



# Technical Assistance Report

---

Project Number: 41598  
December 2007

## India: Capacity Development of the National Capital Region Planning Board

## CURRENCY EQUIVALENTS

(as of 7 December 2007)

Currency Unit	–	Indian rupee/s (Re/Rs)
Re1.00	=	\$0.0253
\$1.00	=	Rs39.48

## ABBREVIATIONS

ADB	–	Asian Development Bank
DPR	–	detailed project report
ERP	–	enterprise resource planning
NCR	–	National Capital Region
NCRPB	–	National Capital Region Planning Board
PPP	–	public–private partnership
TA	–	technical assistance
ULB	–	urban local body

## TECHNICAL ASSISTANCE CLASSIFICATION

<b>Targeting Classification</b>	–	General intervention
<b>Sectors</b>	–	Water supply, sanitation, and solid waste management; transport and communications
<b>Subsectors</b>	–	Water supply and sanitation, waste management, multimodal transport and sector development
<b>Themes</b>	–	Sustainable economic growth, environmental sustainability, capacity building
<b>Subthemes</b>	–	Developing urban areas, fostering physical infrastructure development

## NOTE

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

<b>Vice President</b>	L. Jin, Operations Group 1
<b>Director General</b>	K. Senga, South Asia Department (SARD)
<b>Director</b>	H. Kim, Urban Development Division, SARD
<b>Team leader</b>	S. Bonu, Senior Urban Development Specialist, SARD

## I. INTRODUCTION

1. The mandate of the National Capital Region Planning Board (NCRPB)<sup>1</sup> is to systematically develop India's National Capital Region (NCR), which covers 33,578 square kilometers spanning 14 districts in Haryana, Rajasthan, and Uttar Pradesh and the National Capital Territory of Delhi. The NCRPB emphasizes building water supply and sanitation infrastructure and has plans to scale up support for urban infrastructure development significantly in the next 5 years. The Government of India requested technical assistance (TA)<sup>2</sup> from the Asian Development Bank (ADB) to enhance the capacities of the NCRPB and the implementing agencies associated with the NCRPB. ADB's *Country Operations Business Plan, 2007–2009* focuses on supporting urban infrastructure development, especially water supply and sewerage.<sup>3</sup> The TA is in line with ADB's country strategy for urban infrastructure development and is included in the country operations and business plan, 2008–2009. A Fact-Finding Mission visited Delhi during 11–12 and 22–23 October 2007 and reached an understanding with the Government on the purpose, output, methodology, key activities, cost estimates and financing plan, implementation arrangements, design and monitoring framework (Appendix 1) and on terms of reference for consultant support.

## II. ISSUES

2. **NCRPB and NCR Development.** The NCRPB has provided financial assistance to participating state governments, urban local bodies (ULBs), housing boards, development authorities, and other parastatals for infrastructure development projects in the NCR and identified counter-magnet area towns<sup>4</sup> over the last 20 years. To date the NCRPB has financed 171 infrastructure projects involving total outlays of more than Rs113 billion. It has sanctioned loans totaling Rs39.02 billion and had disbursed Rs26.28 billion as of 31 March 2007.

3. **Scaling Up NCRPB Support.** The NCRPB is helping state governments, ULBs, and development authorities to prepare master plans, development plans, and project plans for creating basic urban infrastructure in NCR towns and cities to achieve the goals of the 2001 Regional Plan. The projects identified by the NCRPB for support during the 11th Five Year Plan (2007–2012) involve a total outlay of Rs150 billion (approximately \$3.8 billion), including a loan component of Rs110 billion. To achieve and manage the targeted lending of Rs110 billion in the next few years, the institutional capabilities of the NCRPB and of participating implementing agencies need to be enhanced. Based on discussions with key stakeholders, capacity development is needed in the following areas: project selection, development, appraisal, execution, and monitoring and evaluation; compliance with safeguards; and management of the loan portfolio. In addition, support is required to translate the Regional Plan into subregional plans, master plans, development plans, and project plans for creating basic urban infrastructure in NCR towns and cities.

---

<sup>1</sup> The National Capital Region Planning Board, a statutory body under the Ministry of Urban Development, Government of India, was constituted under the National Capital Region Planning Board Act, 1985 (Act No. 2 of 1985) enacted by the Parliament with the concurrence of the Legislatures of the states of Haryana, Rajasthan, and Uttar Pradesh.

<sup>2</sup> The TA first appeared in *ADB Business Opportunities* on 31 October 2007.

<sup>3</sup> ADB. 2006. *India: Country Operations Business Plan, 2007–2009*. Manila.

<sup>4</sup> The 2001 Regional Plan identified the following counter-magnet areas to the NCR for first-stage intervention: Hissar in Haryana, Gwalior in Madhya Pradesh, Patiala in Punjab, Kota in Rajasthan, and Bareilly in Uttar Pradesh.

