



Technical Assistance Report

Project Number: 41575
October 2007

India: Mainstreaming Public–Private Partnerships at Central Line Ministries of the Government of India

Asian Development Bank

CURRENCY EQUIVALENTS

(as of 17 October 2007)

Currency Unit	–	Indian rupee (Re/Rs)
Re1.00	=	\$0.0254
\$1.00	=	Rs39.3537

ABBREVIATIONS

ADB	–	Asian Development Bank
DEA	–	Department of Economic Affairs
GDP	–	gross domestic product
IIFCL	–	India Infrastructure Finance Company Limited
MIS	–	management information system
PPP	–	public–private partnership
TA	–	technical assistance
VGf	–	Viability Gap Fund

TECHNICAL ASSISTANCE CLASSIFICATION

Targeting Classification	–	General intervention
Sector	–	Law, economic management, and public policy
Subsector	–	Economic management
Themes	–	Sustainable economic growth, private sector development, capacity development
Subthemes	–	Fostering (physical) infrastructure development, public–private partnerships, institutional development

NOTE

In this report, "\$" refers to US dollars.

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I. INTRODUCTION

1. The Government of India (the Government) has requested advisory technical assistance (TA) from the Asian Development Bank (ADB) to mainstream public-private partnerships (PPPs) in central line ministries. The Fact-Finding Mission visited India 2–5 July 2007 to ascertain the context, scope, and direction of the proposed TA, as well as to consult on the specifications, and TA measures and costs related to its components. The Government has concurred with the project impact, outcome, outputs, implementation arrangements, costs, financing arrangements, and terms of reference. The design and monitoring framework is in Appendix 1.¹

II. ISSUES

2. **Background.** India achieved an impressive 9% gross domestic product (GDP) annual growth rate during 2006–2007. Over the past 5 years (2002–2006), the GDP growth rate has averaged 7.2%. However, the economy is increasingly running into infrastructure constraints. The midterm appraisal of the Tenth Five Year Plan of the Planning Commission showed that inadequate infrastructure in urban and rural areas is a major factor constraining India's economic growth. Weak infrastructure is costing India about 3–4 percentage points of GDP growth a year.² In the Eleventh Five Year Plan (2007–2012), the Planning Commission estimates that India needs to increase its spending on infrastructure from 4.6% to 8.0% of GDP to accelerate average GDP growth from 7% to the targeted 9% over the next 5 years. ADB's country strategy for India concurs with this assessment.

3. Infrastructure, as a public good, is a critical determinant of productivity, inclusive development, national integration, and poverty reduction. Insufficient capacity across infrastructure sectors leads to a widening infrastructure gap, resulting in lower productivity, higher transport and logistics costs, reduced competitiveness, and slower growth. Public financing—already constrained by the deficit reduction provisions of the Fiscal Responsibility and Budget Management Act 2004³—will not be able to generate alone the needed levels of investments to improve infrastructure facilities. According to the Eleventh Five Year Plan, the targeted average GDP growth rate of 9% during 2007–2012 requires an increase in private investment from the historical average of 6.5% per year to nearly 12.0% per year. This would raise private investment from 21.1% of GDP in the Tenth Five Year Plan to 24.9% in the Eleventh Five Year Plan. Thus, the private sector needs to be encouraged to participate in infrastructure improvements. Furthermore, only a closer partnership between the public and private sectors can support sustainable development, reduce poverty, promote equity, and achieve greater prosperity.

4. **Government Strategy and Recent Initiatives.** The Government is fully aware of the synergies that a partnership with India's strong and vibrant private sector can bring to infrastructure. The Government's strategy for addressing the infrastructure deficit includes (i) mainstreaming PPP arrangements as the preferred mode for infrastructure development, (ii) enhancing private sector participation through policy and regulatory framework, and (iii) enabling arrangements for bridging financing gaps. The strategy essentially utilizes budgetary

¹ The TA first appeared in *ADB Business Opportunities* on 25 September 2007.

² World Bank. 2006. *India: Building Capacities for Public Private Partnerships*. Washington, DC.

