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Public Private Partnership Toolkit

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ACRONYMS

BOO	Build Own Operate
BOOT	Build Own Operate Transfer
BOT	Build Operate Transfer
CDP	City Development Plan
CPHEEO	Central Public Health and Environmental Engineering Organisation
DBOT	Design Build Operate Transfer
DDA	Delhi Development Authority
DPR	Detailed Project Report
GoK	Government of Karnataka
GoTN	Government of Tamil Nadu
ICB	International Competitive Bidding
IFFCO	Indian Farmers Fertiliser Cooperative Limited
JNNURM	Jawaharlal Nehru National Urban Renewal Mission
JV	Joint Venture
KRIBHCO	Krishak Bharati Co-operative
KUIDFC	Karnataka Urban Infrastructure Development Finance Corporation
LPCD	Liters per capita per day
MCD	Municipal Corporation of Delhi
MLD	Million Liters per Day
MSW	Municipal Solid Waste
MW	Mega Watt
NBCC	National Building Construction Corporation Limited
NCB	National Competitive Bidding
NCPPP	National Council for Public Private Partnership in United States
NCR	National Capital Region
NCRPB	National Capital Region Planning Board
NDMC	New Delhi Municipal Corporation
NTADCL	New Tiruppur Area Development Corporation Limited
OBA	Output Based Aid
PDF	Project Development Fund
PFC	Power Finance Corporation
PPP	Public Private Partnership
PSP	Private Sector Participation
PTC	Power Trading Corporation
REC	Rural Electrification Corporation

SPV	Special Purpose Vehicle
STP	Sewerage Treatment Plant
TNUDF	Tamil Nadu Urban Development Fund
TRAI	Telecom Regulatory Authority of India
UFW	Unaccounted For Water
UIDSSMT	Urban Infrastructure Development Scheme for Small and Medium Towns
ULB	Urban Local Body
UP	Uttar Pradesh
USD	United States Dollar
VFM	Value for Money
VGF	Viability Gap Funding

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I INTRODUCTION

1. It is widely recognized by policy makers that creation of world-class infrastructure is a prerequisite for sustaining economic growth in the country. The Government of India (GoI) has estimated in its 11th five year plan that Rs. 20,000 billion at 2006-07 rates[1] (equivalent to USD 400 billion @ Rs. 50/$) is required to bridge the infrastructure gap. Central and state governments are projected to finance approximately 37.2% and 32.8% of these investment requirements, respectively, in the 11th Five Year Plan. It is envisaged that the private sector investment in infrastructure through public private partnership frameworks would bridge this gap. It is in this context that it is imperative for NCRPB to facilitate PPP initiatives in this region.

1.1 Need for PPP in NCRPB

2. As per eleventh five-year plan the estimated investment requirements in infrastructure in National Capital Region (NCR) would be about Rs. 15000 Crore. If this investment requirement is to be financed by NRCPB through its traditional model of 25% contribution from state agencies and balance 75% by NCRPB in the form of loans, NCRPB would need to be in a position to provide loan assistance to the tune of Rs. 11000 Crores. With the available grants and internal accruals of NCRPB it would be difficult to leverage the NCRPB Fund of around Rs. 1800 Crore as on March 31, 2008 to Rs. 11000 Crore at the end of the Eleventh Plan through borrowings from multilateral agencies and market borrowings alone. Hence, NCRPB needs to explore innovative alternatives to leverage its funds to meet the investment gap. As NCRPB is playing a major role in planning and creation of infrastructure in NCR, it is proposed that NCRPB should take the lead in promoting investments through PPP frameworks by catalyzing private investments in the region.

3. In addition to leveraging the available funds with NCRPB by facilitating private sector investment, implementing projects in PPP frameworks have the potential to access advanced technologies and improve efficiency in project operations. It is therefore important for NCRPB to adopt and implement best practices in project development, project structuring, managing the bidding process, contract negotiations and contract monitoring and evaluation, and post award of project accordingly.

4. There is a huge gap in the quantity and quality of basic services provided to citizens in the NCR. For example, solid waste management is the responsibility of local bodies in the region. The nature of services to be provided in this sector commence from primary collection of waste to treatment and scientific disposal of the waste. In practice, few local bodies in the country are providing the entire spectrum of services particularly management of sanitary landfills. Post Supreme Court judgment regarding Municipal Solid Waste Rules 2000, there is regulatory pressure on all urban local bodies to create scientifically sanitary landfill facility. Many ULBs are unable to address the issue of land procurement and associated initial investments which are beyond their financial capacity. Gujarat, Tamil-Nadu, Kerala, Karnataka and few other states are experimenting with shared regional landfill facilities and PPP models to leverage private

[1] Source: Economic Survey 2007-08 report

resources. This is one of the areas where NCRPB can facilitate setting of regional sanitary landfills through public private partnership arrangements.

5. The NCRPB Regional Plan 2021 envisages total investment requirement of Rs. 1362 Crores for collection, transportation and disposal of solid waste. The investment requirements are not huge and ULBs do receive some funding support through the central and state finance commissions as well as Government of India schemes such as JNNURM and UIDSSMT. The main problem in the case of solid waste management is managerial and operational inefficiencies within the local bodies. NCRPB can facilitate appropriate utilization of private sector skill-sets in solid waste management projects by creating appropriate institutional structures such as SPVs for managing regional treatment and disposal facilities with appropriate forms of private sector participation in collection, transportation, treatment and disposal of waste.

6. In the case of sewerage, the coverage varies widely. In central NCR the coverage is about 80% whereas in some areas of UP and Rajasthan there is no sewerage facility. The estimated investment requirements for sewerage in this region according to the NCRPB Regional Plan are around Rs. 8321.93 Crores till 2021. NCRPB can help the local bodies in developing the treatment facilities using suitable PPP models by involving technology providers. This approach would support access to the latest technologies and result in sustainable operations and maintenance of the commissioned sewerage treatment plants.

7. In the case of water supply, Delhi has water supply of 225 litres per capita per day (LPCD) as against the Center of Public Health and Environmental Engineering Organisation (CPHEEO) norm of 135 LPCD, whereas in other parts of NCR the supply ranges between 25 LPCD to 145 LPCD. Supply of water in Rajasthan is very poor. It is to be noted that there is huge loss of water in this region. The unaccounted for water (UFW) in this region ranges between 30% and 50%.

8. In order to increase operational efficiencies, NCRPB can support management contracts for achieving reduction in UFW and improvement in operations and maintenance through long-term O&M contracts. Significant grant assistance up to 80% of project cost is available for water projects through Urban Infrastructure Development Scheme for Small and Medium Towns (UIDSSMT) and Jawaharlal Nehru National Urban Renewal Mission (JnNURM). NCRPB can facilitate award of projects on a Build, Operate, Transfer (BOT) basis whereby the operator constructs the facility, arranges financing for 20% of capital cost and meets operations and maintenance cost for the defined concession period. Payments to the operator can be in the form of annuities with appropriate incentives and penalties linked to performance. NCRPB can provide both project development assistance and financial assistance in the form of credit enhancements to backstop annuities.

9. In the case of transport sector, Delhi acts as a hub for northern part of the country. Hence in the regional plan it is proposed to take various measures such as construction of expressways, ring roads, rapid transit systems, widening of district and highway roads and improvement of rail networks. In the regional plan, NCRPB has proposed the implementation of transport projects in two phases and has estimated investment requirements in the first phase at Rs. 21830 Crores. This excludes the investment requirements for rail networks and national highways. Similarly in Phase II,

projects like Ghaziabad – Meerut expressway, and grid-roads were identified. It will be easier for NCRPB to demonstrate success in transport sector since India's PPP success has largely been witnessed in transportation sector.

10. In the case of power, the Regional Plan 2021 estimated that generation capacity would have to be augmented by about 50,000 MW with concomitant investments in transmission and distribution networks. The total investment requirements estimated in the Regional Plan for power generation is Rs. 93380 Crores and for transmission and distribution is Rs. 58000 Crores. Even after factoring in the proposed investments by central sector utilities like National Thermal Power Corporation and Power Grid Corporation as well as those by state utilities, there is likely to be a significant shortfall in both generation and transmission capacities.

11. In the power sector, NCRPB can facilitate private sector participation by playing a role similar to that of Power Finance Corporation (PFC) for ultra mega power projects. In consultation with the Ministry of Power as well as the respective state governments and power utilities, NCRPB can identify a few projects, both brownfield and greenfield, for further development. NCRPB can explore co-financing of projects in the state sector with existing financiers such as Rural Electrification Corporation (REC) and PFC. In addition, NCRPB can explore the possibility of facilitating entry of other government/quasi public sector players in the area of power generation for NCR such as IFFCO, KRIBHCO, NBCC, IOC, New Delhi Municipal Council, DDA and MCD (waste to energy projects). NCRPB can facilitate project development through the MoU route with these players and provide funding support for project preparation, assistance in land acquisition and limited co-financing for debt during financial closure.

12. NCRPB can also assume project development risks for smaller power projects including combined captive power projects, whereby NCRPB facilitates DPR preparation, seeks clearances, fuel linkages and finances land acquisition in a project SPV (owned by respective state government). The fully developed project can then be competitively bid to the private sector, which can assume the financing, construction and operations & maintenance risks. NCRPB can explore joint development of combined captive power projects with PTC Limited, which has raised funds internationally for investments in the power sector, including purchase of coal blocks internationally. PTC Limited can also facilitate in execution of Power Purchase Agreements for these projects. In area of transmission and distribution, NCRPB can support creation of state-wise regional distribution companies to facilitate exclusive power supply to NCR region through long term contracts with private projects, state power utilities as well as purchase of traded power.

1.2 Objective

13. The objective of this manual reflects specific requirements of NCRPB to offer guidance on public private partnerships. This manual should be seen primarily as a contribution to a shared Government of India wide culture in the field of public private partnerships. This manual has been written with a view to meeting the needs of a wide range of users, including desk officers of the NCRPB, civil servants in the National Capital Region and consultants in the preparation or evaluation of public private partnership (PPP) projects. Its primary objective is to ensure a broad PPP conceptual

framework and a common language among PPP practitioners at NCRPB and the various government departments that comprise the National Capital Region (NCR).

1.3 Use of Manual

14. This manual has been designed to:

- Assist the NCRPB and NCR government bodies in determining when public private partnerships should be considered in the delivery of services;
- Provide guidelines on how NCRPB and NCR government bodies can prepare themselves for the delivery of services using public private partnerships; and,
- Sets out recommended guidelines for each stage of the partnership building process.

15. Furthermore, Chapter X provides for instruction regarding NCRPB's institutional framework for evaluating the viability of PPPs and presenting them for potential financing. Although this manual can be used as a standalone document, we strongly encourage that the user access NCRPB's Project Appraisal (Volumes I, II, III) and Risk Mitigation Manuals.

II WHAT IS A PUBLIC PRIVATE PARTNERSHIP?

16. This section provides an overview of public private partnership, when they should be considered, potential benefits and risks, how to proceed with these types of arrangements and who should be involved.

2.1 Characteristics of a Public Private Partnership

17. Public private partnerships (PPP) are arrangements between government and private sector entities for the purpose of providing public infrastructure, community facilities and related services. Such partnerships are characterized by sharing investment risk, responsibility and reward between partners. The reasons for establishing such partnerships vary, but generally involve the financing, design, construction, operation and maintenance of public infrastructure services.

18. The underlying logic for establishing public private partnerships is that both the public and the private sector have unique characteristics that provide them with advantages in specific aspects of service or project delivery. The most successful partnership arrangements draw on the strengths of both the public and private sector to establish complementary relationships. The roles and responsibilities of the partners may vary from project to project. For example, in some projects, the private sector partner will have significant involvement in all aspects of service delivery, in others, only a minor role. While the roles and responsibilities of the private and public sector partners may differ on individual servicing initiatives, the overall role and responsibilities of public sector do not change.

19. Public private partnership is one of a number of ways of delivering public infrastructure and related services. It is not a substitute for strong and effective governance and decision making by government. In all cases, public sector remains responsible and accountable for delivering services and projects in a manner that protects and furthers the public interest. Please note that in this guide, the term “service delivery” is used primarily to describe public purpose infrastructure and related services. Partnership arrangements can also be established for services not involving public infrastructure.

2.2 Forms of Public Private Partnership

20. Public private partnerships can vary in: the degree of risk allocated between partners; the amount of expertise required on the part of each partner to negotiate contracts: and the potential implications for users. The allocation of risk between partners is a key consideration that affects other aspects of partnership agreements, including: rewards; investments, and responsibilities. Annexure 1 provides advantages and disadvantages of public private partnership, starting with those that transfer the least amount of risk to the private partner.

2.3 Misconceptions about PPP

21. Given the numerous forms of public private partnership potentially available to public sector, there may be confusion as to what constitutes a public private partnership.

The most common of these misconceptions include:

- **Public private partnerships are the same as privatization.** Only one form of public private partnership, known as Build-Own-Operate (BOO) can be described as coming close to privatization. All other forms require an ongoing partnership between the private and public sectors. One of the key reasons for considering public private partnership is the ability to introduce efficiency in service delivery at a reasonable cost and in some cases promote competition in the provision of services, either between private firms or between the private and public sectors. Full privatization merely transforms a public monopoly to a private monopoly such that the benefits of public private partnership are not realized.

- **By entering into a PPP public sector loses control over the provision of services.** By entering into a public private partnership, public sector does not give up its ability to implement its policies or regulate the provision of services. The public sector establishes the ground rules and has the ability to shape the public private partnership to reflect its own objectives, policies and regulations. It can be argued that the public sector actually has more control, in that it has well-defined contractual remedies in a public private partnership arrangement that it may not have with its own management and staff.

- **Public private partnerships apply only to infrastructure projects.** Public private partnerships can be an effective and innovative way of delivering a range of government services and facilities. While large infrastructure projects tend to capture the most public attention, public private partnerships can also be used to deliver services that do not involve capital projects. Examples include provision of data services, collection of taxes/user charges and road maintenance.

- **The principal reason for public sector entities entering into PPP is to avoid debt.** The principal reasons for public sector becoming involved in public private partnerships are to benefit from increased efficiency, shorter implementation time, greater innovation and ultimately better value in the delivery of services brought about by increased competition. The ability to finance a project so that the debt is “off book” should not be the prime motivation for entering into a public private partnership in that the public sector and the ultimate users of the service are still responsible for servicing the debt in one way or another. The emphasis should be on structuring creative and cost-effective ways of delivering services, not on creative accounting.

- **The quality of service will decline under PPP.** Quality of service does not depend on whether the service is delivered in a traditional manner or through public private partnerships. The public sector has the ability to stipulate the quality of service to be provided and ensure it can enforce provisions of the contract dealing with quality control. The nature of public private partnerships suggests that the quality of service would not only be maintained, but enhanced. It is in the private partner’s interest to invest in the service, become more efficient, and enhance the quality of service to attract more customers or provide additional services to customers.

- **The cost of service will increase to pay for the private partner’s profit.**

Governments sometimes resist public private partnerships because they believe that the cost of providing the service will increase to reflect the profits the private partner must realize to stay in business. While the private partner will need to make a profit, the profit must be earned within the existing or a lower price for the service. Presumably, the public sector would only enter into a public private partnership if the price of providing a given service was lower than cost if provided internally or if a higher level of service could be provided for the same price by the private partner. The private partner's profit can only be realized through increased productivity or expansion of service, not through higher prices

2.4 Why Should Public Private Partnerships be considered?

22. PPP offers a win-win solution for the public sector, the private sector and members of the public. PPP allows the public sector to get better value for money in the delivery of the public services. Through closer partnership with the private sector, efficiency and effectiveness gains can be reaped, particularly from the following sources:

- **Private sector innovation:** PPP allows government to tap in to the private sector's capacity to innovate. This is the greatest source of value for money gain and can be achieved by government by not specifying how a service should be delivered or how an asset has to be designed and built. Instead, government can spell out the services it need and the desired outcomes/outputs. The private sector can then introduce innovative solutions to meet government's objectives.

- **Optimal whole lifecycle costing** by outsourcing design, build, maintain and operate to the same private firm. The firm would then be in a good position to optimize the design for economy in construction, operations and maintenance. Whereas under conventional government procurement approach where design, construction, maintenance and operations are undertaken by different entities were in these advantages may not be possible.

- **Better asset utilisation** by sharing government assets/facilities with third-party users. Some government assets/facilities can be shared with other users. For example, if a local body installs a computerized tax collection center the facility will be utilized only for that purpose. Instead, if this was created under PPP mode, the private operator will provide various other facilities like collection of other department bill, which will reduce the operational cost of the center, thus leads to better utilisation of assets.

- **Optimal sharing of responsibilities** between the public and private sector. In a PPP project, government and the private sector share the responsibilities of delivering a service. The responsibilities are allocated according to each party's expertise in managing and adding value to a specific part in the service delivery process. For example, government's may not have adequate technical capacity to design and implement certain facilities using advanced technologies such as waste water treatment plants, whereas government has easy access to procure desired land for such facilities. Hence government may give the responsibility of designing and implementing the facility to private sector and can restrict its responsibility to identify the land to develop the facility.