4. The NCRPB needs strengthening in areas such as credit appraisal, portfolio management, resource mobilization, interest rebate incentives management, and debt recovery. This will entail reviewing and upgrading systems, procedures, and manuals and developing the requisite technical skills in managing planning and development. To ensure timely completion of infrastructure development projects, a computerized monitoring system is needed to keep track of the progress of project implementation. Such a monitoring system will have to be part of a larger system of computerized enterprise resource planning that encompasses the NCRPB, ULBs, development authorities, state government departments, and other parastatals. Administration of a loan incentive package will require setting up appropriate administrative structures and procedures to monitor and evaluate project implementation in relation to timely completion, cost adherence, and quality control in an effective and transparent manner.

5. **Strengthening Integrated Urban Planning Processes.** The preparation of subregional plans and of master plans and development plans for NCR towns and cities is slow because of the lack of modern planning tools and techniques and of hardware and software in state NCR cells and relevant development authorities. Planning and development authorities need to have access to expertise in areas such as the techniques and principles of planning at the metropolitan level, the marketing of towns to attract private investment, and the development and implementation of projects. Because of different levels of commitment to implementing the Regional Plan by various stakeholders, compliance with and implementation of the Regional Plan is uneven. In this context, best practices, experiences, and legal frameworks in cities with overlapping administrations and institutional jurisdictions may be examined, including London; Paris; Seoul; Tokyo; and Washington, DC.

6. **Project Development and Execution.** The lack of capacity to conceive, design, and develop good quality infrastructure development projects has emerged as a major constraint. Implementing agencies need to come up with sound and viable detailed project reports (DPRs) that conform to development plans, comply with standard norms, and consider various alternatives. Comprehensive guidelines are needed for DPR preparation in different urban infrastructure subsectors based on international best practices. The lack of capacity in relation to good quality, large infrastructure development projects that cater to the needs of more than one state is a major bottleneck to the NCR's accelerated development, and this needs to be addressed by means of improved institutional arrangements and exposure of key stakeholders to best practices. The NCRPB will have to play a proactive role in the selection and development of appropriate infrastructure projects and in establishing policies and priorities. Moreover, human resource development is required in the NCRPB, in NCR cells in participating states, and in implementing agencies for successful implementation of the 2021 Regional Plan.

7. **Enabling Public–Private Partnerships.** Public investment in urban infrastructure is unlikely to be sufficient to address the huge infrastructure financing gap. Hence enabling private capital infusion into urban infrastructure development in the NCR is critical. Moreover, well-structured public–private partnerships (PPPs) can enhance efficiency and result in better quality urban infrastructure. However, undertaking PPPs requires skills in identification of viable projects, assessing and allocating risks, designing and executing complex agreements, and managing contracts, and the NCRPB and implementing agencies need support for building such skills.

### III. THE PROPOSED TECHNICAL ASSISTANCE

#### A. Impact and Outcome

8. The outcome of the TA is to improve business processes and skills at the NCRPB, state-level NCR cells, and other implementing agencies in planning for urban infrastructure and conceiving, designing, developing, appraising, and implementing good quality infrastructure projects for the planned development of the NCR. This would lead to effective and timely scaling up of urban infrastructure to (i) improve the quality of basic urban services in the NCR, (ii) develop counter-magnet towns, (iii) reduce in-migration into Delhi, and (iv) accelerate economic growth in the NCR.

#### B. Methodology and Key Activities

9. The TA will have three components as outlined in the following subsections.

10. **Component A: Business Process Reengineering and Skills Development for the NCRPB.** The business process reengineering will focus on developing (i) an effective financial management system, particularly in relation to loan management and integrating loan approvals, disbursements, and repayments with a project monitoring system; (ii) reviewing and upgrading the NCRPB's systems, procedures, and manuals in such areas as project appraisal, credit appraisal, portfolio management, risk management and treasury operations, resource mobilization, and debt recovery; and (iii) developing a proposal for computerized enterprise resource planning.

11. The reengineering will involve identifying, reviewing, and documenting the NCRPB's current business processes and workflows. Based on the outcome of the review, recommendations for business process improvements will be developed and prioritized. This process will include (i) preparing a comprehensive list of all applicable best practices based on experience elsewhere with urban infrastructure funds and financial intermediaries; (ii) determining their applicability to the NCRPB's environment; (iii) consolidating and prioritizing the best practice recommendations based on the potential benefits, the resources needed, and the time frame for implementation; (iv) drafting descriptions of the new business processes; and (v) implementing the new processes.

12. **Component B: Skills and Process Improvements in Project Preparation.** The TA will strengthen implementing agencies' management and review skills and processes relating to undertaking project feasibility studies, preparing DPRs, and carrying out detailed engineering design. This component of the TA will support the preparation of six demonstration feasibility studies and DPRs that include all due diligence documentation required for processing projects in accordance with best practices, including ADB's policies and guidelines. The following activities will be carried out as a part of DPR preparation: conducting technical, institutional, economic, and financial feasibility analyses of six identified urban infrastructure projects in six sample implementing agencies; and conducting due diligence on the projects in relation to safeguards, including environmental assessment reports and resettlement plans, and preparing environmental assessment frameworks and resettlement frameworks. The TA will support the preparation of standard procedure manuals for identifying projects and preparing DPRs. The TA will use reports on the deficiencies of current practices, and standard protocol manuals to train the implementing agencies how to prepare DPRs, which will also include field trips to expose implementing agencies to best practices. The TA will help with the development of a user-friendly website for the implementing agencies that will include various manuals and guidelines for preparing DPRs.

