PPP – Frameworks & Processes

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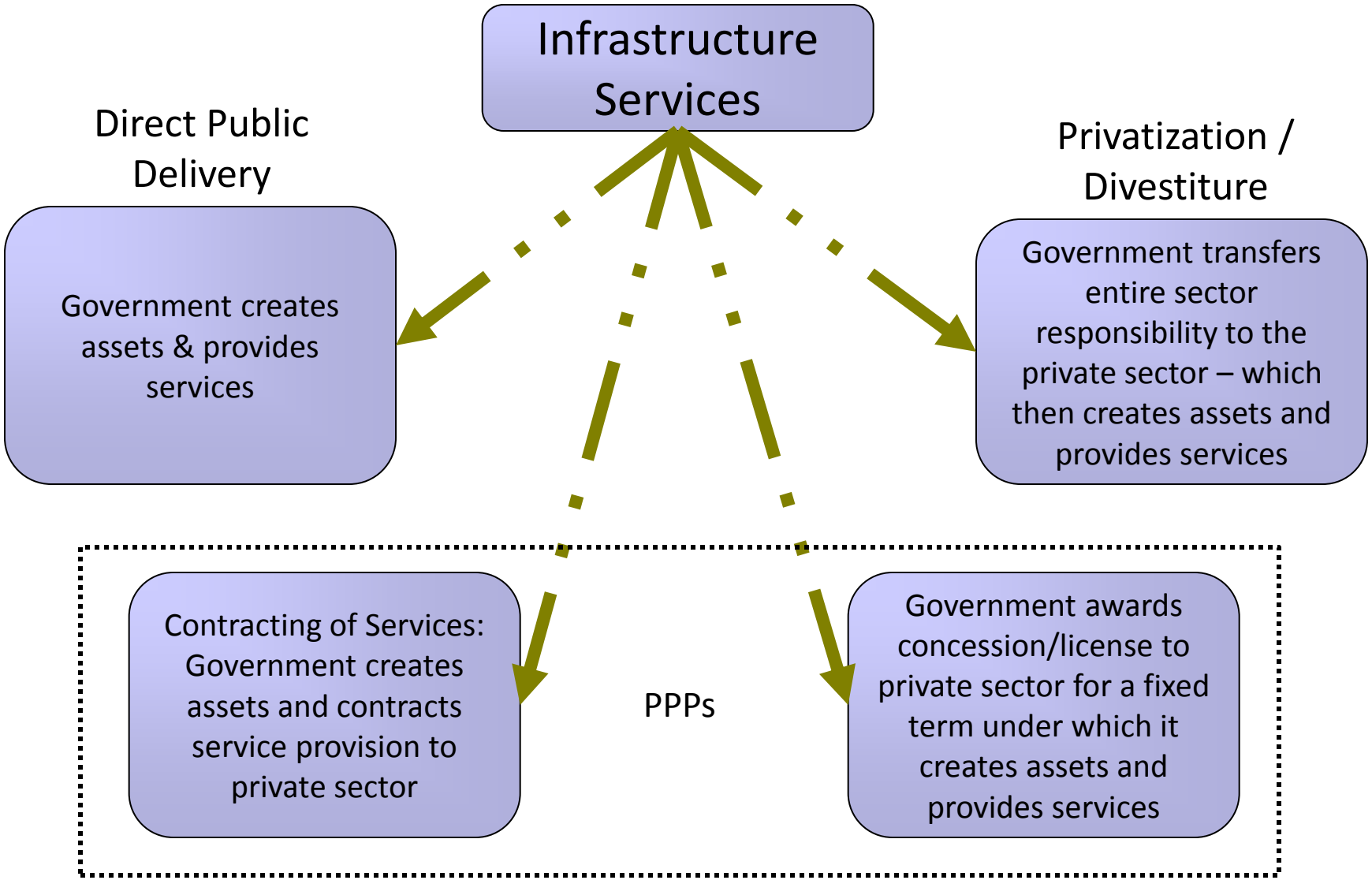
August 5, 2015

Public Service Delivery Options

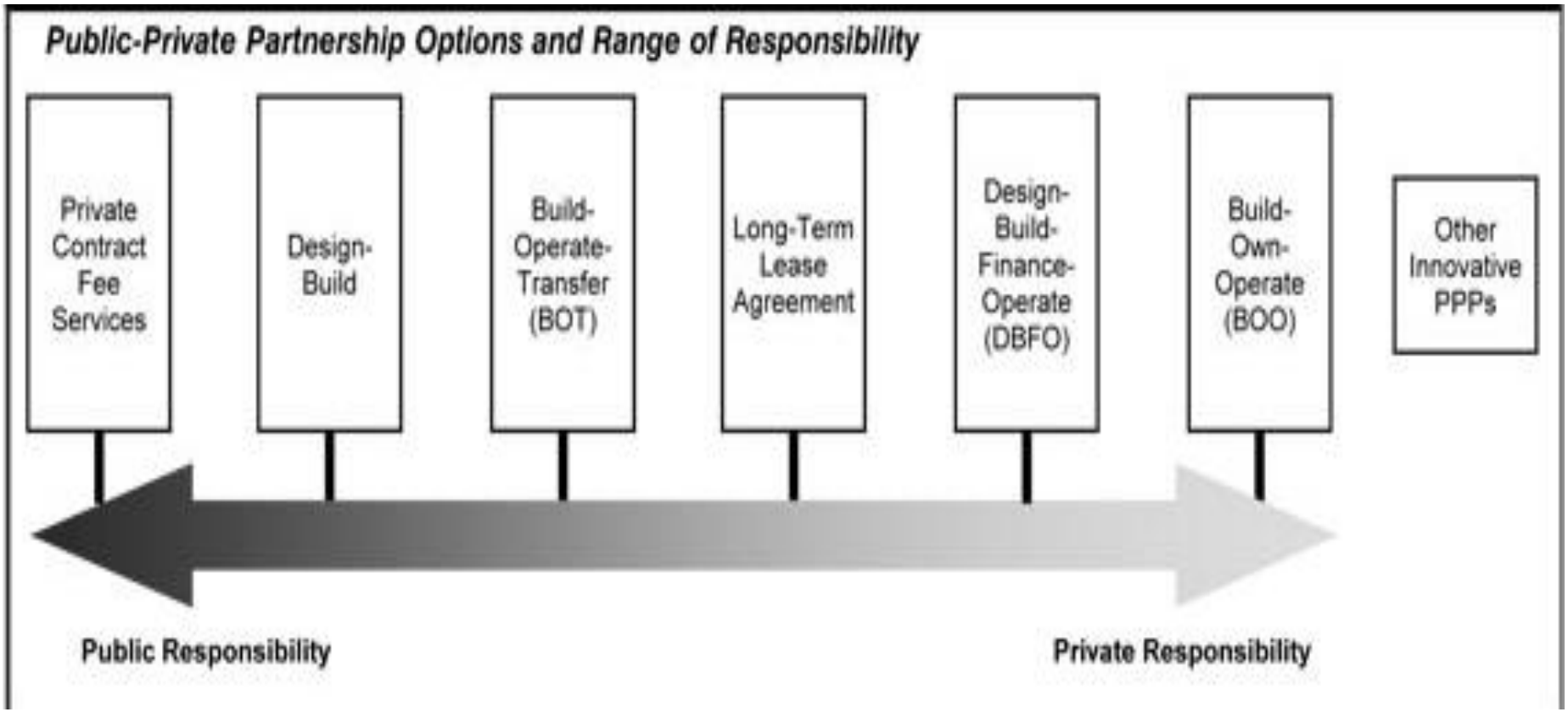


Why PPPs?

