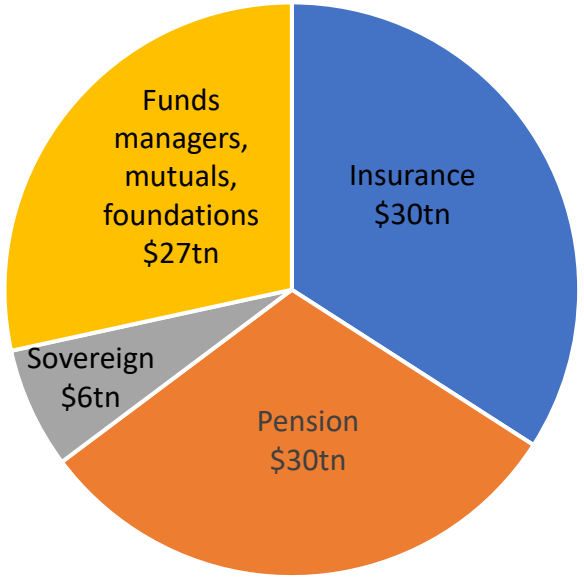
Green Bonds: An Opportunity for Agribusiness

Nigeria Green Bond Market Development
FMDQ

Justine Leigh-Bell, Deputy CEO, Climate Bonds Initiative

We have the capital and it wants green



Developed by the following groups

GLOBAL INVESTOR STATEMENT ON CLIMATE CHANGE

This statement is signed by 404 investors representing more than US $24 trillion in assets.

We, the institutional investors tha
change presents to our investme
finance the transition to a low ca
climate change.

We are particularly concerned th
policies will increase the risks to
will increase the likelihood that m
emissions. In turn, this could jeop

There is a significant gap betwee
a low carbon and climate resilient
current investments in clean ener
Agency has estimated that limitin
industrial levels requires average a
between now and 2050.

This Statement sets out the cont
climate resilient investments. It o
increased through appropriate go

Stronger political leadership and
investments. We believe that wel
significantly more in areas such a
resilient development, thereby be

HOW WE CAN CONTRIBUT

As institutional investors and con

- **Work with policy makers** to
measures that encourage cap
economy and encourage inve
- **Identify and evaluate low ca**
consider investment vehicles
- **Develop our capacity to asse**
climate policy to our investme
investment decisions.
- **Work with the companies in**
risks and maximising the oppo
- **Continue to report** on the ac
climate risk and investing in a
adaptation.

2018 GLOBAL INVESTOR STATEMENT TO GOVERNMENTS ON CLIMATE CHANGE

This statement is signed by 415 investors representing over USD $32 trillion in assets.

As institutional investors with millions of beneficiaries around the world, we reiterate our full support for the Paris Agreement [link] and strongly urge all governments to implement the actions that are needed to achieve the goals of the Agreement, with the utmost urgency.

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9 DECEMBER 2015

FROM INVESTORS REPRESENTING US$11.2 TRILLION

The Paris Green Bonds Statement

We, the undersigned signatories to this statement, represent asset owners, investment managers and individual funds **managing a combined US$11.2 trillion of assets**. We are substantial investors in the US$100 trillion global bond market.

We understand:

1. That **climate change poses a significant risk** to societies, economies, and to the investments we make on behalf of our beneficiaries around the world.
2. That **the response to climate change requires substantial investments** in areas such as clean energy, low-carbon transport, water infrastructure; and in adaptation measures for communities and to improve existing infrastructure. It requires a rapid transition to a low-carbon and climate resilient economy.
3. That a large proportion of the mitigation and adaptation **solutions required can be structured as investible assets** that will suit the

We encourage, in order to scale up investment in green bonds, climate bonds and other bonds financing mitigation of and adaptation to climate change that meet our risk and return requirements as institutional investors:

1. **Governments to act** through policy, regulation, risk mitigation, guarantees, tax credits and other mechanisms to support the issuance of bonds that both address climate change and allow us to meet our obligations to our beneficiaries.
2. Experts in low carbon and climate resilient investments to develop **clear and independent industry standards** for the climate change impacts and benefits of bond financed projects, noting that they need to be sufficiently ambitious to meet emissions reduction and adaptation challenges, while being technologically and economically feasible.
3. Issuers to ensure **transparency around the use of proceeds and their impact**, and for corporate issuers to have credible independent reviews of the environmental credentials of climate bonds and green bonds and confirmation of the assets use of proceeds and resulting climate benefits.

SIGNATORIES

ACTIAM — Jacob de Wit, CEO
Addenda Capital — Brian Minns, Sustainable Investing Specialist
Affirmative Investment Management — Stuart Kinnersley, CEO & Co-Founder
AllianceBernstein — Peter S. Kraus, Chairman and CEO
Allianz Global Investors — Franck Dixmier, Global CIO Fixed Income
Amundi Asset Management — Bernard Carayon, Deputy CEO
APG Asset Management — Herman Slooijer, Managing Director Global Credits
AP1/Första AP-Fonden — Mikael Angberg, CIO
AP2/Andra AP-Fonden — Ulrika Danielson, Head of Communications
AP3 /Tredje AP-fonden — Peter Lundkvist, AP3 Head of Corporate Governance
AP4/Fjärde AP-Fonden — Arne Lööw, Head of Corporate Governance and Dr Ulf Erlandsson, Senior Portfolio Manager Credit
Aviva Investors — Dr Steve Waygood, Chief Responsible Investment Officer
AXA Investment Managers — Andrea Rossi, CEO
BlackRock — Kevin Holt, Co-head of Americas Fixed Income
BNP Paribas Investment Partners — Helena Viñes Fiestas, Head of Sustainability Research
California Teachers' State Retirement Systems (CalSTRS) — Jack Ehnes, CEO
Calvert Investments — Bennett Freeman, Senior VP, Sustainability Research and Policy
F&C Investments — Vicki Bakhshi, Head of Governance and Sustainable Investment
Legal & General Investment Management — Meryam Omi, Head of Sustainability

What are Green Bonds?

Proceeds to green	• "Vanilla" structures and terms • Comparable pricing • Refinance as well as project • 90% investment grade
Reporting	• Transparency to the green assets or projects • Independent review / verification • Reporting on use of proceeds
Any entity	• Governments & Development Finance Institutions • Corporates • Asset owners: PPPs, banks, utilities, etc • Municipalities

Climate Bonds INITIATIVE

Benefits of green labelling for issuers

- **Investor diversification** – low-carbon integrity of the bond attracts a much broader base of investors
- **Lower cost of capital** – green bonds enable issuers to raise large amounts of capital to support environmental investments that may not otherwise be available or may have been funded using expensive capital
- **High oversubscription** – strong demand for green bonds generally outstrip supply
- **Stickier Pool of Investors** – Green Bond Investors invest to the long term, matching maturity with project life
- **Tighter yields** – there is a view that stronger pricing will be achieved for future green bond issuance
- **Green flavor** – enhances issuer reputation