13. **Component C: Urban and Regional Planning and Other Activities.** The TA will help the NCRPB and implementing agencies to accelerate the implementation of the Regional Plan. The TA will support three to four studies to provide information and insights to assist with the next revisions of the Regional Plan and improve the urban planning process. The TA will support field trips abroad to expose key stakeholders to world-class large capital regions that must deal with different entities, various administrative zones, and unifying urban development authorities. The TA will also support conferences and workshops in capital region development and regional planning, which will include an international conference in New Delhi on capital region urban planning. Through the foregoing activities along with training and workshops, the TA will expose stakeholders in the NCRPB and implementing agencies to global best practices in managing integrated capital region development and planning and implementing projects. The TA will support assessment of human resource development and management, including identification of training needs, training institutes that can impart training, and imparting training. The TA will also support the identification of opportunities for potential PPPs and awareness building and skills development for enabling urban infrastructure PPPs in the NCR.

14. The TA will help address institutional and implementation issues pertaining to accelerating urban infrastructure development in the NCR and is likely to lead to more investment in water supply, sewerage, solid waste management, and urban mass transport. It is also expected to improve efficiencies in the NCR. More investment and improved efficiencies will have a positive impact on basic urban services and thus a direct positive impact on the quality of life of the urban poor and on the urban environment.

### **C. Cost and Financing**

15. The total cost of the TA is estimated at \$2,500,000 equivalent. An amount of \$2,000,000 will be financed on a grant basis by ADB's TA funding program. The Government will finance the remaining \$500,000 equivalent for office accommodation and transport, counterpart staff remuneration, per diems, and other expenditures. The detailed cost estimates and financing plan are shown in Appendix 2.

### **D. Implementation Arrangements**

16. The NCRPB will be the Executing Agency. A Steering Committee will be set up headed by the member secretary of the NCRPB and consisting of senior NCRPB officers and representatives from the Ministry of Urban Development, the Department of Economic Affairs of the Ministry of Finance, participating implementing agencies, and non-government organizations working actively in the field of urban development in the NCR. The finance director of the NCRPB will be the project director of the TA and the convener of the Steering Committee. The Steering Committee will meet at least once a month during the first 6 months of TA implementation and at least once every 2 months during the remainder of the TA implementation period to guide and review the progress of the TA.

17. Activities under components A and C will be carried out by an international firm (36 person-months of international consultants and 50 person-months of national consultants) and component B will be carried out by a national consulting firm (100 person-months). The international and national firms will be recruited using the quality- and cost-based method of selection. A full technical proposal will be sought for selection of the international firm and a simplified technical proposal will be sought for selection of the national firm. The indicative terms of reference for the consultants are in Appendix 3. The reporting schedule for the components A

and C will include the submission of an inception report, monthly progress reports, draft final report and final report, which will be in addition to various reports, manuals and outputs of the TA. The reporting schedule for the component B will include the submission of an inception report that includes a detailed work plan within 3 weeks of commencement of the TA; an interim report containing conceptual studies of the subprojects and project feasibility reports within 3 months of commencement of the TA; a draft final DPR within 6–8 months of commencement of the TA; and a final DPR within 12 months of commencement of the TA including the DPRs of the six projects.

18. ADB will engage consulting firms and individual consultants in accordance with ADB's *Guidelines on the Use of Consultants* (2007, as amended from time to time). Minor equipment and office supplies will be procured under the TA in accordance with ADB's *Procurement Guidelines* (2007, as amended from time to time). All equipment purchased under the TA will be handed over to the NCRPB after TA completion. To facilitate implementation, the TA will use an advance payment facility for training, seminars, conferences, and surveys. The amount of the advance and its liquidation will be arranged in line with ADB's *Guidelines for Disbursement of Technical Assistance Grant*. The TA will be implemented over a period of 18 months from May 2008 to October 2009. The implementation plan is in Appendix 4.

#### **IV. THE PRESIDENT'S RECOMMENDATION**

19. The President recommends that the Board approve the provision of technical assistance not exceeding the equivalent of \$2,000,000 on a grant basis to the Government of India for Capacity Development of the National Capital Region Planning Board.

