

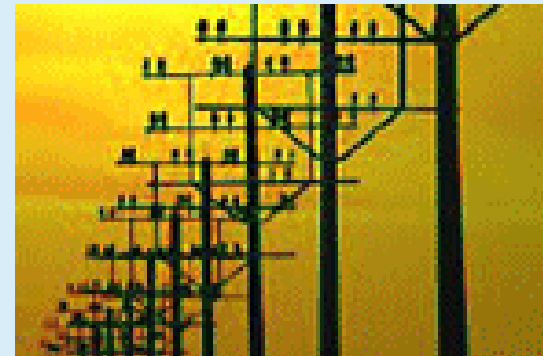
UNESCAP : PPP in Infrastructure Development

Streamlining PPP Implementation Process
An Agenda for Action

Oct 3, 2007

“...the PPP approach is best suited for the infrastructure sector. It supplements scarce public resources, creates a more competitive environment and helps to improve efficiencies and reduce costs. Our experience shows that competition and PPPs can help in improving infrastructure.”

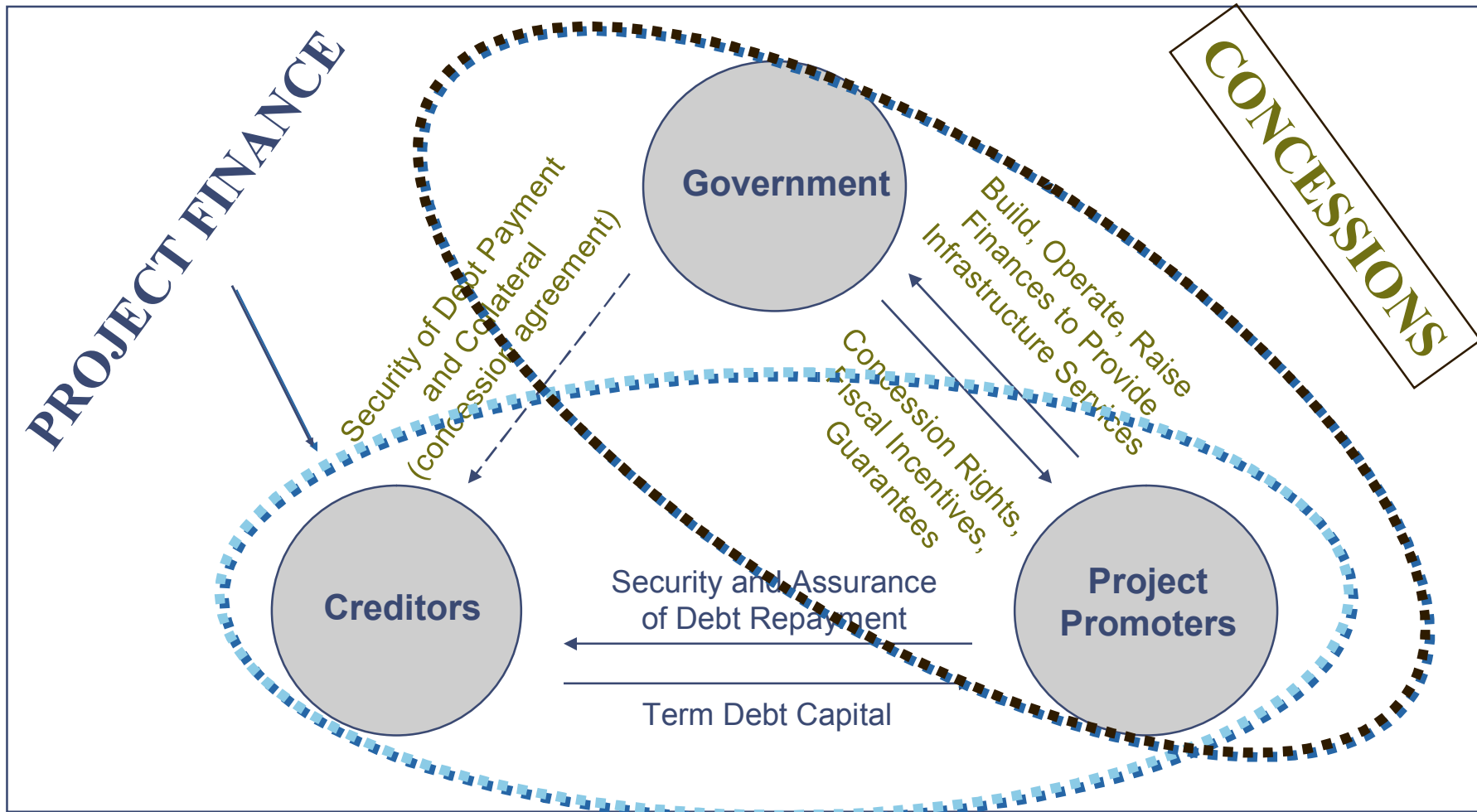
PM of India Manmohan Singh



 **ERNST & YOUNG**
Quality In Everything We Do

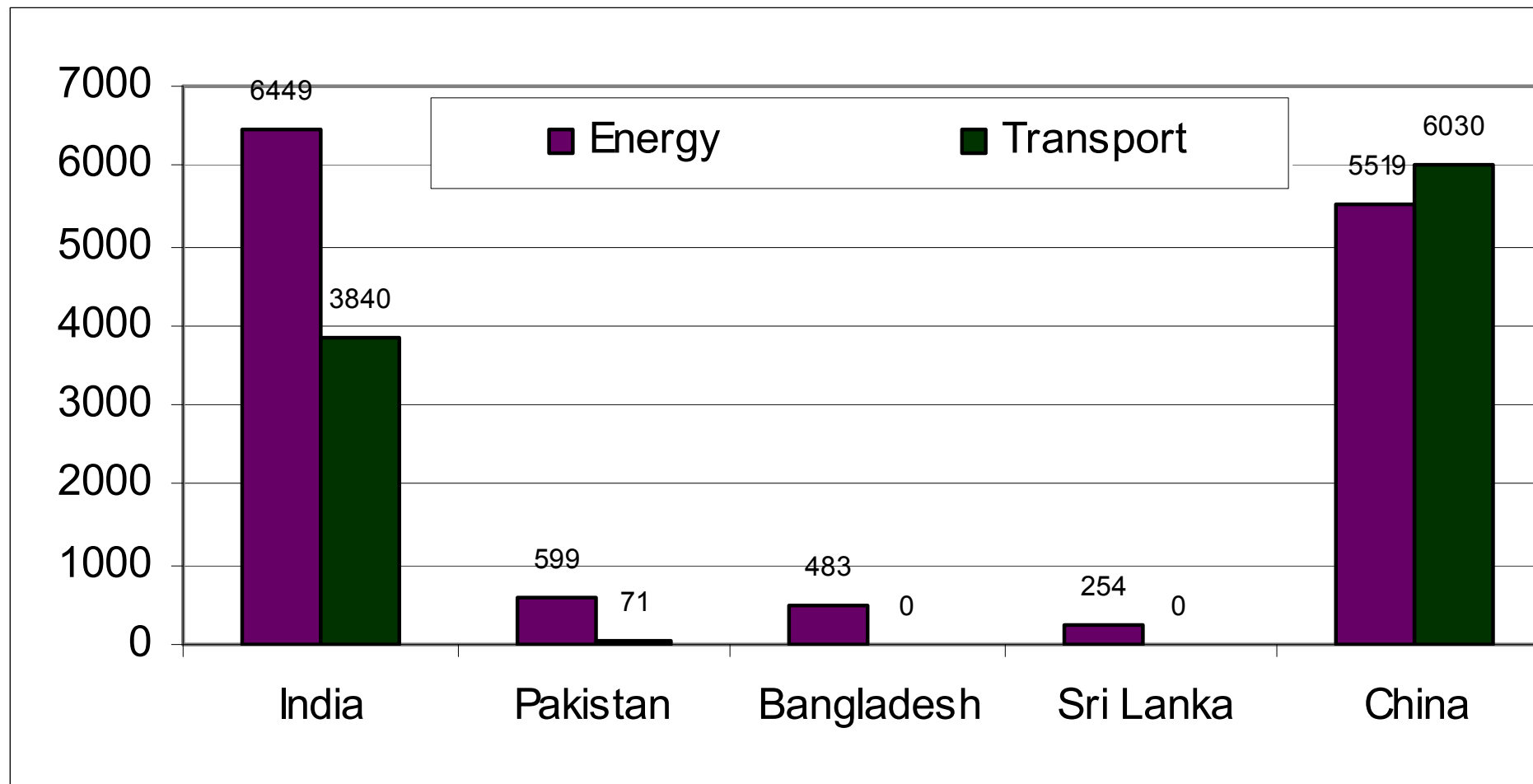
In this Presentation...