Strong growth continues

USD171bn in 2018

USD 257bn in 2019

Cumulative issuance to date: USD705bn

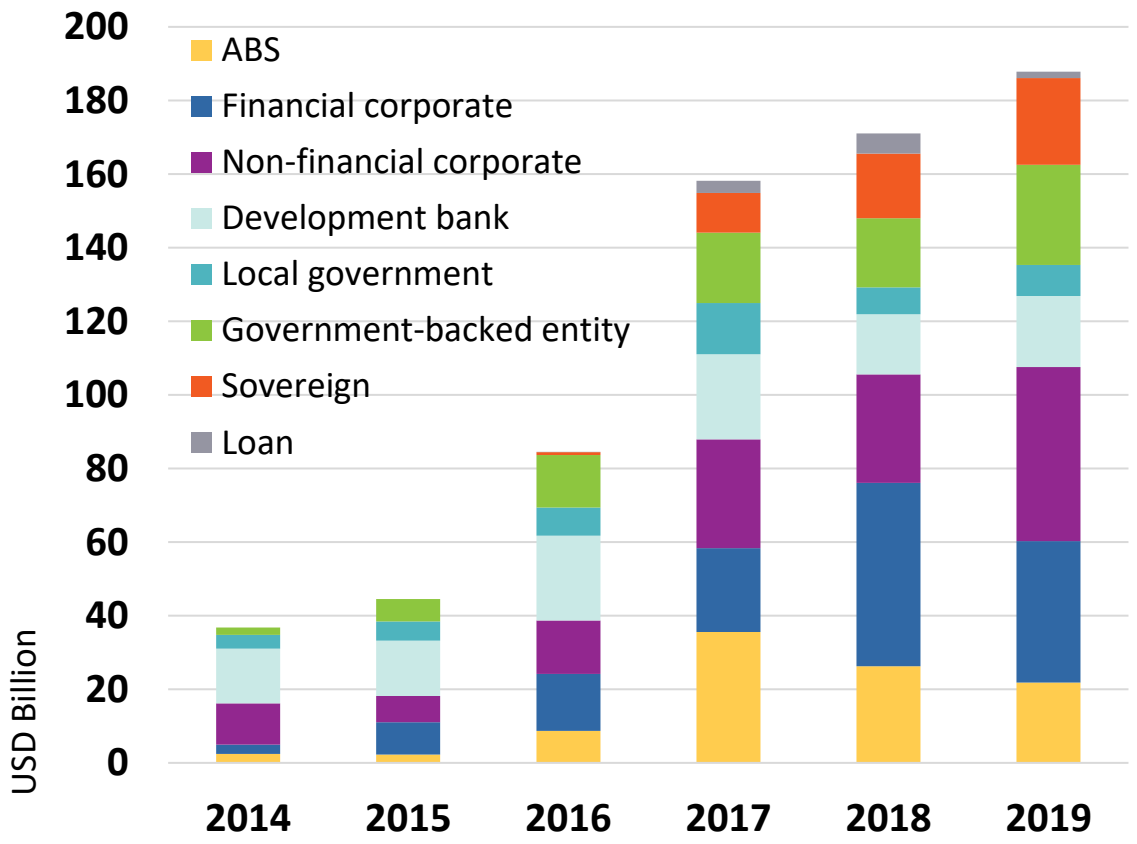
56 countries now

4 new markets in 2019: Russia, Barbados, Panama and Kenya

822 issuers to date

- **165 debuts in 2019**
- **222 debuts in 2018**

Green bonds by issuer type



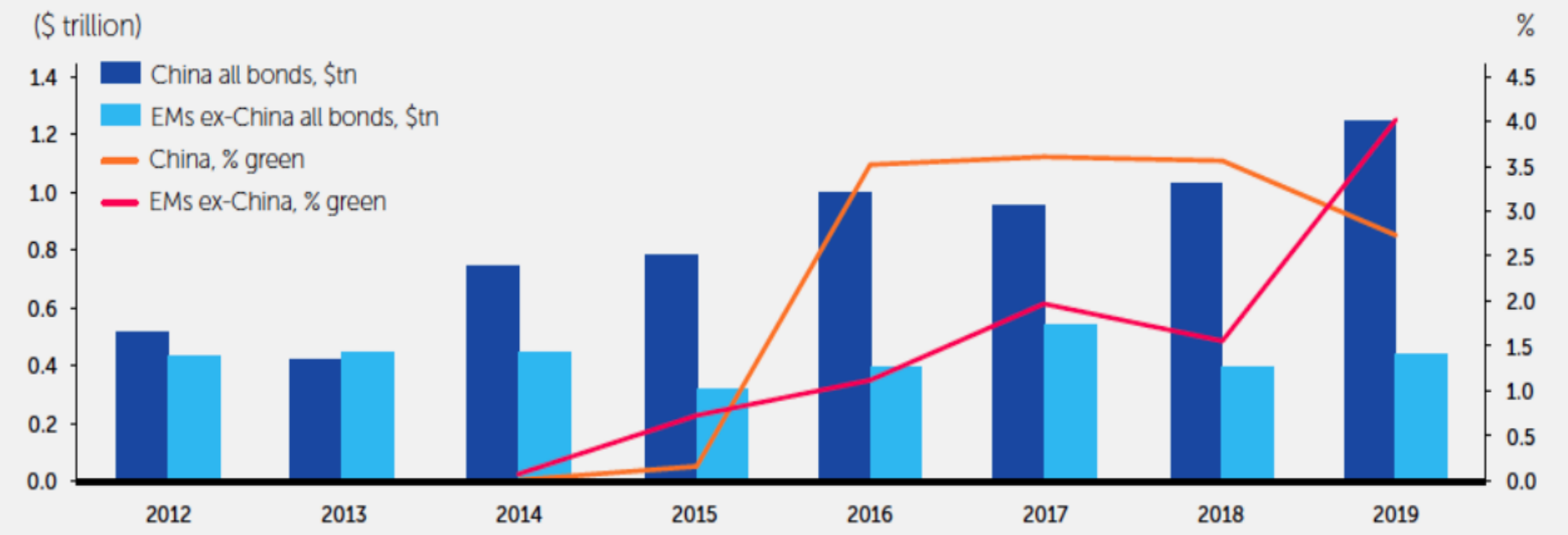
Source: Climate Bonds Initiative. Data as of 30 Sept 2019.

Climate Bonds INITIATIVE

Green Bond are building momentum in Sub-Saharan Africa

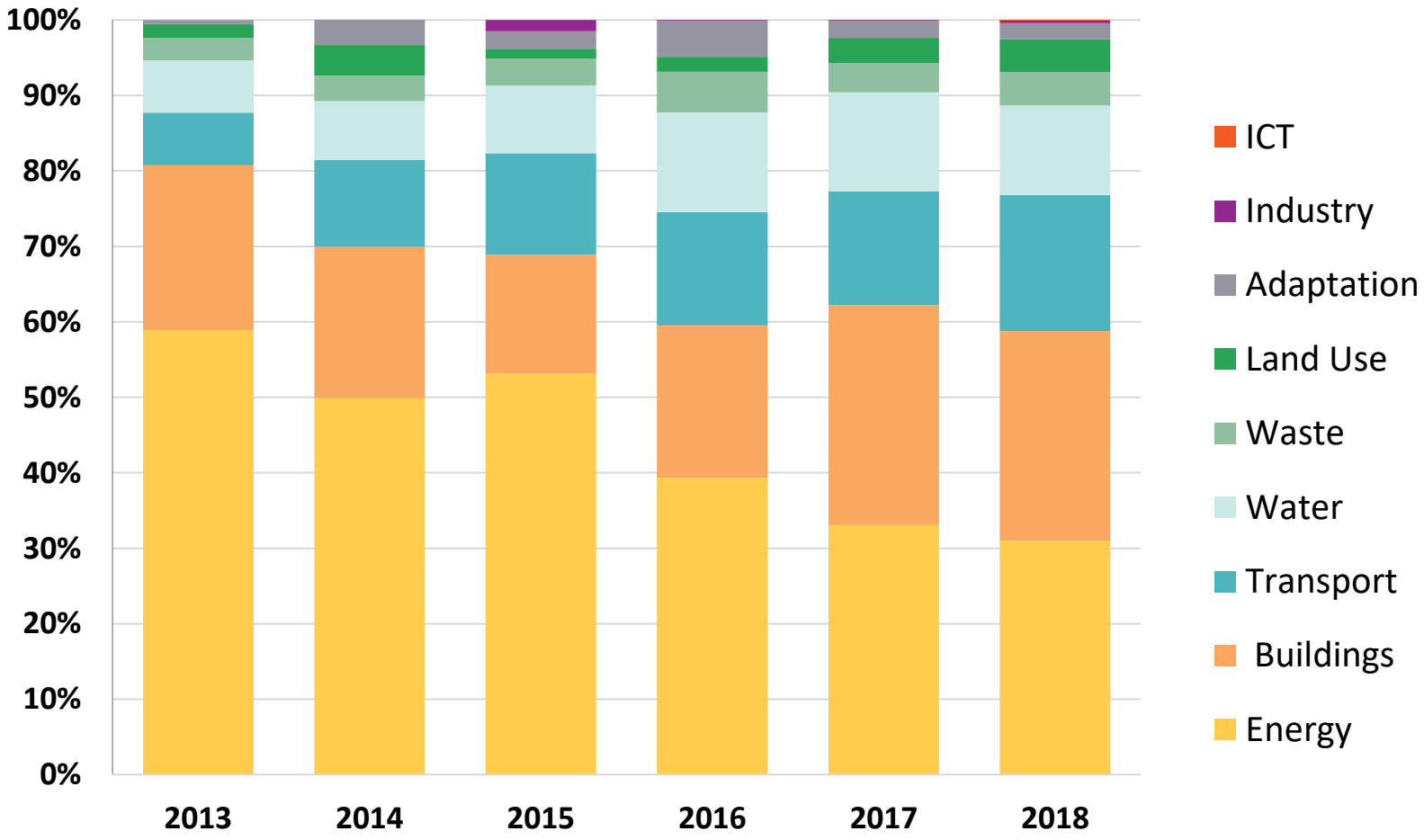
- Nigeria has led the way in taking steps to develop a green bond market
- Kenya issued it's first green bond in 2019
- South Africa has issued green bonds at city level

