

Access to Sustainable Energy for All With Gas

Abidjan, 4 – 5 Nov 2013

World Bank Group Financing Options

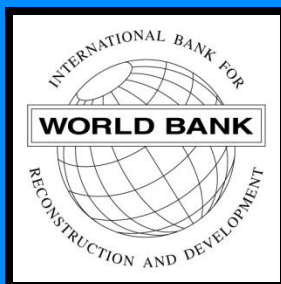
**Sunil Mathrani
Snr. Energy Specialist**



THE WORLD BANK GROUP

The World Bank (IBRD and IDA), the International Finance Corporation (IFC), the Multilateral Investment Guarantee Agency (MIGA), and the International Centre for Settlement of Investment Disputes (ICSID) work together and complement each other's activities to achieve their shared goals of reducing poverty and improving lives.

The World Bank is a major source of financial and technical assistance to developing countries around the world, as well as the largest single source of development knowledge.



The World Bank Group: Organization



World Bank Group

**INTERNATIONAL BANK FOR
RECONSTRUCTION AND
DEVELOPMENT**

**INTERNATIONAL DEVELOPMENT
ASSOCIATION**

**INTERNATIONAL FINANCE
CORPORATION**

**MULTILATERAL INVESTMENT
GUARANTEE AGENCY**

**INTERNATIONAL CENTRE
FOR THE SETTLEMENT OF
INVESTMENT DISPUTES**



- Loans to governments of middle-income and creditworthy low-income countries at low cost to governments
- Providing Partial Political Risk Guarantee/Partial Credit Risk Guarantee

- Interest-free, long-term loans and grants to governments of the world's 79 poorest countries
- Providing Partial Political Risk Guarantee/Partial Credit Risk Guarantee

- Private sector arm of the World Bank Group
- Long-term loans, equity, structured and securitized products, and advisory and risk mitigation services to private enterprises in developing and transition countries

- Political risk insurance or guarantees to promote foreign direct investment into developing countries.
- Public and private entities

- Provides facilities for conciliation and arbitration of international investment disputes between foreign investors and host states



Fiscal Year 2012 Highlights

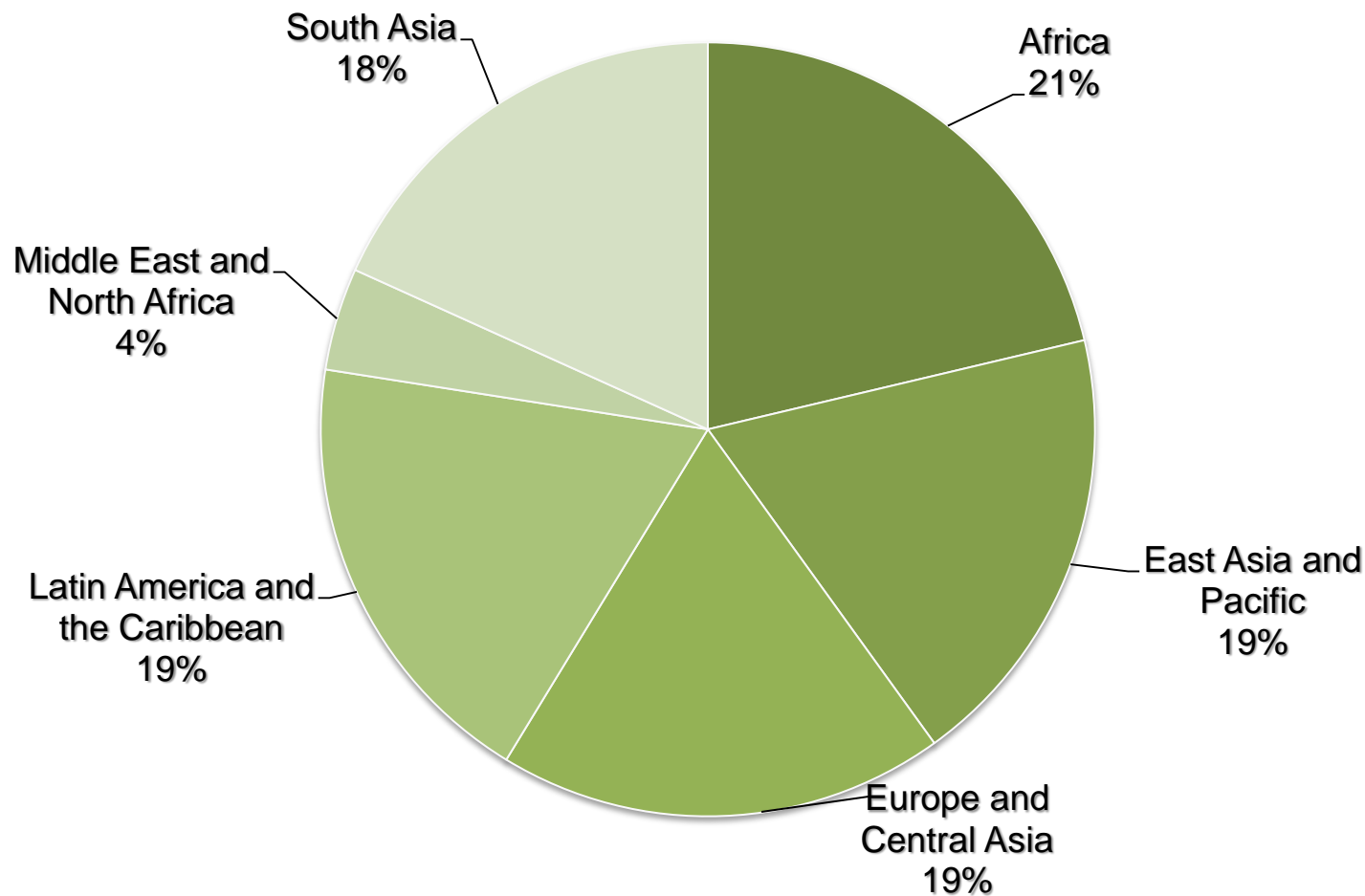
IBRD committed \$20.6 billion for 93 new operations in 38 countries.

IDA committed \$14.8 billion for 160 new operations in 49 countries.



