

INFRAC^oASIA

Leadership Capital for
Infrastructure Development

InfraCo Asia is a part of



Introduction to InfraCo Asia

InfraCo Asia provides responsible leadership in **bridging the infrastructure gap** in South and South East Asia. Through early stage project development capital and expertise, InfraCo Asia is a **catalyst** for the private sector to invest in sustainable infrastructure projects.

InfraCo Asia is a commercially managed infrastructure development and investment company of the Private Infrastructure Development Group (PIDG).

INFRACoASIA

 Nepal

Kabeli A Hydropower

Global Infrastructure Cooperation Conference

Multilaterals & Sponsors

COEX InterContinental Hotel, Seoul | 4 Sep 2017

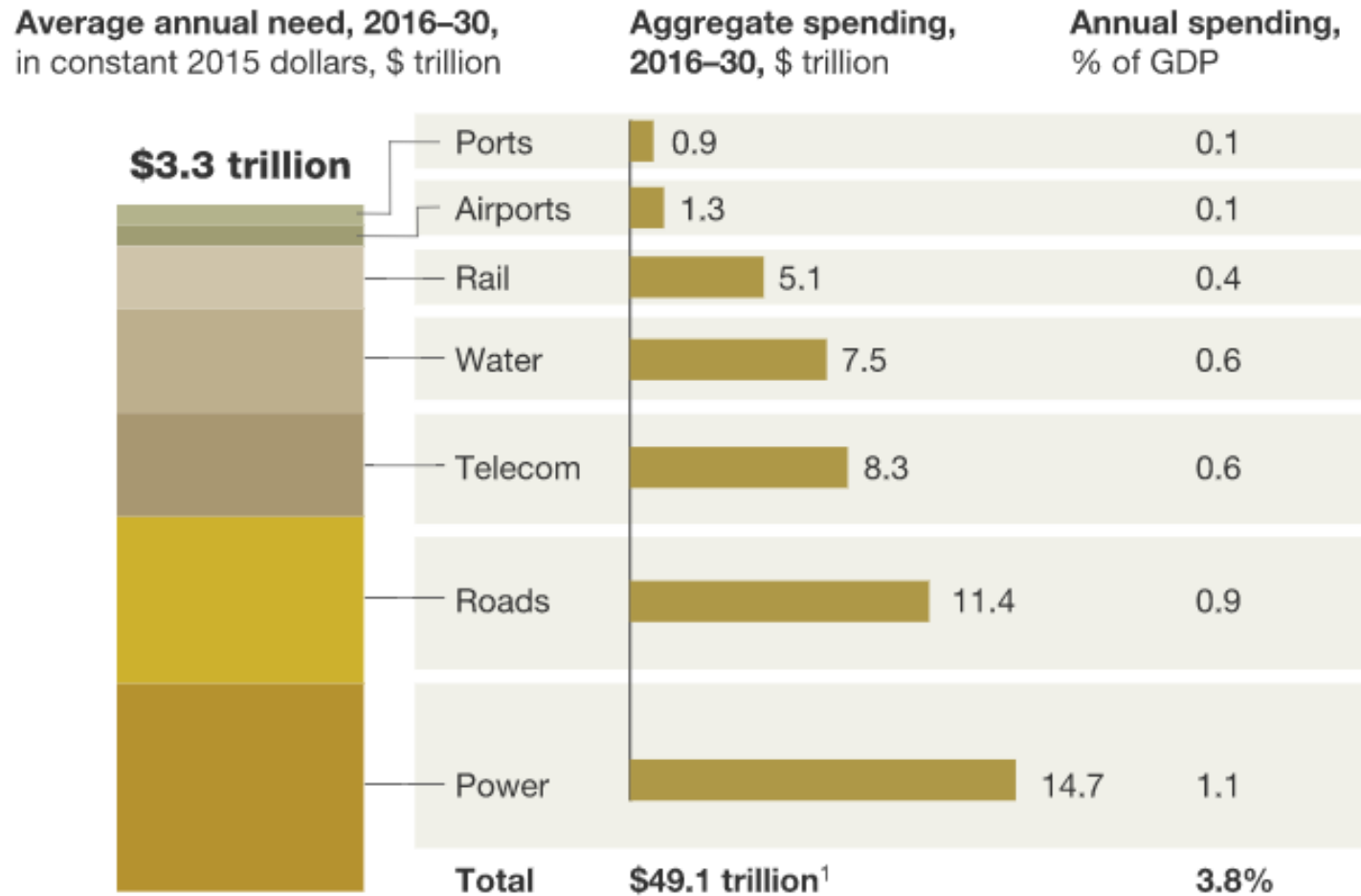


Cornerstone for socioeconomic progress.

“A Dollar of Infrastructure investment can raise GDP by 20 cents in the long run by boosting productivity.

- *McKinsey Global Institute*

Global Infrastructure Investment Needs



The McKinsey Global Institute (MGI) estimates that the world has to invest some **US\$3.3 trillion annually** (up from **current estimated spend of US\$2.5 trillion/year**) on the transportation, power, water and telecom systems through 2030 to support current economic growth projections.

Source: McKinsey Global Institute

Asia's Infrastructure Investment Needs

The Asian Development Bank (ADB) estimates that developing Asia needs to invest **US\$1.7 trillion per year** over the next 15 years with **over 50% directed to power** investments.