³ The Fiscal Responsibility and Budget Management Act requires the Government to reduce its fiscal deficit by a minimum of 0.3% of GDP every year and its revenue deficit by 0.5% each year, so that the fiscal deficit is not more than 3% of GDP by the end of March 2009.

resources to maximize efficiency and leverage the large pool of private capital, as well as introduce private sector-based technological efficiencies and management enhancement.

5. The Government recognizes it has an important and expanded role in the changing economic and technological context for catalyzing private investment flows in infrastructure through (i) developing legal and regulatory frameworks and arrangements, (ii) planning and coordinating, (iii) operating public infrastructure efficiently, (iv) enhancing access and benefits for the poor, (v) mainstreaming good governance, (vi) reforming institutions, and (vii) ensuring quality of infrastructure. In all these areas, the challenge for the Government is in pursuing reforms that assure investors of predictability, equal opportunities, low transaction costs, and rates of return commensurate with the levels of risk.

6. Catalyzing infrastructure investments requires sustained actions over a broad range of factors. Some recent steps taken by the Government to encourage PPPs include

- (i) establishing a PPP cell in the Department of Economic Affairs (DEA) in the Ministry of Finance; the Government is also guiding state governments and central line ministries in establishing cells for mainstreaming PPPs;
- (ii) setting up the India Infrastructure Finance Company Limited (IIFCL) to facilitate access to long-term resources for infrastructure development;⁴
- (iii) creating a fund, the Viability Gap Fund (VGF) scheme, with a current annual allocation of about \$340 million to promote PPPs;⁵
- (iv) forming an interministerial group to determine the prequalification of bidders under PPP to avoid fly-by-night operators; and
- (v) preparing PPP tool kits and model concession agreements by DEA for use by various state governments and central line ministries.

7. Despite these recent steps, India is still at the first stage of PPP development⁶ in most sectors. This stage involves, among other activities, designing a policy and legislative framework that enables successful partnerships, getting the deals right, and building the marketplace. Central line ministries have not recognized fully the potential for infrastructure development through PPPs, especially for building a viable PPP framework and pipeline of projects. The enabling legal, policy, and regulatory frameworks at most central ministries remain underdeveloped or weakly applied.

8. The Government realizes that capacity, awareness, and attitudinal shifts of the central ministries are prerequisites for mainstreaming PPPs. The level of capacity and operational efficiency across the central line ministries undermines the effectiveness of infrastructure facilities, which in turn impedes the ability to attract private sector interest in developing and financing PPP infrastructure projects. The central ministries also lack a real-time database for effective monitoring of ongoing PPP projects.

9. In view of this situation, as well as ADB's substantial involvement in infrastructure, the Government requested ADB assistance in 2006 to build the capacity of states for

⁴ IIFCL has paid-up capital of about \$2.27 billion and authorized capital of about \$22.7 billion. Apart from its equity, IIFCL will be funded through long-term debt, for which the Government may extend a guarantee for repayment of principal and interest. The extent of guarantee provided in the first year of operations is expected to be around \$2.2 billion.

⁵ The Viability Gap Fund can provide catalytic grant assistance of up to 20% of the capital costs, through which it expects several projects to become bankable, attract private capital, and mobilize private sector efficiencies.

⁶ Three infrastructure sectors in India (roads, ports, and airports) are at a more advanced level of PPP development compared with other infrastructure sectors in India.

mainstreaming PPPs and to strengthen the nodal PPP cell at DEA.⁷ The Government requested similar support⁸ for central line ministries that have been unable to incorporate PPPs significantly into their approach, especially when compared with power and telecommunications. The proposed TA complements the ongoing TA since the PPP cell within DEA will play a crucial coordinating role to ensure the effective and efficient implementation of PPP schemes across the selected central line ministries.

10. Unlike the ongoing TA, which was designed to develop cross-sector capacity for promoting PPPs at nodal agencies of states, the proposed TA will develop sector-specific capacity of central line ministries to promote PPP initiatives for the sectors they are overseeing. PPP cells at selected ministries would provide sector-specific advice and guidance, among other activities, to state PPP cells and state line departments. Lessons learned from PPPs emphasize the need for sector-specific interventions.