IBRD and IDA Lending by Region | Fiscal 2012

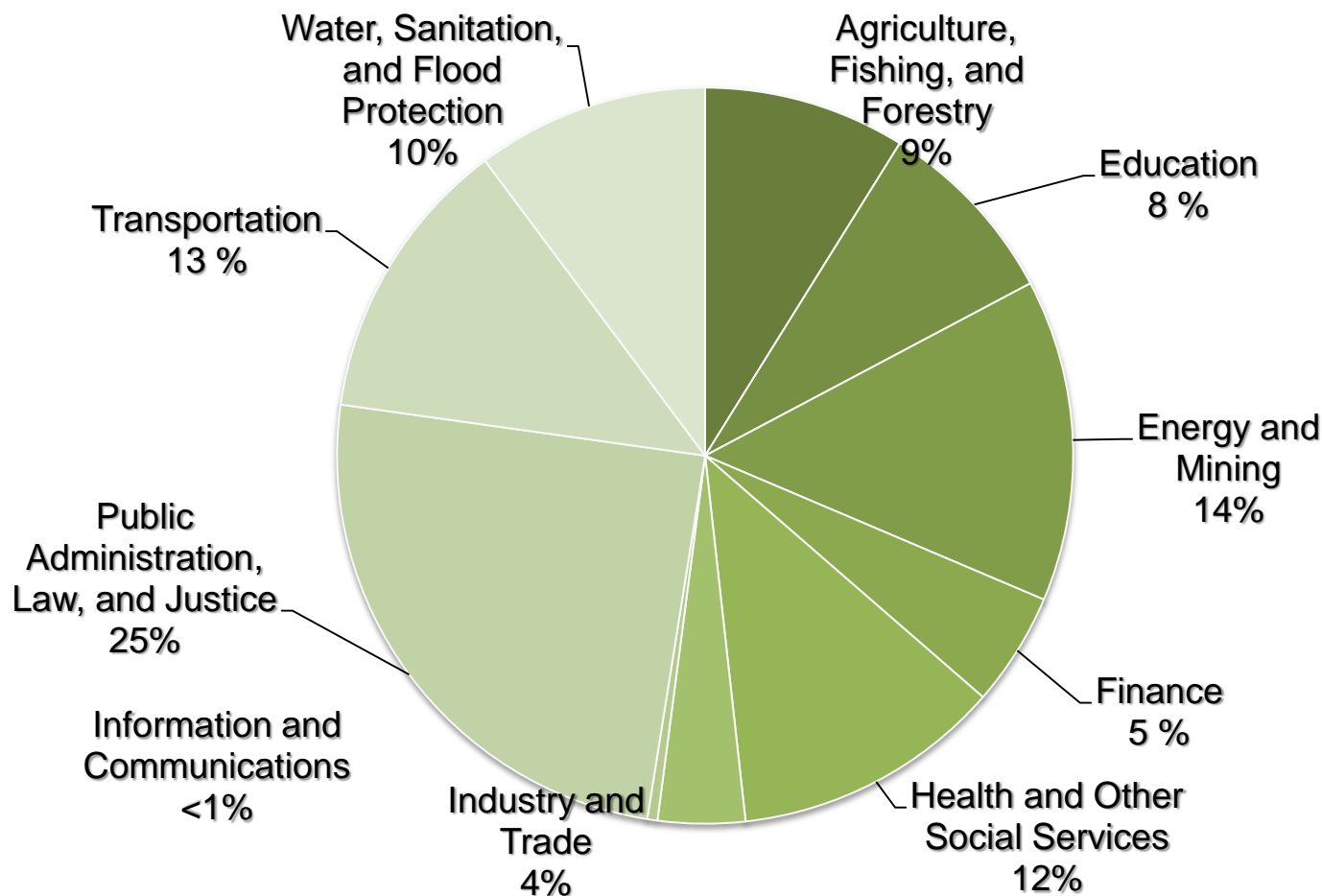
Share of total lending of \$35.3 Billion





IBRD and IDA Lending by Sector | Fiscal 2012

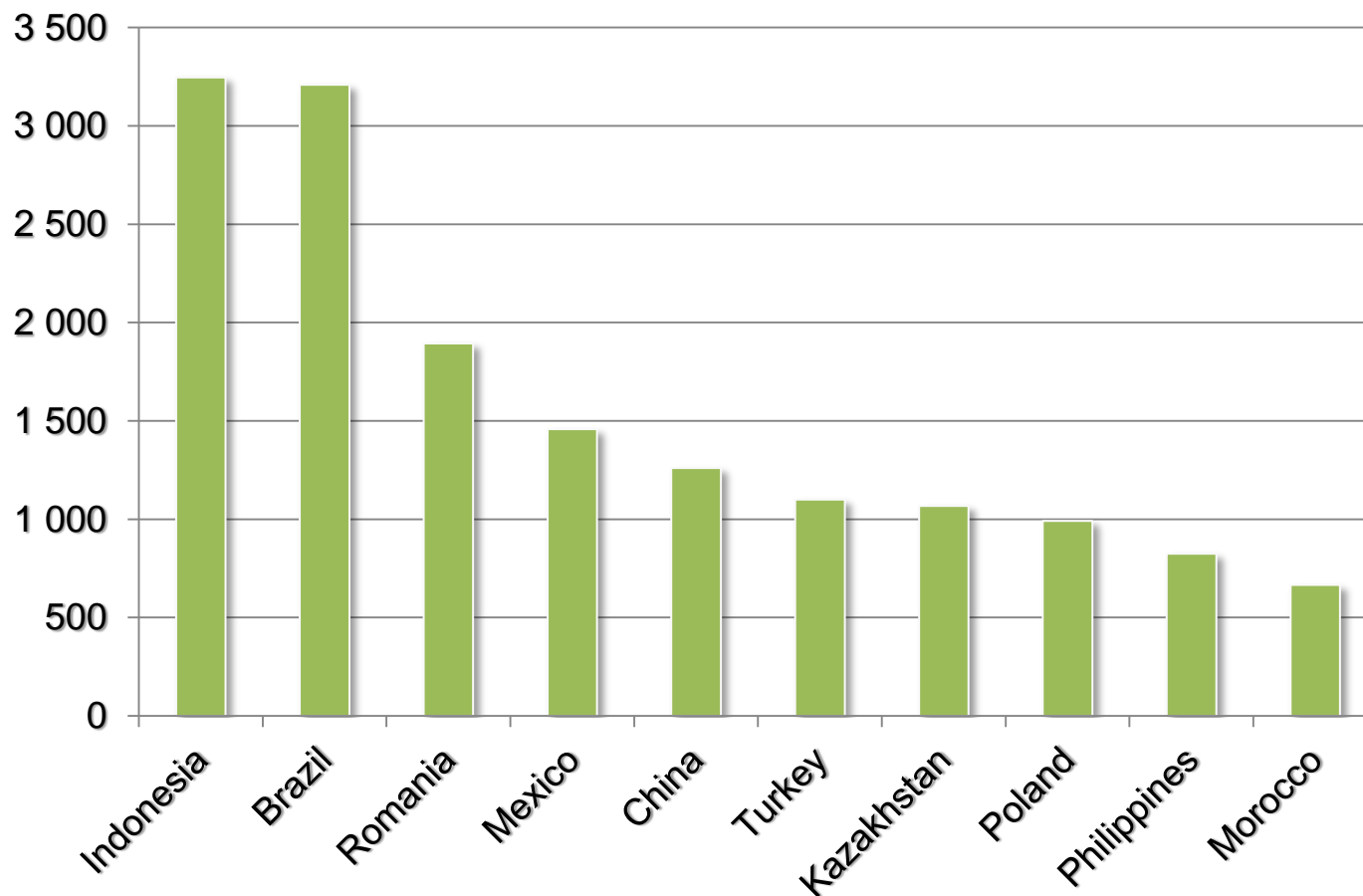
Share of total lending of \$35.3 Billion