Typical Challenges in Public Infrastructure Service Delivery

- Budgetary Deficits
- Cost Overruns
- Poor Design
- Quality of construction
- Completion Delays
- Poor Maintenance
- Customer service orientation

Types of PPP Arrangements



5 pillars for successful PPPs

1

Enabling Framework

- Legislative, policy & administrative order
- Appropriate risk sharing through contracts
- Government support – financial/non-financial, fiscal incentives
- Transparent regulatory (independent) environment

2

Sound Project Economics

- Adequate revenues to meet costs (Capital/Operating/Financing)
- Adequate cover for debt
- Risk adjusted return for equity

3

Strong Private Sponsors

- Ability to bring in own equity, provide comforts to lenders
- Ability to bring in third party equity
- Credit history
- Track record of project development and implementation

4

Adequate Project preparation

- Feasibility, DPR
- Clarity in project requirements
- Prescription Vs flexibility

5

Breadth & Depth In Financial Markets

- Banking system, project finance,
- PE funds
- Capital Markets

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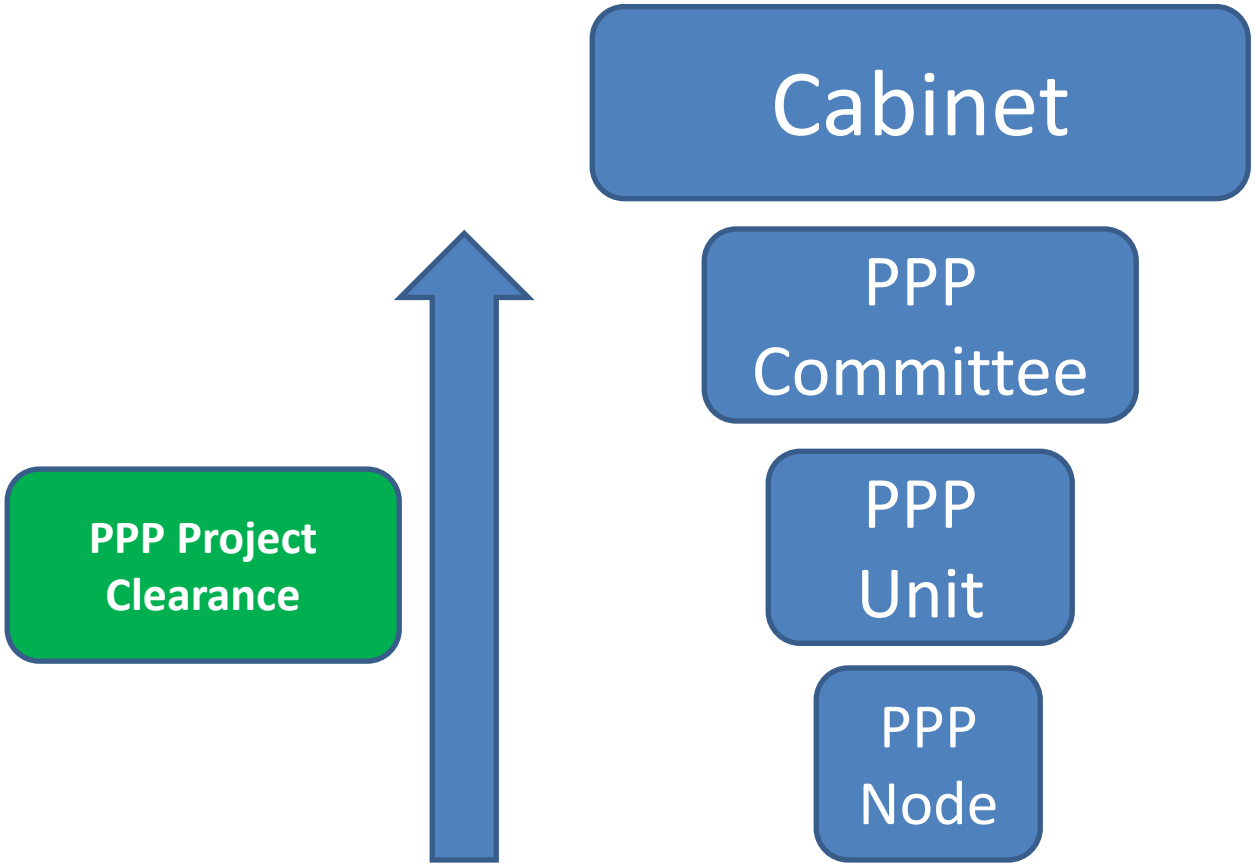
Kenya : PPP Institutional & Regulatory Framework

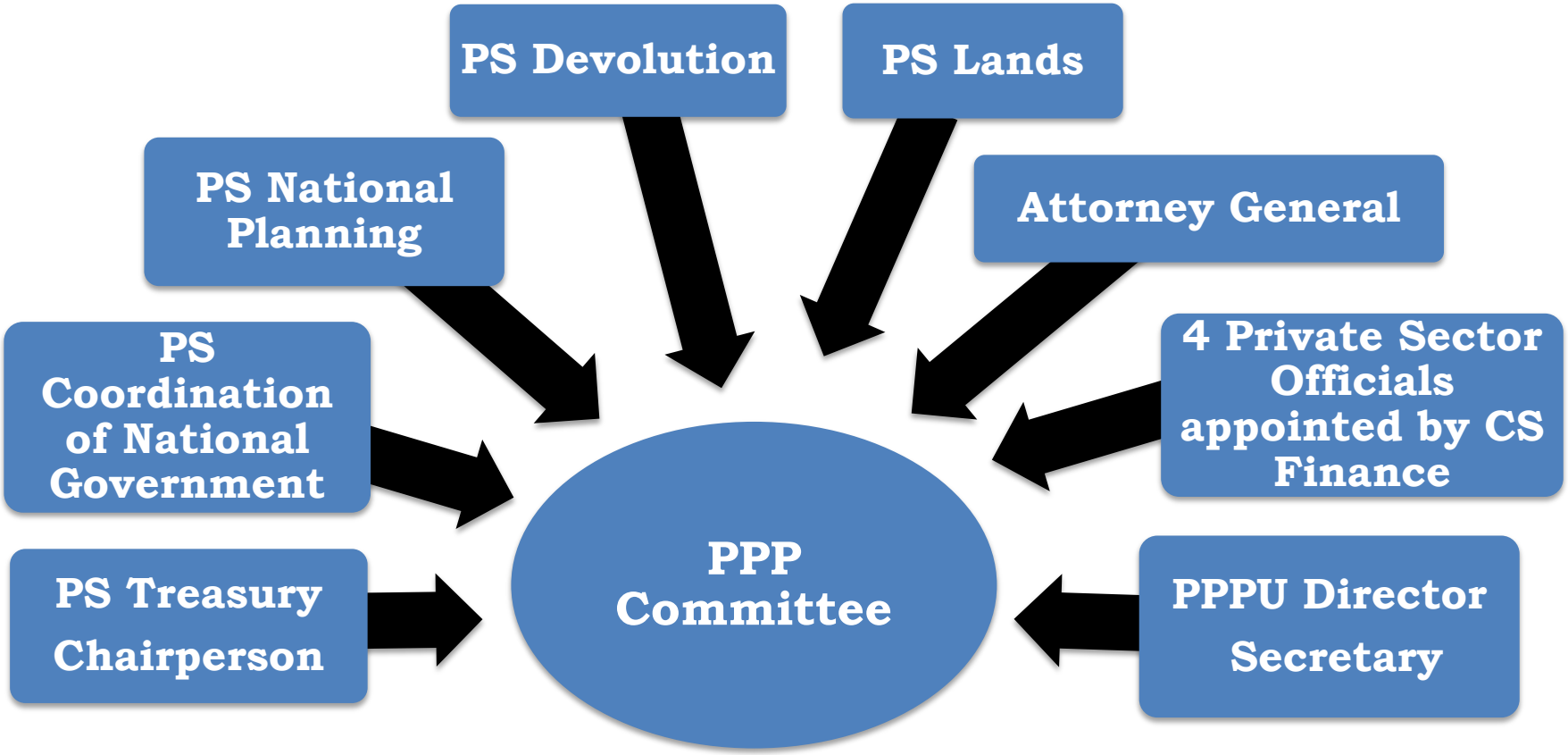
Kenya : The PPP Act 2013

- Legal capacity for CAs to enter into PPP contracts
- Addresses legal gaps, removes conflicts and overlaps in law
- Risk mitigation (letters of support, demand guarantee, subsidies)
- Direct Agreement& step-in-rights to lenders
- Compensation for termination/extra-ordinary events/change of Laws
- Establishment of a Project Facilitation Fund (Viability Gap Fund, Subsidies)
- A clear process of developing& procuring PPPs
- A clear institutional framework
- Minimum PPP contractual provisions