11. ADB's assistance through this TA has significant operational relevance since the enhanced capacity for identifying and developing PPPs will generate business opportunities for ADB infrastructure financing. This TA also represents an opportunity for ADB to address a widely felt need to focus on central line ministries that could contribute directly to growth and improvement in poverty indicators, such as health and education, as well as on ministries where the predominance of the state impinges on creating equal opportunities.

III. THE PROPOSED TECHNICAL ASSISTANCE

A. Impact and Outcome

12. The proposed TA will support the Government in mainstreaming PPPs in the central line ministries by building capacity and institutionalizing PPP best practices to improve skills expeditiously. The impact of the TA will be improved access to basic infrastructure services and increased efficiency in providing such services.

13. The outcomes of the TA will include (i) enhanced capacity of PPP cells in selected central line ministries to prepare, evaluate, and appraise PPPs in infrastructure; (ii) significantly improved monitoring of progress in PPPs in infrastructure in central line ministries through well-knit databases; (iii) increased awareness among potential private sector partners about the project cycle of PPP projects in infrastructure, and Government expectations regarding value for money; and (iv) increased private sector participation in infrastructure development and management throughout India over the long term.

B. Methodology and Key Activities

14. Support under this project will be (i) part of the larger Government agenda on economic reforms and institutional development by focusing on a key sector (i.e., infrastructure); (ii) needs driven (the TA has been formulated based on needs specified by central line ministries); (iii) targeted and add value by focusing on relevant capacity building and creating an enabling framework for PPPs in selected central line ministries; and (iv) focused on selected central line

⁷ ADB. 2006. *Mainstreaming Public-Private Partnerships at State Level*. (TA 4890, Japan Special Fund, \$1.8 million; Technical Assistance Support Fund, \$1.2 million, approved 20 November).

⁸ The request for ADB assistance for central line ministries was indicated initially in June 2007 and reiterated during the country partnership strategy discussions in July 2007. The Conference of Chief Secretaries, held on 21 July 2007, also highlighted the importance of leadership by central line ministries in introducing PPPs in major infrastructure sectors, including health and education.

ministries where the scope for using PPPs will have significant impact on the development of essential infrastructure.

15. The TA will have two components: capacity building and institutionalization of PPP skills. The first component, capacity building for PPP cells in selected central line ministries, includes (i) developing regulatory and policy frameworks in selected subsectors in consultation with line ministries; (ii) providing specific advice and guidance to PPP cells in line ministries; (iii) supporting project preparation, appraisal, and evaluation; and (iv) disseminating knowledge and building awareness of international best practices.⁹ This support will proceed in tandem with a review of the infrastructure development constraints in the existing frameworks; review and finalization of eligibility criteria; and development of necessary policy, regulatory, and institutional reforms in the infrastructure sector.

16. Based on the capacity building support, the second component will help PPP cells in selected central line ministries to institutionalize their skills through practical application of the enabling framework and lessons learned. For this, each selected central line ministry will identify two potential PPP interventions around which the frameworks will be refined and skills upgraded. This component includes (i) refining the PPP policy and regulatory framework,¹⁰ (ii) meeting compliance and public safety norms, (iii) perfecting bidding documents and procedures, (iv) determining how risk is shared between public and private partners, (v) conducting value-added research and analysis, and (vi) determining adequate monitoring arrangements.

17. Key activities will include (i) conducting a baseline survey of the regulatory environment for infrastructure at selected central line ministries; (ii) developing the capacity of PPP cells in those ministries;¹¹ (iii) assisting in promoting PPPs in infrastructure through appropriate outreach to potential private sector partners; and (iv) increasing awareness among these partners about their role in PPP, thereby increasing overall understanding of the PPP project cycle.

C. Cost and Financing

18. The TA is estimated to cost the equivalent of \$2.5 million, of which ADB will finance the equivalent of \$2.0 million on a grant basis from its technical assistance funding program. The Government will provide the equivalent of \$500,000 to finance counterpart staff, office facilities, and local transport. The detailed cost estimates and financing plan are in Appendix 2.

