

G-24 TECHNICAL GROUP MEETING

# Infrastructure Investments for Economic Growth

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African Development Bank Group

# AfDB

# Smart Partnerships for Transformational Infrastructure

- **There are huge gaps in financing infrastructure development and in access to infrastructure in Africa.**
- **These gaps are constraining economic growth, setting off a vicious spiral of underdevelopment...**



African Development Bank Group

# AfDB

Programme for  
Infrastructure  
Development in Africa

Interconnecting,  
integrating and transforming  
a continent

# Infrastructure Outlook 2040



The Programme for Infrastructure Development in Africa:  
*Transforming Africa through Modern Infrastructure*

**African  
Development Bank**  
in collaboration with  
**African Union  
Commission**  
and the UN  
**Economic Commission  
for Africa**  
have mapped the  
needs and solutions

## II. Gaps in infrastructure ... in Africa

Only 30% of Africa's population has access to electricity, compared to 70-90% in other parts of the developing world. (Africa generates 50% of electricity generated by Japan: 900 million Africans cf. 127 m Japanese)

The road access rate in Africa is only 34%, compared with 50% in developing world. (Ethiopia has 14,000km of asphalt road to serve 90 million people in 1 million sq. km landmass)

Transport costs are 100% higher (costs almost the same to transport a 20ft container from Djibouti to Addis as from China to Djibouti).

Water resources are underused with only 5% of agriculture under irrigation.

The (fixed line) Internet penetration rate is about 6%, compared to an average of 40% in developing world. (Thank God for mobile technology.)

### III. Africa's Transformative projects:

#### Key objectives of Africa Outlook 2040 in transport, energy and telecommunications

Complete the Trans-African Highway missing links, upgrade key sections to multiple lanes, construct One Stop Boarder Posts

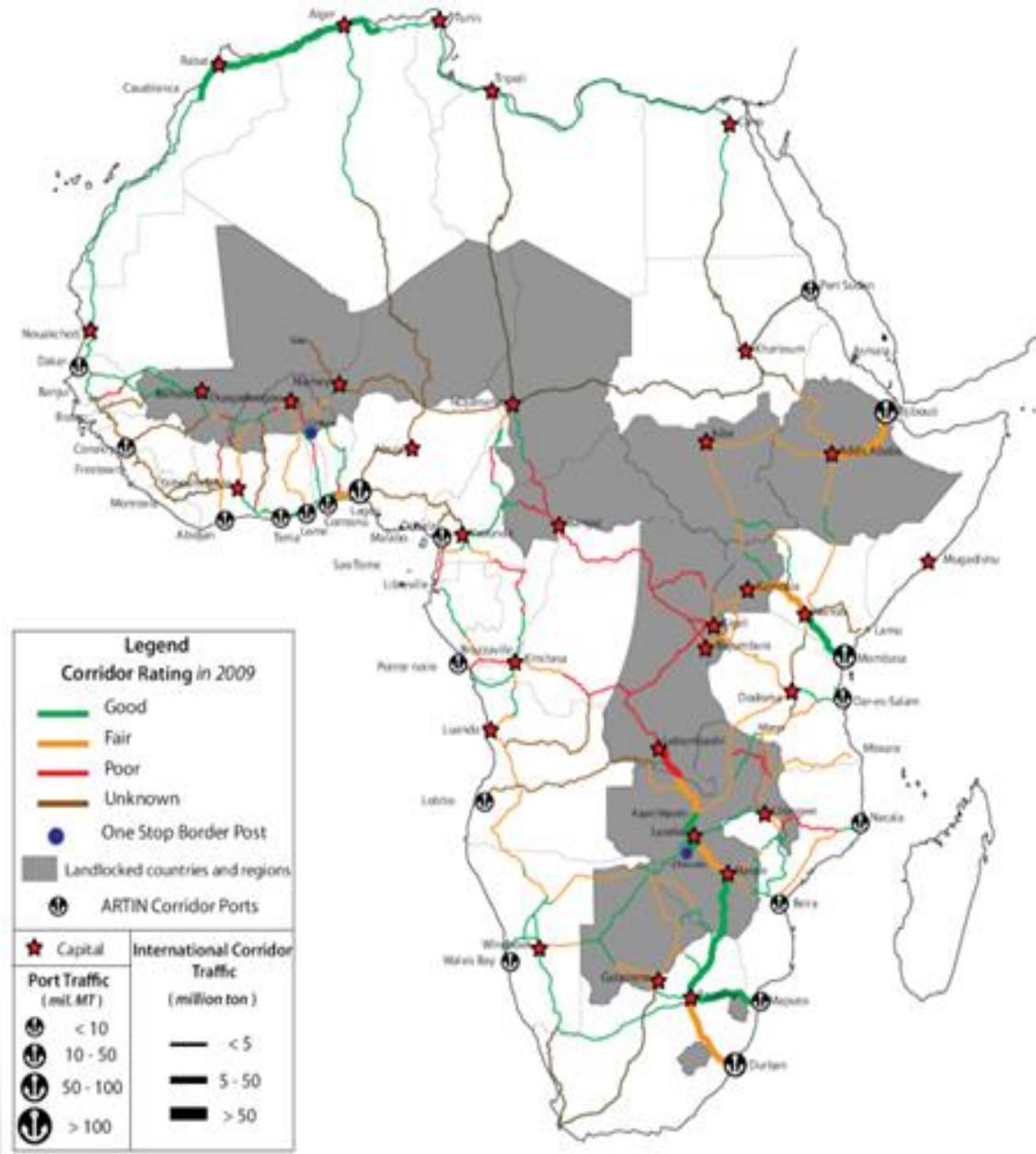
Increase Port capacity to handle Post-Panamax container vessels.  
Improve railways tracks and modernize services and equipment