IBRD Top Ten Borrowers | Fiscal 2012

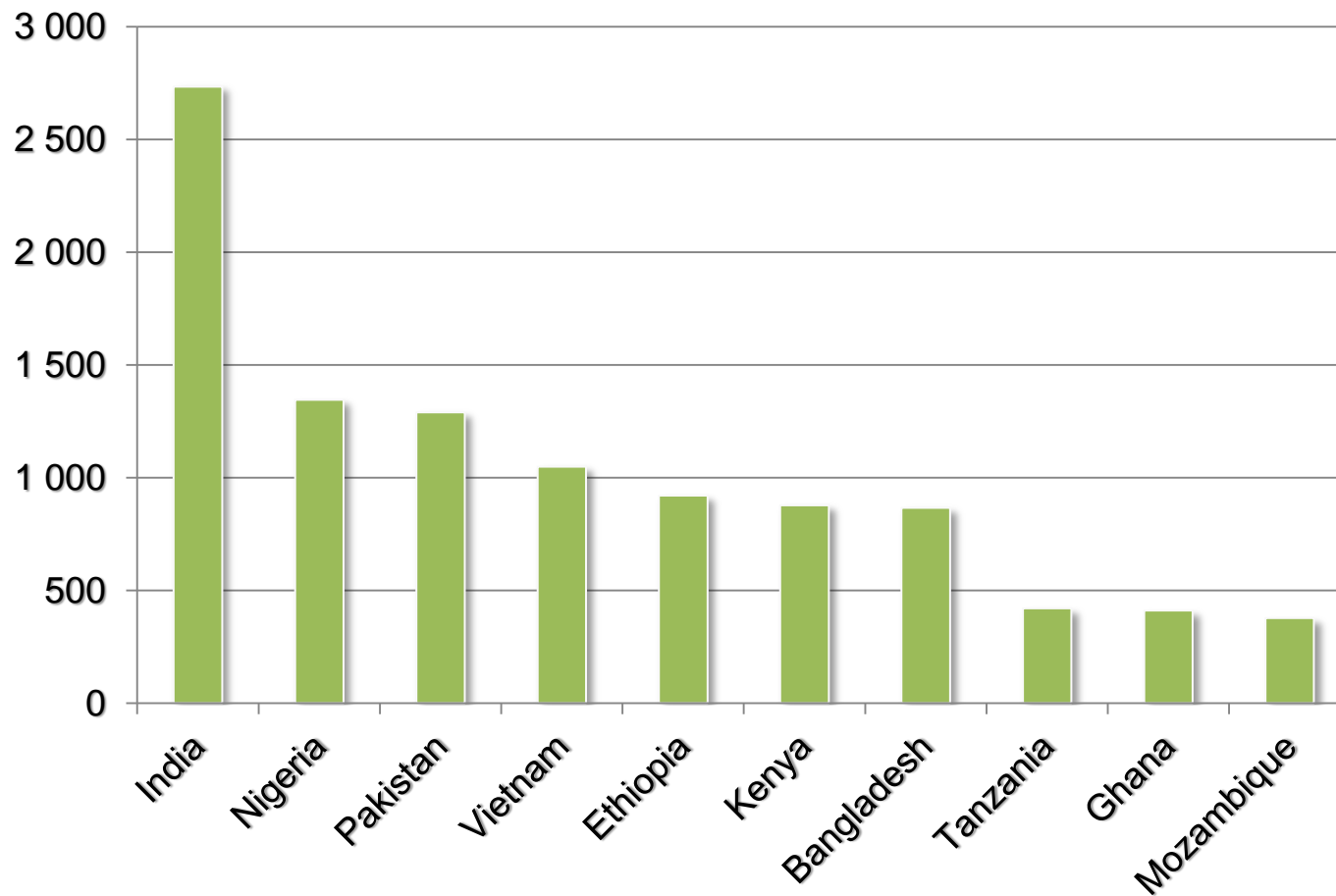
millions of dollars





IDA Top Ten Borrowers | Fiscal 2012

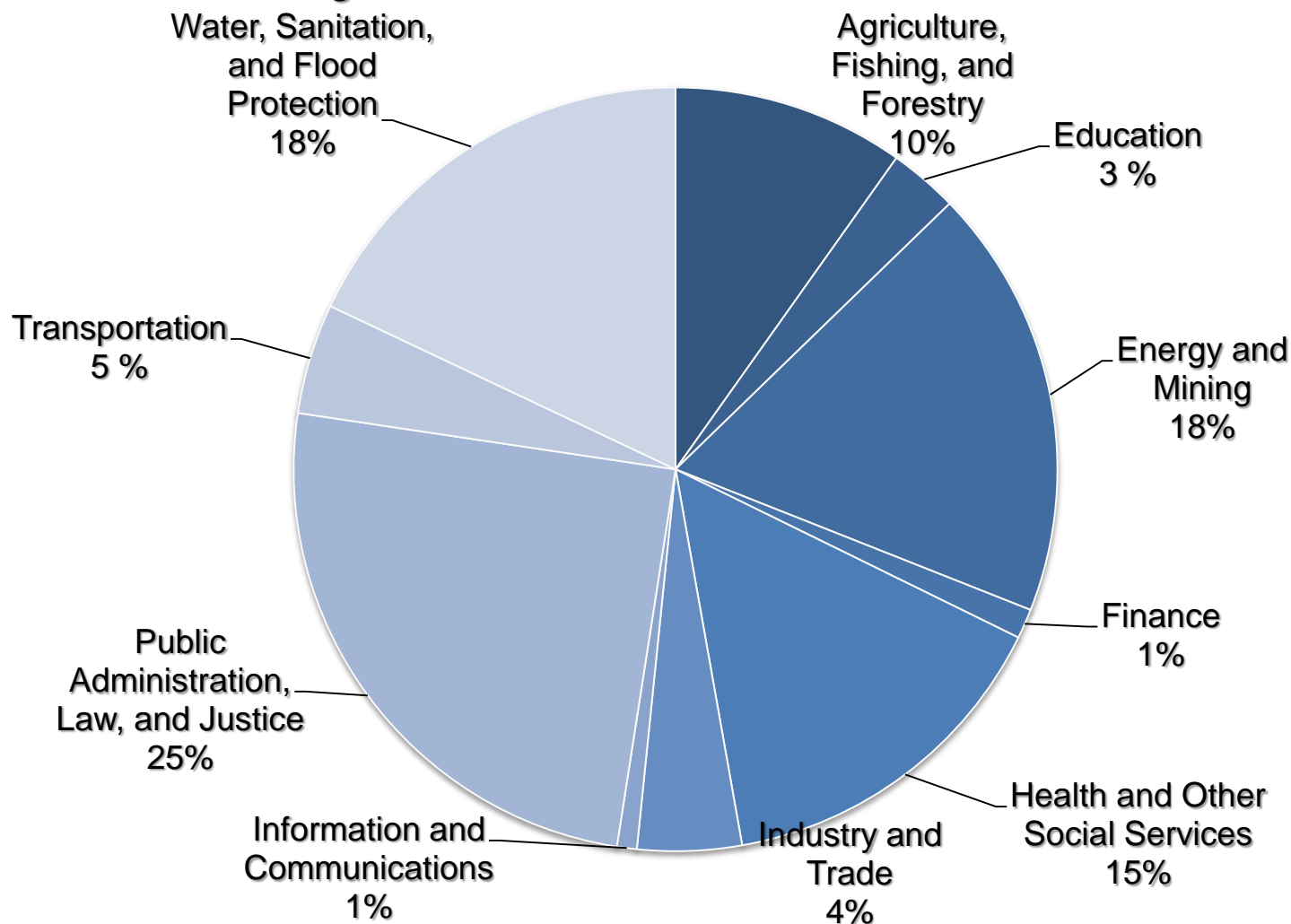
millions of dollars





