



# Project Finance for Infrastructure in Africa



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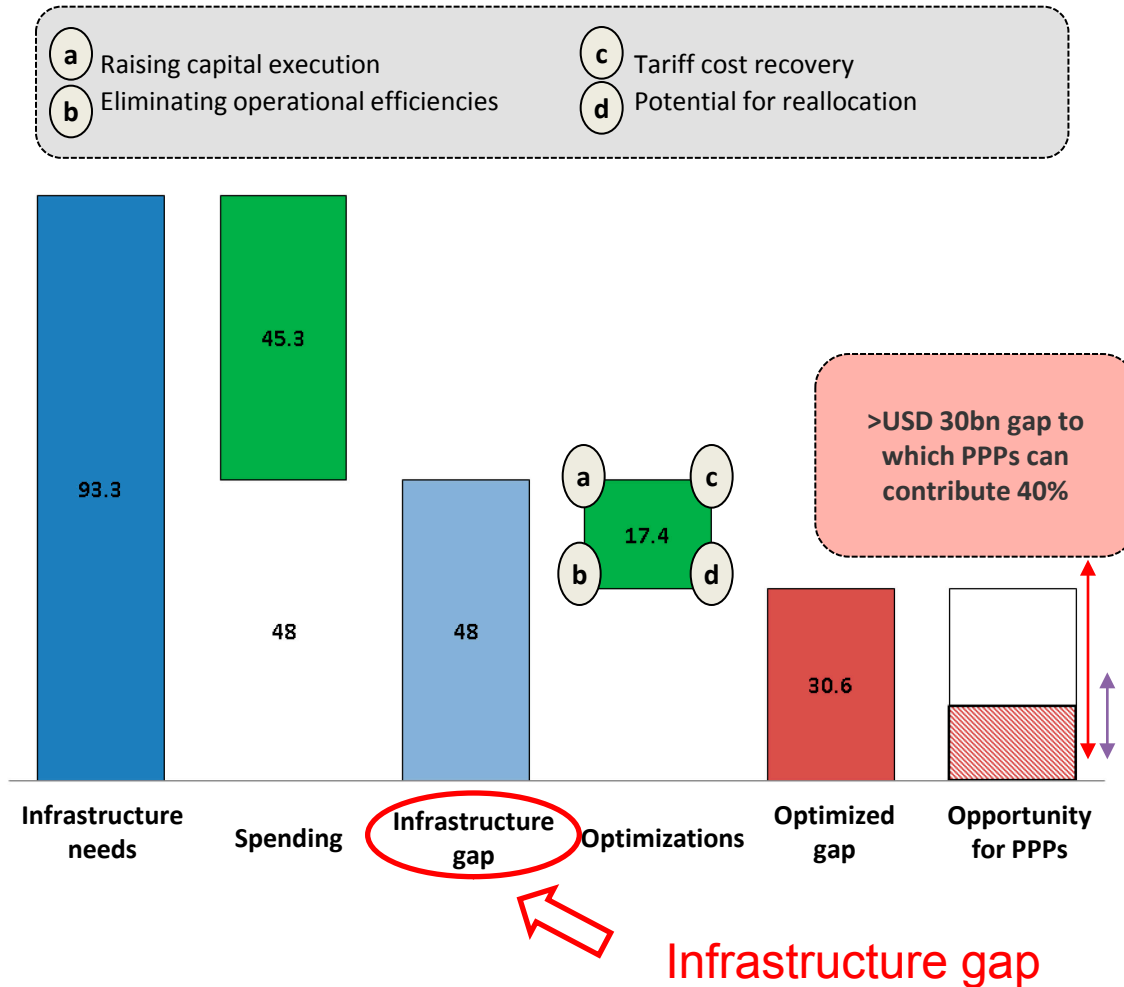


# Agenda

- **Infrastructure Financing Needs**
- **Project Finance for Infrastructure: Africa versus World**
- **Project Finance for Infrastructure in WAEMU, ECCAS, EAC**
- **Financing Sources**
- **Regional Agenda**