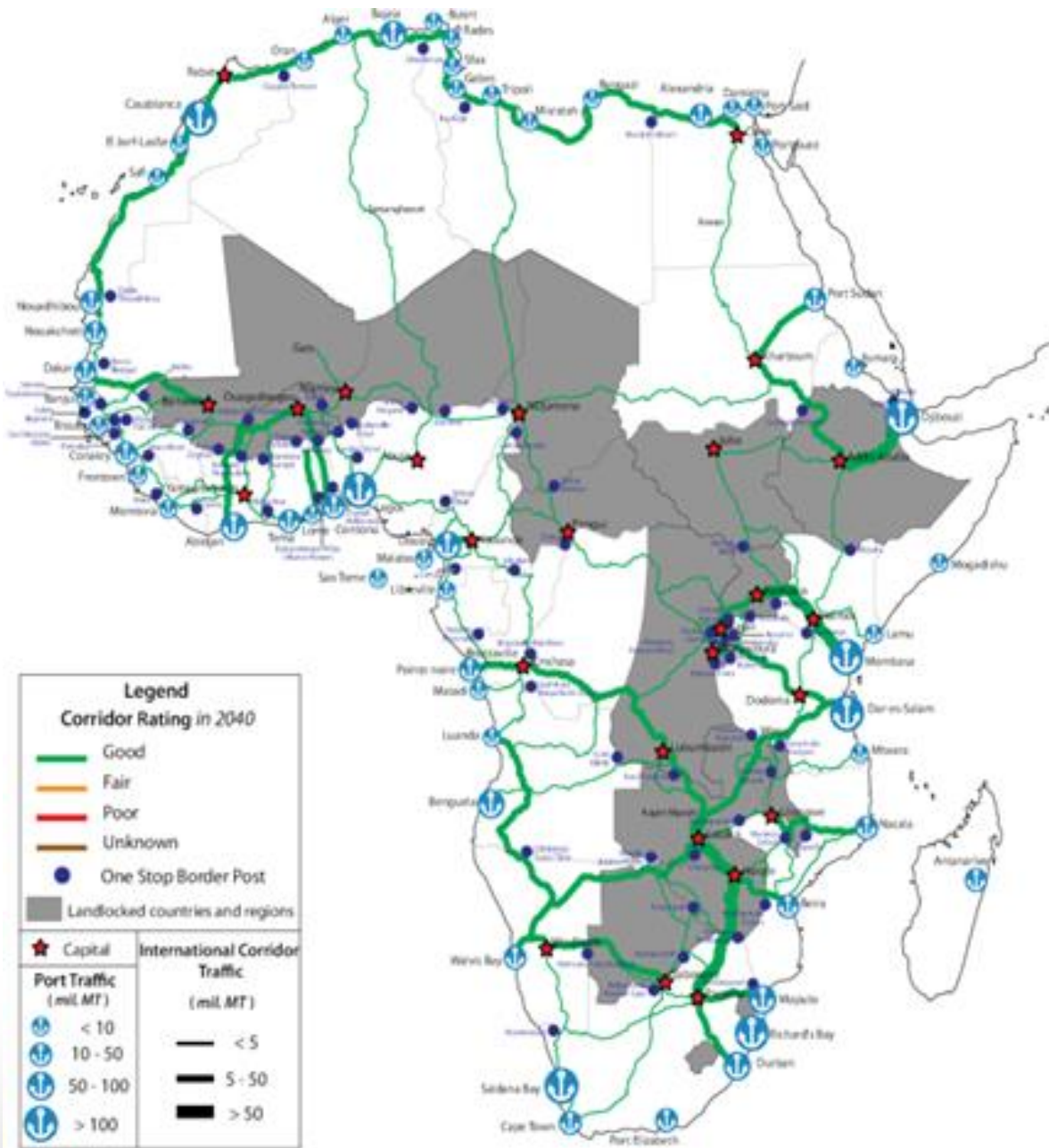
Energy: construct major hydroelectric power stations (Ethiopia Renaissance Dam, Inga Dam in Congo), transmission lines, continental power pools for inter-regional energy trade, petroleum and gas pipeline

