

ASSOCIATION DES BANQUES CENTRALES AFRICAINES



ASSOCIATION OF AFRICAN CENTRAL BANKS

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OF AFRICAN CENTRAL BANKS (AACB)**

*(Livingstone, Zambia, July 30 – August 4, 2023)*

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**CONCLUSIONS AND RECOMMENDATIONS OF THE 2023 AACB CONTINENTAL  
SEMINAR ON THE THEME:**

**'IMPACT OF CLIMATE CHANGE ON AFRICAN FOOD SECURITY AND INFLATION:  
THE ROLE OF THE FINANCIAL SECTOR IN FINANCING AGRICULTURE AND GREEN  
ECONOMY'**

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**Organized by:** Banque des Etats de l'Afrique Centrale (BEAC)

(Yaounde, Cameroon, May 15 – 17, 2023)

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**REPORT**

## **1. INTRODUCTION**

In line with the decision taken during the Assembly of Governors held in Banjul, The Gambia, on August 5, 2022, the 2023 Continental Seminar of the Association of African Central Banks (AACB) was hosted by the Banque des Etats de l'Afrique Centrale (BEAC). The Seminar was held in Yaounde, Cameroon, from May 15 - 17, 2023 on the theme '*Impact of Climate Change on African Food Security and Inflation: The Role of The Financial Sector in Financing Agriculture and Green Economy*'. Sixty-two (62) delegates of member Central Banks and representatives of regional and international institutions attended the Seminar. The list of participants is attached in the appendix of this report.

## **2. OPENING CEREMONY**

The opening ceremony was chaired by Mr. Michel Dzombala, Honourable Deputy Governor of the Banque des Etats de l'Afrique Centrale.

In his introductory remarks, Dr. Djoulassi Kokou Oloufada, AACB Executive Secretary, on behalf of the AACB Chairperson, Mr. Saïdy Buah, Honourable Governor of the Central Bank of The Gambia, expressed his sincere appreciation to the BEAC for agreeing to host the 2023 Continental Seminar and making excellent arrangements in organizing and executing the Seminar in a hybrid format. He also thanked the Experts for accepting generously to share their knowledge on the topics discussed during the Seminar. Furthermore, he commended the participants for their massive participation, demonstrating their commitment to contributing to Africa's monetary and financial integration process. In addition, he expressed his heartfelt appreciation to His Excellency Mr. Paul Biya, President of the Republic of Cameroon, as well as the government and citizens of Cameroon for their kindness and remarkable hospitality.

The Executive Secretary added that the Continental Seminar is taking place where many African regions have experienced severe weather conditions (droughts, heavy rains, floods, etc.) that negatively impacted the continent's economies. Pointing out that climate disruptions have increased desertification and changes in precipitation patterns, leading to more rainfall, flooding, and landslides, he argued that African countries heavily rely on food imports due to the sensitivity of food production to climatic conditions, with 85 percent of imports coming from outside the continent. Thus, he stressed that this dependency makes African countries vulnerable to imported inflation. As a result, Africa experienced an economic slowdown in 2022 (3.8 percent) after a recovery in 2021 (4.8 percent) following the COVID-19 pandemic.

Therefore, the Executive Secretary indicated that the principal objectives of the Continental Seminar are to identify the main climate shocks and new challenges related to these events that threaten food security and to take stock of food insecurity and inflation in Africa while highlighting the major factors that drive them. The Seminar aims to contribute to a better understanding of how climate shocks could impact food security and inflation and highlight the role of the financial sector in promoting agriculture and the green economy in Africa. In addition, it should contribute to a better understanding of the Central Banks' role in stabilizing prices and the financial system in the context of climate change.

To conclude his remarks, the Executive Secretary indicated that this event constitutes an excellent opportunity to share experiences on topical issues related to the impact of climate change on African food security and inflation and have fruitful discussions to generate pertinent ideas to formulate practical recommendations.

In his opening speech, Mr. Michel Dzombala, Honourable Deputy Governor of the Banque des Etats de l'Afrique Centrale (BEAC), welcomed all the participants and wished them a pleasant stay in Yaounde, the political capital of the Republic of Cameroon.

Furthermore, the Deputy Governor of the BEAC pointed out that the issues of biodiversity protection and sustainable development, little known two decades ago, are currently at the heart of all concerns, given the importance of their consequences. He argued that the climate crisis is characterized by curses such as air and sea pollution, drought, floods, deforestation, natural disasters, etc.

In this context, he noted that adaptation to climate change and environmental degradation is a major challenge for the continent. Indeed, despite their marginal contribution to the emission of greenhouse gases (4 percent of global emissions), African countries are the most vulnerable to climate change, with potentially significant consequences on their modes of production and consumption.

In this regard, Mr. Dzombala indicated that climate change threatens human health and food security, fuels inflationary pressures, and undermines prospects for economic growth in Africa. According to the African Development Bank (AfDB), climate change would reduce Africa's Gross Domestic Product (GDP) by about 1.4 percent, and the costs induced by adaptation solutions would reach 3 percent of GDP per year by 2030.

Furthermore, he indicated that the CEMAC is not spared, and the annual losses induced by the devastating effects of climate change are estimated at roughly 3.1 million hectares of natural forests during the past five years from over 250 million hectares of tropical forest, the planet's second green lung after the Amazon. In particular, he argued that Lake Chad could completely disappear in twenty years if no action is undertaken to revitalize the ecosystem of its basin, given the reduction of its area by nearly 90 percent. As a result, this situation would lead to a significant drop in agro-pastoral and forestry activities carried out by the populations who depend on the lake and, ultimately, the overall supply of these products.

Internally, the Deputy Governor of the BEAC stressed that climatic shocks have negatively affected the domestic food supply in the CEMAC, contributing to a historic annual increase in food prices of above 10 percent between July 2022 and March 2023.

To address the challenges of climate change on a continental scale, he emphasized the importance of the synergy of African Central Banks and Supervisors to assess, reduce, and manage the impact of climate risks on the real economy and financial stability. Taking the example of the BEAC, he recalled that it was an early advocate of climate issues in the CEMAC by modernizing its monetary policy instruments to facilitate the provision of financial resources aimed at supporting innovative projects, particularly in the field of climate resilience, sustainable forest management, agriculture, and the green economy. In addition, he highlighted that other actions were undertaken, such as the development of a regional financial inclusion strategy, the validation and implementation to help improve access rates to financial services and, consequently, the achievement of sustainable development goals.

Thus, to benefit from the experiences of other financial institutions, the BEAC joined the Sustainable Banking and Finance Network (SBFN) organization in 2022, which campaigns under the auspices of the International Finance Corporation (IFC) for the development of sustainable finance around the world. At the same time, it examines the possibility of joining the Network for the Greening of the Financial System (NGFS) to further pool efforts and progress made in sustainable finance with other regulators and supervisors worldwide.

Encountered with the threat of climate shocks, the Deputy Governor of the BEAC invited the Central Banks to propose innovative solutions while demonstrating constant and long-term involvement. In this regard, he recommended that they revise their monetary policy operations to make them more consistent with climate objectives and economic policies to combat climate change defined by the countries.

In conclusion, he hoped that the exchanges between the experts during this Seminar would be dense, friendly, and fruitful to capitalize on the lessons learned on sustainable finance promotion while considering extra-financial variables such as the preservation of the environment and constituting a lever for the transformation of societies and the green economy promotion. Thus, he declared open the 2023 AACB Continental Seminar.

### **3. STRUCTURE OF THE SEMINAR**

The Seminar was structured as follows: four Sub-themes were presented by resource persons. In addition, Representatives of Central Banks shared their experiences. Finally, three break-out sessions, divided into three groups, were organized to discuss specific topics related to strengthening the financing of the agricultural sector in Africa to increase its resilience to climate shocks and undertake many initiatives aimed to combat climate change while making green technologies and industries the engine of economic growth. These break-out sessions made recommendations for consideration to the Assembly of Governors.