2.5 When Should Public Private Partnerships be considered?

23. In general the PPP option will be considered only when the public entity is in dearth of funds to implement the project. However the option of PPP is not considered only for want of funds, it can also be used for

- Acquiring Technical know-how, where government can acquire advanced technology in a shorter span of time.

- Operational efficiency, where a private player can overcome the day-today operational procedures which may result in a better services to the citizen at an affordable cost.

24. The public entity should understand that the implementation of projects on PPP mode may not necessarily reduce the cost of current operation. The increase and decrease of the cost of operation is purely depending on the service requirements prescribed.

25. Public sector can consider partnerships with the private sector where any of the following circumstances exist:

- The service or project cannot be provided with the financial resources or expertise of the public sector alone.
- A private partner would increase the quality or level of service from that which the public sector can provide on its own.
- A private partner would allow the service or project to be implemented sooner than if the public sector were involved.
- There is support from the users of the service for the involvement of a private partner.
- There are no regulatory or legislative prohibitions to involving a private partner in the provision of services or a project.
- The output of the service can be measured and priced easily.
- The project or service provides an opportunity for innovation.
- There are opportunities to foster economic development.

If none of these conditions exist, public private partnerships should not be considered.

26. Adequate care should be taken while preparing a PPP project as this would lead to claim of public resources by private player which need to be carefully assessed before identifying any project.

2.6 How to Proceed with Public Private Partnerships?

27. One of the key responsibilities of urban local bodies is the provision of services to its constituents. Much of this manual is dedicated to providing advice on how urban local bodies and NCRPB can develop successful partnerships with the private sector. The process of developing successful partnerships can be complex and involve various types of expertise.

28. Although there may be some variation, the process of public private partnerships involves about five stages:

- **Stage 1 – Pre-planning, Planning and Approvals** – During this stage the public sector identifies candidate services or projects for delivery through PPP.

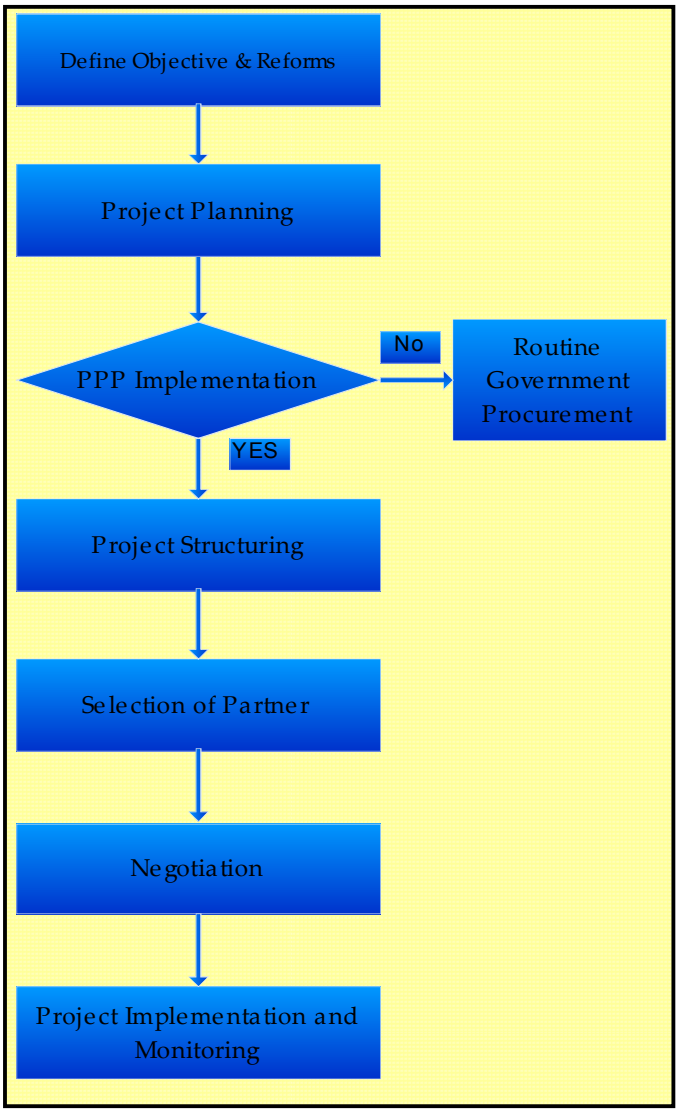
- **Stage 2 – Project Structuring –** The second stage involves preparation for successful partnership building. Activities include defining the project or service to be delivered, selecting a project management team, selecting the preferred method of choosing a private partner, obtaining the necessary approvals, defining and determining evaluation criteria, and establishing a communication or public involvement strategy.

- **Stage 3 –Selecting a Partner –** During this stage, public sector entity issue proposal calls, evaluate proposals, and select the preferred proposal and proponent.

- **Stage 4 – Negotiating and Entering Into a Contract –** Once a preferred partner is chosen, the two parties enter into negotiations, a draft and final contract are prepared, a memorandum of understanding is prepared. Negotiations are concluding when the duly authorized person from the public sector entity authorizes the contract.

- **Stage 5 – Project Implementation and Monitoring of the Contract –** On approval of the contract by both parties, implementation of the agreement begins. Public sector activities include monitoring performance and ensuring compliance of the private partner to the provisions of the contract.

Figure 1: *Stages of PPP Process*



29. Who should be involved in public private partnership policy making? Public sector may wish to involve various stakeholders in the preparation of their public private policies and procedures. Developing consensus with key stakeholders at the outset on policies and procedures will allow individual initiatives to be evaluated on their own terms.

III OPTIONS FOR PRIVATE SECTOR PARTICIPATION

30. In recent years, governments throughout the world have been turning with increasing frequency to the private sector for help in developing and delivering government services. For governments facing growing demands for service, chronic operational and institutional deficiencies, and limited financial resources, the private sector is increasingly being recognized as a valuable source of new technology, management expertise, and investment capital.

31. Most literature on PSP identifies five options for implementing projects, including:

- Service Contracts
- Management Contracts
- Leases
- Build-Operate-Transfer Contracts and Variants
- Concessions

32. While these are considered to be the main options, it is important to note that in practice, PSP arrangements are often hybrids of these models. For example, management contracts sometimes include capital investment obligations and revenue sharing provisions common to lease arrangements, and leases sometimes transfer responsibility for small-scale investment, rehabilitation, or renewal to the private sector, as a characteristic of concessions. Table 1 below provides a matrix describing what public sectors may want from a PSP option and what each PSP option delivers.

33. International experience demonstrates that, if properly designed, private sector participation (PSP) arrangements can bring dramatic improvements in the quality, availability, and cost effectiveness of local infrastructure services. Table 2 presents the various PSP options with considerations for public sector when selecting an option.

Table 1: What do Governments Want and Which PSP Options Delivers?[2]

Type	Technical Expertise	Managerial Expertise	Operating Efficiency	Investment Efficiency	Responsive To Customers	Insulation From Political Intervention
Service Contract	Y	N	N	N	N	N
Management Contract	Y	Y	Y	N	P	P
Lease	Y	Y	Y	N	Y	Y
Concession / BOT	Y	Y	Y	Y	Y	Y
Private ownership/ Divesture	Y	Y	Y	Y	Y	Y

Key: Y indicates that the objective can be satisfied; N indicates that the objective cannot be satisfied; P indicates that the objective can be partially satisfied.

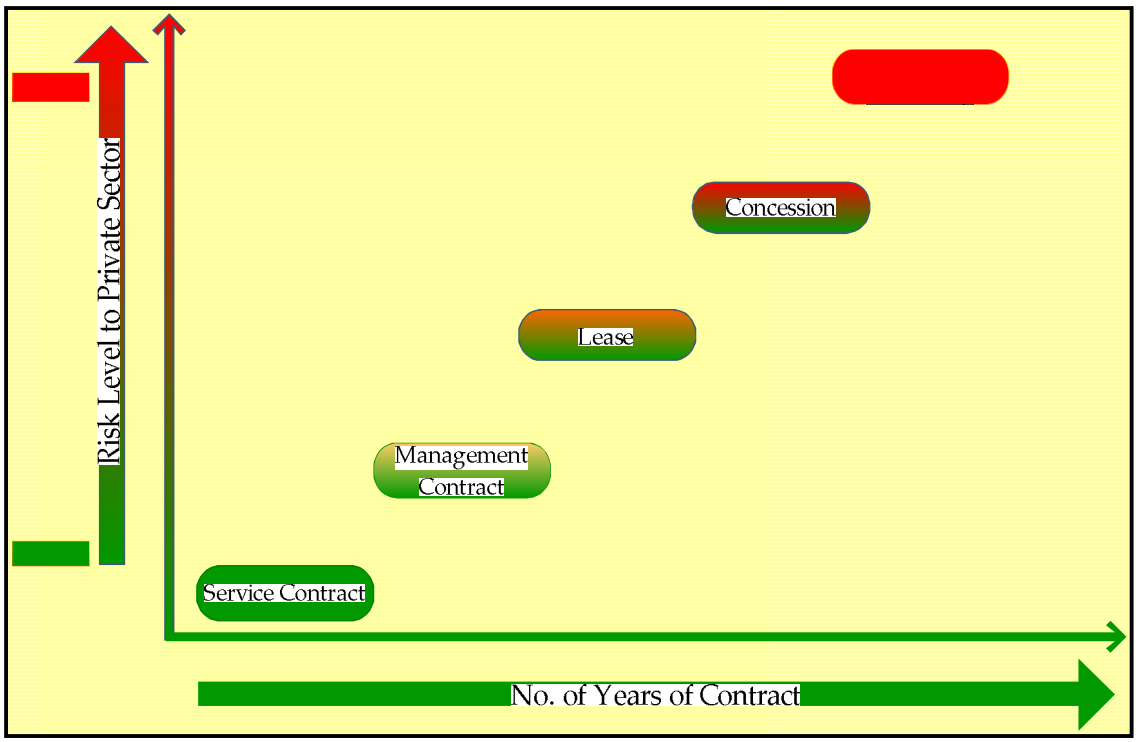
[2] Source : Severn Trent Water International

Table 2: PSP Options – Allocation of Key Responsibilities

Type	Asset Ownership	Operations & Maintenance	Capital Investment	Commercial Risk	Duration
Service Contract	Public	Public + Private	Public	Public	1-2 Years
Management Contract	Public	Private	Public	Public	3-5 Years
Lease	Public	Private	Public	Shared	5-15 Years
Concession	Public/ Private	Private	Public	Private	15-30 Years
Private ownership/ Divesture	Private or public and private	Private	Private	Private	Indefinite or limited by license

34. The different degrees of private sector involvement are shown in the figure 2.

Fig-2: *Options of PPP with risk level and length of contract period*



35. As we move upward and to the right, the private involvement increases. The following sections present a brief review of the models for PSP,

3.1 Service Contracts

36. Service contracts are legally binding arrangements between a properly empowered government authority and a private sector contractor to perform specific, usually, non-core tasks, such as meter reading and installation, operations and maintenance functions, information technology service design and delivery, billing and tariff collection, equipment maintenance, or security services, in exchange for a fee. These contracts are typically competitively bid, and are for short period of six months to two years, after which they are re-bid. The responsibility for general control and supervision of the utility, as well as any capital investment in the system, remains with the public authority. For example, street light maintenance in urban local bodies are generally given to private operator on service contract. The private operator will operate and maintain the streetlights. The operator is not responsible or efficiency improvement. The operator may not even try to improve the efficiency as the payment is fixed and may not have any incentive to do so.

37. While service contracts require only a limited degree of PSP, they nonetheless provide opportunities for the introduction of competition and private sector expertise and free the public sector, to focus on its core business. Because the contract period is short, contractors are subjected to frequent competition, which encourages efficient performance and reduces the cost of the contracts. In large urban areas, different firms can be contracted in separate geographical areas to deliver the same services. Multiple contracts ensure adequate competition and enable the prevailing authority to compare cost and performance on an ongoing basis.

38. Service contracting can be an attractive form of PSP where there is strong political or community opposition to wider involvement of the private sector, opposition to tariff increases, or where the utility is seeking to shed responsibility for non-core functions. Service contracts can also be used in combination with other forms of PSP.

39. Despite the potential long-term benefits to the population as a whole, the introduction of service contracting sometimes has a short-term negative impact on those employees working in the operations being contracted out who may be made redundant. Governments have addressed this dilemma by redeploying the work force to the place in need.

3.2 Management Contracts

40. Management contracts transfer responsibility for the operation and maintenance of government owned utilities to the private sector. Under such contracts, ownership of a utility and responsibility for service provision remains with the government. Likewise, the bulk of commercial risk and all the capital and investment risks remain with the public authority. Management control and authority, however, is transferred to a private operator, which applies its expertise to improve management systems and practices. Management contracts are generally three-to-five years in duration. Compensation may be in the form of a fixed fee, as in the case of a fixed fee management contract, or it may be linked to performance indicators, as in the case of a performance-based management contract.

3.2.1 Fixed Fee Management Contract

41. Under a standard “Fixed Fee Management Contract”, remuneration to the private

sector contractor is based solely on the payment of a fixed fee in exchange for the provision of specialized personnel who oversee the management of the system.

3.2.2 Performance Based Management Contracts

42. More sophisticated "Performance-Based Management Contracts" provide for the introduction of greater incentives for efficiency by defining performance targets or contract milestones and basing remuneration, at least in part, on their fulfillment. One variant of this model provides for a profit sharing incentive, in which the operator's remuneration is a combination of a fixed fee plus a share in the profits of the utility. Both the performance-based management contract and the profit sharing variant are effective tools for ensuring that the management contractor shares operating and commercial risks. However, under both models, the public authority still bears the financial risk associated with its responsibility for capital investment.

43. Performance-based management contracting provides the management contractor with incentives to improve operating efficiency and achieve timely compliance with the performance milestones in its contract. An advantage to these contractual models is the ability to create incentives for the contractor to tackle issues (such as staff development) that are not revenue generating in the short-term, but that may establish a foundation for more efficient and sustainable performance over the long-term.

44. Management contracts are most beneficial where the main objective is to rapidly enhance a utility's technical capacity and its efficiency in performing specific tasks, or to prepare for a deeper level of PSP. For example, provision of 24X7 water supply, and responding to customer complaints within a minimum time. They are also attractive when there are strong political or public resistance to tariff increases, where there is concern about handing over control of investments to the private sector, or where there is too little information and data on which to base a longer-term arrangement such as a lease or concession. Management contracts provide little potential for expanded service coverage because they do not require the private operator to make any capital investments. As a result, they are not recommended if a government has as one of its main objectives accessing private finance for new investments.

3.3 Lease Arrangements

45. Under a lease, a private firm (Lessee) leases the assets of a utility from a properly empowered government authority (Lessor) and assumes the responsibility for operations, maintenance, and asset renewal for a period usually between ten and fifteen years. Typically under a lease, the tariff is used to pay the "Lessee Fee", which remunerates the Lessee for his costs, plus a reasonable return. The remainder of the tariff goes to the government and is used to fund capital investment in system expansion, rehabilitation, and other improvements. As the Lessee's Fee is dependent upon tariff revenues, the lessee assumes much of the commercial risk of the operation.

46. The private operator's remuneration is directly linked to the charges it collects from customers under a well-structured lease. From these charges, the Lessee pays the public utility a rental fee intended to cover the public utility's capital costs for system expansion and rehabilitation. The Lessee's profitability will therefore depend to a large extent upon how much it can reduce costs, while still meeting the quality standards set

forth in the lease. Best practice leases have built-in incentives that encourage the private operators to implement efficient billing and collection procedures to improve the collection ratio from customers (including government agencies).

47. The Lessee also has an incentive to implement aggressive policies aimed at expanding service coverage to increase the revenue base, to reduce operating costs in order to maximize profits, and to carry out regular preventive maintenance to increase the reliability and longevity of plant and equipment. Under a lease, the public utility retains title to the assets and bears the responsibility for financing and planning capital investments and rehabilitation. It is therefore, incumbent upon the government, to obtain financing and coordinate its capital investment program closely with the private contractor's operational and commercial program.

48. Leases are most appropriate where there is scope for large gains in operating efficiency but only limited need or scope for new investments. Leases have also been advocated as stepping-stones toward a deeper level of PSP through concessions. However, their administrative complexity and the demands they place on public sector are nearly as great as those of concessions. As a result, a lease is a much bigger step than a management contract. Due to their complexity, leases generally require that an independent regulatory body be established to monitor and enforce the private operator's fulfillment of obligations.

3.4 Concessions

49. Under a concession, the private contractor, or Concessionaire bears overall responsibility for the services, including operation, maintenance, and management, as well as capital investments for rehabilitation, renewal and the expansion of services. The fixed assets either remain the property of the public authority or revert to public ownership at the end of the concession period. Concession contracts usually have duration of fifteen-to-thirty years, depending on the level of investments and the period required for the Concessionaire to recover its investments plus a reasonable rate of return.

