

# Financing renewable energy in an African setting; new challenges

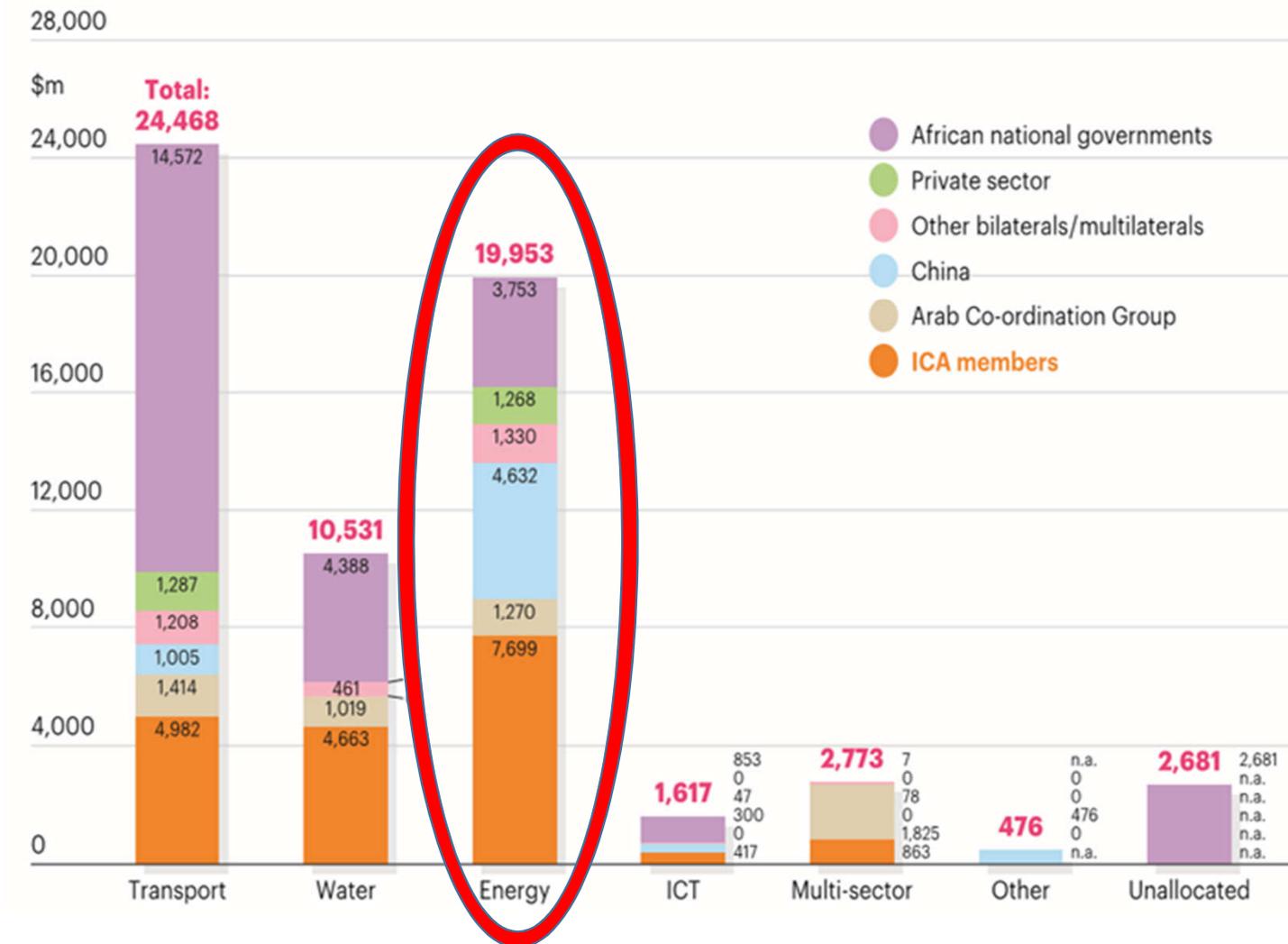
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Oslo June 12, 2018