Risk Allocation/Mitigation by Institutional Arrangements, Concession Agreements & Payment Security Mechanisms



PPP in UNESCAP countries

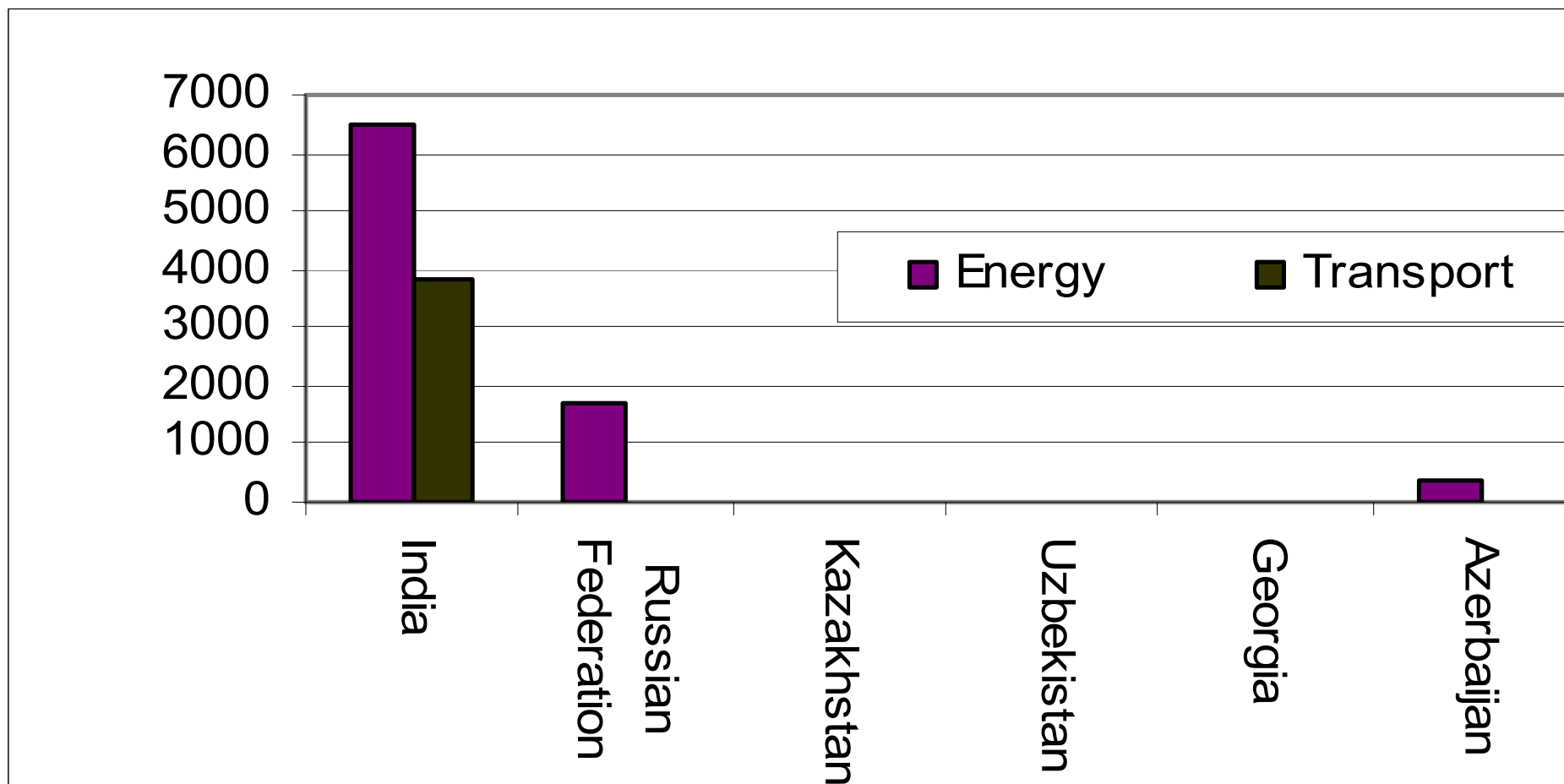
South Asia: 2001-05 (China as reference) – US\$ million



- PPP in India and China have been the drivers for growth
- Pakistan and particularly Sri Lanka are creating robust institutional arrangements

PPP in UNESCAP countries

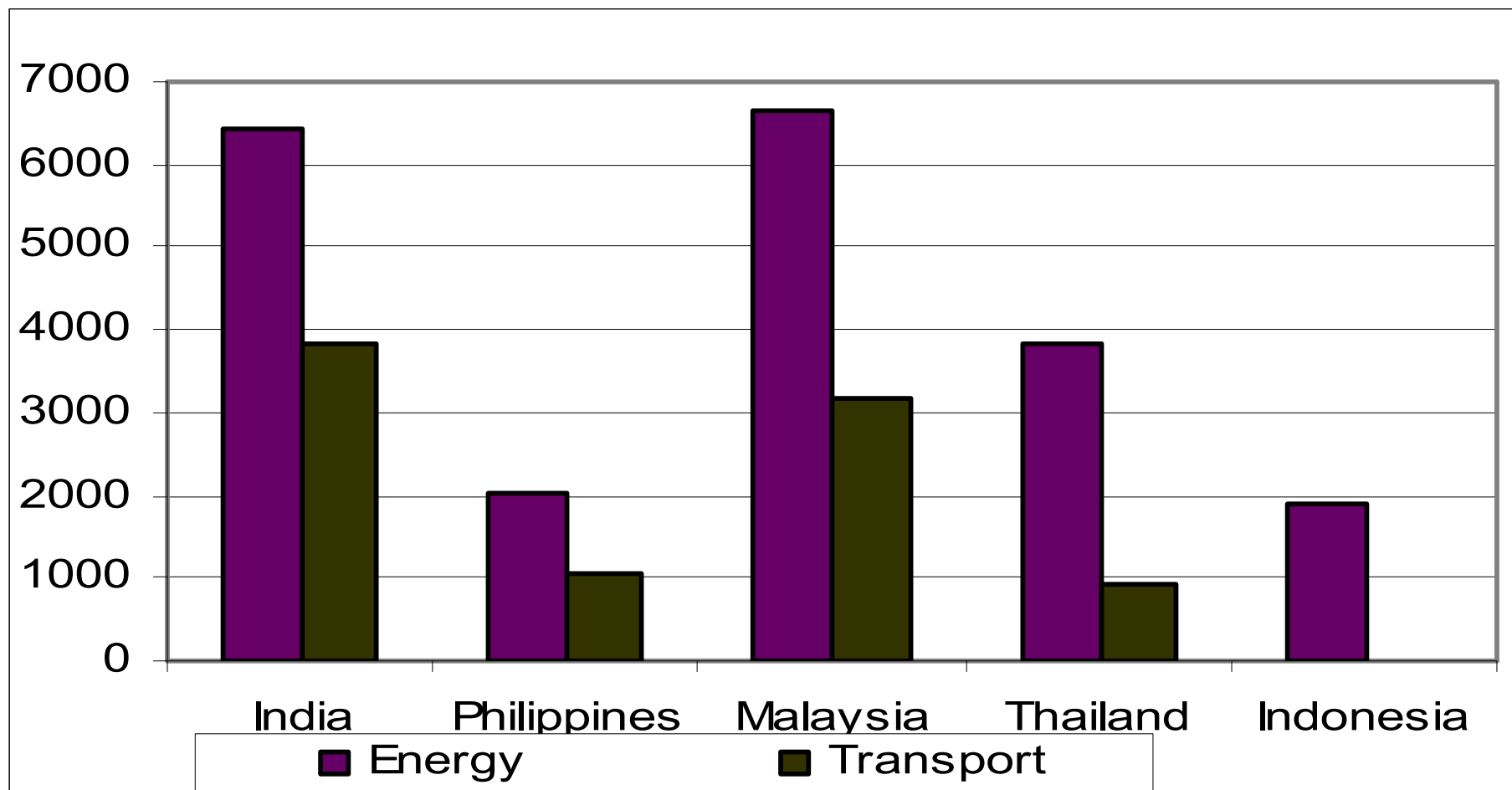
Former Soviet Union: 2001-05 (India as reference) – US\$ million



