



National Symposium on PPPs

PPP Experiences in India

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Cherian Thomas
Infrastructure Development Finance Company Limited

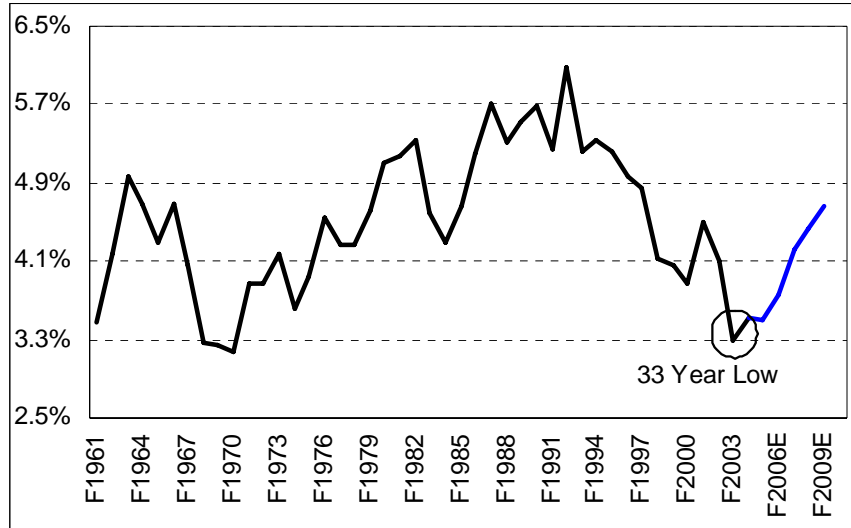
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Economic Scenario

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Infrastructure Investment (% of GDP)



Source : Morgan Stanley Research - used gross capital formation in energy, airports, seaports, roads and telecom as a proxy for infrastructure spending.

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Projected Infrastructure Investment



Planning Commission Estimated Spends

Sector (US\$ bn)	10 th five year plan (FY02-07)	11 th five year plan (FY08-12)	Growth (%)	Opportunities
Power	67.5	142.7	111	<ul style="list-style-type: none"> Shortage of 15% in peak demand Unbundling & open access Ultra mega power projects
Transport	51.6	175.0	239	<ul style="list-style-type: none"> Significant public-private partnership model for roads
– Roads	30.4	81.1	167	<ul style="list-style-type: none"> Golden Quadrilateral, rural roads
– Ports	0.8	19.1	2229	<ul style="list-style-type: none"> Privatization of ports & airports
– Airports	1.0	9.0	787	<ul style="list-style-type: none"> Selective opening up of railways for container traffic
– Railways	19.5	65.9	239	<ul style="list-style-type: none"> Urban mass transportation
Telecom	21.5	47.1	119	<ul style="list-style-type: none"> Low tele-density Gradual liberalization of policies
Others	50.0	80.0	60	<ul style="list-style-type: none"> Industrial & Commercial SEZs Education & Healthcare
Total	190.7	444.7	133	

Private sector expected to contribute to a large proportion (30% - US \$ 140 bn) of this investment

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Using Public Private Partnerships

Definition

- A Public Private Partnership is an arrangement between a public (government) entity & a private (non-government) entity by which services that are the responsibility of/ have traditionally been delivered by the public entity are now to be provided by the private entity under a set of terms and conditions that are defined at the outset
- Accountability to users - still remains with government

Why PPPs?



- Fiscal reasons - Inadequacy of resources - leveraging on lower government funding
- Optimal transfer of risks -to the entity best suited to manage them
 - Design, Financing, Construction, Operations and Maintenance - all are commercially understood and manageable
 - Impact - time & cost overruns, change of scope, defective designs, leakage of revenues, high maintenance costs
- Transfer of responsibilities - efficiency gain
 - Appropriate technology, innovative design solutions, project management, better collection practices, life cycle costing
- Allows scarce resources to be channelised for welfare programmes

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Pre-Requisites



- Right Policy and Regulatory frameworks
- Sustainable Fiscal/ Financial Incentives
- Adequate Project Development
- Transparent Selection Process
- Equitable Risk Allocation
- Reliable Revenue Sources
- Partnership in Practice
- Political Will

