

ADB as a Responsible Development Partner: The India Infrastructure Finance Company Limited (IIFCL) Case Study

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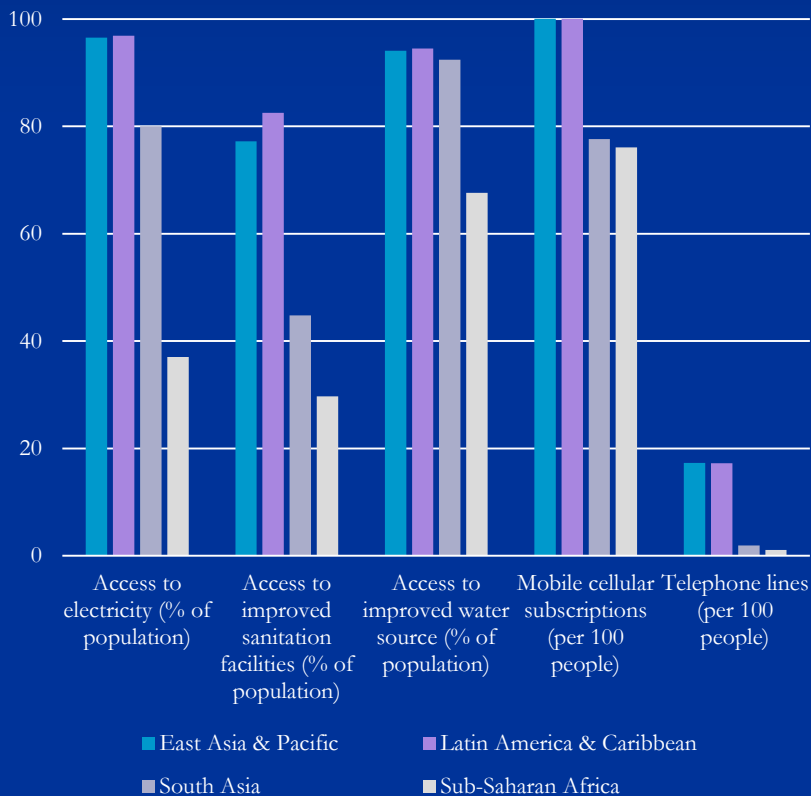
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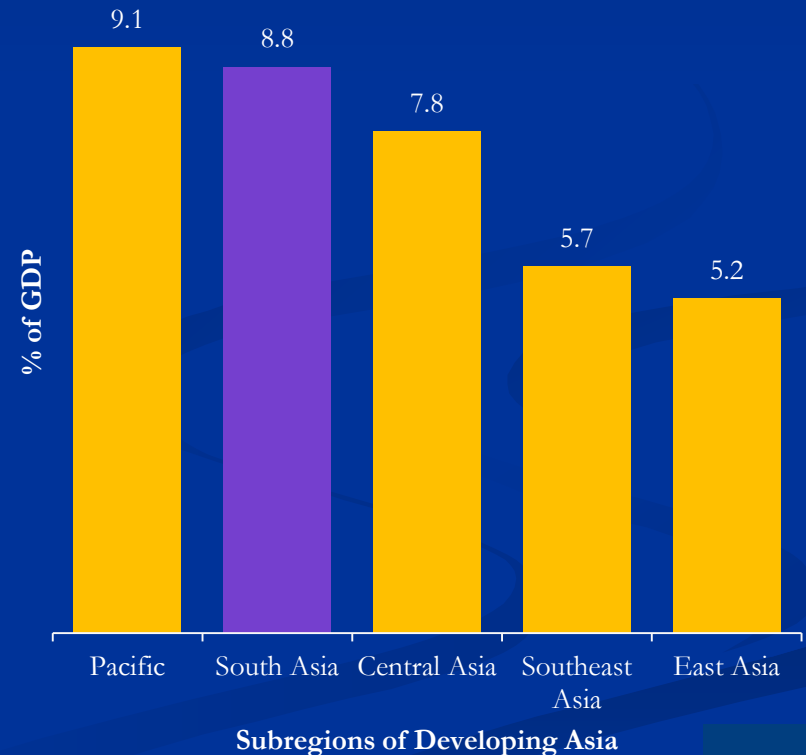
The Context - Large Infra Needs

Access to Infrastructure Services by Region 2014-15



Source: Data from database: World Development Indicators.
Last Updated: 05/26/2017

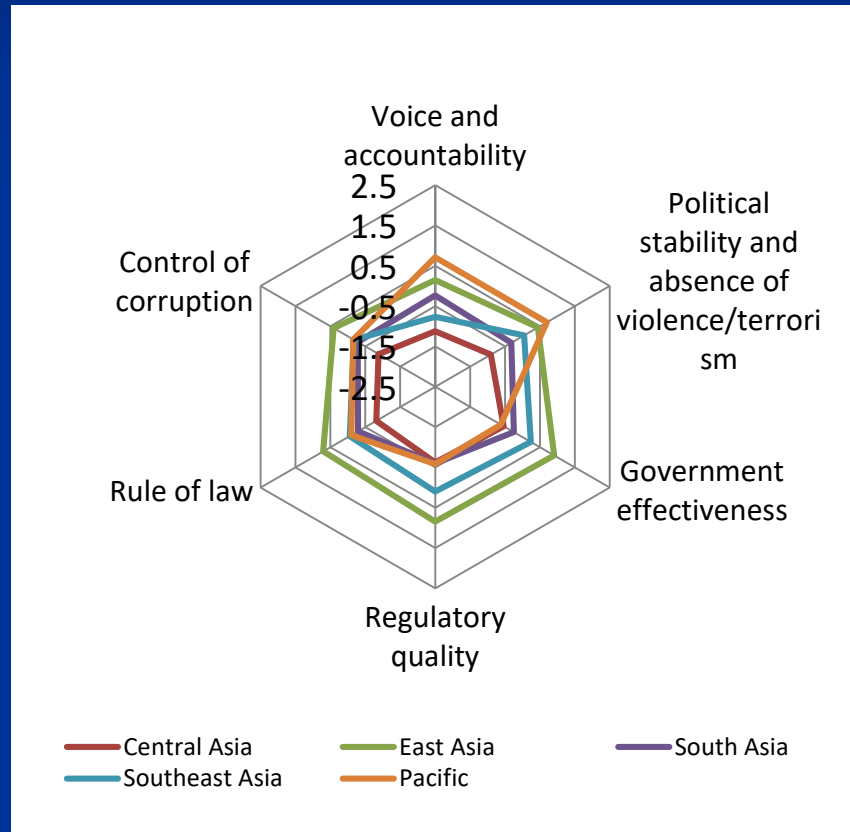
Developing Asia's Infrastructure Needs 2016-30



Source: ADB. 2017. *Meeting Asia's Infrastructure Needs*. Manila.