- Countries just beginning to have PPPs in discrete sectors
- The need for an institutional arrangement is imminent for a more systematic effort that would accelerate the process

PPP in UNESCAP countries

South East Asia: 2001-05 (India as reference) – US\$ million



- Competitive bidding is a breaking issue not just PPP
- Indonesia is beginning to institutes such an arrangement assisted by the World Bank and ADB

PPP in UNESCAP Low and Middle Income countries

Correlation between PPP Transactions and Institutional arrangement

Institutional Arrangements	PPP cell	Knowledge center and Standards Docs	Identification and Maturing Projects	Infra Fund for VGF and Maturing Projects	Approval Process and Mechanism	Competitive Bidding
India	Y	Y	Y	Y	Y	Y
Indian subnationals	Y	Y	Y	Y	Y	Y
Pakistan	Y	Y	Y	Y	Y	Y
Sri Lanka	Y	Y	Y	Y	Y	Y
Bangladesh						
China	Y	Y	Y	Y	Y	Y
Russia						
Kazakhstan						
Uzbekistan						
Malaysia	Y		Y	Y	Y	
Thailand	Y		Y	Y	Y	
Indonesia						

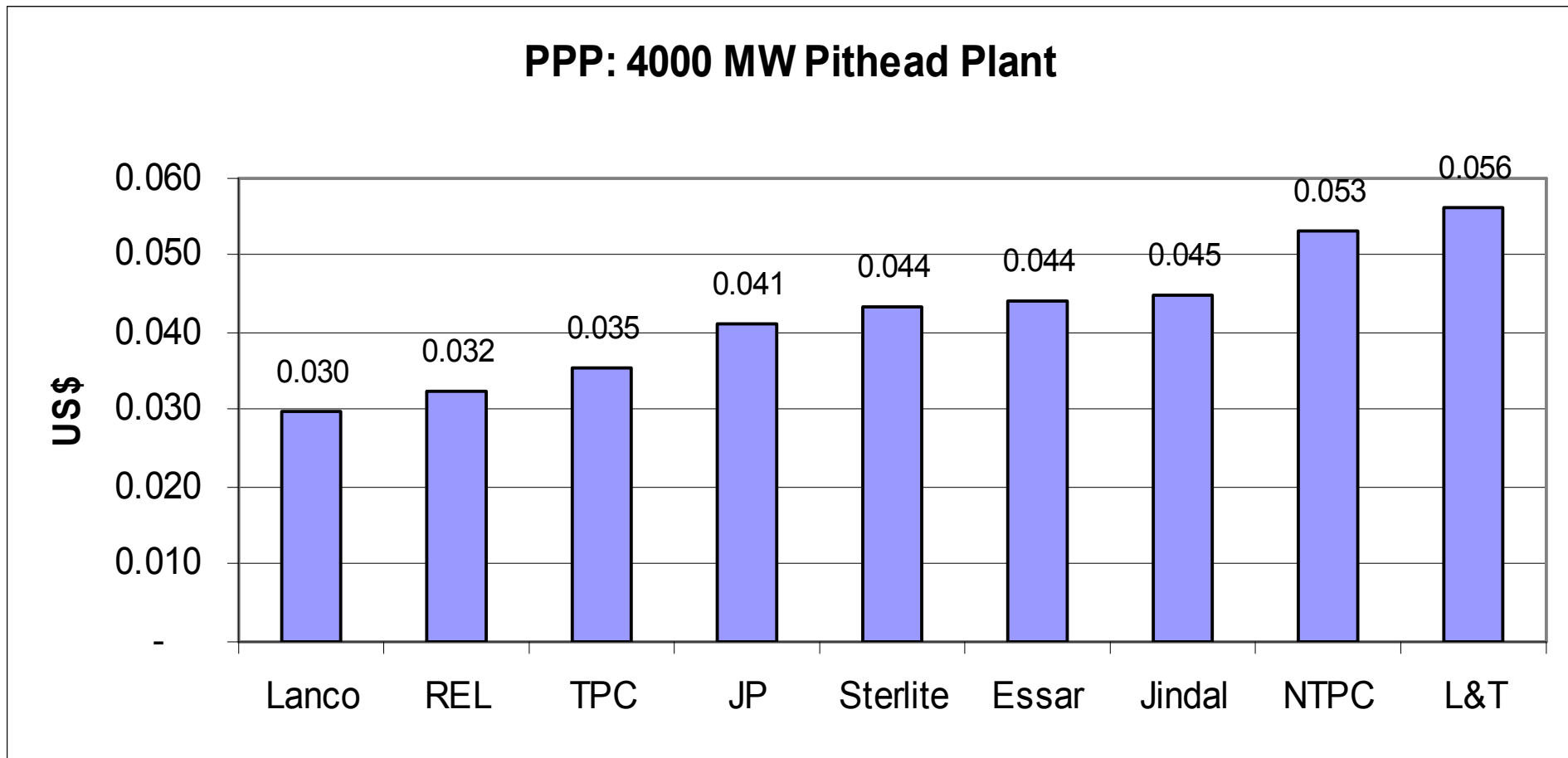
- Correlation between PPP Transactions and Institutional arrangement is extremely strong
- Pakistan and Sri Lanka have just set up PPP institutional arrangement and are ramping up transactions
- Competitive bidding is a MUST otherwise the PPP program itself gets tarnished