50. Concessions are typically awarded based on price, with the contract going to the bidder proposing to operate the utility and meet the investment targets for the lowest tariff. The concession is governed by a contract which sets out such conditions as the main performance targets for coverage and quality, performance standards, arrangements for capital investments, mechanisms for adjusting tariffs, and arrangements for dispute resolution. Penalties are imposed if the Concessionaire fails to comply with the performance targets specified in the contract.

51. The Concessionaire is paid for its services directly by the consumer, based on the contractually set tariff, which is adjustable over the life of the contract. The Concessionaire retains the balance of revenues after paying back any taxes and charges levied on consumers by the public authority. If expenses exceed revenues, the Concessionaire must absorb these losses. Combining the responsibility for operations and investments under a concession agreement provides the Concessionaire with an incentive to make efficient decisions regarding investment and technological innovations, because the operator will benefit directly from any efficiency improvements.

52. The primary advantage of a concession is that it passes full responsibility for operations, maintenance, rehabilitation, renewal, and system expansion to the private sector and so creates incentives for efficiency in all the utility's activities. Therefore, concessions are an attractive option where large investments are required to expand coverage or to improve the quality of services. However, concessions are administratively complex undertakings for governments because they confer a long-term monopoly on the concessionaire and thus require rigorous monitoring and enforcement. The quality of regulation is important in determining the success of the concession, particularly the distribution of its benefits between the concessionaire (in profits) and consumers (in lower prices and improved service).

53. There are different forms of concessions were all forms are variants of each other. Some of the models are as follows:

- BOT – The operator will invest operate for a specified period and transfer the asset to the public sector. In this case the asset will be owned by the public entity
- BOOT – This a variant of BOT where the asset would be partially or fully owned by the private operator and transfer at the end of the concession
- DBOT – This is also a variant of BOT where the design of system is also the responsibility of the operator.

54. In most of the PPP projects the term BOT and BOOT are used synonyms to each other.

3.4.1 Build-Operate-Transfer (BOT) Contracts and Variants

55. Certain types of so-called public-private partnerships (PPPs) – contractual arrangements between a public sector and a private sector contractor for the provision of government services can be viewed as sources of public sector finance. PPPs entail an obligation on the part of the contractor to provide capital to a PPP project. Examples of such PPPs are Build-Operate-Transfer (BOT), Buy-Build-Operate (BBO), Design-Build-Operate (DBO), and Develop-Build-Operate (DBO) arrangements.[3]

56. Build-Operate-Transfer (BOT) and similar arrangements are contracts specifically designed, for example, for green field development of water supply or wastewater projects, or investments in infrastructure that require extensive rehabilitation. Under such arrangements, the private sector typically designs, constructs and operates facilities for a limited period of 15 to 30 years, after which time the contractor relinquishes all rights or title to the assets to the public utility.

57. Under these arrangements, the private contractor furnishes capital to construct or improve a facility for providing public services, such as a treatment plant, which it finances through the issuance of debt on its own credit. Revenues from the provision of the services, such as tariffs paid by consumers, and/or payments by the public sector under its contract with the private contractor, support the contractor's debt service payments and other project operating costs. For example, many public sector entities in

[3] *See* The National Council for Public-Private Partnerships, *For the Good of the People: Using Public-Private Partnerships to Meet America's Essential Needs* (undated), p. 8 (www.ncppp.org/presskit/ ncpppwhitepaper)

sometimes utilize these arrangements in order to avoid borrowing limits that would prevent them from raising the required capital on their own credit, and/or to take advantage of the ability of a contractor that is more creditworthy than some of the public sector and local bodies to obtain financing on more favorable terms better than the public sector could obtain for its own debt.

3.4.2 Build-Operate-Transfer for Bulk Water

58. In a BOT for bulk water, the government or the distribution utility will typically pay the BOT partner for water from the project at a price calculated over the life of the contract to cover the construction and operating costs and provide a reasonable return. The contract between the private partner and the utility is usually on a "take-or-pay" basis, obligating the utility to pay for a specified quantity of water, whether or not that quantity is consumed. This places all demand risk on the distribution utility. Alternatively, the distribution utility might pay a capacity charge and a consumption charge, an arrangement that shares the demand risk between the utility and private partner. Similar arrangements, called "off take" agreements are used for wastewater treatment BOTs. In this case, the government is obligated to pay the private partner to treat a pre-defined minimum volume of wastewater, whether or not that quantity is actually delivered for treatment.

59. While the BOT model can be an attractive way of generating the financing needed to construct a new wastewater treatment facility, it is only viable if government is prepared to charge consumers a tariff that will fully remunerate the BOT operator for its full cost of operation, maintenance, and depreciation. If the tariff does not cover the cost, then the government has to provide subsidy to make the project financially viable. Effective implementation of BOT type contracts requires careful attention to the design of tender documents and can involve a relatively length bidding process. Experience with some BOTs shows that they achieve some savings in capital construction costs and facilitated more rapid investment in infrastructure.

3.5 Private Ownership

60. In this case the assets of the public services will be owned by the private entity. The assets may be newly created or transfer of equity of an existing public enterprises to a private operator.

61. Similar to concessions there are different forms of private participation, some of them are:

- **Build Own Operate** – The operator will create the asset and own the entire infrastructure and provide the public services. The operator will have pre-agreed terms with the public entity to provide the services, whereas the assets will never be transferred to the public sector. For example, the independent power producers will enter into agreement with the power utility and construct a power plant and will provide power to the utility or transmission network. In this case the ownership of the power plant will not be transferred to the public sector.

- **Divestiture with license/open market with license** – In this case the private operator will create the asset and own the entire infrastructure and provide the

public services. In this case there may not be any agreement with the Government for purchase of the services. The price of the services will mostly be demand and market driven, hence may not be suitable for providing basic services. However, Government will control the market by providing license to provide the service for a fixed tenure. For example, Telecom Regulatory Authority of India (TRAI) will give license for use of spectrum to the private operator. The private telecom companies have created the assets and provide services. The price of the services is purely depends on market.

3.6 Enhancements for Hybrid Financing Arrangements[4]

62. As leases, management contracts, and other private-public partnership (PPP) arrangements become more relevant, there is a need to look at new ways to deliver enhancements or guarantees that will better facilitate transactions. A primary difference between these schemes and pure concessions is that the private operator normally does not assume a role in financing and, as a result, does not directly bear the related risks.

63. Baietti and Raymond (2005) point out that with lesser direct financial commitment on the part of the private investor, or operator, the public side needs added assurances that the private sector will commit to fulfilling its own part of the agreement for the duration of the contract. For example, under a design-build-lease (DBL) agreement, the bulk of the profits can accrue during the early part of construction, which may create a disincentive to continue to manage the operation for the remaining contract period. To remedy this situation, strengthening bonding insurance, escrow and other security arrangements would help to assure continued private sector interest throughout the life of the project.

64. For private operators, there may be a need for partial risk and breach of contract guarantees, even though there may be little or no risk capital at stake and only the operating cash flows and contractual payments for operator performance would be affected.[5] As output-based aid (OBA) mechanisms become more prevalent in extended coverage to poorer communities, guarantees may serve to ensure a government's capacity to fund operational or connection subsidies over an extended period of time.

3.7 Joint Ventures (Mixed Capital Partnerships)

65. A joint venture (JV) usually requires a separate corporate entity to be formed by the public and private interests. Alternatively, a joint venture can result from the partial sale of an infrastructure ownership entity to the private sector. In either case, it is essential that the JV entity be independent from the urban local bodies, as regulatory authorities are liable to be placed in conflicting positions of acting as both the regulator and delivery agent.

66. Joint ventures are generally used in combination with other arrangements. For example, public sector may award a newly established JV with a service, BOT or

[4] See Baietti and Raymond (2005) "Financing Water Supply and Sanitation Investments: Utilizing Risk Mitigation Instruments to Bridge the Financing Gap"
[5] See Baietti and Raymond (2005) "Financing Water Supply and Sanitation Investments: Utilizing Risk Mitigation Instruments to Bridge the Financing Gap"

concession contract for the provision of urban services. Public and private interests usually share the operating profits and work together to ensure the wider political acceptability of the joint venture. The private sector often has the primary responsibility for performing daily management operations.

67. Apart from sharing of profits and commercial risks, the JV is distinguished from less intense forms of private involvement in infrastructure in its formative stages. Private sector operators must contribute to feasibility studies prior to formalization of contractual arrangements and must be prepared to invest in the joint venture entity. As a result, joint ventures are more process oriented and infer a much earlier involvement of the private sector.

3.8 Potential Difficulties

68. The major difficulties faced by public sector in involving the private sector in infrastructure provision arise in two areas: 1) definition of contracts; and, 2) lack of private sector competition. Table 3 and table 4 below provides some detail as to what public sectors have to offer in terms of information or stakeholder support in order to obtain various private sector involvements. Contract problems usually arise when attempting to accurately define the service(s) to be provided or preparing a performance based specification. Competitive constraints applies to small and medium scale infrastructure opportunities, where the transaction costs often diminish the desire of the private sector to become involved.

Table 3: How much do Governments Have to Offer to Get What They Want?[6]

Type	Stakeholder Support and Political Commitment	Cost Recovery Tariffs	Good Information About the System	Developed Regulatory Framework	Good Country Financial Rating
Service Contract	Unimportant	Not Necessary in the Short Term	Possible to Proceed with Only Limited Information	Minimal Monitoring Capacity Needed	Not Necessary
Management Contract	Low to Moderate Levels Needed	Preferred but Not Necessary in the Short Term	Sufficient Information Required to Set Incentives	Moderate Monitoring Capacity Needed	Not Necessary
Lease	Moderate to High Levels Needed	Necessary	Good Information System Required	Strong Regulatory Capacity Needed	Not Necessary
Concession	High Levels Needed	Necessary	Good Information System Required	Strong Regulatory Capacity Needed	Higher Rating will Reduce Costs

[6] Source: Severn Trent Water International

Table 4: Characteristics of Private Sector Involvement in Infrastructure Delivery

Characteristic	Service / Management Contracts	Lease Contracts	Concession	Joint Ventures	Private Ownership
Infrastructure Ownership	Public	Public	Public/ private	Joint	Private
Contract Duration	1 to 10 Years	Up to 15 Years	15 to 30 Years	Permanent	Permanent
Basis for Private Sector Compensation (All are Performance Based)	Agreed Contract Fee	Unit Cost Plus Margin (linked to estimated demand at contract inception)	Public sector guarantees to purchase a minimum level of output (based on unit cost of delivery)	Market Driven (with Regulation)	Market Drive (with regulation)
Revenue Collection (inc. invoicing and collection)	Public	Public (some private)	Public/ Private	Joint	Private
Capital Investment Responsibility (inc. initial, upgrade & Service Expansion)	Public	Private sector funds capital maintenance expenditure. (some public)	Private	Public and Private	Private
Recurrent Expenditure Responsibility	Private	Private	Private	Public and Private	Private
Commercial Risks					
Construction	Public	Private/ Public	Private	Private	Private
Operation (Cost)	Public	Private	Private	Public and Private	Private
Market (Revenue)	Public	Private	Shared Private	Public and Private	Private
Non-Commercial Risks	Public	Public	Public	Joint	Private
Sectors Where Most Appropriate	Low Willingness to Pay	Where Limited Capacity Expansion Required	Where New Facilities are Required (e.g., toll roads)/ Networked based infrastructure (e.g. water)	Where private capital is required immediately.	Where competitive structures can be unbundled.

IV LEGISLATIVE FRAMEWORK FOR PUBLIC PRIVATE PARTNERSHIPS

69. There is no specific legal framework for Public Private Partnership in the country or in the states in National Capital Region. However the existing law does not stop the public sector in procuring services on Public Private Partnership mode. There are department/sector specific legal provisions such as Municipal and Corporation Acts (74th constitutional amendment), energy policy, telecom policy, etc., and there are certain sector specific rules and guidelines which are applicable for the projects which are implemented either on regular mode or on PPP. Some of the rules and guidelines are MSW 2000 rules for solid waste management; CPHEEO standards for water and waste water sector, development regulation specific to the area, etc are available. In addition some states have prescribed guidelines for PPP to engage the consultants and for bidding process.

70. Though there is no specific PPP legal frame work, there are general contract act which can be applicable for PPP contracts. This has to be taken care of while preparing contract agreement. General conditions which need to be addressed while preparing contract documents include:

i) **Legal rights on the property** – Legal rights of the private sector has to be mentioned clearly while transfer of rights of public assets

ii) **Service standards** – Minimum required service standards have to be clearly spelt out along with the penalty and other measures if not achieved.

iii) **Roles and responsibilities** – The responsibilities of private sector and public sector have to be identified and should be indicated in the contract document.

iv) **Expansion plan and successive plan** – Project specific policy based on necessity to be framed by providing adequate rights for successful development and implementation of the project

v) **Certainty and Continuity** - Provision of adequate rights for governing the projects leads to greater certainty for private sector participation. The contract should be drafted both in order to provide certainty as well as flexibility to accommodate changes that may be necessary for regulation of the sector/project.

vi) **Dispute resolution mechanism** – Proper provisioning of clauses which gives more emphasis on dispute resolution mechanism. The procedure and the time frame needs to be mentioned in detail so as to avoid delays in the implementation of the project

vii) **Consumer Issues** – The Government authority should specify the right of the private sector to collect the user charges for some projects after taking into consideration the ability and the willingness of the consumer. Also the mechanism of increasing the user charges have to mentioned in the document

viii) **Risk allocation** – All possible risks have to be identified and risk sharing mechanism need to be spelt out in detail.

ix) **Force Majeure**

x) **Exit option** – upon completion of the contract period, a mechanism of handing over and taking over of assets have to include in the contract document

71. The above given conditions are generic and the contract conditions are not restricted to the above. The project specific conditions have to be decided while preparing the RFP and the contract document.

V PREPARING FOR SERVICE DELIVERY THROUGH PPP

72. Local communities and NCRPB will need to prepare for the unique requirements of public private partnerships. This does not mean increasing the size or the complexity of the organization or changing the manner in which public sector organization presently make decisions on service delivery. Rather, it means making the necessary adjustments to existing processes and arrangements for effective public private partnerships.

5.1 What Should Public Sector Address Before Initiating PPP?

73. There are four primary areas that public sector should address before becoming involved in PPPs. These include:

i) Identifying who in the organization is responsible for public private partnerships and who has ultimate decision making authority;
ii) Developing or accessing the expertise necessary to evaluate, negotiate and implement public private partnerships;
iii) Establishing policies to guide decisions on public private partnerships; and,
iv) Establishing procedures that enable effective evaluation and delivery of services through public private partnerships.

5.2 Determining When to Partner

74. The potential for service delivery through public private partnerships will reflect government policy and expectations. As a result, public sector need to carefully consider the relevance of public private partnerships to the delivery of services in their communities, in particular, to:

- Services currently being provided;
- Future services the public sector is contemplating; and,
- Unsolicited proposals advanced by the private sector.

5.2.1 Current Services and Public Private Partnerships

75. Urban local bodies may encounter resistance when considering public private partnerships to change the manner existing services are delivered. A key issue that public sector must address before considering public private partnerships is the true cost of providing existing services. Many local bodies may lack benchmarking tools, such as accurate accounting for unit costs and other costs associate with providing a service.

5.2.2 Future Services and Public Private Partnerships

76. Public sector may also consider PPPs for the delivery of future services, for example:

- New types of services not presently provided in the community; and,
- Modification of existing services to provide a higher level of servicing (e.g. water treatment).

77. Future servicing will generally be identified in long range regional plans, long-range financial plans, servicing studies or strategies related to specific types of services.

5.2.3 Unsolicited Proposals

78. Private sector proponents may submit unsolicited proposals when they believe they can provide services to the benefit of the public, the local community and themselves. Unsolicited proposals should always be scrutinized with greater caution.

5.3 Criteria in Determining PPP Opportunities

79. In order to mainstream Public Private Partnerships, NCRPB can identify a long list of projects for implementation, which then further be short listed based on priorities laid in the plan such as functional plan, Municipal Development Plan as well as the priorities of the state government.

80. For all short listed projects, initial screening has to be done to decide on whether to implement the project in PPP mode.

81. Some of the broad parameters to be looked at during the screening process are as follows:

i) Willingness of the public sector to implement the project with private sector participation

ii) Assessment of preliminary financial & economic viability of the project. Based on the broad cost of the project and the returns expected, a project cash flow has to be prepared and assess return on investments. In general, the private sector expects an equity return of 15% - 20% per annum. After assessing the financial viability of the project, the financials of the respective public sector organization has to be analysed to assess the financial capacity to support the project in case the project is not viable or generates lesser revenue. The analysis of general finance of the organization is useful when the proposed project is non remunerative.

iii) If a project is not financially viable even with the support from the respective public sector entity, but stands the test of economic viability, the possibilities of viability gap assistance from State Government/Central Government Department could be explored.

These parameters may be ascertained during the project screening phase.

