



A conference on business partnerships
between overseas participants and
Korean contractors in the fields of
infrastructure, plant, and finance.

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Mission and Objectives

Mission:

To spur sustainable economic development and social progress in Africa.

Strategy :

- **mobilize and allocate resources for investment in Africa, and**
- **Provide policy advice and technical assistance to support development effort**



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Member Countries of the Group: 77

African Regional Member Countries (RMCs)

Algeria, Angola, Benin, Botswana, Burkina-Faso, Burundi, Cameroon, Cape-Verde, Central African Republic, Chad, Comoros, Congo, D.R. Congo, Côte d'Ivoire, Djibouti, Egypt, Eritrea, Equatorial Guinea, Ethiopia, Gabon, Gambia, Ghana, Guinea, Guinea-Bissau, Kenya, Lesotho, Liberia, Libya, Madagascar, Malawi, Mali, Mauritania, Mauritius, Morocco, Mozambique, Namibia, Niger, Nigeria, Rwanda, Sao Tome and Principe, Senegal, Seychelles, Sierra Leone, Somalia, South Africa, Sudan, Swaziland, Tanzania, Togo, Tunisia, Uganda, Zambia and Zimbabwe.

Since 1982: Non-African Non-regional Member Countries (NRMCS)

Argentina, Austria, Belgium, Brazil, Canada, China, Denmark, Finland, France, Germany, India, Italy, Japan, **Korea**, Kuwait, Netherlands, Norway, Portugal, Saudi Arabia, Spain, Sweden, Switzerland, United Kingdom and United States of America.



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The Bank Group enjoys strong shareholder support across continents to fulfill its development mandate

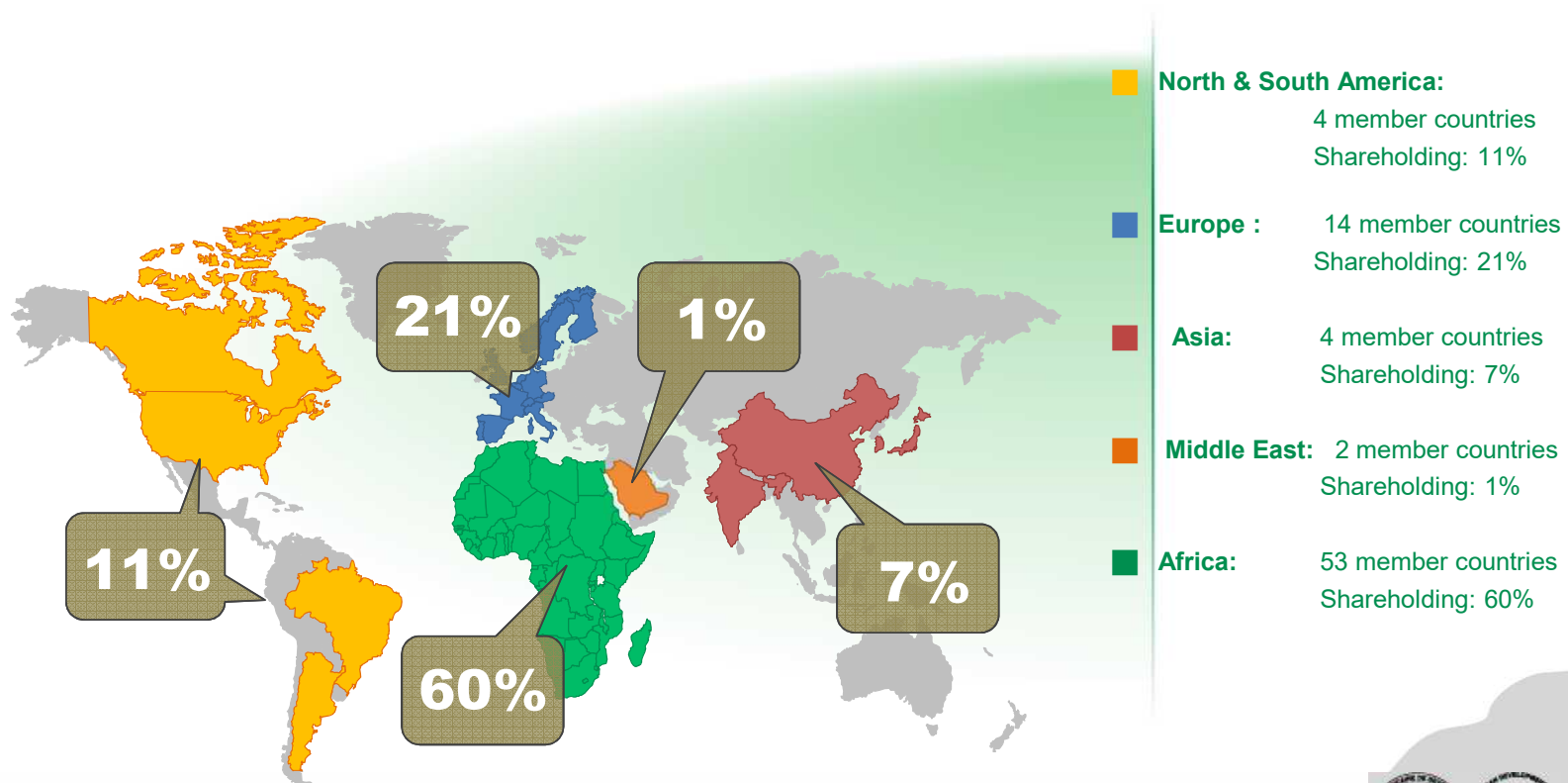




Photo by M. Wa-Kyendo, Zanzibar, 2007

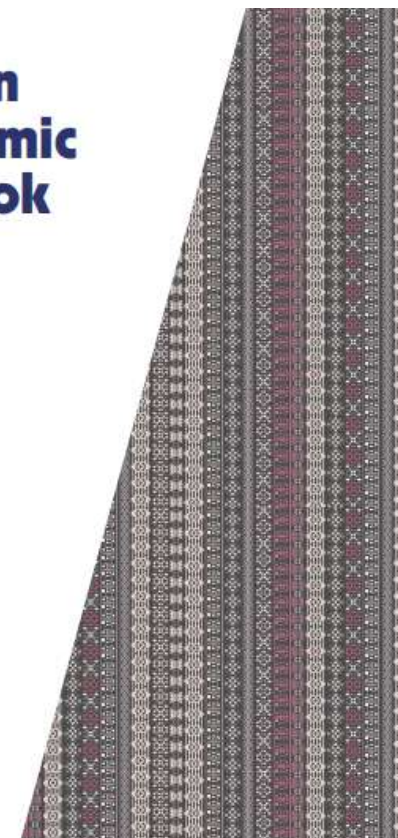
**This Presentation:
Trends of infrastructure market in the African region &
Ways for Korean international contractors to participate
in PPP projects in the Africa**