PPP

Indian Experience

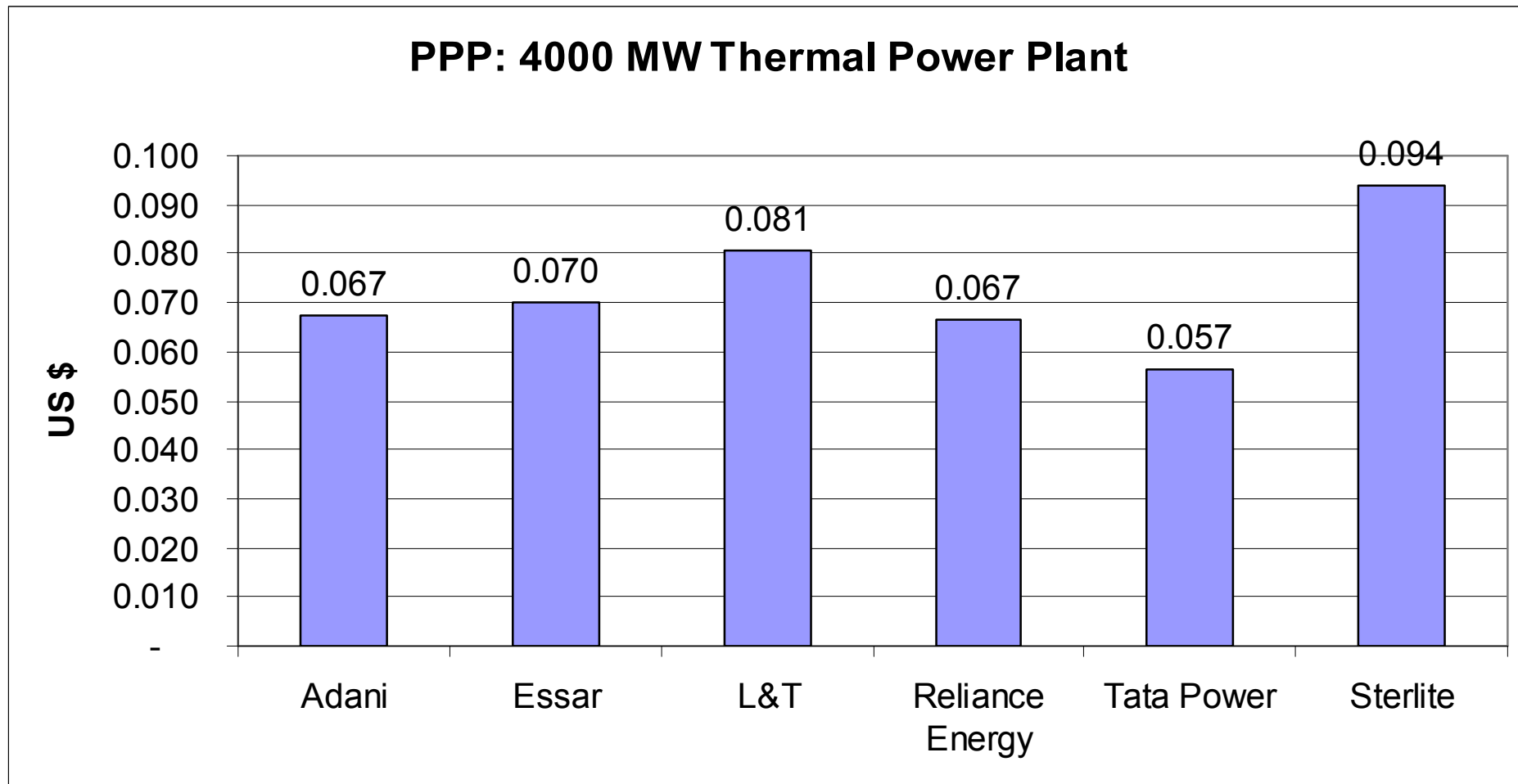
Tariff quoted

Pithead Coal Thermal Power Plant



- India is bidding out competitively 4000 MW Thermal Power Plants
- Each of them is the largest IPP in the world, Investment in each plant is US\$ 4 billion
- India is bidding out 7 of them, 2 of them have been successfully bid out, 5 ongoing

Tariff quoted *Imported coal, Port Based*



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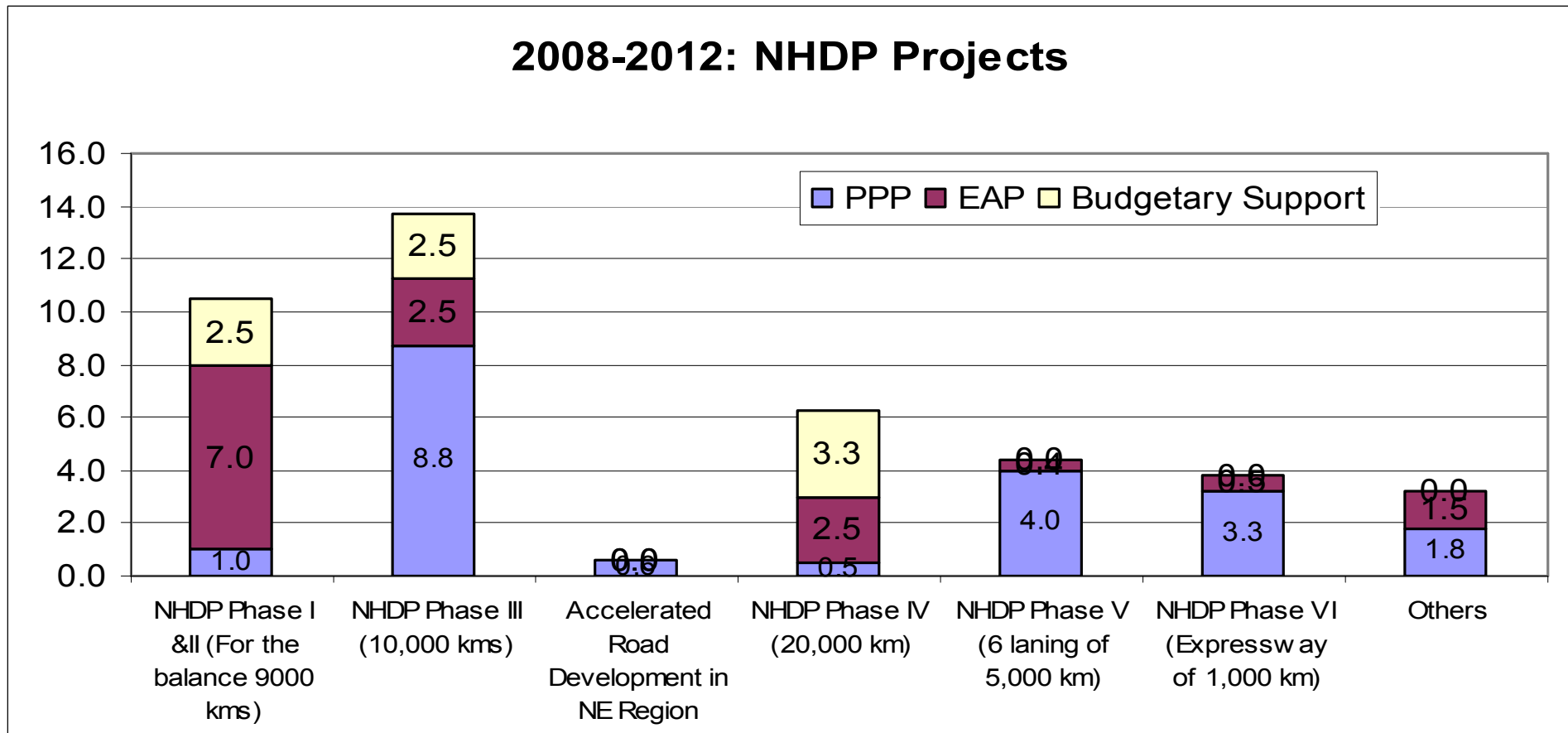
Ongoing National Highway Development Projects India

	India		
NHDP Ongoing projects India (Rs cr)	Km	US\$ billion	% of total
Total (Rs cr)	4,430	56.71	100%
BOT	287	6.26	11%
Annuity	476	5.74	10%
SPV	264	3.48	6%
World Bank	923	14.02	25%
ADB	339	2.78	5%
NHAI	2,141	24.42	43%

- NHAI is still the predominant road asset creator in India
- World Bank funded projects are 25% of total investments in India
- PPP- BOT and Annuity - is picking up and is substantial compared to other countries
- However the next phase is possibly the largest PPP Road program in the world

Infrastructure investment: Public Investment vs PPP planned for the future

Approach to the XI Five Year Plan



“PPPs offer significant advantages in terms of attracting private capital in creation of public infrastructure as well as in improving efficiencies in the provision of services to the users.”

