공공SW 견실화 연구 TF

: SI방식에서 서비스이용 방식으로의
전환을 중심으로

SW 정책연구소

PPP Implementation

Check list for preparatory work

27 Oct, 2015

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Part I. Brief review of PPP options

Part II. Preparatory work

Key words

- Legal, regulatory and policy framework
- Technical preparation
- PPP unit and PIU (Project Implementation Unit)
- PF (Project Financing), Tariff and Subsidy
- Stakeholder involvement

PPP (Public-Private Partnership) terms

- Definition: A range of possible relationships among public and private entities
- PSP (Private Sector Participation): More obligation to private
- Privatization of public sector : Sales of ownership in a company
- Public: Ministries, departments, municipalities and state-owned enterprises
- Private: Companies, financial investors, technical investors, NGOs and CBOs (Community-Based Organizations)

Typical area

- Power generation and distribution
- Water and sanitation
- Refuse disposal
- Pipelines
- Hospitals
- School buildings
- Stadiums
- Air traffic control
- Prisons
- Railways
- Road
- ICT (Billing and other IT systems): Telecommunication, Smart card, Data center etc.
- Housing

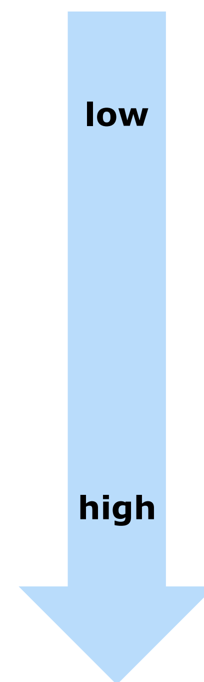
PPP contract type

- Service contract
- Management contract
- Lease contract
- Concession
- BOT (Build-Operate-Transfer) and similar arrangement
- Joint venture

Engagement level of private sectors

(Responsibility and Risk)

or intensity of PPP structure



Key features of PPP contract types

	Transferring responsibilities or authorities (undertaking activities)				
	Services	Management & operation	Financial risk	Capital investment	Transfer Ownership
Service Contract	O				
Management Contract	O	O			
Lease Contract	O	O	O		
Concession	O	O	Δ	brownfield	
BOT	O	O	Δ	greenfield	Δ
Joint Venture	Sharing responsibilities and authorities				

Public

Become regulator or monitor

Private

Addressing constraints

- Legal, regulatory and policy framework
- Technical issues
- Institutional and capacity building
- Commercial, financial and economic issues

Legal, regulatory and policy framework

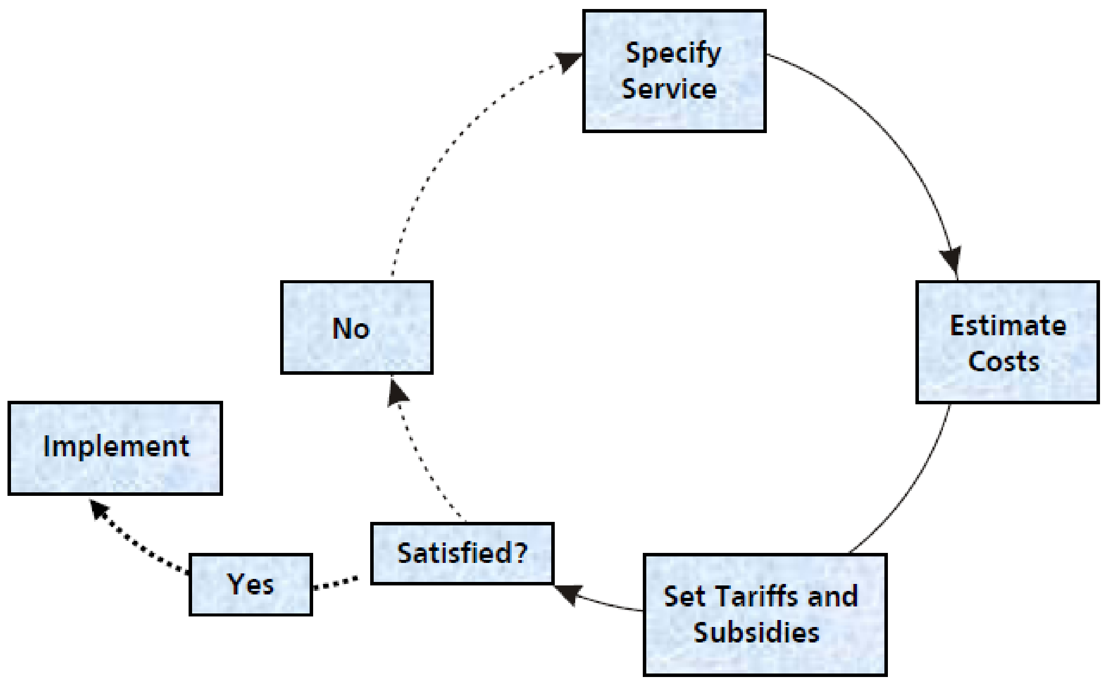
- PPP relevant (can be changed or newly suggested): privatization law, sector licensing law, concession right, tax regime for private investment on PPPs etc.