#### **3.1. Plenary Session 1: Presentation of the sub-themes**

This session was chaired by Mr. Mostafa Mounir, General Department Head, Banking Reform Sector, Central Bank of Egypt (CBE). Mrs. Boingotlo Gasealahwe, Senior Economist, South African Reserve Bank (SARB), Dr. Hassan Mahmud, Director of Monetary Policy, Central Bank of Nigeria (CBN), Mr. Youssef Sy, Operations Officer, International Finance Corporation (IFC), World Bank, and Mr. Gilles Noblet, Principal Adviser, Director General of International and European Relations, European Central Bank (ECB), presented the following sub-themes, respectively:

- Climate Change, Price and Financial Stability and Achieving Sustainable Food Security in Africa: The Role of Central Banks;
- Promoting Green Economy in Africa: The Role of the Financial Sector;
- The Role of the Financial Sector in Promoting Agriculture;
- The Role of Central Banks in Climate Change – A European Perspective.

##### **a) Climate Change, Price and Financial Stability and Achieving Sustainable Food Security in Africa: The Role of Central Banks**

The first presentation focused mainly on how climate change affects Central Bank mandates, key climate shocks occurring in Africa, food insecurity and inflation in Africa, and the Central Bank's role in stabilizing prices and in managing climate risks.

The Presenter stated that climate change risks include two main categories, namely:

- Transition risks that arise from policy actions taken to transition to a lower carbon economy or technology development;
- Physical risks from climate change and extreme weather events such as drought, floods, etc.

At the macro-financial level, climate impacts financial system stability, growth, and inflation. However, Central Bank mandates are affected through several channels depending on the nature of the risk.

Regarding the transition risks, the Presenter argued that transmission channels depend on policy and regulation, technological developments, and consumer preferences, affecting businesses and households (at the microeconomic level) through the channels of economic transmission.

At the business level, the following effects follow:

- Weather-induced property damage and business disruption;
- Stranded assets and new capital expenditure due to the transition;
- A change in demand and costs;
- Legal liability due to lack of mitigation or adaptation measures.

For households, the following effects were noted:

- Loss of income (due to weather disturbances and health impacts, and labour market friction);
- Increased costs due to property damage from severe weather or restrictions (resulting from low carbon policies) and affecting the evaluation.

The effects of transition risks are transmitted to the financial system through contagion, turning into credit risk via default by businesses and households and collateral depreciation on the one hand, and into market risk through repricing of equities, fixed income, commodities, etc., on the other hand. They can also generate underwriting risks via increased losses covered by insurance and an expanded risk coverage deficit.

The Presenter pointed out that transition risks can be either chronic (e.g., temperature, precipitation, agricultural productivity, or sea level) or acute (e.g., heatwaves, floods, cyclones, or wildfires).

For physical risks, their effects are transmitted to the macroeconomic level, through several elements:

- Capital depreciation and increased investment;
- Changes in prices due to structural changes, supply shocks, shifts in prices (from structural changes and supply shocks);
- Productivity changes (from severe heat, diversion of investment to mitigation and adaptation, and higher risk aversion);
- Socioeconomic changes (from changing consumption patterns, migration, and conflict);
- Other impacts on international trade, government revenues, fiscal space, output, interest rates, and exchange rates.

These different events can also be transmitted to the financial system by contagion, turning into underwriting risk, operational risk through supply chain disruptions and forced facilities closure, or liquidity risk through increased demand for liquidity or refinancing risks.

Given these developments, it appears that the transmission channels of climate risks to the financial system operate through two mechanisms:

- Climate and the economy feedback effects;
- Economy and financial system feedback effects.

Furthermore, it should be noted that flooding is the main climate shock in Africa, followed by epidemics and drought. The frequency and costs of these severe shocks are increasing. Indeed,

the estimated costs of these shocks have increased from roughly USD 5.2 billion in 1980 to about USD 8.5 billion in 2023, representing 63.5 percent over the period under review. Although the costs to Gross Domestic Product (GDP) are unevenly distributed across countries, Sub-Saharan Africa has the highest risks. It remains the region with fewer resources available to manage these risks.

A persistent increase in the global average temperature reflects the impact of climate change. The annual variation of the global average temperature is 0.8° C in 2023 against 0.25° C in 1981, after reaching the historical level of 0.9° C in 2017.

In addition, the aforementioned severe climatic shocks impact food security and inflation. Geographically, the Horn of Africa is the most severely affected by climate shocks, resulting in a higher prevalence of food insecurity. Indeed, in this area, more than 46 percent of the population is likely to be more food insecure. Inflationary pressures, although moderate, remain high, mainly reflecting the impact of rising food prices. The main food inflation drivers are the global food price index and the consumption share change.

However, internationally, food prices are down from their peak level in April 2022. According to the Food and Agriculture Organization of the United Nations (FAO), the Consumer Price Index (CPI) fell from about 92 in May 2020 to approximately 123 in April 2023, after reaching a historic high of roughly 155 in March 2022. Despite global inflationary pressures, Africa remains heavily dependent on food imports, which account for about 40 percent of the continent's CPI component.

In this environment of food insecurity and inflationary pressures, the tightening of global financial conditions since mid-June 2021, the Russian-Ukrainian war in February 2022 and the collapse of the Silicon Valley Bank (SVB) in March 2023 are events that could undermine global economic growth prospects.

Given the inflationary pressures, Central Banks have a significant role to play. As a result, most of them in Africa have increased their key interest rates since April 2022, intending to stabilize prices. The largest increases were recorded by the Bank of Ghana (about +14.5 percentage points), Bank of Malawi (+10 percentage points), and Central Bank of Nigeria (+4.5 percentage points).

However, Central Banks can do better to manage climate change risks through several actions, including:

- Integrating climate-related risks into financial stability monitoring and micro-supervision;
- Integrating sustainability factors into own-portfolio management;
- Bridging data gaps;
- Building awareness and intellectual capacity and encouraging technical assistance and knowledge sharing;
- Achieving robust and internationally consistent climate and environment-related disclosure;
- Supporting the development of a taxonomy of economic activities.

A Program has been developed for the South African Reserve Bank (SARB) to address climate change. This program aims to better organize, coordinate, and communicate all climate change work within the SARB, leading to several advantages, including:

- Harmonised coordination providing visibility of and alignment, enabling identification of complementary pieces of work;
- Capacity building and training across the departments involved in the program;
- Sharing resources and learnings on climate change-related topics and enabling efficient delivery
- Minimize the duplication of efforts on climate change-related initiatives.

The immediate aim of this work program is to understand the impact of physical and transitional risks on monetary and financial policy. It should also integrate disclosure and taxonomy requirements into the regulatory framework and advise financial companies on how to incorporate financial risks in their risk management. Finally, it aims to develop stress-testing scenarios and improve data sources.

The work is organized around three main themes: the strategic areas, the Network for Greening the Financial System (NGFS), and the support provided to the NGFS.

The Presenter indicated that the work undertaken by the SARB is integrated into other government processes, including the Intergovernmental Working Group on Sustainable Finance, a forum on climate risks, the Residential Climate Commission, and the Presidential Task Force on Climate Finance. Furthermore, there are several Working Groups on taxonomy disclosures, scripts, instruments, and capacity building.

In response to the concerns raised by the participants, the Presenter mentioned that Africa remains the most exposed region to climate risks, although it has the lowest pollution rate. In this regard, finding adequate and urgent responses to mitigate the impacts is key. Thus, reflections should be carried out on a continental scale to identify the adverse effects and seek opportunities. Furthermore, to better assess the impact on agriculture, regularly updated data should be collected.

Taking the example of Egypt in addressing climate change, it was pointed out that its capital market law has been amended to allow for the creation of a (voluntary) carbon exchange. The Central Bank of Egypt is also a member of the Network for Greening the Financial Sector (NGFS) and includes climate change stress-test in its annual financial stability report. Furthermore, a blended funding platform for the country, called Egypt's Nexus of Food, Energy and Water, has been established. It is a key blended financing tool connecting Multilateral Development Banks (MDBs) and the private sector for funding climate-related projects in line with Egypt's sustainable development plans and goals.

In conclusion, the public sector could be important in reducing constraints and catalyzing private-sector climate financing. The public sector can align incentives with climate objectives through regulations, taxation, guarantees, subsidies, and disclosure requirements, thereby helping induce collective action and stakeholders. Addressing climate change needs many changes in the economy, requiring close coordination across stakeholders and sectors.

