

TA 7114-IND
NATIONAL CAPITAL REGION PLANNING BOARD PROJECT

*Medium Term Strategic Evolution and
Borrowers Assessment*

**ECONOMIC AND FINANCIAL ANALYSIS
REPORTS ON SUB PROJECTS**

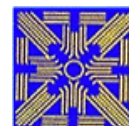
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This Volume is presented in two parts. Part I presents the Financial Management systems assessment and financial analysis of NCRP and borrowers or implementing agencies (IA's). From ADB's perspective NCRPB is the primary borrower. Part II presents the economic analysis of sub projects.

A summary of financial and economic analysis is also presented in Appendix 10.

The first year borrowing entities are State Departments or departments that maintain sub project finances. Accordingly the analysis covers either the sub project or the departments as a whole as part of a larger State Fiscal Analysis. However, the document presents areas of improvements in financial management and cost recovery mechanisms.

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Part I Financial Management Assessment and Financial Analysis of Sub Projects

A. Financial Management Systems

1.0 Financial Policies of the country or the state where the EA and IAs are operating:

1. In all categories of infrastructure there have been significant policy changes which has implications for NCRPB as a planner and financier and we outline some of these changes which could impact on NCRPB current business model in the medium term
2. First with respect to National Level infrastructure, significant changes include the unbundling in the Power sector, the NH program in the roads and railways based on PPP's. The unbundling implies increasing demand on state budgets for losses in transmission and distribution companies given the current tariff structures, especially in agriculture. It is difficult to visualize NCRPB as a major financier in this sector. Further with respect to NH, the PPP framework would suggest that NCRPB would have a limited role.
3. Second with respect to state level investments based on budgets for repayments, most states have been obliged to follow FRBM limits and the prospects for financing would depend on future buoyancy of tax revenues of which the major source is across states – sales taxes. The proposed movement towards GST by April 1st 2010 would also be needed to take into account unless the GST is revenue neutral or compensations are available from GOI
4. Third with respect to Municipalities, there is considerable functional and geographic fragmentation with respect to the implementation of the 74th and JNNURM has not addressed these issues. In this context NCRPB would have to deal with financing city infrastructure through parastatals which do not take credit risk. Further, traditional NCRPB borrowers such as UDA's would have little role to play within the city and in the region as several private sector landbanks have begun to emerge and Delhi itself has launched land developments with private sector real estate for joint ventures as evidenced for the ensuing commonwealth games. There is also the issue as to why subsidized GOI grants through NCRPB would need to finance UDA's which are essentially middle class housing with short gestation periods.
5. Urban sector financial management has been devolved from the Government of India (GoI) to each state and urban local bodies (ULBs) through the 74th Constitutional Amendment Act (74th CAA) of 1992. As a result of the Act, each state and ULB is empowered for financial management, including planning, mobilization and allocation of revenues. This process was further strengthened by Jawaharlal Nehru National Urban Renewal Mission (JNNURM), which provides financial assistance to urban development projects of states, if the states comply with, amongst others, adoption of (i) modern, accrual-based double entry system of accounting, (ii) GIS based property tax by ULBs with collection efficiency at 85% within next seven years, (iii) reasonable user charges by ULBs for operation and maintenance cost recovery within next seven years.

2.0 Disbursement Procedures and Fund-Flow Mechanisms

6. ADB Loans funds will be lent to NCRPB which in turn will on-lend them to the Borrowers / Implementation Agencies (IA). Present on-lending terms include (i) Interest rate 8.25% for urban infrastructure projects

(Water, Sewerage, Solid-waste and roads) and for others 9-9.5%. Incentive rate of 1.50% (for early payment, timely implementation, adherence to project cost estimates, adherence to drawdown schedule, and adherence to regional plan) is offered for all projects. (ii) maturity period of 10 years, including a grace period of 2 years. The re-lending terms are much more restrictive than the terms at which NCRPB borrows from ADB. Interest rate is much higher (8.25% to 9.5% vs. 3% for OCR). The NCRPB however, covers foreign exchange risk. The re-lending conditions may be reviewed in consideration of the overall debt service which NCRPB should bear as a result of the new borrowings.

