

# CLIMATE/GREEN BOND MARKET

WEST AFRICA GOVERNMENT SECURITIES  
CONFERENCE

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# Summary

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- 1 CLIMATE CHANGE  
What science tells us...
- 2 ROLE AND STATE OF GREEN BOND MARKET..  
Role, size, issuers, investors
- 3 FSD Africa INTERVENTIONS ...  
Kenya and Nigeria Green Bond Programmes
- 4 CONCLUSIONS...  
Issues and implications for sovereigns and regulators

## Climate Change

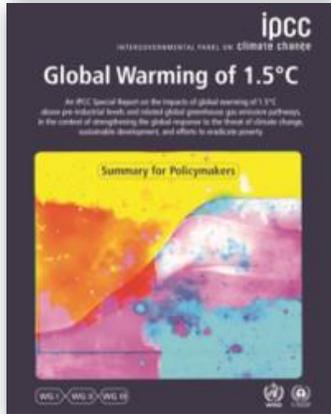
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**‘Mere màndi ò , mën a waaxoo ko gën.’**

**‘There is no point in raving against the desert;  
better to lengthen your stride.’**

**Wolof Proverb**

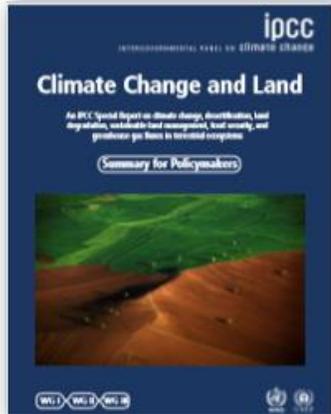
# Climate Change – What Science Tells Us



## Scientific evidence for warming is unequivocal:

- Temperatures have risen by 1.0c over pre-industrial age. Most rise in last 35 years.
- Temperatures are increasing at an increasing rate – NASA.

*This is caused by human activity (95% probability) - IPCC*



## Impacts

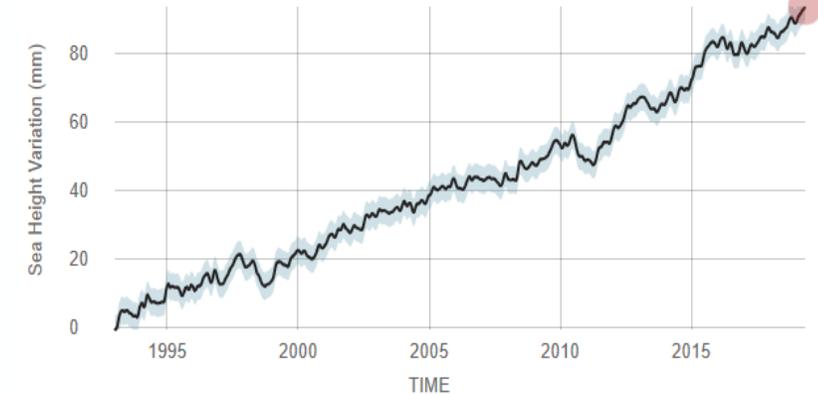
- ❑ Rising sea levels – 8 inch rise since 1880, impact on coastlands
- ❑ Species loss and extinction – up to 18% of insect and 16% of plants
- ❑ Climate-related risks to health risks, livelihood, food security, water supply, human security, economic growth
- ❑ Increase in natural disasters e.g. droughts, floods, hurricanes
- ❑ People vulnerable to water stress to reach 220 million by 2050

## SATELLITE DATA: 1993-PRESENT

Data source: Satellite sea level observations.  
Credit: NASA Goddard Space Flight Center