82. **Scenario1:** If the public entity is willing to take up the project on PPP mode and project is financially viable and provides adequate return on investment, then further project development can be initiated.

83. **Scenario2:** If the project is not financially viable, but has viability gap assistance to the desired level, then further project development can be initiated. This viability gap assistance may be for initial capital investments or for periodic operation and maintenance expenditures.

84. **Scenario3:** The public entity has to assess whether there are constraints that can be addressed easily by private sector during project implementation and operation & maintenance of the asset. In such scenario, the project development may be initiated and the project may be structured in a PPP framework for efficient and sustainable O&M arrangement.

The constraint can be in the nature of:

- Limited availability of manpower resources with the technical knowledge to implement the project
- Inadequate availability of skilled work force to operate and maintain the project efficiently

85. Once a decision has been taken to implement the project through PPP, further development can be carried out either by engaging the external consultants or by a team with various disciplines in the public entity.

86. While considering the project for further development, following aspects have to be assessed before structuring the project:

i) **Demand for the project** – a detailed demand assessment has to be carried out to understand

   a. Need for the project based on the standards,
   b. The felt need of the project in the project area, and,
   c. Willingness of various stakeholders to implement the project on PPP mode,

   A stakeholder's consultation can be conducted in order to get all the views before structuring the project. The stake holders may be residents, commercial entities, employees of the contracting authority, experts in the sector, political representatives, etc may be invited for the stakeholder consultation meeting.

ii) **Detailed financial analysis** – in which the financial viability of the project, the financial strength of the contracting authority and the amount and sources of viability gap has to be assessed. If project envisages user charges to be collected from general public, then willingness and the ability to pay has to be conducted. This includes a detailed social economic assessment in the project area.

iii) **Public sector Capacity** – If the project is proposed to implement on PPP mode the public sector is changing its role as a service provider to contract manager. Though it is the responsibility of public sector to provide services, by implementing the project on PPP mode the public entity has to manage the contract effectively in order to run the project in a better and efficient manner. If the contract management capacity is not sufficient within the public sector entity, an alternate measure such as getting officials on deputation from other department or by engaging the supervision consultants, till such time the public entity acquires the desired capacity.

iv) **Private sector capacity** – It is not necessary that always private sector has the capacity to implement certain projects. Hence capacity of the industry has to be assessed before taking forward for implementation on PPP mode. In some cases after all the project development if the private sector does not have capacity there may not be any bid or if there is only limited players in the industry then there is a chance of high bid premium. Hence the capacity of the industry has to be assessed and the project has to be structured accordingly.

v) **Macro Economic factors** – Some of the macro-economic conditions that will influence the project are a stable fiscal policy, financial market for raising long term fund, inflation rates, exchange rates, political stability, etc. Impact of each of the factors on the project has to be assessed and if there is any negative impacts then mitigation measure have to be suggested.

87. In addition to the above the stability and support of local, regional and national political situation has to be assessed as there are risks where the project might be stopped/taken over when political regime changes. These aspects have to be considered while preparing the contract document for the PPP Project.

VI IMPLEMENTING PUBLIC PRIVATE PARTNERSHIPS

88. Based on the parameters suggested in the section 5.3 of this manual, a feasibility study have to be conducted and if the project is feasible then this can be taken forward for implementation on PPP mode.

6.1 Establishing a Project Team

89. PPP, being a long-term service-purchase contract, can be more complex than most government procurement projects. Public agencies and potential private sector providers need to address several issues, such as understanding output/outcome specification, preparing whole lifecycle costing, structuring a viable and realistic payment mechanism, ensuring fair termination rights, etc.

90. For the success of the PPP project, it is important to have a strong project management team within the public sector agency to oversee the implementation of the project. This team should have competencies in the financial, legal and technical aspects of contracting through PPP. Similarly, private sector bidders should demonstrate that they have a strong management team that is capable of delivering on the contract.

This chapter describes:

i) The responsibilities of the public sector project management teams;

ii) A possible project management structure for the public sector team;

iii) The competencies that the project team should have. Such competencies can be developed in-house (or might already be available in-house) and/or supplemented by private sector PPP advisors who have experience in managing PPP projects; and,

iv) Key factors in effective project management.

6.1.1 Responsibilities of the Public Sector Management Team

91. Generally, the public sector project team is responsible for:

- Evaluating whether it is feasible to structure a PPP model for the project;
- Structuring the PPP project that delivers best value for money to Government while providing sufficient business opportunities for the private sector. This includes carrying out a detailed study to recommend a feasible PPP scheme, including the financial arrangements, pre-qualifying criteria of the PPP provider and preparation of the PPP tender documents;
- Evaluating the tender proposals to select the best provider for the PPP contract
- Preparing the final PPP contract document after the preferred bidder has been selected; and,

- Monitoring the progress and performance of the private provider's work.

92. The public sector PPP project team should be consist of public officers who understand the policy objectives and service requirements for the project. If the public officers involved in the PPP project are not familiar with the financial, legal or technical aspects of the project, private sector PPP advisors can be engaged to provide the necessary expertise to design a viable PPP deal.

93. NCRPB/the respective Government bodies may hire the transaction advisors who are empanelled with Government of India or employ the experts directly from the market.

6.1.2 Structure of Public Sector Management Team

94. Generally, the project management structure in a public sector will involve:

- A high level committee for decision making – which will consist of key decision makers, such as Head of the Departments, Head of the respective state finance department, Head of the respective public entity and their senior management, Head of financial institutions if any, etc.,

- A project manager and the project team, which will include in-house staff and/or specialist external advisors on financial, legal and technical aspects;

- Project Sub-group, which will look into operational issues such as planning, public consultations, etc. The sub group may be created based on the requirements. For example sub group may created one each for specific aspects such as financial, legal and technical

95. In addition to understanding policy objectives and service requirements of the project, the project manager should also ensure that

- The project is affordable to the public sector agency;
- The PPP project is able to deliver better value for money; and,
- There is sufficient interest among the private sector in the project for competition to take place.

6.1.3 Competencies Required in the Project Teams

96. The project teams should have competencies to structure and evaluate the (i) financial, (ii) legal, and (iii) technical aspects of the PPP deal.

i. Financial Expertise

97. Generally, financial experts in the PPP project teams should have a good understanding of project financing, including an understanding of the different financial markets and financial instruments that can provide financing for the PPP project.

98. Financial competencies in the team will help public agencies identify the likely financiers of the PPP project and their risk attitudes, so as to structure the PPP contract (e.g. including enter upon permission for site, termination clauses and payment mechanisms) that are acceptable to the private financiers. Without a good understanding of the financing aspects of the project, the public sector might end up structuring a PPP contract where the PPP providers can only secure financing at expensive borrowing rates, thereby leading to higher contract cost to the public agency.

In general, financial experts on the project teams should be able to:

- Build up a robust business case for the PPP project.
- Identify the responsibilities and risks borne by the public sector and the private sector and the financial implications of such responsibilities.
- Structure payment mechanisms that offer the optimum balance of responsibilities, risks and rewards for the public agency and PPP provider;
- Prepare/Review tender proposals. The private sector will have to prepare and submit tender proposals detailing the business model and the financial costs to the public agency. The public agency's team will assess the accuracy of the financial models and the implications on the cost for the public agency.
- Identify the financial implications of the contract clauses in the PPP contract, e.g. implications of step-in rights and termination clauses.

ii. Legal Expertise

99. Legal experts play an important role in preparing the PPP contract. The legal experts should be able to identify the implications of contract terms, especially potential problem areas such as payment mechanisms, termination clauses and step-in rights. Specifically, Legal experts in the PPP project team should be able to:

- Structure and draft the tender documents, PPP contract agreements;
- Advise on the appropriate procurement methods; and,
- Provide general legal advice on taxation, property, planning and other laws applicable in the country.

100. If legal expertise is not available in-house, public sector can consider engaging external legal advisors or any other government legal cell who will understand the complexities of PPP contract and advice for the project.

iii. Technical Expertise

101. Technical expertise includes knowledge of technical requirements for the services purchased by Government. Some technical specialists that might be required include surveyors, engineers, architects, contractors, project managers and other such technical professions. If such technical expertise is not available in-house, public agencies can consider engaging external technical advisors to assist in developing technical specifications.

The technical experts in the team can assist in:

- Defining output/outcome specifications and service standards for the services to be provided under the PPP tender and contract;
- Technical evaluation of proposals and bids, including capability of the private bidders;
- Quality assurance during the construction phase, including ensuring contractor compliance and assessing technical risks;
- Valuing assets that may be sold or transferred to the PPP provider; and,
- Developing appropriate baseline indicators, performance indicators and monitoring systems to measure the performance of private sector providers.

102. Technical experts in public sector should avoid giving input specifications, such as how to build facilities and how to design work processes. The focus of public agency should be on determining output specifications, instead of input technical requirements. It is essential to give as much autonomy as possible to private sector in these aspects to meet the output specifications given by the public sector. While giving the autonomy the public sector can put certain constraints like design themes.

6.2 Refining the Scope of the Project

103. A clear definition of scope of the project at the initial stage will help in the implementation phase. The scope should include

- Service area of the project;
- Level of service;
- Component of services delivery;
- Size of the project; and,
- Time line of the project – the time line should include the expected duration for procurement, construction and supply of services and duration for the availability of the services

104. In addition to defining the scope of the project, it is essential to define the objectives of partnership with private sector. The objectives have to be defined by analyzing the constraints within the public body and also with the stakeholder's consultation. The stakeholders may be the government department, employees of the public sector, users of the services, political parties involved in the project area, financial institutions involved if any, non-governmental organizations/Community based organizations, business communities in the project area and the potential bidders. The potential bidders can be considered as stakeholders, as discussion with the potential bidders will help in analyzing the capacity of private sector in absorbing the project; accordingly the size and scope of the project may be structured.

105. In general the Public Private Partnership is considered only as an alternate source of investment. However the PPP mode can also be used for improving the operating efficiencies, addressing the technology options, addressing the manpower

shortage/skill shortage.

106. The scope of the public-private partnership may be considered in terms of geographical area and service requirements.

6.2.1 Geographical area

107. In terms of geographical area, the scope should be defined with regards to both the nature of the project (for example, if the service to be provided is water supply, waste management and so on) and the area to which the project to be served.

108. Projects often deliver improved value for money if the size of the project is considerable, which increases the possibilities for innovation and economies of scale. For example in solid waste management sector rather than creating a small size scientific disposal facility for each local body, if a regional disposal facility is created then the volume of the garbage generated will help the private sector to identify different technologies and strategies to dispose the waste. In addition to the disposal facility the same private firm may also be used for primary and secondary collection of the waste which may increase the scope in vertical domain.

109. However, if an individual project is sufficiently large and/or complex to the degree that there exist a number of sub-options to the PPP. These options may relate to the separation of a business by functional domain or by geographical area. For example, if the government is considering the use of a PPP to provide integrated waste management services in a particular region, it could use area-based contracts, or separate PPP contracts for waste collection and waste treatment/disposal.

6.2.2 Service requirements

110. The government needs to assess current levels of service; these are expressed typically as ratios of facility capacity to demand. For this, the government will need to gather information on such matters as:

- Characteristics of the service (quantities supplied, metered and paid for);
- Performance standards (quality, pressure, supply security, interruptions, frequency of collection of solid waste, etc); and
- Problems with service delivery by the public sector.

111. It is important for the public sector to prioritise flexibility with respect to tradeoffs between tariffs and levels of service. A high quality service may cost more which may not be required for communities where the affordability is less. However the minimum service quality may also have high cost which may not be affordable in some cases, for which a mechanism of subsidy have to be worked out.

6.3 Allocation of Responsibilities and Risks

112. After finalizing the scope of the project and objective of private partnership, the project team has to identify various responsibilities to be allocated between public sector and private sector along with the associated risks. Based on the options of PPP [as discussed in Chapter 3 of this tool kit] identified for this project, the responsibilities and

risks of the public and private sector can determined. Some of the broad components of any projects are Design, Implementation, Investment and Operations and Maintenance and the associated risks may be financial, political, risk in demand, operational, macro-economic, natural risk, etc.

113. Based on the capabilities and the risk absorbing capabilities of both public and private sector the responsibilities risk has to be shared. For example, if private sector has better capacity to use advanced tools and better technologies for design which reduces the life cycle cost of the project then the project design may given to private sector. Instead if public sector has better understanding of local condition which results in best design then public sector can retain the design component.

114. In case of arranging finances for the project, most of the local bodies in India have less credit worthiness which results in higher cost for resource mobilization from market. If the private sector has good credit rating, then the work may be entrusted to the private sector. Instead if the local body has any guarantee mechanism such as sovereign or sub-sovereign guaranties, then the cost of funds would be much cheaper for the public sector in which case the public sector may arrange for finance.

115. Similarly every components have to be analysed by the project team before allocate the responsibilities and the risk

116. In general, the private sector will expect the returns according to the risk level. Higher risk transfer to the private sector will lead to higher returns to private sector. Hence care should be taken while allocating risks to the private sector as in some cases the project may become unaffordable to the public sector because of higher returns expected by the private sector.

117. Some of the risks may be mitigated by some mechanism such as insurance against certain risks, escrow accounts, partial risk and credit guarantee either by government or by multilateral agencies such as Asian Development Bank, World Bank, etc. These mitigation measures will reduce the cost of services in-turn benefits the public sector.

6.4 Setting service standards, Cost recovery mechanism

118. After deciding the mechanism and objective of private sector partnership for providing public services, it is essential to identify baseline indicators and set performance standards for the private sector. In general the baseline indicators would be the prevailing conditions in the project area and the performance indicator would be based on the objective set for the project. For example, 100% coverage of protected water supply with 24X7 supply and 6meter pressure at the customer end with prescribed quality would be a service standard for water distribution project. Similarly100% collection of solid waste from all the households would be a standard for solid waste management sector.

119. However while deciding on the service standards adequate care should be taken as there are costs involved based on the quality of the services. The project team should set the standards in more realistic manner. The service standard may be fixed based on the norms and the user demand.

120. In addition while defining the service standards for a PPP project it is essential that the focus should be on output/outcome indicators and not on input parameters like design aspects.

121. Once initial objectives and the service standards were fixed the cost of services can be estimated. The cost of services has three elements namely, O&M expenses, capital cost and depreciation. Though depreciation is a non cash item, it is good if there is a provision made on this account which will be useful for the service provider for rehabilitation and replacement. In general most of the essential services such as water supply, sanitation does not have adequate user charges to cover these costs. In general public services in our country are poor because of shortage of funds for O&M and rehabilitation or shortage of funds for expansion of infrastructure for providing desired services. While private sector will involve in the project only when they get adequate returns for their investment, the public sector have to rethink either to escalate the user charges based on the socio economic condition in the project area or to provide subsidy to meet these costs.

122. In-order to levy/increase the user charges public sector should consider the socio-economic pattern in the project area, political willingness to charge for services, willingness to pay, etc. Based on these parameters an appropriate tariff mechanism to suit the local condition has to be designed. In case the suggested tariff mechanism does cover the entire cost, then the public sector has to identify the sources and make necessary arrangements for subsidies before floating the bids.

Main sources of subsidies for public sector are

- Cross subsidies like higher tariff structure for commercial and lesser for domestic households;
- General revenue in case of local body;
- Viability gap funding[7];
- Budgetary support from state/central government; and,
- Grants from development agencies.

123. In addition to the setting of user charges, it is essential to define a formula for periodical increase of the charges. This increase may be based on certain index (such as consumer price index, wholesale price index, etc) may approval mechanism for the price increase have to be finalized. Also an alternate source may be indicated to the private sector in case the minimum increase was not accepted at the time of future increase. This will reduce the risk of cost recovery to the private bidder which in-turn reduces the cost of services by private sector.

124. The sources of revenue for private sector and the payment mechanism based on the service standards have to be clearly spelt out as this would reduce the speculation of the potential bidders.

[7] Government of India has already established a scheme to provide maximum of 40% (20% from GOI and 20% from the respective state) viability gap funding for PPP projects.

6.5 Basic Conditions Expected in a Partnership

125. The basic conditions expected in a partnership have to be identified based on the PPP options identified for the project. These conditions will go into the RFP document. The broad conditions to be considered by the public sector while structuring the project are:

- Optimal length of the partnership;
- Ownership of assets during and after the partnership;
- Performance specifications, standards and expectations, including the roles and responsibilities of both partners;
- Performance measurement mechanism and penalty clauses;
- Profit and cost sharing provisions; and,
- Performance-guarantee mechanism.

126. It is important for the public sector to keep in mind that these conditions are not fixed. These conditions are subject to change to certain extent during negotiation with the preferred private sector partner. The public sector should make sure that the conditions are flexible to attract private sector without affecting the desired objective.

6.6 Legal instruments for the arrangement

127. During consultation and bidding both private and public sector agrees for certain conditions based on which the projects will be structured; however upon execution either parties may/may not comply with the agreed terms. For example the public sector may agree to increase user charges based on a pre agreed formula but defer the hike and private sector agrees to pay penalty for non-compliance of performance indicators and may not pay the penalty in case of default. Hence a legal instrument has to be in place in-order to enforce the terms and conditions.