7. Project funds are transferred to each of IA based on the Detailed Project Report (DPR) approved and sanctioned (sanction letter) and the sub-loan agreement signed between EA and IA. The drawdown of loan is as per the schedule specified in the DPR.
8. NCRPB will release the first lump sum of money in advance as the first tranche. The subsequent tranches will be released based on utilization certificate produced by the borrower, which will be crossed checked by NCRPB's physical inspection. The released loan proceeds will be kept in the borrower's project accounts. The sub-borrower will maintain a separate project account and record all expenditures against various heads of expenditure as per the approved DPR. Sub-borrower will maintain all supporting documents for audit and verification purposes.
9. Conditions to be complied or specific requirements to be met for borrowers of sub-loan under the ADB loan will be specified in the Sanction Letter and in the Sub-Loan Agreement. Sanction Letter is also part of the Sub Loan Agreement.
10. Interest rates will be same for sub-loans under the ADB loan as NCRPB's ordinary terms.
11. Sub-loans provided utilizing ADB's funds may have certain terms different than NCRPB's ordinary terms, especially with respect to:
 - (i) Procurement: NCRPB would stipulate certain procurement policies to meet ADB's procurement guidelines
 - (ii) Tenor: Certain loans provided utilizing ADB's loans could be for much longer tenor than NCRPB's ordinary loans due to ADB's long tenor loan
 - (iii) Compliance with NCRPBS ESMS
12. NCRPB will adopt and mainstream ADB policies and rules over the project implementation period. Thus ever after ADB loan is fully repaid NCRPB will continue to follow rules, which are in line with ADB policy and procedures.
13. Each of IA will enter into the supply and works contract and will have to comply with the ADB's procurement guidelines which will part of the loan covenant of the sub-loan agreement between EA and IA.
14. Supply and works contract execution will be done by each of IA. Payments against supply and works contract will be made by the IA as per the systems and procedures. Utilization certificate will be submitted to NCRPB based on which subsequent releases of loan will be made.
15. Projects once executed will be the assets of the IAs, except in the DIMTS (MMTC-Anand Vihar and MMTC – Sarai Kale Khan) where the owners will be the Transport Department, Government of National Capital Region.

16. NCRPB will be responsible for repayment of loan, including interest to ADB. IAs will be responsible for repayment of loans, including interest to NCRPB. Loans will be backed up by the security of State Government Guarantee / Escrow account.

3.0 Assessment of the EA and Each of the IAs

17. NCRPB and, IAs which are part of the respective State Government (as departments) prepare five year plans for development activities. Within the ambit of the Five Year Plan Annual Plan / Budget is drawn and approved for implementation. DIMTS and MCF prepare annual budgets which lays down both income and expenditure (revenue and capital).
18. Presently, the NCRPB prepares annual budgets estimates and provides inputs to each Five Year Plan. The budgets are prepared based upon guidelines received from Department of Economic Affairs, MoF, through MoUD using Outcome Budget approach based on guidelines issued by the Department of Expenditure, MoF, Gol dated December 17th, 2007. As stipulated under Rules 28 and 29 of the NCRPB Rules, the budgets are sent to MoUD before 15th October, each year after its approval by the Board
19. Even though budget versus actual income and expenditure is not compared on a periodic basis, the Accounts Department keeps sufficient controls to ensure that Plan as well as Non-Plan grants are used in full so that the unutilized balances are not to be returned / adjusted.
20. As per requirements from MoUD, the Board prepares and submit on monthly basis the Internal & Extra Budgetary Resources IEBR component of the Budget with actual. Also on quarterly basis, the Internal & Extra Budgetary Resources are compared with the actual.
21. **IAs**, which are part of State Government (as departments), prepare their annual budget as per the budget preparation process / rules / official circulars. DIMTS has its own internal process and method for preparing the annual plan / budget. MCF prepares its annual budget as per State Municipal Rules / official circulars. Detailed workings are done which do not figure on the budget document. These workings contain the physical target details.
22. Comparison of actual performance against budget is carried out at the on periodic basis and at the end of three quarters for the IAs, which are part of State Government (as departments), and revised estimates are drawn up for the relevant year.

4.0 Accounting Policy of the EA and Each of the IAs

23. NCRPB prepares accounts on accrual based double entry accounting system, as per the accepted Indian accounting standards which are generally compatible with international accounting standards. The basis of accounting is accrual, recognizing significant items of income and expenditure on accrual basis. Accounting system is based on Indian Accounting Standard (IAS) as adapted by the Institute of Chartered Accountants of India (ICAI). Computerization is in the process of being implemented under ADTA – Package A&C. NCRPB is at present following the Gol Finance Rules, 2005 which are documented and available as reference manual. Accounts are prepared in the formats specified by the Comptroller and Accountant General (CAG's) office. Computerization, under ADTA Pkg A&C, is ongoing to strengthen the financial management and accounting system. Manual for NCRPB personnel will be required for training and reference. Accounting manuals will be prepared and implemented after approval and adoption by the NCRPB board. Separate accounts for projects will have to be maintained. All the project accounts will be incorporated in the final account of NCRPB. The chart of accounts is adequate to account for all activities

of NCRPB. "Tally" accounting software is being used at present. There are no major issues with the accounting policies and procedures followed by NCRPB. Important papers are kept on a permanent basis and other documents are kept for several years as per government rule.