Overall, the financial sector is key in promoting agriculture by providing financing, investment, and risk management services to farmers and agribusinesses. It can benefit the agricultural sector by providing the capital and risk management tools needed to support growth and development. Furthermore, financial institutions should work with banks to help finance agricultural value and supply chain finance, climate finance for agribusinesses, risk assessment, and numerical scoring for agriculture. Moreover, banks would have leveraged agricultural technologies to improve the value proposition to farmers, either through direct lending or partnerships with financial institutions. In addition, assistance could be provided to microfinance

institutions to develop digital scoring models, e-wallets, and mobile payments, with capacity building for loan officers in rural areas.

#### **b) Promoting Green Economy in Africa: The Role of the Financial Sector**

The second sub-theme was presented by Mr. Hasan Mahmud, Director of Monetary Policy, Central Bank of Nigeria (CBN). The presentation focused mainly on the role of the financial sector in financing climate change in Africa, funding initiatives and sources towards green finance in Africa, the challenges and constraints, as well as the CBN's initiatives.

In the introduction, the Presenter emphasized that in Africa, climate change continues to pose a critical and peculiar threat to growth and development. In Africa, 7 out of 10 countries are most vulnerable, 95 percent of agriculture is rain-dependent (high agricultural dependency), and 70 percent of African workers are employed in agriculture. Financing climate change remains a major challenge globally and particularly in developing countries. Indeed, globally, the total annual cost of climate finance is USD 630 billion annually while only less than USD 20 billion is disbursed to Africa. Thus, the financial sector remains crucial in funding climate change for economic growth. Financial institutions are uniquely positioned to scale-up finances through investments in low-carbon emission and climate-resilient projects towards a successful green economy transition. However, this requires strong leadership and regulation.

Furthermore, the Presenter noted that given the importance of greenhouse gas emissions in some regions of the world (more than half of the emissions in Asia, Latin America and the Caribbean, and Europe), Europe has demonstrated a reasonable commitment to reducing CO2 emissions in all sectors between 1990 and 2019, except for the transport sector. However, current investment in climate finance generally needs to meet the estimated annual requirements.

In this regard, the United Nations Environment Program (UNEP) has developed initiatives aimed at achieving a green economy and adapting to climate change, including the Global Program of Research on Climate Change Vulnerability, Impacts and Adaptation (PROVIA), the Climate and Clean Air Coalition<sup>1</sup> (CCAC), the Emissions Trading System (ETS), etc.

For the role of the financial sector in financing climate change in Africa, the Presenter highlighted that Africa is highly vulnerable to risks associated with climate shock due to the volatility of African economies to weather shocks. Based on available estimates, an increase in global temperatures of 1° C would lead to a 2 percent contraction of Africa's Gross Domestic Product (GDP). According to the European Investment Bank (EIB), almost all African countries face elevated, high, or very high risk from climate change.

The Presenter argued that there is a strong correlation between climate change and African financial institutions. As the African economy is more exposed to physical risk than transition risk, the physical assets could be damaged or destroyed while the return on other assets could also be affected. This means it is in the interests of African financial institutions to consider climate risk and green financing opportunities. However, the amount of climate finance in Africa must meet the requirements to implement Nationally Determined Contributions (NDCs) in the region. For example, an annual estimate of USD 250 billion is required to fund climate change in Africa between 2020-2030. But, the actual yearly total climate finance mobilized in Africa in 2020 was only USD 29.5 billion. Therefore, more must be done to ensure that African financial institutions take up opportunities in Green finance.

Regarding the sources of funding, several actors are involved. These include the capital market, commercial banks, microfinance institutions, private capital, and insurance companies. Indeed,

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<sup>1</sup> / The Climate & Clean Air Coalition is the only global effort that unites governments, civil society and private sector, committed to improving air quality and protecting the climate in next few decades by reducing short-lived climate pollutants across sectors.



green bond issuance in Africa has grown from about USD 0.15 billion in 2014 to roughly USD 1 billion in 2020, representing 31.1 percent annually. For example, in 2020, a government-backed entity (Egypt) and a commercial bank (Standard Bank in South Africa) issued USD 800 million and USD 200 million, respectively. However, the African green bond market is still tiny, with 20 green bonds worth about USD 2 billion being issued in six African countries between 2014 and 2020, representing 0.2 percent of the total bond market (USD 1 trillion globally).

For banks, African banks have shown some commitments to green investments, although these still represent a small share of their total portfolios. Twelve percent of banks in East Africa and 7 percent in Southern Africa have more than 20 percent of their total portfolio in renewable energy, compared to 6 percent for the overall sample. However, the renewable energy sector still represents less than 10 percent of the total portfolio for two-thirds of banks, suggesting that green financing opportunities are yet to be grasped across the board.

Although microfinance institutions account for smaller volumes of green finance than banks, they fill an essential gap in the market. Based on the 2019 Consultative Group to Assist the Poor (CGAP) survey, dedicated green investors provided almost 7 percent of the total USD 10 billion in finance for microfinance institutions in the CGAP network. Most of the green investment came from development finance institutions and bilateral donors.

Furthermore, green insurance can provide sovereign states or regions coverage against the impacts of climate change and climatic shocks. For example, the African Risk Capacity (ARC), an index-based weather risk insurance pool established by the African Union, provides African governments with insurance for natural disasters. Furthermore, between 2016 and 2020, USD 2.2 billion of private capital was invested, through 115 deals, in Africa's renewable energy and CleanTech sectors.

However, some challenges and constraints must be addressed to further mobilize African climate finance. Indeed, according to the EIB, the main constraints on investment in this sector by African banks are related to the low demand for green financing and technical capacities (32 percent of respondents), the lack of data, tools, and models to assess climate risk (52 percent), lack of expertise in the provision of green products (23 percent to 25 percent of banks).

Strategies have been developed at the national, regional, and international levels to address these challenges to climate change funding. On the local scale, several African countries are implementing initiatives to promote green finance by providing fiscal incentives and through policy initiatives such as risk-sharing mechanisms. Thus, Central Banks play important roles in assigning and implementing oversight policies for the financial sector, including in the green finance sphere. African countries also use national development banks and other public financial institutions to raise and channel green finance.

Moreover, African economies are joining international initiatives and establishing new regional ones to mobilize resources for green growth. For example, Morocco, Seychelles, South Africa, and the States of the West African Economic and Monetary Union are members of the Network for Greening the Financial System, whose goal is to promote best practices in green finance, including risk management techniques and supervision.

To enhance macroeconomic and financial stability, the Central Bank of Nigeria (CBN) has demonstrated a strong commitment to protecting communities and the environment where financial institutions and their clients operate. In this regard, the CBN has implemented several measures that affect various sectors of the economy, including the CBN Solar Intervention Fund, aimed at expanding energy access to 25 million people (five million new connections) by providing solar home systems or connecting to a mini-grid. It has also introduced the Green Tagging Banking Review, which assesses the exposure of banks' portfolios to low- and high-carbon assets based on an established taxonomy.

Other initiatives are undertaken by the CBN, including:

- The Green Bond Issuances where the Federal Government of Nigeria ("FGN") launched its National Development Plan;
- The Economic Recovery and Growth Plan ("ERGP") in April 2017. Nigeria issued a 10.96 billion Naira Sovereign Green Bond in December 2017, followed by the issuance of 2 corporate green bonds;
- The issuance of green bonds by other entities, such as Access Bank PLC and North South Power Company Limited, with values of N15 billion and N8.5 billion, respectively.

In addition, the Nigerian government launched the National Climate Change Policy in 2013 to implement measures promoting low-carbon, sustainable, and high economic growth. The banking sector has leveraged the scheme to address the vast investment needs for the transition to a sustainable, low-carbon, and climate-resilient economy.

To strengthen green financing in Nigeria, other challenges include:

- Improving access to global financing programs;
- Strengthening the green financing framework in Nigeria;
- Lowering the still higher cost of borrowing;
- Matching the maturity of investments in green projects.

Politically, African financial markets should explore more innovative products and services to channel more capital to support the transition to the green economy. For example, investments such as transition bonds, sustainability-linked loans, and bonds should be adopted to unlock and widen the scope of investments. For their part, banks and non-bank financial institutions should invest in building the technical capacity of their staff to significantly improve the understanding of green finance opportunities and management by their specialized team. In addition, the non-bank financial sector (pensions and insurance) should support investment in projects and companies ready to adopt sustainable business models and expand their product range.

Central Banks and other financial sector regulators should set up regulatory policies to motivate banks and non-bank financial institutions to increase their lending to green investments.