128. There are many ways to make an enforceable legal arrangement. While developing the legal terms the project team should consider the law in the country and the state in which the project is proposed. The legal mechanism suggested in the project should be easily enforceable by both the parties. The contract document should be drafted in such a way that all the service standards expected, payment mechanism, power to enforce the public for user charges such as disconnection for non-payment, penalty clauses for both private and public sector, termination, dispute resolution mechanism, etc are included.

129. In addition to developing a legally binding contract, the project team should examine the powers of public sector entity (contracting authority) to enter into contract, to levy/increase the user charges, etc.

VII SELECTING A PREFERRED PARTNER

130. On finalizing the option of PPP mode and finalizing the service standards, the public sector has to choose the method of selection. The selection process should obtain the required service on terms that are the best value for money for the public sector. This requires a procurement process that is clear and transparent, robust and cost effective.

7.1 Selection Process

131. The public sector can choose any of the following two selection process based on its requirement. The selection processes are:

- Competitive bidding; and,
- Sole sourcing.

7.1.1 Competitive bidding

132. In India, the public procurement relies mostly on competitive bidding. This process encourages wide range of participation of potential bidders. As the public sector is utilizing the tax payers resources this process helps in achieving the twin objectives namely:

- **Accountability** in the spending of public money, and
- **Transparency** in the steps of the decision-making processes.

133. A competitive bidding process generally consists of:

- Public notification of the government's to seek a private partner for the provision of services, for example, collection facility for solid waste management, including prequalification or a request for expressions of interest from private companies;
- Distribution of bidding documents and draft contracts to potential bidders;
- A formal process for screening potential bidders and finalizing a list of qualified bidders; and
- A formal public process for presenting proposals, evaluating them, and selecting a winner.

134. Different procedures for procurement include invitation to tender; and request for proposals (one- and two-stage processes).

7.1.2 Sole Sourcing

135. In this process the public sector will directly negotiate with one private player to provide the services. This process will be selected only when there is a monopoly in providing certain services/technologies. However this process may not be as transparent as competitive bidding. The absence of competition may reduce the pressure of cost effectiveness. Hence there is a chance that the public sector may incur higher cost for the said services. This process may be useful for smaller value of works.

7.2 Selection criteria for competitive bidding

136. The public sector has to decide on the procurement team and responsibilities of each team members. At this stage the public sector has to finalize the method of selection and the bidding criteria. The most common process of procurement is two-stage bidding where the request for expression of interest will be issued and the short listed firm will be requested to submit the technical and financial proposal. However in some of cases technical and financial proposals along with the qualification of the bidder will be clubbed together and the bidding process will be completed at one stage.

137. The public sector has to finalise the criteria for evaluation of the proposal and the criteria may have to be spelt our clearly in the instruction to bidders. Deciding on the apt selection criteria is very critical to select the best partner. However there will always be a subjective factor in all the proposals, like evaluating the management team of the bidders or the bidder's credentials. In-order to avoid conflict the information and objective of the project have to be clearly given to the project team, which may avoid certain conflicts.

138. The bidding parameters have to be defined for the following broad categories:

- Technical evaluation criteria;
- Financial evaluation criteria; and,
- Relationship between technical and financial criteria.

7.2.1 Technical evaluation criteria

139. The technical evaluation criteria are basically to assess the capacity of the private partner to execute the project successfully. If pre-qualification is kept as a process (i.e., if the public sector decides to go for two stage process), then the operating capacity, management capacity and financial capacity of the bidder has to be assessed at this stage.

140. Some of the technical criteria for bidders include: past experience on similar work, experience of the management team, capacity of the proposed team for the project, financial capacity (from audited financial statements), liquidity position and capacity to mobilize funds for the project.

141. The public sector can decided on the minimum criteria for shortlist like year of similar experience, availability of machinery, minimum financial turnover, etc. Upon assessing the capacity of the bidders the shortlisted bidders may be requested for submission of the technical and financial bids.

142. As the public sector has already evaluated the capacity of the bidder, procurement team at this stage may evaluate the technical proposal on the board parameters:

- Understanding local condition;
- Design methodology proposed for this project;
- Plan in mobilizing the man machine and materials; and,

- Implementation plan

143. Before issuing the request for proposal, the procurement team has to finalise the parameters and assign the weightage for each parameter.

144. Though the two stage process was explained here these two steps can be clubbed together and the procurement team can receive proposal from all the bidders and evaluate the proposals on both bidder capacity and credentials and the proposed plans and understanding of the project.

7.2.2 Financial evaluation criteria

145. The financial parameter has to be finalized before the starting the procurement phase. Some of the broad financial evaluation criteria are:

- Length of concession period;
- Share of profit;
- Requirement of subsidies from the public sector (viability gap funding);
- Management contact fees; and,
- User charges, etc.

146. The public sector can choose identify the best financial criterion based on the options of PPP selected.

7.2.3 Relationship between technical and financial criteria

147. In addition to decide on technical and financial evaluation criteria, the procurement team has to finalise the relationship between these criteria and have spelt out in the request for proposal which will ensure the transparency.

148. The public sector has to decide whether they are giving any weightage to technical aspect on final decision. A minimum score will be set at the technical evaluation stage and the procurement team will open the financial bid for all technically qualified bidders and will be selected based on the relationship defined. For example

- Weightage may be assigned for technical and financial score. The bidder who scores highest combined score will win the contract, or
- Once the bidder is technically qualified, then the decision may be depends only on the financial score. Even if bidder has cleared the technical evaluation with minimum score, they have equal chance of winning the bid with their financial scores. In such case there will not be any weightage given for technical score

149. Based on the output required the public sector can decide on the parameters, i.e., if the focus is more on quality and less on cost the weightage will be given for technical score at the final selection.

7.3 Levels of competitive bidding

150. Competitive bidding can take place between local/national entities, or between

interested international companies.

7.3.1 National competitive bidding (NCB)

151. National competitive bidding (NCB) is utilised when the domestic service provider are available at reasonable cost, are efficient and adequate in terms of prompt delivery. NCB may also be the most efficient and economical way of procuring goods, services or works which, by their nature or scope, are unlikely to attract foreign competition. In this case, the promoter does not expect foreign bidders to be interested because:

- The contract values are small;
- Works are scattered geographically or spread over time;
- Works are labour-intensive; and/or
- The goods or works are available locally at prices below those of the international market.

152. However in NCB need not prevent participation by foreign bidders, but will be paid with local currency.

7.3.2 International competitive bidding (ICB)

153. International competitive bidding (ICB) is to provide a wide range of choice in selecting the best bid from competing suppliers/contractors and to give to all prospective bidders adequate, fair and equal opportunity to bid on the goods, services and works which are to be procured. As this process will incur higher cost and time, in general ICB will be adopted for high value projects and for technology intensive project where there is dearth of technology in the local market.

7.4 Managing bids

A **competitive bidding** process generally consists of:

i) Public notification to seek a private partner for the provision of services, including prequalification or a request for expressions of interest from private firms;
ii) Screening potential bidders and finalising a list of qualified bidders;
iii) Distribution of bidding documents and draft contracts to potential/qualified bidders; and,
iv) Public process for evaluating proposals and selecting a winner.

7.4.1 Public notification

154. The procurement process starts with an official public notification of the project opportunities by advertising through national/international dailies, electronic media and other means. Care should be taken while designing the advertisement as this will be the first stage of procurement. The content of the advertisement should reflect the exact requirement of the public sector. In-general the advertisement will have invitation for expression of interest/qualification/bids, a brief description of the project, project cost, brief qualification criteria, contact details of the contracting authority and important dates for bids.

7.4.2 Short listing the potential bidders

155. This process will ensure that the private firms who are going to submit the bids will have adequate capacity to provide the services. At this stage a standard prequalification document may be issued to all the bidders. The prequalification document should have details about the project, instruction to bidders and a standard questionnaire.

156. This will help the public sector in faster evaluation of the proposal as all the prequalification will be in the same format. The prequalification documentation should require potential bidders to demonstrate their credentials within a standardized frame work. The public sector should have a predefined score card to evaluate the proposals.

157. On receipt of the expression of interest and the details of qualification of the private sector firms, the procurement team will have to thoroughly scrutinize the proposals based on the predefined qualification criteria and shortlist the potential private sector firms/JV/consortium for bidding.

7.4.3 Request for Proposal

158. Upon short listing the firms, a request for proposal document should be issued to all the shortlisted bidders. The public sector should ensure that all the information related to project which are required for a private sector have to be provided.

159. The RFP document should contain Instruction to bidders, draft contract document and other specifications about the project.

In general the RFP should cover the following topics:

- Introduction;
- Description of the proposed relationship between the contracting authority and the selected partner;
- Proposal format and mandatory submission requirements;
- Details of risk allocation;
- Baseline and performance indicator and process for measuring performance;
- Design and construction requirements (if applicable);
- Management and operating requirements (if applicable);
- Detailed financial information and a proposed financing plan;
- Asset Transfer plan, if any;
- Legal considerations;
- Statutory requirements;
- Details about pre-bid meeting and its requirements;
- Validity of the proposal;
- Bid security and forms of bid security;
- Deadlines for submission of proposal and its opening date;
- Proposal evaluation process and criteria; and,
- Formats for technical and financial proposal.

160. Better information sharing will help the bidders in understand the scope of the project, project risks and returns, compliance with government regulations, baseline and performance indicators, etc.

161. In addition to the information given in the RFP document, it is better if a pre-bid meeting is conducted. This will help the bidders to better understand the project and further help them in preparing responsive and competitive bids.

7.4.4 Evaluating the proposals

162. As described in Section 7.2 of this manual, the contracting authority would have defined the evaluation criteria before initiating the selection process. Public sector should take adequate care that the members of evaluation committee does not have any conflict of interest.

163. **Compliance of bids:** On receipt of bids the evaluation committee has to check the compliance of all the bids based on the requirements given in the RFP document. Any material non complied bids may be disqualified. In addition RFP request for unconditional bids and if a bid received is conditional then that bid can also be treated as non compliance. Hence these non compliance bids can be rejected and need not be considered for further technical and financial evaluation.

164. **Technical and Financial Evaluation:** The technical proposals have to be evaluated based on the criteria established at the initial stage. If the bids are technically qualified then the financial evaluation may be carried out and the scores may be arrived based on the relationship defined in the RFP.

165. If a bid is not technically qualified the financial evaluation need not be conducted for that bid. If two cover system is followed then the financial cover may be returned to the bidder unopened.

7.5 Negotiation

166. Upon completion of evaluation of bids, the contracting authority can finalize the bidder and call for negotiation if necessary. The negotiation may be conducted to reaffirm the objectives of the public sector.

167. PPP Contract negotiations should be kept as brief and focused as possible. There should already be a full draft of the PPP contract included in the tender package as well as a clear and detailed PPP risk-allocation structure and other support that the public sector may extend for the project.

168. The PPP Contract can be negotiated by the same team formulated for project structuring. However, the team should have authority to decide on certain parameters, if not an alternate team for negotiation may be constitutes, in which all the team members should understand the project clearly before starting negotiation.

169. The negotiation team should avoid requests by the successful private bidder to the projects, to re-open PPP project structure to consider material changes to the scope and risk-allocation structure of the project. This could lead to effectively removing the important economic benefits that the original PPP project and the successful bidder's bid

offered to the client Government.

170. A brief check list that can be used during the negotiation are:

- **Scope of Work & Output Standards** – Is the main scope of work clearly understood by the bidder? Is the provision given in the bid of all goods and services clear?
- **Contracting** – Are there to be any limits on the private contractor's ability to sub-contract? Are there specific targets the contractor must meet in sub-contracting, such as use of local sub-contractors?
- **Reporting** – Are the reporting mechanisms and schedule for determining the PPP contract's progress clear and acceptable?
- **Records** – What records does the contractor have to maintain and make available for regular auditing?
- **System Maintenance** – Does the contract satisfactorily describe the standards of system maintenance the private contractor must achieve and are acceptable?
- **Ownership** – Is the contract clear and acceptable about determining who has legal ownership title to any software (or hardware designs) developed for the PPP project?
- **Legal Compliance –** Are all of the laws/rules (such as MSW 2000) the contractor must comply are understood and accepted?

171. Upon successful negotiation the project may be awarded to the successful bidder and the contract may be executed. The changes if any have to be made in the draft contract based on the negotiation.

VIIIWORKING WITH PARTNER

172. A successful relationship in a long-term service purchase under PPP will lead to the delivery of services that meet the requirements as stated in the PPP contract. The commercial arrangement under the PPP contract must be acceptable to both parties, offering value for money for the public sector and adequate profit for the PPP provider. In addition to this commercial relationship, it is always better to have a good working relationship at all levels between both sides.

173. Good relations between the public sector and the PPP provider should promote a climate which encourages both parties to suggest or make improvements in the quality of services delivered. However, the relationship must not be at the expense of the PPP contract. Throughout the life of the contract, it is the responsibility of public sector to monitor the work and the contractual obligations.

174. Management of the relationship between the public sector and the PPP provider is thus the process of ensuring that both parties can work together in meeting the requirements of the project. This entails the following two aspects:

- The creation of a management structure; and,
- Establishing a formal communication strategy and reporting procedure.

175. Some key factors to be considered in establishing management structures for the relationship are as follows:

- Ensure that the partnership is accepted and appreciated at senior levels between both parties;
- Make the governance arrangements equitable and the relationship as being peer-to-peer. If not, imbalances will occur.;
- Avoid an increase of structures for managing the relationship, especially if the structures are seen as rigid and bureaucratic. Nonetheless, some differentiation of structures is required to ensure that long-term strategic issues underlying the PPP contract are considered, as well as the more day-to-day service delivery issues;
- Set clear roles and responsibilities for the different structures for managing the relationship between the GPE and the PPP provider at different levels;
- Empower the staff involved in each structure; and,
- Institute escalation procedures which should be understood and used properly. In addition encourage an approach that seeks to resolve problems early, without escalating up the management chain unnecessarily.

176. Along with management structure a formal communication channels and reporting requirements have to be finalized by considering the following aspect:

- Mode and format of reporting, frequency of reporting at various levels have to be finalized at the initial stage
- Consistent communication through the various management levels is important.

Otherwise the differences in perspective may mask the problems in the PPP relationship. For example, even where senior management regards the relationship as successful, serious disagreements and disputes may arise and the relationship deteriorate at the middle management level.

- The formal point of contact between the public sector and the PPP provider should be identified. The contract manager will be the point of contact for the public sector. Throughout the life of the PPP project, the contract manager has the responsibility of protecting the public sectors agreed contractual position and ensuring that the agreed allocation of risk is maintained and that value for money is achieved.
- A crucial role for the contract manager is to try to prevent disputes from arising by preventative actions. The procedures for liaising with the PPP provider and the maintenance of agreed records of performance will help to resolve problems before they escalate.
- Both the public sector and the PPP provider should take steps to monitor the relationship. They should put in place means to assess the quality of the working relationship and management processes. This will be valuable in highlighting aspects that are perceived to be working well and those that require attention. For example, attendance by representatives at meetings from both sides can be monitored through the minutes of meetings. If attendance by one side's representatives falls away, the other side should consider whether this indicates that the relationship between the two sides is losing strength, or that the meeting is not an effective communication and management forum.
- The management of the relationship depends on the nature of the project, the services to be provided, and the extent to which the public sectors requirements change over time. Particular care should be paid to the beginning years of the project when the risk of problems is likely to be the highest. This may require additional resources for a limited period.

IX POST MONITORING

177. Once the contractual arrangements have been implemented, the public sector entity should consider a post-implementation review. This review may be performed internally or by engaging some external agency. Even if the project is reviewed internally, it is better if the review is undertaken by a team of experts who were not directly involved in the pre- implementation phase of the project.

178. A post-implementation review will allow the public sector, the opportunity to determine whether its initial partnership objectives were achieved and allows for the opportunity to assess what worked and what did not. This assessment will help the public sector to plan for its future projects.

179. **Value for Money -** Key criteria of assessing the potential success of a public private partnership project is the determination of value for money: Does the project design allow for successful construction and service delivery that meets the needs of the end users at the lowest cost for capital, operations and maintenance over the duration of the agreement?

Some of the main factors to be considered while assessing value for money are:

- Project design;
- Project construction;
- Project/service delivery;
- Management; and,
- Operating system.

180. The post-implementation review permits the assessment of the project in terms of cost and service delivery effectiveness.

181. When evaluating value for money, the analysis will require:

- A cost/benefit analysis of the public private partnership arrangement;
- An allocation of risks between partners;
- Project finance requirements resulting in a need for taxpayer support; and,
- Duration of taxpayer support required for project finance.

X GUIDELINES FOR SEEKING NCRPB SUPPORT FOR PPP

10.1 Introduction

182. NCRPB intends to expand its roll with respect to project development, project financing and public private partnerships. As such, this section of the PPP manual has been designed to present NCRPB's PPP financing, project eligibility criteria, and PPP project selection criteria under one common umbrella. NCRPB is following the PPP criteria established by Government of India and recommends for additional information regarding structuring of PPPs that the appropriate statutory authority review PPP material from www.PPPinindia.com.

