mitigation efforts, banks can support the scale up of clean technologies to meet local development needs. In this, they can work on understanding sustainable development scenarios and identify the roles that they can play in accelerating progress.

For climate finance, the roadmap may include plans to scale up adaptation financing in areas of the footprint most exposed to climate change, plans to increase investments in renewable energy, and plans to offer green financial products such as climate or sustainability-linked bonds.

## 4. Governance: Develop internal governance around climate

Throughout this report, the importance of senior leadership on climate has been discussed. Ensuring that the board and management are engaged in the oversight of climate-related risks and opportunities is vital. Specific policies should be developed to assign oversight responsibilities to senior leaders related to the execution of key climate objectives (e.g., issuing a TCFD report, announcing a green financing target).

Boards should establish sub-committees to oversee climate-related topics. A general climate committee can be established or sub-committees for topics including climate risks and climate alignment. Boards may also benefit from the creation of a climate dashboard to provide them with insights on the firm's progress against various climate metrics.

Management should develop governance policies in order to codify the firm's response to climate change. These policies should support accountability and oversight by providing clear chains of ownership for important climate-related items. Policies should also indicate which teams are involved in which aspects of climate-related risk and opportunity management. Finally, they should have escalation procedures and remediation actions in cases where climate practices are not functioning optimally (e.g., the firm is taking on excessive climate risk, the firm is in danger of missing a target, etc.)

#### 5. Strategy: Integrate climate into strategy

A firm should document the range of climate-related risks and opportunities it has identified over a range of different time horizons. Then, the firm should conduct a strategic review where these risks and opportunities are considered in the context of existing firmwide strategy and the strategy of material business units.



A strategic update for the firm as a whole and for material business units may be required after this review process. The aim of this update is not to produce a separate "climate strategy" but to ensure that climate considerations are well-integrated into the strategies that the firm intends to pursue. Alterations to strategy may include the pursuit of specific climate goals (e.g., green financing or enhanced climate resiliency) and the firm's desired footprint across certain sectors or geographies, among others.

In parallel with the strategic update, climate scenario analysis should be conducted to assess the resiliency of current and proposed strategies. This scenario analysis should cover both physical and transition risks as well as climate-related opportunities. Like the strategy, it should provide insights over multiple time horizons including short term, medium term, and long term. The physical scenario analysis should include scenarios that highlight the major physical hazards present in the firm's footprint under significant global warming. The transition scenario analysis should ensure that the bank and its clients are prepared for the shifts in the global, regional, and national economy structures, e.g., a shift in the global energy and industrial systems and their potential effects on local economies.

Scenario analysis may include both qualitative and quantitative measures ranging from having strategy-setters discuss the implications of the various scenario narratives to having statistical tools assess potential portfolio risks and losses using the selected scenarios.

# 6. Risk Management: Conduct analysis to support risk management

Risk management practices should begin with a clear inventory of the climate-related risks faced by the firm overall and in material geographies and portfolios. Typically, a heatmapping process can be helpful in enumerating these risks and identifying areas of operations that are exposed to significant risks. Heatmaps should cover both physical hazards and transition risks and suggest areas for further risk analysis and assessment.

Risk management processes should be developed to address the major risks revealed in risk identification exercises. These risk management processes should be clearly assigned to specific teams and given appropriate oversight. The establishment of thresholds for normal operations

and ranges of concern is necessary in order to determine how well a firm is currently managing its climate-related risks. Similar to the guidance on governance, breaches of these thresholds should trigger escalation and remediation actions (e.g., halts in origination of products in high-risk areas or committee reviews of the threshold breach). Firms should also consider the range of methodologies, both qualitative and quantitative, that can be used to effectively manage risks and ensure they are communicated in a timely fashion. This can involve the development of internal tools or collaboration with third-party providers to obtain the risk insights necessary to effectively manage climate-related risks.

These risk management processes should be well-integrated into the firm's existing risk frameworks and risk appetite. In many cases, this may involve updating existing frameworks and risk appetite to more effectively include climate-related risks. Strong integration of climate risks is evidenced by the presence of climate-related considerations in areas such as underwriting policies, borrower ratings, pricing, and credit, market, and operational risk models.