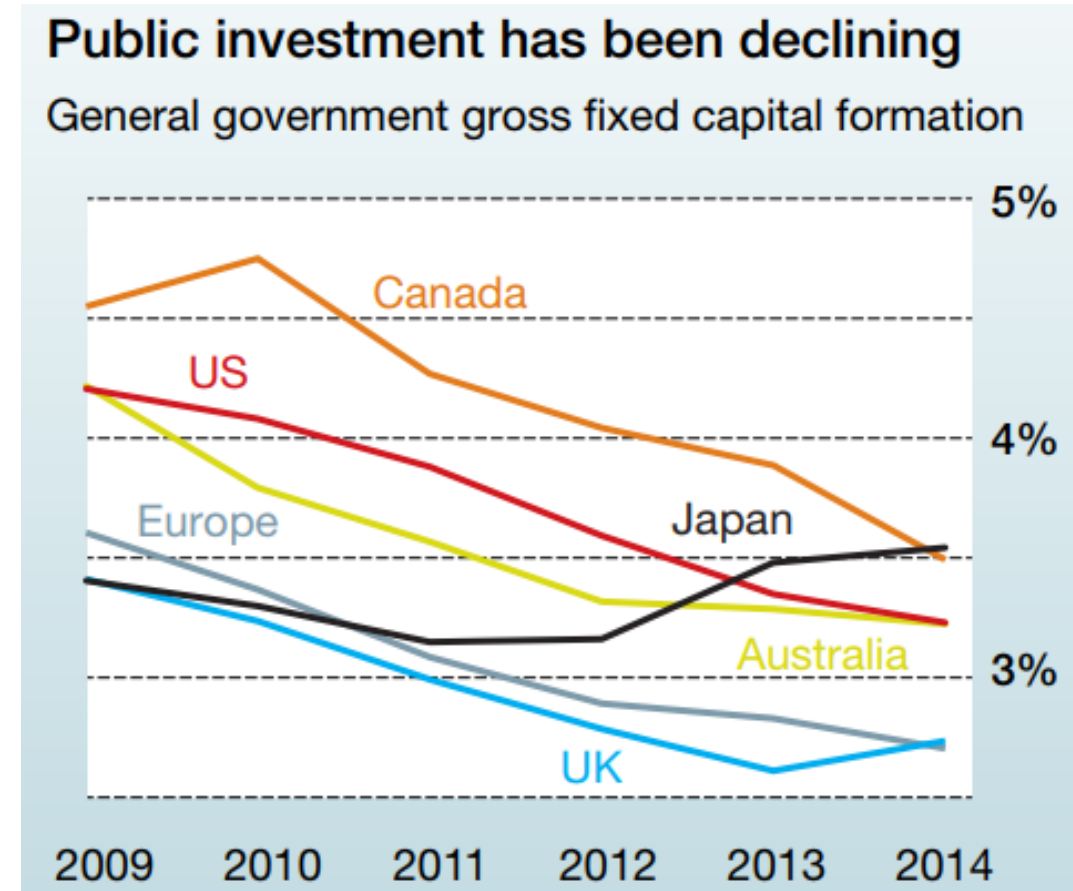
Table 2: Estimated Infrastructure Investment Needs by Sector, 45 DMCs, 2016–2030
(\$ billion in 2015 prices)

Sector	Baseline Estimates			Climate-adjusted Estimates			Climate-related Investments (Annual)	
	Investment Needs	Annual Average	Share of Total	Investment Needs	Annual Average	Share of Total	Adaptation	Mitigation
Power	11,689	779	51.8	14,731	982	56.3	3	200
Transport	7,796	520	34.6	8,353	557	31.9	37	–
Telecommunications	2,279	152	10.1	2,279	152	8.7	–	–
Water and Sanitation	787	52	3.5	802	53	3.1	1	–
Total	22,551	1,503	100.0	26,166	1,744	100.0	41	200

Note: – denotes not applicable.

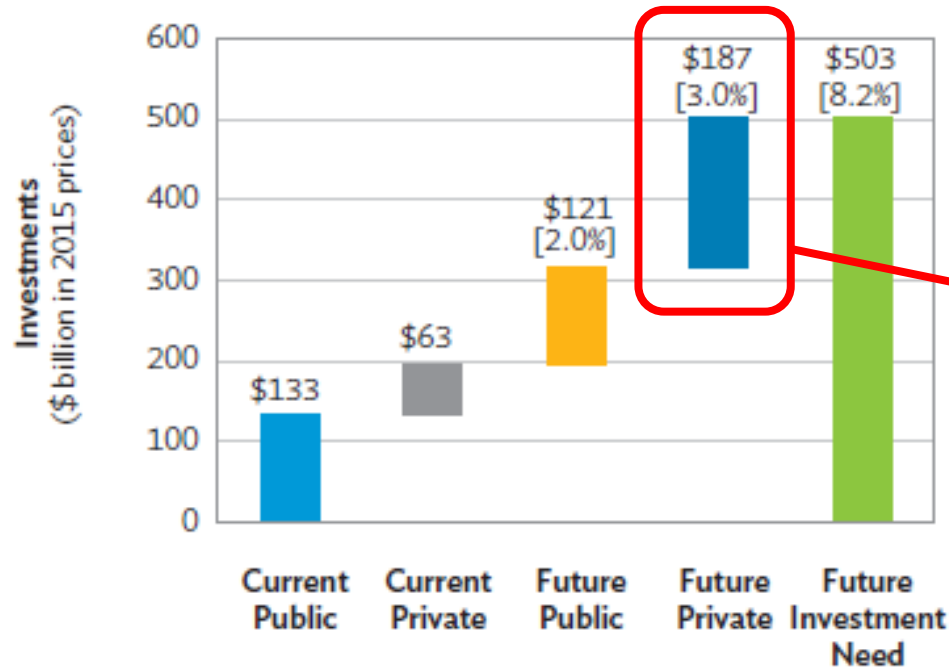
Source: Asian Development Bank

The public sector has traditionally provided up to 70% of total infrastructure expenditures. However, governments around the world have clamped down on infrastructure investment in light of growing budget deficits and debt fears.