- General (should be recognized and followed): company law, labor law, environmental law, foreign exchange regulation, tax regime in general context, regulatory regime in pricing, customer service, operations, market structure and public service law etc.

Technical preparation

- Coverage target, pricing and standard of service quality

Figure 10: Balancing Service and Costs



Source: World Bank and PPIAF. 2006. *Approaches to Private Participation in Water: A Toolkit.*

Institutional structures and capacity building

- PPP unit
- Project implementation unit
- Technical assistance

PPP unit

- In-charge agency or department of general PPP operations in government
- PPP department in state of Victoria in Australia
- BOT center of the Philippines (Project development monitoring facility)

Project implementation unit (PIU)

- A vehicle to plan and implement a PPP project or PPP projects
- Linked with a line ministry or a quasi-independent of the ministry
- Mostly special purpose unit and the life span is linked with the project life cycle

PDF – PPP project development fund*

PDF examples

PDFs have been used or are used at the national and sub-national level in many places

- India Infrastructure Project Development Fund
- Philippines Project Development and Monitoring Facility
- Government of Sindh, Pakistan Project Development Facility
- World Bank Global Infrastructure Facility
- ADB Asia Pacific Project Preparation Fund
- South Africa Municipal Infrastructure Investment Unit
- Indonesia Private Sector Participation Development Facility
- Egypt Private Sector Participation Project Development Fund
- Bangladesh Private Sector Infrastructure Development Fund
- Sri Lanka Private Sector Infrastructure Development Facility

Source: Asian Development Bank

Institution - Philippines

1 Philippines Project Development and Monitoring Facility (PDMF)

Objectives	Fund and facilitate pre-investment activities of potential PPP projects such as pre-feasibility and feasibility studies, and to develop a pipeline of viable projects for Implementing Agencies (IA) and Local Government Units (LGU).
Governance	The PPP Center screens and evaluates the application based on a set of eligibility criteria, and makes a recommendation to the PDMF Board. If application is approved, IA signs Technical Assistance Agreement with PPP Center. Board is composed of the National Economic and Development Authority (NEDA), Department of Finance (DOF), Department of Budget and Management (DBM), and PPP Center. PPP Center oversees the administration and management of the PDMF.
Eligibility criteria	Criteria are unique to the project, sector, and IA/LGU. Applications must meet the PDMF application requirements, and the project should be consistent with government priority infrastructure programs.
Nature of funding	The project development cost (plus a 10% administrative fee) is recovered from the successful bidder or directly from the IA/LGU. The IA/LGU repays 100% of the development cost and administrative fee when it fails to bid out the project, conclude the bidding process, or sign the contract with the winning bidder. IA/LGU refunds 50% of the development cost, plus administrative fee, when it fails to bid out the project after a failed series of re-biddings, conclude the bidding process, or sign the contract with the winning bidder.