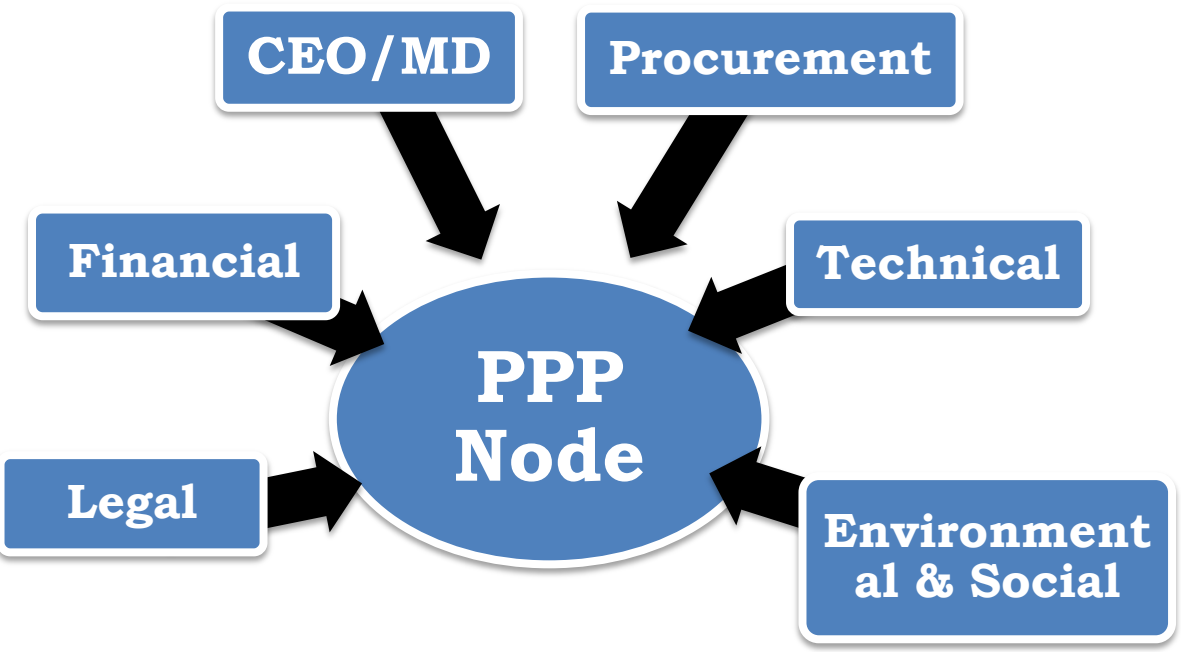
PPP Institutional Framework



PPP Committee



PPP Node : Min. Composition



FUNCTIONS

1. Project identification
2. Undertake tendering
3. Monitor implementation
4. Overall project management
5. Ensure asset transfer back to CA at end of contract

PPP Unit

- Champions PPPs in the country
- Serves as a resource centre on PPP matters
- The secretariat to the PPP committee
- Maintains a record of all project documentation and disseminates information on PPPs
- Resourced with lean full-time staff and a team of experienced national and international consultants

India : PPP Institutional & Regulatory Framework

Key Elements of India's PPP Framework

Enabling Policy & Legal Framework

- Clear PPP Policy Statement
- Sectoral PPP or Concession Law
- PPP Tool-kit
- PPP Procurement Regulations
- Treatment of Unsolicited Proposals

Institutional Structure

- Central Govt. PPP Units : Min of Finance and Niti Aayog
- Central Govt. Ministries – PPP driven by Joint Secretaries
- State Governments – PPP Units / Sectoral focus
- Systematic PPP Training & Capacity-building

Financial Enablers

- PPP Project Development & Preparation Fund / Facilities (IIPDF)
- Public Credit Enhancements
- Viability Gap Fund
- PPP & Infrastructure Investment Company (IIFCL)
- Sector focused financing entities, viz., IREDA

Federal Structure of Governance in India

29 states; 7 Union Territories;
1 National Capital Region

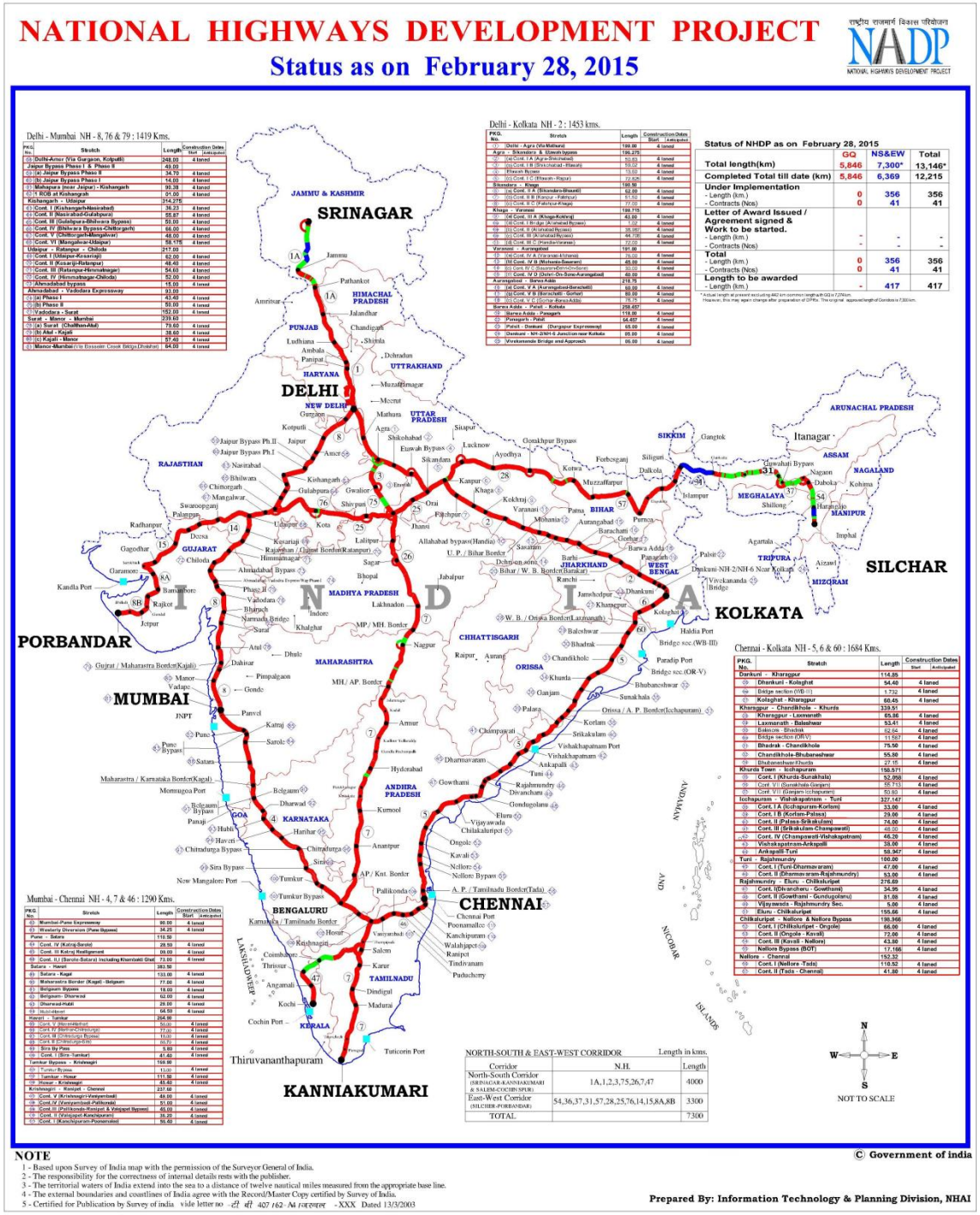
Clear delineation of Powers and responsibilities

Union List
- Telecom
- Aviation
- Railways
- Power transmission

State List
- Water Supply & Sewerage
- Municipal Solid Waste
- Electricity distribution
- Urban Transport
- Irrigation

Concurrent List
- Roads – National Highways / State Highways and other roads
- Ports – Major Ports / Minor Ports
- Electricity - Generation

- Central Government with overriding legislative & financial Powers
- However, State Governments have significant focus on improving infrastructure services through PPP
- Third tier of Government (Municipalities / Panchayats) empowered through constitutional amendment in 1993-94



National Highway Development Program (NHDP)