Figure 4 - Emerging Market Green Bond Issuance, 2019



Source: IFC Global Macro & Market Research, Bloomberg, Dealogic, Environmental Finance, Climate Bonds Initiative.

Green bonds: Use of proceeds is diversifying



Climate Bonds INITIATIVE

Rules for labelling Green Bonds

The Green Bond Principles 2017

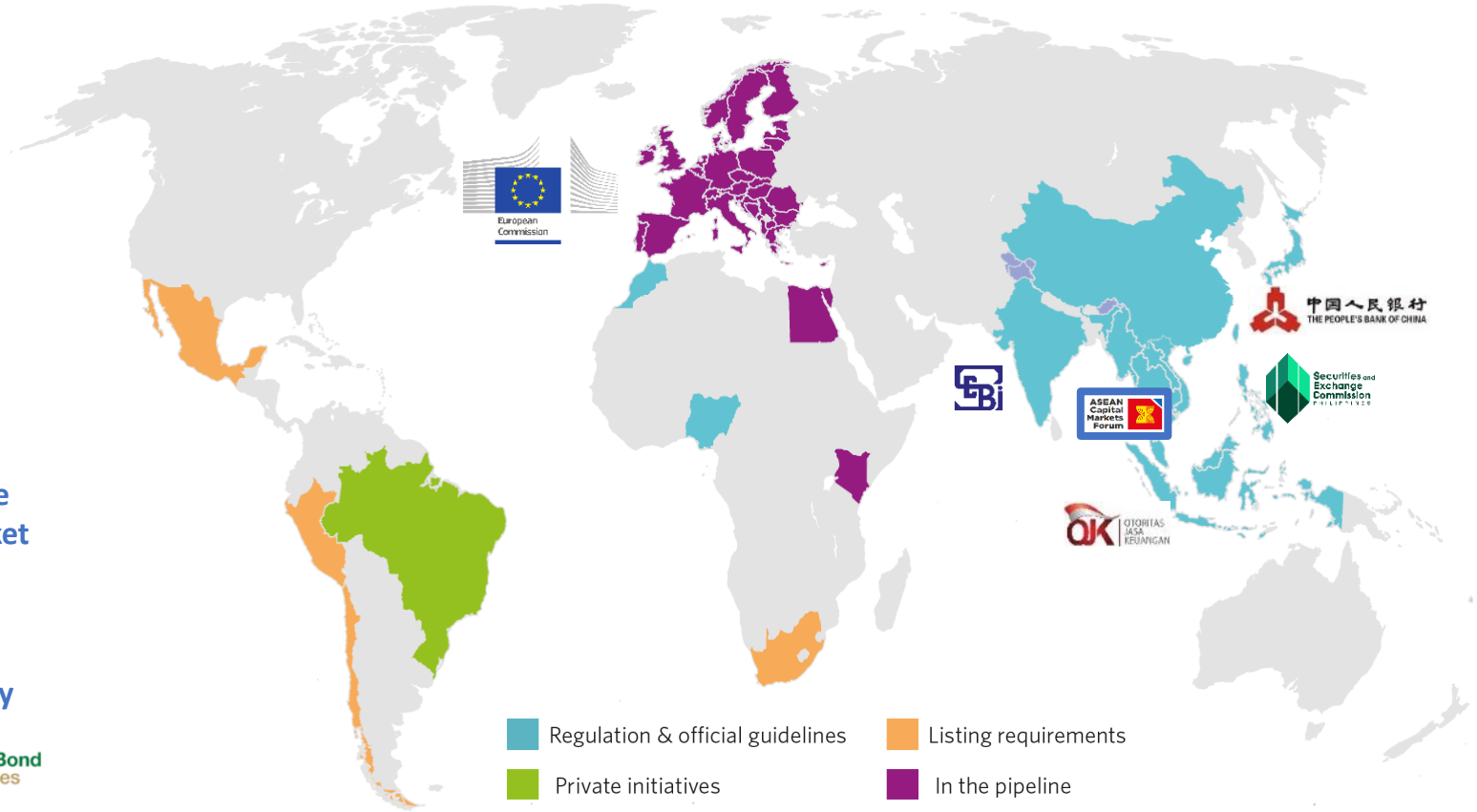
- Use of proceeds
- Management of Proceeds
- Reporting
- External review

Climate Bond Certified

Climate Bonds INITIATIVE

Consistent rules support market growth

Regulators now providing guidance



Voluntary rules drove early market growth, allowed global consistency

The Green Bond Principles 2017

Climate Bond Certified

G20 2016 CHINA

TCFD TASK FORCE ON CLIMATE-RELATED FINANCIAL DISCLOSURES

NGFS Central Banks and Supervisors Network for Greening the Financial System

Labelling the bond “green”