# Infrastructure Financing Needs in Africa

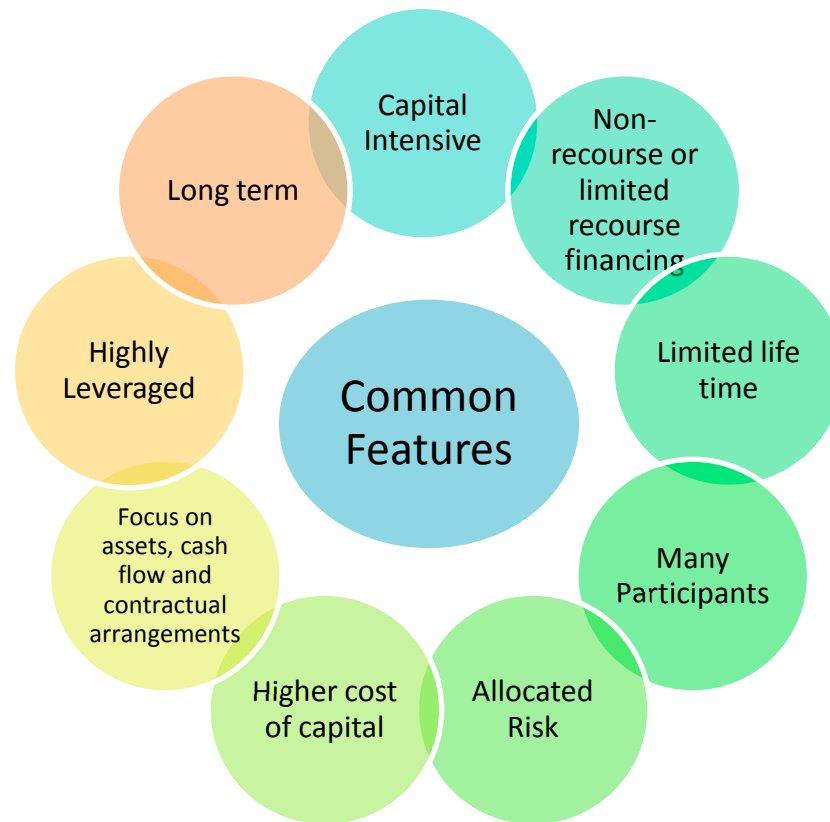


- Africa's annual infrastructure needs are estimated at USD 93 billion, i.e. 15% of Africa's GDP.
- Actual investments in infrastructure total USD 45 billion annually, with more than half funded by the public sector.
- About a third of the infrastructure gap can be met through operational optimization, reducing the gap to USD 31 billion, i.e. 5% of GDP.
- PPPs could theoretically represent 40% of the optimized gap, i.e. USD 12 billion annually (2% of GDP).



# PROJECT FINANCE – DEFINITION

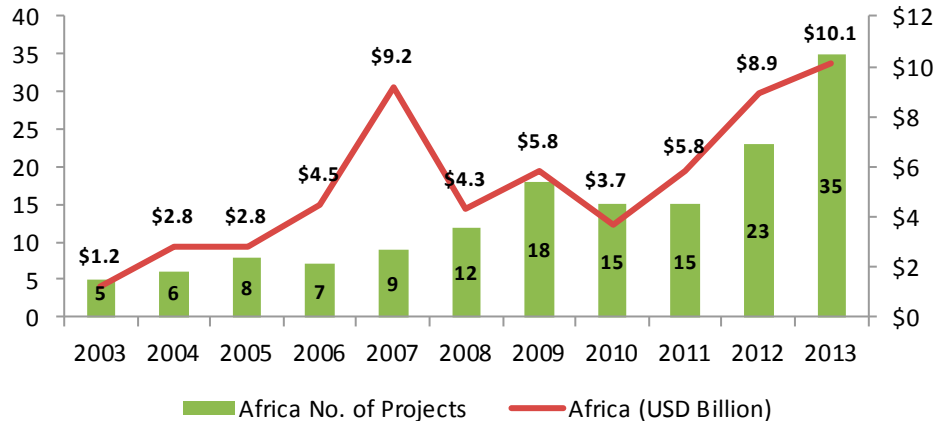
Structured long-term financing of infrastructure, industrial projects and public services with limited recourse to the sponsors, where project debt is repaid from future cash flow generated by the project once operational.