Source: McKinsey Global Institute

Figure 1: Meeting the Investment Gaps: Selected ADB Developing Member Countries,* 2016–2020
(annual averages, \$ billion in 2015 prices)



Institutional investors and banks have **US\$120 trillion in assets** that could partially support infrastructure projects, yet **Private Sector Investment is lagging** at only 32% of current infrastructure investments.

The Asian Development Board (ADB) estimates that the Private Sector will have to increase its infrastructure spending in Emerging Asia (ex China) from US\$63B currently to as high as **US\$250 billion a year** to maintain its growth momentum, eradicate poverty and respond to climate change.

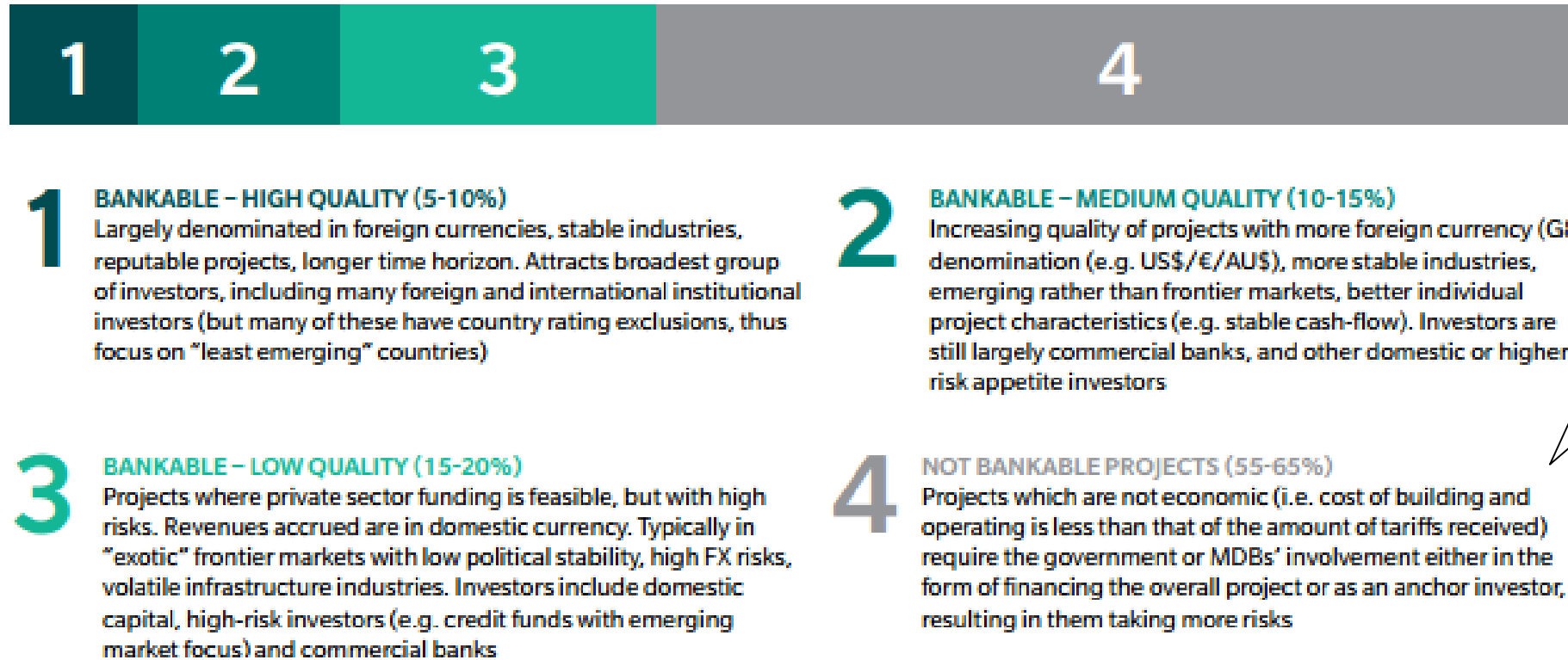
Note: 1. Future public investments assumes economies undertake fiscal reforms to generate additional revenues equivalent to 2% of GDP.

2. Numbers in brackets indicate investments as a percentage of GDP.

3. Investment need in China is estimated to be \$1 trillion per year.

Source: ADB; Country sources; IMF; World Bank

EXHIBIT 14: APRC'S ANALYSIS OF PROJECT BANKABILITY IN EMERGING MARKETS



Marsh & McLennan Companies' Asia Pacific Risk Center (APRC) estimates that between **55%-65% of projects in Asia are not bankable without support** from government or multilateral development banks.