The Context - Governance

Diverse governance indicators across Asia



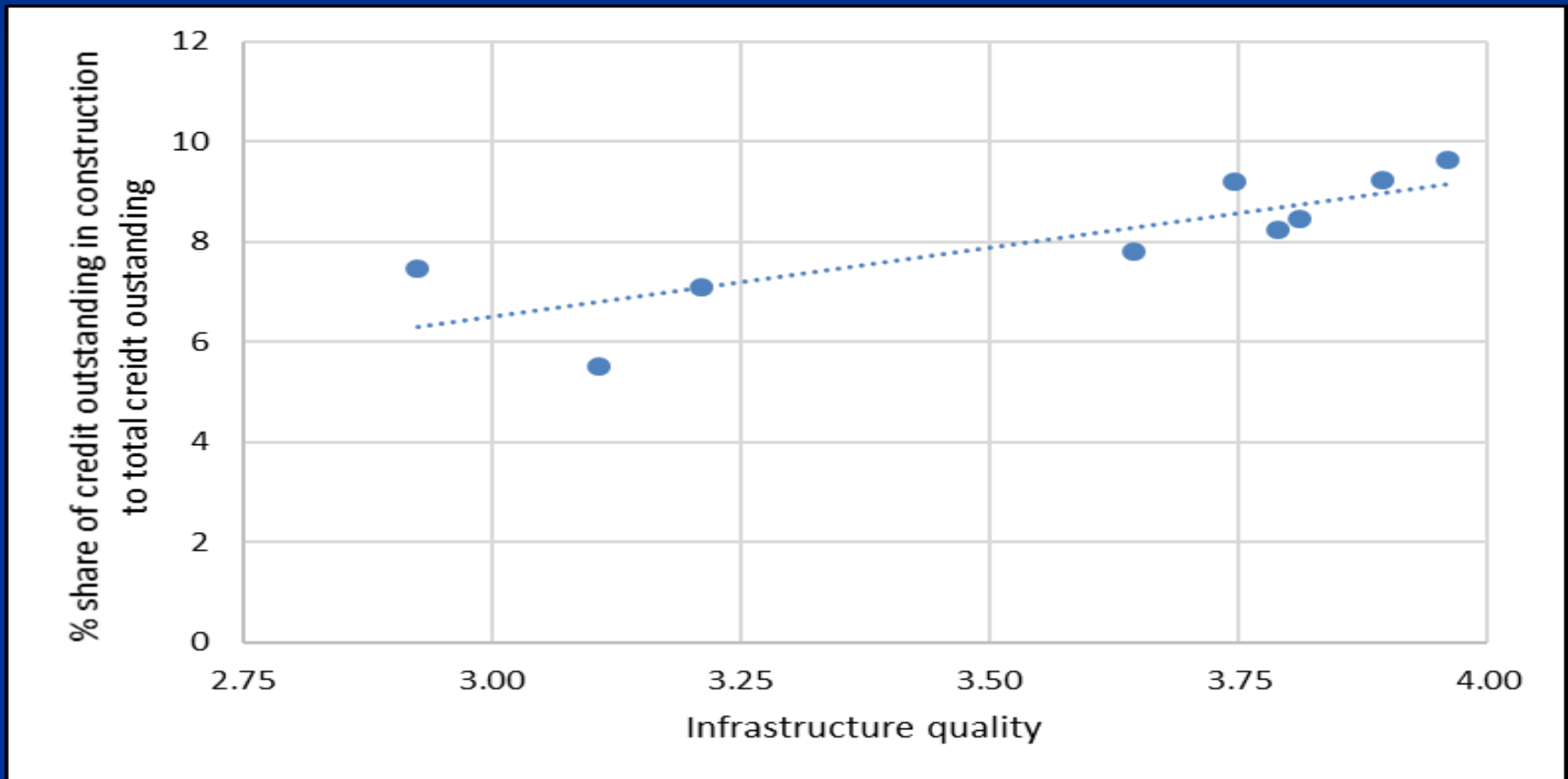
Source: ADB estimates using data from World Bank, Worldwide Governance. Indicators online database (accessed December 2017)

Asia continues to grow despite challenging governance



Source: ADB estimates using data from World Bank, Worldwide Governance Indicators and World Development Indicators databases (accessed December 2017)

The Context - Better quality infrastructure is associated with larger share of credit for construction



Sources: Global Competitiveness Report 2016-2017; CEIC Data Company

Note: Infrastructure quality is from 1-7 with 7 as the best.

The Context - Drivers of Infra. Investment

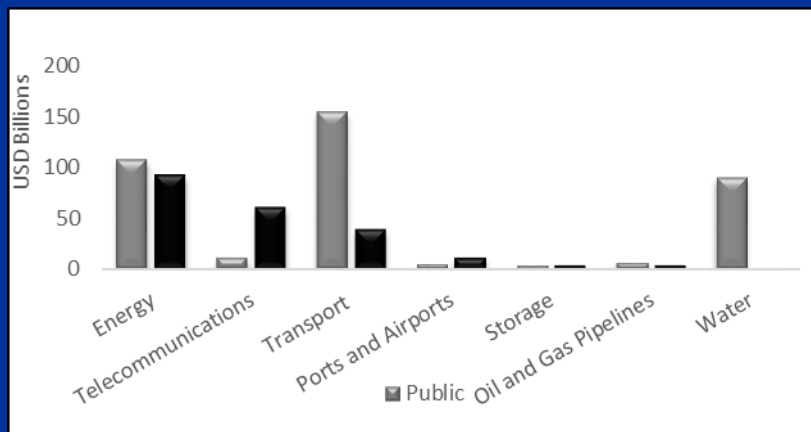
	(1)	(2)	(3)	(4)	(5)
log GDP per capita = L,	2.000*** (<0.001)	2.004*** (<0.001)	1.827** (0.0199)	2.298*** (0.00268)	1.780*** (0.00269)
log Population	-2.037 (0.252)	-2.108 (0.258)	-0.389 (0.901)	-4.422 (0.179)	-0.228 (0.922)
log GDP growth = L,	-0.0347 (0.559)	-0.0335 (0.580)	0.0761 (0.364)	0.0822 (0.283)	0.0263 (0.730)
log Domestic credit to private sector = L,	-0.186* (0.0582)	-0.181* (0.0817)	0.247 (0.510)	0.675* (0.0818)	-0.208 (0.184)
log Inflation, consumer prices = L,	-0.0390 (0.480)	-0.0431 (0.491)	-0.0192 (0.760)	-0.0337 (0.560)	-0.0411 (0.517)
log Trade openness = L,	0.225 (0.193)	0.237 (0.221)	-0.109 (0.640)	-0.0759 (0.721)	0.123 (0.524)
log Debt = L,	-1.016*** (0.00318)	-1.040*** (0.00714)	-0.708 (0.177)	-0.498 (0.300)	-0.830** (0.0391)
Control of Corruption			0.386 (0.137)	0.761*** (0.00876)	
Government Effectiveness			-0.0895 (0.723)	0.108 (0.655)	
Regulatory Quality			0.564** (0.0118)	0.819*** (0.000661)	
Quality of government		-0.0742 (0.886)			
Rule of Law				-0.704** (0.0131)	
Index of business freedom					0.00684** (0.0388)
Index of investment freedom					0.00115 (0.595)
Constant	51.34* (0.0812)	52.73* (0.0921)	20.45 (0.689)	90.37* (0.0997)	18.28 (0.633)
Observations	60	60	42	42	53
R-squared	0.932	0.932	0.938	0.950	0.938
Number of countrycode	3	3	3	3	3