## RATE OF CHANGE

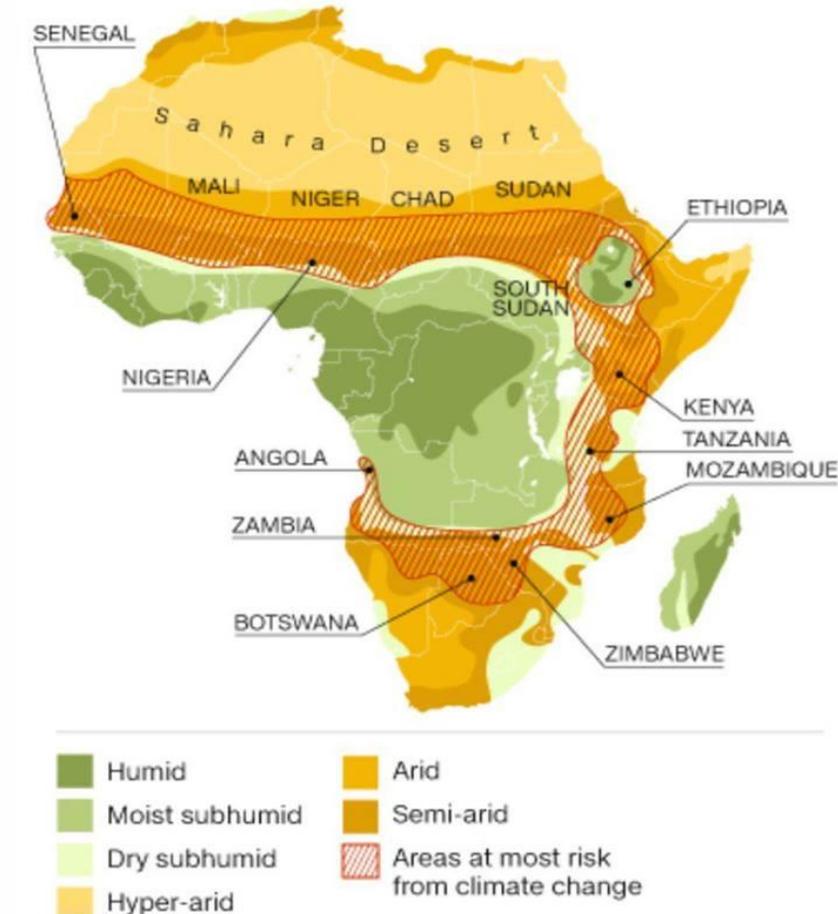
↑ **3.3**  
millimeters per year



Sea level rise is caused primarily by two factors related to global warming: the added water from melting ice sheets and glaciers and the expansion of seawater as it warms. Rise is increasing at an increasing rate – NASA.

# Impacts of Climate Change – West Africa

Areas most at risk from climate change in Africa



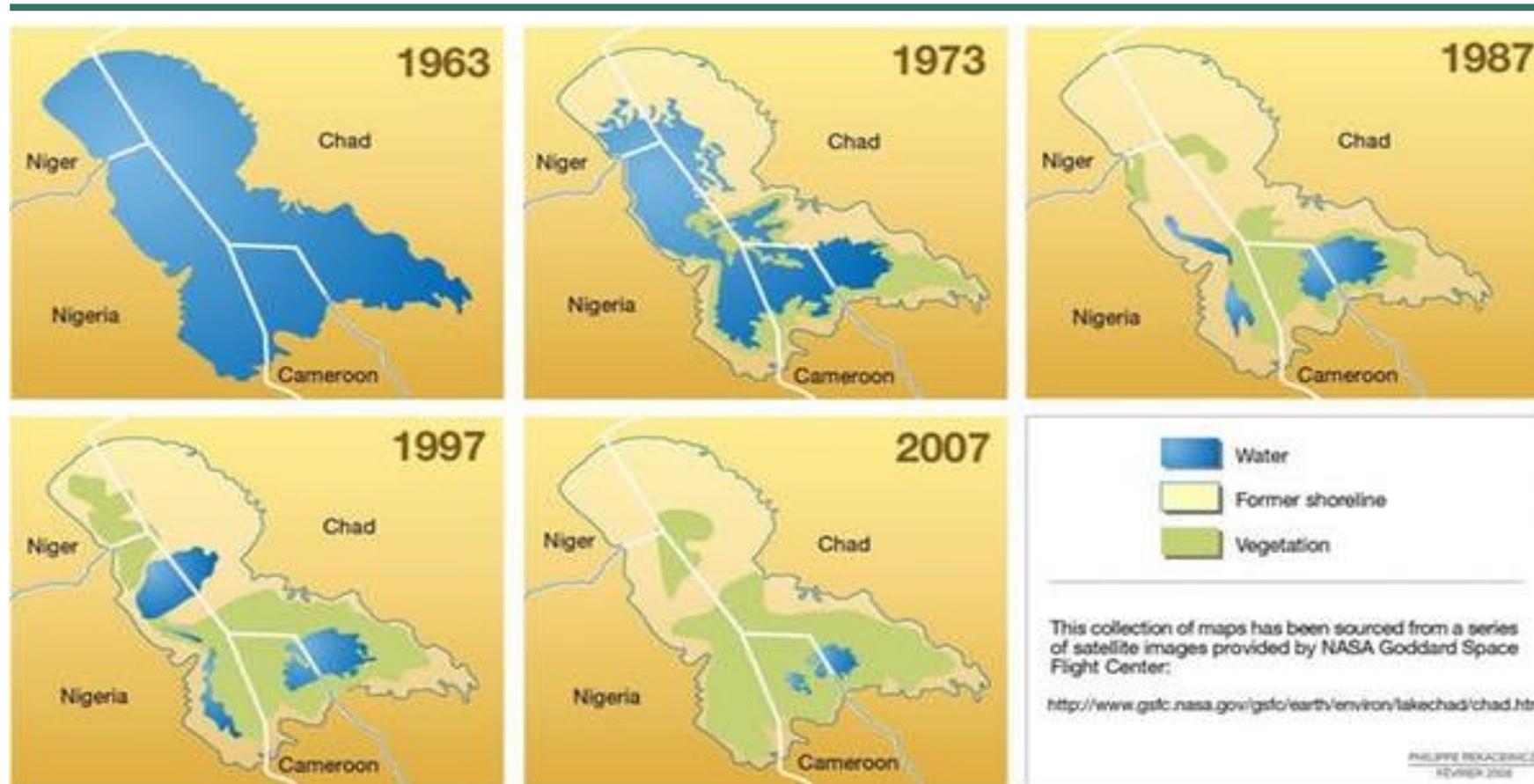
Africa and Asia likely to face most impact from climate change.