Africa: IBRD and IDA Lending by Sector | Fiscal 2012

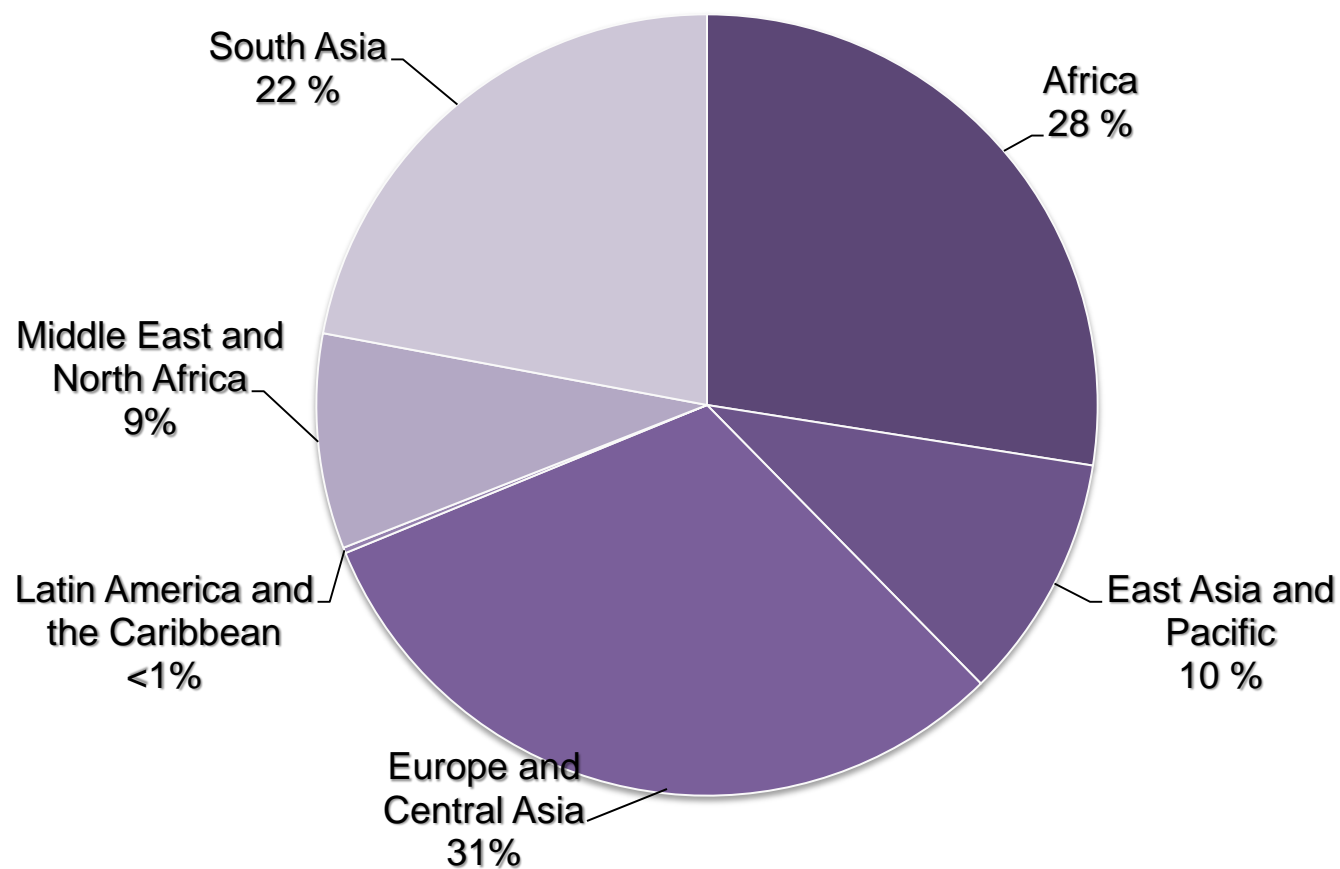
Share of total lending of \$7.5 billion





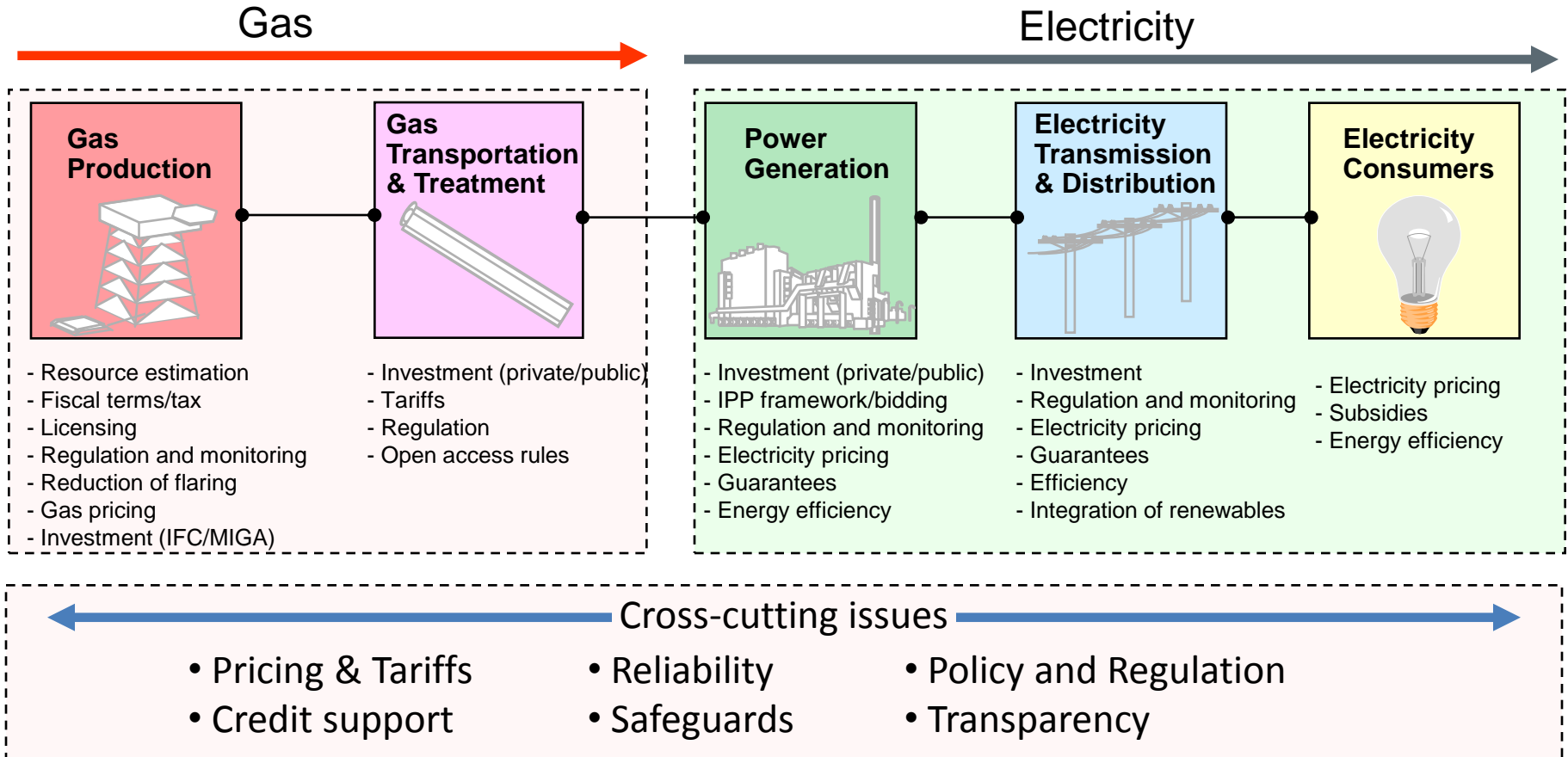
Energy and Mining IBRD and IDA Lending by Region | Fiscal 2012