This presentation will:

1. review trends in African Infrastructure development
2. demonstrate scope of infrastructure development
3. touch on challenges, opportunities and the way Bank is responding
4. conclude with an invitation to Korea contractors to participate

Data is extracted from the **African Economic Outlook 2019**, a publication of the AFDB and the **PIDA Infrastructure 2040 Outlook Report**

**African
Economic
Outlook
2018**



State of infrastructure in Africa is poor...

- There are huge gaps in infrastructure development and in access to infrastructure in Africa.
- Gaps in Power, Transport, Water.
- These gaps are constraining economic growth, setting off a vicious spiral of stagnation or underdevelopment...



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Gaps in infrastructure ... in Africa

Only 30% - 40% 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.)

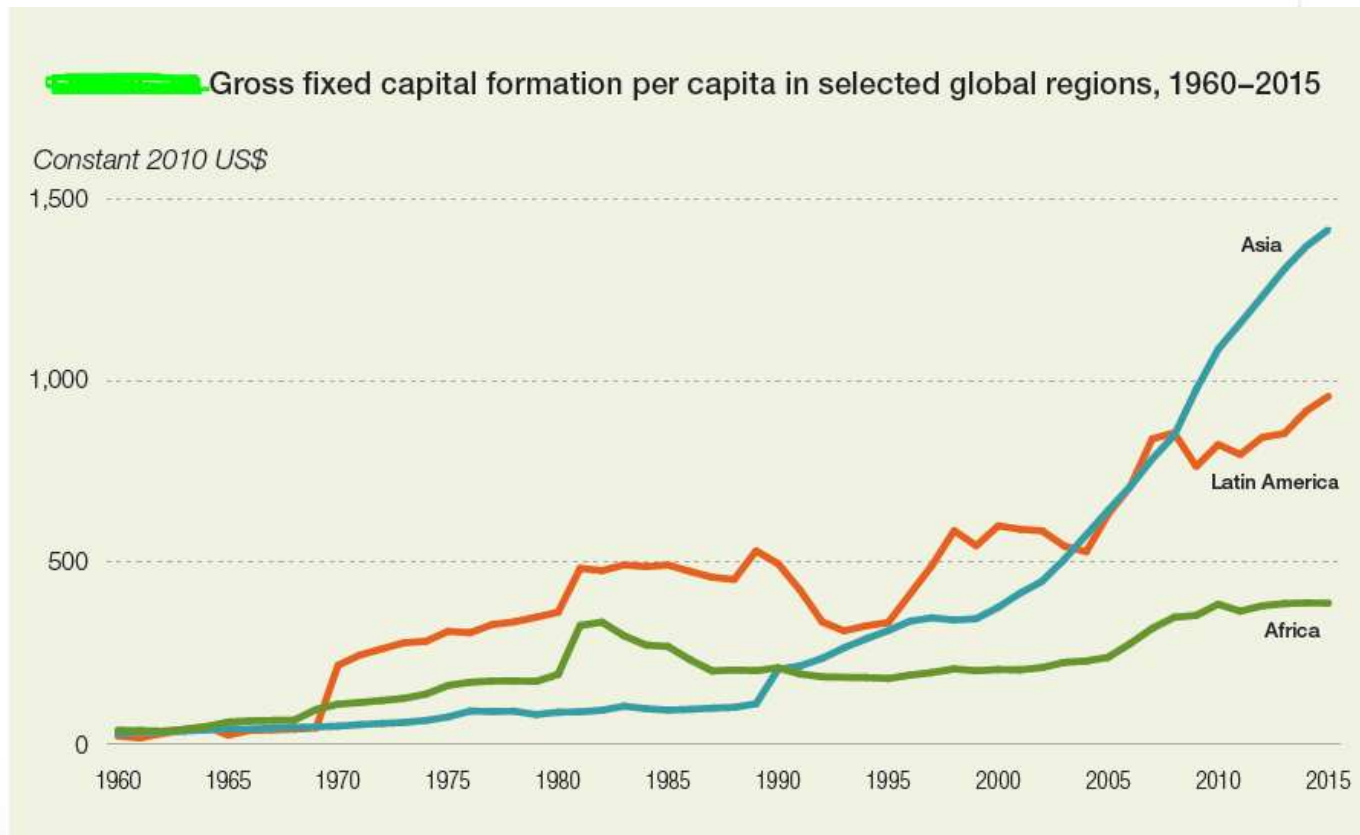
Let us review some key facts about infrastructure trends



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Comparing investments in Infrastructure...



In 1960, investments were at same level in Africa, Asia and South America. However, Africa lagged behind in 1970 and picked in in 2000s

Impact of low investments in infrastructure...