⁹ Dissemination also will take the form of road shows that will help showcase the PPP experiences of the selected projects. Workshops or seminars will be conducted, and capacity development support will include undertaking partnership development missions to countries that have practiced PPPs successfully in infrastructure. Cross-learning among the central infrastructure line ministries also will be encouraged.

¹⁰ The legal and regulatory changes that are needed to promote PPPs involve (i) concession contracts; (ii) financing, such as through special purpose vehicles; (iii) competition; and (iv) regulatory risks that could be disincentives to private sector participation in PPPs in infrastructure.

¹¹ The training and capacity building activities include (i) enhancing the understanding of the rationale for PPP projects; (ii) using risk assessment models and developing options for appropriate risk-sharing schemes; (iii) effectively using tools for assessing value for money, such as public sector comparators (i.e., what the Government would have to pay if it undertook the project itself); (iv) understanding the structure and regulatory implications of concession contracts; (v) managing a bid process to maximize competition, and addressing issues relating to competition and regulation in infrastructure; (vi) appraising PPP projects; and (vii) evaluating contingent liabilities incurred as part of PPP projects.

D. Implementation Arrangements

19. DEA will be the Executing Agency for the TA. A steering committee for the TA, to be chaired by a joint secretary at DEA, will be established and will have representatives of the PPP cells from the participating line ministries, as well as one person from the private sector selected by DEA. The steering committee, which will meet at least once every 6 months, is mandated to provide policy oversight, monitor and guide TA implementation, and resolve issues that arise during implementation.

20. The entities selected for TA support are PPP cells in six central line ministries.¹² To achieve project outcomes, 468 person-months of national consulting services (Appendix 3) will be provided¹³ to the selected ministries. In each ministry, the TA will provide (i) one PPP expert (on an individual basis) focusing on project financial analysis and risk management, (ii) one financial expert (individual) focusing on financial modeling, and (iii) one management information system expert (individual) focusing on information management.¹⁴ The individuals and firms will be selected in accordance with ADB's *Guidelines on the Use of Consultants* (2007, as amended from time to time). A committee of representatives from ADB and the Government (including DEA and the participating line ministries) will recruit the consultants.

21. The Government and participating line ministries will provide office space and furniture, as well as the logistical and administrative support necessary to implement the project. TA implementation will last 36 months, from November 2007 to November 2010. The advance payment facility, to be administered and managed by DEA, may be used to facilitate TA disbursement. The steering committee will disseminate the results of the TA, and project evaluation results will be made publicly available on the ADB website.

IV. THE PRESIDENT'S RECOMMENDATION

22. The President recommends that the Board approve the provision of technical assistance not exceeding the equivalent of \$2,000,000 on a grant basis for Mainstreaming Public–Private Partnerships at Central Line Ministries of the Government of India.

¹² The central infrastructure line ministries will be identified in consultation with the Government of India.

¹³ The selection method, terms of reference, reporting as well as coordinating arrangements for the consultants are in Appendix 3. For facilitating the work of PPP cells, the 2006 World Bank report on PPPs in India (refer to footnote 2) states that PPP cells need to “rely on some long-term consulting skills” so that consultants can provide the necessary project-related and transactions skills.

¹⁴ Given the long-term nature of the assignment, a large number of individual consultants are essential since it would facilitate customization of the approach and much needed flexibility. Each ministry requires a tailor-made and specialized focus. A single consulting firm would not be able to bring all the diverse specialized resources that are required for this assignment.