# African renewable energy investments



# Three takeaways

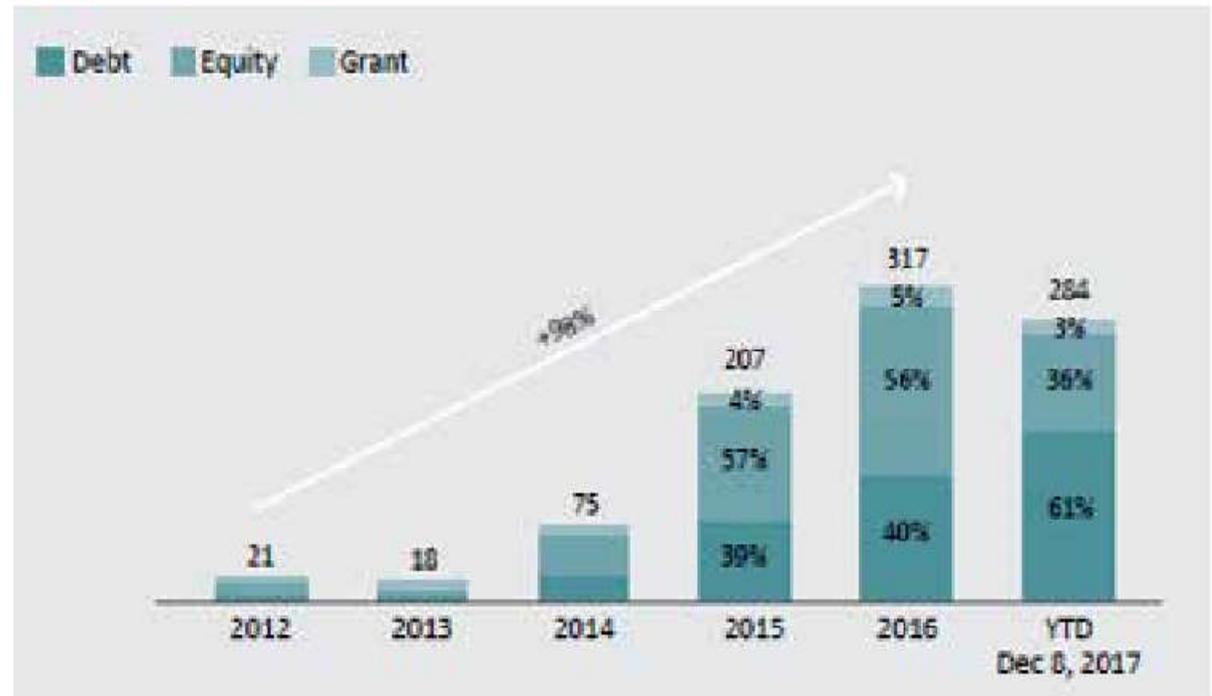
- Very low levels of private investments in Sub Sahara Africa (SSA) renewable energy sector
- Need to critically evaluate the existing «toolbox» of policies
- Domestic Resource Mobilization basis for a “rethink”

# SSA energy situation; a global «outlayer»

- Lowest per capita energy use of any of the world's regions
- 3,6 % of global GHG emissions
- Access to electricity 35 percent; no outlook for significant improvement
- Weak legal and regulatory framework
- Utilities in bad shape
- Non-sustainable tariffs
- Serious underinvestment in energy infrastructure to reach SDGs
- Private sector investments « extremely limited»