Panel Estimation Results, OLS fixed effects. pval in parentheses (***) p<0.01, ** p<0.05, * p<0.1)
 Note: (a) infrastructure investment refers to the sum of public capital stock and PPI investment.

Context – India: Mind the Gap

- According to 2018 Economic Survey, India requires \$4.5 trillion worth of infrastructure investment over 2015–40, highlighting a cumulative gap of \$526 billion by 2040.
- This averages to an annual investment need of \$180 billion per year.

India's Infrastructure Investment 2012-17



Source: Government of India, Planning Commission. 2017. *Appraisal Document of Twelfth Five Year Plan 2012–17*. Delhi.

Gross Bank Credit to Infrastructure (\$ billion)

	FY11–12	FY12–13	FY13–14	FY14–15	FY15–16	FY16–17
Power	64.95	76.32	81.31	89.20	87.59	81.03
Telecommunications	18.45	16.11	14.73	14.70	13.79	13.12
Roads and Others	40.25	41.50	43.63	44.00	44.36	45.64
Total Infrastructure	123.65	133.92	139.67	147.90	145.74	139.79

Source: Reserve Bank of India. 2018. *Handbook of Statistics on the Indian Economy 2016–2017*. Mumbai.

The Institution

- IIFCL is 100% Government owned AAA rated NBFIs established in 2006 to promote infra. finance.
- Mandate: Raise long term finance for infra projects and promote PPPs.
- Finances (i) direct lending senior debt (max exposure of 20%), (ii) subordinated debt or quasi equity (max exposure of 10%), (iii) take out finance (max exposure of 30%), and (iv) credit enhancement
- Capital Ratio = 19.2%, Paid Up Capital = \$645 m.
- GNPA = 7.8%



The Wholesale Financing Model - ADB as a Responsible Lender

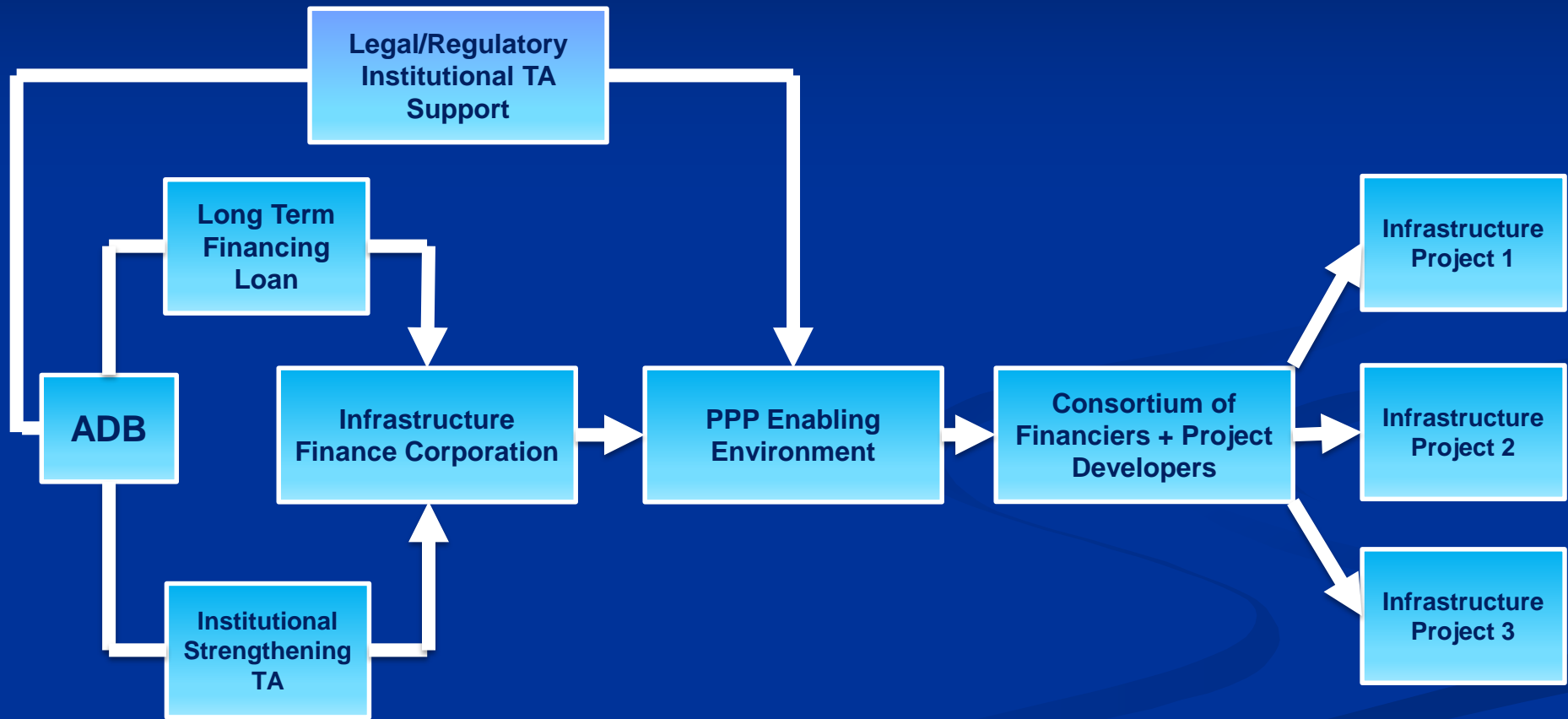
The Model as a Solution:

- In search of returns with strong ESGs
 - Returns: Strong developmental impact = Infra Asset Creation
 - ESGs: Anchored on Safeguard Policies = Accredited Delegation
- Leverage our Resources
(Our strengths)
 - Access to policymakers
 - AAA rating (competitive finances)
 - Long term financing (anchors leveraging)
 - Structuring expertise
- Builds on Ecosystems (PPPs)

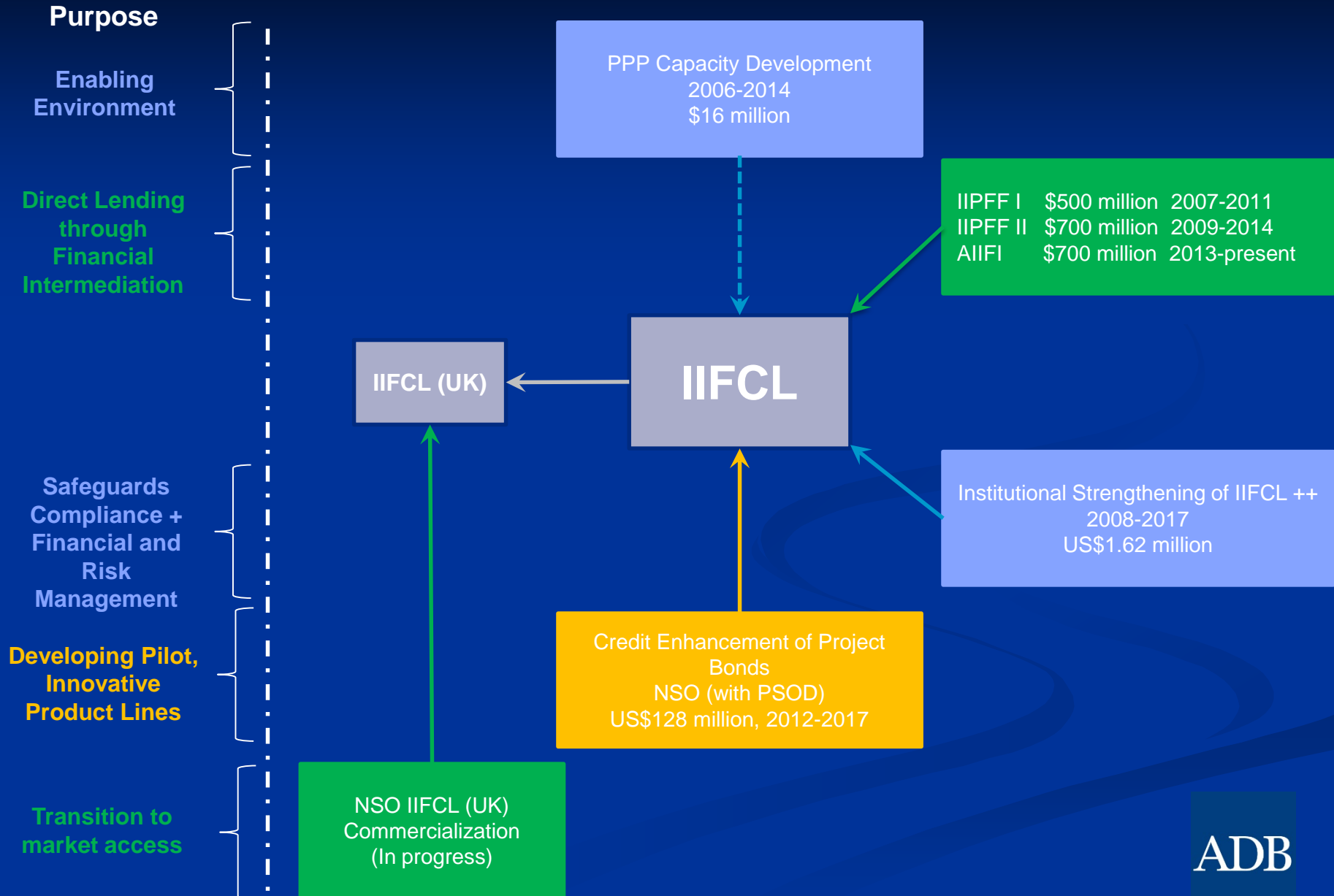


Road Sector

The Wholesale Financing Model – Finance ++



ADB-IIFCL Partnership



The Instrument - India Infrastructure Project Financing Facilities

- **Leading the (r)evolution of infrastructure financing in India**

- ADB provided three MFFs totaling \$1.9 billions to India Infrastructure Finance Company Limited (IIFCL) since 2007.



Mumbai International Airport

- It is the first MFF-FI loan (wholesale financing model) designed to leverage ADB resources for the benefit of a wide range of PPP projects across sectors in a programmatic manner.
- The MFFs complement ADB's parallel initiatives in PPPs and contribute to creating an enabling environment for long-term financing for infrastructure development.

The Instrument - India Infrastructure Project Financing Facilities



Delhi International Airport Construction Site



Aerial View of Terminal 3, Delhi International Airport

Institutional building and good performance

- With ADB support, IIFCL has successfully provided innovative financing options for infrastructure service delivery by integrating a range of financing instruments (debt, and guarantee) and financing sources (domestic and international markets).
- Two MFFs namely IIPFF and IIPFF II (amounting \$1.2 billion) were fully disbursed for 49 PPP infrastructure projects ahead of target closing date including Delhi and Mumbai International Airports.

The Instrument - India Infrastructure Project Financing Facilities

Finance++

- **High leverage ratio.** IIPFF has mobilized 13 times from the market.
- **Model safeguard framework.** ADB led in the development of harmonized Environmental and Social Safeguards Framework (ESSF) with development partners to ensure that ADB requirements are complied with.
- **Capacity building.** Through ADB technical assistance, IIFCL has strengthened its in-house capacity for managing market and credit risks, and in undertaking risk assessment, management, and mitigation.
- **Leading future evolution.** ADB is assisting in transforming IIFCL from a consortium lender to a provider of innovative project financing solutions including takeout financing, re-financing, subordinate debt, and guarantees; and in the development of the partial credit guarantees concept for project bond.