Steps for issuing a green labelled bond

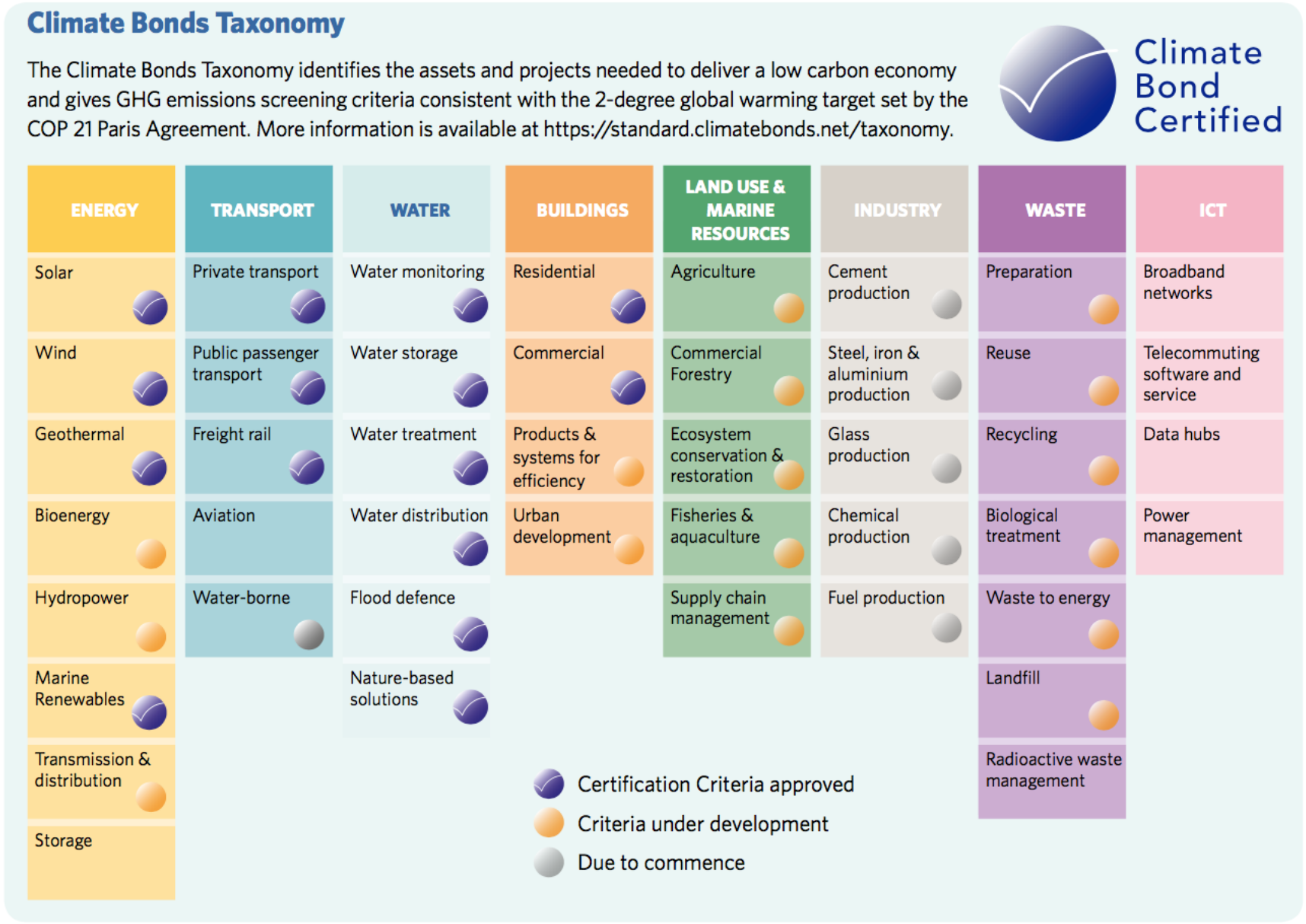
- Define Green Bond Framework
- Identify projects and assets to be associated with the bond
- Put in place project selection process and select eligible projects
- Set up accounts and process to earmark and allocate proceeds
- Get pre issuance external review
- Prepare roadshow materials and bond documents for green label

GREEN BOND FRAMEWORK

The issuer of a Green Bond needs to have an internal document called a "**Green Bond Framework**", which lays out the following information:

- Environmental objectives of the Green Bond (or Bonds)
- Selection process for eligible projects & assets to be funded by the bond proceeds
- Internal procedures to meet the requirements in the Standard, such as management of proceeds, use of unallocated proceeds, and regular reporting which the issuer will provide
- Sign off processes so that there is appropriate internal endorsement of the information contained in the reports.

Climate Bonds Taxonomy



Sector	Projects and Assets	Category	Criteria
Production Technologies	No-tillage planting	Production	Agriculture
	Biological Nitrogen Fixation	Production	Agriculture
	Integrated Crop – Livestock – Forestry (ICLF)	Production	Agriculture
	Biological Pest Control	Production	Agriculture
	Precision Agriculture	Production	Agriculture
	Irrigation / Water Reuse Systems	Production	Water
	Certified Production (e.g. RTRS, Soja Plus, Proterra) / Acquisition of Certified Crops	Industry	Agriculture
	Biological Pest Control	Production/ Industry	Agriculture
	Biofertilizers and Biodefensives	Production/ Industry	Agriculture
	Harvest Mechanization	Production/ Industry	Agriculture
	Monitoring Systems	Production/ Industry	Agriculture
	Wastewater Treatment Station (ETE)	Industry	Water
	Native Forest Restauration	Production	Forestry
	Boiler Exchange (Energy Efficiency) and other energy efficiency measures	Industry	Agriculture
	Georeferencing of Rural Properties, Including Technical and Administrative Expenses Related to the process of environmental regularization	Production/ Industry	Agriculture
	Technical assistance during the project maturation phase	Production/ Industry	Agriculture
	Purchase of inputs and payment of implementation and maintenance services	Production/ Industry	Agriculture
	Purchase, transportation, application and incorporation of agriculture correctives (limestone and others)	Production	Agriculture
	Soil conservation practices	Production	Agriculture
	Purchase of machinery, implements and equipment	Production/ Industry	Agriculture
	Purchase of inputs (e.g. seeds, seedlings, semen, embryos, etc.)	Production	Agriculture
	Services for conversion to certified and/or low carbon agriculture protocols	Production/ Industry	Agriculture

Guidance for Agriculture Sector

AGRICULTURE: from crops to livestock

Avoid or reduce GHG emissions (incl. from inputs) through appropriate management practices.

- Area over which essential management practices* are deployed on the farm (%), OR
- % reduction in GHG emissions (gCO2e) over a period, compared to emissions at the start of that period

Maintain & increase existing CO2 stocks for at least 20 years through appropriate management practices.

- Area over which appropriate management practices* are deployed on the farm (%), OR
- Increasing carbon stock (tC/ha) over a specified period

No conversion of high carbon stock land (as of January 2008) to crop production: *wetlands, continuously forested areas, peatland, highly biodiverse grassland*

FORESTS: afforestation, reforestation, rehabilitation, existing forest management

- Continued compliance with the Sustainable Forest Management requirements, demonstrated & disclosed at 5-year intervals through a forest management plan (or equivalent).
- CO2 stocks increase, above baseline over a period of 20 years, disclosed based on growth
  yield curves in 5 years intervals through a forest management plan (or equivalent

Climate Bonds INITIATIVE

Thank You

Climate Bonds INITIATIVE

Why Capital Markets Matter in Africa

Victor Nkiiri
Senior Capital Markets Specialist

Nigeria Green Bond Programme

11 June 2020

Why Do Capital Markets Matter to Africa?