Multilateral financial institutions, development banks, and bilateral donor agencies could be encouraged to provide more concessional climate funding through grants or loans at below-market interest rates to sub-Saharan African governments.

Finally, governmental and non-governmental organizations should deploy special investment research toward manufacturing renewable infrastructure that meets local needs.

Addressing the participants' concerns, the Presenter indicated that the issue of the green economy in Africa remains a dilemma as African countries need to transform their natural resources in the context of reducing greenhouse gas emissions. In this regard, he recommended exploiting resources in the cleanest way possible to meet environmental standards. He argued that priorities and the timing must be set. Moreover, after recalling that Central Banks do not directly finance economic operators and farmers, he invited the latter to turn to banks, entitled to receive refinancing from Central Banks to fund them. He also recommended that the economic operators turn to microfinance for their financing.

Overall, financial institutions have an important role in addressing climate change, given the massive funding gap for the green economy in Africa. In this regard, financial institutions must actively adapt their lending practices and credit structures in line with the implementation plans of the Peak Emissions and Carbon Neutrality targets, and in combination with their development

strategies, to encourage private funding to shift from energy-intensive and emissions-intensive sectors to those with lower emissions. In addition, innovation in carbon finance needs to be strengthened, and commercial banks can innovate and develop carbon-related financial products and services in this regard.

In addition, policymakers and regulators should strengthen the relevant incentive and constraint mechanisms, including strengthening the support of monetary policy tools for green finance, reducing the risk weight of green funding assets for commercial banks, and providing security for green bondholders.

Monetary authorities need regulatory policies to encourage banks and non-bank financial institutions to increase their lending to green investments. In addition, they should facilitate the development of a range of financial products that direct more capital, including green loans, green bonds, etc. In addition, improving the quality of climate information and harmonizing global standards for green funding is a priority.

### c) **The Role of the Financial Sector in Promoting Agriculture in Africa**

The first sub-theme of the third plenary session: "*The Role of the Financial Sector in Promoting Agriculture in Africa*" was presented by Mr. Youssouf Sy, Operations Officer, International Finance Corporation (IFC). The presentation focused on the opportunities and Challenges, the emerging solutions and models, and IFC's approach and products.

The Presenter indicated in the introductory remarks that the IFC is a specialized World Bank Financial Institution that provides solutions for private sector development through tailor-made investments and advisory services in 93 countries. It operates in Africa primarily in the agri-business sector, with an agri-business investment portfolio of approximately USD 4.0 billion in 2022, of which 9 percent is invested in opportunities in sub-Saharan Africa.

IFC interventions aim to strengthen food security by increasing production, reducing losses, and raising yields and incomes, promoting inclusive development with a focus on opportunities for small farmers, women, and risk management. In addition, the IFC's objective is also to support environmental and social sustainability by helping the sector reduce its carbon footprint.

Regarding the context, the Presenter argued that agriculture is critical to Africa but with a huge funding gap. Indeed, agriculture contributes to about 33 percent of the continent's GDP and employs approximately 50 percent of its population, mainly in the informal sector. Projections place the increase in food production in Africa at 70 percent to feed an estimated population of 2.5 billion by 2050. The agri financing need for Small and Medium Enterprises (SMEs) and Self Help Groups (SHG's) is estimated at USD 144 million with a shortfall of USD 116 billion, mainly due to the following factors:

- The perception that agriculture is high-risk, costly, and unprofitable;
- The Systematic risks (market and environment);
- The informal nature of agriculture, with limited collateral for farmers and small businesses;
- The lack of structuring of the value chains in which many farmers and small businesses operate.

Bank loans to agriculture in Africa are estimated at less than 3 percent. They are mainly intended for agricultural SMEs engaged in structured, export-oriented value chains and cash crops (coffee, cocoa, maize, etc.). Generally, these are short/medium-term loans, highly collateralized, at commercial rates above 15 percent. Furthermore, they are mainly granted to small-holder

farmers by value chain actors and Community-based financial institutions. Only 3 percent of these loans come from commercial banks. However, the main difficulty concerns pre-harvest financing.

The benefits of financing agriculture are enormous as they help increase production and sales, as well as the incomes of farmers and agricultural SMEs. It also helps increase financial inclusion and resilience in rural areas by providing access to financial services (savings, insurance, conditional credit). Furthermore, it facilitates the formalization and commercialization of agricultural business practices, as well as adaptation to a changing environment (consumer preferences and climate change).

Changes have been recorded in agriculture, the main ones being the increase in productivity thanks to new technologies, tools, and methods which help increase yields and reduce costs. Furthermore, technological innovations can provide better opportunities to support and finance agri-businesses. There is also evidence of increased vertical integration of firms to optimize their value chain. On the other hand, other developments such as climate change, disruptions to global food supply chains, Covid-19 related disruptions, and the food security crisis in many African countries are likely to have further adverse trade repercussions.

In addition, the increased financing needs of the agricultural sector in Africa can offer new opportunities for financial institutions and new challenges. Indeed, Africa is a large potential market, with a range of clients with significant collective funding needs. The annual financing requirements would amount to USD 144 billion for approximately 48 million households and at least 130,000 agricultural SMEs. In addition, portfolios can be diversified through expansion into new underserved segments.

Regarding the main challenges, it should be noted that there is a lack of data to assess creditworthiness, the high cost of service related to loans, the lack of collateral, and high systemic risks.

It would be desirable to collect new digital data through links with value chains to address the lack of data to manage these challenges. Other measures aimed at controlling financial channels and developing partnerships with aggregators in value chains and banking agents could help reduce the high service costs. In addition, new forms of collateral (inventory, machinery, equipment, etc.) and pledges of future production, contract farming for future production, as well as Credit scoring leveraging alternative data putting less emphasis on "hard" collateral could be set up to solve the problems of loan guarantees. Finally, systemic risks could be mitigated by underwriting an insurance policy and lending for climate-smart agriculture.

In addition, it should be noted that emerging solutions and models for digital transformation in agricultural finance exist. Digitization, digital technologies, and tech-enabled companies have the potential to transform agriculture through new systems that improve productivity, efficiency, and transparency, which can benefit farmers, consumers, and other related parties, such as financial institutions.

Among emerging players in the agricultural sector, some AgTechs have taken significant advantage of digital tools and data to improve their value proposition to farmers to provide or facilitate credit in addition to Value Added Services (VAS). These are direct loans using equity or external financing from banks and others and taking full credit risk exposure from farmers. Partnerships with AgTech financial institutions provide farmers' ecosystems and data/information. Financial institutions (banks and MFIs) provide Credit Financial Institutions and AgTechs with an agreement on credit risk exposure.

Regarding the IFC's approach and products, the Presenter noted that it had developed an integrated and comprehensive approach by implementing investment services that meet the Bank's needs through debt financing, equity, balance sheet risk management, and performance-based financing for client financial institutions. In addition, the IFC also provides upstream services to the private sector and potential investors, whose objective is to finance bankable investments, and provides advice to banks in the following six areas:

- Data mining and customer analysis;
- Sales channels, branding, and marketing;
- Market research and strategy;
- Organizational alignment and staff training;
- Customer segmentation and value proposition;
- Financial and non-financial product services.

IFC works with financial institutions and agricultural stakeholders to build ecosystems in the future. In-depth analyses of agro-technology and agro-industry form the basis for future IFC commitments to improve agricultural productivity, strengthen the linkages and efficiency of the supply chain, expand access to finance and insurance, and adapt to environmental impacts.

In addition, IFC manages the Private Sector Window of the Global Agriculture and Food Security Program (GAFSP-PrSW), a multilateral mechanism to assist in implementing pledges made by the G20 to reduce food insecurity and poverty in low-income countries.

In collaboration with IFC, GAFSP-PrSW applies blended finance solutions and IFC's expertise and knowledge to invest in projects that may not attract commercial financing due to perceived high risks in the agricultural sector. With USD 436 million deployed, this program aims to reach 4.5 million farmers through 81 investment projects in 27 countries. Canada, Japan, the Netherlands, the United Kingdom, and the United States are the current donors to GAFSP.