# 7. Metrics and Targets: Commit to climate action using metrics and targets

As noted in the suggested guidance on strategy and risk management, firms should seek to increasingly quantify the climate-related risks and opportunities they face. The measurement of these risks and opportunities can be done using metrics such as those traditionally used to calculate losses and exposures. A consideration of both the relative and absolute magnitudes of these risks and opportunities will help internal and external stakeholders gain a fuller picture into the firm's climate efforts. The development of some of these metrics may involve the creation of new climate-related financial models, the adaptation of existing financial models, the use of third-party solutions, or some combination of the three.

Firms should also evaluate both their operational greenhouse gas emissions (scopes 1 and 2) and financed emissions (scope 3) as well as impacts of client activities on nature. Goals should be comprehensiveness and transparency of methodology. Data limitations may pose a challenge when it comes to obtaining emissions information and information on nature-related impacts, especially when considering small or medium-sized clients. Proxy approaches are often



required and should be based on commonly used and science-based assumptions for different economic activities.

When developing targets of all types, obtaining a baseline is critical. Any targets set should be aligned with a bank's business strategy and supported by a detailed implementation plan. The implementation plan should include information on the client engagement processes, investments, strategic initiatives, and interim targets that will enable the firm to reach its goal.

Firms should establish other climate-related targets to take advantage of emergent climate opportunities and provide adaptation and mitigation financing. These financing targets can consider new climate-related products, specific forms of adaptation finance, and the development and deployment of low-carbon technologies. In addition, goals can be set on renewable power generation, avoided emissions, and other climate positive topics. Finally, given the relationship between climate and nature, firms should consider broader nature-related goals and targets to supplement climate goals. Nature-related goals often intersect with climate goals and can include focus on biodiversity preservation, circularity of resource use, and reduction in pollution, among many others. TNFD provides a risk management and disclosure framework for organisations to report and act on nature-related risks.

#### **Recommendations for the Central Bank of Kenya**

As with the recommendations to KBA members banks, the first three recommendations from UNEP FI for the CBK are on joining climate-related financial initiatives, building capacity on climaterelated topics, and developing a climate roadmap.

#### 1. Join climate-related regulatory initiatives and working groups

Over the past few years, financial supervisors around the world have worked to develop good practices regarding climate-related risk management and disclosure. The CBK can benefit from the experiences of peer institutions on these topics by participating in international initiatives with other peers.

In April 2022, the CBK took a positive step by joining the Network of Central Banks and Supervisors for Greening the Financial System (NGFS). The 100+ supervisors and central banks within the NGFS have worked on scenario development, climate risk supervision, and overcoming climate-related data challenges among many other topics in recent years. An example of this collective work is their 2021 Scenarios in Action report, which offers dozens of examples of how member institutions are applying climate scenarios to assess climate risks in their financial systems. The ability to dialogue with peers will allow the Central Bank of Kenya to accelerate the development of its climate risk guidance.

Another international group seeking to establish

supervisory best practices on climate risk is the Bank for International Settlements (BIS). The BIS's Basel Committee on Banking Supervision (BCBS) published a consultation report at the end of 2021 on principles for effective climate risk management and supervision of climaterelated financial risks. Other regulatory initiatives work with both supervisors and supervisees. The Climate Financial Risk Forum (CFRF) convened by the Financial Conduct Authority (FCA) and Prudential Regulatory Authority (PRA) in the U.K. is a collaboration between these two regulators and a number of major U.K. banks. The CFRF offers an opportunity for regulators to gain insights into the challenges that supervisees are facing regarding climate-related financial risks and enhance industry knowledge on this important topic. A similar arrangement between Kenyan financial institutions and supervisors to advance knowledge could be developed.

#### 2. Commit to building capacity on climaterelated topics

Climate change is a cross-cutting risk, meaning that it will have implications for many of the activities that the CBK and other Kenyan financial regulators undertakes. The CBK should ensure that a growing share of its staff builds sufficient climate-related financial risk knowledge to allow them to effectively integrate these climate risks into their current work. This capacity-building exercise would also be useful for the Insurance Regulatory Authority (IRA Kenya) and the Capital Markets Authority of Kenya (CMA). The CBK



should also look to connect with ministries and other government agencies with oversight responsibilities for the Kenyan economy to exchange knowledge and develop coordinated practices.