DESIGN AND MONITORING FRAMEWORK

Design Summary	Performance Targets/Indicators	Data Sources/Reporting Mechanisms	Assumptions and Risks
<p>Impact</p> <p>Improved access to basic infrastructure services</p> <p>Increased efficiency in providing infrastructure services</p>	<ul style="list-style-type: none"> • Share of population with access to basic infrastructure increases by 5 percentage points yearly • Real cost of infrastructure service provision is reduced by 5 percentage points on a year-on-year basis • Business climate improves 	<ul style="list-style-type: none"> • International and domestic surveys of business climate • Annual reports of central infrastructure line ministries • ADB evaluation missions • National sample surveys • Project MIS data 	<p>Assumptions</p> <ul style="list-style-type: none"> • Strong commitment from central line ministries to PPP methodology • Increased efficiency of infrastructure investment <p>Risk</p> <ul style="list-style-type: none"> • Private sector might not be more efficient
<p>Outcomes</p> <p>(i) Enhanced capacity of PPP cells at participating central line ministries to prepare, evaluate, and appraise PPPs in infrastructure</p> <p>(ii) Significantly improved monitoring of overall progress in PPP in infrastructure in central line ministries</p> <p>(iii) Increased awareness among potential private sector partners of the project cycle of PPP projects in infrastructure, and the expectations of Government with respect to value for money</p> <p>(iv) Over the long term, increased private sector participation in infrastructure development and management throughout India</p>	<ul style="list-style-type: none"> • The number of PPP projects prepared by the entities increases year-on-year • Share of PPP in infrastructure investment by central line ministries rises on a year-on-year basis • Total investment in infrastructure (as % of gross domestic product) increases on a year-on-year basis in the selected line ministries • All staff members in PPP cells are able to (i) understand the rationale for PPP projects, (ii) use risk assessment models and develop options for appropriate risk-sharing schemes, (iii) effectively use tools such as public sector comparators, (iv) understand the structure and regulatory implications of concession contracts, (v) manage a bid process to maximize competition and appreciate competition issues, (vi) appraise PPP projects, and (vii) evaluate contingent liabilities • The number of private sector firms that are aware of PPP opportunities and that bid for potential projects increases year-on-year 	<ul style="list-style-type: none"> • Annual budget reports of central line ministries • Project MIS data • ADB review missions • Consultants' reports • Review of PPP projects prepared by the central line ministries • Review of reporting of contingent liabilities by the central line ministries 	<p>Assumptions</p> <ul style="list-style-type: none"> • Fiscal space • Political will of central line ministries • Willingness and capacity of private sector (technical and financial) to participate • Consulting capacity for project preparation • Regular ADB and steering committee review • Trained staff will not leave Government • Trained staff will be retained in the same department • Private sector is ready for PPPs <p>Risks</p> <ul style="list-style-type: none"> • Sixth Pay Commission may reduce fiscal space • Commitment may not be consistent across states • Private sector interest may be lower than assumed • Trained staff will leave government or not be retained in the same department • Capability may degrade over time without refresher training • Private sector interest in PPPs may take longer to mature