FINANCE FOR DEVELOPMENT…

Fund global challenges

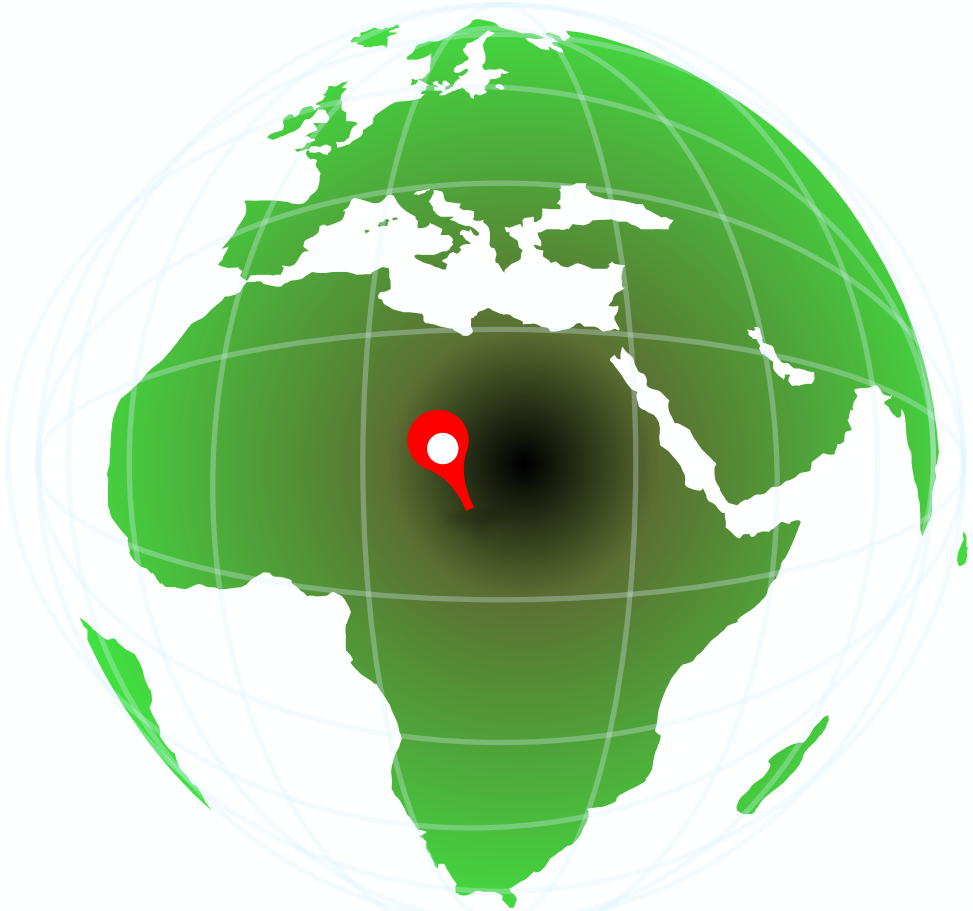
- Climate change
- Urbanization

DIVERSIFICATION…

Diversify financial sector (currently bank-dominated)

LONG-TERM SAVINGS…

Create opportunities for investor base (pensions, insurance, CISs and retail)



INVESTMENT GAPS…

Need for long-term financing for priority sectors such as infrastructure, housing, social sectors (education and health), private sector

RISK MANAGEMENT…

Improved risk management

- Reduced exposure to FX and refinancing risks
- Greater ability to deal with financial crises

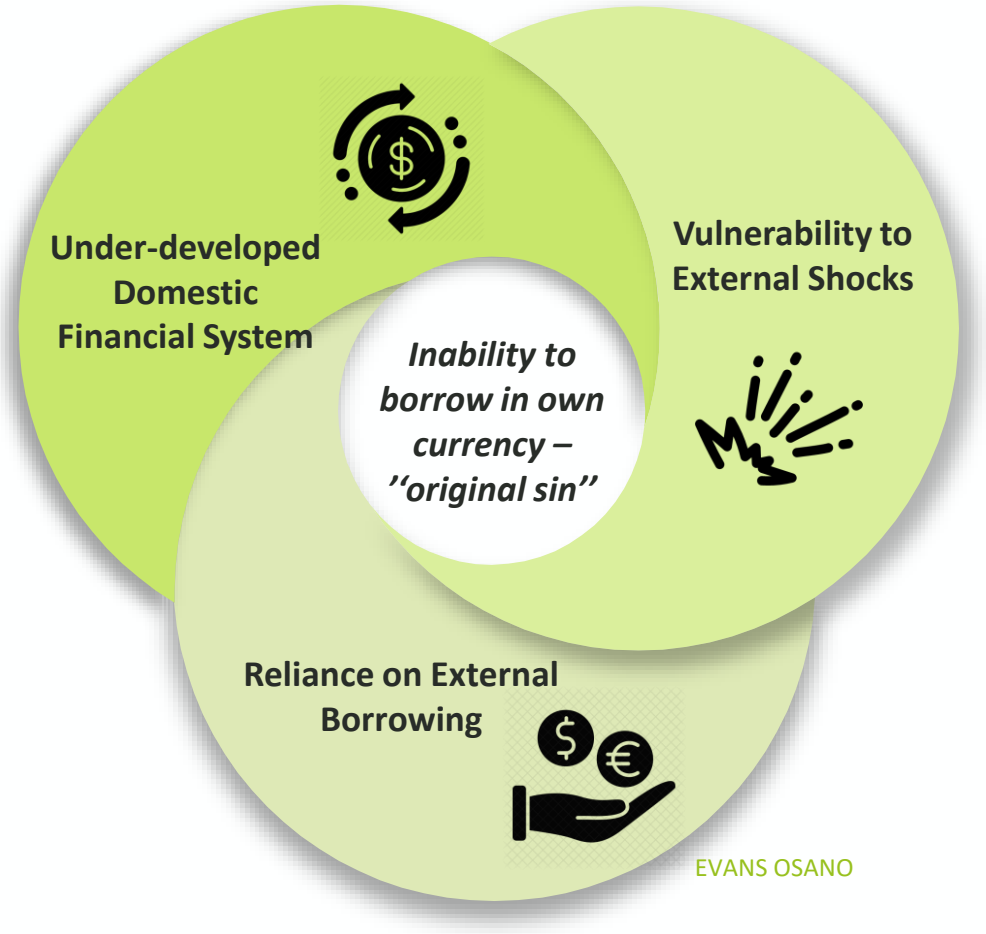
FUNDRAISING PRESSURES…

Expected reduction in concessional lending

- Reduction in donor flows
- Constrained market conditions (Eurobonds)

"Drives long-term, productive investment that can create jobs, and drive inclusive private sector-led growth"

LCBMs Development – Breaking the Vicious Circle



- AU Agenda 2063 focuses on domestic resource mobilization.
- Diminishing traditional financing sources e.g ODA flows.
- Graduation from IDA means greater reliance on commercial financing.
- Unpredictable Eurobond markets.
- Benefits of borrowing in your own currency.

Climate Finance

- Limiting global warming to 1.5°C requires rapid and far-reaching transitions in energy, land, urban and infrastructure (including transport and buildings), and industrial systems.
- OECD estimates annual investment needs of US$6.9 trillion up to 2030 to meet climate objectives.
- Requires mobilization of private and public funds.
- Government policies that reduce the risk of climate-friendly investments and the mobilization of private funds.
- The bond markets through Green, Social and Sustainability Bonds can play an essential role in attracting private capital for climate finance.

Attraction of Green Bonds

Balance financial returns with environmental benefits

Satisfies Environment, Social and Governance (ESG) requirements and green investment mandate