Delhi International Airport

The PPP Ecosystem - Definition of Public-Private Partnership

- **Principle of PPP- Risk Allocation:** The structure of the PPP should be designed to allocate risks to the entities/partners that are best able to manage the risks and thus minimize costs while improving efficiency and performance.
- **Public-Private Partnership (PPP):** While engaging the private sector, PPP presents a framework that acknowledge and structure the role for government in ensuring that social obligations are met, and successful sector reforms and public investments are achieved.



- **Private-Sector Participation (PSP):** While engaging the private sector, PSP contracts transfer obligations to the private sector rather than emphasizing the opportunity for partnership.

The PPP Ecosystem - ADB Strategy 2020

ADB Strategy 2020 on PPP:

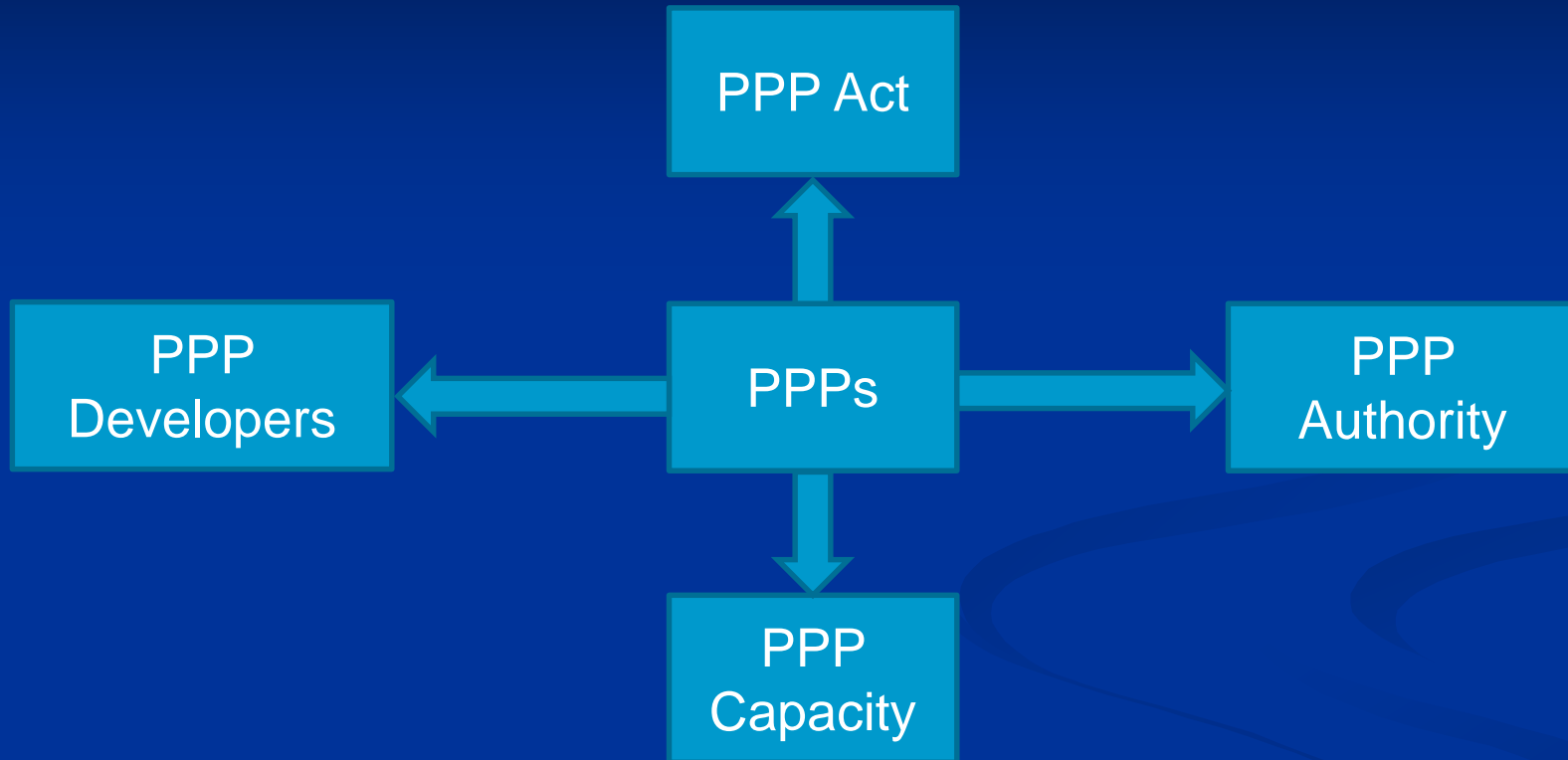
ADB's infrastructure operations will emphasize PPPs and PSP. ADB will promote a larger role for the private sector in financing infrastructure, either as a project sponsor or as an institutional bond or equity investor, which will augment the supply of capital for infrastructure in developing the region. However, improvements in a country's domestic debt market will be indispensable for increasing the flow of long-term funds into infrastructure development.

PPP in South Asia:

Public sector has been the main provider of basic infrastructure in South Asia. However, public financing will not alone be able to generate the needed levels of investments to improve infrastructure facilities. Recognizing the significance of the role of private sector in infrastructure development, governments in South Asia have placed PPPs and PSP at the center of their infrastructure development.



The PPP Ecosystem



Through risk transfers/risk sharing, given diverse risk tolerance, risk-based pricing can lead to transactions or projects that would not have occurred otherwise.

Government Initiatives on PPPs and TA Support from ADB

- Establishing a PPP cell in MoF (Department of Economic Affairs) for coordination of PPP mainstreaming
- Institutionalizing PPP cells in selected states and central line ministries for identification of PPP opportunities
- Establishing India Infrastructure Project Development Fund for financing PPP project preparation activities
- Establishing the IIFCL for facilitating access to long-term funds (with tenor of no less than 10yrs) for infrastructure development
- Launching the Viability Gap Fund (up to 40% of total project cost)
- Creating Model Concession Agreements (MCA) in priority sectors