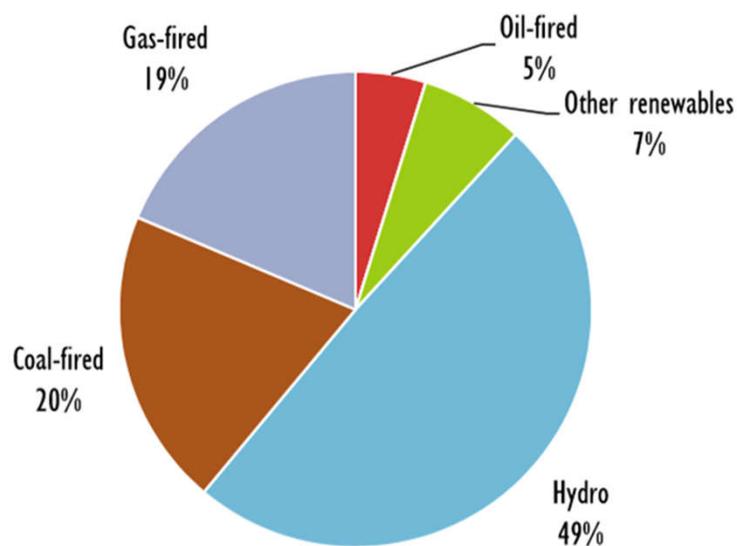
## Access to modern energy

- USD 52 bn/yr needed to secure universal access by 2030. Half secured (SE4ALL)
- SSA: Still 65 percent without access 2030 (IEA)
- Expected 60 % grid and 40% off-grid
- Distributed solutions investment starting to take off (see figure); but a long way to go



Source: WB, 2018

# China (PRC) in African energy



Other renewables: solar, wind, biomass and waste.

- 30 percent of all new capacity addition in SSA
- USD 13 bn investments in period 2010-15
- Mostly public lending from PRC
- 56 % of additional renewable capacity from PRC

# Existing «toolbox»: do we use the right instruments to increase private investments?

- «From billions to trillions» to reach SDGs (Addis declaration 2015)
  - Development assistance 10% of total need to reach SDGs and declining
  - Limited expectation of significant contributions from receiving countries
  - The private sector must take up the slack...
- But so far it does not

# Approach 1: Adjust risk/reward tradeoff

## Decrease risk

- Better governance; less corruption and unpredictability
- Stronger and more competent governmental institutions
- Less corruption
- Target more directly the risk factors; e.g. help investment first 2-3 years in renewable projects
- Increase rewards
  - Better guaranteed cash flows
  - Utilities adhere to PPAs
- No immediate results. but Things Take Time

# Approach 2: «Smart aid» to mobilize private investments (blended finance)

- The «leverage factor''' a new «silver bullet»?
- Five standard mechanisms
- How measure the effects
  - Weaknesses ( and strengths)
  - No good parameter to use for choosing the most efficient mechanism for assistance
- New philanthropic actors a positive contribution
- Not great success
  - OECD
  - World Bank

# Blended finance: Total private mobilisation USD 81,2 bn; 77% to middle income countries

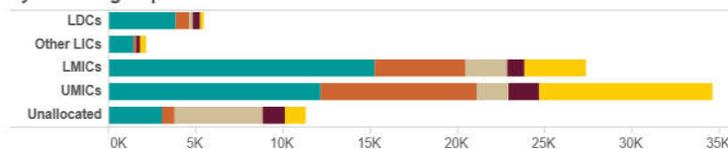
Results of the 2016 DAC Survey on mobilisation, 2012-2015, USD million

Year  Provider

### By financial instrument



### By income group



### By continent

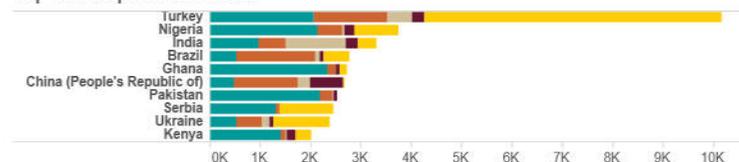


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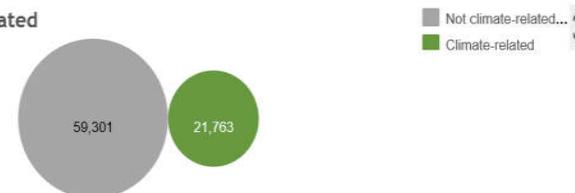
### By sector