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Indian Experience - 1



■ Energy sector

- In 1992 - power policy - power generation under PPAs - "not too happy" experience; limited by creditworthiness of state electricity boards
- Power distribution - Orissa and Delhi; unbundling in some states
- Setting up of a Central and state regulators and Electricity Act 2003
 - ❖ Generation is de-licensed, merchant/ captive plants by private sector
 - ❖ Power trading and transmission through a national grid
 - ❖ Distribution - not yet ready for wholesale changes

■ Telecommunications

- In 1994 - Telecom policy - mobile phone licenses for major metros (2 in each city), followed by licenses for mobile and fixed line services in 15 circles (1 each) - major imbroglio due to unrealistic bidding
- Resolved by a New Telecom Policy in 1999 - migration to a revenue share regime, more players, universal access service - challenge now is rural connectivity
- Regulator (TRAI) established - initial hiccups but now functioning well
- Private investment has grown the market - over 200 million subscribers; growing at over 5 million per month
- Prices - mobile from Rs. 16 per minute to 50 paise per minute

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Narayanpur Power Project



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Indian Experience - 2



- Transportation - Amendment of Acts for collection of toll & for PPPs
 - Roads - National Highways (60,000 km, ~ 2% of total road length, over 40% of the traffic)
 - ❖ Large program for national highways - NHDP - USD 65 billion
 - ❖ PPPs are the default mode of investment
 - ❖ BOT Concessions - Direct toll and annuity payment based
 - State Highways and urban roads
 - Ports - major ports and minor ports - berth concessions as well as new ports - model concession agreements in place
 - Airports - at new locations in Bangalore & Hyderabad; modernisation/ expansion of Mumbai & Delhi airports; land side development in other locations
 - Railways - small sections, container train services, station development, freight corridors
- Urban services - 2-3 bulk water supply projects; some initiatives in solid waste management, initial attempts in water distribution
- Others - tourism-related facilities, bus terminals, urban renewal projects, healthcare and education - very early stages

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Bangalore International Airport



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Investor Comforts & Incentives



- Land acquisition and environmental clearance
- Sector specific - Dedicated Central Road Fund
- Viability gap funding of up to 40% of the cost of the project - as a grant
- Foreign Direct Investment up to 100% of the equity permitted
- Duty free import of high capacity and modern construction equipment
- Long Concession periods - up to 30 years
- Tax holiday of 100% for 10 years in a block of 20 years

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Some Indian Examples



- Roads
 - BOT/ OMT Concessions for toll roads and bridges (NHAI, state governments)
 - Annuity payment based concessions - highways, urban roads (NHAI/ state governments)
- Solid Waste Management
 - Engineered landfills - tipping fee linked payments (Bangalore)
 - SW Collection and Transportation in Delhi (MCD/ NDMC) & Bangalore
- Port Concessions
 - Major Ports - container berths (JNPT, Chennai, Kochi, Tuticorin, Vizag, Kandla); bulk cargo berths (Haldia, Kandla, Chennai, Ennore, New Mangalore)
 - Minor Ports - Sikka, Pipavav, Mundra, Kakinada
- Water Supply and Sanitation - Bulk water supply and limited distribution systems in Tirupur, Vizag and Dewas
- Tourism - hotels, tourist facilities, PWD rest houses - Karnataka & Kerala
- Bus Terminals/ Parking Facilities/ Urban Transport
 - Bus terminals - Dehra Dun, Jullundur
 - Bus Services - Indore
 - Parking + commercial complexes - NDMC/ DDA/ MCD/ Bangalore

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Typical Concession Outlines

Road Projects

- Project : New alignment - Bypass, Bridge or Expansion of existing stretch
- Concession Period : 15-20/ 30 years (incl construction period)
- Revenue : Toll/ User Fee or Annuity Payment by government
- Bidding Parameters : Minimum Capital Grant (Viability Gap)/ (Concession Premium) or Minimum Annuity Payment
- Project Cost: Rs. 25 crores to over Rs. 1000 crores
- Performance Parameters : Output Based - availability/ service quality
- Monitoring Mechanism : Independent Engineer
- Financing : Typical Debt-Equity Ratio of 3:1
- Government support : Land Acquisition/ Environment Clearance