- Allocating responsibility of NHDP to the **National Highway Authority of India (NHAI)**

- Total length : **50,618 km**
- Already completed : 23,500 km
- Under Implementation : 13,000 km
- Yet to be awarded : 13,118 kms

- Estimated Project Cost : **US$ 13 .2 bn** (1999 prices)
- **Proposed Financing Plan**:
  - Cess on Petrol & Diesel : US$ 4.90 bn
  - External Assistance : US$ 4.9 bn
  - Market borrowings : US$ 2.4 bn
  - Private Sector Participation : US$ 1 bn

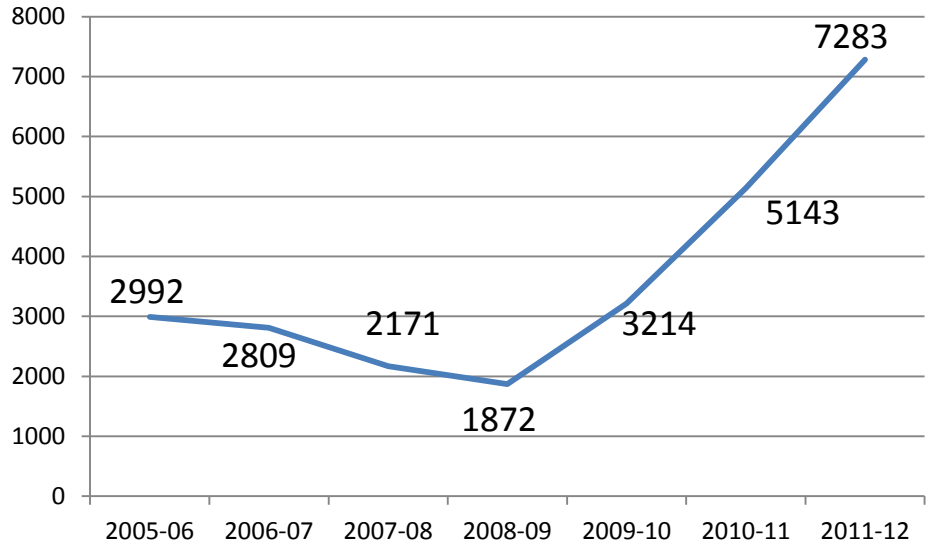
Model Concession Agreement (MCA)

MCA drafted and adopted in 2000 (and modified in 2008) laid out the following framework for Highway projects in India:

- PPP on Design Build Finance Operate Transfer (DBFOT) basis
- Govt. of India prescribed per km user fee; MCA provided for indexing user fee up to 40% of Wholesale Price Index (WPI) plus 3% *(average 7-8% p.a.)*
- Phased development of Highways based on standards specified by India Roads Congress
- Focus on Output specifications
- Concession period to be determined based on carrying capacity
- Selection of concessionaire based on open competitive bidding**; on minimum grant or maximum premium**
- Detailed risk allocation, based on ability to manage
- Handing over 80% of required land and obtaining all environmental clearances are conditions precedent to be satisfied by the Authority prior to Financial Close
- Substitution rights to lenders and other clauses to provide adequate comfort to lenders

Successful Model of PPPs in Highways

National Highway BOT Projects Awarded in Kms



- MCA first used in 2002, for project cost above US$ 17 mn
- More than 20,000 kms of road projects have been developed under DBFOT till 2014
- As of 2014, about 300 projects completed and another about 300 projects under implementation

Punjab Infrastructure Development Board (PIDB)

High powered body, chaired by the Chief Minister; Executive committee represented by top bureaucrats of infrastructure departments

Punjab Infrastructure (Development & Regulation) Act

To provide for the partnership of private sector and public sector, participation of private sector in the development, operation and maintenance of infrastructure facilities and development and maintenance of infrastructure facilities through financial sources other than those provided by the State budget

Punjab Infrastructure Development Fund (PIDF)

- 1% Infrastructure fee on Petrol and 3% fee on agriculture produce, except fruits, vegetables and pulses – generated US$ 200 mn in 2014-15
- Augmentation of existing infrastructure
- Punjab Govt's contribution in equity or viability grant in PPP projects

Punjab Infrastructure Initiative Fund (PIIF)

- Revolving corpus of US$ 2 mn
- Develop a shelf of investible infrastructure projects
- Create a model for developing PPP projects
- Channelize best available experience for project development

PPPs in Sea-Ports

7517 kms of coast-line with 13 major ports and about 200 notified minor ports

Major Ports

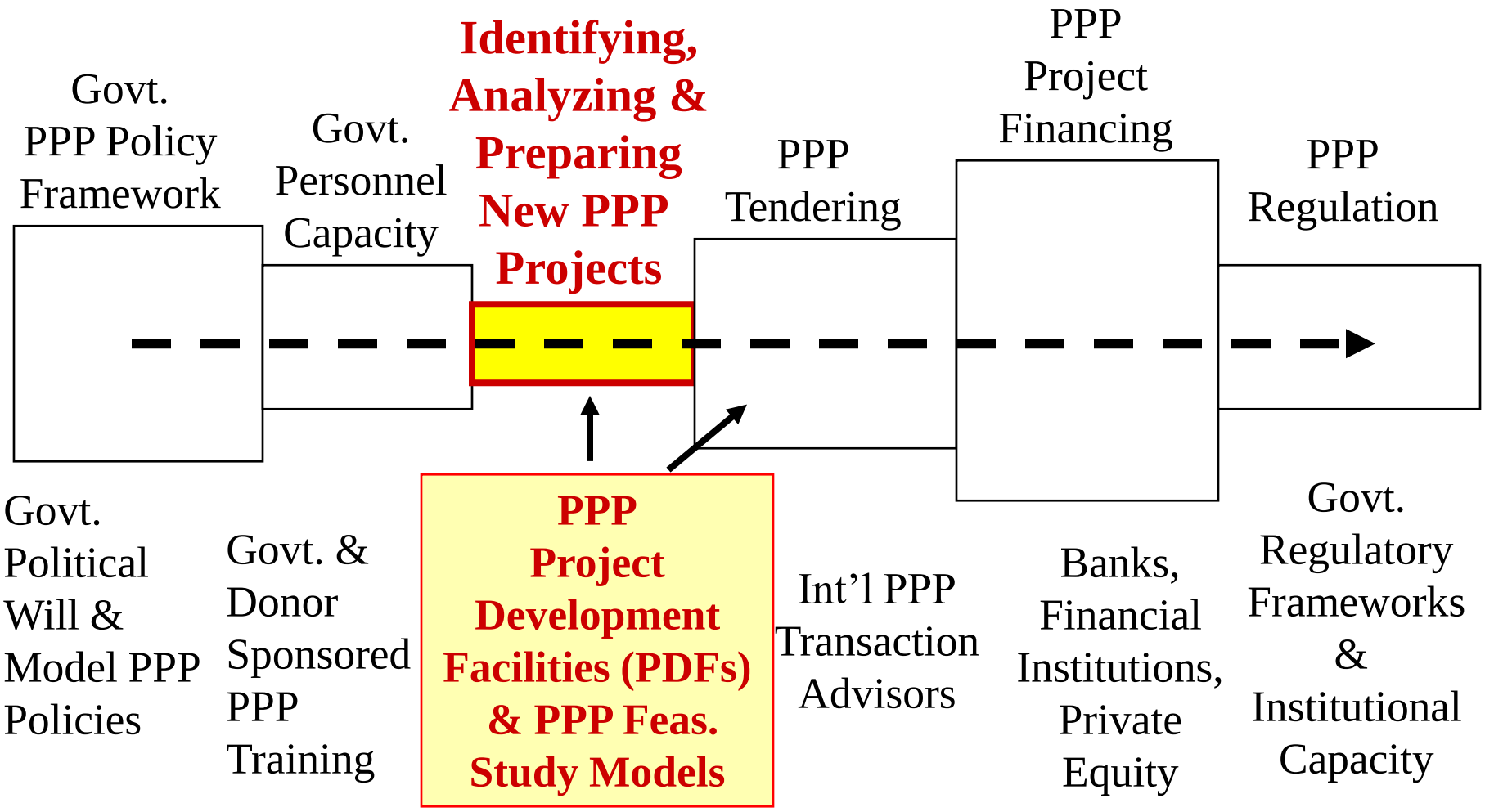
- 13 major ports – 12 operated as trusts, and 1 in a corporate structure, all reporting to Ministry of Shipping, Government of India
- PPP structure : DBFOT of bulk cargo or container berth; bid on basis of revenue share with Port Trust
- All cargo to be charged on basis of Tariff Authority for Major Ports (TAMP) orders

Minor Ports

- Currently handle about 45% of total cargo (about a decade back, less than 10% of cargo was being handled by Minor Ports)
- PPP Structure : DBFOT concession with respective State Governments – agreement to develop port facilities of agreed specifications, within pre-determined time frame and “royalty” fees to be paid to the state Govt.
- Market-determined competitive tariff

Project Development

PPP Constraints



AVAILABLE RESOURCES

Objectives of Project Development

Ease of Execution v/s Need

Chennai Mass Rapid Transport System (MRTS)

- Land availability was easiest along the Buckingham Canal
- Station link was easiest at the Beach Station
- The issue of whether the corridor addresses the user's need was not considered
- And so there was little use for the asset/ service after it came into service

Urban Transportation or Real Estate Project?