Capacity-building programmes are one way that regulators and supervisors build knowledge on rapidly evolving climate-related financial topics. These programmes can be internal seminars where those most involved with climate risk speak with their colleagues, but they can also include external training and support. The objective of these trainings should be to highlight the relevance of climate-related financial risks for different functions across the bank and provide a primer on major climate risks, global regulatory initiatives, and risk assessment methodologies.

One potential opportunity is for the CBK to consider setting up in the future a specialized unit that works on climate-relate risk and supervisory issues. This can be a resource centre hosted by the CBK that not only serves the Bank but also other regulators in the region, including economic research centers. Examples of similar initiatives by other regulators include the Bank of Mauritius Climate Change Centre and the Banque de France Climate Change Centre

#### 3. Develop a climate roadmap

The aforementioned KBA, FSD, and UNEP FI training programme provided information on a wide range of climate-related issues. With this information, the Central Bank of Kenya has the opportunity to consider how best to proceed in managing climate-related financial risks in the country. A central bank has many tools at its disposal to support financial stability and sustainability goals. A roadmap can help to determine when and how to deploy those tools and to communicate those plans to financial industry actors.

Climate disclosure requirements in line with the TCFD are one of the items to consider within a roadmap. However, a comprehensive climate plan can also explore individual and systematic assessments of climate-related financial risks through climate stress testing. The nature of these stress tests can be informed by existing global initiatives and then tailored to Kenya's specific context. In Canada, France, and Hong Kong, climate scenario exercises with industry

participants were developed by supervisors ahead of mandatory stress tests.

The Central Bank of Kenya should also consider the magnitude of adaptation and mitigation financing necessary for Kenya and look for ways to catalyze the necessary climate-resilient and lowcarbon investments. Supervisors around the world have used taxonomies to define activities that contribute to climate and broader environmental goals, with the EU taxonomy and China's taxonomy being two of the best-known examples. A taxonomy or other classification approach can both limit greenwashing and encourage banks to increase the proportion of green financing they provide.

The Central Bank of Kenya may also be interested to develop a climate resiliency goal given the importance of climate adaptation in Kenya. Supervisory policies on this topic can include requirements for firms to annually disclose progress against a specific adaptation financing targets or to provide a detailed implementation plans on how they are promoting resiliency.

#### 4. Issue a TCFD report

The Central Bank of Kenya should also look to make a disclosure of its own climate-related financial risks in line with the TCFD and/or its own mandatory guidance. In the past two years, a growing number of regulators have issued climate disclosures, beginning with the Bank of England's 2020 TCFD report. In December 2021, the NGFS released a Guide on climate-related disclosure for central banks.

The practice of issuing a TCFD disclosure builds regulatory credibility on climate change by "walking the talk" and subjecting oneself to the same standards as other financial actors. Furthermore, the exercise of developing and drafting a TCFD report will likely provide the Central Bank of Kenya with important insights about the nature of climate-related financial risks in the country and the levers it has to address them. The reporting process will also make bank staff more aware of the key areas to assess within bank disclosures. In addition, drafting a TCFD report will help the Central Bank of Kenya to understand the challenges that banks may experience on topics of climate data and climate scenarios.



#### 5. Conduct an assessment of climate-related systemic risks

Beyond simply issuing a climaterelated financial risk disclosure, the Central Bank of Kenya can conduct an assessment of climate-related risks within Kenya's financial system. Similar to a stress test, such an assessment can identify the major transition and physical risks that the nation's financial sector faces. It can also provide relative magnitudes of these risks and suggest mitigation measures in order to lessen their potential impacts and improve resiliency under a variety of climate futures.

Multiple regulators have or are in the process of completing such exercises. As noted above, three examples include France, Canada, and Hong Kong. These scenario-based exercises were tailored to the specific policy and physical realities of the locations where they were undertaken. The Central Bank of Kenya can similarly use local scenarios (or adapt global scenarios to Kenya) when conducting this assessment.

By involving participants from the financial sector, the exercises in France, Canada, and Hong Kong offered a way for banks to improve their knowledge of climate risks and climate scenario analyses in tandem with the regulator. In addition, the feedback from these exercises can be integrated into the development of climate stress tests.



Note: Along the path of implementing these recommendations, the CBK can consider setting up in the future a specialized unit that works on climate-relate risk and supervisory issues. This can be a resource centre that serves not only the bank but also other regulators in the region, including research centers. Examples of similar initiatives include the Bank of Mauritius Climate Change Centre and the Banque de France Climate Change Centre



## **KBA CIRCULAR INVITATION**

Below is a copy of the circular sent out to all bank CEOs asking each bank to nominate senior officials from the credit, risk and compliance departments to attend the workshop.