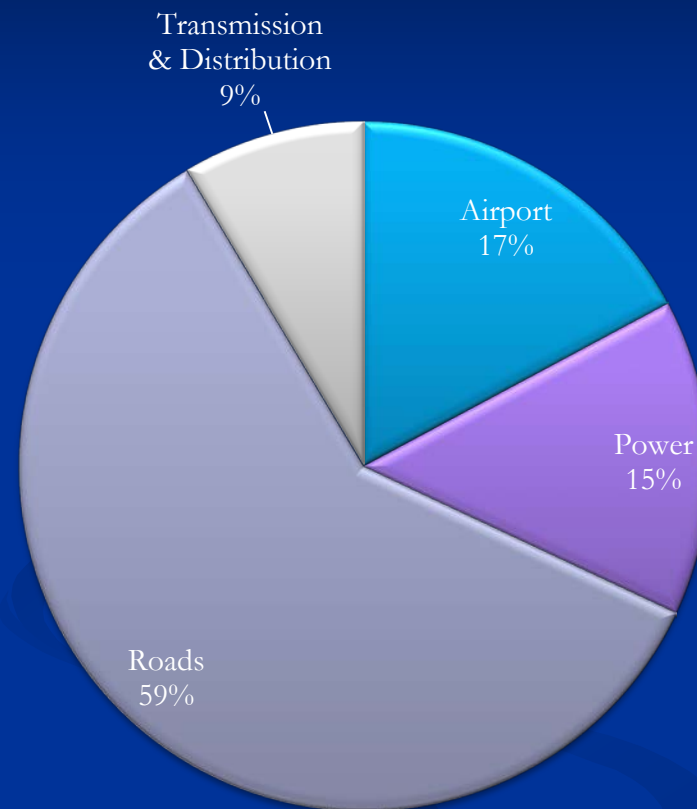
Results - Institutional Strengthening

- ESMS
 - Developed ESMF
 - Coordinated ESMF with requirement of other donors
 - Supported staffing during institution's early years
 - Required appointment of ESMU head with suitable qualifications and experience
- Risk management
 - Required implementation of a comprehensive framework for strengthening risk management
 - Required integration of MIS
- Covenants on strengthening corporate governance
 - Developed risk management reporting to the board
 - Instituted quarterly risk management reporting
 - Incentivized registration with RBI as an NBFC
 - Required appointment of an internal auditor at a senior level with direct reporting to the board

Results - Performance Chart

PPP Subprojects Approved and Disbursed under IIPFF1, IIPFF2 and AIFI

Sector	Total Project Cost (Rs million)	Total Project Cost (US\$ million) As of 25 Jan 2017	%
Airport	176,358	3,654	17%
Power	191,254	3,153	15%
Road	739,453	12,650	59%
Transmission & Distribution	116,110	1,823	9%
Total	1,223,176	21,280	100%



Credit Enhancement – The Innovation

- Builds on the idea that credit enhancements can leverage capital in a greater proportion than wholesale financing model and can be financed by unlocking large pool of funds in contractual savings institutions.
- ADB introduced and helped structure a participating first loss credit default guarantee backstopping arrangement with IIFCL for up to 50% of the loss on IIFCL's exposure (P&I) to the bond in the event of default.

Credit Enhancement – The Innovation

- Project 1 – Wind Farm ReNew Wind Energy (Jath) Private Limited (ReNew Jath).
- ADB approved \$10.7 million exposure towards credit enhancing from BBB to AA credit rating of SPV bond with 17.5 year tenor and first loss credit default guarantee by IIFCL at 2% guarantee fee.
- PCG was terminated in 2017 as it achieved ADB's development objective



Credit Enhancement – The Innovation

- Project 2 – Solar Park Porbandar Solar Power Ltd.
- ADB approved maximum coverage for credit guarantee of \$3.4 million for 10 year bonds for 2% guarantee fee.
- Bond issuer decided to prepay their bond in 2017 so that they could sell the Porbandar project and use the proceeds to fund new projects.



Replicability

- ADB has replicated this model in Bangladesh with Infrastructure Development Company Ltd (IDCOL).



- In frontier markets PPP provides sole means to mobilize private investment given market risks so potentially has greater impact.
- In this case, leveraging is smaller as the scheme allows for up to 40% financing of sub-projects.
- In discussions with governments in Indonesia and Sri Lanka.
- A new variant of national development banks?

Lessons

- **Wholesale Financing Model (WFM) supports more sustainable PPPs:** ADB's long term financing reduces reliance on commercial banks for debt financing by restraining ALM mismatch and refinancing risk and strengthens ESG requirements.
- **WFM has strengthened IIFCL:** Through ADB TA and active work on ESG through ESMS and strengthening financial management, and through ADB association has increased IIFCL perception in the market.
- **Credit Enhancement of Project Bonds (CEPB) promotes an active and efficient bond market:** Post construction phase is typically associated with lower risk and more apt for bond financing that not only reduces ALM mismatch but can promote a more diversified and stable financing system that is less concentrated on bank financing.
- **CEPB promotes more effective use of capital:** As bank loans are bought out by bond subscribers, banks are able to recycle capital into new greenfield projects.
- **CEPB may develop into a new asset class!**