India’s Planning Commission

Infrastructure investment: Public Investment vs PPP planned for the future

PPP Integrated into the Planning Process

	10th Plan (2002-07)	11th Plan (2008-12)		PPP 11th Plan (2008-12)	Comment
Sectors	US\$ billion	US\$ billion	% increase	US\$ billion	
Power	72.25	141.25	196%	50.0	All future power procurement to be competitively bid under Electricity Act 2003. 7 UMPPs being bid out by E&Y
Roads	32.50	83.25	256%	40.0	40,000 kms
Railways	20.75	63.75	307%	32.0	Dedicated freight corridor. Railway stations under PPP
Telecommunication	23.00	45.50	198%	45.5	Completely under PPP
Water Supply & Sanitation	16.00	26.50	166%	12.0	PPP built into Urban Renewal Mission
Ports	0.75	18.50	2467%	18.0	64 new berths under PPP
Airports	1.00	8.75	875%	8.0	5 greenfield airports and 35 upgradation
Gas	2.25	5.25	233%	4.0	Gas distribution under PPP
Total	168.50	392.75	233%	209.5	

How was such a PPP program achieved
Policy challenges addressed

Large capacity addition

- Time-bound delivery under budgetary constraints
- World class yet cost effective
- Commercially sustainable yet affordable

Attracting private investment

- Policy & regulatory framework for PPPs
- Optimal risk allocation
- Institutional restructuring and reorientation
- Financial support to PPPs

...Commence transactions

.. the bid process mitigates some of the policy, regulatory and institutional risks

...there is a certain “tangible gain” and “excitement” amongst all stakeholders from governments to investors and advisors whenever there are successful transactions and this has a strong positive multiplier.

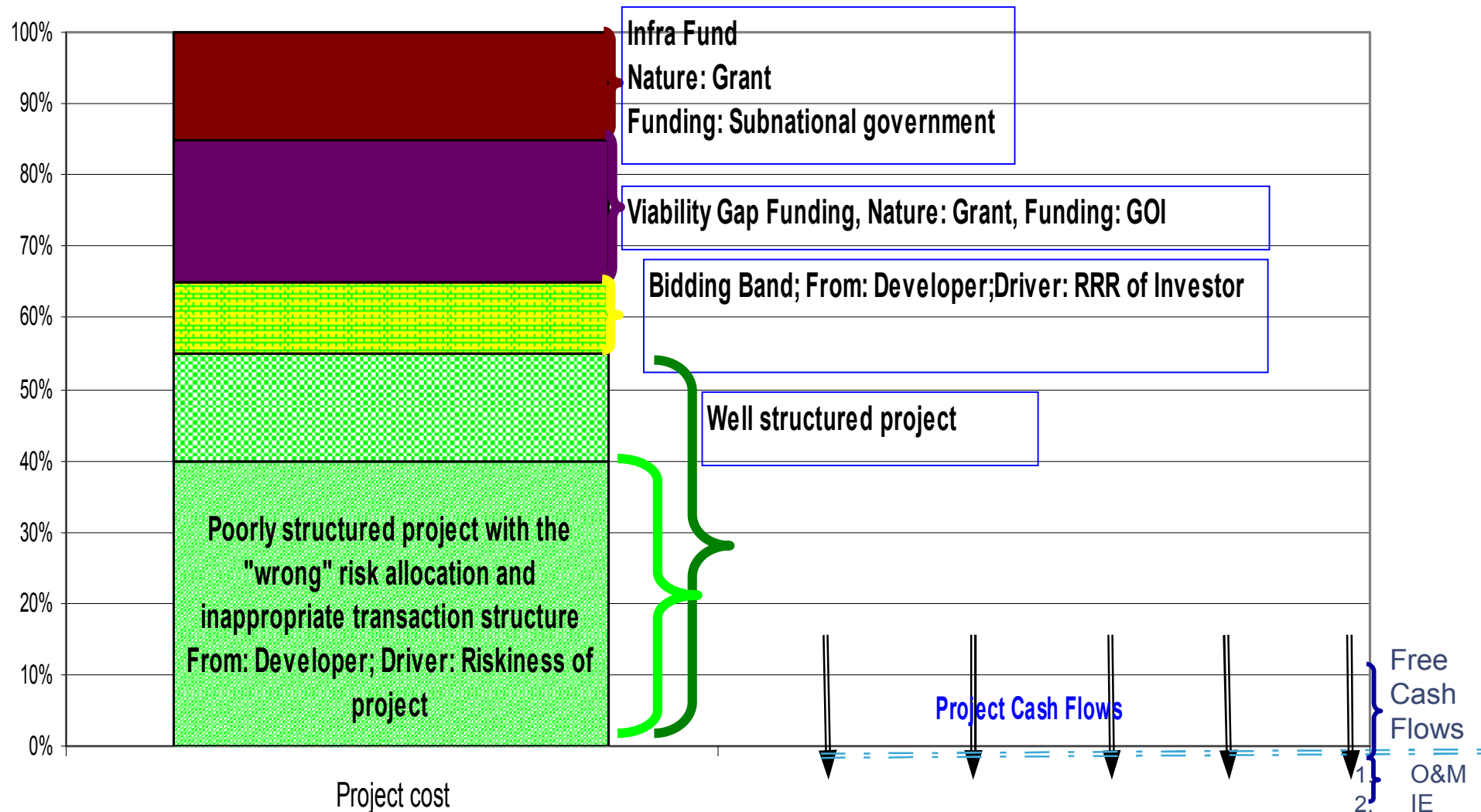
- Investor participation dissipates over time in the absence of “action”. For investors the transaction is the “action” and they trust reputed Advisors to ensure that the process is transparent and competitive.
- There are competitive pressures on investors whenever a deal is won by competition. It not only “spurs” the existing players, other players look at the country opportunities more keenly.
- The most rigorous learning of the PPP transaction process is from managing a transaction process. It is undoubtedly the finest training ground for the government.
- Successful transactions are the culmination of a process including a referendum on the institutional arrangement. However robust the diagnostic of the process, the areas that require sharpening are fleshed out during the transaction process

Road PPP

Indian Experience

Project Structure and Gap Funding: "BOT Tolling Model"

The concept of Viability Gap Finance



VGF is available ONLY when the project is competitively bid

Concessionaire Risks and Mitigation Measures

Political risk

Description of risk	Probability/ Impact	Mitigation measure in Agreements
Expropriation of a Project or Compulsory acquisitions	Low probability/Breaking issue	“Political Event” in Concession Agreement. Investor protected by Force Majeure clause. All costs attributable to such Political Event shall be reimbursed to Concessionaire
Unlawful revocation or refusal to grant any clearance, license, permit, authorisation	Low probability/Breaking issue	“Political Event” in Concession Agreement. Concessionaire protection as above
Change in Law	Medium probability/High impact	Agree on amendments to Concession Agreement to negate the increase in costs. If no Agreement is reached in 90 days, Concessionaire may require Authority to pay cash as compensation

Concessionaire Risks and Mitigation Measures

Payment Security risks

Description of risk	Probability/ Impact	Mitigation measure in Agreements
Project construction	Medium probability/ High impact	Escrow account through which all capital and revenue flows are routed. The Account is credited for ALL monies received in relation to the project from any source, including Senior Lenders, lenders of Subordinated Debt and the Government Grant as determined through the Competitive process
O&M expenses	Medium probability/ High impact	Escrow Bank is a Trustee for each of the parties Concessionaire withdraws all monies relating to O&M expenses as set forth in the Financing Agreement.
Termination Payments	Low probability/ High impact	All payments and damages due and payable to Concessionaire as in Concession Agreement including claims in connection with Termination

Concessionaire Risks and Mitigation Measures

Pre Construction/ Construction period risks

Description of risk	Probability/ Impact	Mitigation measure in Agreements
Right of Way/ Unencumbered possession of land	Medium probability/ Medium impact	Obligation of Government 90% of land in the unencumbered possession of Concessionaire prior to Appointed Date. Damages for delay @ 0.1% of performance security for each day's delay
Execution of Escrow Agreement prior to Appointed Date	Medium probability/ Medium impact	Obligation of respective parties Government's damages as above
Approval of Railway Authorities for ROBs	Medium probability/ Medium impact	Obligation of government Concessionaire shall be entitled for a to a period of 12 months therefrom for completion of overbridges
Certification by Independent Engineer (IE)	Medium probability/ Medium Impact	Process for appointment of IE clearly defined. Government owned entity shall NOT be eligible Conformation to specifications and standards defined by Road Congress Handbook of Quality Control for Construction of Roads and Runaways