Develop a continental satellite-based air navigation system

All key projects are identified and mapped out

# State of Trans African Highways (TAH) ... in 2009: In poor condition or non-existent

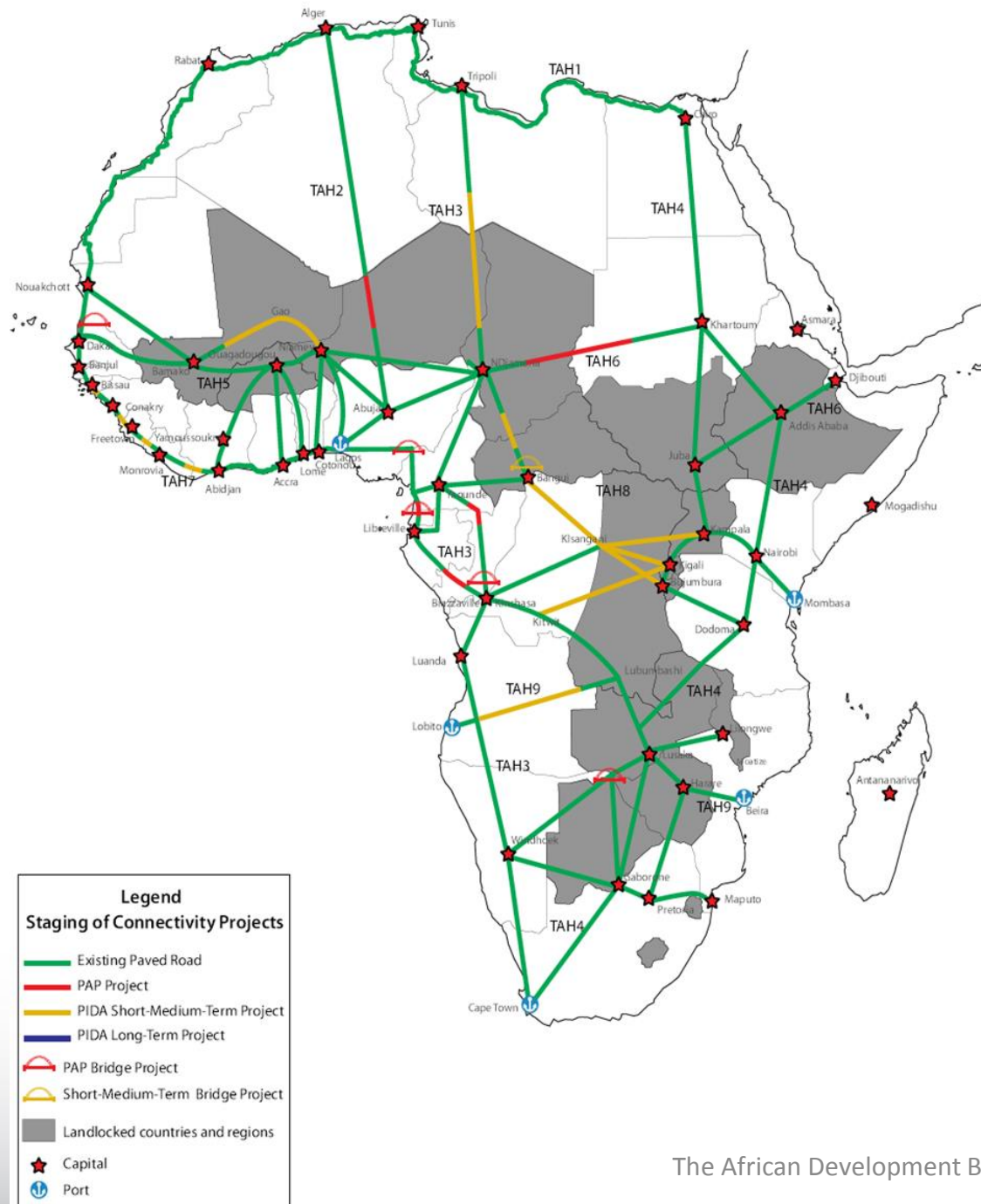




Transformative  
Infrastructure

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Road  
transport  
projects  
outlook  
2040