08th January 2022

KBA/CL/36/2022

Circular Letter No.26/2022

TO ALL CHIEF EXECUTIVE OFFICERS OF MEMBER BANKS

Dear Sirs/Mesdames.

RE: INDUSTRYWIDE SENSITISATION WORKSHOP ON THE CENTRAL BANK OF KENYA'S GUIDANCE ON CLIMATE-RELATED RISK MANAGEMENT

In the spirit of enabling banks to entrench considerations of financial risks that emanate from climate change in banks' Governance structures, the Central Bank of Kenya (CBK) released the Guidance on Climate-Related Risk Management to the Banking Industry in October 2021. The guidelines require banks to incorporate financial risks from climate change into their financial management practices and promote disclosure on the same.

In order to aid member banks to comply with the aforesaid CBK Guidance, KBA, with funding support from the Financial Sector Deepening (FSD) Kenya, will hold a three-day workshop in Naivasha, Sawela Lodge, from 23rd to 25th February 2022. The in-depth training will be deployed by UNEP-FI experts. Member banks are requested to nominate two senior officials from the credit, risk and compliance departments to attend the workshop. Accommodation and transport will be covered by the funding partner.

Separately, to further support the industry to comply with the CBK Guidelines, the Association is working towards developing an SFI e-learning module on the Guidelines. KBA will announce when the module will be available to member banks.

We thank you in advance for nominating your bank representatives. Kindly request them to rsvp by 17th February 2022 through filling this registration form <a href="https://forms.office.com/r/DBOCDZF1K1">https://forms.office.com/r/DBOCDZF1K1</a>. For any clarification, get in touch with Roselyne Njino via <a href="mailto:rnjino@kba.co.ke">rnjino@kba.co.ke</a> or 0720 360 953.

Yours faithfully, HAMIX

Dr. Habil Olaka CHIEF EXECUTIVE OFFICER

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## **PARTICIPATING BANKS**

- 1) ABC Bank
- 2) Absa Bank Kenya
- 3) Access Bank (Kenya)
- 4) Bank of Africa
- 5) Bank of Baroda Kenya
- 6) Bank of India
- 7) Caritas Microfinance Bank
- 8) Citibank N.A. Kenya
- 9) Consolidated Bank of Kenya
- 10) Co-operative Bank of Kenya
- 11) Credit Bank
- 12) Diamond Trust Bank Kenya
- 13) DIB Bank Kenya
- 14) Ecobank Kenya
- 15) Equity Bank Kenya
- 16) Family Bank
- 17) Faulu Microfinance Bank
- 18) First Community Bank
- 19) Guaranty Trust Bank
- 20) Guardian Bank
- 21) Gulf African Bank
- 22) Habib Bank Ag Zurich

- 23) HFC Limited
- 24) I&M Bank
- 25) KCB Bank Kenya
- 26) Kingdom Bank
- 27) Kenya Women Microfinance Bank
- 28) M Oriental Commercial Bank
- 29) Mayfair CIB Bank
- 30) Middle East Bank Kenya
- 31) National Bank of Kenya
- 32) NCBA Bank Kenya
- 33) Paramount Bank
- 34) Postbank
- 35) Prime Bank
- 36) Rafiki Microfinance Bank
- 37) SBM Bank Kenya
- 38) Sidian Bank
- 39) Spire Bank
- 40) Stanbic Bank Kenya
- 41) Standard Chartered Bank
- 42) UBA Kenya Bank
- 43) Victoria Commercial Bank

A total of 90 participants were in attendance: 84 bank representatives from 43 banks, four KBA staff representatives, and two FSD Kenya representatives.



## **EXPERTS' PROFILES**

The workshop was delivered by a team of 2 experts from UNEP FI. Below is a brief profile of the experts.

#### 1. David Carlin, TCFD & Climate Risk Programme Lead, UNEP FI

David Carlin is the TCFD and Climate Risk Programme Lead at UNEP Finance Initiative (UNEP FI). He currently is running a pilot for nearly 50 global banks and investors on topics of climate scenarios, climate risk assessments, and climate governance. He is also a contributor to Forbes, where he writes on climate change and leadership (Forbes profile). Prior to joining UNEP-FI, he worked as a senior manager in Risk and Public Policy for Oliver Wyman Consulting and in Model Risk Management for PNC Bank.