## DESIGN AND MONITORING FRAMEWORK

Design Summary	Performance Targets/ Indicators	Data Sources/Reporting Mechanisms	Assumptions and Risks
<p><b>Impact</b> Planned urban development of the National Capital Region (NCR) leads to: improvement in the quality of basic urban services in the NCR; development of counter-magnet towns; reduction in the in-migration into Delhi; and acceleration of economic growth in the NCR.</p>	<p>Improved basic urban services in the NCR</p> <p>Accelerated economic growth in the NCR</p> <p>Development of counter-magnet towns and reduction in the in-migration.</p>	<p>Household surveys</p> <p>Government reports</p>	<p><b>Assumption</b> Macroeconomic stability maintained.</p> <p><b>Risk</b> In-migration into New Delhi might continue, leading to urban infrastructure shortages.</p>
<p><b>Outcome</b> Business processes and skills improve in the National Capital Region Planning Board (NCRPB) and various implementing agencies in the NCR leading to accelerated planned urban infrastructure development in the NCR and counter-magnet towns</p>	<p>The lending volume of the NCRPB increases by at least 200% during the 11th Five Year Plan compared with its lending volume during the 10th Five Year Plan period</p> <p>Urban infrastructure in the NCR improves significantly during the 11th Five Year Plan.</p> <p>The average project processing time is reduced by at least 10% from the baseline by June 2009.</p> <p>Participating implementing agencies accelerate implementation of the regional plan by 10% over the baseline</p> <p>All detailed project reports (DPRs) submitted by implementing agencies after June 2009 are compliant with best practices.</p>	<p>Government reports</p> <p>TA reports</p> <p>ADB missions</p>	<p><b>Assumption</b> The Government is committed to development of the NCR.</p> <p><b>Risk</b> The participating entities are reluctant to change.</p>



Design Summary	Performance Targets/ Indicators	Data Sources/Reporting Mechanisms	Assumptions and Risks
<p><b>Outputs</b></p> <p><b>1. Component A: Business Process Reengineering and Skills Development for the NCRPB</b></p> <p>1.1. Implement business process reengineering to improve financial management systems of NCRPB, particularly in relation to loan management and integrating loan approvals, disbursements, and repayments with a project monitoring system.</p> <p>1.2. Upgrade systems, procedures, and manuals in the areas of project appraisal, credit appraisal, portfolio management, risk management and treasury operations, resource mobilization and debt recovery, and evaluation and impact assessment.</p>	<p>Report on assessment of current financial management business practices: June 2008</p> <p>Report on proposed business process reengineering relating to financial management: December 2008</p> <p>Implementation of improved financial management business processes: January 2008 onward</p> <p>Evaluation report on the impact of financial management business process reengineering: October 2009</p> <p>Report on an assessment of current business practices relating to project appraisal, credit appraisal, portfolio management, resource mobilization and debt recovery: June 2008</p> <p>Process reengineering and preparation of manuals for project appraisal, credit appraisal, portfolio management, resource mobilization and debt recovery: December 2008</p> <p>Implementation of new business processes: January 2008 onward</p>	<p>TA progress reports</p> <p>Various documents to be submitted by the consultants</p> <p>ADB missions</p>	<p><b>Assumptions</b></p> <p>The TA is able to hire good quality consultants.</p> <p>The NCRPB's management is committed to improving institutional capacities.</p> <p><b>Risks</b></p> <p>Institutional issues need long-term efforts to inculcate good practices and such long-term commitment may be lacking.</p> <p>Following capacity development, professional staff may move to the private sector given a growing economy.</p>

Design Summary	Performance Targets/ Indicators	Data Sources/Reporting Mechanisms	Assumptions and Risks
<p>1.3. Develop a proposal for computerized enterprise resource planning.</p> <p><b>2. Component B: Skills and Process Improvement in Project Preparation</b></p> <p>2.1. Prepare demonstration feasibility studies that include all due diligence documentation required for processing projects in accordance with best practices.</p> <p>2.2. Prepare manuals of guidelines and standard operating procedures for detailed project report (DPR) preparation.</p> <p>2.3. Undertake practical training of the implementing agencies in project preparation based on case studies (including best practice field trips).</p> <p>2.4. Develop a user-friendly, web-based knowledge and learning toolkit to support project preparation and development.</p> <p><b>3. Component C: Urban and Regional Planning and Other Activities</b></p> <p>3.1. Support implementation of the Regional Plans by undertaking three to four studies to provide information and insights to help with the next revisions</p>	<p>Evaluation report on the impact of new business processes: October 2009</p> <p>Detailed proposal including a draft of the proposal for enterprise resource planning: January 2009</p> <p>At least six demonstration DPRs prepared in staggered manner from January to June 2009</p> <p>Operational manuals for project preparation, including financial, economic, and social due diligence, prepared and adopted: January 2009</p> <p>At least three staff from each of the implementing agencies fully trained in detailed project preparation: November 2008–October 2009</p> <p>Web-based learning toolkit available: June 2009</p> <p>The TA Steering Committee decides on the topics of study: June 2008</p> <p>Studies completed and</p>		