### Top 10 recipient countries

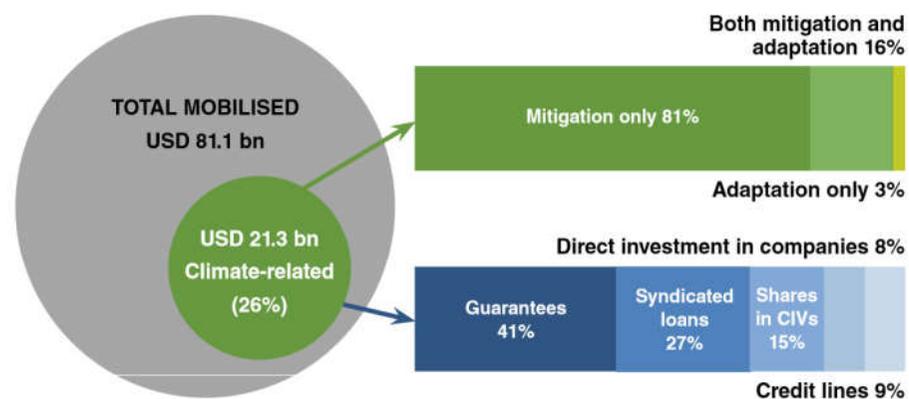


### Climate-related



<http://www.oecd.org/dac/stats/mobilisation.htm>

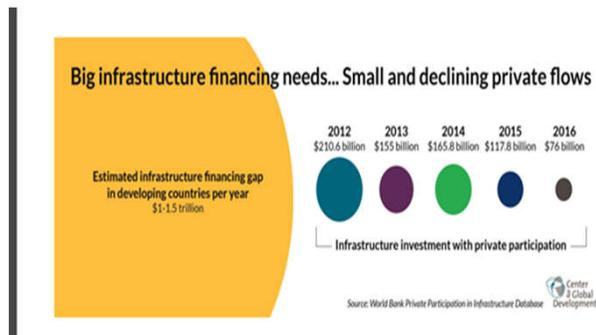
## Climate related mobilisation; 26 percent of total



Source: Benn, Sangaré and Hos (2017).

## Disappointing private mobilisation to LDCs Clean Energy projects

- Declining infrastructure investment with private infrastructure in Developing Countries
- Estimate of **mobilized** private clean energy investment globally: USD 4 bn (OECD)
  - USD 0,7bn in SSA



# Domestic Resource Mobilization (DRM)

- SSA private energy investments policy discussions dominated by:
  - Creating preconditions for Direct Foreign Investment (DFI)
  - Multi/Development Finance Institutions (DFIs)
- Less attention paid to ways to increase domestic investments
- DRM a way to increase likelihood for increased domestic investments
  - Taxation
  - A strengthened financial system

# The importance of tax collection

- Aim: Increase national tax rate
  - SSA average below 15% of BNI: aim 18-26 %
- Gives increased fiscal «freedom of manouver» for state investments in utilities and for financing of local business community
- «Tax for Development»

# The importance of a well functioning domestic financial system; historic examples

- Norwegian electrification and industrialization based partly on local savings institutions
- East and South Asian experience ; increased deepness of financial system and existence of local savings banks
  - Associated in part (Korea) with capital export controls
  - Indian state banks targeting renewables ( up to 20 years maturity)
    - NABARD
    - IREDA
  - A wide variety of local savings banks

# African financial system

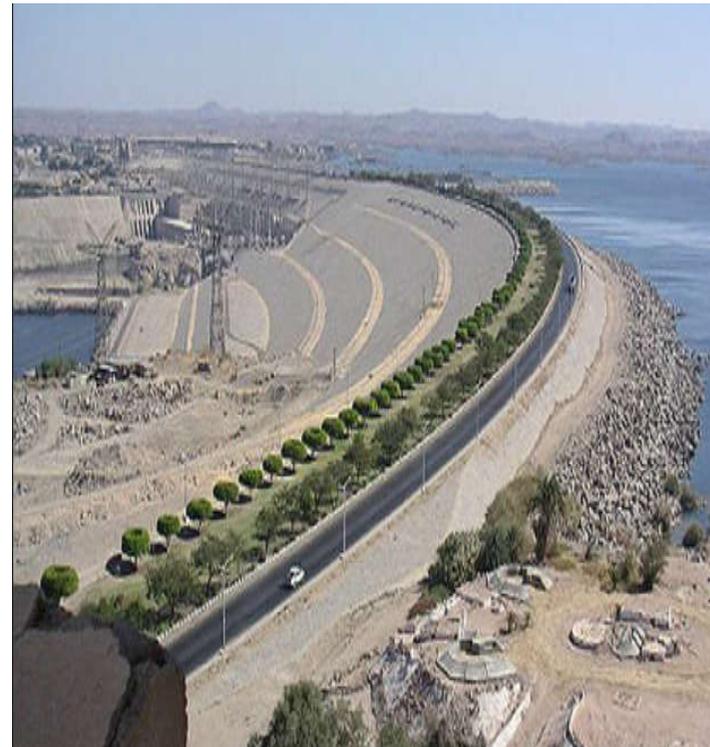
- A large majority of population not attached to any financial system
- Small and Medium Enterprises (SMEs) especially vulnerable
  - Only 30 Percent have access to financial institutions.
  - The rest have to grow by «retained earnings»
- Foreign/regional banks tend to overfinance «speculative bubbles»
- Almost all investments in national pension funds tend to be invested abroad
  - Only 1 % of Kenyan teachers pension fund assets invested domestically
- Almost no private energy investments