In Africa, Sahel region countries are most at risk.

West African countries most at risk include: Senegal, Mali, Burkina, Niger and Nigeria.

Women, the very young, elderly and poor are most at risk.

# Impacts of Climate Change – Lake Chad



## Lake Chad Facts:

Supports 38 million people in Chad, Cameroon, Niger and Nigeria

In 1823 – Lake Chad was considered one of the largest lakes globally  
Surface area has shrunk by 90% in 50 years to 2,500kms.

## Impacts:

Impacts on livelihoods of herdsmen, farmers & fishermen

Armed conflict between farmers and herdsmen  
Inter-religious conflict  
Terrorism – Boko Haram

# When Climate Change Becomes a Financial Problem



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## Climate Change Is A Global Mega-Trend For Sovereign Risk

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Climate Change Is More Difficult To Control Than Demographic Change

How Climate Change Can Impact Sovereign Ratings

Lower-Rated Sovereigns Appear More Exposed



“One of the biggest emerging concerns for the pension sector will be the impact investments will have on climate change and vice versa. Globally, by the end of the century, climate change is predicted to remove \$ 2.4 trillion in value from pension funds.”

“The “tragedy of the horizon” is the danger that by the time climate change is recognised by enough actors to be a defining issue for financial stability, it may already be too late to manage it.”



“More than 4C of warming this century would make the world “uninsurable”.  
Thomas Burberl, CEO, Axa Insurance



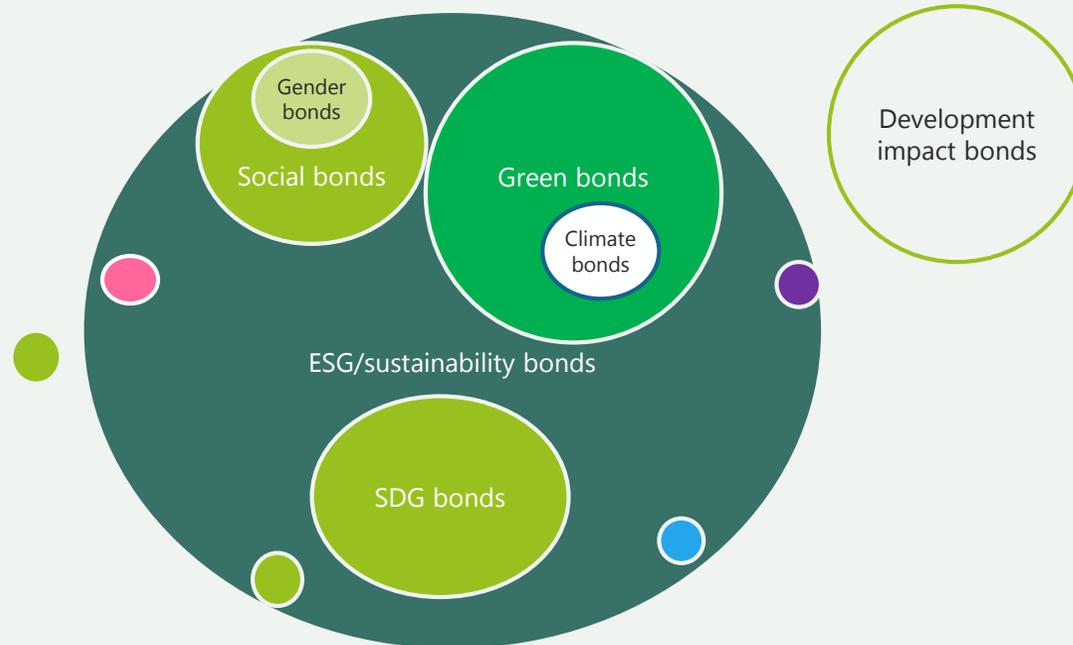
‘Climate change is a source of structural change in the economy and financial system and therefore falls within the mandate of central banks and supervisors’ – Network for Greening the Financial System