His background is in quantitative modeling and decision science. He conducted research in financial decision-making at Carnegie Mellon University and graduated Phi Beta Kappa from Williams College.

LinkedIn: David Carlin

#### 2. Reuben Wambui, Africa Regional Lead, UNEP FI

Reuben Wambui is the Africa Regional Coordinator at UNEP Finance Initiative (UNEP FI) and leads the SSA regional work. He is an economist working on climate risk and sustainable finance, with extensive knowledge of climate-related work in Africa. He has done research for the World Bank and UNICEF and has published in the KBA Woking Paper Series, eCahiers de l'Institut, and Africa Policy Journal of Harvard Kennedy School. Prior to joining UNEP FI, he worked at McKinsey and Crédit Suisse, and has experience working in multiple countries in Africa and Europe. He is also founder of the *Net-Zero Africa* funding platform (Link; beta version).

He holds a master's in International Economics from the Graduate Institute, Geneva and obtained his bachelor's from Strathmore University, Kenya.

LinkedIn: Reuben Wambui





# ADDITIONAL RESOURCES ON **CLIMATE-RELATED RISK MANAGEMENT**

UNEP FI has provided below a list of useful resources on climate-related risk management practices to help banks with implementation of the CBK Guidance and their overall climate ambitions and sustainability goals. The resources below include:

#### **A. Recommended TCFD Reports for Good Practice Examples**

Here are a number of examples of good practice related to climate risk disclosures.

- ANZ's Climate-Related Financial Disclosure 2020
- BBVA's Report on TCFD 2020
- Bank of America's Responsible Growth and a Low-Carbon Economy: Bank of America's Task Force on Climate-related Financial Disclosures (TCFD) Report 2020
- The Bank of England's Climate-Related Financial Disclosure 2020
- Making a Difference: Barclays PLC Climate-related Financial Disclosures 2020
- Citigroup's Taskforce on Climate-Related Financial Disclosures Report 2021
- CTBC Financial Holding's Sustainability Report 2020
- HSBC Holdings PLC's Task Force on Climate-related Financial Disclosures ('TCFD') Update 2020
- ING's Terra Progress Report 2020
- National Australia Bank Annual Financial Report 2021
- Climate Disclosure: Société Generale's climate-related reporting following the TCFD and NFRD guidelines 2020
- Standard Chartered PLC Climate-related Financial Disclosures Report 2021
- Forward Together: State Street's 2020 ESG Report
- UBS Group's Group Annual Report 2020
- Investec (SA) Climate Related Financial Disclosures 2020

#### **B. Recommended Sources on Climate Risk Analysis (UNEP FI Publications)**

UNEP FI have produced a number of reports to aid banks in conducting these analyses, including:

- Extending our Horizons: Assessing Credit Risk and Opportunities in a Changing Climate (Part 1: Transition-related risks and opportunities)
- Navigating a New Climate: Assessing Credit Risk and Opportunities in a Changing Climate (Part 2: Physical-related risks and opportunities)
- Charting a New Climate: State-of-the-art tools and data for banks to assess credit risks and opportunities from physical climate change impacts



- The Climate Risk Landscape: Mapping Climate-related Financial Risk Assessment Methodologies
- Pathways to Paris: A Practical Guide to Climate Transition Scenarios for Financial Professionals
- Decarbonisation and Disruption: Understanding the Financial Risks of a Disorderly Transition using Climate Scenarios

#### **C. Open-Source Databases for Climate Scenario Analysis**

Decision-useful outputs depend on having good data inputs. This means firms should consider the range of data needed to be able to conduct comprehensive risk assessments. For example, scenario data should be sourced from credible providers of climate transition scenarios, such as those used by the NGFS and included in IPCC reports. Within these scenarios, macro-level data inputs are helpful to allow the organisation to assess the risks in the context of global models, but additionally data on the impacts of climate on local areas allows organisations to obtain granularity in the assessment.

There are a number of freely available data sources which can be used to assess the future climaterelated impacts. These include both sources for physical risk and transition risk data at global, regional, and national levels of granularity.