Source: APRC proprietary model and methodology; Bankable split estimated based on detailed modeling of infrastructure project flow and banks' balance sheet assessment; "not bankable" share estimated based on triangulation of non-private funding sources



Cumbersome Permitting Process

Complex permitting process involving multiple stakeholders

The absence of a “*One-Stop Shop*” to help foreign direct investors navigate in this complex nexus and around laborious administrative procedures often results in delays and additional costs to businesses.



Weak Regulatory Framework

Lack of transparency in the procurement / approval process, including inconsistent approvals or revoking of permits deters investors.

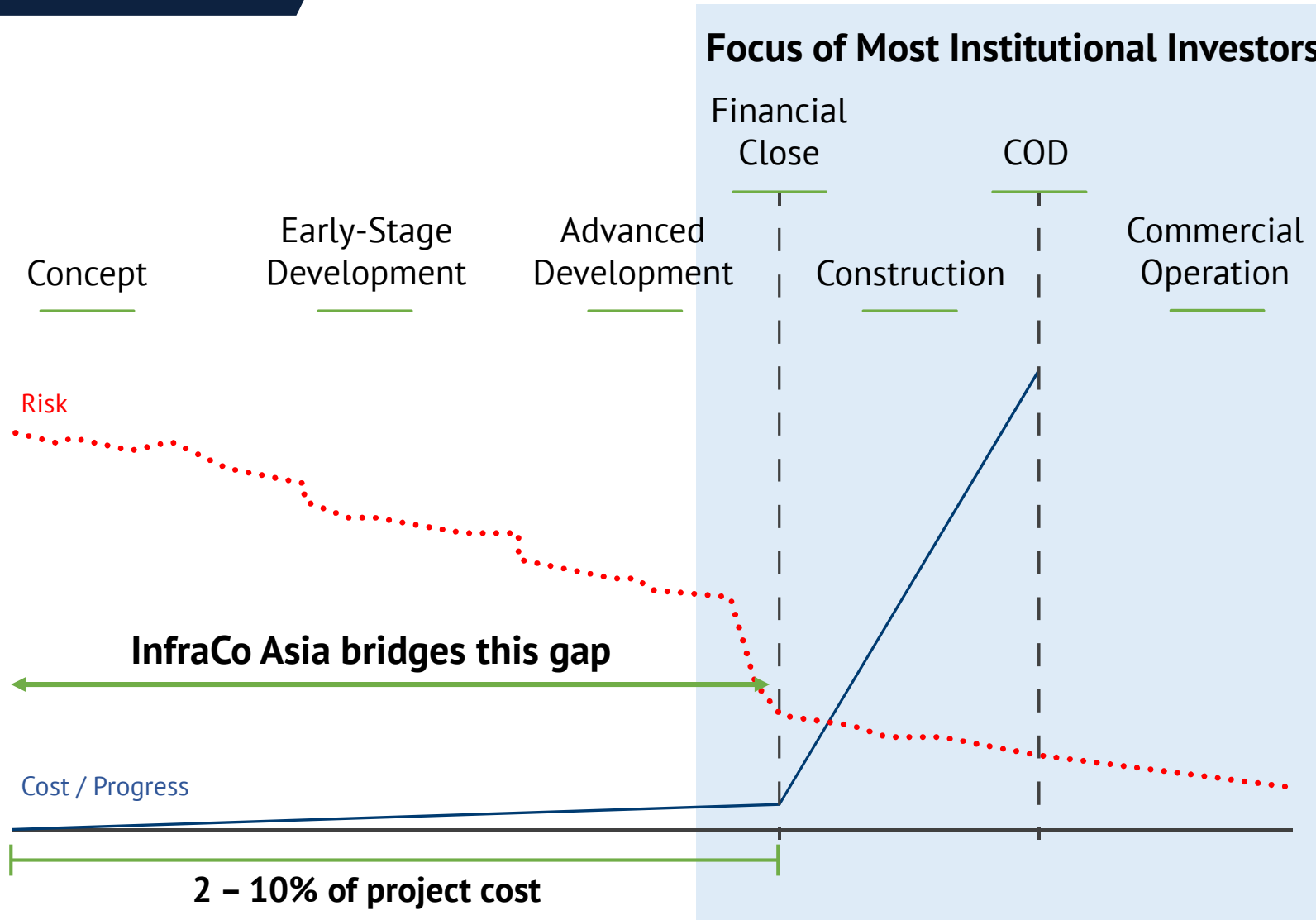
The legal system, including dispute and claims settlement mechanisms are often underdeveloped to protect investors' rights.



Protectionist Policies

Foreign ownership restriction often complicates structuring and investment decisions, impeding foreign direct investments.

Local currencies in Emerging Asia are often not freely convertible and restriction in the conversion or remittance of returns further deters foreign investors.



Institutional investors compete for projects in the later phases, shunning early-stage development due to the higher risk involved.

Unlocking funding (of just **2%-10% of project cost**) to developing pipeline and early-stage projects would accelerate growth in the industry.

InfraCo Asia **bridges the critical gap** by funding high-risk development costs to catalyse private sector investment in the industry.

Project Selection

InfraCo Asia applies a consistent and disciplined approach to project screening.



Development Impact

Projects deliver development benefits for local communities and meet social and environmental best practice



Additionality

Projects where private sector developers are unwilling or unable to take on the upfront costs and risks on their own



Commercial Viability

Sustainable projects attract private investment and ensure a return on the sale of InfraCo Asia's ownership rights



These three criteria reflect our mandate:

Social Benefit

Complement, Not Compete

Commercial Viability



Core Requirements

InfraCo Asia will only develop a project with the right **partner**; a viable development **path**; a supportive host **government** and when all **investment criteria** are met.