Concessionaire Risks and Mitigation Measures

Operational risks

Description of risk	Probability/ Impact	Mitigation measure in Agreements
Construction of Additional lanes	Medium probability/ High impact	In the event a Concession is to be granted for commencing construction of additional lanes before the expiry of the Agreement, the Concessionaire shall have first right to such Concession
Competing roads: Defined as any road upto 120% of Project road	Medium probability/ Medium impact	<p>Neither Government nor its instrumentality shall construct or cause to be constructed any Competing road.</p> <p>Shall pay to the Concessionaire an amount equal to the difference between Realisable fee and the projected fee</p>
Operation Period certification	Medium probability/ Medium impact	<p>Process for appointment of IE defined clearly. Government owned entity shall NOT be eligible</p> <p>O&M Inspection report by IE every month in conformance with the documented Maintenance and Safety requirements</p>

Concessionaire Risks and Mitigation Measures

Traffic risks

Description of risk	Probability/ Impact	Mitigation measure in Agreements
<i>Collection and Appropriation of Fees</i>	<i>Medium probability/ High impact</i>	<p><i>Act has empowered Persons for collection of Fees (Amendment to NHAI Act 1997)</i></p> <p><i>a) Permits Central government to enter into an Agreement with any person for development and maintenance of part or whole of the Highway.</i></p> <p><i>b) Rates of fees and the period of Collection to be separately notified.</i></p> <p><i>National and sub national governments have issued toll notification drawing on these powers</i></p>
Variation in traffic growth from Target Traffic >< 2.5%	Medium probability/ Medium impact	<p>Concession period shall be deemed to be modified</p> <p>For every 1% shortfall as compared to the Target Traffic the Concession Period shall be increased by 1.5%.</p> <p>For every 1% increase as compared to the Target Traffic the Concession Period shall be decreased by 0.75%.</p>
Additional Tollway	Low probability/ Medium impact	Fees from additional tollway shall at no time be less than 25% higher than the toll from Project Highway

Concessionaire Risks and Mitigation Measures

Fiscal risks

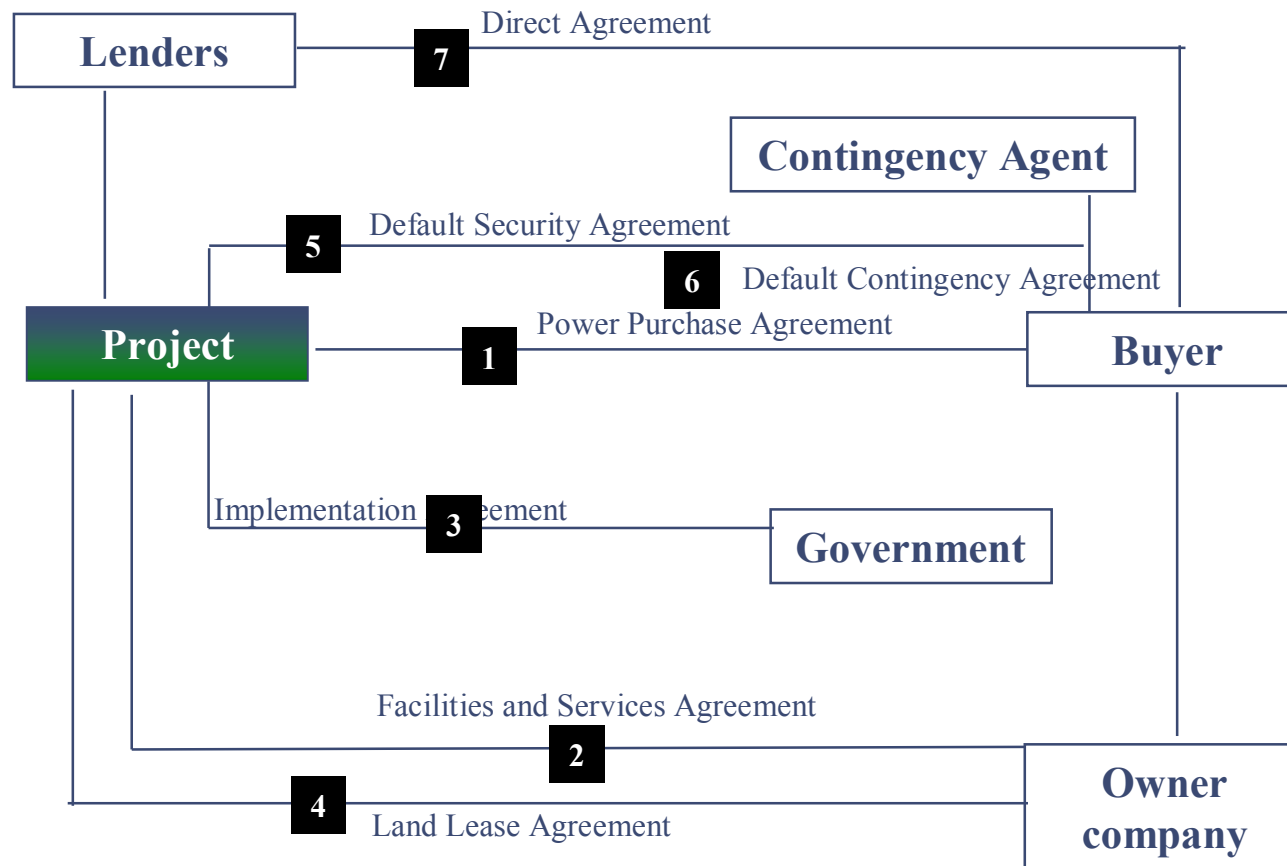
Description of risk	Probability/ Impact	Mitigation measure in Agreements
<i>Eligibility of project for VGF</i>	<i>Low probability/ High impact</i>	<i>This is NOT a mitigation measure through the Agreement.</i> <i>However the only government notification on VGF states clearly what sectors are eligible for VGF and that PPP is a prerequisite</i>
<i>Approval of bid documents for VGF</i>	<i>Low probability/ Breaking issue</i>	<i>As long as Standard Bid Documents (SBD) are used the notification mandates approval of bid documents. Any deviations are to be explained.</i>
National government reneges on VGF commitment	Low probability/ High impact	The Government is a signatory to the Concession Agreement. Specific clause in the Agreement that the Government agrees to provide cash support by way of an outright grant to the sum set forth in the Bid.
Sub-national government reneges on VGF commitment	Low probability/ High impact	The sub-national government is a signatory to the Concession Agreement in the case of sub-national highways. Same clause as above for sub-national governments

Electricity generation PPP

Indian Experience

Typical Contractual Structure

- Indian experience



Seller Risks and Mitigation Measures

Political risk

Description of risk	Probability/ Impact	Mitigation measure in Agreements
Expropriation of a Project or Compulsory acquisitions	Low probability/Breaking issue	“Political Event” in PPA. Investor protected by Force Majeure clause. All costs attributable to such Political Event shall be reimbursed to Seller
Unlawful revocation or refusal to grant any clearance, license, permit, authorisation	Low probability/Breaking issue	“Political Event” in PPA. Seller protection as above
Change in Law	Medium probability/High impact	Agree on amendments to PPA to negate the increase in costs. If no Agreement is reached in 90 days, PPA may require Buyer to pay cash as compensation