Infrastructure access data for selected global regions

Indicator	Africa	Asia	Europe	Latin America
<i>Transport</i>				
Paved road density (km of paved road per 100 km ² of land area)	2	25	122	3
Railway lines (km)	46,380	197,610	85,986	89,002
<i>Information and communication technology</i>				
Fixed broadband subscriptions per 100 population	1	6	15	9
Mobile cellular subscriptions per 100 population	73	85	119	115
<i>Power</i>				
Electricity production per capita (kWh)	572	1,930	3,355	2,116
Electricity access (% of total population)	46	88	100	97
<i>Water supply and sanitation</i>				
Improved water (% of total population)	69	90	99	94
Improved sanitation (% of total population)	39	61	93	82

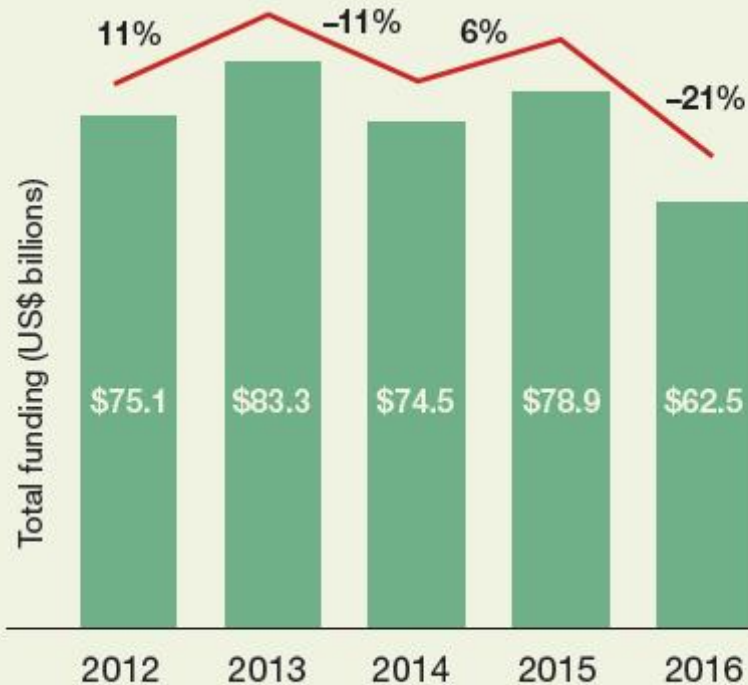
Source: AfDB statistics and World Bank WDI database.

Note: Data are for 2013.

Africa
compares
poorly with
rest of
works... and
presents a
great
business
opportunity

Trends in Infrastructure development

Funding fell 21% in 2016

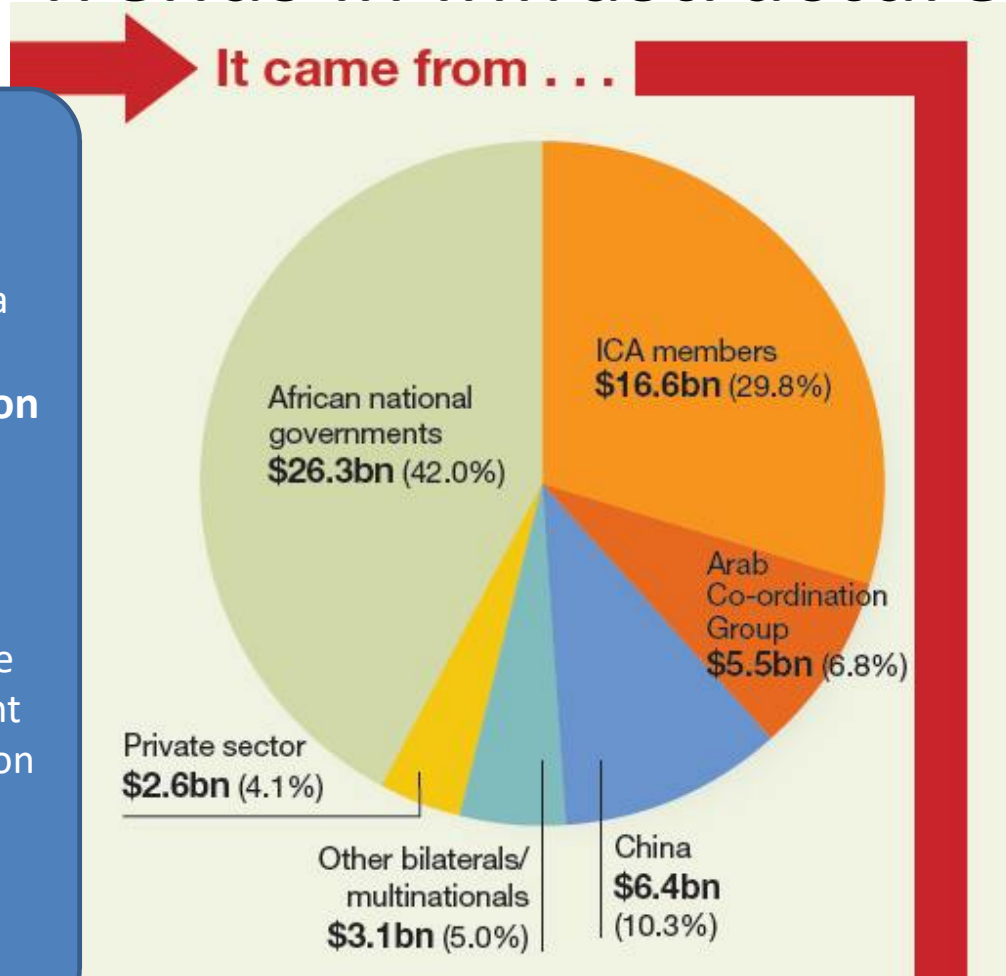


The fall is due to China reduction in investments... African governments are committed

The bad news for Africa is that funding which had risen since 2005 to USD 83.3 billion in 2013 has since fallen ...
...so there is an opportunity for all forms of financing mechanisms