In Africa, the IFC carried out operations with banks in collaboration with stakeholders in the agricultural sector. These include operations such as:

- BOA/agCelerant in Senegal in 2023, which is a risk-sharing facility to support BOA's lending to smallholder rice farmers and small rice-producing businesses in Senegal in 2023. BOA Bank will benefit from the support of agCelerant, an agritech that offers data-driven solutions and training to farmers to increase their productivity;
- KCB/TWIGA in Kenya in 2021, which is a risk-sharing facility to support KCB's lending to medium-scale contract farmers who are part of Twiga's supply chain, an agritech that supplies fresh fruits and vegetables sourced from farmers to vendors and consumers;
- Standard Chartered/Sodecoton in Cameroon in 2017, which constitutes a pre-export facility (€16 million loan) by Standard Chartered to Sodecoton, a state-owned company that purchases all the country's cotton;
- SIB/Cargill in Côte d'Ivoire in 2015, which is a guarantee (up to 6 million) leasing portfolio to Société Ivoirienne de Banque (SIB), which provided medium-term financing to cooperatives that supplied cocoa to Cargill, allowing them to lease the trucks and more efficiently transport beans to markets.

In conclusion, the Presenter emphasized that digitization is a solution to the funding challenges encountered by the agricultural sector in Africa. He highlighted partnerships and collaborations between stakeholders and financial institutions through a cluster approach to provide financial

and non-financial services to farmers and businesses in the sector. Finally, he noted that establishing effective financial infrastructure should help improve agricultural financing in Africa.

In response to the participants' concerns following his presentation, the Presenter clarified that there are several actions and initiatives for financing agriculture at the IFC level. He pointed out that financial institutions cannot cover all the financing needs of the sector estimated at USD 1.6 billion. Taking the case of Cameroon, he indicated that the partnership established with actors, particularly financial ones, has made it possible to obtain satisfactory results. In other words, all the actors have their part to play in strengthening green finance.

Overall, the financial sector is key in promoting agriculture by providing funding, investment, and risk management services to farmers and agribusinesses. It can benefit the agricultural sector by providing the capital and risk management tools needed to support growth and development. In addition, financial institutions should work with banks to help strengthen agricultural value and supply chain funding, climate finance for agribusinesses, risk assessment models, and digital scoring for agriculture. Furthermore, banks should leverage agricultural technologies to improve the value proposition to farmers, either through direct lending or partnerships with financial institutions. In addition, assistance could be provided to microfinance institutions to develop digital scoring models, e-wallets, and mobile payments, with skill building for rural loan officers.

#### d) **The Role of Central Banks in Climate Change – A European Perspective**

The second sub-theme of the third plenary session: "*The Role of Central Banks in Climate Change – A European Perspective*" was presented by Mr. Gilles Noblet, Principal Adviser, Directorate General International and European Relations, European Central Bank (ECB). The presentation focused on food insecurity, international cooperation on climate change, the importance of Paris-aligned transition plans, and capacity building.

The Presenter noted that according to the World Food Conference, food security is the ability "to ensure the availability and price stability of basic foodstuffs at the international and national levels." Thus, people experiencing poverty are particularly vulnerable to food inflation. In this regard, inflation should be brought back to target to ensure food security and avoid second-round effects while maintaining inflation anchor expectations.

Larger inflationary impacts are expected in Southern Europe if climate shocks cause persistent upward pressure on food inflation. Yet the ECB's monetary policy measures are geared toward overall inflation and have no control over relative prices. Thus, price stability is crucial for food security.

Climate change has two main transmission channels, namely the transition policies channel and the extreme weather condition channel. For the first channel, two main policies have been taken, notably the EU's achievement of carbon neutrality by 2050, with an intermediate target of 55 percent emission reduction by 2030. Furthermore, a European Emissions Trading System (ETS), a cap-and-trade scheme, has been implemented, which will lead to a contained but persistent rise in energy prices and headline inflation.

Regarding the extreme weather conditions channel, a trend increase in the number of extreme weather events in the EU is anticipated, and a rise in volatility in inflation, particularly food inflation.

For example, according to the results of the work undertaken by the ECB on food inflation (forthcoming), the heat wave in the summer of 2022 increased food price inflation in the EU by

0.7 percentage points, and future warming projected for 2035 could amplify the impact of these extreme temperatures by 50 percent.

At the level of international cooperation on climate change, global cooperation has been developed to address the challenges on a global scale. In this respect, several actions are being carried out, including establishing the Sustainable Finance Platform, Sustainable Finance Network, and the Network Greening of the Financial System (NGFS), of which the ECB is a member. The ECB also participates in several European and international bodies working on climate issues.

In addition, the G20 Framework Working Group is focusing on food insecurity. In this regard, leaders commit to promoting food and energy security and supporting market stability (2022 Declaration of G20 in Bali). According to the NGFS work, biodiversity loss can severely impact food security and agricultural yields, leading to higher food prices.

Given the climate risks, it is critical to act for climate preservation. Indeed, climate change mitigation can significantly lower the effects of climate change in the future. While the political ambition to limit climate change may represent a long-term opportunity, it may also increase the transition risk. The ECB economy-wide climate stress test shows that the long-term costs of physical risk are much higher than the short-term costs of the green transition. A consensus has emerged that a substantial increase in sustainable finance is needed to fund the transition and adaptation. According to UNDP (2022), the global transformation to a low-carbon economy, in line with the Paris Agreement, would require investments of €1 billion. Financing the Paris Agreement could require investments of at least USD 4 trillion to USD 6 trillion annually.

In addition, credible transition plans are crucial to strengthening climate change financing. They are strategic documents translating future commitments into tangible actions and monitoring progress. Given the interdependence of transition efforts, all economic actors should improve their efforts.

Innovative and blended climate funding instruments are available. For example, the public sector can play a catalytic role in the funding required for the climate transition. In addition, blended finance could catalyze private sector funding for climate action by rebalancing the risk-return structure. The current scale of blended financing of sustainable investment in emerging markets and developing economies remains extremely important. However, it remains extremely limited in emerging and developing economies.

To better fulfill the Central Banks' role in addressing climate change, it is key to build their capacity using a modular approach suited for different audiences and levels of knowledge. Thus, introductory training can be done through an online tutorial, and more advanced training for already qualified resources through live interaction or seminars/debates. In this regard, the ECB Climate Change Center launched an initiative in 2022 aimed, inter alia, at improving the climate training offered by the ECB. Furthermore, it seeks to increase awareness of climate and environmental risks to better understand a complex and fast-evolving policy framework, the underlying scenarios, and assumptions.

Furthermore, the ECB has conducted several training efforts, including the ECB Climate and Environmental Risk Learning Path for Central Bankers and Banking Supervisors. It also founded the Climate Training Alliance (CTA) founded in 2021, which is an open platform to share

knowledge and promote best practices in managing climate risks. Moreover, it participates in two ongoing projects of the RVSF, namely:

- The NGFS SKILL (Sustainable Development Knowledge and Information Learning Library) platform, available online via the Bank for International Settlements (BIS) website;
- Drafting a climate and environmental risk training guide to support NGFS members in organizing and designing capacity-building initiatives.

In this context, an upcoming NGFS African Continental Outreach is also planned in June 2023 in collaboration with the National Bank of Rwanda (NBR).

To better address climate change issues, the ECB has developed cooperation with Central Banks worldwide on climate matters. It also regularly cooperates with regional organizations of Central Banks such as the AACB. Other projects with Africa are also in the pipeline.

In conclusion, the Presenter emphasized the role that Central Banks could play in dealing with climate change, given the importance of their macroeconomic impact and the potential risks to financial institutions and financial system stability. He also argued that price stability is a precondition for an orderly transition. Given the visible impact of climate change on the global economy, there is an urgent need to strengthen the climate transition, as transition plans can play an important role in attracting necessary climate financing. Thus, the need for international coordination to address climate change is critical, given its global spread.

During the discussions, the Presenter indicated that the Network for Greening Financial Sector plays an essential role in the coherence of the scenarios. As part of its actions, the ECB integrates the climate change strategy by monitoring banks' exposure to climate risk and regularly developing a report to assess the progress made in this area, which remains mixed in absolute terms. The ECB also promotes green bonds through their issuance.

### **3.2 Plenary session 2: Experiences of AACB Central Banks**

Four AACB Central Banks shared their experiences with respect to the main theme of the Seminar.