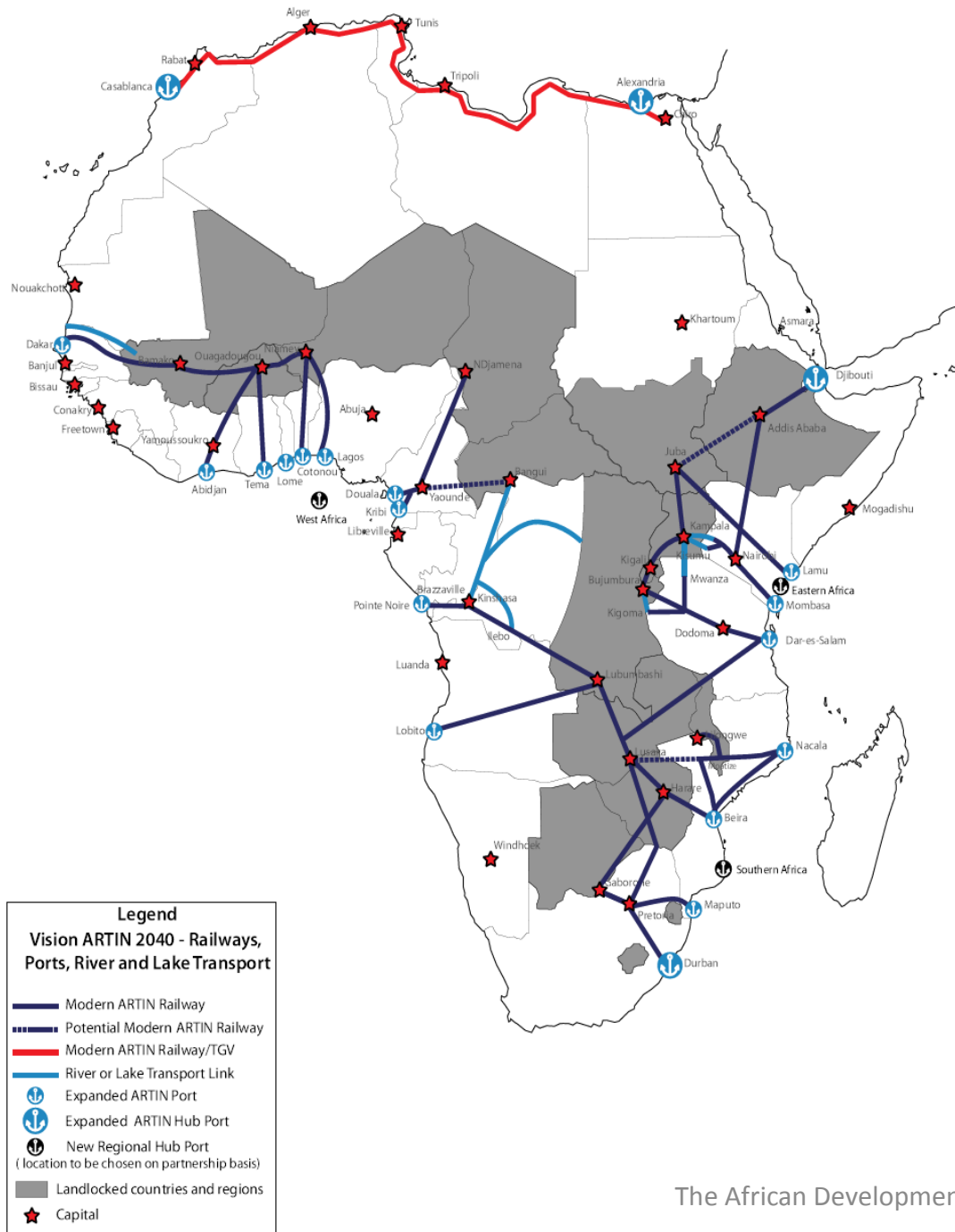


# Transformative Infrastructure

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## Priority short term road & bridges (red & yellow)