Trends in Infrastructure development

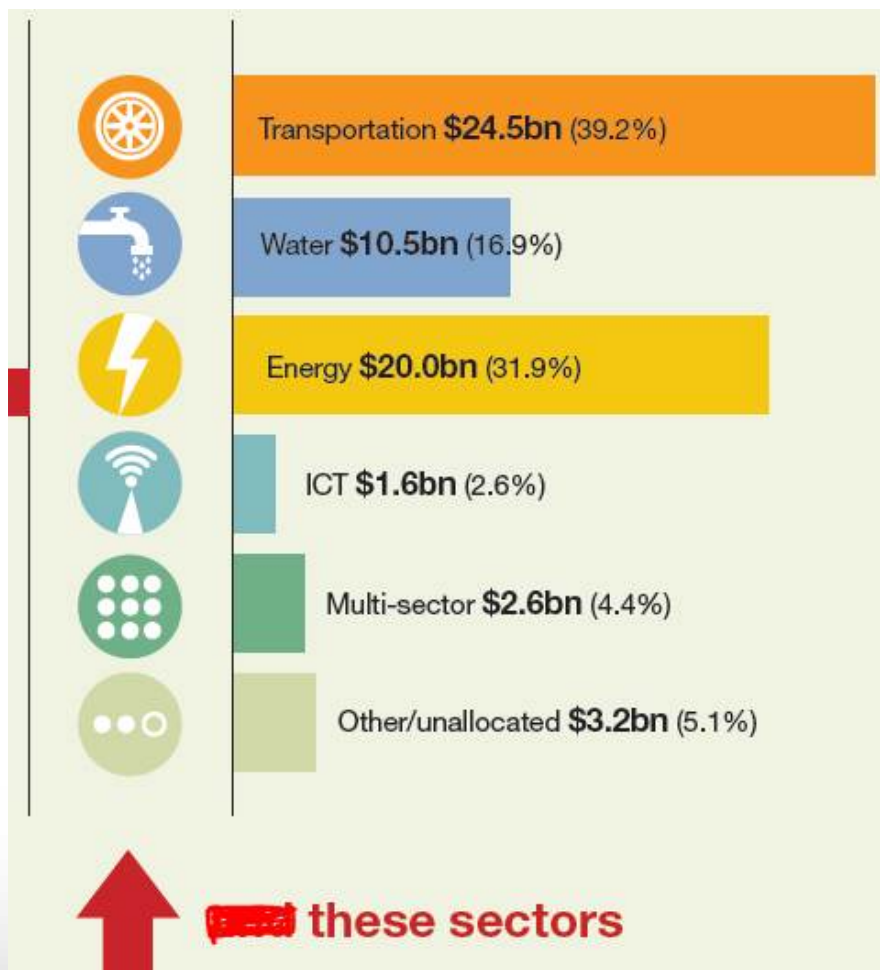
South Korea committed **\$432 million** to four projects in 2016 compared with a single commitment of \$81 million in 2015.



The African Development Bank Today

African governments contribute 42%...
...there is scope for private sector (4.1%)

Trends in Infrastructure development



The demand is highest for transport infrastructure followed by water and energy.

Key facts on infrastructure in Africa

- The continent's infrastructure needs amount to USD 130-170 billion per year.
...there is so much construction required.
- Financing gaps range: USD 68 – 108 billion per year... and it accumulates.
... there is so much scope for PPPs in all its forms



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Challenges in infrastructure investment in Africa

- a. Financial resources
 - b. Contracting capacity
 - c. Project planning and preparation
-
- i. Legal, institutional and regulatory
 - ii. Governance and corruption
 - iii. Risk perception

(a, b, c) - these challenges present the opportunities

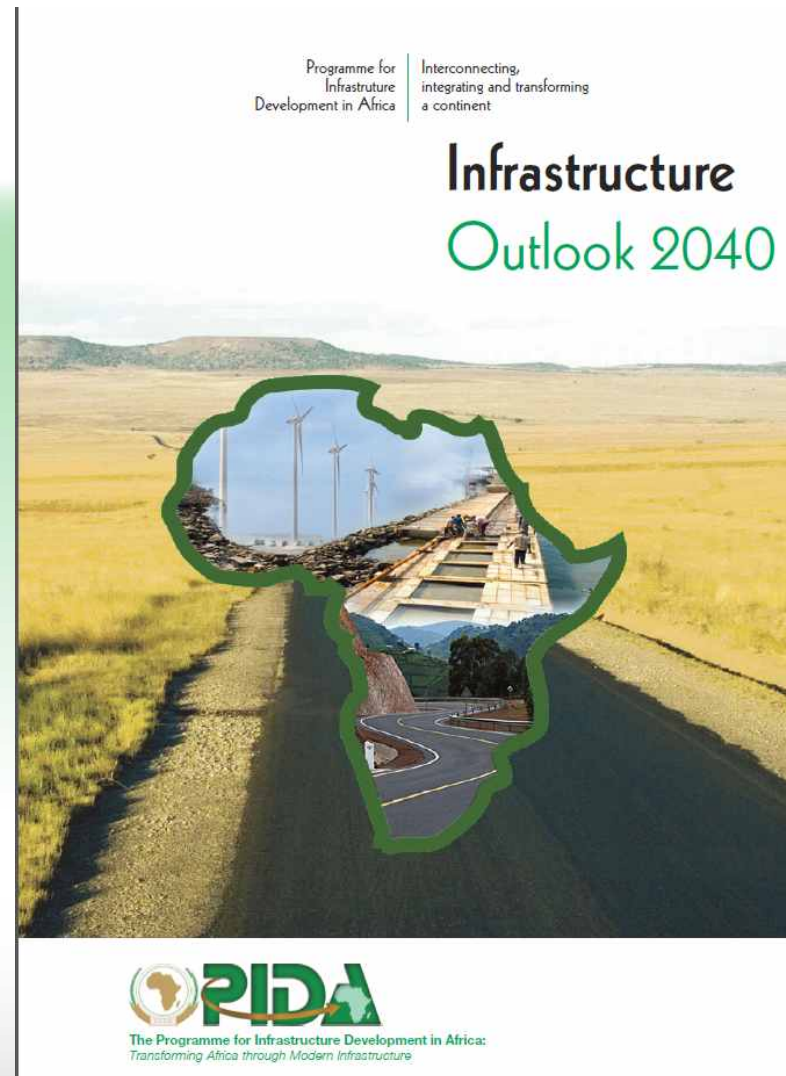
(i, ii, iii) - the Bank and governments are addressing these challenges