# Project Finance: Africa versus World

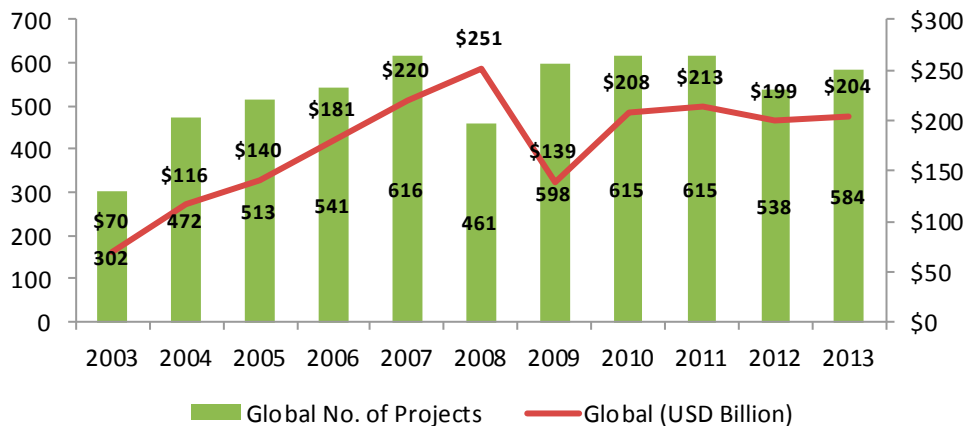
## Africa: Growth in Project Finance 2003-2013

No. of Projects and volume (USD Billion)



## Global: Growth in Project Finance 2003-2013

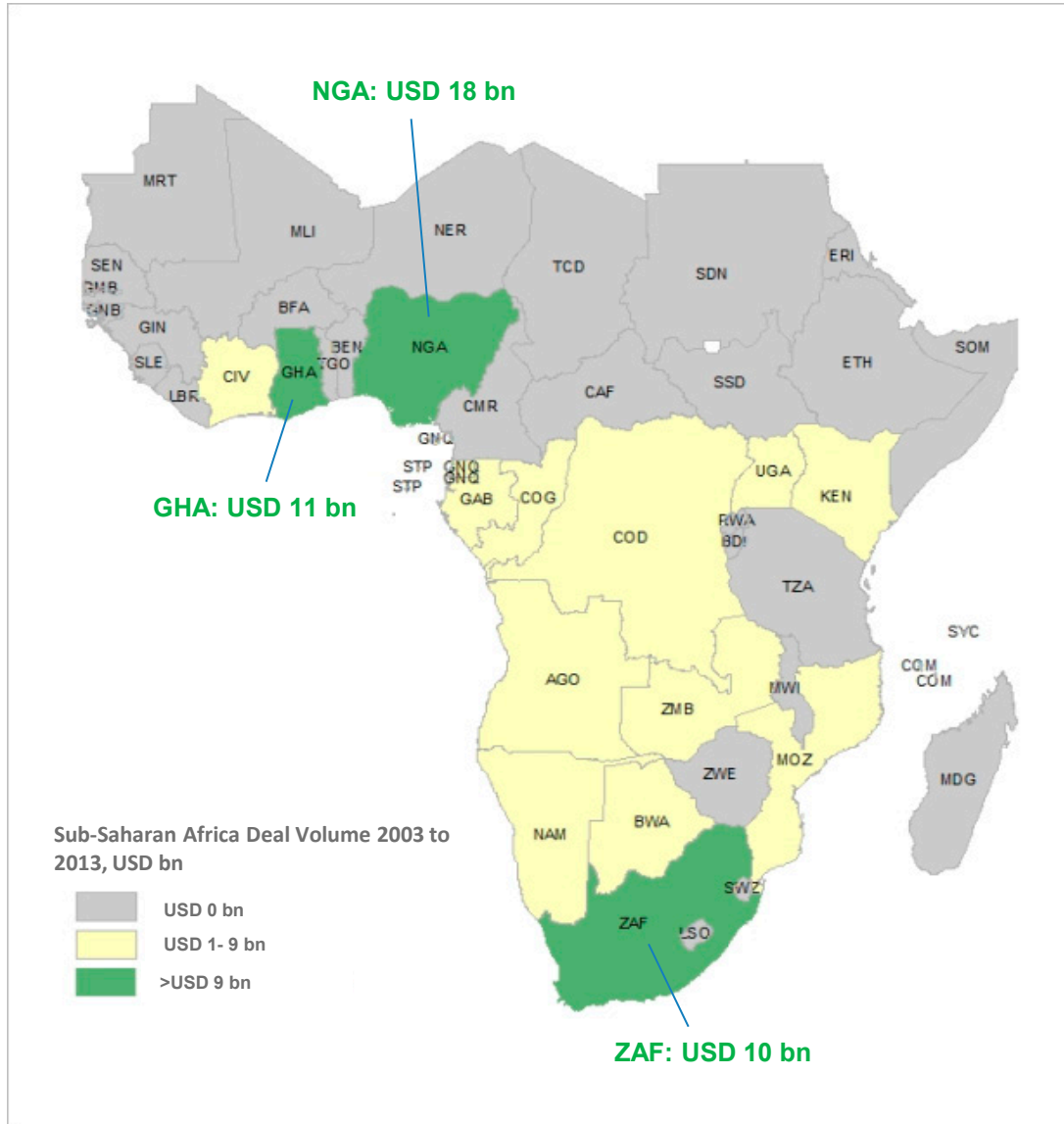
No. of projects and volume (USD Billion)