Hyderabad Metro

- 72 kms, over three corridors, elevated metro, with 66 stations
- Estimated project cost of US$ 4 bn; achieved financial close in 6 months
  - Debt : US$ 1.92 bn
  - Equity : US$ 0.6 bn
  - VGF : US$ 0.25 bn

- 18.5 mn sq ft of transit-oriented real estate, including commercial & retail spaces in stations and malls near stations

- Project delayed by over three years from initial date of commencement of operation

Willingness to Pay

Karur Bridge

- Town had two dilapidated bridges across the river
- Willingness to pay (WTP) surveys showed everybody was willing to pay whatever it took, to construct a new bridge
- Urban Local Body (ULB) sought BOT developer on toll basis
- The whole community supported the project, during the construction period, knowing that the bridge was to be tolled
- Protests started after the bridge was opened

Similar problems were experienced in other projects such as the Coimbatore Bypass and Athupalam bridge (L&T) and the Mattancherry Bridge (Gammon)

Meeting Committed Obligations

Lucknow waste to energy project

- Surveys were done by the Private Investor
- Both parties agreed on a certain waste character (quality) and quantity and signed inflexible agreement conditions
- Private Partner: Waste of the required quality was not delivered by the Municipal Corporation
- Municipal Corporation: Equipment not suitable for handling MSW – blames the failure on the Private Partner

Objectives of PPP Project Development Funds / Facilities (PDFs)

- For the lack of just $200K to fund a PPP Feasibility study or hire PPP transaction Advisors, a project that could attract $20 million (100x) in new long-term private investment will not get done
- Accelerate “flow” of viable PPP projects & attract continuous private investor interest in the “pipeline”
- Improve the quality of PPP project preparation
- Reduce PPP transaction costs and project risks
- Improve procurement compliance
- Leverage private finance
- Build local capacity and use of best practices

India Infrastructure Project Development Fund (IIPDF)

- Assists contracting authorities to develop sound projects & to encourage PPPs
- Managed by PPP Unit within Ministry of Finance
- Upto 75% of development costs reimbursed
- Reimbursement based on “invoices”
- IIPDF replenished from successfully bid project and topped up with budgetary support
- If bid un-successful, deemed as grant

Risk Assessment & Allocation

What is Risk?

Risk = Hazard x Probability

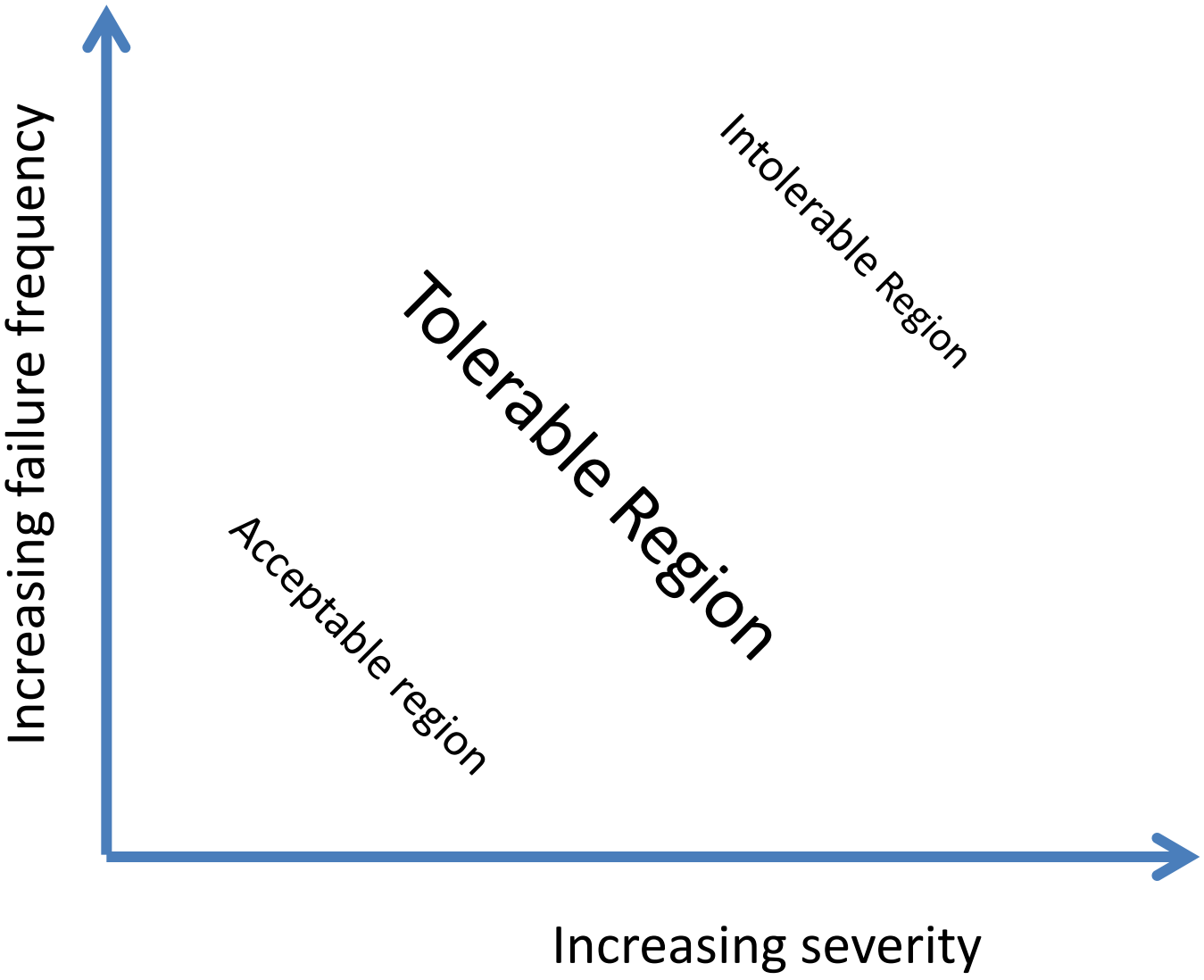
- Hazard is the damage (costs)
- Probability is likelihood/frequency
- Reduce risk by reducing hazard and/or probability
- Preferably eliminate risks by project structuring or project configuration

Risk Handling in PPP Projects

- Identify **all** possible risks
- Evaluate risks in broad terms
- Eliminate or reduce risks where possible
- Allocate risks to the PPP Partner who can best handle / influence them
- Share remaining risks
- Review and adjust risk allocation as PPP progresses

Categories of Risk

- Technical
- Implementation, Construction
- Revenue
- Financial
- Operational
- Political
- Social
- Environmental
- Force majeure


Increasing failure frequency
Intolerable Region
Tolerable Region
Acceptable region
Increasing severity

PPPs in Urban Water Supply in India

Water PPPs in India: Achievements

India has witnessed about 15 PPP projects in Urban Water Supply:

- Focus on service delivery (24 X 7)
- Bottom up demand for PPP
- Targeting private sector efficiency, NOT capital
- Cities have designed solutions that suit their need
- Recognised the sensitivities around tariff
- Attracted both domestic and international operators
- Competitive bidding for all projects