Seller Risks and Mitigation Measures

Payment Security risks: Default Contingency Account

Description of risk	Probability/ Impact	Mitigation measure in Agreements
Monthly Tariff	Medium probability/ High impact	<p>Default Contingency Account through which Collection agents (buyer employees or external agents) in the respective areas would be required to deposit their collections in the sectional contingency a/c-s. The Agent would then transfer these monies to the DCA on a daily basis</p> <p>In the normal course, the agent would transfer the monies from the DCA to the buyer a/c, and power bills would be paid directly by the buyer to the seller in accordance with the PPA</p> <p>In case of a default, the seller would first invoke the LC. In case this fails, the buyer would notify the Agent with copies of:</p> <ul style="list-style-type: none">Invoices for power supply to the buyerLetter from the bank that provided the LC stating its inability/refusal to wholly/partially pay the required amount <p>On receipt of such a notice, the Agent would start transferring monies from the DCA to the seller a/c instead of the buyer a/c. This would continue until the seller's dues are fully cleared. Prior to making these payments to the seller, the Agent would transfer monies from the DCA to the LC issuing bank to the extent the LC has been encashed by the seller.</p>

Seller Risks and Mitigation Measures

Payment Security risks: Government Guarantee

Description of risk	Probability/ Impact	Mitigation measure in Agreements
Monthly Tariff	Medium probability/ High impact	<p>The seller would have the right to invoke the sub national guarantee if</p> <ul style="list-style-type: none">○The buyer defaults on the regular payment envisaged under the PPA <p>Under the above conditions, the seller can invoke the guarantee 10 days after the due date, and sub national government is obliged to pay up within 30 business days after receiving such a notice from the seller</p>

Seller Risks and Mitigation Measures

Operational risks: Provisos for Third party sale

Description of risk	Probability/ Impact	Mitigation measure in Agreements
Continuous default	Low probability/ High impact	<p>In the event of a buyer default, the seller can give 7 days notice and offer 25% of the defaulting buyer's capacity to the other buyer, who make either take the power himself or nominate a 3rd party</p> <p>If the non-defaulting chooses not to take the additional power within 1 day, the seller is entitled to sell the power to any consumer/licensee</p>
Non schedule	Medium probability/ Medium impact	If the procurer does not avail generation up to declared availability, the same can be sold in market by the seller, and sale realization in excess of variable charges shall be equally shared with the procurer.
Seller declares capacity but Buyer does not Schedule beyond Target Availability	Medium probability/ Medium impact	If declared capacity is say 90% and buyer schedules 80% then the rest is available by Seller for third party sale for which the Buyer pays Incentive.
UI	Low probability/ Low Impact	Sale under Unscheduled Interchange shall NOT be considered as sale to third party

Ports PPP

Indian Experience

Concessionaire Risks and Mitigation Measures

Political risk

Description of risk	Probability/ Impact	Mitigation measure in Agreements
Expropriation of a Project or Compulsory acquisitions	Low probability/Breaking issue	“Political Event” in Concession Agreement. Investor protected by Force Majeure clause. All costs attributable to such Political Event shall be reimbursed to Concessionaire
Unlawful revocation or refusal to grant any clearance, license, permit, authorisation	Low probability/Breaking issue	“Political Event” in Concession Agreement. Concessionaire protection as above
Change in Law	Medium probability/High impact	Agree on amendments to Concession Agreement to negate the increase in costs. If no Agreement is reached in 90 days, Concessionaire may require Authority to pay cash as compensation

Concessionaire Risks and Mitigation Measures

Payment Security risks

Description of risk	Probability/ Impact	Mitigation measure in Agreements
Project construction	Medium probability/ High impact	Escrow account through which all capital and revenue flows are routed. The Account is credited for ALL monies received in relation to the project from any source, including Senior Lenders, lenders of Subordinated Debt and the Government
O&M expenses	Medium probability/ High impact	Escrow Bank is a Trustee for each of the parties Concessionaire withdraws all monies relating to O&M expenses as set forth in the Financing Agreement.
Termination Payments	Low probability/ High impact	All payments and damages due and payable to Concessionaire as in Concession Agreement including claims in connection with Termination

Concessionaire Risks and Mitigation Measures

Pre Construction/ Construction period risks

Description of risk	Probability/ Impact	Mitigation measure in Agreements
Right of Way/ Unencumbered possession of land	Medium probability/ Medium impact	<p>Obligation of Government</p> <p>90% of land in the unencumbered possession of Concessionaire prior to Appointed Date.</p> <p>Damages for delay @ Re 1 per day for every one square meter or part thereof commencing from the Appointed Date till the Right of Way is procured</p>
Execution of Escrow Agreement prior to Appointed Date	Medium probability/ Medium impact	<p>Obligation of respective parties</p> <p>Government's damages as above</p> <p>Concessionaire</p>
Certification by Independent Engineer (IE)	Medium probability/ Medium Impact	<p>Process for appointment of IE defined clearly.</p> <p>Government owned entity shall NOT be eligible</p> <p>Conformation to specifications and standards defined by Quality Control Manual</p> <p>O&M: Nature of defect or deficiency and the Time limit for repair/rectification laid down in Concession Agreement</p>

Concessionaire Risks and Mitigation Measures

Operational risks

Description of risk	Probability/ Impact	Mitigation measure in Agreements
Construction of Additional lanes	Medium probability/ High impact	In the event a Concession is to be granted for commencing construction of additional lanes before the expiry of the Agreement, the Concessionaire shall have first right to such Concession
Competing port: Defined as any port within 20 km of Project port terminal	Medium probability/ Medium impact	Neither Government nor its instrumentality shall construct or cause to be constructed any Competing port terminal. Shall pay to the Concessionaire an amount equal to the difference between Realisable fee and the projected fee
Operation Period certification	Medium probability/ Medium impact	Process for appointment of IE defined clearly. Government owned entity shall NOT be eligible O&M Inspection report by IE every month in conformance with the documented Maintenance and Safety requirements

Concessionaire Risks and Mitigation Measures

Traffic risks

Description of risk	Probability/ Impact	Mitigation measure in Agreements
Collection and Appropriation of Fees	Medium probability/ High impact	<p><i>Tariff Authority for Major Ports (TAMP) was constituted in 1997</i></p> <p>a) <i>Has no other Regulatory function other than tariff setting</i></p> <p>b) <i>Sets tariff caps. Terminal operator has jurisdiction to collect tariff within these tariff caps</i></p>
Variation in traffic growth from Target Traffic >< 2%	Medium probability/ Medium impact	<p>Concession period shall be deemed to be modified</p> <p>For every 1% shortfall as compared to the Target Traffic the Concession Period shall be increased by 1 year</p> <p>For every 1% increase as compared to the Target Traffic the Concession Period shall be decreased by 6 months.</p>
Key Performance Indicators	Low probability/ Medium impact	KPIs are clearly defined and objective parameters determined for Dwell time, Berth productivity, ship handling productivity and Vehicle service time

Concessionaire Risks and Mitigation Measures

Fiscal risks

Description of risk	Probability/ Impact	Mitigation measure in Agreements
<i>Eligibility of project for VGF</i>	<i>Low probability/ High impact</i>	<i>This is NOT a mitigation measure through the Agreement. However the only government notification on VGF states clearly what sectors are eligible for VGF and that PPP is a prerequisite</i>
<i>Approval of bid documents for VGF</i>	<i>Low probability/ Breaking issue</i>	<i>As long as Standard Bid Documents (SBD) are used the notification mandates approval of bid documents. Any deviations are to be explained.</i>
National government reneges on VGF commitment	Low probability/ High impact	The Government is a signatory to the Concession Agreement. Specific clause in the Agreement that the Government agrees to provide cash support by way of an outright grant to the sum set forth in the Bid.
Sub-national government reneges on VGF commitment	Low probability/ High impact	The sub-national government is a signatory to the Concession Agreement in the case of sub-national highways. Same clause as above for sub-national governments

Institutional and Financing Arrangements

Indian Experience

Institutional Arrangement

The Committee on Infrastructure headed by Prime Minister

Committee on Infrastructure with the Prime Minister as Chairperson and Minister of Finance, Infrastructure Ministers and Deputy Chairman of Planning Commission as members