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# Role and universe of sustainable bonds



The bond markets through Green, Social and Sustainability Bonds can play an essential role in attracting private capital for climate finance

They are regulated instruments subject to the same capital market and financial regulation as other listed fixed income securities.

These are any type of bonds where the proceeds will be exclusively applied to eligible environmental and/or social projects.

### Green Bond principles and standards:

#### Covers 4 areas:

- Use of Proceeds
- Project Selection & Evaluation
- Management of Proceeds
- Reporting

#### External review:

- Second Party Opinion
- Verification
- Certification
- Scoring/Rating

# Green Bonds



## Implications:

To develop green bond markets, the enabling environment for conventional bonds (i.e. corporate bonds) is required plus green credentials.

Transactions support and training are essential = learning by doing

# Green Sukuk



- Most sukuk issuances are asset-backed e.g infrastructure projects and can channel investments into climate change projects.
- Can be issued by governments and corporates – two sovereigns (Indonesia & Malaysia) and four corporates have issued.
- Use of proceeds – renewable energy, transport, waste management and green buildings
- Green sukuk market is very nascent (total issuances – US\$3.5 bn), but with significant investor interest.

# Green Bonds Taxonomy

Green bonds taxonomy covers many sectors:

## Implications

- Wide opportunities for adaptation and mitigation investments e.g infrastructure: energy, transport, utilities
- Strong alignment with SDGs
- Given nascent nature of African markets opportunities for building African markets sustainably