Case Studies

	Nagpur	Aurangabad	Mysore	Latur	Khandwa
Population (mil)	2.5	1.2	1.0	0.4	0.2
Mandate	Rehab. + operations	Bulk+ Reconstruction + operations	Reconstruction + operations	Operations + select rectification	Bulk **+**Reconstruction + Operations
Duration (yrs)	25	20	6	10	25
Operator	Veolia & Vishwaraj	Essel-SPML	JUSCO	SPML	Vishwa
Project Cost (US$ mn)	65	130	21	-	22
Pvt. investment	30%	50%	Nil	Nil	10%
Govt. grant	UIG (70%)	UIDSSMT +State	UIG (90%)	Nil	UIDSSMT (90%)
Revenue Model	Fee/ KL	Tariff + Annual subsidy	Mgmt fee	Tariff	Tariff
Contract signed	Late 2011	2011	Mid 2009	2008	Late 2009
Contract mgmt	City	City	Parastatal	Parastatal	City
Current Status	WS system handed over	Preparation in progress	Rehab, O & M in progress	Under suspension	Construction in progress

Learnings : Issues with Water PPPs

- Poor project preparation prior to bidding – lack of information / data on existing system / assets **(Very few greenfield projects)**
- Most projects have been financed largely through public funds =>
  - Focused on capital expenditure; not on enhancing service efficiencies;
  - Lower accountability for capital efficiency / optimisation;
  - Poor rigour in project preparation
- Cities did not link Operator remuneration to performance adequately
- Treatment of risks was ad-hoc and not standardised *(Model Contracts for urban water may be difficult; but standard principles can be adopted)*
- Pre-Qualification parameters were non-standard and “tweaked”; bid process was rushed through => bidding was not truly competitive
- Cities did not focus on financial sustainability of projects
- There was no attention to over-sight capacity or to build city’s own capacity to take-over operations post contract period

Attracting Private Investment in Urban Water Supply : Pre-requisites

- Water operations in most cities are financially unviable => Tariff reform
- Ensuring city financial health to support private investment
- Clear policies on critical issues to support economic (oriented) operations – eg., decisions on connections & disconnections
- Guarantees to private investors to compensate for unreliable data and information
- Strong & independent dispute resolution mechanism
- Significant enhancement of city capacity to handle and monitor complex private investment driven PPP contracts

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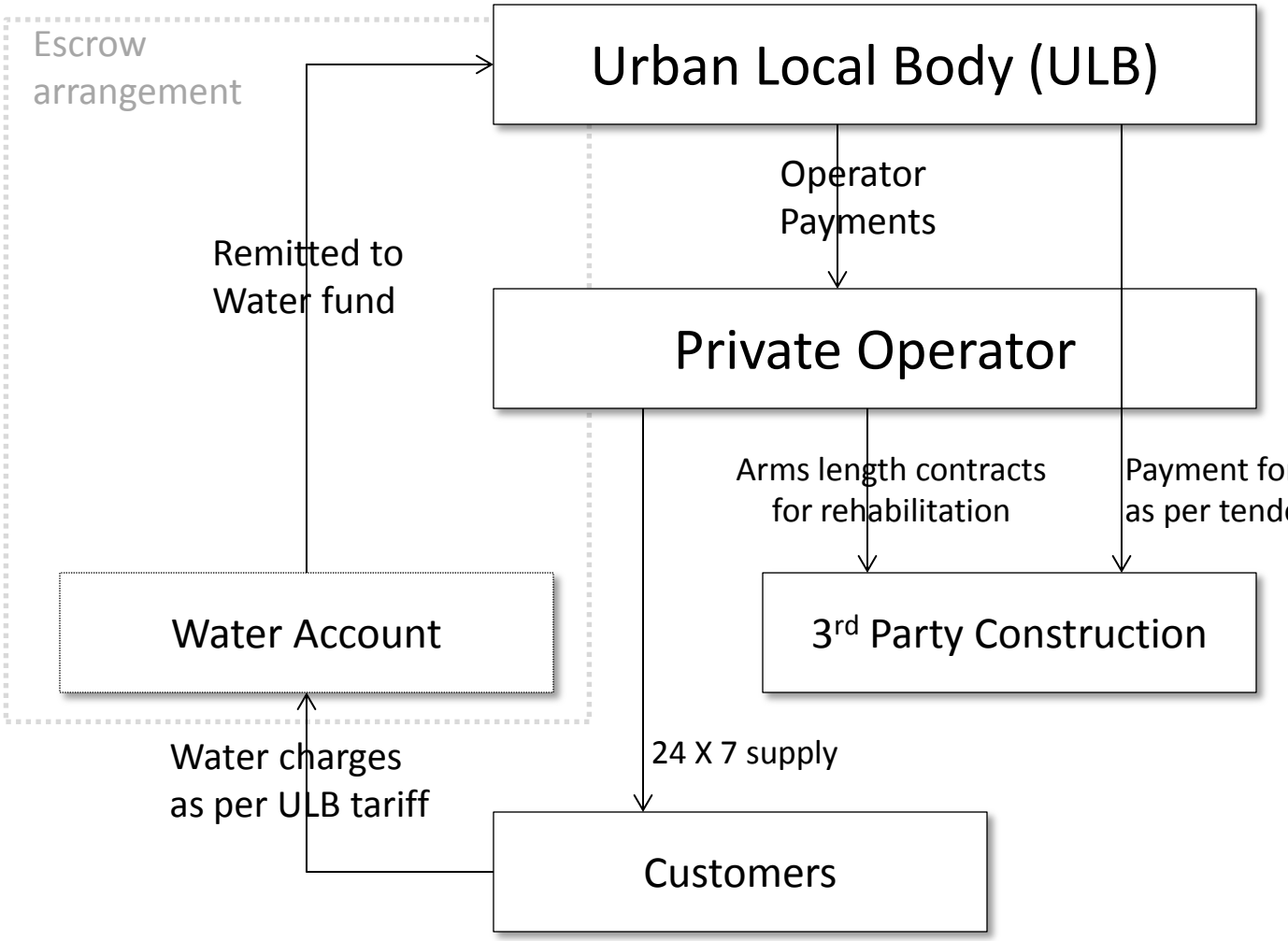
(at least in the near future)

Publicly funded projects, with private sector operating efficiency & customer orientation

PPP Structure



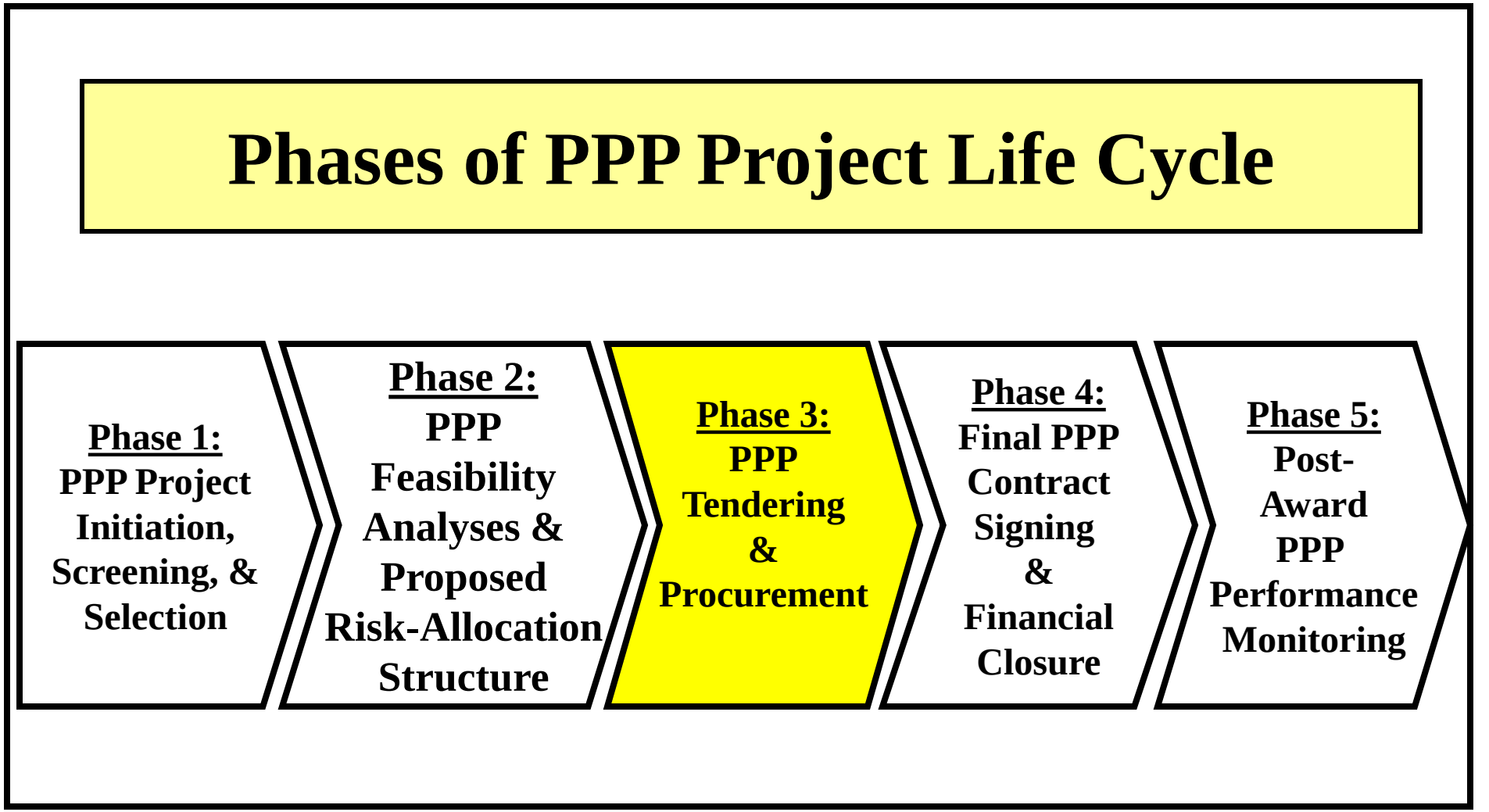
Publicly Financed; private sector Design, Construction, and O&M