Development Partner

- Commitment to project
- Acceptance of InfraCo Asia role

Development Path

- Amenable regulatory environment
- Visible path to financial close
- Commercial tariff
- Technically feasible
- Sustainable development

Government Commitment

- Understanding of InfraCo Asia's objectives
- Acceptance of economic user-charges
- Implementation support

Equity Investment Considerations

- Understands potential private sector co-investor's considerations
- Flexibility to invest minority portion of capital beyond financial close

In 2015, InfraCo Asia initiated the Co-Development Program, working with other 3rd party developers, to provide leadership and early stage development capital in flexible forms of funding (equity, convertibles and other instruments).

Concept

InfraCo Asia invests in 3rd party developer projects to provide pre-financial-close development capital

Project development led by third party developer

Program managed by InfraCo Asia's Management Team

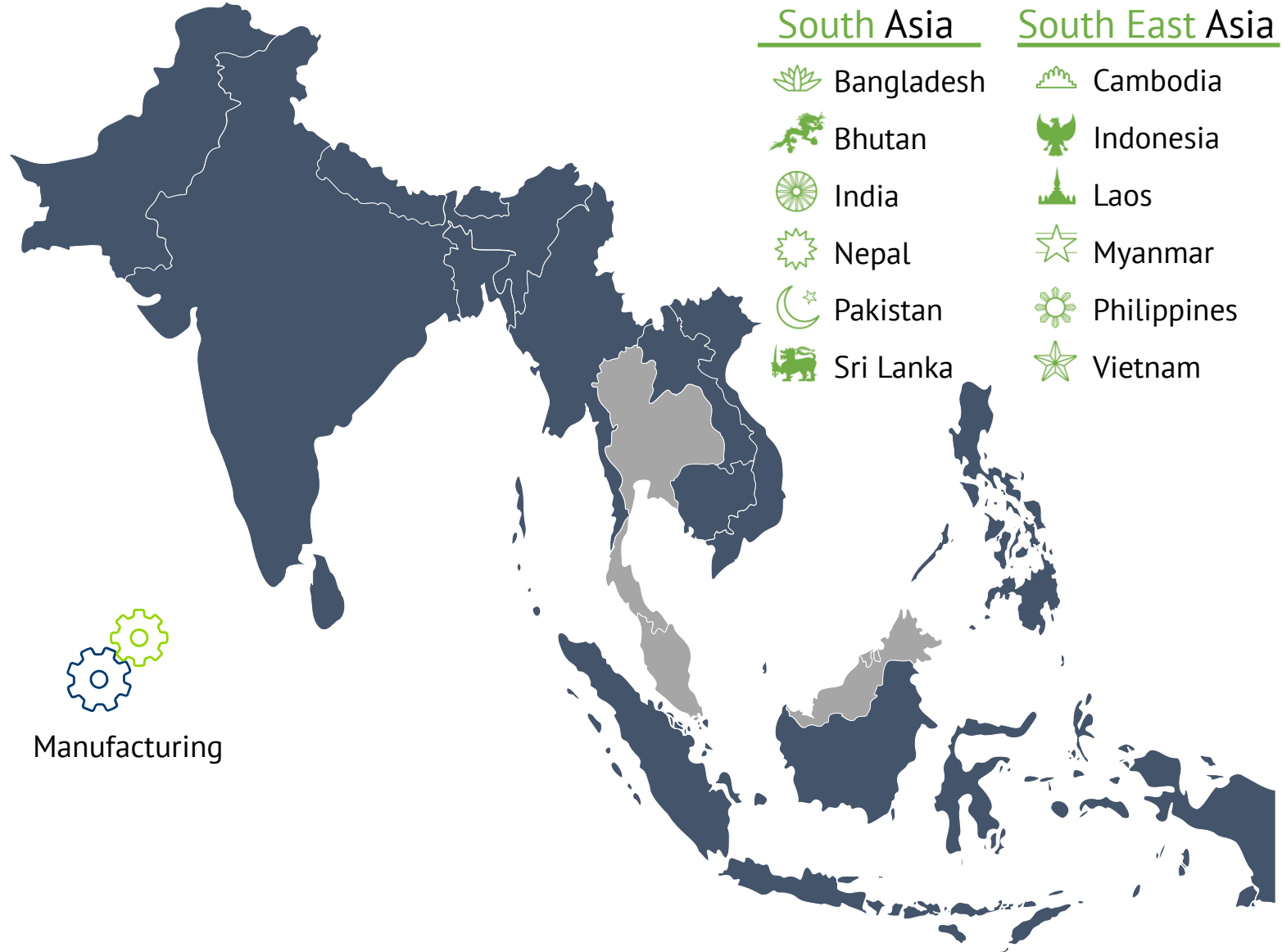
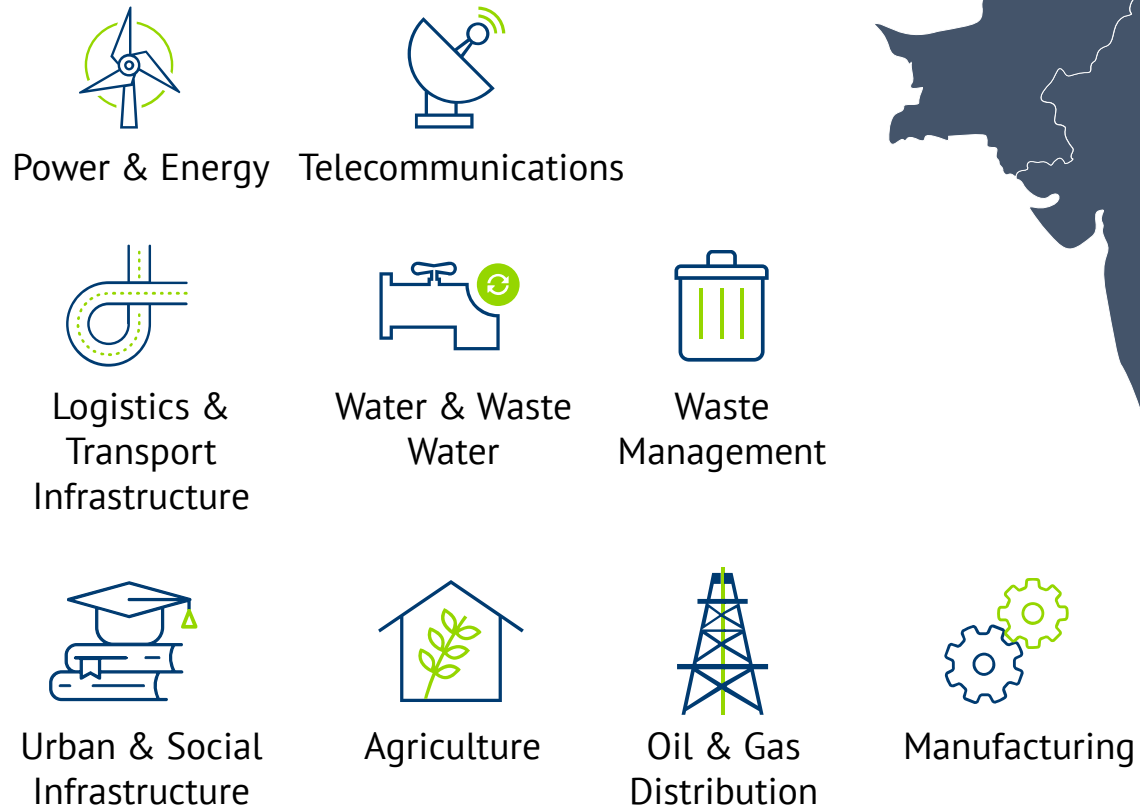
How it Works