- Between 2003 and 2013: Sub-Saharan Africa has closed **158 project finance deals with debt totaling USD 59 billion**
- This represents a very small portion of the global project finance market: over 2003-2013, over **5,000** projects closed worldwide and raised total debt of **USD 2 trillion**
- Sub-Saharan Africa accounted for **3%** only



# Project Finance in Africa



- 21 SSA countries had one or more project finance deals in the last 10 years.
- Top countries were Nigeria (USD 17 billion), Ghana (USD 11 billion), South Africa (USD 10 billion) and Angola (USD 4 billion)
- These 4 countries top the regional league tables thanks to a few jumbo transactions (for example: Jubilee oil field in Ghana)
- These 4 countries accounted for **70% of Sub-Saharan Africa's total**.



# Project Finance in Africa – Top 10 Countries

Top 10 SSA countries in terms of deal volume and no. of projects (All sectors)

Country	No. of Projects	Deal Size (\$M)
Nigeria	28	17,793
Ghana	14	10,925
South Africa	45	9,928
Angola	8	4,460
Madagascar	1	2,100
Zambia	7	2,047
Gabon	6	2,018
Ivory Coast	8	1,399
Kenya	9	1,357
Mozambique	4	1,327
<b>Total</b>	<b>130</b>	<b>53,354</b>

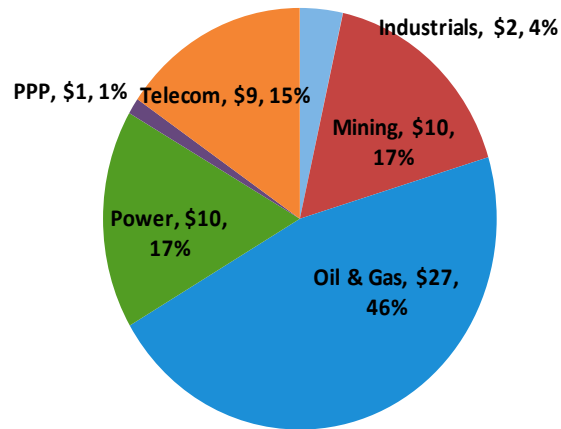
Top 10 SSA countries in terms of deal volume and no. of projects (Non-extractive deals)

Country	No. of Projects	Deal Size (\$M)
South Africa	30	9,039
Nigeria	8	7,477
Kenya	8	1,157
Ivory Coast	3	996
Uganda	1	867
Mozambique	3	835
Ghana	2	498
Tanzania	1	340
Angola	1	250
Cameroon	2	203
<b>Total</b>	<b>59</b>	<b>21,662</b>