#### **3.2.1 Bank of Ghana (BoG)**

The Agricultural sector is mainly driven by the crop, cocoa, and livestock subsectors and is largely characterized by unskilled labour, low usage of technology, and high dependence on rain. As a result, the contribution of the Agricultural Sector to GDP has declined over the years compared with the Services and Industry Sectors. This can be attributed to several factors, including the adverse impact of climate change on the Agricultural Sector.

The impact of climate is seen through incidents of drought, rising temperatures, floods, etc., which has led to land degradation, depletion of fishes in the ocean, and reduction in food supply (which has invariably increased the importation of food products) and spillover effects to the macroeconomy. Particularly, the significance of food prices in the inflation basket indicates the impact of climate risks on the macroeconomic performance of Ghana.

Ghana's banking sector is particularly exposed to climate risks, especially through its transactions with the Agricultural Sector in the form of financial guarantees as well as loans and advances (credit facilities).

Challenges such as the high-risk perception of the agricultural sector resulting from the increased Non-Performing Loans (NPLs) in lending to the sector and lack of adequate risk management



tools limit the support given to the sector by the banks. Therefore, the Bank of Ghana and the Government of Ghana have initiated various policy interventions to address these challenges by introducing the Ghana Sustainable Banking Principles.

Specifically, the Central Bank has considered environmental and climate factors in its supervisory processes. Regulated Financial Institutions are expected to report on climate-related factors periodically and enhance the capacity of their employees in Environmental, Social, and Governance (ESG) and climate-related financial risk issues.

The Central Bank has also joined global bodies on green and sustainable financing, such as Sustainable Banking and Finance Network, Alliance for Financial Inclusion, and Network for Greening the Financial System. This is to improve its capacity for green financing and build experience in data collection on climate change issues.

In the future, the Bank of Ghana intends to incorporate climate-related financial risk into Pillar 2 and 3 of the Basel Regulatory Capital Framework and stress testing.

The Bank also intends to develop specific guidelines on climate-related financial risk management for the banking industry to enhance the sector's resilience to climate change.

### **3.2.2 Banque de la République du Burundi**

Africa is particularly vulnerable to climate change, especially the agricultural sector, which is one of the most affected. The African agricultural sector is also the economic sector of most African countries, and the majority of the African population lives in agriculture. Faced with these changes, the challenges of developing the agricultural sector in Africa, a lever for the continent's economic development, are very critical.

The recent excessive rise in agricultural prices due to climate change has shown that progress in reducing hunger is fragile and that millions of people could quickly fall into food insecurity. It also highlighted the vulnerability of African countries that are overly dependent on agricultural imports, which have been hit hardest by the crisis and have had to lower taxes to limit the impact of price increases.

The main challenges facing African countries in the agricultural sector development include climate change acceleration, access to agricultural finance (hence the role of the financial sector), and the prevalence of subsistence agriculture. Burundi also faces these challenges. As strengths, Burundi and other African countries list a climate that allows a varied range of crops, a dense hydrographic network, a hardworking population, fertile marshes and plains existence, support services for production, and national and regional markets.

The agricultural sector in Burundi is based on the State's policy, the climate, and the country's economy. Agriculture contributes to more than 46 percent of the GDP and is the leading provider of agro-industry raw materials. It occupies 84 percent of the population corresponding to 1,740,546 households (2016-2017 ENAB Report), providing 95 percent of the food supply and more than 80 percent of export earnings.

For a long time, Burundi's agricultural policy has been based on the objectives of food self-sufficiency, improving the population's nutritional situation, and increasing foreign exchange by improving and diversifying exports. It contributes to developing small and medium-sized enterprises in the agricultural, handicraft, and service sectors while reducing pressure on the land.

Burundi's various economic and social development policies have always favored the agricultural sector as the growth engine for other sectors. In this regard, Burundi has adopted this vision: "By 2030, agriculture that respects the environment, guarantees food and nutritional security for the entire population of Burundi and ensures a decent income for sectoral actors" to accomplish

the goal of reaching the "zero hunger" threshold and halving poverty by 2030 (in the context of supporting the National Development Plan: NDP, responding to the SDGs).

### **3.2.3 Banque Centrale du Congo (BCC)**

Since 1997, the Democratic Republic of Congo (DRC) has joined the United Nations Framework Convention on Climate Change (UNFCCC). It aims, among other things, to stabilize greenhouse gas emissions at a level that prevents any disruption of the global climate system. With the end of the commitment period of the Kyoto Protocol, the Paris Agreement was adopted. Its main objective is to keep the global temperature increase "well below" 2° C by striving to limit it to 1.5° C.

In this regard, the DRC is firmly committed to contributing to the achievement of this global objective while taking into account the challenges of modernization and sustainable development, including efforts to adopt a low-carbon development trajectory in the emerging context.

To respond to the call for increased ambition, the DRC has raised its mitigation and adaptation targets and accelerated forestry, land tenure, and land use reforms to effectively contribute to the fight against poverty. Its current target is to reduce its emissions by 21 percent, considering the 'waste' sector, not covered in the first submission, at an estimated total cost of USD 48.68 billion.

Thus, the Banque Centrale de Congo (BCC), as a stakeholder in the implementation of the CND, is striving to green the financial system and assist innovative financing of the agricultural sector.

### **3.2.4 Banco de Moçambique**

#### *A. Overview*

Mozambique is one of the most vulnerable countries in the world regarding climate shocks. According to the African Development Bank (AfDB), Mozambique was ranked, in 2015, as the first most vulnerable to climate change in Africa. On average, at least two cyclones followed by floods hit the country annually, causing tremendous economic losses.

The frequency and intensity of weather events tend to increase the volume of economic losses. For instance, the economic impact of climate change in the economy was USD 1 billion higher in 2019 with the cyclones IDAI and Kenneth than in 2000. The agriculture sector, contributing to 25 percent of the GDP, was the most affected in 2019.

However, the percentage of credit to agriculture remains relatively low, with an average of 2 percent in the past five years, even before the COVID-19 pandemic outbreak period.

#### *B. The Macroeconomic impact of the Climate shocks*

**GDP:** The impact was felt mainly through the agriculture sector. For instance in 2019, cyclone IDAI dragged down the GDP growth rate to 1.8 percent, the lowest rate in the last 20 years.

**Inflation:** The shock in the agricultural sector constrains the food supply leading to inflationary pressure.

**Financial Sector:** From 2019 to 2020, the Non-Performing Loans (NPLs) increased, partially explained by the impact of cyclone IDAI and Kenneth on the company's performance, which was further aggravated by the COVID-19 pandemic.

### *C. Contribution of the Banco de Moçambique on Agricultural Financing and Green Economy*

Beforehand, it is worth mentioning that the Banco de Moçambique's main objective is to ensure price stability. The current Bank Act has no reference to any objective related to economic growth or development.

However, we do have some developmental-related initiatives within the Bank where the Central Bank plays an intermediate role:

- With the financial support of the German Financial Cooperation through the KFW Development Bank, the Banco de Moçambique channels funds to companies through commercial banks. The resources are channelled to Micro, Small, and Medium Enterprises operating in the energy and agricultural sectors;
- Renewable energy and energy efficiency (RE/EE) was the first group of beneficiaries covering 2.869 SMEs with a total amount of EUR 16,7 million (since December 2014); and
- Agricultural sector was the second group of beneficiaries covering 1.414 SMEs amounting to EUR 10,0 million (since December 2014).

### *D. Challenges and Perspectives*

- Understand the Monetary Policy Transmission mechanism to capture the effects of climate shocks;
- Assess correctly the physical and transition risks is paramount to mitigate them;
- Develop macro-prudential tools to capture the climate risks (Stress Test with the component of climate risks);
- Ensuring regional macroeconomic convergence in the context of extreme and unexpected shocks require regional and international cooperation;
- Build a legal framework to promote green transition (promote green financing in the financial sector).

## **4. GROUP SESSIONS**

Delegates deliberated on three topics in the break-out sessions.

### **Break-out session Group I: "Financing the Green Economy and Improving Food Security in Africa: What Mechanisms Should Central Banks Adopt?"**

#### *I. Background*

The issue of climate change has gained global attention, with increasing calls for the transition to a green economy. Africa, as a continent highly vulnerable to the impacts of climate change, is not exempted from this transition. However, financing the green economy in Africa has been identified as a major challenge, with limited resources available to fund such a transition.

Additionally, the continent also faces the challenge of food insecurity, with a large percentage of its population unable to access sufficient, safe, and nutritious food. This challenge has been exacerbated by climate change, which has adversely affected agriculture and food systems in the continent.