Design Summary	Performance Targets/Indicators	Data Sources/Reporting Mechanisms	Assumptions and Risks
<p>Outputs</p> <p>Tools, reports, marketing plans, support mechanisms (such as databases), etc. to (i) strengthen PPP cells in selected central line ministries, and (ii) institutionalize PPP skills in the selected central infrastructure line ministries to enable them to better catalyze and manage PPPs</p> <p>PPP appraisal guidelines, templates, model agreements</p>	<ul style="list-style-type: none"> • Needs assessment reports that accurately highlight skills gaps • Capacity development plans that are realistic and useful • Materials of high quality (in substance and presentation), and that also carry simple and easily understandable messages 	<ul style="list-style-type: none"> • ADB and steering committee reviews • Consultants' reports • Regular monitoring reports from line departments 	<p>Assumptions</p> <ul style="list-style-type: none"> • Support for consulting input from central line ministries will be provided on time and to specifications • Assessments and reviews are rigorous and can be conducted on time <p>Risks</p> <ul style="list-style-type: none"> • Counterpart staff members from central line ministries not made available on time. • Inordinate delays in getting the project off the ground in states
<p>Activities with Milestones</p> <p>1. Preparatory work (milestone: by QI 2008)</p> <ol style="list-style-type: none"> 1.1 Review infrastructure development constraints of the existing frameworks 1.2 Conduct baseline survey of the regulatory environment for infrastructure in participating central line ministries 1.3 Develop risk assessment models for the selected central line ministries 1.4 Collect necessary data and develop a public sector comparator model for the infrastructure sector in each participating central line ministry 1.5 Determine adequate monitoring arrangements <p>2. Capacity development work (milestone: continues to QI 2010)</p> <ol style="list-style-type: none"> 2.1 Assess training needs of the selected central infrastructure line ministries 2.2 Develop guidelines and manuals for PPP cells 2.3 Provide capacity development support and training to the selected line ministries to (i) enhance the understanding of the rationale for PPP projects, (ii) use risk assessment models and develop options for appropriate risk-sharing schemes, (iii) effectively use tools for assessing value for money, (iv) understand the structure and regulatory implications of concession contracts, (v) manage a bid process to maximize competition, (vi) appraise PPP projects, (vii) evaluate contingent liabilities incurred as part of PPP projects and otherwise, and (viii) address issues relating to competition and regulation in infrastructure 2.4 Conduct research on international best practices 2.5 Assess impact of training to feed into redesign, if necessary, of training programs <p>3. Institutionalizing PPP (milestone: continues to QIII 2010)</p> <ol style="list-style-type: none"> 3.1 Refine PPP policy and regulatory framework 3.2 Improve bidding documents and procedures 3.3 Conduct value-added research and analysis 3.4 Disseminate knowledge and raise awareness of international best practices in PPP approach and practice 3.5 Conduct appropriate outreach to potential private sector partners to increase their awareness about the private sector's role in PPP, particularly relating to the concept of value for money, and increase overall understanding of the PPP project cycle 			<p>Inputs</p> <p>ADB</p> <ul style="list-style-type: none"> • \$2.0 million • National consultants (468 person-months) • Workshops, training seminars, and conferences (\$100,000) • Review missions • Participation in tripartite meetings <p>Central line ministries</p> <ul style="list-style-type: none"> • Counterpart staff • Office accommodation and transport • Administrative services • Facilitation for meetings • Participation in tripartite meetings

Design Summary	Performance Targets/Indicators	Data Sources/Reporting Mechanisms	Assumptions and Risks
<p>Activities with Milestones</p> <p>4. Project supervision and administration</p> <p>4.1 Set up consulting recruitment committee, with provisions to co-opt members later (November 2007)</p> <p>4.2 Establish project steering committee, with provisions to co-opt members later (November 2007)</p> <p>4.3 Engage consultants for project activities (starting November 2007)</p> <p>4.4 Conduct reviews</p> <ul style="list-style-type: none"> • TA monitoring review (once in 3 months) • Steering committee review (once in 6 months) • ADB review missions (once in 6 months) <p>4.5 Prepare and submit:</p> <ul style="list-style-type: none"> • TA inception report (QIV 2007) • TA first interim report (QIII 2008) • TA second interim report (QIV 2009) • TA draft final report (QIII 2010) • TA tripartite and final report (QIV 2010) 			

ADB = Asian Development Bank, MIS = management information system, PPP = public-private partnership, Q = quarter, TA = technical assistance.

COST ESTIMATES AND FINANCING PLAN
(\$'000)

Item	Total Cost
A. Asian Development Bank Financing^a	
1. Consultants	
a. Remuneration and Per Diem, National Consultants (468 person-months)	1,728
b. National Travel	45
2. Surveys and Documentation	25
3. Training, Seminars and Workshops	100
4. Contingencies	102
Subtotal (A)	2,000
B. Government Financing	
1. Office Accommodation	160
2. Remuneration and Per Diem of Counterpart Staff	170
3. Local Transport	170
Subtotal (B)	500
Total	2,500

^a Financed by the Asian Development Bank's technical assistance funding program.
Source: Asian Development Bank estimates.

OUTLINE TERMS OF REFERENCE FOR CONSULTANTS

1. To deliver the technical assistance (TA) outcomes, specific public–private partnership (PPP) cells in central line ministries will be selected for support. Based on the requirements of the Government of India (the Government), support for six PPP cells (one in each of the selected central line ministries) provides the critical mass necessary to embed and ground PPP usage and development across India. National consultants will provide all consulting inputs for the TA. For each PPP cell in a central line ministry, the following consultants will be recruited: (i) PPP expert (full time), (ii) financial expert (full time), and (iii) management information system (MIS) expert (part time).