Share of total lending of \$5.0 billion

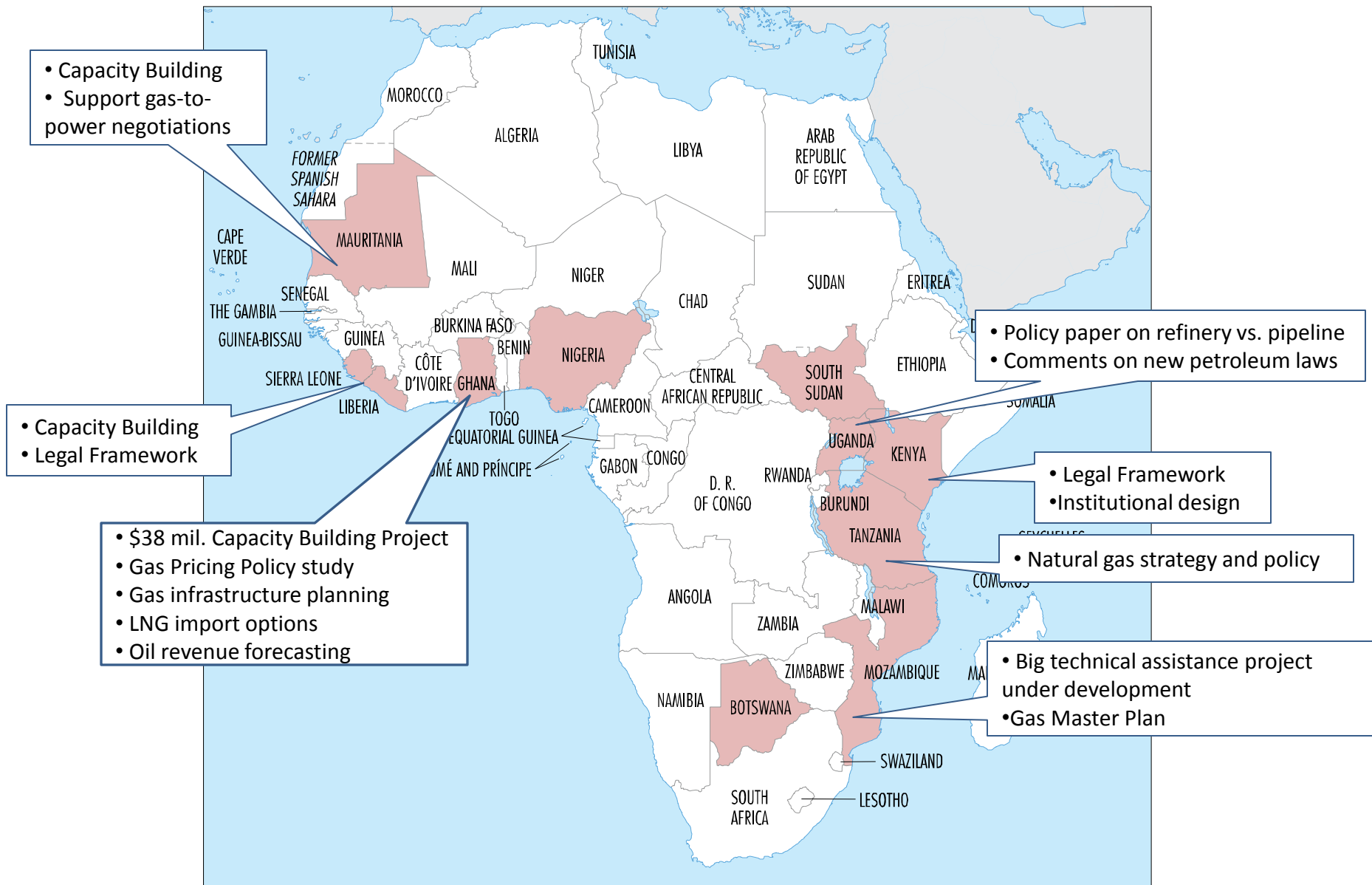


Role of World Bank in Gas and Power

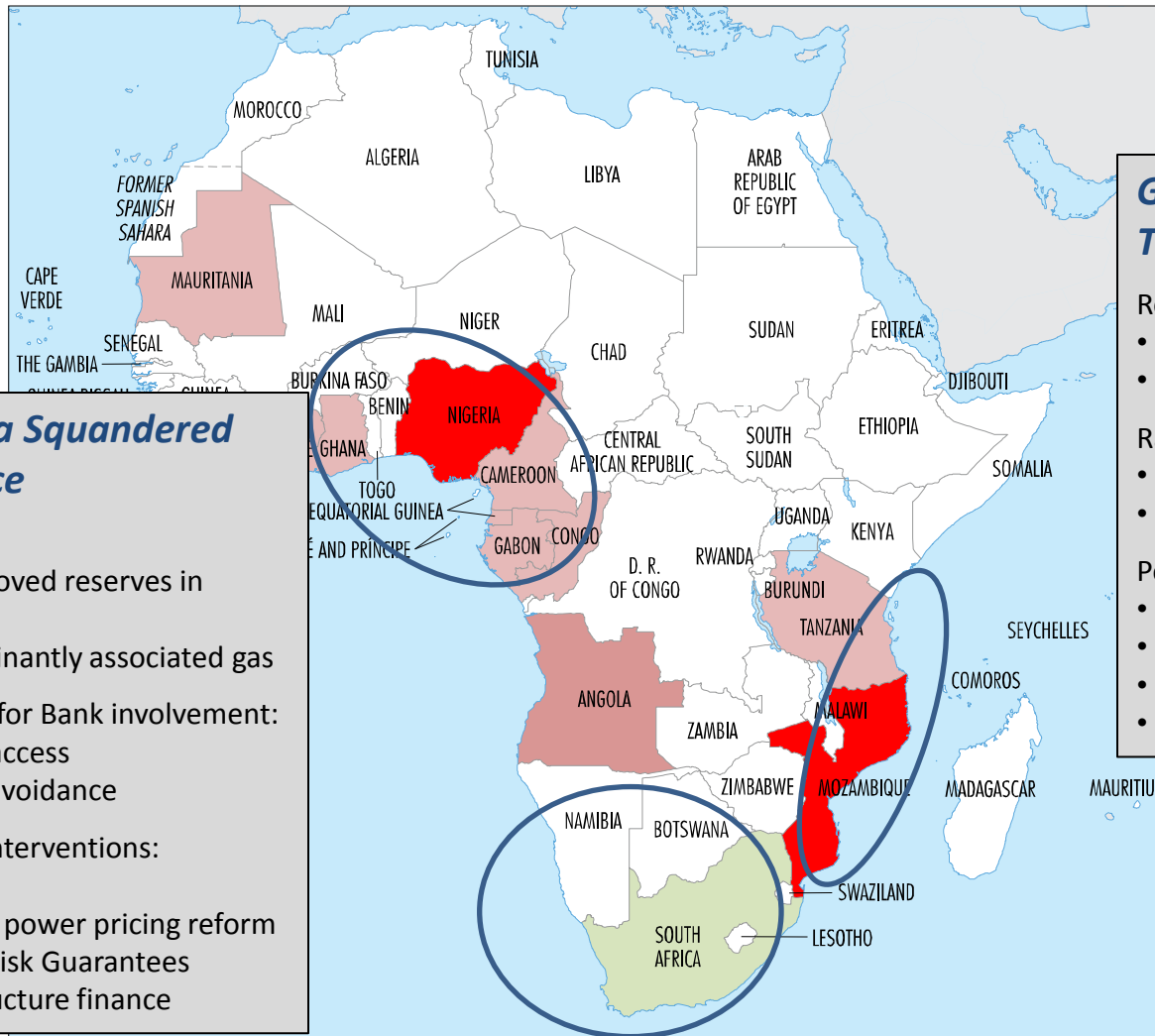
The WBG can play an important role in integrating and coordinating private and public sector activity across the entire gas-to-power value chain



Oil and Gas Policy Unit – Current Activities



Gas potential in Africa



Gas as a Squandered Resource

Resource:

- Huge proved reserves in Nigeria
- Predominantly associated gas

Rationale for Bank involvement:

- Energy access
- Flaring avoidance

Possible Interventions:

- GGFR
- Gas and power pricing reform
- Partial Risk Guarantees
- Infrastructure finance

Gas as an Agent of Transformation

Resource:

- Huge undeveloped discoveries
- Non-associated gas, LNG

Rationale for Bank involvement:

- Governance, macro management
- Industrial development

Possible Interventions:

- Revenue management TA
- Institutional capacity building
- Local gas market development
- Forward/backward linkages (SME's)

Global Gas Flaring Reduction Partnership (GGFR)

- **Launched in 2002 at the World Summit on Sustainable Development in Johannesburg**
- **Main Objectives:**
 - Reduce carbon emissions and environmental impact of flaring
 - Improve energy efficiency and access to energy
- **Phase 4 will commence in Jan 2013:**
 - Scale up flaring reduction efforts (Iraq, Gulf of Guinea, Russia,, others)
 - Developing gas infrastructure and gas markets with specific focus on Africa and SE Asia
 - Expand access to cleaner electricity and cooking fuels consistent with UN Sustainable Energy For All (SEFA)

Mission Statement

GGFR is a **catalyst** for reducing **wasteful and undesirable practices** of gas flaring and venting through **policy change, stakeholder facilitation and project implementation**



Global Gas Flaring Reduction (GGFR)

- **GGFR**, a public-private partnership, supports national efforts to increase the use of associated natural gas, thus reducing gas flaring and venting which waste resources and increase global CO2 emissions. GGFR aims to improve energy efficiency, expand access to power by developing gas markets, and mitigate climate change through the reduction of greenhouse gas emissions from flaring.
- Since its inception, **GGFR has received almost \$45 million in donor contributions** which have helped finance 40 projects/activities (mostly in the Africa region).
- **GGFR** has successfully contributed to a **20% decrease in global gas flaring the past seven years.**
- Gas flared annually in Africa could produce 200 TWh electricity (more than twice AFR's power consumption (excl. South Africa)).
- GGFR Phase 4 began on January 1, 2013.