Given the role of Central Banks in regulating monetary policies and overseeing financial systems, they have a critical role to play in addressing both challenges. Central Banks can implement mechanisms that help fund the green economy while simultaneously addressing food insecurity.

## **II. Key Issues:**

1. **Climate Change Impacts and adaptation:** Africa is vulnerable to the adverse effects of climate change, including changing weather patterns, recurrent droughts, and floods that pose significant risks to agricultural production. Smallholder farmers, who form the backbone of the continent's food production, are particularly vulnerable to these climate-related challenges. Climate change adaptation includes information support systems, such as climate observation and early warning system.
2. **Renewable Energy Potential:** Africa possesses vast untapped renewable energy resources, including solar, wind, hydro, and geothermal. Transitioning to renewable energy not only mitigates greenhouse gas emissions but also fosters economic growth, job creation, and energy security.
3. **Sustainable Agriculture:** Promoting sustainable agriculture practices can enhance food security, reduce deforestation, and preserve biodiversity. Investing in climate-smart farming techniques, efficient irrigation systems, and crop diversification can improve productivity while minimizing environmental impacts.
4. **Population Growth:** Africa's population is projected to double by 2050, increasing the strain on already limited resources and agricultural production. Ensuring food security is crucial to prevent hunger, malnutrition, and social unrest.
5. **Agricultural Challenges:** African agriculture faces numerous challenges, including limited access to credit, outdated farming techniques, inadequate infrastructure, and post-harvest losses. These factors contribute to low productivity and hinder the development of the agricultural sector.
6. **Pollution prevention and control issues:** These include waste water treatment, greenhouse gases (GHG) control, soil remediation, 3R-based (reduce, reuse, recycle) waste management and waste-to-energy and associated environmental monitoring analysis.
7. **Sustainable management of living natural resources and land-use issues:** These include environmentally sustainable agriculture, fishery, aquaculture and forestry, integrated pest management, weed management and drip-irrigation.
8. **Terrestrial and aquatic biodiversity conservation issues:** These include the protection of coastal, marine, and watershed environments.
9. **Clean transportation issues:** These include energy efficient next-generation vehicles, public transportation, railways, bicycles, non-motorised, multi-modal transportation, infrastructure for clean energy vehicles and reduction of harmful emissions.
10. **Sustainable water management issues:** These include sustainable infrastructure for clean and /or drinking water, sustainable urban drainage systems and river training and other forms of flood mitigation.
11. **Eco-efficient products, production technologies and processes issues:** These include the development and introduction of environmentally friendlier, eco-labelled or certified

products, and packaging using recyclable or renewable resources or other materials that reduce environmental loading.

12. Green buildings issues: These include issues to deal with newly built or renovated green buildings that not only are energy efficient but also address a wide range of issues such as water consumption or waste management in compliance with domestic standards or with an environmental certification that demonstrates a high level of efficiency in the preferred environmental certification system.

### **III. Challenges:**

1. Limited financial resources: Financing the green economy and addressing food insecurity in Africa are hindered by a scarcity of funds. Insufficient financial resources pose a significant challenge to implementing sustainable initiatives and investing in agricultural development.
2. Inadequate infrastructure: Lack of robust infrastructure, including transportation networks, irrigation systems, and storage facilities, hampers agricultural productivity and market access. Inadequate infrastructure inhibits the efficient distribution of food and impedes the growth of the green economy.
3. Weak institutional capacities: Many African countries face challenges related to weak institutional capacities, including limited technical expertise, regulatory frameworks, and governance structures. Strengthening institutional capacities is vital for effective implementation, monitoring, and evaluation of policies and programs targeting the green economy and food security.
4. Competing development priorities: Limited resources and attention are allocated to addressing the green economy and food insecurity, leading to a lack of sustained investment and progress in these areas.
5. Balancing traditional monetary policy objectives with sustainability: Central Banks traditionally focus on maintaining price stability, managing inflation, and fostering economic growth. Incorporating sustainability goals and green finance into their mandates requires Central Banks to strike a balance between these objectives, which may involve navigating trade-offs and adjusting their policy frameworks.
6. Limited access to technologies that are climate friendly.
7. Political will to implement initiatives to fight climate change.

### **IV. Recommended Mechanism**

1. Monetary Policy Instruments: Central Banks should employ monetary policy tools such as interest rates, reserve requirements, and open market operations to incentivize investments in the green economy. By providing favorable financing conditions for green projects, Central Banks can steer capital towards sustainable initiatives.
2. Amendment of Central Banks primary legislations to include a development function or mandate and relevant secondary legislations and their implementation instruments (such as appropriate structures and tools e.g. Special Purpose Vehicles or units within the Central Bank). This will allow direct intervention of the Central Banks to development initiatives such as green and sustainable finance aimed at reducing food insecurity.

3. Central Banks should develop strategies and regulatory frameworks for financial inclusion and sustainable finance that include supporting micro, small and medium enterprises access to financial and non-financial services, sustainable finance for green economy, food insecurity and to reach sustainable development goals.
4. Green bonds, green loans, green insurance and other financial instruments: Central Banks can encourage the development of green bonds, green loans and green insurance guidelines designed to attract global funds for environmentally friendly projects and minimize environmental destruction and emissions of greenhouse gases (GHGs).
5. Sustainable Banking Guidelines: Central Banks should develop and implement guidelines that promote sustainable banking practices. These guidelines may include incorporating environmental and social risk assessments into lending decisions, setting sustainability targets, and encouraging the adoption of sustainable finance principles by commercial banks.
6. Financial Innovation, Research and Data: Central Banks can support research and development in green finance and encourage financial innovation. This can involve (i) exploring new financial instruments, (ii) fostering partnerships with academia and industry experts, (iii) providing funding for green technology research and development, and (iv) exploring partnerships with commercial banks on how to manage agricultural portfolios.
7. Agricultural Financing: Central Banks should develop targeted financing mechanisms to support smallholder farmers and agricultural enterprises. This can include providing credit facilities/guarantees, reducing interest rates, etc.
8. Green Microfinance: Central Banks should encourage the establishment of green microfinance institutions that provide small-scale loans to farmers and rural communities for climate-smart agriculture, renewable energy solutions, and sustainable land management practices.
9. Financial Inclusion: Central Banks should promote financial inclusion by expanding access to financial services in rural and marginalized areas. By improving financial literacy, facilitating mobile banking solutions, and supporting community-based financial institutions, Central Banks can empower individuals and communities to invest in sustainable agricultural practices.

### **Break-out session Group II: "Food Security and Inflation in Africa: Overview, Challenges, and Prospects"**

#### **Overview of Food security and inflation in Africa**

Food insecurity and inflation are two reinforcing critical issues confronting many countries in Africa. Based on the 1996 World Food Summit, food security is achieved when all people, at all times, have physical and economic access to sufficient safe and nutritious food that meets their dietary needs and food preferences for an active and healthy life. In this case access embodies four dimensions which are physical availability of food in terms of supply, economic and physical access to food including price and income affordability, food utilisation including intake of right nutrient, and stability (available all the time).

The link between food security and inflation is bi-directional. Most African countries are heavily dependent on agriculture, which accounts for more than 30 percent of GDP. Similarly, food item

prices constitute the biggest component of the CPI basket in Africa with most countries accounting for over 50 percent, as such the increase in food inflation due to food unavailability as a result of climate shocks would threaten the Central Banks' mandate of ensuring price stability. Food insecurity also increases inflation volatility in Africa. What is critical for Central Banks is, therefore, how to achieve price stability. On the other hand, the increase in prices would also erode the purchasing power of people, therefore, worsening food security. Importantly, inflation can erode the purchasing power of incomes leading to increased poverty and food insecurity.

In addition, the availability of food or increased food security also assist in dealing with external food supply shocks.

Overall, food insecurity has a significant impact on inflation. Central Banks should worry about food inflation.