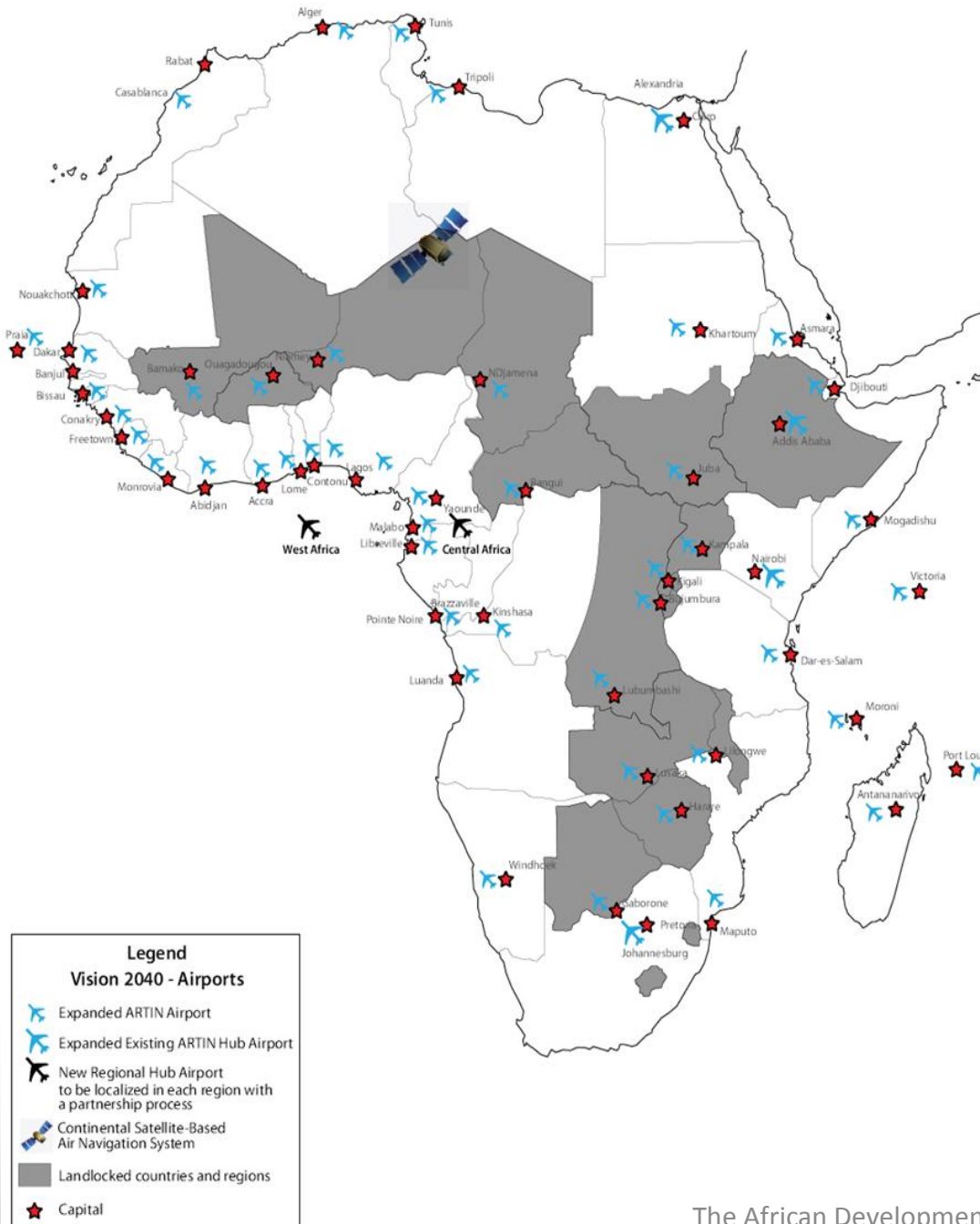




Transformative  
Infrastructure

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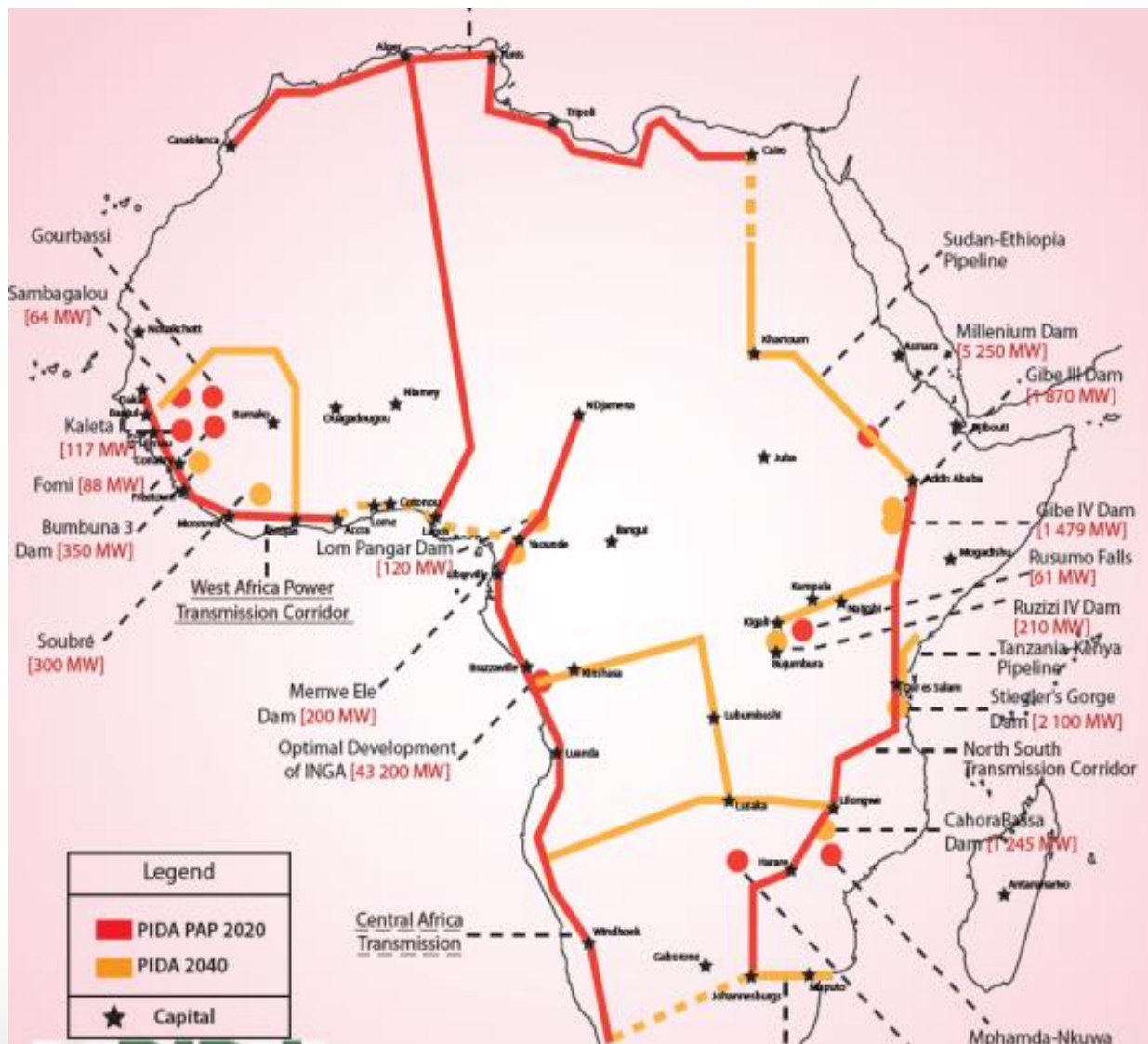
Railways,  
Ports, &  
River Lake  
transport  
needed by  
2040