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



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

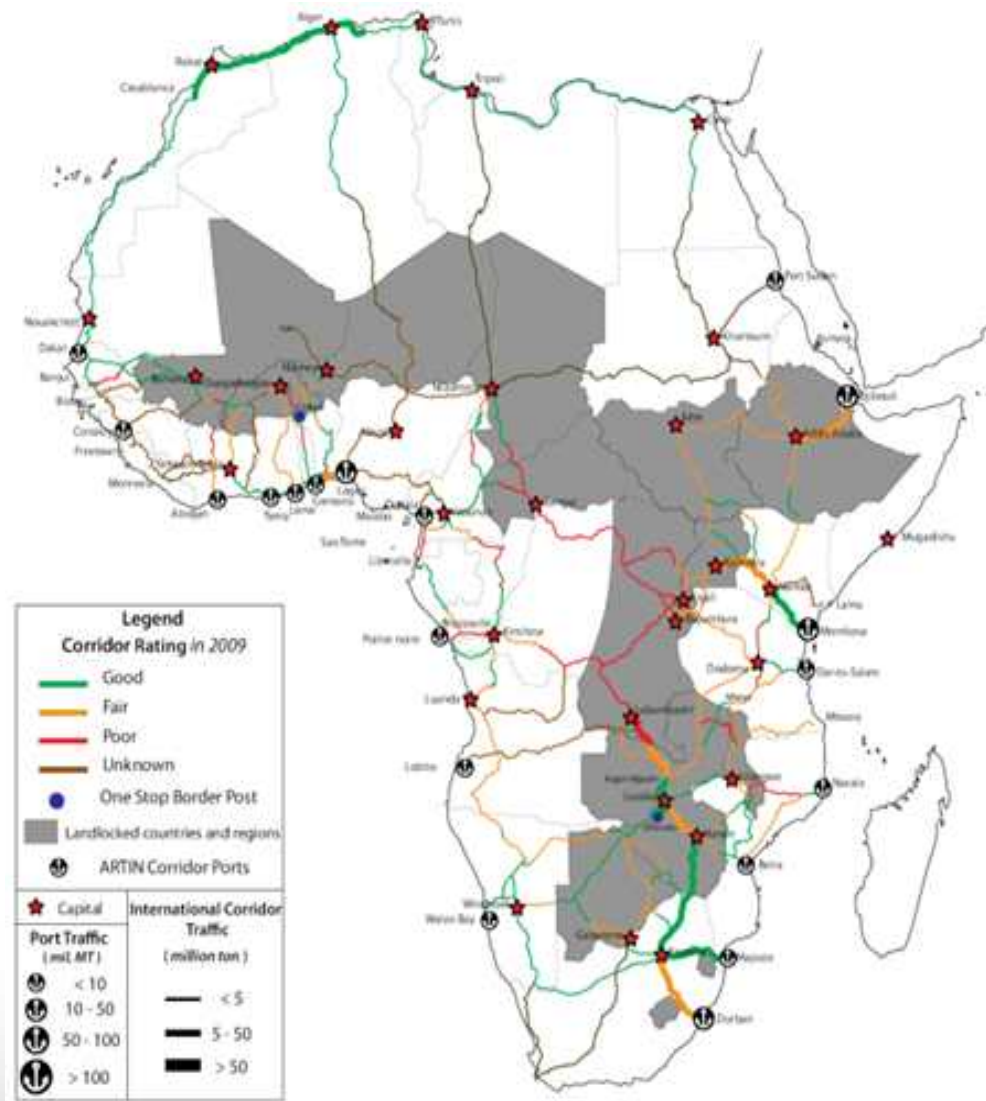
Increase Port capacity to handle Post-Panamax container vessels.
Improve railways tracks and modernize services and equipment

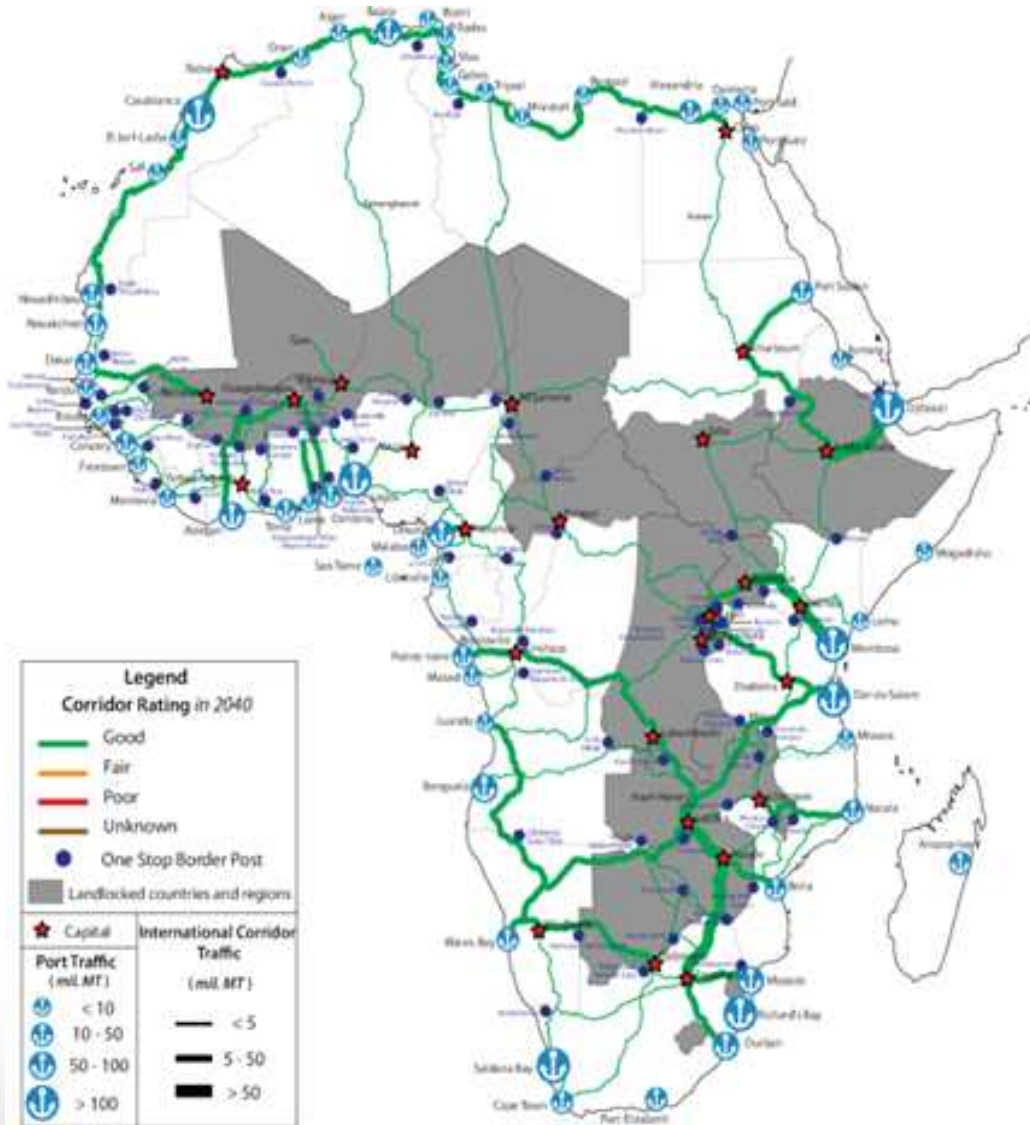
Energy: construct major hydroelectric power stations (Ethiopia Renaissance Dam, Inga Dam in Congo), transmission lines, continental power pools for inter-regional energy trade, petroleum and gas pipeline