Sandur Bypass

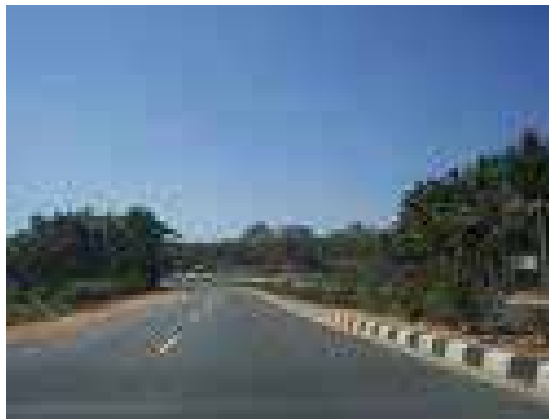


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Bangalore-Maddur



- Ten Year Annuity Concession on Bangalore - Mysore road



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SWM Collection & Transportation



- Two projects were bid out (MCD/NDMC) under a BOT concession framework, the concession periods being 8-9 years (construction plus operations)
- Tipping fee (Rs/ MT of waste transported & disposed) is the primary revenue for the private operator
- Revenue upsides - advertisement rights are offered to improve competitiveness/ returns to bidders
- Substitution rights to lenders to improve bankability
- Implemented in six zones in Delhi and the NDMC area by 4 investors
- Key Learnings
 - Availability of base data is often a challenge, collection and validation of which involves considerable investment of time
 - Need to develop a well understood public sector comparator for “justification of the lowest quote”

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Waste Handling (Before & After)



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Landfill in Bangalore



- Private investor responsible for construction and O & M
- Continuous operations through the project life (20-25 years); post-closure maintenance for 15 years
- Need to adhere to strict environmental standards
- No significant saleable product output - landfill by itself is a cost center - tipping fee
- First engineered sanitary landfill for MSW in India under a PPP framework
- Extensive project development activities carried out
 - Project structured as per MSW Rules, 2000; technical studies to identify sites - two sites identified
 - Clearances - AAI and PCB received
 - Bid Documents prepared - RFQ, RFP
 - Council approval obtained for implementation through PSP
 - Funds by way of levy of a SWM cess - earmarked for making payments

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Engineered Sanitary Landfill



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Water Supply



- MPSIDC offered a 30-year BOT concession for Construction and O&M of a 23 MLD industrial water supply to Dewas, MP
- Project won by MSK Projects (India) Limited through competitive bidding
- Water drawal and pipeline right of way conferred to the concessionaire under the contract
- Firm water offtake agreements with industrial users to extent of 12 MLD
- Demand and willingness to pay studies undertaken
- Project cost of Rs. 83 crores financed by Equity (Rs. 25 crores) and Debt (Rs. 58 crores, of 14 years' tenor, door-to door)
- Secured by charge on project assets and sponsor guarantees
- Substitution rights to lenders under the concession and LC/escrow mechanism to secure payments

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Emerging Model - Distribution



- An operator/ consultant is awarded the work to help the city manage its water systems:
 - In this period, the operator 'maps' the town
 - Identifies possible efficiencies
 - Identifies investment requirements
- This leads to the next 'phase' where a capital investment and operations service contract would be bid out
 - As of now, it is early to talk of success yet - once we see success we can move into the next phase
- North Karnataka Towns, Latur, are more or less on this model

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Bus Terminal



- Department of Transport, Punjab and PIDB offer a 12 year BOT concession for development of an inter-city bus terminal at Amritsar
- Bid won by Rohan Rajdeep Infrastructure (India) Private Ltd won the bid
- The project cost of Rs. 19 crores funded by Equity (Rs. 7 crores) and debt (Rs. 12 crores, 11 year tenure)
- Secured by exclusive charge on project assets, pledge of shares and sponsor guarantees
- Concession document recognises substitution rights of lenders
- Project operational and fully servicing debt
- Few other cities have implemented similar projects

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Shimoga Bus Terminal



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Truck Terminal



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Parking Facilities



- Project : Multi-level car parking
- Concession Period : 20-30 years
- Bidding Parameters : Concession payment / grant or number of parking spaces
- Project Cost: > Rs. 20 Cr
- Revenue : User Fee, Advertising Rights, Development Rights (commercial use)
- Performance Parameters : Output Based
- Monitoring Mechanism : Independent Engineer
- Financing : Typical Debt-Equity Ratio of 2.33:1 or less
- Government support : Land Acquisition / Transfer
- Few projects in Delhi on this basis being implemented