Empowered Subcommittee of COI chaired by Deputy Chairman of Planning Commission

Planning Commission is the Secretariat for the COI

Objectives of COI

- **Dialogue:** Greater inter disciplinary dialogue on generic PPP issues
- **Standardisation** of Concession Agreements and Bid Documents to fast track PPP
- **Professionals** are involved in the documentation process
- **Integration** of PPP into the mainstream Planning process

Institutional Arrangement
PPP Appraisal Committee

Finance Secretary is the Chairman of the PPPAC

PPPAC appraises and recommends all PPP projects of the Central government

Approves Viability Gap funding for projects

- **Project concept:** First level approval for PPR
- **Bid documents** particularly if there are deviations from the Standard Bid docs
- **Final approval** after selection of preferred bidder

Financing Arrangements

Foreign Direct Investments (FDI) up to 100% in the road sector

Viability Gap Funding up to 40% of project cost based on competitive bidding for each project

NHAI Bond exempted from Capital Gains Tax

Tax concessions-complete tax holiday for any 10 consecutive years out of 20 years of the concession period

Retention of toll by concessionaire for BOT (Toll) Projects

Longer concession periods-upto 30 years. Presently, concession period of 12 to 20 years

Duty free import of high capacity and modern road construction equipments

Financing Arrangements
India Infrastructure Finance Company

Lack of long term debt in capital markets

IIFC to provide long term debt to viable infrastructure projects

Funds to be raised from domestic and external markets against sovereign guarantees

Loans of US\$ 3 billion sanctioned for 57 projects with an estimated investment of US \$ 22 billion.

PPP

Lessons Learnt

The Enabling Framework

Infrastructure Legislation/Policy

Object of the legislation is rapid infrastructure development through PPP

The Institutional Mechanism

- Since PPP is the trigger for economic development an apex Committee under the Chairmanship of the President is a prerequisite so that there are no conflicts and there is inter ministerial dialogue
- The Planning Commission integrates PPP into the Planning process
- A Technical Secretariat consisting of experts to advise the apex Committee and the Investment Promotion department on PPP
- The Technical Secretariat to conceptualise, receive and consider projects, advise government, to supervise or ensure adequate supervision and to draft model contracts
- Evaluation Committee and process

Process of selection

- Selection process of project and project developer
- Maturing the project

Creation of the Infra Fund

- Administration, management and monitoring of Fund
- Levy of duties, taxes and cess for funds flow to the Fund
- Project linkages
- Audit of the Fund

The Enabling Framework
Standardisation of documents

Standardisation is a must for streamlining

Model Concession Agreements

- Integrate regional and global best practises
- Derive the key criteria for success
- Design and draft the MCAs with these inputs
- The objective is to have a risk sharing framework that would maximise value for project
- Drafting rules and notifications required for operationalising projects

Standard Bid documents

- Process standardisation accelerates process dramatically
- Approval process is accelerated

Developing a databank of PPP projects

A shelf of projects and maturing these projects

One off projects dissipate rapidly

Developing a shelf of projects

- The criteria for determining a PPP product
- Inter departmental dialogue
- Determine shelf projects
- Integrate into Planning process

Maturing the projects

- Technical studies for Information Memorandum
- Traffic studies wherever required
- Land acquisition and environmental clearance

Summing up....

DONOT reinvent, ADOPT and ADAPT

- Bid processes and contractual documents have evolved over decades in developed economies
- And matured over years in developing countries like India where the largest PPP programs are being managed, successfully

An INSTITUTIONAL ARRANGEMENT, STANDARD BID DOCS AND MODEL CONCESSION AGREEMENTS adapted by experts is key

- Legislating a PPP Policy or PPP Act
- Creating an over arching institution and the institutions in every sector and crucially the interlinkages
- The process for identifying and maturing PPP products
- Integrate PPP into the Planning process
- Adapting and adopting Standard Bid docs and Model Concession Agreements across sectors by firms who have expertise in drafting such docs and have knowledge of international best practises

Professional Bid process firms to run the transactions and solicitation

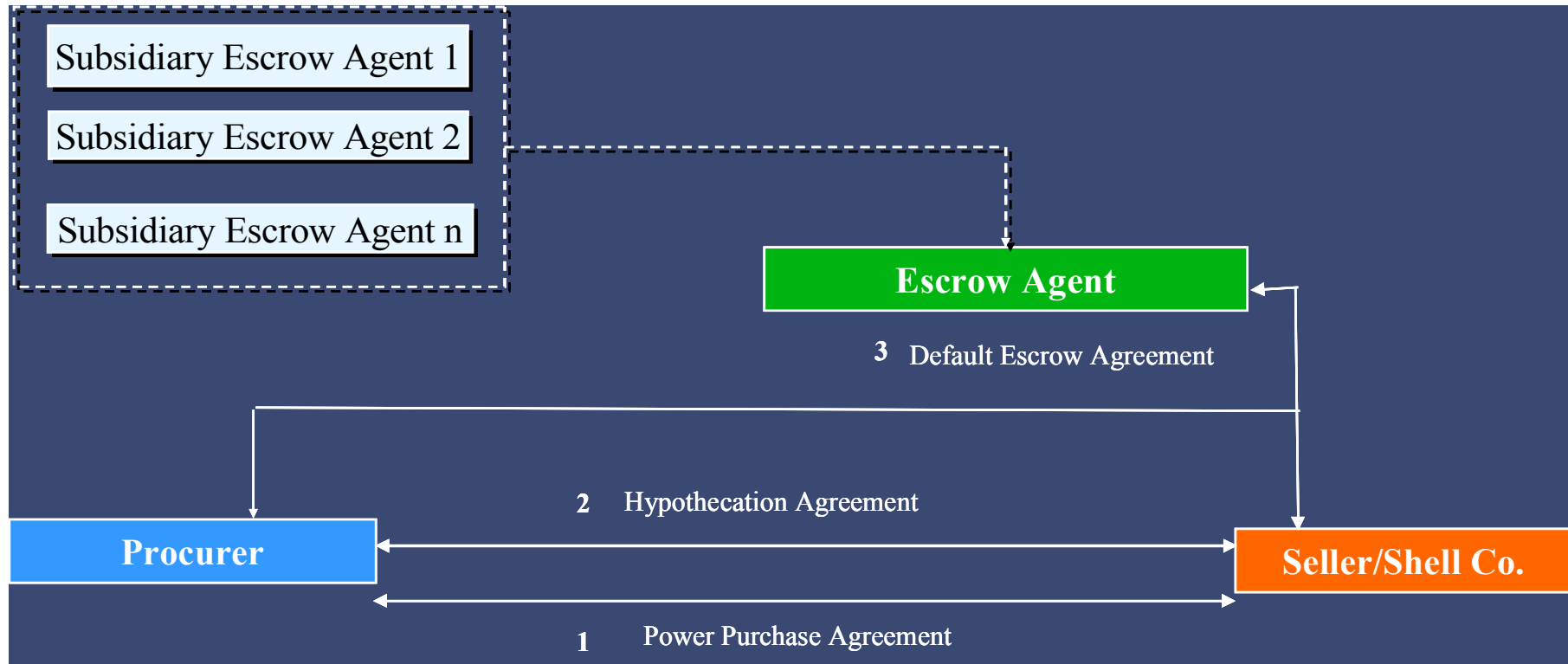
- Developed countries and successful developing countries utilise services of professional bid process firms for every transaction
- Maximises value by striking the right balance between creating competitive tension and threshold experience of bidders
- Streamline the process and therefore accelerate process
- Investors look to professional firms for information and analysis
- “Protect” government officials from insidious accusations

Commence some transactions, the standard docs and the bid process creates positive multipliers

Thank You

Payment Security Mechanism

First Level of PSM



Note:

A Share Purchase Agreement will be entered into with the Selected Bidder for sale of 100% equity of PFC in Seller prior to the execution of other RFP Project Documents