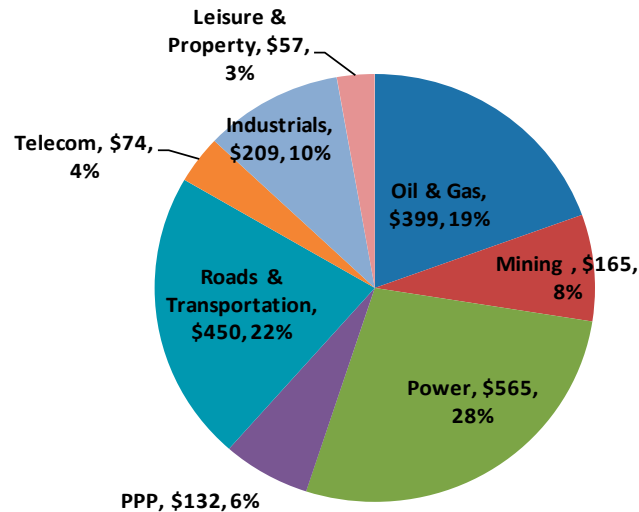


# Project Finance Sectors

**Africa Project Finance Deal by Sector**  
(2003-2013, USD \$bn)



**World Project Finance Deal by Sector**  
(2003-2013, USD \$bn)

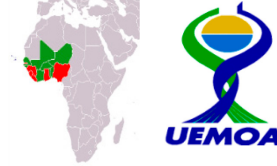


- Extractive industries (Oil & Gas, and mining) account for **64% (USD 37 billion)** of Sub-Saharan Africa's project finance volume.
- Worldwide, extractive industries account for 36% of the total project finance market, almost half the share of Africa.
- The extractive industries' disproportionate share of Sub-Saharan Africa's project finance market highlight the region's infrastructure gap discussed earlier.
- On average over the 2003-2013 period, infrastructure project finance represented only USD 1 billion, versus potential of USD 12 billion per year.





# Project Finance in WAEMU



- 14 transactions closed over 2003-2013 totaling USD 2.7 billion: 4% of Africa project finance volume.
- Extractive industries: USD 1.7 billion (63%)
- Infrastructure: USD 1.0 billion (37%)

Year	Country	Project Name	Sector	Project debt (\$m)
2004	Mali	Loulo gold mine	Mining	82
2005	Burkina Faso	Youga gold mine	Mining	34
2005	Cote d'Ivoire	Baobab CI-40 oil field	Oil&Gas	80
2006	Cote d'Ivoire	Mana gold mine	Mining	20
2007	Senegal	Blaise Diagne airport	Transport	493
2008	Cote d'Ivoire	Afren oil & gas acquisition	Oil&Gas	205
2008	Senegal	Sabodala gold mine	Mining	130
2010	Cote d'Ivoire	Baobab oli field	Oil&Gas	207
2010	Senegal	Dakar Diamniadio toll road	Transport	132
2012	Cote d'Ivoire	Azito IPP expansion	Power	450
2012	Cote d'Ivoire	IHS tower acquisition	Telecom	100
2013	Cote d'Ivoire	Ciprel IPP	Power	331
2013	Cote d'Ivoire	SECI CI-27 gas field expansion	Oil&Gas	200
2013	Senegal	Sendou IPP	Power	206
<b>Total</b>		<b>14 Projects</b>		<b>2,670</b>



# UEMOA Project Case Study 1 – Sendou 125 MW (Senegal)

## Transaction Background

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- Power purchase agreement with Senegalese utility Senelec, with comfort letter from Government (no sovereign guarantee); coal imported from South Africa
- Euro debt from African Development Bank and FMO; and XOF debt from CBAO and BOAD
- 12/14-year tenors
- Debt:equity ratio of 70:30

## Deal Key Elements

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<b>Sponsors</b>	Nykomb of Sweden, AFG of Morocco
<b>Project description</b>	125MW greenfield coal-fired power plant in Senegal
<b>Financial Close</b>	July 2013
<b>Total Debt</b>	\$206 M

## Transaction Highlights

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- Largest IPP in the country to date, providing 40% of the country's electricity requirements
- 250MW expansion underway



# UEMOA Project Case Study 2 – Ciprel 222 MW (Cote d'Ivoire)

## Transaction Background

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- 22-year BOOT until 2035
- Power sold to Government of Cote d'Ivoire under long-term, fixed-price PPA
- Debt:equity ratio of 80:20
- Debt: 15-year loans from IFC (€100m), AfDB (€50m) and Proparco (€50m)

## Transaction Highlights

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- One of the country's 2 IPP alongside Azito, providing in total 60% of the country's electricity needs

## Deal Key Elements

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<b>Sponsors</b>	Fimagestion of France (83%), Republique de Cote d'Ivoire (15%), BOAD (2%)
<b>Project description</b>	Gas-fired power plant 222MW expansion in Cote d'Ivoire
<b>Financial Close</b>	August 2013
<b>Total Debt</b>	€250m



# Project Finance in ECCAS



- 23 transactions closed over 2003-2013 totaling **US\$7,7 billion**, 14% of sub-Saharan Africa
- Extractive Industries: USD 7.4 billion, (96%)
- Infrastructure: USD 0.3 billion, (4%)