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

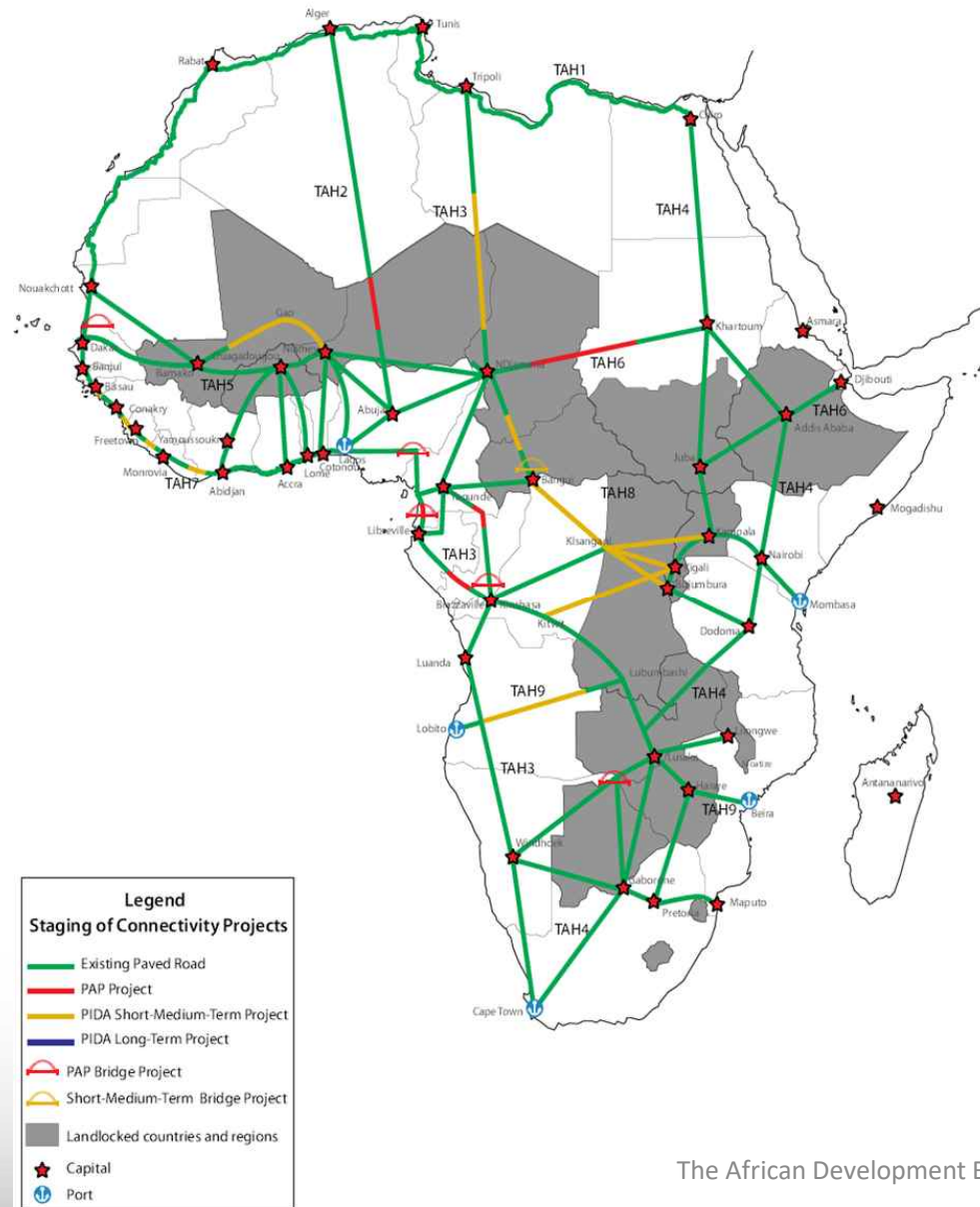




Transformative
Infrastructure

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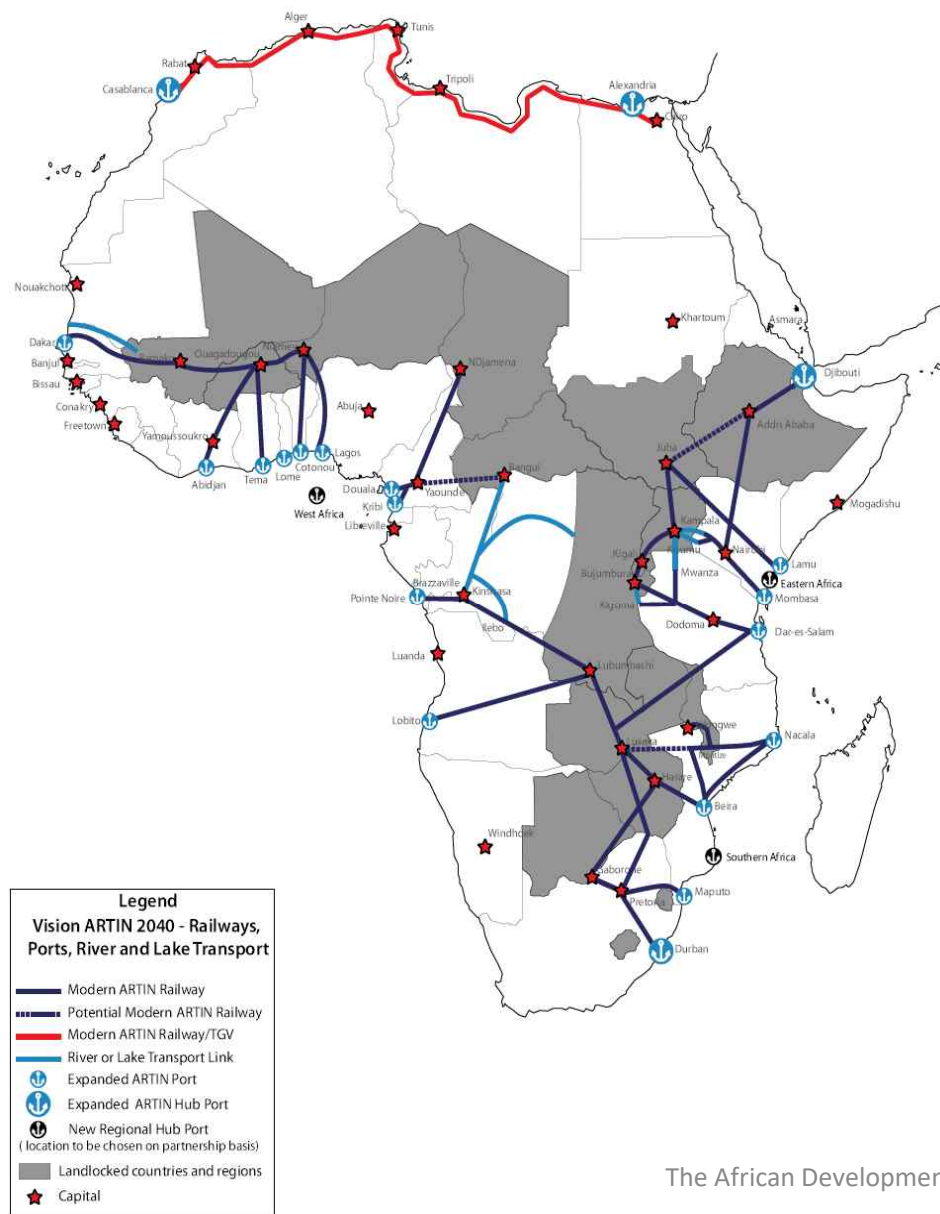