<b>Design Summary</b>	<b>Performance Targets/ Indicators</b>	<b>Data Sources/Reporting Mechanisms</b>	<b>Assumptions and Risks</b>
<p>of the Regional Plan and improve the regional urban planning process.</p> <p>3.2. Develop capacities in the capital region development by: (i) supporting field trips to expose key stakeholders to world-class large capital regions that deal with different entities and administrative zones and unifying urban development authorities; and (ii) inviting international experts in capital region development and regional planning to an international conference on capital region urban planning in New Delhi.</p> <p>3.3. Support human resource development and management, including identification of training needs, training institutes that can impart training, and imparting training.</p> <p>3.4. Strengthen urban infrastructure public-private partnerships (PPPs) by supporting identification of potential PPPs and capacity development for enabling urban infrastructure PPPs in the NCR</p>	<p>findings disseminated: January 2009</p> <p>Linkages and partnerships with and visits to at least two national capital cities by key stakeholders: September– December 2008</p> <p>Dissemination of findings of the visits: January 2009</p> <p>International experts invited to an international conference: January 2009</p> <p>Human resource management plan prepared: January 2009</p> <p>At least six PPP projects identified and support provided for structuring two PPP projects: June 2008–October 2009</p>		
<b>Activities with Milestones</b>			<b>Inputs</b>
<p>1. Business Process Reengineering</p> <p>1.1. Assess the NCRPB's institutional strengthening needs: May–June 2008.</p> <p>1.2. Prepare for systems improvement, including preparation of manuals: July–December 2008.</p> <p>1.3. Implement and evaluate business process reengineering January–October 2009.</p> <p>2. Enterprise Resource Planning</p> <p>2.1. Develop a plan for enterprise resource planning computerization and a request for proposals: June–December 2008.</p> <p>2.2. Integrate system improvements, including training and implementing</p>			<p><b>ADB</b> \$2,000,000 Two person-months over the TA implementation period</p> <p><b>NCRPB and City Governments in the NCR</b> \$500,000</p>

<b>Activities with Milestones</b>	<b>Inputs</b>
<p>information technology solutions: January–October 2009.</p> <p>3. DPRs</p> <p>3.1. Assess skills and processes relating to project preparation in the participating municipalities: May–July 2008.</p> <p>3.2. Prepare six DPRs in different urban subsectors: January to June 2009.</p> <p>3.3. Train implementing agencies in how to prepare DPRs and prepare DPRs: August 2008–October 2009.</p> <p>4. Other Activities</p> <p>4.1. Undertake trips to expose NCRPB stakeholders to models of capital city development abroad: September–December 2008.</p> <p>4.2. Hold international conference on capital region planning in New Delhi: January 2009.</p> <p>4.3. Run training programs for key stakeholders in various aspects of urban infrastructure planning and project development and implementation: August 2008–October 2009.</p>	<p>Counterpart staff Office accommodation and transport Administrative services Facilitation of meetings and field work</p>

ADB = Asian Development Bank, DPR = detailed project report, NCR = National Capital Region, NCRPB = National Capital Region Planning Board, PPP = public-private partnership, TA = technical assistance.

**COST ESTIMATES AND FINANCING PLAN**

(\$'000)

Item	Total Cost
<b>A. Asian Development Bank Financing<sup>a</sup></b>	
<b>Components A and C (International Firm)</b>	
1. Consultants	
a. Remuneration and Per Diem	
i. International Consultants	650.0
ii. National Consultants	200.0
b. International and Local Travel	100.0
c. Reports and Communications	30.0
2. Equipment	15.0
3. Training, Seminars, Field Trips, and Conferences	
a. Facilitators	10.0
b. Training Program	90.0
4. Surveys and Studies	60.0
5. Miscellaneous Administration and Support Costs	10.0
<b>Total for International Firm</b>	<b>1,165.0</b>
<b>Component B (National Firm)</b>	
6. Consultants	
a. Remuneration and Per Diem	
i. National Consultants	400.0
b. International and Local Travel	50.0
c. Reports and Communications	20.0
7. Equipment	8.0
8. Training, Seminars, Field Trips, and Conferences	
a. Facilitators	20.0
b. Training Program	90.0
9. Surveys and Studies	30.0
10. Miscellaneous Administration and Support Costs	10.0
<b>Total for National Firm</b>	<b>628.0</b>
11. Representative for Contract Negotiations	7.0
12. Contingencies	200.0
<b>Subtotal (A)</b>	<b>2,000.0</b>
<b>B. Government Financing</b>	
1. Office Accommodation and Transport	200.0
2. Remuneration and Per Diem of Counterpart Staff	100.0
3. Others	200.0
<b>Subtotal (B)</b>	<b>500.0</b>
<b>Total</b>	<b>2,500.0</b>

<sup>a</sup> Financed by the Asian Development Bank's technical assistance funding program.  
Source: Asian Development Bank estimates.

## OUTLINE TERMS OF REFERENCE FOR CONSULTANTS

### A. International Firm for Components A and C

1. **Urban Infrastructure Finance Specialist and Team Leader** (international, 18 person-months). The specialist will: (i) Organize and manage the consulting team and coordinate the team's work. (ii) Lead the business process reengineering, which will include, (a) reviewing the existing fiscal framework of the National Capital Region Planning Board (NCRPB), including existing financial management responsibilities and procedures, and assess the decision-making structure and procedures; (b) studying and analyzing existing treasury management systems of the NCRPB and recommending ways to improve treasury management functions and systems; and (c) developing detailed operational manuals for the NCRPB covering administrative structures, project appraisal guidelines, safeguard policies, lending policy and criteria, human resource and recruitment policy, and other pertinent areas. (iii) Support the NCRPB in conducting workshops that will help it market itself and make its functions widely known to urban local bodies (ULBs) and other implementing agencies and build demand for loans and prepare the necessary guidelines, literature, and marketing materials. (iv) Explore alternative low-cost financing options and increase the NCRPB's ability to tap funds from the capital market and commercial banks, through debentures, and from other sources. (v) Investigate the use of alternative credit enhancement measures with the NCRPB's financial advisers.