World Bank

Project Finance Instruments

Instrument Types

1. Partial Risk Guarantees (PRG)

- Support private sector projects by covering the risk of debt service default caused by government non-performance of its contractual obligations

2. Partial Credit Guarantees (PCG)

- Cover part of debt service default/credit risks of project and public-sector borrowers

3. Policy-Based Guarantees (PBG)

- Cover part of debt service default/credit risk of sovereign borrowings for fiscal support

4. Loans and Partial Risk Guarantees (PRG) for Enclave Projects:

- Enclave loans and PRGs support foreign exchange generating projects in IDA countries relying on acceptable credit enhancements to IBRD
- Enclave PRGs support private projects

5. Public Sector Loans

- Flexible application of Bank lending for public contribution to project financings

World Bank Guarantees

Key Facts

- Guarantees mobilize private capital into countries and sectors with a high risk perception
- Guarantees can result in longer maturities, lower cost of debt and higher leverage
- Guarantees are available to countries eligible for IBRD and IDA lending
- Guarantees are flexible in currency and sector; tailored to fit the projects
- Guarantees are typically Partial (cover only specific risks)
- Guarantees are particularly suitable for:
 - Projects in sectors that are in early stages of reform
 - Larger size/riskier operations
 - Operations highly dependent on support/undertakings from Governments
- Guarantees require a counter-guarantee from Government

1. Partial Risk Guarantees (PRGs)

- Provide cover against the risk of non-performance of contractual obligations to a specific project by a Government/SOE
- Reduce project risk without increasing risk for a Government
- Improve or allow bankability and reduce project cost of capital
- Several structures available:
- Some applications:
 - L/C for greenfield projects
 - Privatizations and concessions
 - Guarantee Frameworks
 - Guarantees in local currency
 - Guarantees to support market development/sector policy

Foxtrot gas field expansion project

- ❑ A US\$ 960 million, 140 mcf/d gas production project, offshore Cote d'Ivoire , one of the largest foreign investments in the country and in the energy sector
- ❑ The project is being implemented by Foxtrot International, a private company that is the operator of the Block CI-27 on behalf of a JV comprising SECI (Bouygues group), Foxtrot Intl, Enerci (Suez group) and Petroci (GoCI)
- ❑ The JV, to achieve its commitment to supply a firm 140mmcf/d until 2024 will develop, finance, construct new gas well's and a new production platform, worth US\$ 960 million, offshore Abidjan
- ❑ Foxtrot gas will be dedicated to domestic use, overwhelmingly to feed Cote d'Ivoire's power plants.

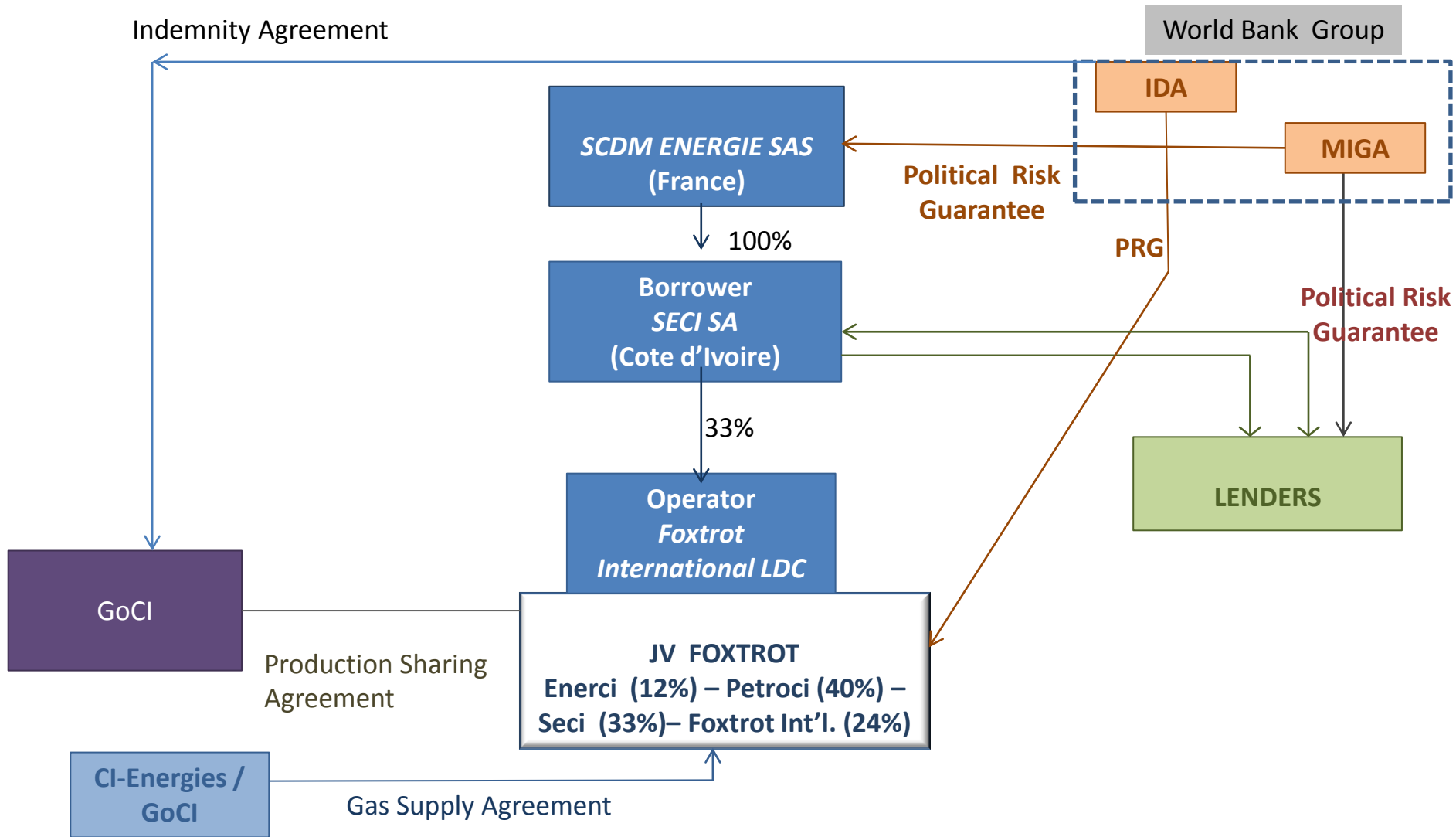
Foxtrot Gas -World Bank Group Support

- ❑ IDA Partial Risk Guarantee for US\$60mn
 - To mobilize private capital by mitigating Cote d'Ivoire political risks
 - Covers risk of non-payment for gas supplied to Cote d'Ivoire's power sector