2. The reporting and coordinating arrangements for each team of consultants will be as follows: (i) the project manager for the TA (not the consultant) will be the officer from a specified line ministry's PPP cell; (ii) the PPP expert from the ministry will take the lead role in TA activities, and will be responsible for assisting the project manager in preparing the necessary reports to the Asian Development Bank (ADB) and for ensuring that consultants provide needed information on time; and (iii) ADB will ensure the proper coordination of the various line ministries during the TA.

3. The PPP expert from the specified line ministry will coordinate the submission of the following reports: (i) an inception report within 1 month of the start of consulting services; (ii) the first interim report in the third quarter (QIII) of 2008, and the second one in QIV 2009; (iii) a draft final report in QIII 2010; and (iv) a final report incorporating all the TA findings pursuant to a tripartite review with the selected central line ministries, Department of Economic Affairs (DEA), and ADB by the end of the consulting services period.

4. The outline terms of reference for each consultant in this document are not exhaustive, and may be supplemented and expanded as required to meet Government and ADB requirements.

1. **PPP Expert (national, six specialists, 30 person-months each, continuous)**

5. The expert will be responsible for the following tasks:

- (i) Assist the project manager in the participating cell to ensure timely delivery of high-quality outputs and implementation of activities.
- (ii) Take the lead in ensuring TA activities are carried out properly; and report this, through the project manager, to ADB, steering committee, and the Government.
- (iii) In consultation with relevant institutions, review, contribute to, and ensure quality (in terms of rigor, completeness, and accuracy) of (a) financial analysis, (b) risk management analysis and protocols, and (c) demand projections of all project providers for PPP funding.
- (iv) Review, contribute to, and ensure the quality of (a) project development reports; (b) needs assessment reports; (c) subsequent capacity development plans; and (d) training, workshops, etc.
- (v) Develop, maintain, and update continually all financial projections for relevant PPP projects and/or programs.
- (vi) Advise the line ministry on the impact of regulations on the attractiveness of selected subsectors to local and international investors.
- (vii) Assist the line ministry in establishing the feasibility of specific forms of PPP.
- (viii) Provide on-the-job training to staff members, and develop the capacity to understand and appraise financial implications and risk modeling in PPP project proposals.

- (ix) Support the line ministry in refining guidelines for bridge financing mechanisms as required.
- (x) Assist in sensitizing relevant auditing and accounting entities in the jurisdiction and/or sector since these two sets of functions are critical to the success of PPPs.
- (xi) Ascertain where partnership development missions for PPP projects could be most effective in raising the investment profile, and in managing the missions.
- (xii) Visit entities to sensitize them to appropriate bridge financing mechanisms, such as the Viability Gap Fund (VGF) scheme; and assess their intentions, ability, and capacity to prepare PPP projects in infrastructure to access the scheme.
- (xiii) Coordinate the review and incorporation of any monitoring information into the mainstreaming work of PPP cells.
- (xiv) Coordinate with development partners to ensure that work on mainstreaming PPP across the line ministries is harmonized.

6. The consultant should have 15 years or more of national and international professional experience in developing and managing PPPs. Specifically, the consultant should (i) be intimately familiar with the PPP methodology and framework for resource generation; (ii) demonstrate familiarity with the formulation, appraisal, and approval procedures for PPP projects (including relevant concession agreements, due diligence processes, value for money audits, public sector comparator, etc.); (iii) demonstrate familiarity with the following with respect to PPP projects: (a) complex project agreements, (b) tendering arrangements, (c) detailed legal and contractual agreements, (d) risk management and contingent liability issues, and (e) financial analysis of complex project proposals, etc.; (iv) demonstrate expertise in infrastructure development financing, particularly the ability to locate private capital for commercially viable infrastructure projects; (v) be familiar with relevant policy and regulatory frameworks to enable the delivery of efficient infrastructure services; (vi) have experience in working with policy makers at all levels of government, with particular reference to determining appropriate methods of structuring PPPs; and (vii) possess team leadership skills. Familiarity with public sector processes, as well as rules and regulations on Government involvement in PPP, is also relevant. Deep familiarity with capital markets in India will be an advantage; and an advanced academic background in economics, finance, business management, or similar areas is essential.