Source: Asian Development Bank

Institution - Pakistan

3 Government of Sindh, Pakistan Project Development Facility (PDF)

Objectives	To fund project development expenses of for PPPs so Government can make decisions based on good quality feasibility studies, and develop well-structured PPPs. Also to enhance the project management and technical capacity of the Government Agencies and PPP Unit to successfully undertake PPP projects.
Governance	Overseen by the PPP Policy Board and managed by the PPP Unit in the provincial government Finance Department. The PPP Policy Board sets policy directives, determines priority sectors, approves operational and management procedures, approves financial statements, and receives management reports on PDF utilization. The PPP Policy Board decides on applications for funding and on recovery of funds by PDF.
Eligibility criteria	Can be used in: Transport and logistics, mass urban public transport, energy projects, tourism projects, and certain industrial projects where public property is used to support private industry and manufacturing.
Nature of funding	Can only be used to finance services rendered by Consultants preparing PPP projects, providing advice on transaction advisory, and for capacity building of Government Agencies and the PPP Unit. Reimbursement of disbursed funds will be sought from the private sector partner upon signing of the PPP agreement, or from the Government Agency if it decides to stop pursuing the PPP project prior to concluding the PPP agreement (unless the decision can be justified based on economic, environmental, legal, technical, and financial considerations).