Implementing Agencies (IAs)

24. Given in summary form, please refer Table 1.1 Details are available in Annex F 2.1 to 2.8.

5.0 Financial Regulations

NCRPB

25. Accrual system of accounting, based on accounting standards prescribed by Institute of Chartered Accountants of India and CAG's office, is followed. Financial Statements, as prescribed by CAG, are prepared.
26. GoI rules and regulations namely, GoI General Finance Rules, 2005 Fundamental and supplementary Rules, Central Civil Service (Temporary Service) Rules, 1965, Central Civil Services (Medical Attendance) Rules, 1944, Central Government Employees Group Insurance Scheme, 1980, Central Civil Service (Leave) Rules, 1972, Central Civil Service Conduct Rules, 1955 etc. and orders and decisions issued by Central Government under those rules from time to time as applicable to the employees of the Central Government, are followed by NCRPB. Director (A&F) holds the authority for any amendment / change that may be required.
27. Surpluses: Amended Rule 32 empowers NCRPB to invest surplus money in the RBI, Government securities or in such other securities and instruments in accordance with the guidelines and directions issued by the Government. NCRPB, in March 2004, prepared guidelines for empanelment of public and private sector banks and fixed exposure ceilings for investment based on net worth, capital adequacy ratio and credit rating of instrument.
28. Accounting organization: Under the existing structure, NCRPB financial functions are under the responsibility of the Director (Administration and Finance). Under him is the finance and accounting section headed by the Assistant Directors, Accounts Officers, supported by other staff. Organization Chart, including qualification and experience, of Finance and Accounts department is given in Appendix 9.
29. Staff is not adequate for present level of operations. The results of FMA indicated that the potential weakness in the NCRPB's management of the ADB loans are fund management, management information system and intern audit (please refer para 4.3 of FMAQ). Staff for following additional posts or functions is required:
 - a) Fund Manager;
 - b) Project Loan and Maintenance of MIS; and
 - c) Internal Auditor / outsourced to professional firm of Chartered Accountants
30. Staff will require regular training inter alia in ADB procedures. Extant GoI rules , Fundamental and supplementary Rules, General Financial Rules, Central Civil Service (Temporary Service) Rules, 1965, Central Civil Services (Medical Attendance) Rules, 1944, Central Government Employees Group Insurance Scheme, 1980, Central Civil Service (Leave) Rules, 1972, Central Civil Service Conduct Rules,

1955 etc. and orders and decisions issued by Central Government under those rules from time to time as applicable to the employees of the Central Government, are at present applicable to NCRPB staff Training Policy for finance and accounts staff will also need to be prepared and adopted under the Project (Please refer Para 4.10 of FMAQ)

31. Authorized signatories (of cheque payments) are
 - ❑ Upto Rs. 50,000 – Joint Signatory as authorized by Member Secretary (MS) – Finance and Accounts Officer (FAO) and Drawing and Disbursement Officer (DDO); and
 - ❑ more than Rs. 50,000 – Joint Signatory (other than above) as authorized by MS – Director (A&F) and either of two Joint Directors.
32. Payment procedure: 18. Invoice-processing and payroll preparation procedures seem to be in order based on the sample invoices. Invoices are usually stamped “PAID”.
33. There are adequate safeguard over assets of NCRPB. Fixed Asset registers are being maintained. Physical verification of assets on annual basis is carried out. However, assets are not insured.
34. Depreciation: These are governed by the rules framed by CAG for the preparation of financial statements.
35. Bidding procedures: Extant GoI rules and regulations are adopted by NCRPB with regard to bidding procedures.
36. Planning and Budgeting: NCRPB prepares the budget once in a year according to financial year April-March following an assessment of funds requirement for various activities – in terms of physical and financial targets for the financial year. As a result, NCRPB does adopt a results oriented budget approach in which physical and financial targets are defined.
37. Actual expenditure is compared with budget on a monthly basis.. NCRPB also publishes monthly financial reports comparing actual against budget figures and monthly progress reports on project execution which provide information about stage of project execution. The monthly MIS (Management Information System) Report also includes a comparison of actual financial performance against budget. The budget variances are reportedly discussed in monthly meetings with the Director (Administration and Finance). A revised budget is prepared whenever necessary.
38. Internal controls: Functional responsibilities are segregated. Separate responsibilities for budget, payment, recording, reporting and audit are assigned to separate groups of officers and staff.
39. Debt Management: As per repayment policy of NCRPB, borrowers shall repay the principal and interest annually. NCRPB may allow, in deserving cases, a moratorium towards repayment of principal but not for the payment of interest. NCRPB is also empowered to provide for lower rate of interest in case of punctual payments; and higher or penal rate of interest not less than 2.75% per annum above the normal rate of interest. Pre-payment of loan is, however, allowed by NCRPB on a case-to-case basis. 1% of the prepaid installment is charged as prepayment penalty.
40. Financial Statements: Prepared on yearly basis in accordance with CAG prescribed format and ICAI accounting standards. In addition to the Financial Statements, other main reports prepared by finance and account section of NCRPB are the monthly information system (MIS) reports and half yearly results (a requirement of Securities Exchange Board of India (SEBI).