Risk management – enable hedging against climate policy risk/stranded assets

Reputational benefits

Improves transparency and enables deeper engagement with company management

Investors

Issuers

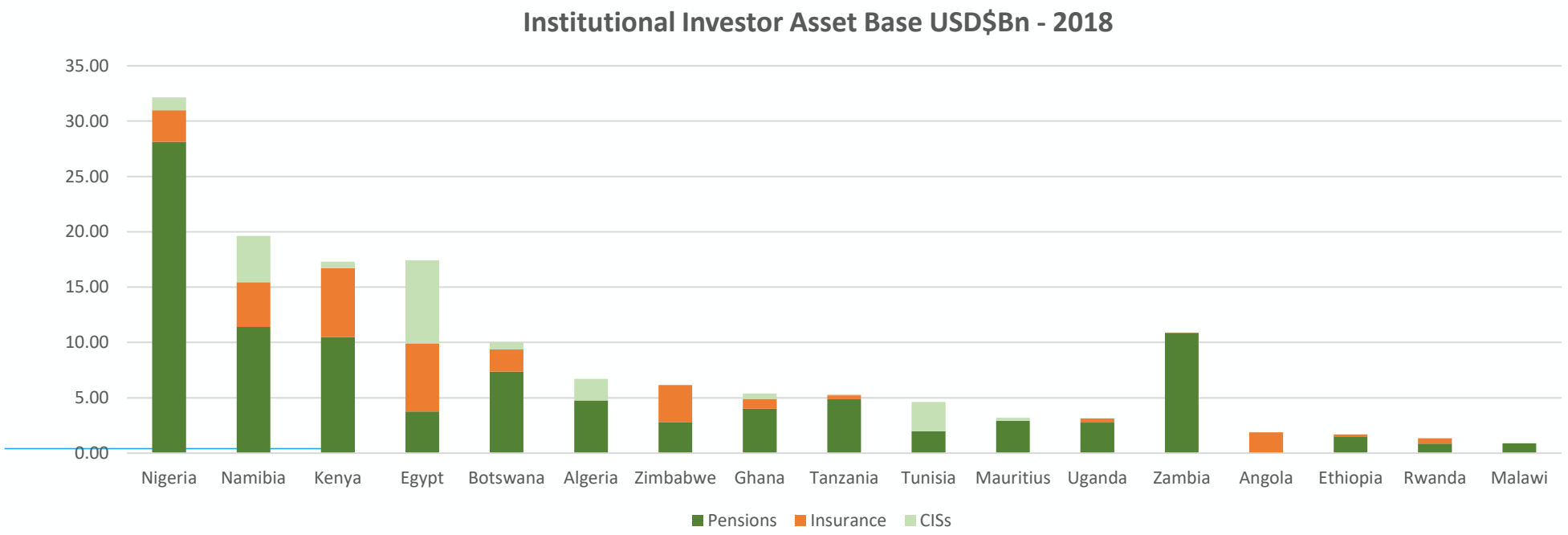
Improves investor diversification

Lower cost of capital – oversubscriptions may tighten yields

Investor engagement & “stickiness” - typically green bond Investors invest for the long term

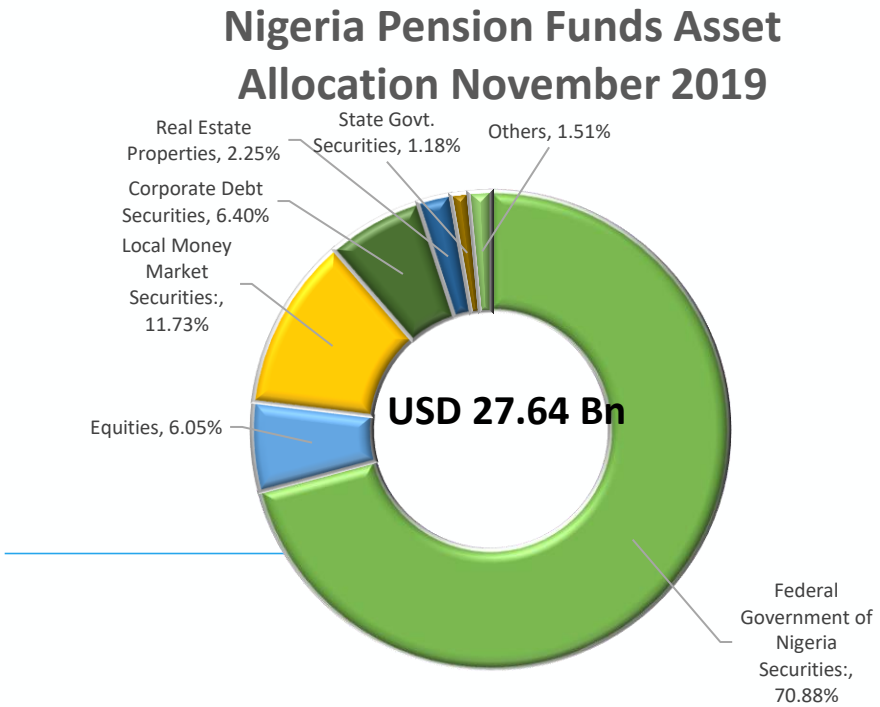
Reputational benefits – showing leadership on sustainability

Investor Base

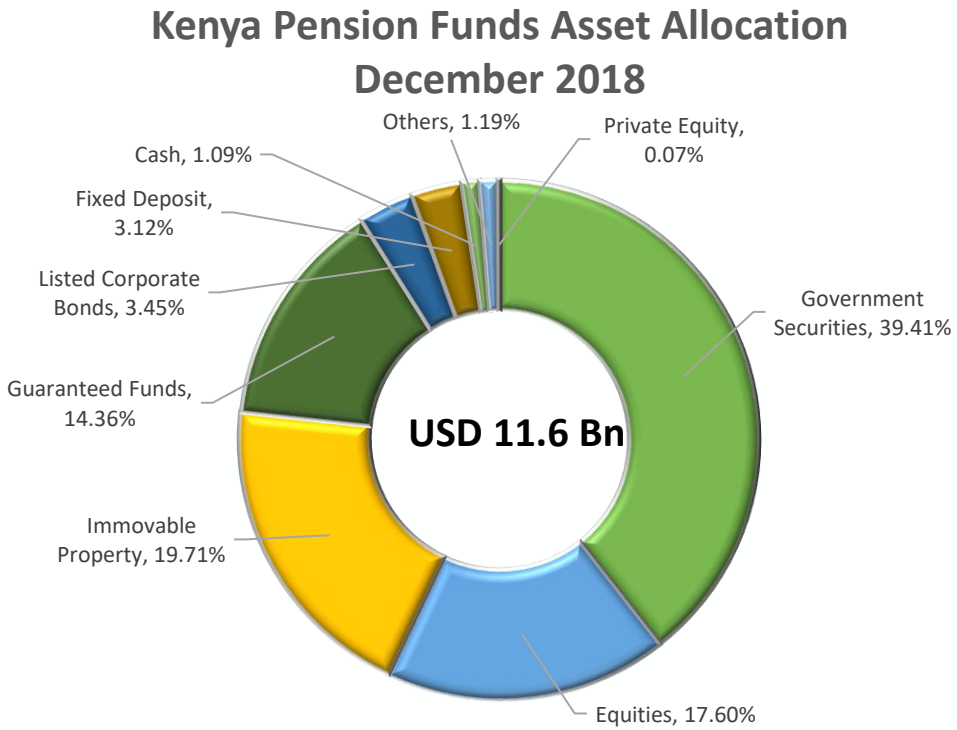


- Local institutional investor base estimated at about US$900 billion in Africa (bulk in South Africa and US$100 billion outside SA)
- Foreign investors now account for over 50% of trading volumes at the Kenya and Nigerian exchanges – UK investors account for 25% of Nigeria & Kenya turnover
- Most funds domestic and foreign unable to find appropriate investment opportunities

Pension Funds Asset Allocation – Nigeria & Kenya



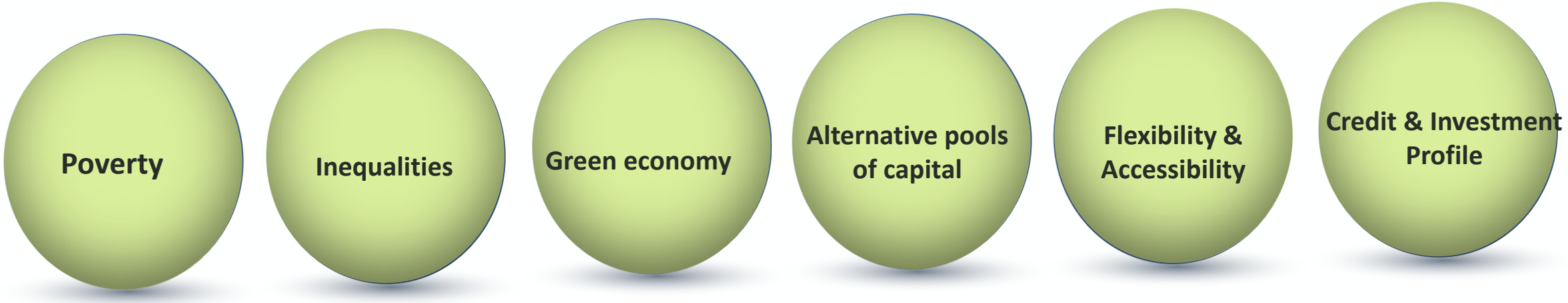
Source: Nigeria PenCom



Source: Kenya RBA

Fixed income securities constitute the bulk of pension assets in Kenya and Nigeria

Merits of Green Bonds



Over 50% of Nigeria population live in poverty and food comprises about three-quarters of consumption basket (NBS).