Road
transport
projects
outlook
2040



Transformative Infrastructure

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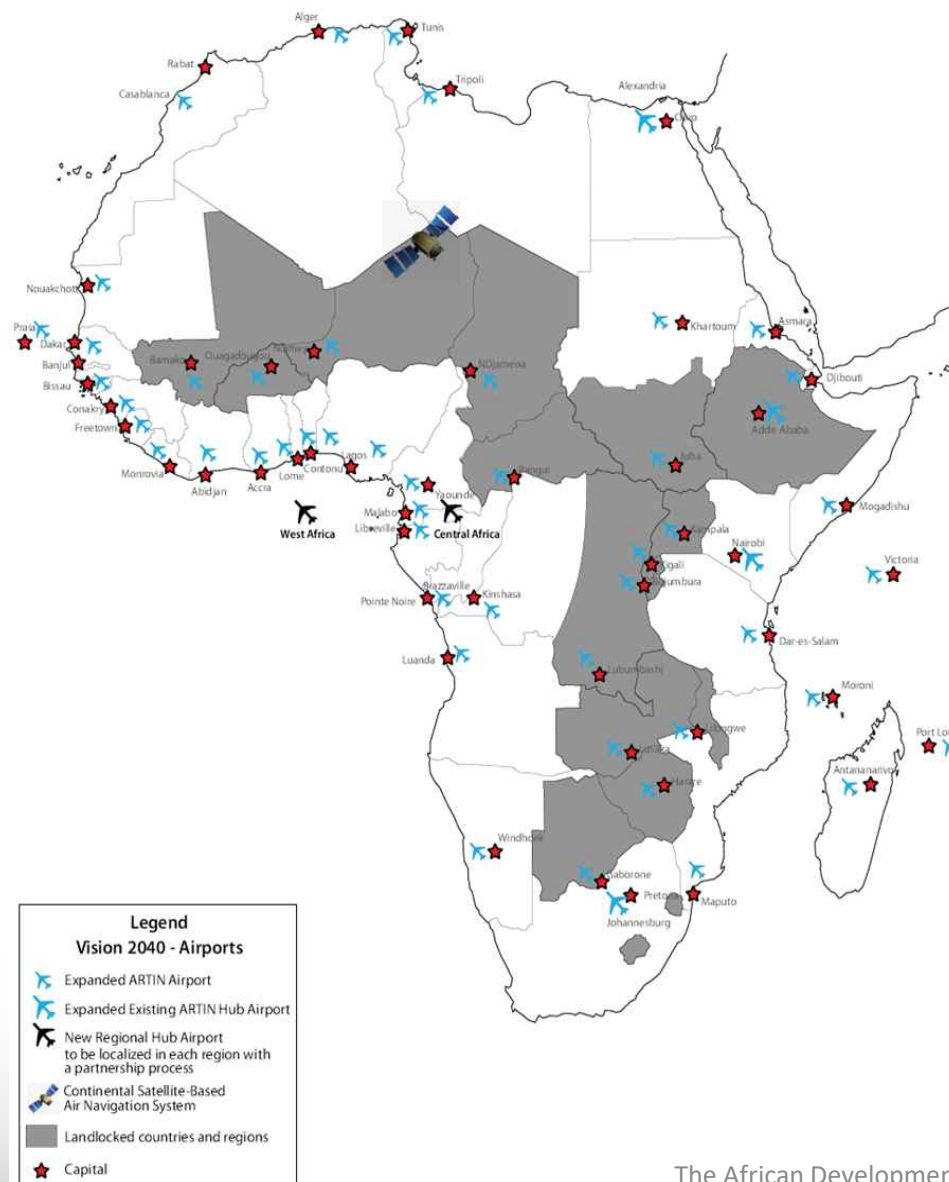
Priority
short term
road &
bridges
(red & yellow)