2. **Deputy Team Leader and Human Resources Development Specialist** (national, 18 person-months). The specific tasks are as follows: (i) Undertake training needs and skill assessments of NCRPB and participating entities' staff and identify appropriate training centers and resources in India and abroad. (ii) Examine existing human resource development policies and help the team leader develop operational guidelines on administrative structure and training as well as a human resource and recruitment policy for the NCRPB. (iii) Identify suitable human resources best practices for a specialized financial intermediary to provide ULBs and other implementing agencies with infrastructure and services. (iv) Identify and design capacity development and training exercises, including classroom training, best practices workshops, study visits, and short-term international training in the region for key national, provincial, and NCRPB staff.

3. **Enterprise Resource Planning and Management Information System Specialist** (international, 12 person-months). The specialist will support the major business objectives of the enterprise resource planning (ERP) as follows: (i) Streamline the NCRPB's core administrative and financial processes through business process reengineering in conjunction with implementation of the ERP package. (ii) Standardize business processes and practices. (iii) Address business requirements through ERP. (iv) Make the information needed to effectively manage programs and measure their success available to agency heads, fiscal officers, personnel administrators, and program managers. (v) Provide system users and functional managers with the necessary technology, tools, and training to enable them to extract the data they require to meet their business needs. (vi) Improve the NCRPB's ability to budget; to measure program success based on performance metrics; and to conduct business, human resources, and technology planning based on reliable and timely data. (vii) Help define and select the ERP solution that best meets the NCRPB's needs. This will include defining the software and hardware requirements for an ERP system, defining an approach for addressing business process change, developing a request for proposals for an ERP system, and developing a detailed project plan for implementation and a corresponding cost estimate.

4. **Regional Urban Planning Specialist** (international, 6 person-months). The specialist will undertake the following activities: (i) Help identify barriers to expediting the preparation of subregional plans and master and development plans for National Capital Region (NCR) towns and suggest solutions. (ii) Examine the reasons for different levels of commitment in implementing regional plans by various stakeholders, and based on global best practices and experience, examine the feasibility of a common NCR development authority for managing complex inter-jurisdictional infrastructure projects. (iii) Help organize international field trips to expose key stakeholders to global best practices in complex metropolitan area development. (iv) Organize an international conference in New Delhi on capital region development.

5. **Financial Policy Expert** (national, 6 person-months). The expert will: (i) Examine the NCRPB's existing treasury operations. (ii) Assess functional treasury requirements in relation to the business and resources plans. (iii) Develop the NCRPB financial policies, including investment policy and exposure limits; establish funding benchmarks; and develop a core funding strategy and loan product development guidelines. (iv) Evaluate the use of market risk mitigation and credit enhancement products. (v) Evaluate the applicability of ADB's suite of lending and nonlending financial products. (vi) Oversee the integration of funding strategy and financial policy with a credit risk appraisal framework.

6. **Project Risk Appraisal Specialist** (national, 6 person-months). The specialist will: (i) Evaluate the NCRPB's plans with regard to project risk appraisal requirements. (ii) Assess the NCRPB's current lending and loan pricing policies. (iii) Develop a framework for assessing the credit risk of projects. (iv) Develop documentation and templates for undertaking risk assessment. Develop pricing tools for loan pricing. (v) Assess the credit risk management tools available in the market and recommend tools appropriate in the context of the NCRPB's operations. (vi) Help operationalize the financial policy framework. (vii) Develop analytical models for optimal capital allocation and an analytical framework for evaluating the suitability of derivative transactions.

7. **Financial Management Specialist** (national, 8 person-months). The specialist will: (i) Conduct a financial management assessment of the NCRPB and the project ULBs in accordance with ADB's *Guidelines for the Financial Governance and Management of Investment Projects Financed by ADB* that will include a review of (a) corporate planning and budgetary controls, (b) financial and management accounting and reporting, (c) internal control and audit systems, and (d) data processing. (ii) Review current accounting, financial management, and control systems in the NCRPB and suggest ways to improve them based on international best practices. (iii) Refine the guidelines for appraising projects and develop a detailed operational manual. (iv) Help draw up criteria for the NCRPB to use when assessing the financial viability of ULBs and other implementing agencies.

8. **Public-Private Partnership Specialist** (national, 12 person-months). The specialist will: (i) Identify opportunities for potential public-private partnerships (PPPs) in consultation with stakeholders. (ii) Conduct a preliminary assessment of the existing regulatory framework and gaps in relation to implementing the identified PPP opportunities. (iii) Conduct a preliminary assessment of market interest in and the viability of the PPP modalities proposed for each sector with a focus on compatibility and fit with NCRPB's lending modalities and operating procedures. (iv) Examine feasible financing structures and their impact on cost-recovery mechanisms. (v) Review water and wastewater tariff levels and structure and determine their adequacy for achieving policy objectives by comparing them with the average incremental financial cost. (vi) Assess the mechanisms for approving water and wastewater tariff increases and recommend improvements taking into consideration full cost-recovery requirements, cross-subsidies, affordability, future operating capacity, capital investment, and debt repayment. (vii) Recommend a plan for tariff increases in

line with any state water and wastewater tariff guidelines while examining investments in other sectors and assessing cost-recovery mechanisms proposed for ensuring the sustainability of operation and maintenance of the proposed investments, taking into account ULBs' revenue streams and property taxes.