Third party developers take a majority or 50% stake and lead project development. InfraCo Asia provides early stage risk capital, capped at 50% of development costs.

InfraCo Asia provides project development and financing expertise, along with corporate governance oversight that helps bring projects from development stage to financial close.

In return for development funding and assistance, InfraCo Asia will have the right to an equity stake in the project, board positions, and exit with returns on its investments.

InfraCo Asia aims to exit from projects as soon as feasible: at financial close, when the project is sufficiently de-risked, after commercial operation, or when it can attract private capital on its own merits.



South Asia

- Bangladesh
- Bhutan
- India
- Nepal
- Pakistan
- Sri Lanka

South East Asia

- Cambodia
- Indonesia
- Laos
- Myanmar
- Philippines
- Vietnam

Case Study

29.7MW Coc San Hydro Power
- in operation since April 2016 -





Capacity : 29.7 MW

Technology : Run-of-River Hydropower

Project Cost : US\$ 49.9M

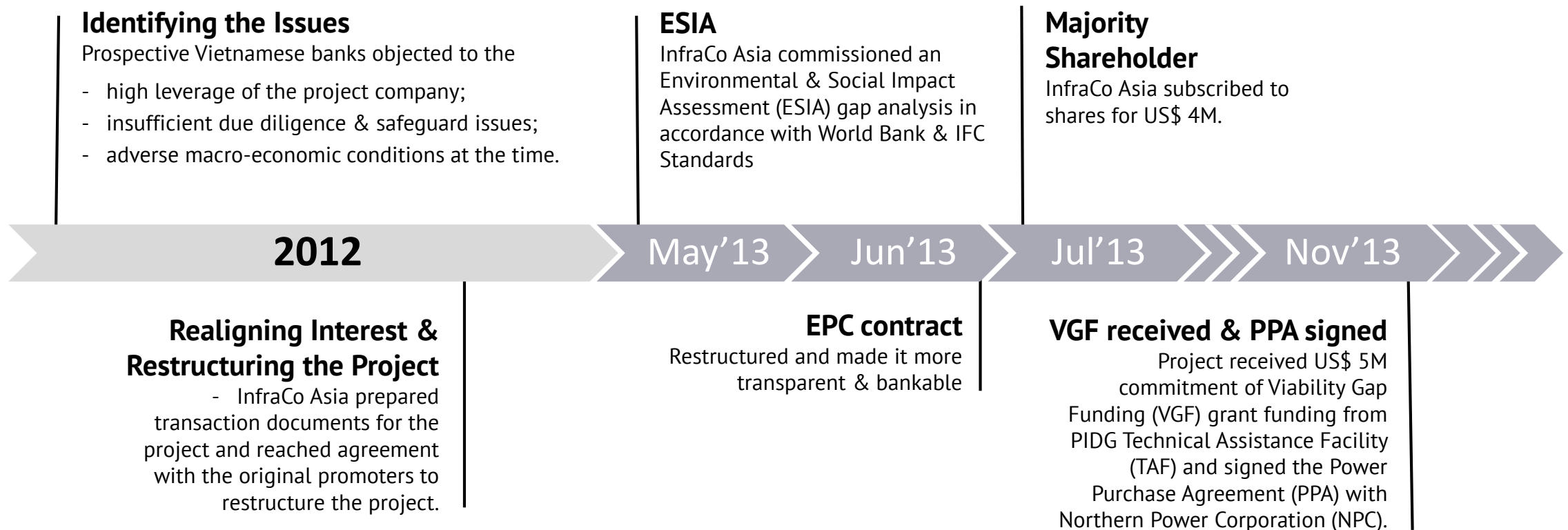
Debt-Equity Ratio: 52:48

Tariff : 20-year Standardised PPA at Avoided Cost Tariff applicable for Small Hydro Power Project (<30MW)

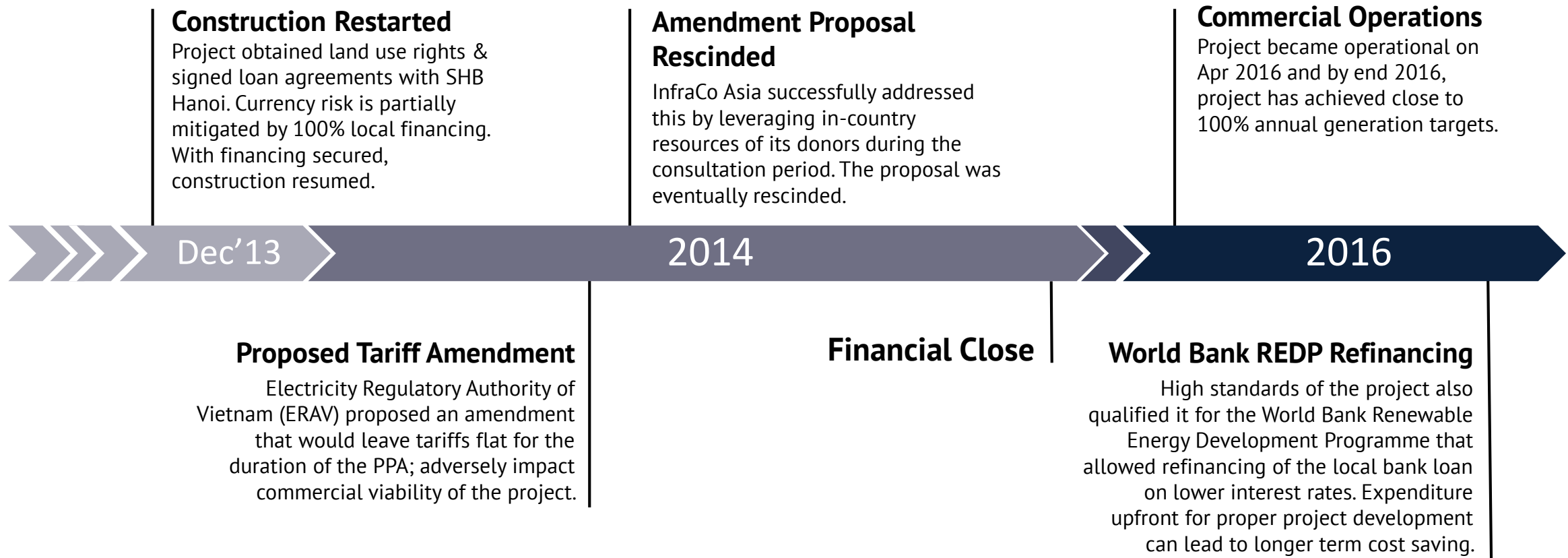
Financial Close : December 2014

COD : April 2016

Early construction work was stalled in 2011 when initial capital was expended and the project company was **unsuccessful in securing long-term debt financing**. InfraCo Asia stepped in and was able to take the project to financial close.



InfraCo Asia overcame other **challenges** as well during the development phase.



LENDER

**Saigon Hanoi
Commercial Stock Bank**

*Refinanced under the World Bank's green energy fund
(REDP)*

VND debt equivalent
of US\$ 23M

**Lao Cai Renewable
Energy Vietnam JSC****CONTRACTORS & SUPPLIERS****EPC Contractor**

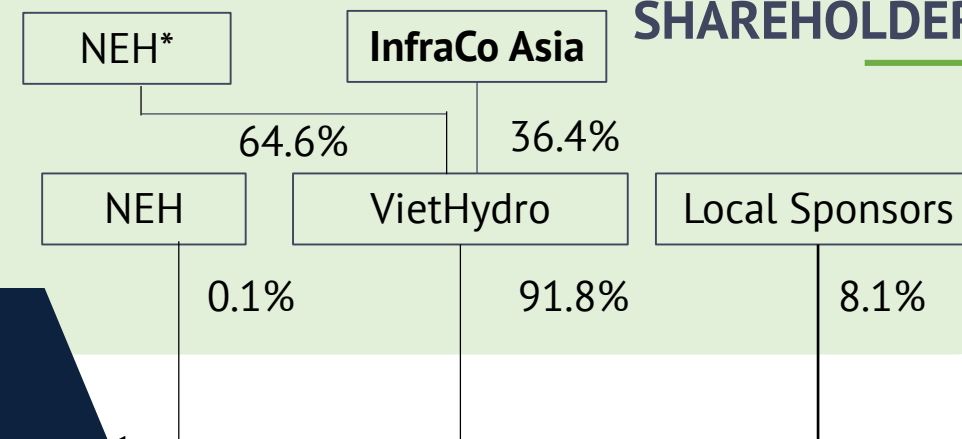
Zhejiang Hydropower
Construction and Installation
Co. Ltd