Year	Country	No. of Project	Project Name	Sector	Project debt (\$m)
2003	Angola	1	Sonasing Kuito FPSO	Oil&Gas	117
2004	Equatorial Guinea	1	Serpentina FPSO	Oil&Gas	250
2005	Angola	1	Sanha FPSO	Oil&Gas	245
2006	Angola	1	Sinopec	Oil&Gas	1,400
			Deepwater floating	Oil&Gas	294
2007	Angola	3	Mondo FPSO	Oil&Gas	294
			Escom Kimberlites	Mining	90
	Angola	2	Mint LNG	Oil&Gas	840
2008			Saxi Batuque FPSO	Oil&Gas	328
	DR Congo	1	Celtel expansion	Telecom	63
	Gabon	1	Total Gabon	Oil&Gas	600
2009	Gabon	1	Onal oil field	Oil&Gas	500
2010	DR Congo	1	Azurite oil field	Oil&Gas	250
	Equatorial Guinea	1	Aseng FPSO	Oil&Gas	400
2011	Cameroon	2	Kribi power plant	Power	132
			Sonara refinery	Oil&Gas	117
	Angola	1	Chissonga oil field	Oil&Gas	250
2012	Cameroon	1	IHS towers	Telecom	103
	Gabon	2	Onal oil field	Oil&Gas	350
			Olam palm oil	Agribusiness	119
	Angola	1	Sonasing Xikomba FPSO	Oil&Gas	600
2013	Cameroon	1	COTSA FPSO	Oil&Gas	92
	Gabon	1	Total Gabon	Oil&Gas	300
<b>Total</b>		<b>23</b>			<b>7,734</b>



# ECCAS Case Study – Kribi 216 MW (Cameroon)

## Transaction Background

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Power sold to AES SONEL under a long-term PPA

Debt:equity ratio of 75:25

Debt: 14-year loans from IFC (€40m), AfDB (€30m), EIB (€30m), FMO (€18m), BDEAC (€10.5m) and Proparco (€10m); 7/14-year CFA Franc loans from commercial banks with an IDA partial risk guarantee

## Transaction Highlights

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Second IPP in the country after Dibamba

## Deal Key Elements

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<b>Sponsors</b>	AES of the US (56%), Republique du Cameroun (44%)
<b>Project description</b>	216MW greenfield power project in Cameroon
<b>Financial Close</b>	August 2013
<b>Total Debt</b>	€263M



# Project Finance in EAC



- EAC region completed **12** project finance deals in 2003-2013, totaling **USD 2.7 bn** (5% of Sub-Saharan Africa deal volume), most of which are infrastructure.

EAC Region					
Year	Country	No. of Project	Project Name	Sector	Deal Size (USD \$Mn)
2004	Kenya	1	Magadi High-Purity Soda Ash Plant Project	Power	\$55
2006	Kenya	1	Kwale Mineral Sand Project	Mining	\$200
2007	Uganda	1	Bujagali Hydro Power Project	Power	\$867
2008	Tanzania	1	Celtel Expansion Project	Telecommunications	\$340
2009	Kenya	1	Olkaria III Geothermal Phase II Power Project	Power	\$160
2010	Kenya	1	Aga Khan Nairobi Hospital Project	PPP	\$110
2011	Kenya	1	Olkaria III Expansion Plant Project	Power	\$310
2012	Kenya	2	Kenya Gulf Power Plant Project	Power	\$71
			Triumph Oil Power Generating Project	Power	\$101
2013	Kenya	2	Kinangop Wind Park Project	Power	\$150
			Kwale Sugar Project	Industrials	\$200
	Tanzania	1	African Barrick Gold Bulyanhulu Gold Mine Project	Mining	\$142
<b>Total</b>		<b>12</b>			<b>\$2,706</b>



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# Financing Sources

## Multilateral Agencies

- Key financiers of infrastructure PF in Africa

## International Commercial Banks

- In 2012 top MLAs arranged \$ 5.4 bn: \$ 4.4 bn excluding South Africa; \$2.5 bn excluding extractive industries. Power: \$ 2.3 bn (43%)

## Export Credit Agencies

- Cover banks against country and commercial risks
- MLT exposure: \$42 bn export in credits, plus EXIM
- \$30 billion excluding South Africa
- Focus mostly on extractive industries and sovereign deals

## Local Commercial Banks

- Provide local currency but constrained by B/S size, prudential ratios and liquidity cost