# What is needed

- A higher savings rate
- National financial institutions to support SMEs and
- That lend long term to national projects in local currency
  
- More emphasis on public sector finance (Martini 80/20 rule)
- Strengthening of national private energy solutions

# Renaissance Dam Ethiopia

- Largest hydro electric dam under construction i SSA (6450 MW)
- Total costs USD 6,4 bn
- Financed by a combination of sources
  - Chinese turbine credits( USD 1,8 bn)
  - Government bonds
  - Expatriate bonds (USD 54 mill)
  - Private donations
- Italian contractor Salini Costruttori
- Its construction was strongly opposed by all Western experts



# Final observations

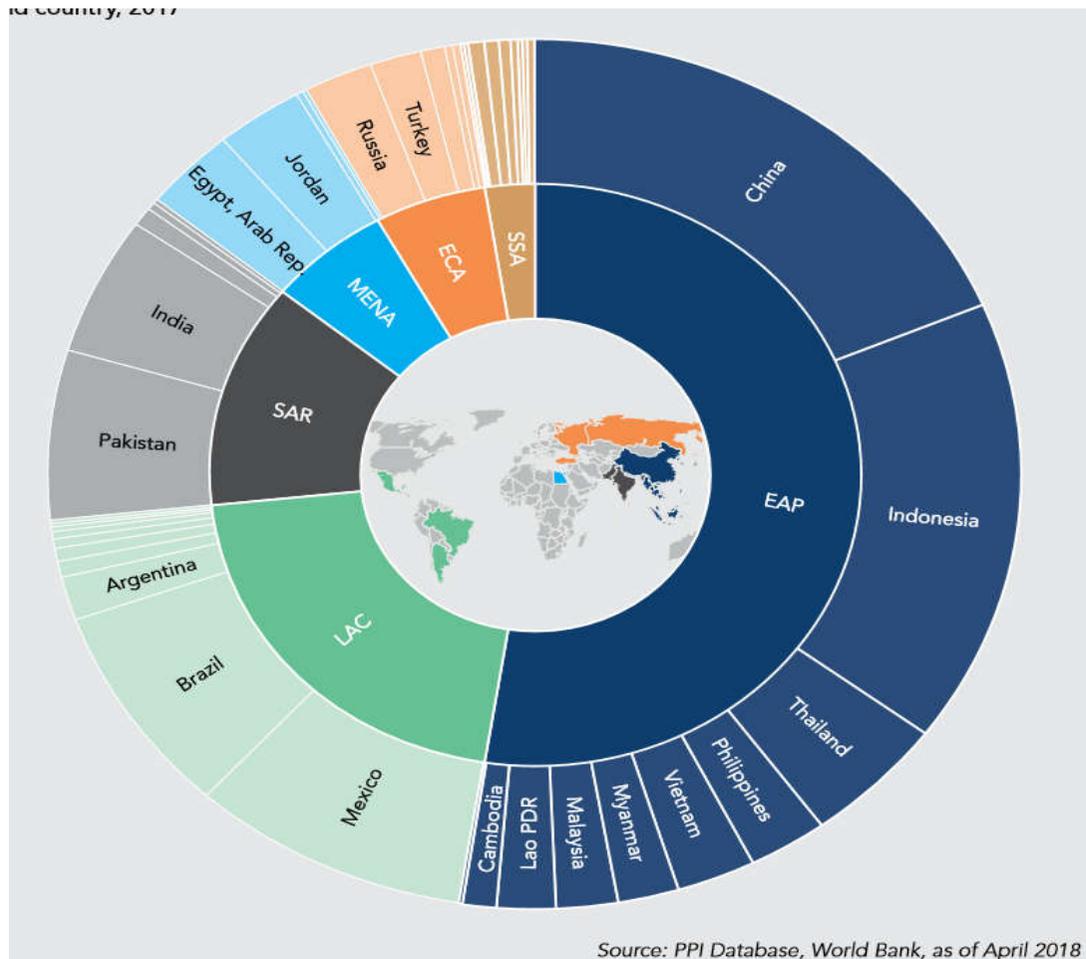
- Increased Domestic Resource Mobilisation in SSA not sufficient condition for increased energy investments
  - Increased tax income can easily be misspent
  - Increased capital in local financial institutions do not guarantee increased local capital accumulation/investments.
- Much of the present efforts to strengthen institutions and regulatory/legal framework also useful for local development and should be continued
- Positive signs
  - Possibility of a «digital leap»
  - Digital financial systems accelerating (Kenya and Senegal)
  - Increasing number of institutions starting to look in the direction of DRM
- Learn from other countries (India and East Asia)