Key Principles of Management Contract

Socially acceptable PPP structure	• Tariff setting power remains with elected members • Operator fee delinked from tariff • Public sector funding
Poor information on existing system	• Preparatory phase • Operator due diligence of DPR
Cost effective; focus on rehabilitation	• Operator due diligence of DPR • Rehabilitation over 3-5 years • Third party construction • Capital expenditure savings incentive
Operator accountability for performance	• Pre specified performance targets • Phased linkage to operator revenue • Operator revenue linked to performance
Addresses institutional issues	• Options for deputing ULB employees • Institutional framework for contract monitoring and oversight • ULB responsibility for water bye laws

Procurement

The Role of Tendering & Procurement in the PPP Project Cycle



Goals of PPP Procurement

The process and the result of selecting a private PPP concessionaire / contractor / operator, should be:

- **Fair:** All qualified and interested private bidders should have an equal opportunity to participate in the selection
- **Equitable:** The outcome should offer equal treatment to affected groups & stakeholders
- **Transparent:** The process should be publicly defendable and open to independent review
- **Competitive:** *Competition is necessary in order to maximize Value for Money*. Without competition the overall benefits of PPP are severely challenged
- **Cost Effective:** Competitive tendering for large PPPs can take a long time (12+ months), significantly adding to its "transaction costs." Selection of procurement techniques should weigh the relative size of transactions costs against the projected Value for Money benefits

Is Competitive Tendering for PPP Necessary?

- According to analyses of over 2,500 PPP transactions, PPP contracts awarded through open competition are much less likely to be renegotiated, to have unscheduled prices/tariffs increases, to be cancelled, or to impose "implicit liabilities" on Govt. (WB PPI Database)

- Competition incentivizes both public & private sectors to more thoroughly analyze risks, allocate risks, and prepare risk mitigation *up-front*. Without competition, too many risk issues are simply left to be dealt with later… (at the expense of public's VFM)

- Competitively procured PPPs have shorter construction periods

- However, competition does impose costs of longer procurement periods and higher bid preparation costs on both public & private sectors

Unsolicited PPP Proposals

- *"At a minimum, the principle should be that all unsolicited proposals are channeled into a transparent, competitive process where challengers have a fair chance of winning the tender."*

- India adopts the practice of "Swiss Challenge" to address Unsolicited Proposals
  - The unsolicited proposal is competitively bid out
  - Party that made the unsolicited proposal has the right to match the highest (or lowest) bidder and do the project

- However, the bar for accepting a project proposal on Unsolicited basis is rather high => very few unsolicited proposals have actually seen the light of day

- Otherwise, unsolicited proposals have a problematic record of placing more risk onto Governments

Dabhol Power Company (DPC)

- May-June 1992 : High level Indian Government delegation met Enron in US and invited them to establish a power generation facility in India
- On June 10, 1992 : Secretary, Min. of Power, Govt. of India, informed state Govt. of Maharashtra, about Enron's visit to identify land for power plant
- June 15, 1992 : Officials of Enron and GE met with GoI officials in Delhi
- June 17, 1992 : Officials of Enron and GE visited alternative sites for project
- June 20, 1992 : Enron signed an MoU with Govt. of Maharashtra to establish the Dabhol Power Project, with an estimated project cost of US$ 3 bn, with imported (LNG) fuel and imported P&M; no background info about Enron
- Govt. of India requested The World Bank to review the project. The World Bank identified many irregularities in the process and determined that the Govt. had not provided an overall economic justification for the project. Also that the MoU was "one sided"

Dabhol Power Company (DPC)

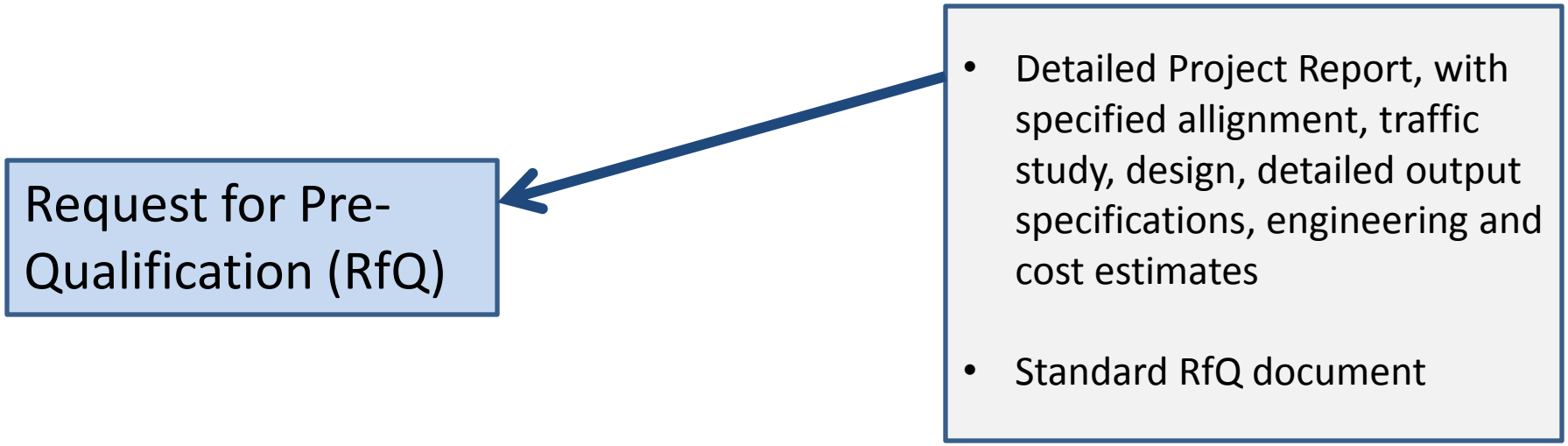
No competitive bidding; negotiated transaction

- The project costs was significantly higher than comparative size projects
- (US$ denominated) Power tariff at which MSEB was buying power was significantly higher than the average price at which MSEB was already buying
- The PPA meant that MSEB would buy all the high-priced power, whether there was demand for it or not; and even if its own cheaper power was available;
- DPC was guaranteed a post tax return of 16% on capital investment; and there was no limit on capital expenditure by DPC
- Counter guarantees against MSEB payments from state and central Governments
- Enron shielded from Indian jurisdiction; all disputes to be settled in the UK, as per English law
- The project under-took no environmental impact assessment and there were significant protests by land-owning farmers, that were quelled
- Assurance given that the project would not be “nationalized”