## **B. National Firm for Component B**

9. **Team Leader and Urban Infrastructure Specialist** (national, 18 person-months). The team leader will assume overall responsibility for the implementation of activities and the successful delivery of outputs. The team leader's responsibilities will include the following: (i) Prepare detailed work plans for conducting technical, institutional, economic, and financial feasibility analyses of the identified projects in the six sample implementing agencies. (ii) Prepare detailed terms of reference for specialists, in particular, for preliminary and detailed design of subprojects in the water supply, sewerage, and drainage subsectors in the six sample ULBs. (iii) Prepare all necessary documentation required for processing the six projects in accordance with ADB's policies and guidelines. (iv) Review specialists' reports and assist with their engineering, institutional, and procurement aspects, in particular, in the water supply sector. (v) Oversee and ensure that all surveys, preparatory studies, and data collection required for the feasibility studies are completed, including arranging field trips as necessary. (vi) Examine and draw lessons from assessment guidelines and benchmarks for monitoring the implementation of similar projects, including ADB-funded urban development projects, and help develop guidelines for evaluating detailed project reports and benchmarks for monitoring. (vii) Develop criteria for technical appraisal and environmental compliance of projects for funding by the NCRPB. (viii) Establish a procedure for ongoing monitoring, operation and maintenance, and related implementation issues for projects financed by the NCRPB. (ix) Develop a detailed operations manual for the NCRPB that includes project appraisal guidelines and safeguard policies. (x) Coordinate training and capacity building of implementing agencies in detailed project report preparation.

10. **Deputy Team Leader and Financial Specialist or Economist** (national, 18 person-months). The deputy team leader will: (i) Review the methodology for conducting economic evaluation by the implementing agencies, and assist in conducting economic and financial analysis of the six projects. (ii) Review estimates of detailed economic project costs and identify all project economic benefits. (iii) Conduct economic and financial viability assessments of the six projects. (iv) Conduct an affordability analysis and gather information to prepare a sample financial model for the project ULBs. (v) Conduct financial sustainability analyses for revenue-generating subprojects in the sample towns. (vi) Identify any financial management issues that could affect implementation and/or the sustainable operation of project investments and suggest mitigation strategies. (vii) Train key stakeholders of the implementing agencies in financial and economic evaluation of urban infrastructure projects.

11. **Water Supply and Sewerage Specialist** (national, 12 person-months). The specialist's key tasks will include the following: (i) Oversee the preparation of detailed designs for water supply and sanitation subprojects in accordance with sound engineering practices, construction drawings, and cost estimates; prepare associated contract documentation; and coordinate with the infrastructure mapping work. (ii) Coordinate topographical surveys and data collection, including total station surveys; construction material surveys; water, wastewater, and solid waste sampling and analysis; and soil and hydrological investigations to be carried out with support from the ULBs. (iii) Help the NCRPB to update sample subproject resettlement plans and environmental assessment documents based on detailed technical designs and surveys. (iv) Train key stakeholders of ULBs in water supply and sewerage management.



12. **Solid Waste Management Specialist** (national, 12 person-months). The specialist will: (i) Review and verify preliminary designs and needs analyses of the proposed solid waste management subprojects in the sample ULBs. (ii) Update information on the composition and volume of waste generated from domestic and commercial sources as required for the preparation of a solid waste management plan. (iii) Prepare a collection and transportation program, including vehicle routing, based on detailed and updated city maps; confirm equipment requirements; and prepare specifications for tenders. (iv) Carry out a sample survey to assess options for waste reduction and recycling and the demand and market for composting. (v) Ascertain the preferred options for collection and willingness to pay for improved waste collection by households and businesses and determine the potential for private sector participation in waste collection, recycling, transportation, and disposal. (vi) Propose changes in the institutional arrangements for improving collection, transportation, and disposal of solid wastes. (vii) Prepare a comprehensive solid waste management plan for the sample ULBs. (viii) Train key stakeholders of the ULBs in solid waste management.

13. **Transport Planning Specialist** (national, 8 person-months). The specialist's key tasks will include the following: (i) Undertake traffic surveys and analyses and provide a preliminary transport infrastructure design for a sample of at least three ULBs. (ii) Conduct road safety audits to identify road safety issues in these sample ULBs. (iii) Survey existing transport-related infrastructure and the need for further investment. (iv) Prepare preliminary transport plans for the three ULBs and identify missing links and a prioritized program of improvements. (v) Prepare preliminary designs for roads, bridges, cross-drainage structures, and other transport-related infrastructure required in the sample ULBs in coordination with other specialists.