Source: Asian Development Bank

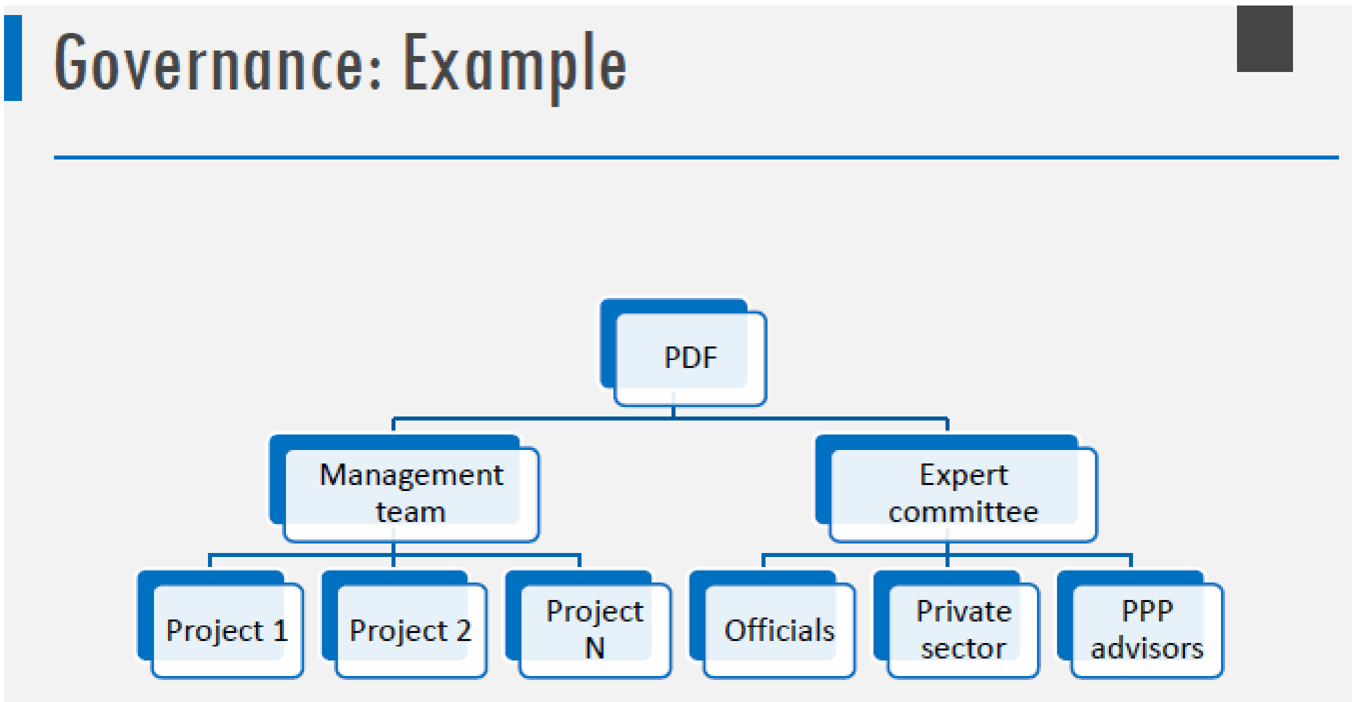
Institution - India

1 India Infrastructure Project Development Fund (IPDF)

Objectives	Created to cover a portion of PPP transaction costs, to increase the quality and quantity of bankable projects, and to produce good feasibility reports to allow the Government to make informed decisions.
Governance	Located within the PPP Cell in the Department of Economic Affairs (DEA), Ministry of Finance. The PPP Cell screens requests for funding but the Empowered Institution (EI) approves funding. EI is composed of: Additional Secretary, DEA (Chairperson), Additional Secretary (Expenditure), a Representative of the Planning Commission, a Joint Secretary in the line Ministry dealing with the subject, and a Joint Secretary, DEA (Member Secretary).
Eligibility criteria	Varies, but criteria have included: Non-revenue-generating projects with high economic returns, revenue generating commercial projects with a high rate of return, efficiency enhancement/cost savings projects with a quick recovery of governmental payouts.
Nature of funding	Provides up to 75% of the project development expenses, which are then recovered from the successful bidder. If bidding process fails, the assistance is not recovered. Sponsoring Authority must refund the assistance if it does not conclude the bidding process or does not contract out the project. Sponsoring Authority co-funds 25% of the total development cost, including a pre-feasibility study to determine if the project is amenable to PPP.