# Transformative Infrastructure

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# Modern and new Airports needed by 2040



# Transformative Infrastructure

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# Energy projects

# IV. Africa's Response: Needed Infrastructure Investment under Africa Outlook 2020 - 2040

USD 360 billion is needed to close key continental gaps in infrastructure, investment by 2040

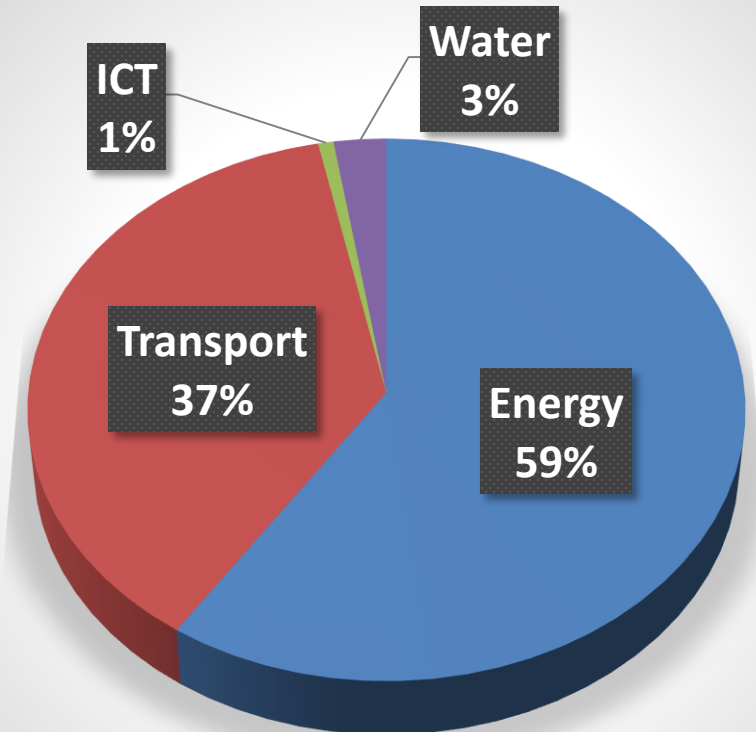
Priority infrastructure projects by 2020 = USD 67.9 billion

East Africa (including Ethiopia) needs USD 23.3 billion

Largest needs are in energy & transport.

Africa needs USD 8.5 billion p.a. from 2013-20 to undertake priority projects

Priority Projects – USD 67.9 billion



Energy Transport Water ICT

# Bank's Response: ... focused on funding infrastructure development ... the High 5s



**The Bank invests huge in infrastructure: for the last 10 years about 60% (USD 3 bln) of its annual lending goes to infrastructure development**

Some key public sector projects funded by the Bank...