10.2 Institutional Structure

183. NCRPB's institutional review structure and requirements for appraisal and approval for financial support to PPPs is specified at Annex II. Annex III provides a PPP Screening Evaluation Checklist. It is essential that the appropriate body review the conditions outlined for project appraisal in NCRPB's Project Appraisal Manual (Volumes I, II, and III) and NCRPB's Risk Mitigation Framework.

10.3 Applicability

184. These NCRPB guidelines will apply to PPP projects posed by state governments, statutory authorities and applicable private sector partners as the case may be. Proposals to be made to NCRPB shall be considered for one-time or deferred financing, with the objective of making a NCR PPP project commercially viable. The appropriate statutory authority (applicant) is also asked to review the 'Viability Gap Funding Scheme" criteria outlined found in www.PPPinindia.com for additional means and sources of financing.

185. An appropriate proposal shall relate to public private partnership project(s), which is based on a contract or a concession agreement between a state government or relevant statutory entity and a private sector company for delivering an infrastructure service on payment of user charges. NCRPB financing will apply only if the PPP contract/concession is awarded in favor of a private sector company in which 51 percent or more of the subscribed (paid up equity) is owned and controlled by a private entity.

186. Funding shall be made available for PPP is the project (private sector entity) is selected on the basis of open competitive bidding and where the private sector is responsible for financing, construction, maintenance and operation of the project during a concession period. It is expected that the project provide a service payment of a predetermined tariff or user charge.

10.4 Normal Method to Finance Projects or PPP?

187. In evaluating the cost-benefit of such support, it is important to establish a base

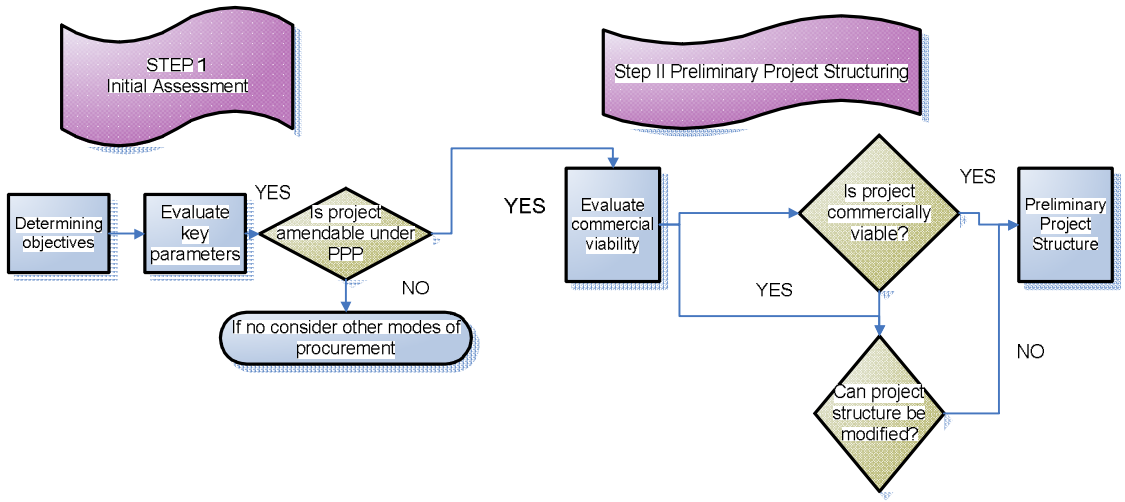
case in which the same service is provided some other delivery option other than PPP.[8] It is essential to quickly assess if a project is suitable to be taken-up under PPP. This exercise should be undertaken in the initial stages of the project conception and during the project appraisal and financial analysis process. There should be scope for modifying dimensions of the project to make it amendable to PPP. Figure 3 below presents the key steps for evaluating whether a project should be a PPP versus more normal financing approach. The ULB/NCRPB or project sponsor should begin the exercise with an analysis of the key objectives to be achieved for a particular sector or service and determine the possible role of the private sector. For example:

- **Improving Service Delivery:** Includes expanding the physical area of servicer delivery, serving new customers etc. The private sector may be used to extend services to locations or customer segments which have not been effectively served in the past.

- **Lower Cost of Service:** The cost of the service can be potential reduced by improving processes and operations. This lowers direct user charges borne by users. The private sector may be able to achieve lower operating costs and better efficiency due to better management practices and operating controls.

- **Access to Better Technology:** The private sector can often bring better technology to improve the quality of the service delivered to residents. For instance, in the case of solid waste management, the private sector may be able to bring in better transportation equipment, cleaning equipment, and advanced waste treatment technologies.

Figure 3 – Stages in Determining a PPP



[8] The user of this manual is encouraged to review NCRPB's Project Appraisal Toolkit to assist it with its project analysis. Annex 3 PPP Screening Evaluation methodology provides a matrix of issues that should be reviewed when determining whether a project should be a normal (on balance sheet financed project) or a PPP project.

188. What are the key parameters that should guide whether a project is suitable for a PPP framework or not. These parameters include: clarity of objectives, improvement in service delivery, determining whether the project is commercially viable or not; is there a general availability of competitive suppliers, and is there the potential for improving operating efficiency. As mentioned above, methods to determine operating viability and efficiency are presented in NCRPB Project Appraisal Manual.

189. PPPs vary in their complexity and local governments have varying degrees of management capacity. The complexity of the project should be such that the ULB has the capacity to manage the project. However, the capacity can be strengthened by using external advisors. With respect to determining whether a PPP or other form of project financing is viable, it is important to assess whether the current legal framework allows the local government to undertake PPP projects without substantial legal or procedural delays. As mentioned above, Annex 3 provides a suggested PPP screening evaluation methodology template for NCRPB and its clients.

10.4.1 Project Identification

190. The sponsoring state government or statutory authority will identify the projects to be taken up through PPPs and undertake preparation of feasibility studies, project agreements, etc. with the assistance of legal, financial and technical experts as necessary.

10.4.2 Eligibility

191. In order to be eligible for funding, a PPP project should meet the following basic criteria:

- The project shall be implemented (i.e. developed, financed, constructed, maintained and operated) for the project term by a private sector company to be selected by the appropriate statutory authority or entity through a process of open competitive bidding.
- The PPP project should be from one of the following sectors:
    i. Power;
    ii. Roads and bridges and/or urban transport.
    iii. Water supply, sewerage, solid waste management and other physical infrastructure in urban areas.

10.4.3 Certification

192. The concerned government/statutory authority should certify, with appropriate justifications:

- The project can provide a service charge against payment of a pre-determined tariff or user charge.

- That the capital costs are reasonable and are based on the standards and specifications normally applicable to such projects (and, that the capital costs cannot be further restricted). And,

- In the eventuality, that tariff/user charge cannot be increased to reduce any proposed financing gap, the statutory authority should provide appropriate justification as to why/why not.

10.5 NCRPB – Project Appraisal and PPP Cell

193. For the purpose of screening and reviewing potential PPPs, NCRPB will initiate a Project Appraisal Cell which will assist in identifying and developing PPP projects). This cell will also assist NCRPB in appraising and approving projects. The Project Appraisal-PPP Cell is constituted by members of the state government and NCRPB. NCRPB representatives may include the following, nonexclusive list: project director, project appraisal finance person, appropriate engineer for contracts and technical aspects, and an Urban Planner/specialist (to identify appropriate PPP projects) and the Director. As appropriate, NCRPB should hire skilled professionals/technicians on as needed basis.

10.6 Formulation of Project Documents

194. The documents that would be required by NCRPB in its review process would, inter alia, include the DPR, Project Appraisal and Analysis, and, the various agreements to be entered into with the concessionaire/private partner detailing the terms of the concession and the rights and obligations of the various parties. These project documents may vary depending on the sector and type of project. Typically, a PPP will involve the concession agreement that will specify terms of the concession granted to the private party and will include the rights and obligations of all parties. Further, there could be associated agreements based on specific requirements that should also be included in the project documents.

10.7 Interagency Discussions

195. NCRPB may, if deemed necessary, discuss the details of the project and the terms of the PPP (concession agreement) in with other appropriate agencies/ministries. NCRPB recognizes that there could be projects which involve more than one Ministry/Department/FI/Other.

10.8 Appraisal and In-Principle Approval

196. The proposal for seeking clearance and funding from NCRPB for an eligible PPP project shall be sent (in five copies, both in hard and soft form) to NCRPB (Project Appraisal and PPP Cell) in the format requested in Annex II. The proposal should include copies of all project agreements, state support agreement, substitution agreement, escrow agreement, operations and maintenance agreement etc.), and details of the project (project appraisal, financial cash flow etc.).

197. The proposal will be circulated by NCRPB's Cell to all responsible members for their comments. Comments should be submitted and reviewed within four weeks after proposal submission. While submitting the proposal, NCRPB's Cell will indicate whether

the proposal conforms to the mandatory requirements established by GoI and NCRPB.

198. Deficiencies, if any, will be indicated in the findings/recommendations note of the Cell. In particular, the Cell will examine proposals with a view to ensuring that they conform to the conditions specified. NCRPB will either approve the proposal in principal (with or without modification) and/or provide advice to the concerned state government or statutory authority as to how it will proceed.

199. In cases where additional financial support may be available from any other financial intermediary or on-going scheme such as Viability Gap Funding. The proposal, with consent of the appropriate statutory authority, will be sent to the appropriate funding agency for review and consideration for additional financial assistance. NCRPB will provide a technical advisory role where appropriate.

10.9 Evaluation Procedures and Timeframe

200. The evaluation of the application for PPP funding by NCRPB and/or other empowered institutions would be based on the following non-exclusive list:

- **The Sponsoring Authority –** Does the sponsoring authority have available funds (budget, donors, other), for project use? Has the sponsoring authority procured a PPP or similar project before (recently)? Has the sponsoring authority made a counterpart funding commitment to the project procurement?

- **The Sector –** Is the proposed project in an eligible sector? Is the proposal fully in compliance with the requirements/definition of PPP?

- **The Project –** Has the project been properly defined and revenue and other concerns ring-fenced? Are the financial/project other milestones selected in accordance with GoI/Other guidelines? What is the ability of for the project to: generate private sector investment; generate system improvements in non-capital investment projects; what are the service delivery outcomes and improvements on the current outcomes expected from the project? What capacity and appetite is there in the private sector for it to participate in the project? And, what is the procurement history of the relevant agency for PPP?

- **Funding –** Has the financial analysis (cash flow) been submitted and verified by the NCRPB PPP / Project appraisal cell. Has the project profile been established?

In all cases, the decision to fund or not fund will be left to NCRPB / and other empowered institutions.

10.10 Viability Gap Funding and NCRPB

201. ULBs within the national capital region may need to partner with private sector organizations to develop more financially prudent projects. This may result in ULBs being confronted with conflicting objectives at times. For example, higher user charges

may be necessary to make a project financially sustainable. However, the ULB will have to balance the need for higher user charges with the need to provide affordable services to its citizens.

202. Certain infrastructure projects may not be financially viable on the basis of project revenues alone and that the financial viability can be improved through government support. Through various guidelines, including the Viability Gap Funding (VGF), the Government of India has promoted the PPP route for developing infrastructure projects. To be eligible for VGF, the project should be awarded by competitive bidding to a private party which should have a minimum 51% stake in the project entity.

203. Viability GAP Funding is generally provided in the form of a capital grant at the stage of project construction. The amount of VGF generally is equivalent to the lowest bid for capital subsidy, but subject to a maximum of 20 percent of the total project cost. In case the sponsoring ministry/state government/statutory entity propose to provide any assistance over and above the said VGF amount, VGF funding will be restricted to a further 20 percent of the total project cost.

204. NCRPB is also available to assist projects with loan or technical assistance financing, whatever the need may be. In the case of PPP financing from NCRPB, the same end goal for VGF is required, the project should be awarded by competitive bidding to a private party which should have a minimum 51% stake in the project entity.

10.11 Invitation to Bid

205. Once the financial structuring has been determined, financial bids for the PPP shall be invited by the relevant statutory entity for award. The private sector company shall be selected through a transparent competitive bidding process as outlined by the State and GoI procurement practices.

10.12 Final Approval

206. Within three months from the date of award, or such extended period as may be permitted, the lead financial institution for this relevant PPP shall present its appraisal of the project (in five copies (hard and soft form)) for consideration and approval of NCRPB and other institutions. The appraisal shall be accompanied by an application request with all relevant documentation (stipulated in Annex II of this manual) along with project report and project agreements.

10.13 Disbursement

207. Prior to disbursements, NCRPB or the empowered institution, the lead financial institution, and the private company, shall enter into Agreement in such format as prescribed by NCRPB or the empowered institution. Funds shall be disbursed only after the private sector company has subscribed and expended the equity contribution required for the project, and will be released in proportion to debt disbursements remaining to be disbursed thereafter.

10.14 Monitoring

208. The lead financial institution, NCRPB and other empowered institutions shall be responsible for regular monitoring and periodic evaluation of project compliance with agreed milestones and performance levels, particularly for the purposes of disbursing funds. Performance monitoring should at a minimum be undertaken on a quarterly basis.

ANNEXES

ANNEX 1: ADVANTAGES AND DISADVANTAGES OF PPP

Type of PPP	Features	Public Sector Applications	Advantages	Disadvantages
Management Contract				
Operations & Maintenance	Public sector enters into performance based contracts with a private partner to operate and maintain a facility	Applicable for water and wastewater treatment plants, solid waste removal, road maintenance, parking facilities, sewer systems, power distribution, etc	• Potential service quality and efficiency improvements • Cost savings • Flexibility in structuring contracts • Ownership remains with public sector	• Collective agreements may not permit contracting out • Costs to re-enter service if contractor defaults • Reduced owner control and ability to respond to changing public demands
Lease				
Lease Purchase	Public sector contracts with private partner to design, finance and build a facility to provide a public service. The private partner then leases the facility to the public sector for a specified period after which ownership vests with the public sector. This can be taken where public sector requires a new facility or service but may not be in a	Can be used for capital assets such as buildings, vehicle fleets, water and wastewater treatment plants, solid waste facilities and computer equipment.	• Improved efficiency in construction • Opportunity for innovation • Lease payments may be less than debt service costs • Assignment of operational risk to private sector developer • Improve services available to residents at reduced cost • Potential to develop a 'pay for performance' lease	• Reductions in control over service or infrastructure

Type of PPP	Features	Public Sector Applications	Advantages	Disadvantages
	position to provide financing.			
Lease Develop Operate	Private partner leases a facility form the public sector, expands/modernizes it then operates the facility under a contract with public sector. Private partner is expected to invest in facility expansion or improvement.	Can be used for most infrastructure facilities including roads, water systems, sewer systems, water and waste water treatment plants.	• Public sector does not have to provide capital for upgrading • Financing risk rests with private sector • Flexibility for procurement • Time reduction in project implementation	• Perceived or actual loss of control of facility or infrastructure • Issue of leasing capital assets that have received grant financing • Future upgrades to the facility may not be included in the contract and may be difficult to incorporate later
Concession				
Build-Transfer-Operate	Public sector contracts with a private partner to finance and build facility. Once completed private partner transfers ownership of the facility to the public sector. Public sector then leases the facility back to the private partner under a long-term lease during which the private partner has the opportunity to recover the investment and a	Can be used for most infrastructure facilities including roads, water systems, sewer systems, water and waste water treatment plants.	• Public sector obtains the benefit of private sector construction expertise, and potential cost savings • Public sector maintains authority over the levels of service(s) & fees charged. • Avoids legal, regulatory and tort liability issues • Ability to terminate agreements if service levels or performance standards not met, although facility would continue to permit repayment of capital	• Possible difficulty in replacing private sector entity or terminating agreements in event of bankruptcy or performance default

Type of PPP	Features	Public Sector Applications	Advantages	Disadvantages
	reasonable rate of return.		contributions and loans and introduction of new private partner.	
Build-Own-Operate-Transfer	Private developer obtains exclusive franchise to finance, build, operate, maintain, manage and collect user fees for a fixed period to amortize investment. At the end of the concession period, title reverts to public authority.	Most infrastructure facilities including roads, water systems, sewer systems, water and waste water treatment plants.	• Maximizes private sector financial resources including capital cost allowance • Ensures the most efficient and effective facility is constructed based on life-cycle • Community is provided with a facility without large up front capital outlay and/or incurring of long-term debt • Access to private sector management, equipment, innovation	• Facility may transfer back to the public sector at a period when the facility requires extensive upgrades and operating costs are increasing • Private sector can determine the level of users • Less public control compared to Build-Operate-Transfer structure • Possible difficulty in replacing private sector partner or determining agreements if bankruptcy or performance default
Turnkey Operation	Public sector provides financing for the project but engages a private partner to design, construct, and operate the facility for a period of time. Performance objectives are established by the public partner and the public sector maintains	Applicable where the public sector maintains a strong interest in ownership but seeks to benefit from private construction and operation of the facility (i.e. water, wastewater treatment, Solid waste management collection and disposal facilities)	• Places construction risk on the private partner • Proposal call can control design and location requirements as well as operational objectives • Transfer of operating obligations can enhance construction quality • Potential public sector benefits from increased	• Reduced public sector control over facility operations • More complex award procedure • Increased cost to incorporate changes in design operations once contract is complete • Depending on the type of infrastructure financing risk may be incurred by the public sector

Type of PPP	Features	Public Sector Applications	Advantages	Disadvantages
	ownership of the facility.		efficiency in private sector construction	
Private Ownership				
Build-Own-Operate	Entire responsibility lies with private sector.	Most infrastructure facilities including roads, water systems, sewer systems, water and waste water treatment plants, airports, power plants, telecom	• No public sector involvement in either providing or operating the facility • Public sector can regulate the private sector's delivery by way of licensing • No public sector financing is required • Income tax and property tax revenues are generated on private facilities, delivering public goods	• Private sector may not operate / construct the facility in the public good so ownership has to be transferred to private sector without recourse • Public sector has no mechanism to regulate the price of the service, unless it is specifically regulated commodity • No or restricted competition, therefore necessary to make rules and regulations for operations and to control pricing

ANNEX 2: NCRPB PPP GUIDELINES AND INSTITUTIONAL CHECKLIST

Annex 2.1 PPP Checklist

(For more information regarding PPPs please see www.pppinindia.com)

1.	**General**	
1.1	Name of the Project	
1.2	Type of PPP (BOT, BOOT, BOLT, OMT etc.)	
1.3	Location (State/District/Town)	
1.4	Administrative Ministry/Department	
1.5	Name of Sponsoring Authority	
1.6	Name of the Implementing Agency	
2.	**Project Description**	
2.1	Brief description of the project	
2.2	Justification for the project	
2.3	Possible alternatives, if any	
2.4	Estimated Capital costs with break-up under major heads of expenditure. Also indicate the basis of cost estimation.	
2.5	Phasing of investment	
2.6	Project Implementation Schedule (PIS)	
3.	**Financing Arrangements**	
3.1	Sources of financing (equity, debt, mezannine capital etc.)	
3.2	Indicate the revenue streams of the project (annual flows over project life). Also indicate the underlying assumptions.	