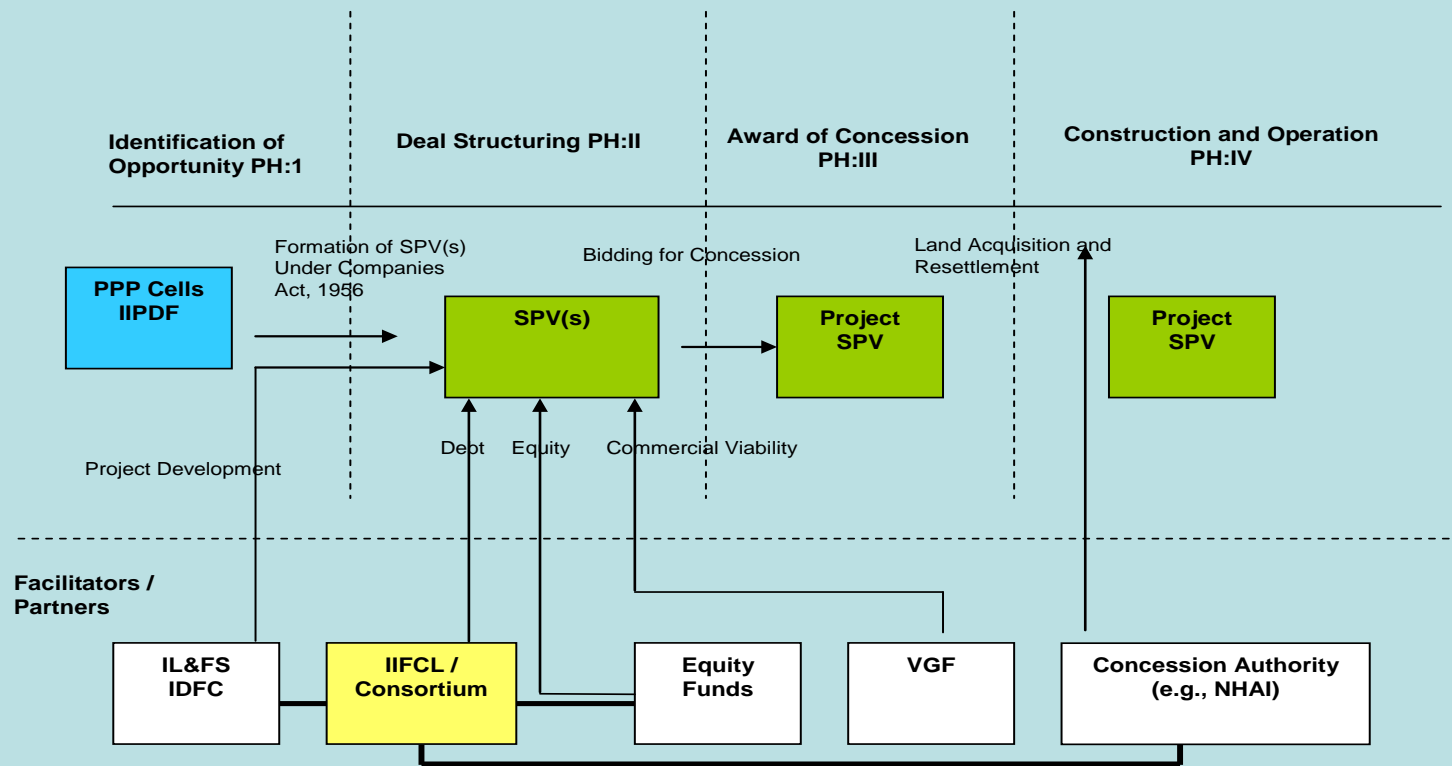
Questions for Discussion

1. How do countries finance infrastructure?
2. How many countries have (i) active National Development Banks (NDBs)? (ii) dedicated Infrastructure Financing Companies (IFCs)?
3. Should NDBs and/or IFCs be more commercially oriented?

Thank you!

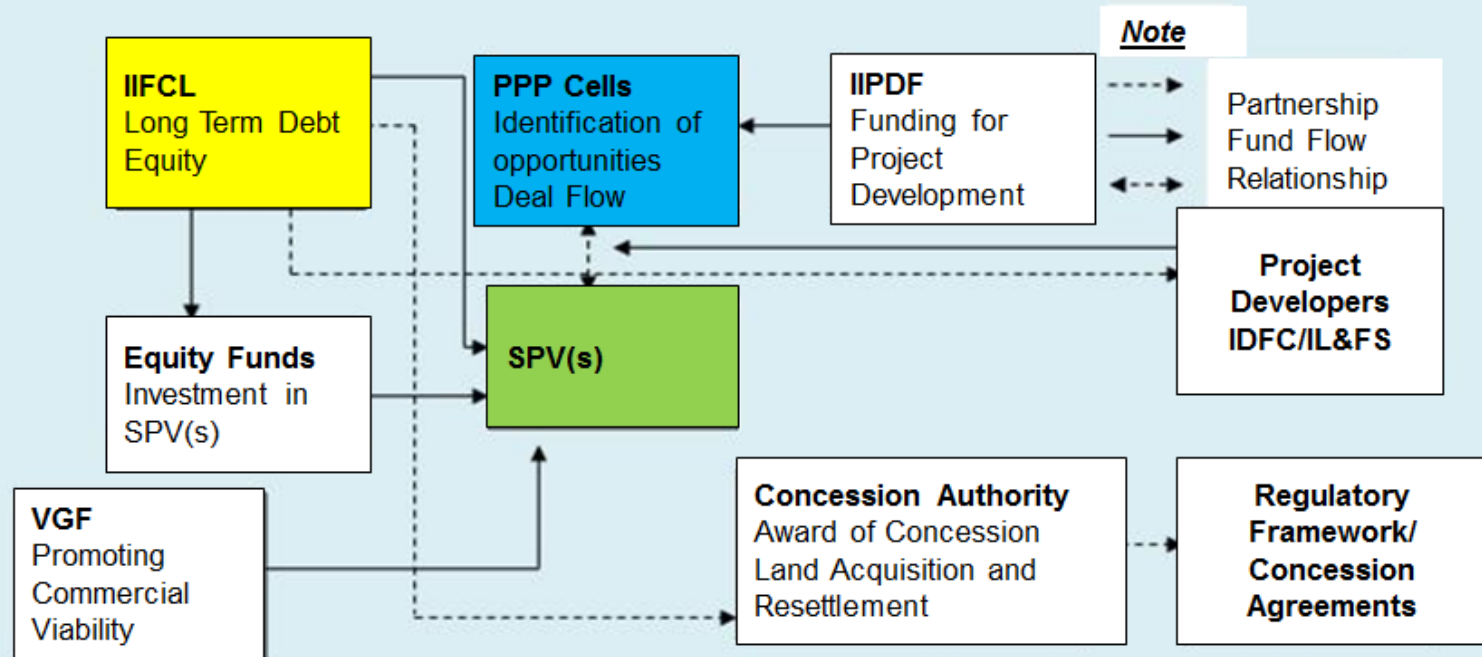
Appendix

The PPP Ecosystem - Process Flow of Developing and Operationalizing PPP Subprojects



IDFC= Infrastructure Development Finance Company, IIFCL = India Infrastructure Finance Company Limited, IIPDF = India Infrastructure Project Development Facility, IL&FS = Infrastructure Leasing and Financial Services, NHAI = National Highway Authority of India, PH = phase, PPP = public private partnership, SPV = special purpose vehicle, VGF = viability gap funding.

The PPP Ecosystem - Framework for Developing Infrastructure through PPP and PSP



IDFC = Infrastructure Development Finance Corporation, IIFCL = India Infrastructure Finance Company Limited, IL&FS = Infrastructure Leasing and Financial Services Limited, IIPDF = India Infrastructure Project Development Facility, PPP = public-private partnership, SPV = special purpose vehicle, VGF = viability gap funding.