Increasing inequalities in terms of access to opportunities and low social cohesion. Regional economic imbalances

Challenge of transitioning away form environmental degradation

Access to lager mix of capital from pension funds, insurance companies and HNWI

Access to long-term funds and the presence of an active debt market through FMDQ

Stakeholders perceive better governance and management, access to a broader range of lenders/investors

Some Issues with Green Bonds

Risks

- Risk of green washing – i.e. concerns around refinancing
- Certification – not equivalent to credit quality
- Complex impact reporting – can also be costly particularly for DIBs & SIBs

Costs to Issuers

- Cost of verification/certification
- Pricing – increased demand not fully reflected in the pricing of issues
- Time – verification process imposes additional time to issue
- Small size (non-benchmark) issues – secondary market implications

Reporting

- Lack of standardization in the reporting process

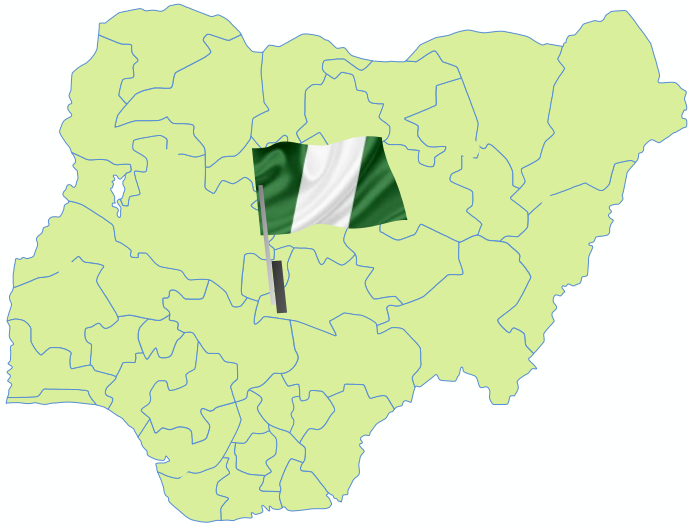
Market Awareness

- Lack of awareness – investors, issuers, intermediaries and regulators

Requirements

- Additional disclosure requirements to conventional bond issues
- Large array of standards and rating tools – can confuse issuers & investors
- Inconsistence on transitional investments i.e. clean coal (China) gas (Nigeria)

Green Bonds Programme Nigeria



NGBP also supported the certification process for the Nigerian Sovereign Green Bond – the first globally

The Nigeria Green Bond Program (NGBP) is focusing on building an ecosystem for green bonds in Nigeria:

- Developing issuance guidelines and listing requirements for Green Bonds in Nigeria (issued by SEC Nigeria)
- Developing a pool of Nigeria-based licensed verifiers (training done)
- Developing a pipeline of green investments and engaging with investors (2 issues: Access Bank, NS Power)
- Developing a debt capital market reform agenda that would support green bonds (In progress)

FSD Africa – Accelerating Inclusive Capital Markets

The FSD Africa team works with its partners in four main ways through a market building approach:

"FSD Africa is different because we are an African, neutral, nimble, risk-bearing, hands-on delivery partner"

Nigeria Portfolio

Name	Description
SEC Nigeria- 2019	Institutional capacity assessment (completed) and capacity strengthening (started with benchmarking visit to Kenya in Jan 2020
Nigeria Green Bond Programme- 2017 (7 SDGs)	Partners: FMDQ and CBI offer TA- pipeline, Verification, rating, financial advisory Issuances: 2 Corporate Green Bonds and 2 Sovereign Green Bonds Policy: Green bonds issuance rules by SEC Capacity: 500 market actors, 15 bilateral
FMDQ- 2018	Institutional capacity assessment (completed)
Chattered Institute of Securities and Investments (CISI)- 2018	Professional Certification in partnership with SEC Nigeria's Capital Markets Development Institute
Money Markets - 2018	Front clear & FMDQ –to develop a Clearing House and develop the interbank market with CBN
Africa Securities Exchanges Association (ASEA) - 2017	Information portal development. Capacity strengthening of the Secretariat (secondment programme with Nigeria Stock Exchange)
Africa Local Currency Bond Fund- 2017	Investment and hand holding: NS Power, Dufil Prima Foods, LAPO Microfinance, Mixta Nigeria,

Thank you

Overview of the Financial Centre for Sustainability (FC4S) Lagos

FC4S Lagos Secretariat

June 11, 2020

FC4S Network Overview

FC4S Network is a collective of 30 international financial centres - with over $61trillion in market capitalisation - working together to achieve the Paris Climate Agreement and Sustainable Development Goals

Members
Currently 30 members, with a diversity of dedicated financial promotional bodies, public-private partnerships, private-sector task forces, government agencies

Objective
To enable financial centres to exchange experience, drive convergence, and take action on shared priorities to accelerate the expansion of green and sustainable finance

Coverage
Concentration of members in Europe and Asia, a strategic focus on Africa and the Americas

Organisation
Partnership between leading financial centres and the United Nations Environment Programme, with its Secretariat headquartered in Geneva

Funding
Supported by governments seeking to promote sustainable finance, foundations and the private sector

Why Financial Centres?

Harnessing the Cluster Effect

Leveraging synergies from concentration of activities: banking, capital markets, investment, insurance, professional services, public finance and regulation.

Driving Competiveness

Sustainability is becoming a key factor determining the competitiveness of financial centres, given its potential for capital formation.

Delivering Policy Goals

Local and national governments are beginning to develop policies that will deliver key environmental, climate and sustainable development goals.

Serving the Real Economy

Sustainable finance offers ways for financial centres to serve a real economy to create jobs and close infrastructure gap.

About the Financial Centre for Sustainability (FC4S), Lagos

About Us

FC4S Lagos was established in 2019 by FMDQ in partnership with UNEP and key stakeholders in the Nigerian financial markets to drive the entrenchment of sustainable finance principles, create awareness on climate change mitigation/adaptation, connect projects that address climate risks with potential investors, advocate for policy incentives and provide access to funding for initiatives that enhance the development of a low-carbon, resilient and inclusive economy in Nigeria

Note: UNEP: United Nations Environment Programme

Corporate Statements

Theme

Inspiring a Greener Nigeria

Vision

To become Africa's leading Financial Centre for Sustainability by 2030

Mission

To position Lagos as a leading market in sustainability principles through investments, innovation, partnerships and capacity development

Core Values (IMPACT)

- Innovation
- Market Development
- Partnerships/Collaboration
- Accountability
- Credibility
- Teamwork

FC4S Lagos – Membership & Partnerships

Membership Structure

Member Institutions

35+

Governance

6

Thematic Areas

4

Projects/Partnerships

3

Source: International Financial Centre for Sustainability,

Climate Change Risks and Agriculture in Africa

Sustainable/Smart Agriculture is vital to mitigating/adapting the risks arising from the impact of climate change on the environment

FC4S African Members

- Morocco
- Egypt
- Nigeria
- Kenya

Climate Change Risks to Agriculture in Africa

- Farmers' yields
- Extreme weather
- Disease and malnutrition
- Water resources
- Energy generation
- Rising sea levels
- Fisheries & Aquatic Life