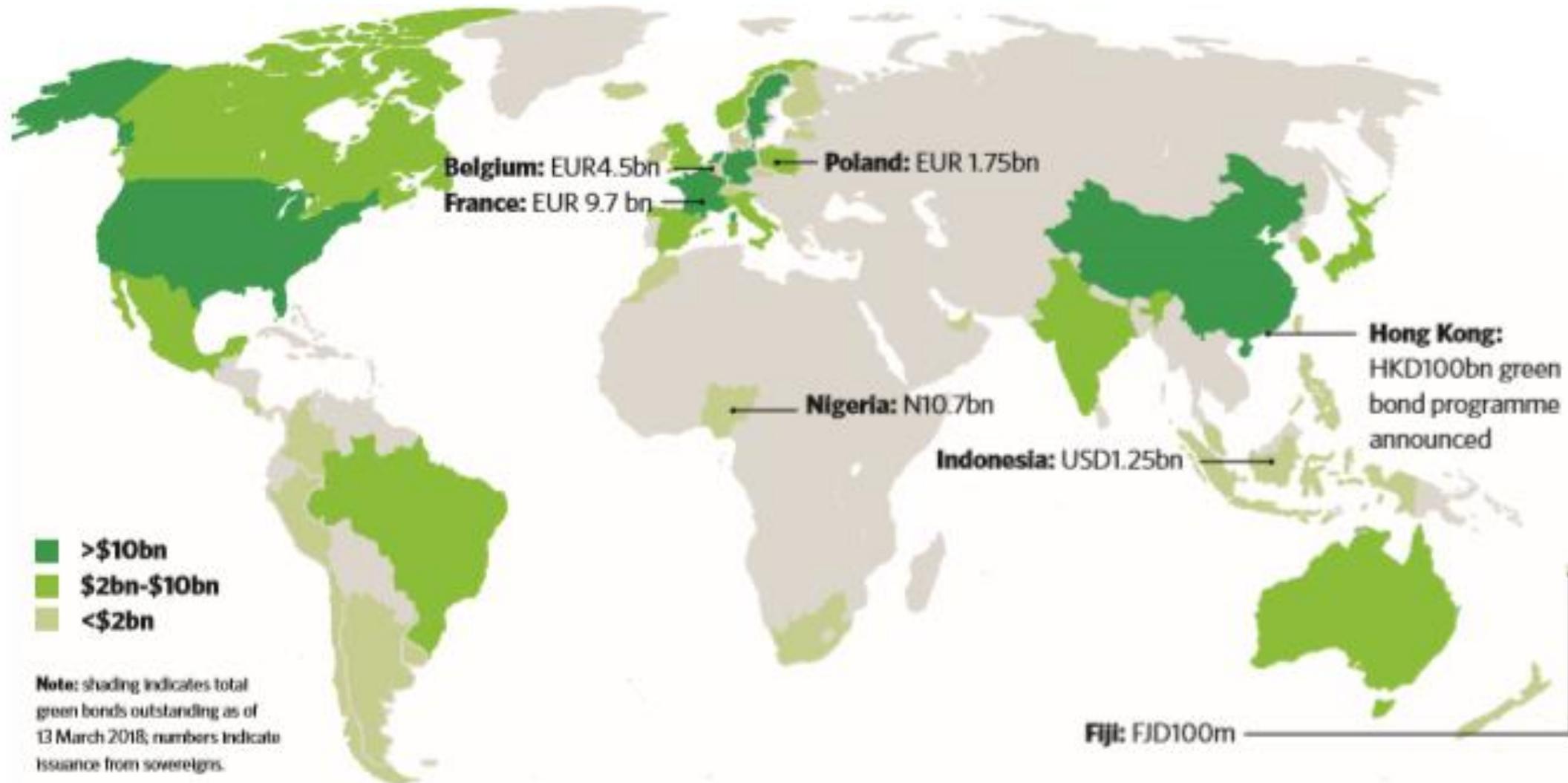
## Sector Criteria development

Climate Bonds INITIATIVE

	Can be certified now	Criteria in development	TWGs launching soon
Energy	 WIND  SOLAR  GEOTHERMAL  MARINE	 HYDROPOWER  BIOENERGY	 ELECTRICAL GRIDS
Transport	 RAIL  VEHICLES  BUS/RAPID TRANSIT	 WATER TRANSPORT	
Utilities	 WATER	 RECYCLING & REUSE  DISPOSAL	 IT  COMMUNICATIONS
Buildings	 RESIDENTIAL  COMMERCIAL		
Natural Resources	 FORESTRY	 AGRICULTURE  FISHERIES	
Industry			 CEMENT  STEEL  MANUFACTURING & PROCESSING