Transformative
Infrastructure

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Railways,
Ports, &
River Lake
transport
needed by
2040



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Transformative
Infrastructure

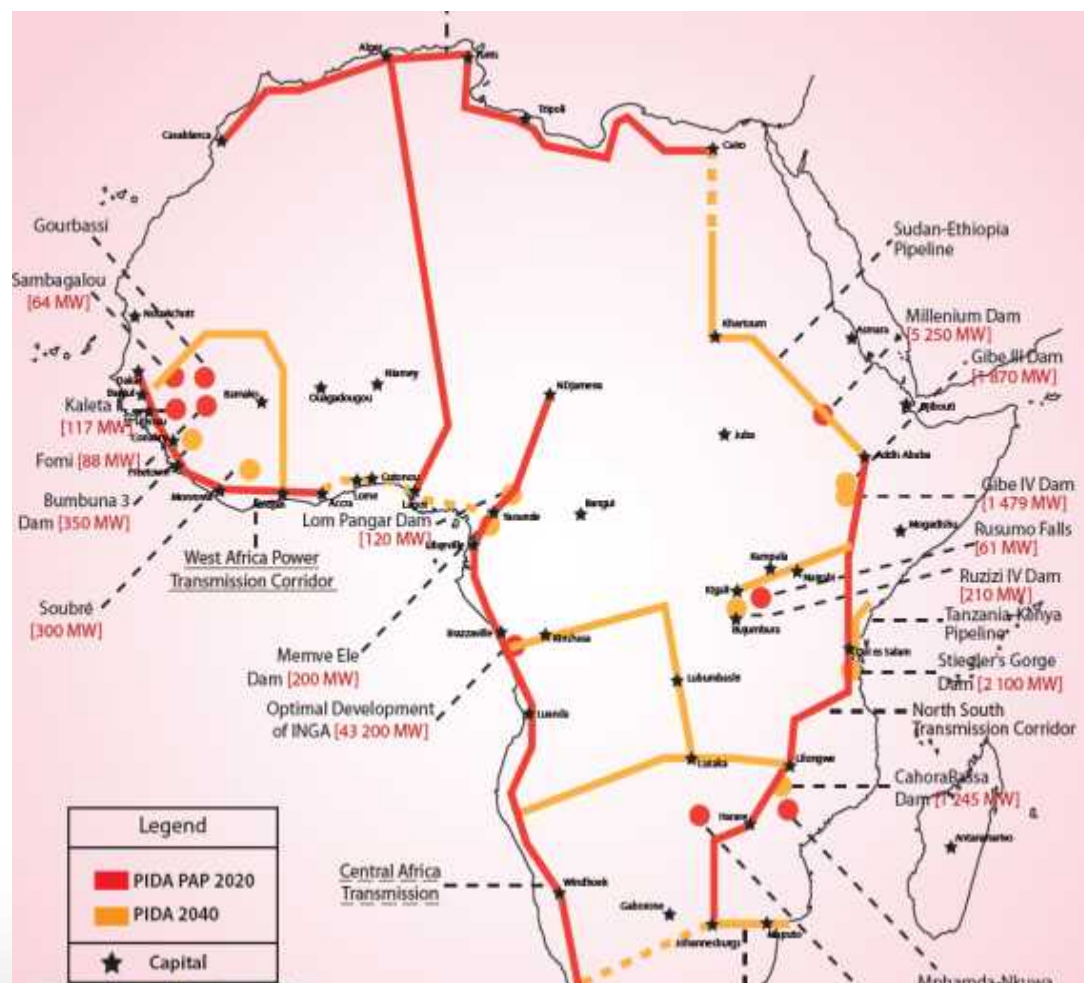
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Modern
and new
Airports
needed by
2040

Transformative Infrastructure

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Energy projects



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...great
potential waiting
to be tapped.

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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°37'18"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

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



The Bank invests huge in infrastructure: for over 10 years now, about 60% (USD 3 billion) of its annual lending goes to infrastructure development

Bank working to scale up infrastructure financing

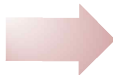
Domestic Resource Mobilization



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

Obstacle to mobilizing financing

1. Political, social and business Risks: Real and Perceived
2. Poor governance and business environment (Currency risks e.g. inconvertibility and inability to transfer FX).
3. 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 **Risk Guarantee to Private sector** to cover for government defaults

Partial Credit Guarantee to **private sector to cover commercial debt defaults**

How can Korean companies benefit from Banks support for PPP in African infrastructure development?

1. Participate in African tenders -
 - eg. Keangnam won a bank funded 200km road construction project through open bidding. Completed.
 - Daewoo won a 36km expressway project co-financed with Korea Exim Bank. Ongoing.
2. Obtain support from Korea government institutions, eg Ministry in charge of transport, construction, finance, foreign affairs, Exim Bank, etc. This meeting is a good example.
3. Keep informed on developments in Africa



Photo: Exim Bank officials when they visited Ethiopia Bank office, 2013

How can Korean companies benefit from Banks support for PPP in African infrastructure development.

Possibilities:

- Many African countries have PPP possibilities in transport, energy and others.
- Ethiopia plans to use PPP in the development of 60km of Expressway in 2020.
- Kenya has an ongoing PPP program on roads.
- Uganda is procuring using PPP for an 100km expressway.
- Korea companies can prepare to participate.

Thank
you