**Table 1: Physical risk data resources** 

Data Source	Physical hazards covered	Geographical Coverage
CDP Open Data Portal	Storms, extreme heat, sea water intrusion, drought, flood, forest fire	Global coverage of CDP cities
Climate Central	Extreme sea levels, storm surge data, high tide events, coastal flooding, sea levels changes and severe winds	Global
ClimateAnalytics Climate Impact Explorer	Temperature rise, seasonal precipitation, sea level rise, extreme weather events, such as floods, droughts and heat waves	Global, country level data included as well
GFDRR ThinkHazard!	Extreme heat, flood, earthquake, landslide, sea level rise, water scarcity, wildfire	Global
Google dataset search	Hurricane, sea level rise, temperature rise	Global
INFORM index	Variety of quantitative factors and resources to support physical risk assessments	Global
IPCC Assessment Report 6: Impacts, Adaptation, Vulnerability	Latest report on impacts of physical hazards, adaptation, and vulnerabilities to climate change	Global
IPCC Assessment Report 6: The Physical Science Basis	All major physical risk hazards covered in report	Global
KNMI – Climate Explorer	Temperature, droughts, cyclone, precipitation	Global
Oasis Hub	Flooding, cyclone, earthquake, extreme weather, landslide	Global
PREPdata	Temperature rise, precipitation, coastal risk, water risk and other extreme events	Global coverage with low granularity for specific coun- tries
UNEP Global Risk Data Platform	Tropical cyclones, storm surges, drought, earthquakes, fires, floods and landslides	Global
World Bank Climate Change Knowledge Portal	Temperature rise, seasonal precipitation, sea level rise, extreme weather events, such as floods, droughts and heat waves	Global
WRI Aqueduct Water Risk Atlas	Water risks, including flood and drought risk	Global
UNFCCC Adaptation and Resiliency Resources	Database of databases on relevant adaptation and resiliency studies and measures	Global and national



**Table 2: Transition risk data resources** 

Data Source	Transition Risks Covered	Geographical Coverage
CAIT Climate Data Explorer (by WRI)	GHG emissions, emission pathways, pledges, targets	Global
CDP Open Data Portal	GHG emissions	Global
En-ROADS simulator	Different emissions pathways and drivers of temperature rise	Global
Greenhouse Gas Protocol	Product life cycle and corporate value chain (scope 3) GHG inventories	Global
IEA Net Zero by 2050 scenario	Policy, technology, and market risks based on the IEA's net zero by 2050 scenario	Global, breakouts by region at a high level
IIASA scenario explorer	Policy, technology, and market risks based on a wide range of IPCC 1.5° C scenarios	Global, regional, and national at varying degrees of specificity
IMF World Economic Outlook	Macroeconomic forecasts/scenarios that can be used to understand potential policy, technology, and market shifts	Global, regional, and national
IPCC emissions factor database	Emission factors for various activities	Global with some regional variation
NGFS scenario portal	Policy, technology, and market risks based on the NGFS scenarios	Global, breakout into specific regions and national level downscaling
SENSES project on climate scenarios	Policy, technology, and market risks based on a wide range of IPCC 1.5° C scenarios	Global
The Carbon Monitoring for Action (CARMA) database	GHG emissions estimates for power plants	US, EU, Canada, India, and South Africa and data from the IEA
The Lowdown v2.0	Coal capacity for countries	Global
UN data	Methane, Carbon dioxide, HFCs, Nitrous oxide, Nitrogen trifluoride, PFCs, Sulphur hexafluoride	43 countries however data is only available for 29 years

#### **D. Third-Party Tool Providers**

Within the Climate Risk Landscape report, UNEP FI profiled a number of third-party data providers whose tools assist banks in making transition and physical risk assessments. The lists below are non-exhaustive.

**Table 3: Selected list of physical risk tools** 

Service Provider	Tool
Two Degrees Investing Initiative	PACTA for banks
Two Degrees Investing Initiative	PACTA stress testing module
Baringa Partners	Climate Change Scenario Model
Carbone 4	Carbon Impact Analytics
Climate Finance Alpha	Transition risk toolbox
Carbon Tracker	2 degrees of separation
ClimateWise (CISL)	Transition risk framework
Moody's Analytics-V.E	On-demand transition climate risk scoring application
Moody's Investor Services	Carbon transition assessment
MSCI-Carbon Delta	Climate Value-at-Risk (CVaR)
Ortec Finance	ClimateMAPS
Oliver Wyman	Transition Check
Oliver Wyman & S&P Global Market Intelligence	Climate Credit Analytics
PwC (formerly CO-Firm)	Climate Excellence
South Pole	Risk screening tool
South Pole	Climate risk deep-dive assessment
The Climate Service	TCS Climanomics
Planetrics	PlanetView
Verisk Analytics	Transition risk