14. **Roads and Drainage Specialist** (national, 8 person-months). The key responsibilities of the specialist will include the following: (i) Review and verify proposed road and drainage designs in at least three ULBs. (ii) Collect available data, contour maps, details and reports of past schemes and reports, historic rainfall data, and information about prior floods and resulting losses for the sample ULBs. (iii) Survey pavement conditions, assess the adequacy of drainage for existing roads, and assess the condition of bridges and other cross-drainage structures. (iv) Conduct component-specific topographical surveys and soil investigations on proposed alignments of roads. (v) Prepare city drainage maps for easy identification of the status of existing drains and canals and their catchment areas in a form that can be transferred to a geographic information system. (vi) Prepare comprehensive drainage master plans for the ULBs, identify missing links, and draw up a prioritized program of improvement works. (vii) Prepare detailed designs for the roads and bridges proposed for the sample ULBs.

15. **Roads and Bridge (Transport) Specialist** (national, 8 person-months). The specialist will work in close coordination with the roads and drainage specialist. His or her key tasks will include the following: (i) Conduct and oversee all surveys required for detailed designs; Prepare detailed designs for the proposed roads, bridges, overpasses, and other transport-related infrastructures. (ii) Prepare procedures to ensure that road safety issues are properly addressed during construction and ensure that road safety audits are undertaken on completion of works.

16. **Social Development and Resettlement Specialist** (national, 8 person-months). The specialist's key tasks will include the following: (i) Develop procedures to assess social impacts of infrastructure projects. (ii) Ascertain the number of indigenous peoples and minorities and their socioeconomic status and assess the impact of projects financed by NCRPB. (iii) Develop procedures based on ADB policies and procedures to assess local gender-related constraints and opportunities for development and formulate a gender action plan for the ensuing project. (iv) Apply ADB's resettlement checklists to identify resettlement issues and ascertain the nature and degree

of impacts on affected households in the six model project. (v) Train key stakeholders in social and resettlement impact assessment and mitigation measures.

17. **Environment Specialist** (national, 8 person-months). The specialist will: (i) Develop procedures for the NCRPB to undertake an initial environmental examination and summary or environmental impact analysis for prospective infrastructure-related proposals in accordance with ADB's *Environment Policy* (2002) and *Environmental Guidelines* (2003), and Indian environmental regulations. (ii) Assess the positive and negative environmental impacts of six urban infrastructure model projects and services in relation to location, design, construction, and operation and management; propose mitigating measures and develop a full environmental monitoring plan; develop procedures for conducting consultations in line with ADB requirements; and develop model financial intermediary environment management plans for environmentally sensitive subcomponents. (iii) Train key stakeholders of NCRPB and implementing agencies in environmental assessment and mitigation measures.

## IMPLEMENTATION PLAN

Component and Activity	May 2008						<<<<<< Months >>>>>>						October 2009					
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
<b>A. Component A</b>																		
<b>1. Business Process Reengineering</b>																		
Identify, review, and document the NCRPB's current business processes and workflows in the areas of project appraisal, credit appraisal, portfolio management, risk management and treasury operations, resource mobilization and debt recovery, and evaluation and impact assessment																		
Identify and document areas for improvement and process reengineering																		
Assist in implementing process reengineering																		
<b>2. Improving Treasury and Risk Management Operations</b>																		
Analyze existing processes																		
Develop improvements for the treasury business processes																		
Prepare manuals, impart training, implement new processes																		
Evaluate implementation of the new processes																		
<b>3. Financial Management Improvements</b>																		
Assess existing financial management (FM) processes																		
Develop improvements in the FM processes, including preparation of manuals																		
Implement FM improved processes and evaluate them																		
<b>4. Enterprise Resource Planning (ERP)</b>																		
Define software and hardware requirements for an ERP system																		
Define an approach for addressing business process change as part of ERP implementation																		
Develop a detailed project plan for the implementation phase of the EPR and a corresponding cost estimate for completing implementation																		
Develop request for proposals for an ERP system																		
<b>B. Component B</b>																		
Assess current procedures relating to project identification and preparation of DPRs																		
Select six projects for preparation of DPRs in different urban subsectors																		
Prepare DPRs																		

Component and Activity	May 2008						<<<<<< Months >>>>>>												October 2009			
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18				
Develop manuals for subsector DPRs (water supply, solid waste management, sewerage and sanitation, roads and bridges, and development and housing, information technology parks)																						
Train the implementing agencies in preparing DPRs; and develop web site to support DPR preparation																						
<b>C. Component C</b>																						
<b>1. Regional Urban Planning</b>																						
Assess processes relating to the preparation of subplans, master plans, and other plans																						
Develop a plan for improvement																						
Implement improvements																						
Review barriers to regional planning and interstate projects																						
Make recommendations to overcome interstate issues in National Capital Region development																						
Arrange field trips abroad																						
Hold an international conference on capital region planning in New Delhi																						
<b>2. Human Resource Development</b>																						
Assess training needs assessment and Identification of training institutes																						
Development of Human Resource Management plan																						
Train the NCRPB and implementing agencies in DPR preparation, and other aspects of capacity development																						
Assess human resource management																						
Prepare recommendations for improving human resources																						
Organize study tours and field trips relating to urban and regional planning, project development and implementation, and enterprise resource management																						
<b>3. Other</b>																						
Carry out studies																						
Ensure public-private partnership development and implementation																						

DPR = detailed project report, ERP = enterprise resource planning, FM = financial management, NCRPB = National Capital Region Planning Board.  
 Source: Asian Development Bank.