Results - Performance Chart

IIPFF I, IIPFF II and AIIFI PFR1 Disbursement (as of 25 January 2017)

Facility	Tranche (Date of Approval)	Tranche Amount	Disbursement (Date of completion)
IIPFF I	Tranche 1 (20 Dec 2007)	\$300 million	Fully Disbursed (15 Jan 2010)
	Tranche 2 (24 Feb 2009)	\$200 million	Fully Disbursed (26 Aug 2011)
Subtotal	30 PPP Projects	\$500 million	Fully Disbursed (26 Aug 2011)
IIPFF II	Tranche 1 (27 Nov 2009)	\$210 million	Fully Disbursed (14 Sept 2011)
	Tranche 2 (7 Dec 2010)	\$250 million	Fully Disbursed (23 Oct 2012)
	Tranche 3 (1 Dec 2011)	\$240 million	Fully Disbursed (14 May 2014)
Subtotal	20 PPP Projects	\$700 million	Fully Disbursed (14 May 2014)
AIIFI	PFR1 (21 Oct 2013)	\$400 million	Fully Disbursed (25 Jan 2017)
Subtotal	17 PPP Projects	\$400 million	Fully Disbursed (25 Jan 2017)
TOTAL	67 PPP Projects	\$1.6 billion	*Fund mobilization ratio > 13 times

Product Development Initiatives- Summary

IIFCL has consistently responded to evolving PPP financing

Product	Issues Addressed	ADB Role
Direct Lending (Syndicated Loans)	<ul style="list-style-type: none"> Bank Capital and Regulatory Limits; IIFCL Central Bank lending norms for banks (NBF1 norms); <p>Assists in achieving financial close of project quickly.</p>	Long-term line of credit for re-lending to commercially viable PPP projects;
Subordinate Debt	<ul style="list-style-type: none"> Over-leveraged project companies; Aggressive bidding by sponsors; Inadequate project equity; Cost escalation due to delays; <p>Allows over-leveraged projects raise additional debt without additional equity</p>	Long-term line of credit for re-lending to commercially viable PPP projects;
Take-out Finance	ALM problem in banks (for >5 year maturity);	Long-term line of credit for re-lending to commercially viable PPP projects;
Partial Credit Guarantees	<ul style="list-style-type: none"> Bank capital constraints + ALM risk; Opportunity for LT institutional investors; <p>Credit enhancement of brownfield project bonds (to pre-pay existing bank debt)</p>	Risk sharing of underlying project risk with ADB

Lessons - Drivers of Change

Finance



TECHNOLOGY

1. Apply **TECHNOLOGY**

➔ 2. Develop a **BUSINESS MODEL**

➔ 3. Project/Financial **STRUCTURING**

➔ 4. **DE-RISKING** (Peeling layers)

➔ 5. **BANKABILITY !!!**

~~In ADB, prevailing wisdom:~~

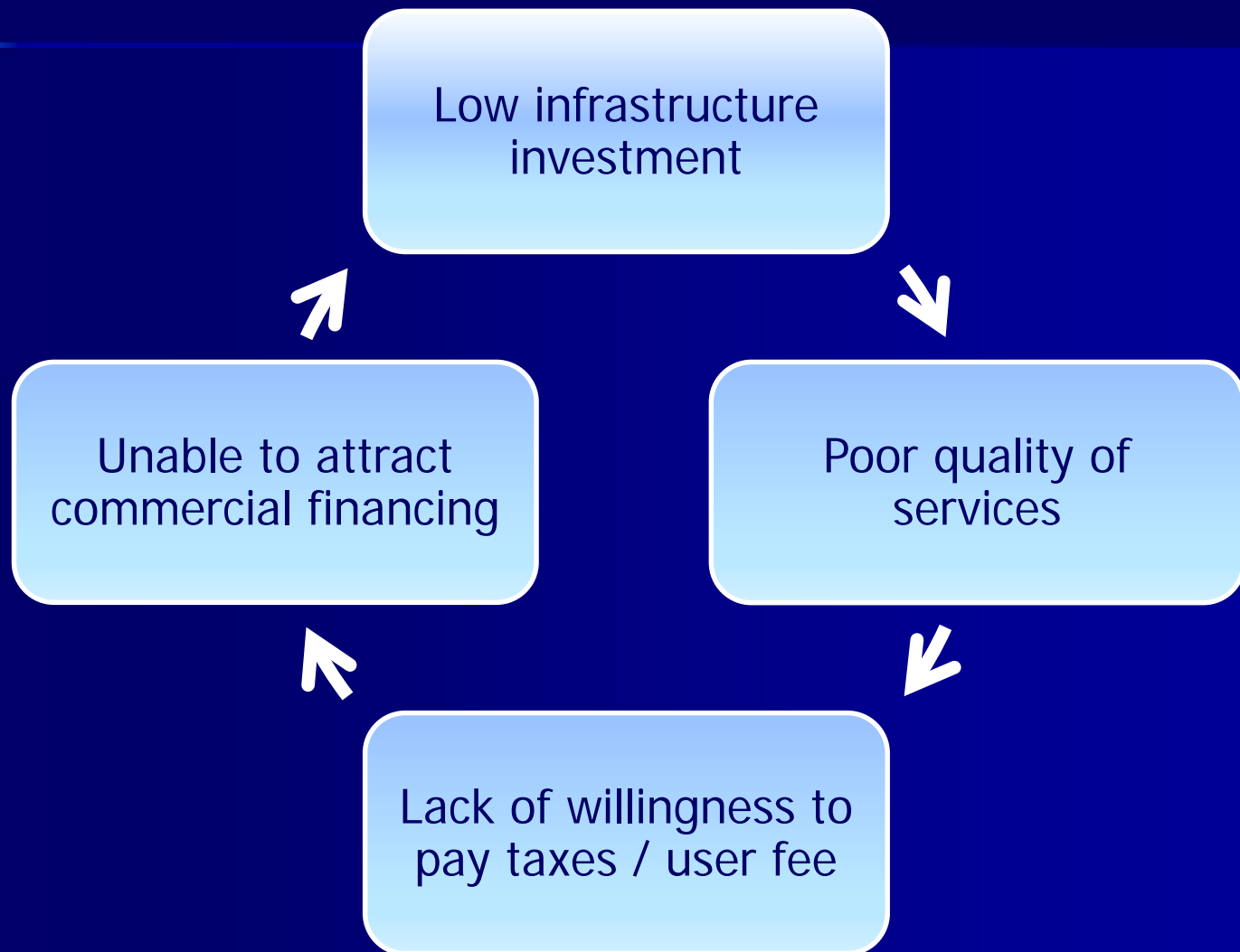
~~Have \$ but not bankable projects~~

New wisdom:

Financial Structuring can make a project bankable!

...and if you can build/nurture an ecosystem, ensure it is sustainable. **ADB**

Vicious Cycle of Inadequate Investment



General Framework for SOE Engagement