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Proposed Parking Facility



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Proposed Parking Facility



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Redevelopment of Tourism Properties

- Re-development of Government owned hotels/ PWD rest houses - often in prime locations
- Re-develop, operate, maintain and transfer concession
- Concession Period : 20-30 years
- In some cases - few rooms reserved for government employees
- Bidding Parameters : Concession Premium
- Free to expand within existing building by laws
- Revenue : User Charges
- Performance Parameters : Output Based (Star Standard)
- Monitoring Mechanism : Independent Engineer
- Government support : Land Transfer
- Over 30 projects in Karnataka, few in Kerala

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Before and After

Redevelopment of KSTDC properties



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Pro-Poor PPPs

Public Conveniences

- Project : Toilets/ Foot Over bridges/ Bus stops
- Concession Period : 10-15 years (incl construction period)
- Bidding Parameters : Concession Period
- Project Cost: Few lakhs depending on configuration
- Revenue : User Fee, Advertising Rights
- Performance Parameters : Output Based
- Monitoring Mechanism : Independent Engineer
- Financing : Typical Debt-Equity Ratio of 1:1 or less
- Government support : Enabling policy measures
- In a few cities

Public Conveniences



Yes, this is a public toilet



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Foot Overbridge, Hyderabad



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Healthcare Facilities



- Ambulance Services - project in Delhi
- Co-location of private wing within or beside public hospital
- Outsourcing/ Management of
 - Routine clinical services - hospitals/ primary health centres (PHCs)
 - Specialised clinical services - hospitals/ primary health centres (PHCs)
 - Diagnostic services
 - Non-clinical medical services (such as cleaning, catering, maintenance & waste management)
- Private management of a Public hospital
- Private financing, construction & operation of a New hospital - variant in Delhi
- Sale/ Lease/ Concession of Public hospital/ Specific assets
 - as a going concern or for alternative use (s)
- Also bring in pro-poor focus

Recreation



- Project : Development of Parks & Green spaces
- Concession Period : 30 years (incl construction period)
- Bidding Parameters : Concession Payment
- Project Cost: Few lakhs to Several Crores
- Revenue : User Fee, Advertisement rights & Shopping areas
- Performance Parameters : Output Based
- Monitoring Mechanism : Independent Engineer
- Financing : Typical Debt-Equity Ratio of 2.33:1
- Government support : Clearance and Infrastructure Access

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Public Transport



- Project : Public Transport
- Concession Period : 30 years (incl construction period)
- Bidding Parameters : Concession payment / grant
- Project Cost: Few Crores to Several Hundred Crores
- Revenue : User Fee, Advertising Rights, Transit Development Rights (commercial use)
- Performance Parameters : Output Based
- Monitoring Mechanism : Independent Engineer
- Financing : Typical Debt-Equity Ratio of 2.33:1 or less
- Government support : Land Acquisition / Transfer

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Redeveloped Public Transport



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Structuring Projects



- User fees - to the extent possible - free standing projects can more easily find private investment
 - Land lower than market - budget hotels/ hospitals
 - Appropriate master planning/ zoning
- Structures involving payment for performance - MSW management, roads and grade separators
 - Dedicated Cess
 - Ring fencing of specific revenues
 - TDRs
 - Improvement levies
 - Congestion Pricing
- Hybrid structures - level of support should be clearly market-determined in a transparent manner

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IDFC and Infrastructure

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IDFC : Investor of Choice

- Set up with a mandate to lead private capital to infrastructure projects
- Areas of focus - Energy, Telecom, Transportation and industrial and commercial real estate (hotels & tourism infrastructure, industrial parks and SEZs)
- Focus on project financing - largely in senior debt, but now increasingly in equity as well - IDFC Private equity - 2 funds; listed equity and project equity
- Introduced several new products for infrastructure - subordinated debt structures, non funded products like risk participation, take out financing
- Investment Banking, Policy and Transaction Advisory Services
- Total Assets of Rs. 30,000 crores

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India PPP Capacity Building Trust

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Activities

- Capacity Building & Training
- Policy advisory support
- Legal & Regulatory Frameworks
- Project development and structuring
- Investor selection
- Financing mechanisms for PPPs
- Financial reforms
- Resource mobilisation

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