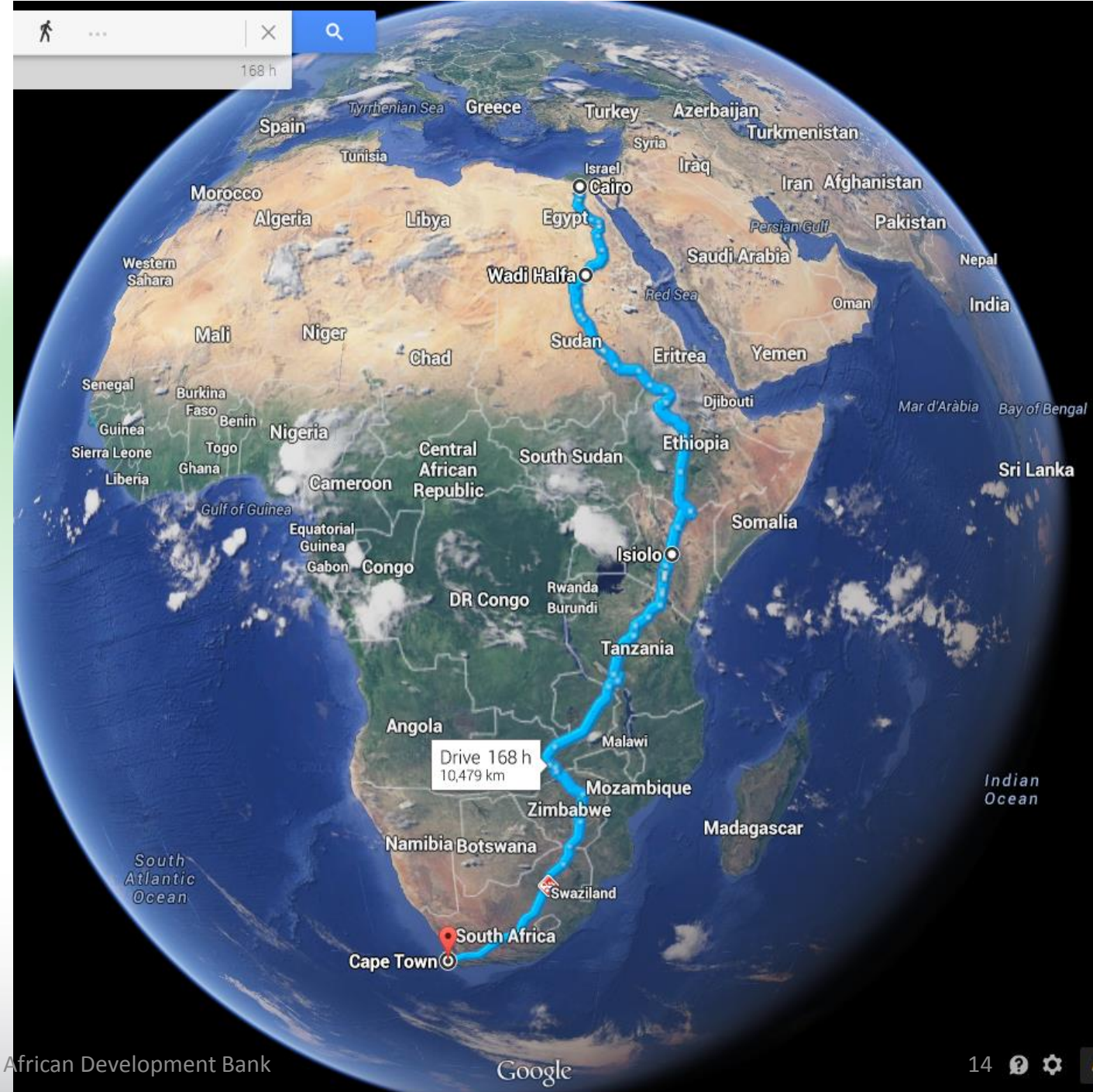
... include efforts towards transport & Regional Integration

.....

Bank invested **USD 4 billion\*** in **6 countries\*\*** to build **4,000km** of roads and bridges **along and feeding** into the **Cape to Cairo transport corridor (2004 -2014)**

\*UA 2.5 bln.

\*\* (Ethiopia, Kenya, Tanzania, Malawi, Mozambique, Zambia)



# Some Private sector Bank funded projects

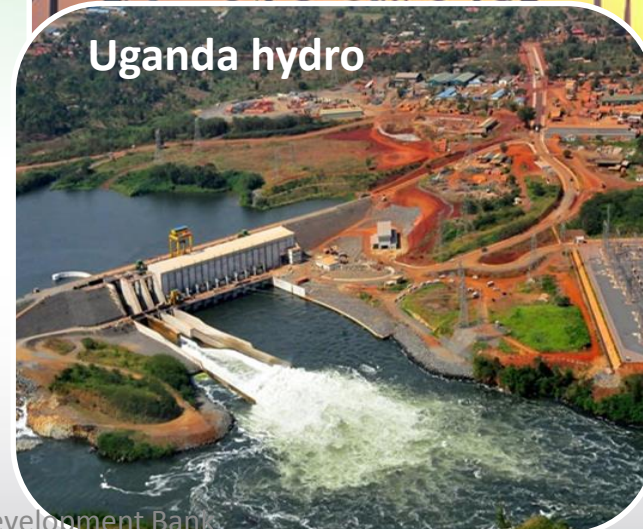
Ethiopia airlines , Addis Ababa Airport, Djibouti Port

Senegal: USD 500 m, 32 km Dakar - Diamniadio toll road

Kenya : 300MW Eur 600 million Wind Power Project - 20 year concession

10,000 km of fiber optic submarine cable along the East African coast

Uganda: 250 MW hydropower station + 100km transmission lines



# Some Bank funded projects in Ethiopia

**\$ 180m  
Ethiopian  
Airlines jets**

**\$ 595m Ethiopia  
– Kenya  
transmission  
lines, rural  
electrification  
etc.**

**\$ 584 m road  
construction  
projects including  
Ethiopia – Kenya,  
Ethiopia – South  
Sudan links**



Deber Cement  
factory

**Wind and solar  
energy projects.  
Studying  
Geothermal.**

**\$ 80 m Ethiopia  
– Djibouti  
electricity  
transmission  
lines**

**\$ 55 m Derba  
CEMENT  
FACTORY**

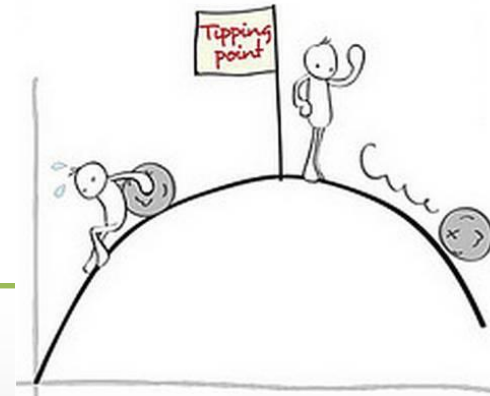




# Obstacles to mobilizing financing / Response

- Tradition – Africa gets only incremental funds and so we make marginal increase in infrastructure stock. Meanwhile, the increase in infrastructure needs is almost exponential, and so the gap widens.