Tariff Based Bidding Process

- Quantum of Power required, date of commencement of supply and the point of inter-connect pre-defined
- Choice of technology and fuel – up to the bidder (but Fuel Supply Agreement to be part of the Pre-Qualification)
- Bidder to be responsible for all consents, licenses, clearances and approvals
- Tariff to be quoted in India Rupees, in a given structure, at RfP stage
- Draft Power Purchase Agreement attached to the RfQ document
- Financial wherewithal of bidder : Average Free Cash flow of last three years, after accounting for debt servicing
- Pre-defined normative availability and linked to minimum guarantee of off-take
- Two-stage bid process

Selection of Private Concessionaire : Bid Process



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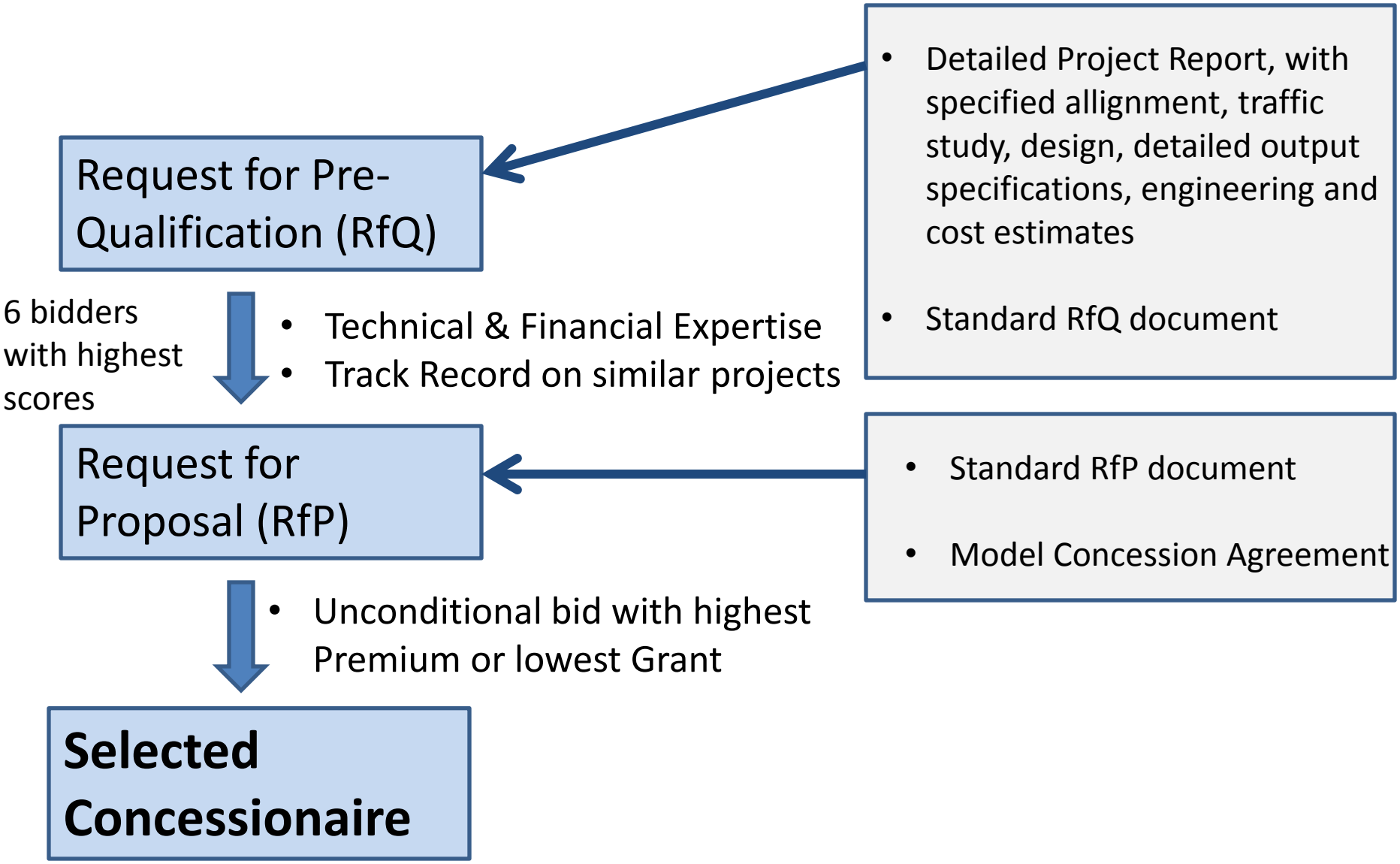

NHAI – Outsourced Model of Project Development & Monitoring

Preparation of Detailed Project Report (DPR)

DPR Consultant

- Traffic study & projections
- Design, Engineering, Project Cost estimation
- Selection based on standard process and documents

Bid Process Management / Procurement

Transaction Advisor

- Preparation of bid documents
- Support in financial closure
- Selection based on standard process and documents

Construction Supervision & Monitoring of Operations & Maintenance

Independent Engineer

- Construction supervision, including testing
- Selection based on standard process and documents

Kishengarh-Udaipur-Ahmedabad – the country's largest highway project

- 555 km highway project, estimated to cost US$ 1.25 bn
- Negative grant or Premium of US$ 103 mn
- Concessionaire : GMR Infrastructure Ltd.
- Project awarded in July 2011
- **GMR exits project in January 2013**

- Many other developers exited / terminated BOT projects with NHAI between 2012 - 2013
- Re-scheduling of payment of Premium (approved by UPA II Govt for 13 projects)

PPPs : Addressing Key Challenges

Key issues of Private Sector Participants in PPPs :

Long procurement process & not so transparent; Suspect business case; Inflexibility; Inappropriate risk allocation; Limited funding sources; etc.

Emerging Understanding…

"PPP is not a 'Hands-off' solution"

- PPPs cannot be kept off-budget
  - It is not prudent to keep either financing or liabilities (from PPPs) off-budget
  - Contingent liabilities should be an integral part of budgeting process
  - Similarly, likely revenues from user fees should be explicitly accounted for in PPP decisions

- More thought on revenue model, uncertainties and financial structures
  - Appropriately structured govt. financial support to PPPs – e.g., viability gap support, low cost loans, initial capital support etc. – may be necessary and beneficial

- Greater role of project proponents
  - Govt. agency is ultimately responsible for service delivery. Hence, public sector need to gear itself up to effectively monitor the concession/concessionaire for service delivery and keep an eye on achieving the Value-for-Money proposition from PPP

Focus on Fundamentals

Importance of Asking Right Questions: Strategic

- How much private sector investments can be mobilized in various sectors?
- What the government can and is willing to do so that the private sector can mobilize resources for PPPs?

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1st Order

- Which are the sectors amenable for recovery of investment and O&M expenditure through user charges?
- If the existing user charges are inadequate for cost recovery, is the government willing to allow increase in user charges?
- Alternatively, to what extent the government is willing to bear the cost of provision of services in these sectors or areas?

2nd Order

- Whether sufficient capacity is there in the public sector to conceptualize, structure and implement PPP projects in an effective and transparent manner?
- Whether private sector has sufficient capacity and expertise to deliver PPP projects?
- Whether adequate equity and debt is available in the local markets?

Focus on Fundamentals

Importance of Making Appropriate Choices

- How the private sector is expected to recover its investments/ expenditure
  - Through user fees
  - Through (direct and indirect) government support
  - A combination of both

  Important to bring to focus...
  - the level of political will and the legislative effort, if any, required, say, to facilitate collection of user fees
  - the cost to the exchequer, in case the government decides to extend support or not

- What type(s) of support Government would like to extend to PPPs?
  - Viability Gap Support, Guarantees, Land development rights, etc.
  - How much under each type of support?
  - What would be the criteria and process for extending government support?
  - Any sector-specific variations or limits?

Other Enablers for PPPs

- Capacity building – continuous improvement of talent

- Clarity on approach of project development – establishment of large project pipeline
- Transparent and fair governance practices (Improvement in speed)

- Continuous demonstration of business case
  - Dialogue with stakeholders concerned
  - Risk allocation appropriately factoring long term consequential situations

- Financial structures
  - Availability of competitively procured capital

Thank You