2. Financial Expert (national, six specialists, 30 person-months each, continuous)

7. The financial expert will be responsible for the following:

- (i) Build capacity within the line ministry to understand financial modeling of PPP infrastructure projects, particularly the development of public sector comparators.
- (ii) Assist the line ministry in financial modeling principles, advice on cash flow, and capital and operating expenditure projections under different legal and regulatory frameworks.
- (iii) Develop and build capacity to develop the public sector comparator to determine comparable risk-adjusted cost indicators for public project delivery in the infrastructure sector, with a view to enabling its application to possible projects to be proposed for VGF.
- (iv) Develop and build the capacity to develop financial models (including sensitivity analysis) to determine the likely value of private sector bids by applying both project finance principles to estimate the need for and extent of PPP viability enhancement mechanisms for selected projects in the infrastructure sector.
- (v) Identify and analyze the impacts of funding from different sources on PPP.
- (vi) Advise the line ministry on the impact of different tariff-setting methodologies on attracting private sector investors, and on future private sector investment.

- (vii) Advise the line ministry on innovative ways to structure financing and reforms related to infrastructure investments in PPP mode so as to minimize costs, maximize efficiency of implementation, and ensure financial sustainability.
- (viii) Develop an inventory of all sources of finance for infrastructure investments and assist in exploring alternate long-term options available for financing infrastructure in the line ministry, focusing on options appropriate for PPP projects.
- (ix) Build capacity on appropriate viability enhancement mechanisms (in particular, output-based aid) for creating sustainable PPPs in infrastructure.
- (x) Build capacity to assess financial risks relating to PPPs in infrastructure.
- (xi) Maintain active dialogue with potential sources of financing and encourage broad-based support for PPP schemes, particularly the VGF arrangement.
- (xii) Conduct workshops with stakeholders from the public and the private sector to ensure widespread understanding of the public sector comparator concepts.
- (xiii) Help assess the intention, ability, and capacity of proponents to access the VGF, as well as initial sensitization to the VGF.
- (xiv) On request from the line ministry, provide financial guidance and assistance in managing the PPP project development process by interfacing with the financial consultants for the project in the preparation of financial documents for projects that could be posed for VGF.
- (xv) Provide other necessary support as required in the Project.

8. The financial expert will have a graduate degree in management and/or finance and/or accounting, and at least 5 years experience and training in infrastructure finance. Experience of developing and building capacity of public sector comparators will be required. Experience in evaluating and financing infrastructure investments from a private sector view, project finance, PPPs, and resource mobilization will be an advantage.

3. MIS Expert (national, six specialists, 18 person-months each, intermittent)

9. The MIS expert should have 5 years or more of professional experience in developing and managing MIS for organizations with complex mandates and national coverage or scope. The expert will be responsible for (i) developing a methodology and format for collecting and tracking data and information on a project basis; (ii) developing and/or collating benchmarking standards and helping apply them to PPP projects; (iii) analyzing data for decision support systems at DEA; (iv) assisting with baseline surveys relevant to particular PPP projects to best capture relevant information; (v) developing and maintaining an information system that can be used to track project management; (vi) identifying and documenting best practices in India and elsewhere so that they are accessible to other line departments; (vii) working with other vendors that DEA may engage to ensure that information on all PPP projects is available in a public access database, as part of a best practice website on PPPs in infrastructure; (viii) ensuring online data connectivity to databases in other entities at the center and across the states; and (ix) training other staff on use of the information system and on database search to aid in their work.

10. The consultant should have an information systems management and information technology background, as well as experience in organizations and projects, preferably those involving PPPs. The consultant ideally should be intimately familiar with the PPP methodology, particularly as it applies to implementation of relevant projects. Other requirements include (i) demonstrated experience in database development, (ii) use of MIS as an input to a decision support system, and (iii) ability to impart training. Familiarity with incorporating benchmarking information in monitoring protocols is also a plus, as is experience in using information systems in project management.