- Break with tradition and mobilize huge resources within a short period of time.
- Will lead to Quantum leap in infrastructure stock and access, reaching a critical mass, Tipping Point.



# Obstacle to mobilizing financing / Response

Lack of sufficient local

- ownership / leadership in project identification / preparation,
- Pj championing,
- local resource mobilization
- Poor implementation capacity

- Africa has now taken ownership and leadership in upstream stages (PIDA as shown earlier).
- Ethiopia is ahead in mobilization of local resources and championing their huge projects in energy generation and transmission, transport (roads and rails).
- Local ownership reduces risk perception and attracts external resources.
- There are other examples
- More of *Ethiopia* needed across Africa

# Governments using Domestic Resource and Private Sector Mobilization

## Ethiopia : DRM

Grand Ethiopian Renaissance Dam –largest Hydro dam in Africa with 6,000 MW installed capacity, estimated US\$4.2 billion construction cost, financed by domestic resource, now complete to 56%.

### Positive effects of such financing:

- Real transformative project a reality
- Encouraging domestic savings for long term investment

However, **Macro-consequences** (fiscal deficit and public debt, inflationary pressure, crowding out of private sector, etc.)

## Kenya: Private

- Privately funded Transmission Line, a first in Africa
- MDBs to facilitate by backstopping GoK's role (PCG, PRG)
- Long-tenor to facilitate self-funding

# Obstacle to mobilizing financing

- Political, social and business Risks: Real and Perceived
- Poor governance and business environment (Currency risks e.g. inconvertibility and inability to transfer FX)
- Potential effects on public debt (limits for sustainable borrowing)

# AfDB response to risk

Concessional and non-concessional Loans to Governments for projects that attract other resources, and build governance & confidence

African Legal Facility (Grant resources to negotiate PPPs, mining agreements etc.)

Loans to Private Sector sponsored projects, demonstrating confidence in country

Smart partnerships: Loans using leveraged resources from bi-lateral partners.

Partial Credit Guarantee to private sector to cover commercial debt defaults

Partial Risk Guarantee to Private sector to cover for government defaults

## Potentially the world's largest hydroelectric dam, the Great Inga on Congo River

- Inga Dam III is the solution and the challenge
- 40,000 megawatts (MW) of energy- >2X China's Three Gorges Dam, currently the world's largest.
- Can provide renewable energy to 500 million Africans,
- Total cost est. of \$80 billion: funding is a real challenge

# Great Inga Dam — DR Congo

## Typical African challenge


### Inga Dams



Inga I dam, with the feeding canal for Inga II in the foreground.



Location of Inga Dams in Democratic Republic of the Congo

Country	Democratic Republic of the Congo
Coordinates	 5°31'09"S 13°37'19"E
Status	Operational
Construction began	Inga I: 1968 Inga II:
Opening date	Inga I: 1972 Inga II: 1982

### Power station

Turbines	Inga I: 6 x 58.5 MW Inga II: 8 x 178 MW
Installed capacity	Inga I: 351 MW Inga II: 1,424 MW

# Scaling up infrastructure financing

## Domestic Resource Mobilization



Government to take leadership, own and move the process

- Issue Bonds
- Develop, deepen and use Capital Markets
- Securitize national assets e.g. ports, power plants, etc
- Pension funds – high possibilities.
- Sovereign Wealth Funds (few and illiquid?)

## External Resources



### 1. Multilateral Development DFIs

De-risk projects through preparatory funds, PCGs, PRGs, etc  
Fund capacity building and governance building

### 2. Private Sector

Sector knowledge, swift, deep pocketed thru' networks & syndicates  
De-mystify PPPs

### 3. Government-to-Government

Deep pockets and also watch out for debt increase / sustainability  
Exchange programmes for capacity building & knowledge transfer

# What can G-24 do? What should Africa do?

## G-24 could:

- Work on bringing together like-minded organization / governments. Avoid too many initiatives that pull Africa in too many direction.
  - Mobilize huge resources for the Quantum leap
- a. Africa must identify its priority projects clearly. This is more or less done (PIDA + national plans).
  - b. Africa must start project preparation immediately, with or without partner support. This is happening in some places.
  - c. Africa must initiate the projects they consider priority and invest in them immediately
  - d. Africa must invest in a big way their national resources in the projects they believe in and move on,
  - e. Africa will find financial support on the way,
  - f. For the most part, Africa own institutions can do most work, with appropriate capacity building and empowerment – Just-Do-It.

## Thank you