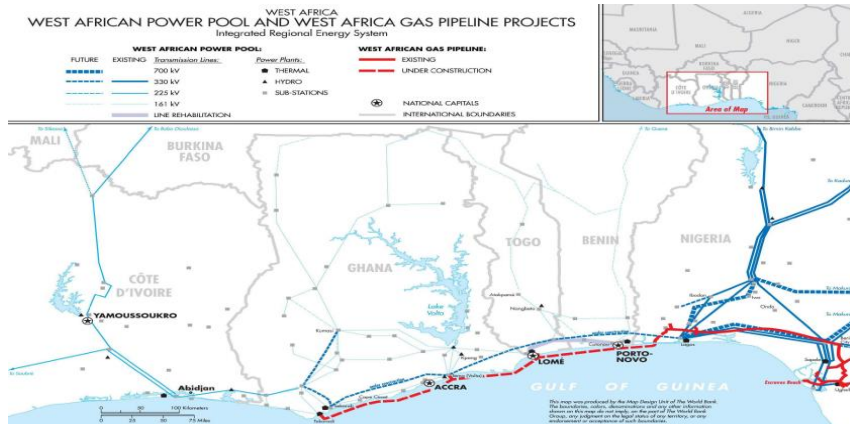
- ❑ MIGA guarantee US\$380mn
 - Covers extended political risks (i.e. termination) for shareholders
 - Benefits both shareholders and senior lenders (commercial banks)

 - Covers by IDA and MIGA are complementary

Cote d'Ivoire - Foxtrot Gas Field Block CI-27 Contractual Arrangements



Facilitating Gas-to-Power: West Africa Gas Pipeline



Financial Close: October 2005

- 678 km natural gas piping system from Nigeria to Ghana, Togo and Benin of US\$590 million
- IDA PRG ensures payment by Ghana in event of early termination of Takoradi Gas Sales Agreement
- Sponsors Chevron (37%), NNPC (25%), Shell (18%) and Volta River Authority (16%)
- WBG ensured demand creation with downstream activities, including Takoradi 2 power plant expansion and conversion, and Takoradi 3 (combined cycle) Ghana

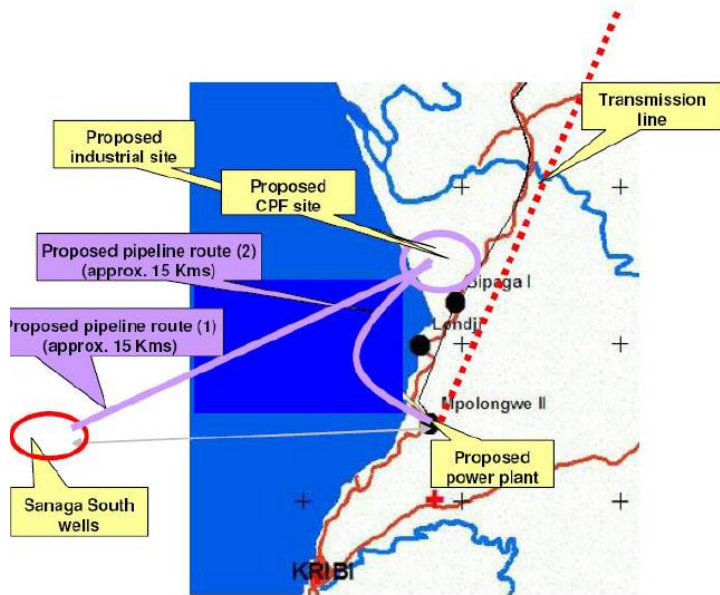
| WBG | Project Participation |
|----------|---|
| IDA/IBRD | Partial Risk Guarantee US\$50 million equivalent with 22 year maturity to Ghana Additional support to natural gas market development and regional integration |
| MIGA | Termination Cover of US\$75 million for equity investments in project company, with 20 year tenor |
| IFC | Loan - \$95 million equivalent to convert Ghanese liquid-fired T2 plant to gas and expand capacity |



Mobilizing Local Financing

Cameroon - Kribi Gas to Power

Financial closure: Jan. 2012

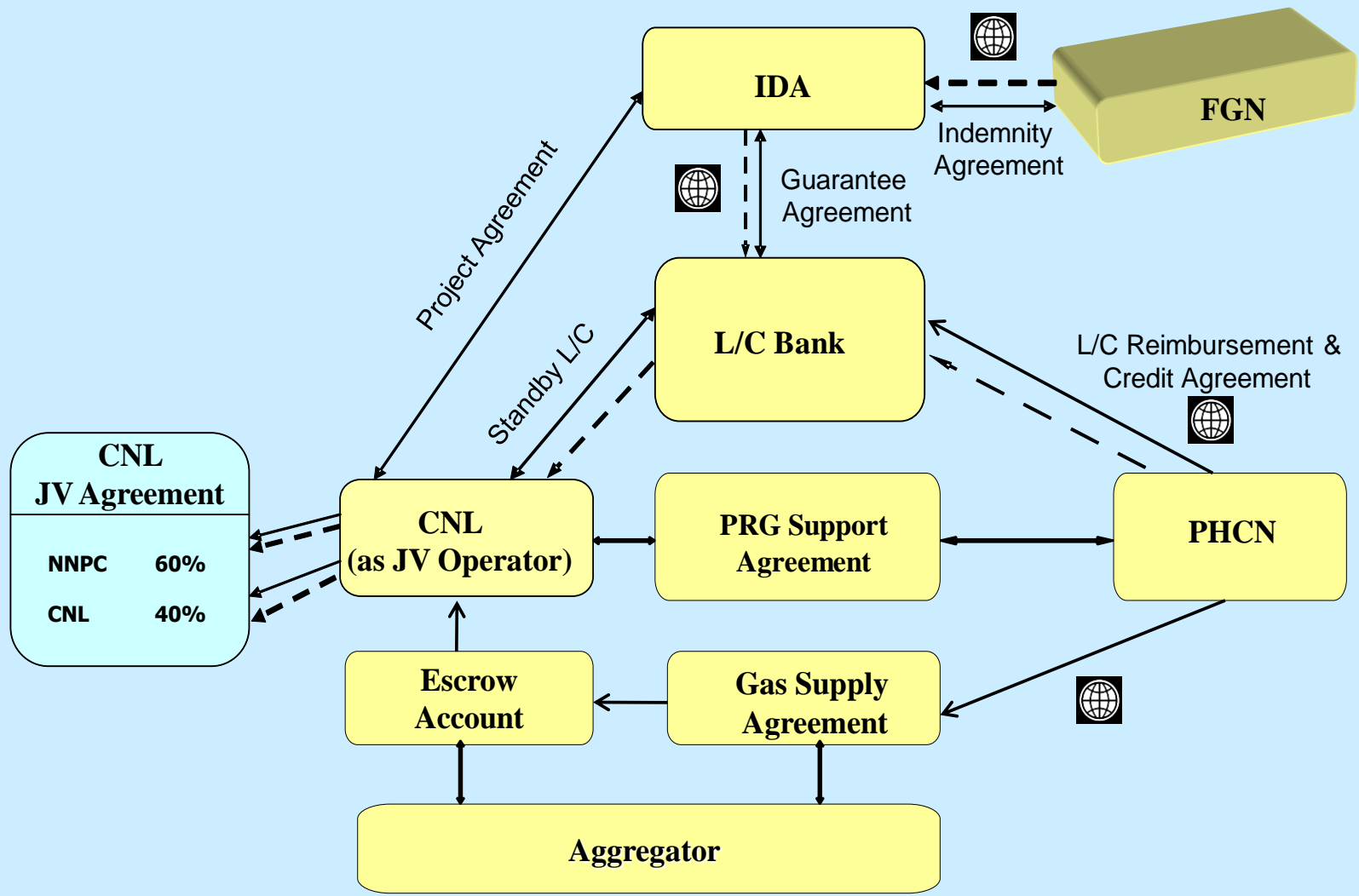


- The total project cost is \$350million consisting of the development, construction and operation of a new 216 (nameplate) MW natural gas-fired power plant, a new 100-kilometer 225-kilovolt double-circuit transmission line and the development of offshore Sanaga South gas field, marine pipelines, and a Central Gas Processing Facility
- IDA and IFC were involved to support the gas to power project incl. transmission line to provide much needed thermal diversification to Cameroon's electricity system
- IDA PRG supports local tranche of the financing to enable local bank participation in the transaction and lowers the impact of the Local Loan on the electricity tariff by enabling the extension of the local loan tenure

| WBG | Project Participation |
|----------|--|
| IDA/IBRD | Partial Risk Guarantee US\$82 million equivalent to extend the tenure of the local loan and lower the impact of the local loan on the tariff |
| IFC | Provision of Investment loan of \$86 million as well as to lead DFI financing to provide sufficient direct financing to support the project costs |