#### **Table 4: Selected list of transition risk tools**

Service Provider	Tool
Four Twenty Seven	On-demand physical climate risk scoring application
Four Twenty Seven	Physical climate-risk scores for publicly listed companies
Acclimatise	Physical climate risk heatmapping tool
Acclimatise-Willis Towers Watson	Sector deep-dive assessments tool
Carbone 4	Climate risk impact screening (CRIS)
Carbone 4	Infrastructure and real estate portfolio assessment tools
Climate Finance Alpha	Physical risk toolbox
ClimateWise (CISL)	Physical risk framework
MSCI-Carbon Delta	Climate Value-at-Risk (CVaR)
Ortec Finance	ClimateMAPS
Ortec Finance	ClimatePREDICT
Rhodium Group	Valued asset-level physical risk data
RMS	Climate risk models and consultancy service
South Pole	Risk screening tool
South Pole	Climate risk deep-dive assessment
The Climate Service	TCS Climanomics
Planetrics	PlanetView
Verisk Analytics	AIR
XDI Systems (physical risk only or in	partnership with Baringa for physical & transition)

#### **E. Other Relevant Resources and Tools**

Here are links to other relevant knowledge resources and tools:

- Research paper on Climate-Related Financial Risks for Kenyan Banks
- GCA report on adaptation finance in Africa
- Report on the Landscape of Climate Finance in Kenya
- Platform Net-Zero Africa funding database (beta version)
- Platform Green Growth Knowledge Platform (GGKP)



# **ABBREVIATIONS AND ACRONYMS**

ANZ	Australia and New Zealand Banking	IRA	Insurance Regulatory Authority
	Group	KBA	Kenya Bankers Association
BCBS	Basel Committee on Banking Supervision	KNMI	Koninklijk Nederlands Meteorologisch Instituut (Royal Netherlands
BIS	Bank for International Settlements		Meteorological Institute)
CAIT	Climate Analysis Indicators Tool	NFRD	Non-Financial Reporting Directive
CARMA	Carbon Monitoring for Action	NGFS	The Network for Greening the Financial System
CBK	Central Bank of Kenya	NZBA	Net-Zero Banking Alliance
CDP	Carbon Disclosure Project	PACTA	Paris Agreement Capital Transition
CEO	Chief Executive Officer	IAOIA	Assessment
CFO	Chief Financial Officer	PCAF	Partnership for Carbon Accounting
CFRF	Climate Financial Risk Forum		Financials
CISL	Cambridge Institute for Sustainability	PRA	Prudential Regulatory Authority
0144	Leadership	PREP	Partnership for Resilience and Preparedness
CMA	Capital Markets Authority Climate Value-at-Risk	PRI	Principles for Responsible
CVaR DFI		1 101	Investment
ESG	Development Finance Institutions  Environmental, Social and	PwC	PricewaterhouseCoopers
E30	Governance	SA	South Africa
EU	European Union	SENSES	Climate Change Scenario Services
E&S	Environmental and Social	SFI	Sustainable Finance Initiative
FCA	Financial Conduct Authority	SSA	Sub-Saharan Africa
FSB	Financial Stability Board	TCFD	Task Force on Climate-related Financial Disclosures
FSD	Financial Sector Deepening	TNFD	Task Force on Nature-related Financial
GCA	Global Center on Adaptation	INFD	Disclosures
GFDRR	Global Facility for Disaster Reduction and Recovery	ToT	Training of Trainers
GGKP	Green Growth Knowledge Platform	UN	United Nations
GHG	Greenhouse Gas	UNDP	United Nations Development Programme
HFC	Housing Finance Company	UNEP	United Nations Environment
IEA	International Energy Agency	OILL	Programme
IIASA	International Institute for Applied Systems Analysis	UNEP FI	United Nations Environment Programme Finance Initiative
IMF	International Monetary Fund	UNFCCC	UN Framework Convention on
IPCC	Intergovernmental Panel on Climate Change	WRI	Climate Change World Resources Institute