## Regional Development Banks

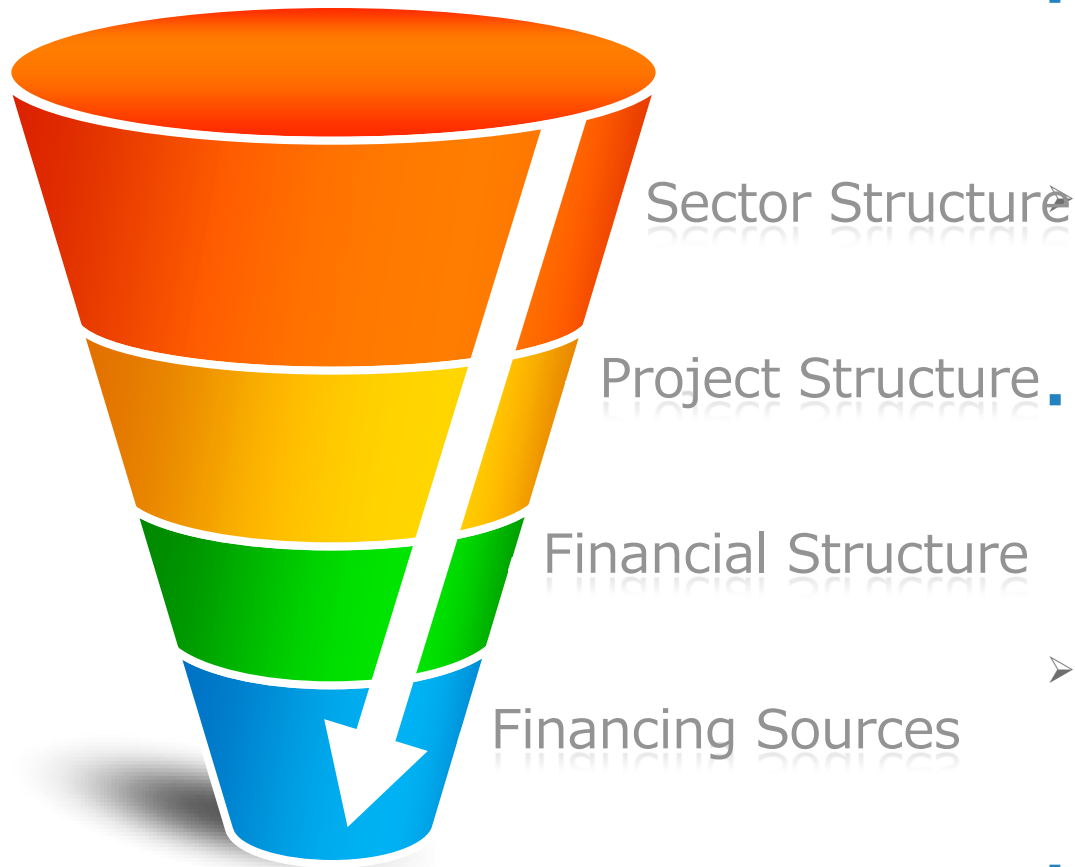
- Support infrastructure deals, mostly in forex
- Constrained by size

## Regional/National NBFi

- Potential to be developed
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# Project Finance Africa – Structural Issues



- **Creditworthiness of entities to which project companies sell their output (e.g., for power projects, utilities are often insolvent)**
  - Partial Solution: sell output to anchor clients with a better financial standing, such as mining companies
- **Cross-border coordination for regional projects (e.g., for road or power transmission projects, difficulty in aligning diverse national interests)**
  - Partial solution: create one SPV that owns the whole project irrespective of the project assets' location
- **Fragile project host countries**
  - Partial solution: maximize export revenues to higher income countries





# Regional Agenda - Power

Africa's infrastructure investment be optimized on a regional, rather than national basis

## Power

### Supply Gap

Lack of power supply a major bottleneck in Sub-Saharan Africa:

- Low access (only 30% of population)
- High supply cost (double of other developing regions)
- Power outages to firms 5-15% of output and 1-4% of GDP

**Factors** causing this supply gap

- **Geography:** Cheap hydro resources distant from main demand areas
- **Size:** Over half the countries in Africa have a peak load below minimum efficient scale for generation
- **Operational inefficiency:** T&D losses average 25%, and 25% of installed capacity is unserviceable

The priority is for neighboring countries to jointly develop the largest and cheapest sources of power, continent-wide



#### Upstream challenge:

Weak governance, institutions and capacity to undertake large-scale, complex projects

#### Midstream challenge:

Power generation resources locate far from main areas of power demand

#### Downstream challenge:

Utilities are operationally deficient and financially insolvent





**Thank you for your attention!**