Nigeria - PRG Contractual Structure in Support of Gas Sale Agreement



| CNL JV Agreement | |
|------------------|-----|
| NNPC | 60% |
| CNL | 40% |



2. Partial Credit Guarantees (PCG)

- Provide lenders with cover against the risk of non-payment of a portion of debt service obligations regardless of cause of default
- Contribute to improve the credit quality of the borrower/debt resulting in lower pricing, longer tenors, higher amounts of commercial debt available
- Available for sovereign or sub-sovereign borrowers with a sovereign counter-guarantee in countries eligible for IBRD lending
- Help establish a track record for the borrower in international markets & help develop domestic capital markets
- No overlap with MIGA/IFC instruments
- Several structures available:
 - Bullet guarantee
 - Letter installments
 - Rolling non-reinstatable
 - Amortizing syndicated loan

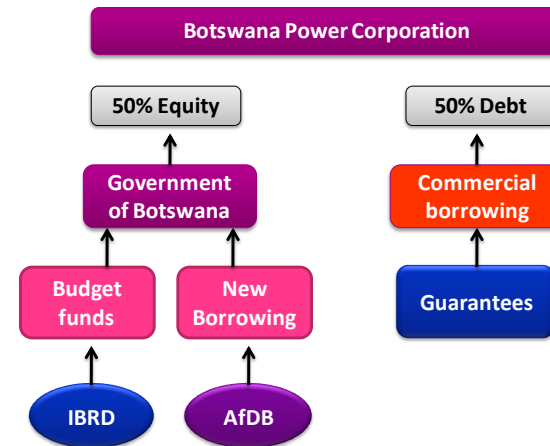
PCG Example

Botswana Morupule B Power Project

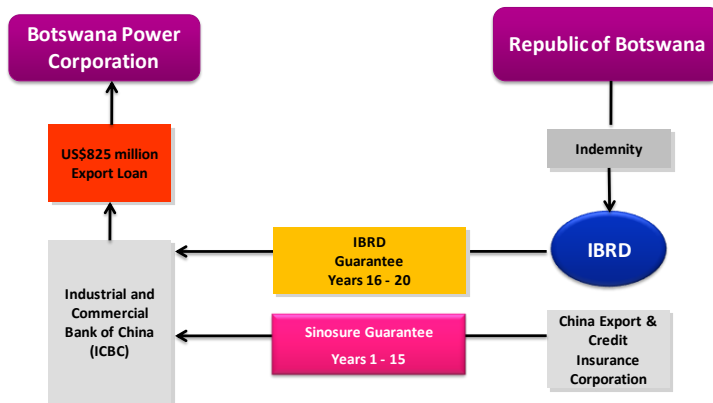
Description

- PCG aimed at improving the terms and conditions of the commercial loan available to Botswana Power Corporation by extending the maturity from 15 to 20 years
- Initial 15 years are guaranteed by China Export & Credit Corporation (Sinasure). The PCG provides a guarantee to the commercial lenders as to the payment of principal and one accrued interest payment payable after the 15th year
- This is the first co-guarantee operation with a bilateral agency

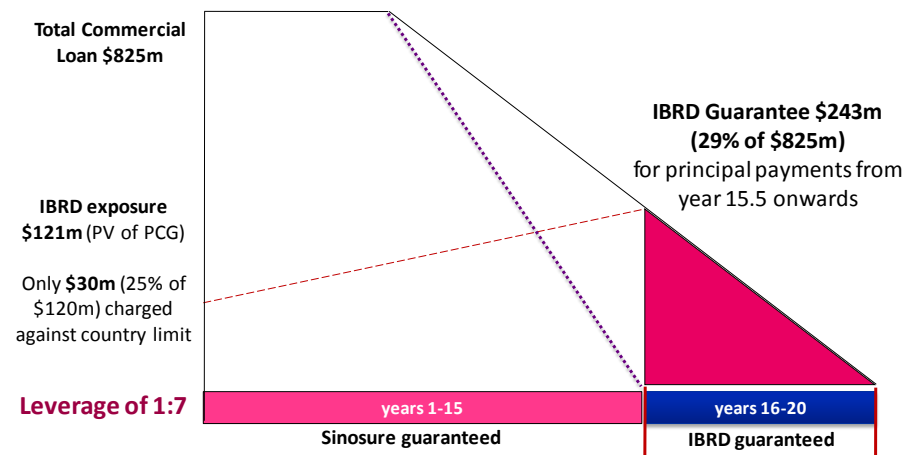
Project Financing Strategy



Guarantee Structure



PCG used to stretch the Chinese export loan



MIGA's portfolio of Energy Projects, FY12-13

| Project | FY | Type of Project | Investor Name | Covered amount (Gross, US\$) |
|--|------|---|--|------------------------------|
| Triumph Power Generating Co. Kenya | FY13 | 83MW heavy fuel oil plant (BOO) | Standard Bank | \$113 Mln |
| Ashuganj, Bangladesh | FY13 | 450MW Gas-Fired power | HSBC | \$250 Mln |
| Eolo Wind Farm, Nicaragua | FY13 | Wind power | Globeleq Mesoamerica Energy Wind Ltd. | \$16 Mln |
| Cambambe Hydroelectric Project, Angola | FY13 | Rehabilitation and upgrade of the existing Cambambe Dam | HSBC | \$511 Mln |
| Apache, Egypt | FY13 | Exploration, development and production of Oil and Gas | OPIC | \$150 Mln |
| Azito Energie S.A, Phase II, Cote d'Ivoire | FY13 | Combined cycle thermal power plant | Globeleq Holdings Ltd. | \$116 Mln |
| Foxtrot, Cote d'Ivoire | FY13 | Construction and operation of on/offshore oil and gas facilities | SCDM Energie, HSBC Bank | \$421 Mln |
| Star Hydro Power Ltd., Pakistan | FY12 | Run of River hydropower plant (BOOT) | K-Water on behalf of itself and other sponsors | \$ 149 Mln |
| Hydroelectric Power Plant Ashta, Albania | FY12 | 52.9MW run of river hydropower plant on a BOOT basis | EVN AG | \$159 Mln |
| Khauzak-Shady-Kandym, Uzbekistan | FY12 | Upstream gas development | BNP Paribas SA | \$120 Mln |
| Takoradi 3 Power Plant, Ghana | FY12 | Combined cycle gas turbine power generation facility | Societe Generale Canada Branch | \$88 Mln |
| OrPower4, Inc., Kenya | FY12 | Expansion of base load at Olkaria Geothermal fields of the Rift Valley | Ormat Holding Corporaiton | \$99 Mln |
| Thika Power Ltd., Kenya | FY12 | Construction of an 87MW heavy fuel oil plant | ABSA Capital | \$62 Mln |
| Contour Global Kivu Watt, Rwanda | FY12 | 25MW power generation facility using methane gas extracted from Lake Kivu | Contour Global Africa Holdings | \$67 Mln |

MIGA

Investments covered

- Equity
- Shareholder loans
- Debt
- Loan guarantees
- Non-equity direct investment
- Capital markets

Risks covered

- Currency inconvertibility and transfer restriction
- Expropriation
- War and civil disturbance
- Breach of contract
- Non-honoring of sovereign financial obligations

Thank you for your attention !