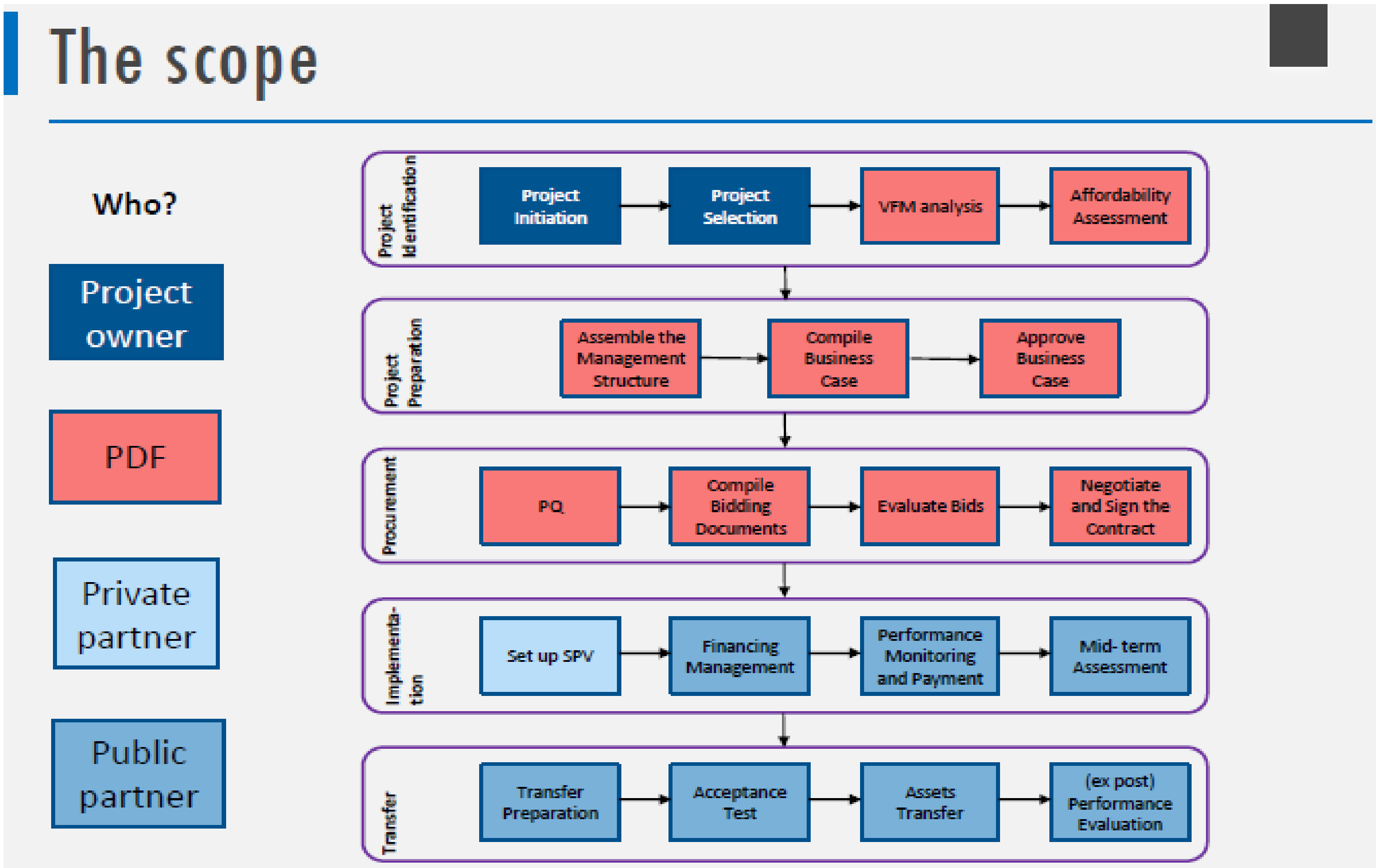
Source: Asian Development Bank

Institution - proposition for PRC



Source: Asian Development Bank

Institution - proposition for PRC



Source: Asian Development Bank

Commercial, financial and economic

- Technical analysis: cost of service
- Market research: demand analysis
- Financial modeling: cost recovery tariff
- Governmental support: subsidy

Project financing

- Correlation between perceived credit risk and the cost of finance
- Special purpose vehicle, SPV
- Factors of bankability to private sector: financial design and tariff (short payback period), predictability of cash flows (off-take or take-or-pay contract and level of certainty or transparence of regulations)

Project financing: Challenges

- Long-term debt maturities to match project cash flows
- Limits to the availability of local currency debt financing to match local currency revenue streams
- Limited availability of equity and resulting high degree of leverage
- No security or guarantee except for project assets available (nonrecourse financing)

Project financing: Solutions

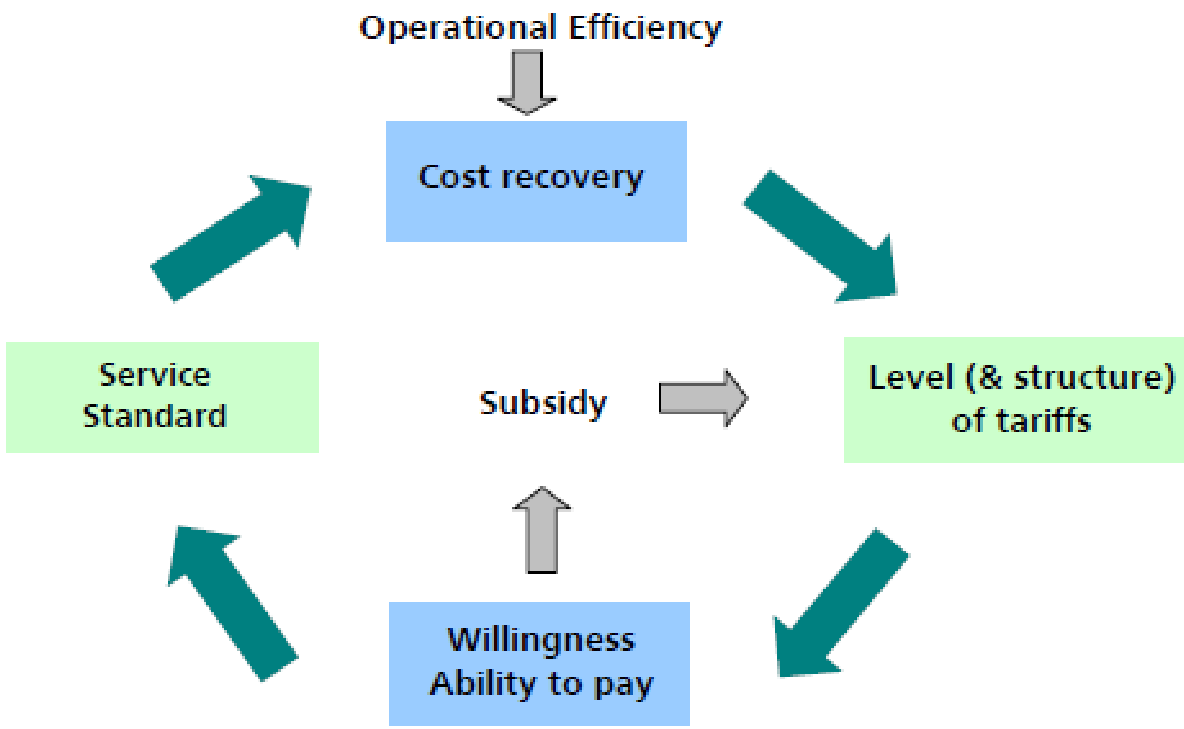
- Credit guarantees: government or development finance institution
- Political risk guarantees: insurer or development finance institution
- Lender: DSCR (debt service cover ratios), LLCR (loan life converge ratios), PLCR (project life coverage ratios)