The Agricultural sector in many countries across Africa is exposed to the dangers of climate change which could reduce annual GDP by between 1% and 6%, increase droughts, floods, heat stress and tropical cyclones, enhance the spread of infectious diseases and exacerbate malnutrition, drastically reduce rainfall (with impact on hyrdro power generation) and threaten life under water due to acidification of aquatic ecosystems

How We Can Help

1

Capacity building and training on sustainable agriculture:

- Ecological farming practices
- Energy conserving practices
- Natural resource optimisation

2

Expand Agricultural Finance:

- Address the issues of high transaction costs and the real and perceived risks of agricultural finance using credit guarantees

3

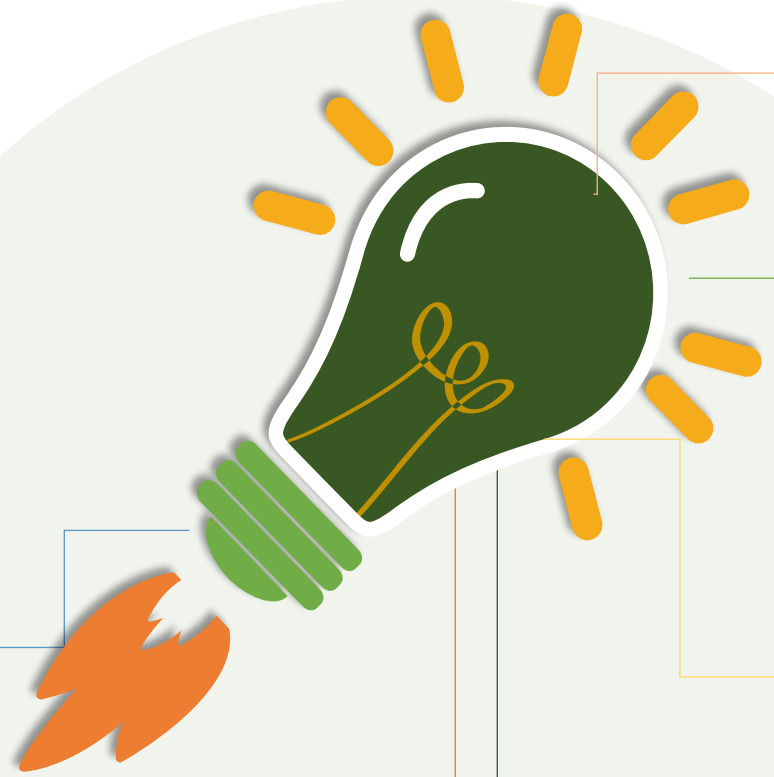
Improved Agribusiness Environment:

- Leverage the comparative advantage of external partnerships with domestic/international organizations and regulatory authorities to address regulatory policy and agri-business barriers

4

Climate Smart Farming

- Precision equipment
- Internet of Things (IoT)
- Sensors and actuators
- Unmanned Aerial Vehicles (UAVs, drones, etc.)
- Vertical farming (Hydroponics, Aeroponics, Aquaponics, etc.)



5

Advocacy on adoption of sustainable finance and inclusive growth:

- Promotion of women owned MSMEs
- Youth participation

6

Awareness on Climate Optimisation:

- Minimise the risks linked to climate variability (drought and flooding**)**

7

Nexus for Projects and Investments:

- Connecting investment ready agriculture infrastructure projects to funding sources
- Formulating strategies that increase investments in hard and soft agric infrastructure

8

Enhance Visibility and Regional Integration:

- Leverage on regional FC4S network to enable access to African markets to enhance distribution and supply chain benefits

9

Network Effect

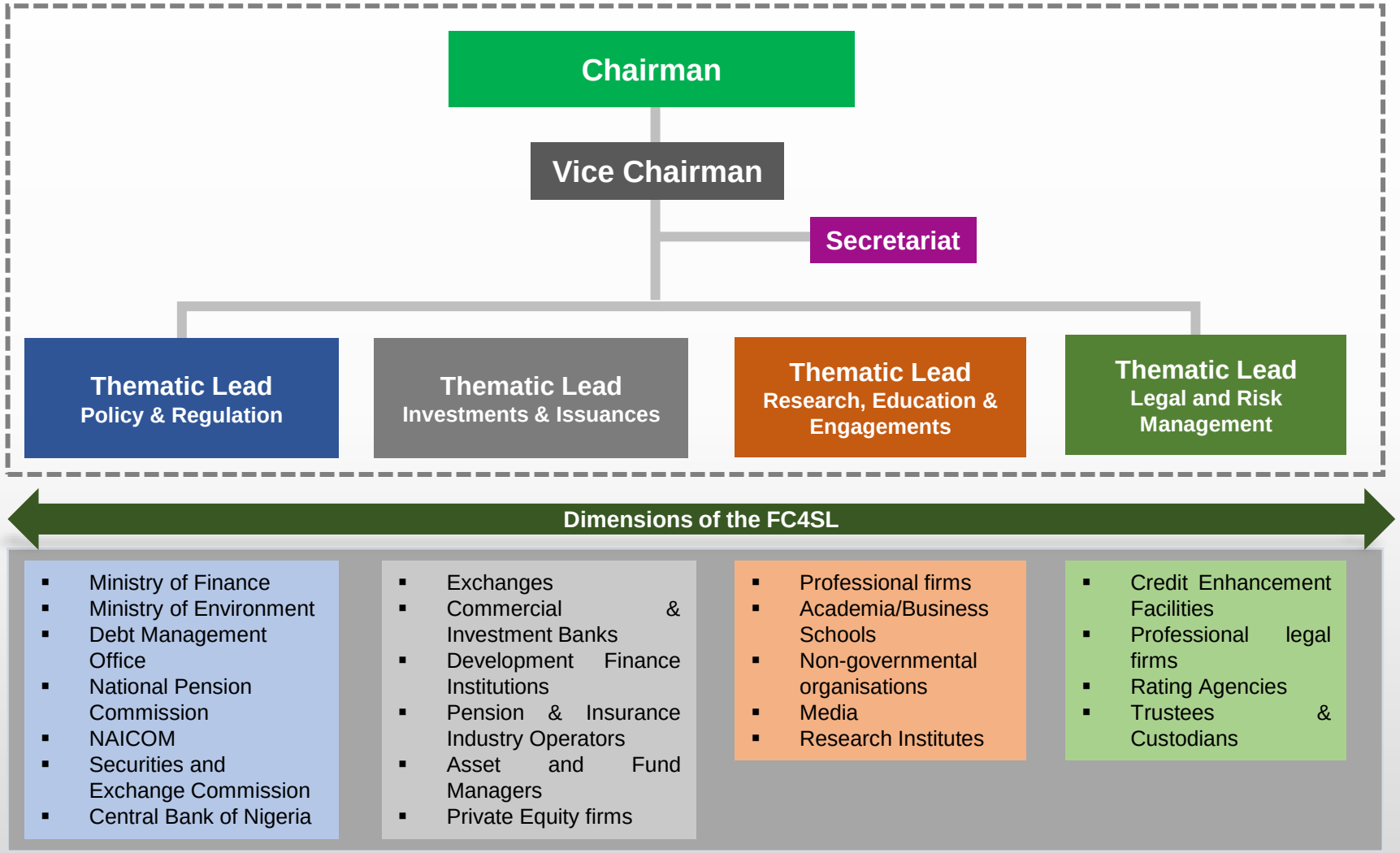
- Access to Technical Support, Training, Research and Funding from FC4S Global Network

Note: MSMEs: Micro, Small, and Medium Enterprises; **FC4S Network**: Financial Centre for Sustainability Network **Source:** African Development Bank Group

Thank you for your attention!

FC4S
LAGOS

Governance Structure



Note: **NAICOM** – National Insurance Commission

Governance Board