3.3	Indicate the NPV of revenue streams with 12% discounting	
3.4	Who will fix the tariff/ user charges? Please specify in detail.	
3.5	Have any FIs been approached? If yes, their response may be indicated	
4.	**IRR**	
4.1	Economic IRR (if computed)	
4.2	Financial IRR, indicating various assumptions (attach separate sheet if necessary)	
5.	**Clearances**	
5.1	Status of environmental clearances	
5.2	Clearance required from the State Government and other local bodies	
5.3	Other support required from the State Government	
6.	**GoI and/or Other Support**	
6.1	Viability Gap Funding, if required	
6.2	GOI guarantees being sought, if any	
7.	**Concession Agreement**	
7.1	Is the Concession Agreement based on MCA? If yes, indicate the variations, if any, in a detailed note (to be attached)	
7.2	Details of Concession Agreement	
8.	**Criteria for short-listing**	
8.1	Is short-listing to be in one stage or two stages?	
8.2	Indicate the criteria for short-listing (attach separate sheet if necessary)	
9.	**Others**	
9.1	Remarks, If any	

Annex 2.2 Particulars of Proposed Concession Agreement

(For more information regarding PPPs please see www.pppinindia.com)

A. Sponsoring Ministry:

B. Name and location of the project:

C. Legal Consultant:

D. Financial Consultant:

S. No.	Item	Clause No.	Description
I	**General**		
1.1	Scope of the project (please state in about-200 words)		
1.2	Nature of Concession to be granted		
1.3	Period of Concession and justification for fixing the period		
1.4	Estimated capital cost		
1.5	Likely construction period		
1.6	Conditions precedent, if any, for the concession to be effective		
1.7	Status of land acquisition		
II	**Construction and O&M**		
2.1	Monitoring of construction; whether an independent agency/ engineer is stipulated		
2.2	Minimum standard of Operation and Maintenance		
2.3	Penalties for violation of prescribed O&M standard		
2.4	Safety related provisions		
2.5	Environment related provisions		
III	**Financial**		
3.1	Maximum period for achieving financial close		
3.2	Nature and extent of capital grant/ subsidy stipulated		
3.3	Bidding parameter (capital subsidy or other parameter)		

S. No.	Item	Clause No.	Description
3.4	Provisions for change of scope and the financial burden thereof		
3.5	Concession fee, if any, payable by the Concessionaire		
3.6	User charges/ fee to be collected by the Concessionaire		
3.7	Indicate how the user fee has been determined; the legal provisions in support of user fee (attach the relevant rules/ notification); and the extent and nature of indexation for inflation		
3.8	Provisions, if any, for mitigating the risk of lower revenue collection		
3.9	Provisions relating to escrow account, if any		
3.10	Provisions relating to insurance		
3.11	Provisions relating to audit and certification of claims		
3.12	Provisions relating to assignment/ substitution rights relating to lenders		
3.13	Provisions relating to change in law		
3.14	Provisions, if any for compulsory buy-back of assets upon termination/ expiry		
3.15	Contingent liabilities of the government		
	(a) Maximum Termination Payment for Government/ Authority Default		
	(b) Maximum Termination Payment for Concessionaire Default		
	(c) Specify any other penalty, compensation or payment contemplated under the agreement		
IV	**Others**		
4.1	Provisions relating to competing facilities, if any		
4.2	Specify the Dispute Resolution Mechanism		
4.3	Specify the governing law and jurisdiction		
4.4	Other remarks, if any		

Annex 2.3 Terms Sheet of the proposed Concession Agreement

(For more information regarding PPPs please see www.pppinindia.com)

A. Sponsoring Ministry:

B. Name and location of the project:

C. Legal Consultant:

D. Financial Consultant:

S. No.	Item	Clause No.	Description
I	**General**		
1.1	Scope of the Project (Please state in about 200 words)		
1.2	Nature of Concession to be granted		
1.3	Period of Concession and justification for fixing the period		
1.4	Estimated capital cost		
1.5	Likely construction period		
1.6	Conditions precedent, if any, for the concession to be effective		
1.7	Status of land acquisition		
II	**Construction and O&M**		
2.1	Monitoring of construction; whether an independent agency/ engineer is stipulated		
2.2	Minimum standards of Operation and Maintenance		
2.3	Penalties for violation of prescribed O&M standards		

S. No.	Item	Clause No.	Description
2.4	Safety related provisions		
2.5	Environment related provisions		
III	**Financial**		
3.1	Maximum period for achieving financial close		
3.2	Nature and extent of capital grant/ subsidy stipulated		
3.3	Bidding parameter (capital subsidy or other parameter)		
3.4	Provisions for change of scope and the financial burden thereof		
3.5	Concession fee, if any, payable by the Concessionaire		
3.6	User charges/ fee to be collected by the Concessionaire		
3.7	Indicate how the user fee has been determined; the legal provisions in support of user fee (attach the relevant rules/ notification); and the extent and nature of indexation for inflation		
3.8	Provisions, if any, for mitigating the risk of lower revenue collection		
3.9	Provisions relating to escrow account, if any		
3.10	Provisions relating to insurance		
3.11	Provisions relating to audit and certification of claims		
3.12	Provisions relating to assignment/ substitution rights relating to lenders		
3.13	Provisions relating to change in law		

S. No.	Item	Clause No.	Description
3.14	Provisions, if any for compulsory buy -back of assets upon termination/ expiry		
3.15	Contingent liabilities of the government		
	(a) Maximum Termination Payment for Government/ Authority Default		
	(b) Maximum Termination Payment for Concessionaire Default		
	(c) Specify any other penalty, compensation or payment contemplated under the agreement		
IV	**Others**		
4.1	Provisions relating to competing facilities, if any		
4.2	Specify the Dispute Resolution Mechanism		
4.3	Specify the governing law and jurisdiction		
4.4	Other remarks, if any		

Annex 2.4 Checklist for Viability Gap Funding Scheme

(For more information regarding PPPs please see www.pppinindia.com)

Name of the Project:

State/Central Sector Project	
Name of the Applicant:	
Administrative Ministry/Department	
Sponsoring Authority	
Implementing Agency	
Location	
Sector	
Activities proposed	
Type of PPP	
Type of VGF sought	

A: Conditions of the VGF Scheme

S.No.	Condition	Comment
1.	Whether the project proposal has been posed by a Government or statutory entity which owns the underlying assets	
2.	Whether the project is to be implemented i.e. developed, financed, constructed, maintained and operated for the Project Term by a Private Sector Company	
3.	Is the project from the sectors identified in the guidelines	
4.	Whether the Private Sector Company will be selected by the Government or a statutory entity that owns the project through a transparent and open competitive bidding process	
5.	Whether the Project provides a service against payment of a pre- determined tariff or user charge	

S.No.	Condition	Comment
6.	Whether user charges/tariff has been fixed by Government or a statutory authority	
7.	Whether the Government/ statutory entity making the proposal has (or will be able to) certified with reasons; (i) that the tariff/user charge cannot be increased to eliminate or reduce the viability gap of the PPP; (ii) that the Project Term cannot be increased for reducing the viability gap; (iii) that the capital costs are reasonable and based on the standards and specifications normally applicable to such projects and that the capital costs cannot be further restricted for reducing the viability gap.	
8.	Is the total VGF within the gap stipulated in the guideline	
9.	Whether the proposed project is (or will be) based on standardized/model documents duly approved by the respective Government	

B. Other project related information (if available)

S.No.	Item	
1.	Total Project Cost (in Rs. Cr.)	
2.	VGF sought from GOI (in Rs. Cr.)	
3.	VGF as a % of Total project cost	
4.	additional grant from the sponsoring authority	
5.	Construction period (from Financial closure)	
6.	Likely year in which VGF sought	
7.	Is the project viable without VGF	
8.	If not, is it viable with VGF	
9.	Status of the concession agreement - has it been finalized - if not, is it proposed to be based on a model document	

ANNEX 3: SCREENING CHECKLIST FOR PPP

This checklist used various sources for its underlying criteria. Including and not limited to Government of Australia, PPP (World Bank) Toolkit; and PPP in JNNURM Projects. NCRPB and its clients should assign different weights depending upon the importance of the parameter to be concerned and come-up with a weighted average score. Each project sponsor/local body should be able to evaluate whether the nominated project should be PPP or other based on going through the following checklist. Further, the sponsor/local body should also discuss whether other PPP could be considered, and other steps taken.

Screening Check List for PPP	Rating	Description of Rating
Clarity in Project Objectives	**On A Scale of 1 to 5 (1 low; 5 high)**	A rating of 1 if there is not clarity on which components of the project are to be taken up by PPP. Higher ratings can be assigned if specific objectives for PPP have been identified including: financing, design, technology and construction; O&M; or some combination of above. A high rating can be assigned if the scope, roles and responsibilities of the private sector have been worked out.
Improvement in Service Delivery (i.e. improving quality, quantity, and physical coverage of services)	**On A Scale of 1 to 5 (1 low; 5 high)**	The rating depends upon whether the service to be monitored by the private party can be identified, measured, and monitored. The guidance for the rating is provided as follows: 1- If the benefits cannot be measure or quantified and it is not possible to ling payments to services. 2 & 3- If the payments can be measured quantified and monitored. 4 & 5- Benefits can be measured, quantifies and monitored. Payments directly linked to service delivery indicators.
Commercial Viability/ Revenue Model For the Project (is there an identifiable revenue stream)	**On A Scale of 1 to 5 (1 low; 5 high)**	Any project that involves delivering a service to the users against a tariff or user charges is important for commercial viability of the project. The guidance for ratings is as follows: 1- If the project has no scope for generating revenues. 2- If the project can generate revenues but it is too low even to meet O&M expenses.

Screening Check List for PPP	Rating	Description of Rating
		3- If project revenues can meet entire O&M expenses. 4- If project revenues can meet O&M expenses and part of debt servicing. 5- If project can meet O&M, debt servicing and principal repayment. These ratings should take into consideration existing user charges, ability to generate revue from other non-tax sources such as land, etc.
Competition (Are there sufficient competing firms in the market providing a similar service)	**On A Scale of 1 to 5 (1 low; 5 high)**	Availability of competitive suppliers for a particular project will help lower the cost of the service for the ULB. The guidance is provided below, including: 1- There are no competitive firms providing / capable of providing the service in the market. 2 & 3 – There are few domestic firms or international firms present the Indian Market who has the capability to execute the project. 4 & 5 – There are a reasonable number of domestic and international players who have executed projects in India.
Efficiency of Operations (Can the private sector improve service efficiency to consumers through innovate use of technology)	**On A Scale of 1 to 5 (1 low; 5 high)**	The rating on this parameter would depend upon the scope that the project rating offers to improve efficiency of operations. The guidance for ratings is provided below: 1- The ULB has been providing the services in the past and there is little scope for the private sector to improve efficiency. 2 & 3 – The same service is also provided by the private sector in some cases with much better service levels at same or slightly higher costs. There is some scope for technology improvements. 4 & 5 – Private party can provide the same or better service at lower costs through elimination of waste, and / or better technology.
Organizational Capacity (Does the ULB have the capacity to manage projects (PPS) – this includes past	**On A Scale of 1 to 5 (1 low; 5 high)**	The guidance for ratings is given below: 1 – The ULB has only undertaken material procurement or simple labour contracts using the private sector. 2 – The ULB has undertaken some outsourcing of services to private sector.

Screening Check List for PPP	Rating	Description of Rating
projects, procurement procedures, and systems management).		3 – The ULB regularly undertakes out-sourcing of services and has experience with performance based contracts. 4 – The ULB has undertaken at least one PPP. The project has been successful. 5 – The ULB has undertaken a reasonable sized PPP in which the private sector is responsible for development and O&M of service.
Regulatory Impact	**On A Scale of 1 to 5 (1 low; 5 high)**	The guidance for ratings is provided below: 1. Any rules, provisions in the Municipal Act or policies from the state government expressly prohibiting PPP in the concerned service/activity. 2. The Municipal Act/Other does not prohibit PPP in the concerned services but there are no policy guidelines from the state government. 3. The Municipal Act/Other policy guidelines allow PPP but there is no specific mechanism for state support. 4. & 5 – Supportive legal framework. The state has an over-arching framework for PPP. The support mechanism from the state government is well laid out.
Overall Score		**Weighted Average Score – Whether Project is Amenable to PPP?**

ANNEX 4: CASE STUDIES

Annex 3.1: Karnataka Water Supply Project

Sl. No	Description	Karnataka Water Supply Project
1	Objective	**1.** To demonstrate to all stakeholders, by concentrating on a small Demonstration Zone within each ULB supply area, that 24-hour, continuous water supply is achievable and to monitor the tangible benefits – health, technical, operational and commercial – to be derived from this type of supply; **2.** To establish, within the chosen Demonstration Zone, a customer billing, collection and support service and to provide an improved, continuous (i.e. 24 hours per day, 7 days a week throughout the year) water supply service for a period of 2 years;
2	Local bodies/ Government agencies	Hubli-Darwad Municipal Corporation City Corporation of Belgaum City Corporation of Gulbarga Karnataka Urban Infrastructure Development and Finance Corporation (KUIDFC) – Nodal Agency
3	Area of local body	289 Sq. km
4	Extent of area covered in the local body	10% of the total area in each local body
5	Population of local body	17.16 Lakhs in all three local bodies
6	Population covered by this project	2.05 in all three local bodies
7	Project cost	Rs.42 Cr.
8	Financing model	World Bank funds given as grant to local bodies by GoK through KUIDFC
9	Award date	2005 contract awarded to private operator to monitor the execution and from 2008 Private operator has taken over the operations.
10	Type of contract	Management contract
11	Contracting authority	KUIDFC is the nodal agency. Hence the contract is between three local bodies, KUIDFC and the private participant
12	Implementation period	52 weeks + 88 weeks extension
13	Duration of the contract and any possible extension	183 weeks + 88 weeks extension
14	Name of the Private Participant	Veolia Water (India) Pvt. Ltd.