# Three takeaways

- Very low levels of private investments in Sub Sahara Africa (SSA) renewable energy sector
- Need to critically evaluate the existing «toolbox» of policies
- Domestic Resource Mobilization (taxation and a better functioning national financial system) basis for a “rethink”

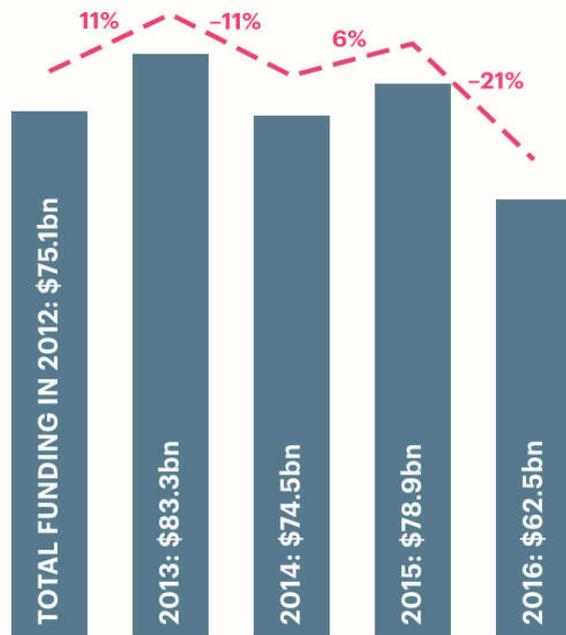
# Addendum

# Global private investment in infrastructure; Great share to emerging economies.

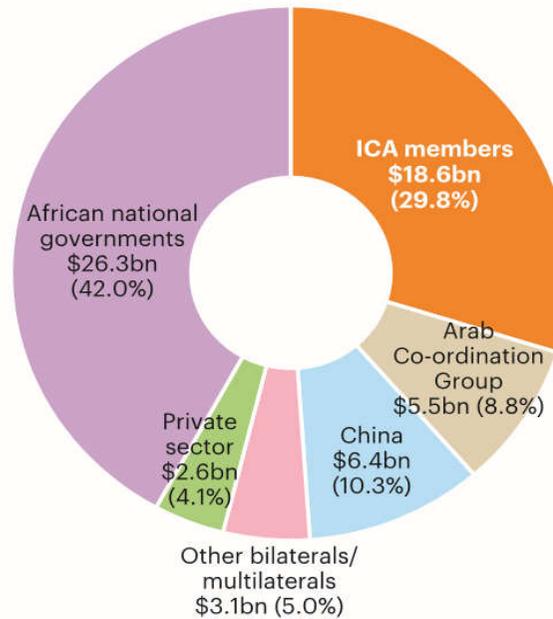


# African Investment in infrastructure; how much and from where?

Funding decreased by 21%



It came from



# In which sectors and regions?