### **Challenges of food security and inflation**

The challenges are both internal and external:

1. Unavailability of adequate and reliable data on climate-related issues is crucial for monetary policy decisions.
2. Limitation of monetary policy tools to address structural supply-side issues impact on Central Bank ability to address food inflation.
3. Persistent domestic and external shocks have curtailed the Central Banks' ability to moderate liquidity injections which have compounded the inflation pressures.
4. How can Central Bank deal with the policy dilemma of easing monetary policy in light of climate shocks and sustaining financial system stability and moderate inflation in the medium term.
5. Central Banks are faced with the criticism of adopting quasi-fiscal (unorthodox) monetary policy tools which has worsened the collaboration between fiscal and monetary authorities in addressing inflationary pressures.
6. Inadequate in-house expertise in Central Banks on modelling and forecasting climate related implications on monetary and financial stability.
7. Central Banks inability to achieve macroeconomic convergence in the face of increased climatic shocks.
8. Challenges of inflation measurement – how do we measure and publish inflation – most done every month. CPI basket outdated for most African countries.
9. What Central Banks can do to mitigate the impact of climate shocks?

### **Recommendations**

1. Central Banks should build capacity through training of staff to properly compile and analyze climatic data and embed same in Central Bank models and forecasting frameworks.
2. Central Banks should make innovative use of conventional and unconventional policies tools dealing with climate-related shocks including supporting the highly vulnerable sectors.
3. Central Banks should be more proactive rather than reactive, including providing framework for financial institutions to provide adequate capital buffers to withstand climate shocks.
4. Central Banks should adopt evidence-based decision processes in dealing with conflicting policy choices (costs - benefits analysis).

5. Central Banks should strengthen coordination with the fiscal authorities in dealing with climate shocks. This includes clear exit strategies for Central Bank interventions to address shocks.
6. Central Banks should adopt sustainability standards on climate change.
7. Central Banks should be more active in promoting financial inclusion for financial vulnerable groups including farmers to promote food security.
8. Central Banks should encourage financial sector participation in establishing development finance institutions, particularly agriculture bank and investment in green bonds or other climate related instruments.

### **Break-out session Group III: "Contribution of The Financial Sector to The Recovery of The Agricultural Sector in Africa"**

#### **1. Introduction**

The financial sector can be categorized into two - bank and non-bank financial institutions. Banking institutions are made up of the Central Banks, commercial, rural, and development banks. Non-bank financial institutions consist of development finance institutions, some microfinance institutions, savings and credit societies, FinTechs, investment houses, consumer finance companies, mortgage lenders, insurance companies, pension trusts, venture capital trusts, leasing, and factoring companies, among others.

Agriculture is the cultivation of the soil, growing crops and raising livestock. In Africa, this sector is largely dominated by small scale actors; it is subsistent, and rain dependent. Agriculture contributes roughly 33 percent of Africa's GDP and employs about 50 percent of its population, making it the mainstay of many households.

In Africa, the top financiers of the agricultural sector include banks (universal and rural), Development Finance Institutions, and Microfinance Institutions. Bank lending to agriculture in Africa is estimated at less than 3 percent of total lending. This financing is primarily to agri-MSMEs (aggregators and local processors) active in structured value chains and post-harvest handling, export-oriented and cash crops (e.g., coffee, cocoa, maize, and rice). Currently, financing to the Agric sector is largely characterized by short to medium term loans which are collateralized, with commercial rates at high double digits. At the farmer level, small holder farmers receive their financing predominantly from value chain actors and community-based financial institutions. The biggest gap in Agriculture financing experienced at the preharvest stage.

#### **2. State of the problem**

Overall, food production in Africa must increase by 70 percent to feed an estimated population of 2.5 billion by 2050. However, there is a significant annual financing need for the sector which is estimated at USD 144 billion with only 19 percent covered. The gap of 81 percent (USD 116 billion) is primarily driven by:

- Perception that agriculture is high risk, costly and not profitable;
- Systematic risks (e.g. weather, environmental, market risks);
- Informalities;
- Farmers with limited collateral;
- Many farmers operating in unstructured value chains;
- Lack of adequate infrastructure and access to the range of inputs required by farmers;
- Information asymmetry among stakeholders;



- Knowledge gaps, including financial literacy, and the lack of reliable data; and
- Limited understanding of financial institutions in the nature of the agriculture sector.

### **3. Interventions by African Countries**

Actions undertaken by countries to address the challenges of the Agric sector include the following:

#### **Access to Finance**

- Establishment of development banks to finance the agriculture value chain e.g. the Development Banks in Ghana and Nigeria;
- Establishment of rural banks to support rural agriculture, for example, Ghana;
- Risk sharing / guarantee schemes to help banks and other finance institutions finance the agriculture value chain. For example, the GIRSAL of Ghana, NIRSAL of Nigeria, and the refundable green credit guarantee schemes of Burundi;
- Provision of funds for agriculture financing through the commercial banks, for example in the case of Mozambique, Uganda, and Egypt;
- A ware-house receipt system to improve collateral availability to farmers for access to credit purposes. This is the case of Ghana and Uganda.

#### **Capacity Building**

- Working with donors to build capacity of bank staff to gain better understanding of the agric sector and credit delivery to that sector;
- Improvement in the capacity of bank staff on the agriculture sector through the training arm of Central Banks. For example, in Egypt there is a dedicated training for bank staff on agric financing issues pertaining to business development, risks assessment, etc.;
- Establishment of business development service centres to provide non-financial services to the agric value chain. The role of these centres is to advise on suitable financing schemes and improve financial literacy (e.g., preparation of accounts, bookkeeping), moving from informalities to formalities, etc.

#### **Other Enabling Environments**

- Incentivizing the agric sector through schemes like export promotion, taxation, and the enhancement of the regulatory environment;
- Availability of collateral registries and credit reference bureau in some African countries.

### **4. Recommendations and Conclusions**

#### **Central Bank**

- Use the Basel capital framework to incentivize banks by giving lower-risk weights to loans to the agric sector without compromising financial system stability;
- Use the Basel capital framework to incentivize banks by giving zero-risk weights to exposures to the agric sector guaranteed by government;
- Where government is unwilling to grant concessionary loans, Central Banks can grant loans to commercial banks for on-lending the agric sector at concessionary rates;
- Central Banks should direct commercial banks to lend a minimum of 5 percent of banks' portfolio to the agric sector, where feasible;

- Exposures to the agric sector guaranteed by multilateral development banks to the agric sector in accordance with Basel may be given a zero-risk weighted; and
- Training centres of Central Banks should be encouraged to provide agric sector specific training to staff of banks and other financial institutions to help improve understanding of and facilitate lending to the sector.

### **Central Bank and Government**

- Address constraints to financial inclusion by increasing access to financial services through the means such as the use of FinTechs, mobile payments, increased savings, provision of insurance and enhanced financial literacy;
- Provide funding at concessionary rates through commercial banks for on-lending the agric sector;
- Put in place a de-risking system such as the risk sharing / guarantee schemes and trust funds currently in place in Ghana, Nigeria, Uganda, Egypt, and Burundi;
- Put in place a ware-house receipt system to improve the collateral availability to farmers for access to credit purposes;
- Establish collateral registries and credit reference bureau to ease provision of collateral and credit to the agricultural sector;
- Encourage the use of unconventional collateral such as pledges of future production, contract farming, social capital, etc.;
- Establish business development centres to provide services to the agric value chain. The role of these centres would include advising on suitable financing skills and improving (preparation of account, book keeping and moving from informality to formality, etc.).

### **Government**

- Facilitate the formalization and commercialization of farming practices to adapt to the changing environment (e.g. formalization of the land ownership system, employ advanced irrigation systems);
- Facilitate the organization of farmers into associations to help improve knowledge sharing, access to extension services and markets, etc., and ultimately increase productivity;
- Establish institutions dedicated to the funding of the agriculture sector as in Egypt and Burundi.

### **Financial Institutions**

- Financial institutions should be encouraged to diversify their credit portfolio into new, underserved segments, particularly, to the agric sector. This could be executed through stronger market presence in rural areas through strategic alliances with aggregators and/or deployment of distribution channels such as rural banks and microfinance institutions;
- Leverage the experience of Pan-African banks to transfer knowledge and experience on agricultural financing.

**Others involving multiplicity of stakeholders**

Improve technology innovations to improve data generated from various types of digital tools and platforms (phones, satellites, remote sensing). This can provide better opportunities to agribusinesses, as well as provide more comfort to service providers.

**Done in Yaounde on May 17, 2023**

**LIST OF PARTICIPANTS**

| <b>N°</b> | <b>Name</b>                             | <b>Position</b>                                    | <b>Institution</b>  |
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