Sl. No	Description	Karnataka Water Supply Project
15	Separate entity if any formed and its nature of share holding	No separate entity created
16	Contract Value	Rs. 28 Crores. (Rs. 22.40 Crores as remuneration and Rs. 5.60 Crores as Max. bonus)
17	Mode of Operator Selection	Competitive Bidding
18	Bidding criteria	Lowest bid price for rehabilitation and O&M
19	Scope of work	**1.** Continuous pressurized water supply to all connected properties and stand-posts, 100% metering of all connections, 100% meter reading and preparation of bill for all connections. **2.** Establishment of 24 hours customer service
20	Baseline Indicators	Water Supply is intermittent. In general all local bodies where giving water once in 3 days to once in 5 days
21	Performance Indicators	**1.** 24 X 7 water supplies with 6m head pressure at customer end **2.** Emergency stoppages not to exceed 12 hours and no more than four emergency stoppages in a year. **3.** Physical losses to be limited to 20 liters / connections / day / meter pressure. **4.** All customer complaints to be responded within 24 hours and re-dressal within seven days. **5.** Leaks appearing at the surface to be repaired within 24 hours.
22	Cost recovery/payment terms	60% of Rs. 22.40 Crore, i.e., Rs. 13.50 as fixed remuneration in 15 equal quarters and balance Rs. 8.90 Crores as performance Remuneration. Out of Rs. 8.90 Crores, Rs. 2.67 Crores if all targets achieved over the period of 18 months from the date of signing
23	If service standard not achieved what is the penalty?	Maximum 10% of the contract value along with the foregoing the bonus and termination of the contract
24	Tariff revision (upon completion and at regular intervals)	Tariff revision is proposed but only after showcasing the 24 X 7 supply. It was proposed to move from flat rate system to volumetric system with telescopic increase
25	Subsidies and type of subsidy and its source	Capital fully subsidized by the state.

Sl. No	Description	Karnataka Water Supply Project
26	Risk Allocation	Risk of tariff revision and bulk supply is borne by the local body. Technology and operational risk is with Private operator
27	Problem faced during the project period	Lack of network and customer data Absence of bulk water meters
28	Status of desired Objectives, after implementation	**1.** 24 x 7 water supplies with 6m pressure **2.** 24 x 7 customer service centre **3.** 100% meter reading **4.** 100% bill generation **5.** Water losses only maximum 10% whereas losses can be up-to 25% as per Contract
29	Dispute Resolution Mechanism	Adjudication through Adjudicator failing which Arbitration
30	Status and cost of service before and after this project	Number of connections before – 16,399 Number of connections after – 24,145 Volume of Water Supplied before –22 MLD Volume of Water Supplied after –18 MLD Revenue billed before – Rs.1,383,243/month Revenue billed after – Rs.2,880,826/month

Annex 3.2: Alandur Sewerage Scheme

Sl. No.	Description	Alandur Sewerage Scheme		
1	Objective	To improve health conditions by providing proper sanitation facility to the citizens, with minimum cost		
2	Local bodies/ Government agencies / Financial Institutions	Government of Tamil Nadu, Commissionarate of Municipal Administration, Alandur Municipality and Tamil Nadu Urban Development Fund, Tamil Nadu Urban Infrastructure Finance and Development Corporation		
3	Area of local body	19.5 sq. km.		
4	Extent of area covered in the local body	19.5 sq. km.		
5	Population of local body	1.46 Lakhs (2001 Census)		
6	Population covered by this project	1.46 Lakhs		
7	Project cost	Rs. 45.31 Cr. initially and subsequently reduced to Rs. 33.78 Cr. as STP was proposed under PPP mode		
8	Financing model	**Description**	**Before PPP in Rs. Cr**	**After PPP in Rs. Cr**
		Loan	33.70	20.00
		Grant	6.26	4.00
		ULB/Public Deposit	5.35	10.00
		Total	**45.31**	**34.00**
9	Award date	Feb-2000		
10	Type of contract	EPC for Collection system and BOOT for STP		
11	Contracting authority	Alandur Municipality		
12	Implementation period	3 years		
13	Duration of the contract and any possible extension	14 years. Assets will be transferred to the local body after 14 years		
14	Name of the Private Participant	Joint venture between IVRCL infrastructure & Projects Ltd., and Black Durr & Wabag Technologies Ltd.,		
15	Separate entity if any formed and its nature of share holding	A separate company was formed in the name of *"First STP (P) ltd.,"* with 95% share holding from IVRCL and 5% from VATECH WABAG Ltd.		
16	Contract Value	The total contract value for collection system is Rs. 34 Crores. The Value of STP staggered based on MLD flow, with a minimum guaranteed flow agreed by the ULB.		

Sl. No.	Description	Alandur Sewerage Scheme
17	Mode of Operator Selection	Competitive Bidding
18	Bidding criteria	90% weightage goes for Collection system which is on EPC mode and 10% weightage goes for STP which is on BOOT mode. For STP the cost Per MLD was fixed for every year and the bid variable for STP was the concession period. Bidders who quotes less concession period scores high marks. H1 of the combined evaluation is the winner of the contract
19	Scope of work	Construction of collection system on EPC mode. Construction of STP on BOOT mode in a Phased manner. In the first phase, 12 MLD treatment plant was to be constructed as an intermediate stage and in phase II, 24 MLD to be constructed to meet ultimate demand
20	Baseline Indicators	No sewerage systems. Sewerage let into septic tanks, and in most places in the drains. Very poor health conditions. No proper disposal system of drains also.
21	Performance Indicators	BOD level of treated sewage
22	Cost recovery/payment terms	Contract period was fixed as 14 years with Rs. 4932 per MLD in first year and Rs. 3587 in 14th year. A minimum guaranteed flow has been assured by the ULB. Payment based on minimum guaranteed supply or actual flow, whichever is higher. If shortage is due to flaw in collection system construction then there is no compensation.
23	If service standard not achieved what is the penalty?	Payment to the contractor reduced proportionately
24	Tariff revision (upon completion and at regular intervals)	Initially two categories namely domestic and non domestic were fixed. Then this was further categorized based on the plinth area of individual properties.
25	Subsidies if any, type of subsidy and its source	Capital grant of Rs. 4.00 Crores is provided to the local body for construction of the collection system
26	Risk Allocation	Private sector bears the O&M risk, Construction risk and cost over run. Alandur Municipality bears the demand risk

Sl. No.	Description	Alandur Sewerage Scheme
27	Problem faced during the project period?	During the project period, since house service connections were not given on time by the municipality, there was no sewage flow even after commissioning of the project. This has led to disputes between the parties. Secondly, as per the contract, the local body has to take over the pumping station and operation and maintenance. However due to non availability of technical staff, the municipality haven't taken over the Pumping Station. Hence the contractor was forced to operate the Pumping Station for few months.
28	Status of desired Objectives, after implementation	The desired objective was to create a sewerage facility, which was achieved.
29	Dispute Resolution Mechanism	Adjudication to start with, followed by arbitration if required. If there is no agreement on either of the above, the subject will be trailed under court of law
30	Status and cost of service before and after this project	It is a new creation of asset. Any cost towards this service is additional. However, these are being covered by user charges.

Annex 3.3: New Tiruppur Area Development Corporation Limited

Sl. No.	Description	NTADCL
1	Objective of the project	1. To provide water to the water deficient town of Tiruppur to meet the needs of industrial and domestic consumers. 2. To provide a sewerage system. 3. To set up the project on a self sustaining basis with minimal funding support from Government
2	Local bodies/ Government agencies	Government of Tamil Nadu and Tiruppur Corporation
3	Area of local body in Sq. Km	27 square km.
4	Extent of area covered in the local body in Sq.Km	100 % and beyond. Coverage for outlying villages also
5	Population of local body	7, 46, 817 (2001 Census)
6	Population covered by this project	100 %
7	Project cost	Rs 1023 Crore
8	Financing model	**Description** / **Rs. in Crore** Equity / 322.70 Loan / 613.80 Subordinate Debt / 86.50 **Total** / **1023.00**
9	Award date	11 February 2000
10	Type of contract	Concession [BOOT]
11	Contracting authority	NTADCL (the Company)
12	Implementation period	Water Supply: November 2002 – May 2005 Sewerage : November 2002 – December 2006
13	Duration of the contract and any possible extension	The concession period is 33 years
14	Name of the Private Participant	Infrastructure leasing and Financial Services Ltd.,
15	Separate entity if any formed and its nature of share holding	Tamil Nadu Water Investment Company Limited as the holding company: Shareholding GoTN 46 % IL&FS 54 %
16	Scope of work	Turnkey implementation of the project and operation and maintenance over the life of the 33 year Concession
17	Contract Value	Rs 660 Crore

Sl. No.	Description	NTADCL
18	Mode of Operator Selection	Invitation Basis for Joint venture and Competitive Bidding for award of contract to implement
19	Bidding criteria	NTADCL has selected the contractors based on least cost selection
20	Baseline Indicators	Alternate days supply of water for domestic for two hours. No Municipal water supply for Industries. Industries have to bring water from 10 to 30 km at a cost of Rs. 30 to Rs. 70 per/kl.
21	Performance Indicators	Bulk supply of water as per the required norms, Water Quality, reduction in Leakage losses and operating cost
22	Cost recovery/ payment terms	Initially fixed at Rs. 52.89 per KL for industries and Rs. 7.28 per KL for domestic. Subsequently based on willingness to pay survey the tariff was reduced to Rs. 45/KL and Rs. 5/Kl for nondomestic and domestic respectively. The current sources of water to industries are water tankers. In order to attract industries to take water supply NTADCL has proposed Rs. 23/KL initial months and proposed to increase to Rs. 45/kl. However are negotiating with NTADCL to reduce the tariff. Any price increase has to be approved by price water committee. Any cost increase cannot 20 % p.a return on total investment in project as permitted as per concession agreement
23	If service standard not achieved, is there any penalty	Event of Default can lead to Termination of Concession
24	Tariff revision (upon completion and at regular intervals)	Tariff revision is the discretion of the local body. However the local bodies have to pay the agreed price to NTADCL for bulk purchase.
25	Subsidies if any, type of subsidy and its source	Domestic Water Supply at average of Rs 4.25/ kl compared to industrial price of Rs 50 /kl. Subsidy for domestic supply. Total domestic supply 57 MLD, total industrial supply 105 MLD
26	Risk Allocation between GoTN and IL&FS	Construction, Implementation, Commercial Risk – IL&FS Regulatory, Power Supply, Clearances, Water Shortage Risk – GoTN
27	Problem faced during the project period? If yes, what is the problem and solution given/proposed?	Industrial demand lower than anticipated due to excessive rains (leading to use of groundwater) and industry downturn. Pressure on reducing the bulk water charges to industries. NTADCL is exploring various strategies in water pricing.

Sl. No.	Description	NTADCL
28	Status of desired Objectives, after implementation	All performance parameters met or exceeded (i.e. better than expected) on quality of water, leakages, and operating cost
29	Dispute Resolution Mechanism	Arbitration
30	Status and cost of service before and after this project	Before: Domestic – Supply for 2 hours alternate days. Cost Rs 5/kl Industrial – No municipal supply. Well water cost Rs 30 -70/kl, transported over 10 -30 km After: Domestic – Daily supply. Cost Rs 5/kl Industrial – 45 MLD bulk supply. Well water cost Rs 30 -70/kl

Annex 3.4: Karur Toll Bridge

Sl. No.	Description	Karur Bridge			
1.	Objective	To Construct a bridge in-lien of a damaged bridge across River Amaravathy facilitating vehicles to minimize detour to reach Karur town with the limited financial capacity of the Karur Municipality.			
2.	Government department/ Public sector involved in the project	Government of Tamil Nadu, Karur Municipality & Tamil Nadu Urban Development Fund			
3.	Length of road/ bridges proposed	350m long bridge			
4.	Expected Vehicle population and type of vehicles	**Type**	**Single trip**	**Multiple trip**	**Monthly trip**
		Car/Jeep/Van	530	85	255
		LUC Truck	360	85	255
		Truck	150	20	60
		Bus	30	75	255
		The expected growth rate varies from 1.5% for buses to 8% for Car/Jeep/Van			
5.	Project cost	Rs. 15.79 Crores			
6.	Financing model	Entire investment by private operator on a project recourse basis.			
7.	Award date	March 1998			
8.	Type of contract	BOT			
9.	Contracting authority	Karur Municipality			
10.	Implementation period	1.5 years			
11.	Duration of the contract and any possible extension	14 years (Including Construction Period)			
12.	Name of the Private Participant	M/s. East Coast Consultants & Infrastructure P Ltd.,			
13.	Separate entity if any formed and its nature of share holding	East Coast Constructions and Industries (ECCI) created a wholly owned subsidiary entity called East Coast Consultants and Infrastructure P Ltd (ECCIL) for this project. The concession agreement has jointly been implemented by ECCI and ECCIL with Karur Municipality.			
14.	Mode of Operator Selection	Competitive bidding			
15.	Bidding criteria	Lowest concession period			
16.	Scope of Work	Construction of bridge of length 350m and width 17.7m across river Amaravathy at Karur, Operation (including toll management) and maintenance of the bridge during the concession period.			
17.	Baseline	The existing bridge was constructed in 1924 and was structurally weak. Hence the vehicles have to travel for about 12km to cross the river.			
18.	Service standards	After the construction of the bridge at IS and IRC standards, the local body has laid out certain parameters such as minimum Roughness index of 3500mm/km, attending the maintenance works involved at a minimum time.			

Sl. No.	Description	Karur Bridge
19.	If service standard not achieved, is there any penalty	Enchasing the performance security based on the level of non-compliance
20.	Cost recovery/ payment terms	Toll mechanism. Private operator will charge the users and recover the investment. The toll was fixed in consultation with users, Karur municipal council and Government of Tamil Nadu. A differential rate was fixed for Light vehicles, Truck, Bus and other heavy vehicles.
21.	Revision of user charges	8% every year
22.	Subsidies if any, type of subsidy and its source	No subsidies
23.	Risk Allocation between Government and private sector	Road users demand for the bridge, Natural risk and other macro economic risk has to be borne by the operator. As per the agreement no competing structure can be constructed during the concession period across the river for a radius of 10km on either side of the bridge even if the traffic increases
24.	Problem faced during the project period? If yes, what is the problem and solution given/ proposed?	During a heavy flood in the year 2005, the approach road was damaged. The Government has taken over the bridge immediately without any compensation. However after proper due-diligence by the committee consists of retired Judge and technical experts, the operator was adequately compensated.
25.	Status of desired Objectives, after implementation	The bridge has been constructed without affecting Karur Municipal Finances and the travel distance to cross River Amaravathy has reduced.
26.	Dispute Resolution Mechanism	Adjudication, Arbitration and Court of law
27.	Status and cost of service before and after this project	Time and Vehicle operating cost reduced because of the new bridge. The local body has not incurred any cost either before or after the construction of bridge.

Annex 3.5: Chennai Solid Waste Management

Sl. No.	Description	Chennai Solid Waste Management
1.	Objective	Cost Effectiveness and Quality of Service.
2.	Local bodies/ Government agencies	Corporation of Chennai
3.	Area of local body in Sq. Km	170 sq. km
4.	Extent of area covered in the local body in Sq. Km	From 2000 to 2007 – 60 sq. km
5.	Population of local body	44 Lakhs
6.	Population covered by this project	20 Lakhs
7.	Financing model	Entire investment by private operator
8.	Award date	November 1999
9.	Type of contract	BOO
10.	Contracting authority	Corporation of Chennai
11.	Duration of the contract and any possible extension	7 years (with possible extension up to 25% of 7 years) From 2000 to 2007
12.	Name of the Private Participant	CES - ONYX
13.	Separate entity if any formed & its nature of share holding	No separate entity formed
14.	Scope of work	From primary collection to disposal at land fill site
15.	Contract Value	In the year 2000, Rs. 693 per metric ton is given then in seven years it is successively raised to Rs. 1212 per metric ton
16.	Mode of Operator Selection	International Competitive Bidding
17.	Bidding criteria	Lowest cost per ton of garbage
18.	Baseline Indicators	The corporation has faced shortage in man power and day-to-day clearance of garbage was not done. In addition, the Solid Waste Management requires frequent purchase of materials. As Chennai Corporation has to follow Government procedure for every purchase, it takes long time to get the materials and provide services to the public.
19.	Performance Indicators	Clearance of Garbage every day. No. of Complaints received and No. of unaddressed complaints.
20.	Cost recovery/ payment terms	Monthly payment by Corporation. The fee will be increased based in the pre-agreed percentage
21.	If service standard not achieved, is there any penalty	0.5% of the bill amount will be deducted if the minimum standards were not achieved.
22.	User Charges to Public	No user charges

Sl. No.	Description	Chennai Solid Waste Management
23.	Subsidies if any,	No subsidy
24.	Risk Allocation between Public sector and private sector	Natural risk and the risk on investment on vehicles will be borne by the Contractor Any legal aspects on SWM which requires additional work has to be borne by the Corporation
25.	Problem faced during the project period? If yes, what is the problem and solution given/ proposed?	MSW 2000 rules require segregation of wastes. There is no segregation clause with the private operator. Hence private operator is not ready to do segregation of municipal solid waste as per the rules. Hence Corporation has faced the legal risk. This problem was not solved till the contract completion period. Based on this experience Chennai Corporation in its new contract with Neel Metal Fanalca has included that the private operator has to meet the cost due to change in MSW rules.
26.	Status of desired Objectives, after implementation	The corporation has achieved the cost effective solution and clearance of garbage on day-to-day basis
27.	Dispute Resolution Mechanism	Adjudication, Arbitration and court of law
28.	Status and cost of service before and after this project	Quality of service has improved and the solid wastes were removed on day-to-day basis.

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