**Construction All Risk & 3rd
Parties Liabilities Insurance**
Bao Minh Corporation

**Technical Consultant &
Engineer**

- Vietnam Canada
Engineering Co. Ltd

- SMEC International

SHAREHOLDERS**OFF-TAKER**

**Northern Power Corporation /
Vietnam Electricity (EVN)**

20-Year PPA
Avoided Cost Tariff



130,000
people benefit from reliable
and affordable power supply



76,000
tonnes carbon emission
reduced per annum

Iron | Mining | Copper
Fertilizer from Apatite Mines

Expansion
of industries



250 temporary jobs created in
Construction
35 permanent jobs sustained in
Operation

Case Study

2x50MW Pakistan Wind Power
- in operation since Sep/Oct 2016 -

Development efforts for both plants commenced in 2006, however development works **stagnated** mainly due to sponsor's **inability to raise necessary debt financing**.

Capacity : 2x50 MW

Technology : Wind Power

Project Cost : ~US\$ 263M

Debt-Equity Ratio: 75:25

Offtake : 20-year Energy Purchase Agreement with National Transmission and Distribution Company Limited

Letter of Intent with AEDB¹: 2006

Financial Close : December 2014 / March 2015

COD : September / October 2016



¹ AEDB - Alternative Energy Development Board, created to promote the development of renewable energy in Pakistan

	Metro Wind (50MW)	Gul Ahmed Wind (50MW)
Project Cost:	US\$ 132M	US\$ 132M
Total Loan Amount:	US\$ 98.6M (75%)	US\$ 98.6M (75%)
Foreign:	US\$ 45M	US\$ 48M
Domestic:	US\$ 53.6M	US\$ 50.2M
Loan Tenor:	12 years	12 years
Repayment:	20 Semi-Annual	40 Quarterly

Note:

1 IFC also acquired 9.9% equity stake in the Gul Ahmed Wind Project.

2 Lender to Gul Ahmed Wind Project only

3 Lender to Metro Wind Project only

Foreign Lenders



Domestic Lenders



InfraCo Asia (“IAD”) succeeded in **removing capital access barriers for infrastructure projects** in one of the most politically sensitive countries, raising non-recourse debt financing from development finance institutions and commercial banks for the projects.

Capital

IAD acquired 50% stake in the project which gave the local sponsor the necessary comfort to engage in the project and invest capital for implementation

Expertise

IAD’s development team initiated detailed discussions with leading Multilaterals, Development Finance Institutions and Commercial Banks. Critical inputs for project structuring and preparation of bankable documents were provided with the team’s rich project development expertise.

Development Stage Leadership

This success story establishes the potential for Private Sector Investment in renewable energy and other infrastructure projects in Pakistan.

Moreover, the projects promoted the transfer of technical knowledge, acting as a pioneer in championing the spread of renewable technology.



180,000
tonnes of carbon emission
reduced jointly per annum



approximately **700,000** people have
better access to electricity, including
almost **90,000** people who live below
the poverty line



1200 temporary jobs created in
Construction
56 permanent jobs sustained in
Operation

Partnership Opportunities

Funders

InfraCo Asia's key expertise is in the early stage development of infrastructure projects and brings **proven management team capability, business model, as well as track record** of successful regional investments, including project now in operation.

We are seeking to **diversify and grow our funding base** by partnering funders with alignment of interests and objectives, to create bankable infrastructure opportunities for private sector to invest in.

Partners

We are happy to discuss genuine proposals with **governments, businesses** and **individuals**.

Bridge the Gap

Join us in unlocking the critical private sector capital that is so critical to bridging the infrastructure gap in emerging Asia. Enquiries are welcome.

Projects

We are interested in Projects located in South East Asia (including Myanmar) and South Asia that may be ideal candidates for InfraCo Asia's **Co-Development Program**

INFRACoASIA

Nepal

Kabeli A Hydropower

Thank You

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Allard M Nooy
Chief Executive Officer



Allard Nooy joined InfraCo Asia in mid-2013 and has been responsible for the company's strategic transformation process, driving the development and implementation of its 'multi-developers' and co-development programme. Allard has over 25 years of strategic executive leadership experience in the infrastructure sector in emerging markets in Asia. He has successfully led and acquired infrastructure, energy and environmental companies. His key focus has been on the development and implementation of growth strategies, the creation of new assets and the financing and execution of infrastructure projects.

The format of these projects varied widely and included PPP's and BOOT structures in the water, waste water, solid waste management, waste-to-energy, power, and renewable energy sectors. His previous roles include CEO of Jindal Aquasource (JITF Water Infrastructure Ltd) and Jindal Ecopolis (JITF Urban Infrastructure Ltd), in New Delhi, India; President Asia Pacific with Covanta Energy Corporation, the world's largest Energy from Waste Company, in Shanghai, China; Regional Director Infrastructure Development and Director China with the Leighton Group in Asia, Australia's largest engineering and contracting group, Regional Director Greater China at Thames Water International, the world's third largest private water company, in Hong Kong SAR; and General Manager of Vermeer - Ballast Nedam, while based in Vietnam.