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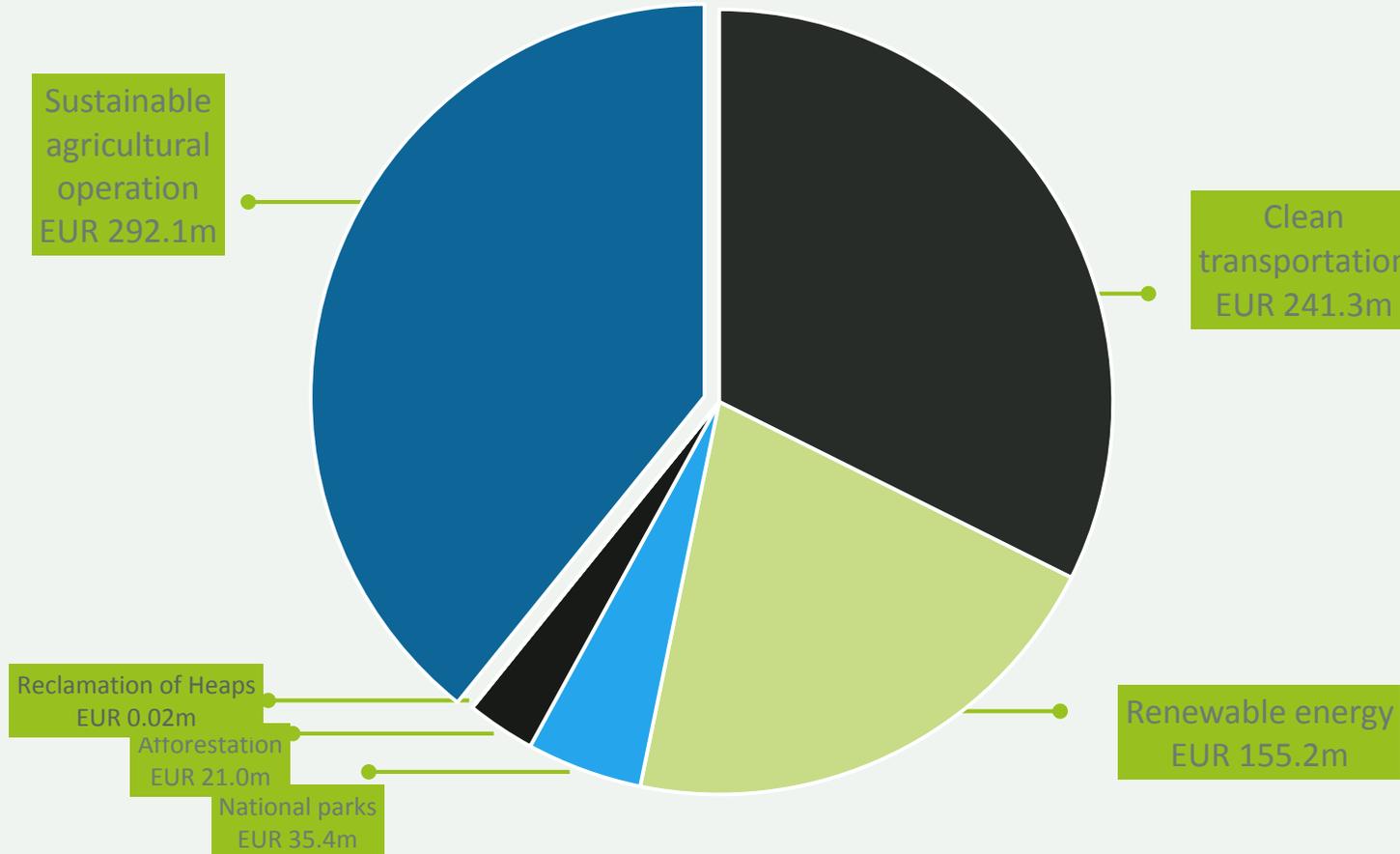
# Sovereign Green Bond Issuances



"In China, establishing a green finance system has become a national strategy." Zhou Xiaochuan, Governor of the People's Bank of China, 2 September 2016

# Sovereign green bond market

Sectorial distribution of sovereign green bon proceeds



- Bulk of sovereign issuances is supporting investments:
  - Sustainable agriculture
  - Clean transportation
  - Renewable energy

# Attraction of green bonds

## Investors

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

## 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



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# Green Bonds Programmes - Kenya and Nigeria



The Kenya and Nigeria Green Bond Programs are focused on building an ecosystem for green bonds in Kenya and Nigeria.

## Enabling environment

Issuance guidelines (CMA Kenya) and listing guidelines (NSE) for green bonds

Tax treatment – WHT exemption

Issuance (SEC Nigeria) and listing guidelines (FMDQ and NSE) for green bonds

### Demonstration Transactions

Nigerian government – \$70mn

NS Power – US\$23mn

Access Bank – US\$42mn

Acorn (student housing) – US\$42mn

Kenyan government - In progress

### Training

Investors and issuers

Regulators

Potential verifiers

# African local currency bond fund



FSD Africa  
is an equity  
& debt  
investor

The fund has been an anchor investor in several green bonds in Africa:

- NS Power – hydro power, 1st corporate green bond in Nigeria
- Growthpoint Properties – green buildings
- Nedbank – 1st CBI certified corporate bond in SA
  
- ALCBF supported creation of new pathways for CBI certification for SA Residential and Commercial property developers.

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## REGULATORY APPROACHES...

Green Bond Principles, CB initiative, EU GB standards

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Issues and implications for Sovereigns and Regulators

# Implications for Sovereigns and Regulators

- ❑ Governments and regulators can play a role in developing regulations and guidelines.
- ❑ Governments and sub-sovereigns can issue – for demonstration and benchmarking.
- ❑ Governments can provide incentives that reduce the risk and cost of green bond issuances.



- ❑ Mainstreaming climate issues in public investments. This may include coordination within government agencies e.g ministries of finance and environment.
- ❑ Harmonization and cross-regional standards are essential for market development.
- ❑ Support to capacity building initiatives for both the public and private sectors.

'If you do not rise when you do not want to, you will not arrive when you want to.'

Fulani Proverb