Tariff design: balancing objectives

- Stipulate service standard and cost
- Customers’ willingness to pay
- Resulting cost recovery
- Required economic viability for private operator
- Need for subsidies

Tariff designing process

Figure 11: The Iterative Process of Designing Tariffs



Source: Heather Skilling and Nils Janson. 2006.

Tariff design: considerations

- Cost recovery and return on investment
- Incentives for efficiency
- Fairness and equity, and
- Simplicity and comprehensibility

Cost recovery/return on investment

- Combination of service standards (cost) and tariffs (revenues)
- Internal rate of return (IRR) and return on equity (RoE)
- Risk assessment
- Differentiated pricing and universal service

Simplicity and comprehensibility

- Too complex lead customers to no understanding of implication of price changes
- Over simplification may result in incentives being lost or a negative impact on fairness
- Case: MNO (mobile network operator) vs. McDonald's vs. cafeteria in university
- Balancing objectives: incentive for efficiency vs. simplicity and fairness

Tariff adjustments: considerations

- Triggers or drivers: changes in raw material prices, inflation and exchange rate fluctuations etc.
- Adjustments mechanism: cost-plus vs. price-cap
- Frequency; cost pass-through, tariff indexation, tariff resets and extraordinary adjustment

Cost-plus(or rate of return) mechanism

- Pass all operating expenses and capital costs on to the consumers
- Pros: mobilization of private investment by mitigation of operation risk
- Cons: moral hazard (inflation of operating cost) and no motivation for improvement of efficiency

Price-cap (or revenue) mechanism

- Control the quantum of revenue over a period or specific prices
- Pros: motivation for efficiency
- Cons: operation risk
- Hybrid or tailored approach
- E.g. Price-cap in early stage with high price to attract private capital, cost-plus in mature stage to attract large-scale investment with mitigation of investment risk

Frequency of tariff adjustments

- Cost pass-through (unpredictable) : adjust cost of services for changes of external factors such as costs of certain inputs, a change in tax rates or a change in the quality standards
- Tariff indexation (predictable): reflect a change in an index of prices such as CPI or basket of relevant prices of good and services
- Tariff reset (predictable and tailored): periodic tariff adjustment

Subsidy design

- General subsidy
- Cross-subsidy: block tariff or differentiated pricing (e.g. discount for student or elderly in public transportation)
- Poor, public health and environmental issues etc. (universal service for broadband network)

Subsidies options

- Cash subsidies: cash payment to reduce the average tariff to cover the utility’s operating expenses
- Cheap capital: reduction in the cost of borrowing of the private sector at concessional rate or taking responsibility for exchange rate risk etc.
- In-kind grants and tax exemptions: exclusive privilege for utilities such as water abstraction rights or land grants etc.

Labor consideration

- Redundancies or severance payments
- Terms of employment with a new company
- Training and capacity building

Stakeholder involvement

- The early involvement of all stakeholders
- Consultation with potential bidders and partners

Thank you

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