41. Internal Audit: An officer (in-house) has been designated as Internal Auditor. He reports to Director (A&F). There is no formal report prepared and submitted. Observations are noted or made by this designated internal auditor on the concerned files and remedial actions taken there-against. One qualified and experienced person / professional firm of chartered accountant (outsourced) will be required on full time basis to carry out the internal audit of NCRPB. Internal audit in NCRPB needs to be strengthened. There is no formal system of Internal Audit as mentioned earlier in this paragraph. Level of operations of NCRPB, over the years, have increased and projected to increase further in future. In view of this there is a need, identified by management of NCRPB, for formal internal audit.
42. External audit is being done by Comptroller and Auditor General (CAG) office. There are no significant or major audit findings in the audit report for the financial year 2008-09. Apart from Statutory Audit, CAG also conducts proprietary audit of NCRPB. NCRPB accounts are also certified by an Independent Chartered Accountant firm as per the requirement of taxation laws.
43. More details of Financial Management Assessment of NCRPB is available in **Annex F 1**.

Implementing Agencies

44. The Institutions in the NCR are of two broad categories, State departments and Autonomous Bodies/ Corporations. The State departments including local governments operate on cash based system of accounting and the State Corporations such as power, Industries and independent implementing agencies such as road development corporations or Joint ventures on an accrual format. The systems of transaction in either format are pronounced, and are based on accepted accounting norms as adopted by the State or as per the ICAI norms.
45. Financial Planning and Budgeting: Being agencies linked to State departments, the financial planning is on an annual basis. While for departments it is based on budgetary allocation as part of the State's budgeting process, the Development Authorities or local governments draw up budgets. These Local Government budgets are not based on plans or ability to raise resources to meet O&M. CDP based initiatives are recent in nature and the local body need capacity enhancement to link investment plans with adequate financial planning. This would address the issues of resource availability for implementation of projects and will not be a factor for implementation delays. Similarly there is also need to link budgets with physical plans to provide adequate information on physical and financial progress. At the macro level, there is a need to prepare a detailed implementation as well as a procurement plan for projects.
46. The quality of staff varies with the nature of agencies. While staff in the departments is not qualified accounting staff, there progression in the accounting function is based on completion of internal accounting tests. State Corporations have qualified accounting staff. The issue with the departmental staff is the limited exposure to accrual system / ADB project accounting systems and this will need to be addressed by NCRPB as well as the TA facility.
47. The capacities are weak in the local governments, especially when it comes to managing project financials of size. However urban local entities implementing national urban programs are in the process of movement towards accrual system of accounting as mandated by their reform agreements. The Project could support the upgrade to new systems and can also target willing local governments in this process.
48. One of the concerns includes insufficient safeguards over assets. This will need improvement, records need to be kept up to date, periodical physical verification and reconciliation to be carried out and all

assets (after completion). While this will be an element of overall financial management aspect, this needs special mention and be ensured under the project.

49. Entities as mentioned earlier do not link investments with cost recovery. This is also due to political processes. There are some indications of moving towards cost recovery and the sub projects would address a gradual movement towards cost recovery.

50. Technical support options under the project include the following:

- i. Support local governments in switchover to accrual systems of accounting including computerization of accounts
- ii. Training of implementation unit staff in project accounting and financial management systems;
- iii. Provide external support to ensure timely audit of investments made under the project and
- iv. Support in costing and pricing of services.

Table 1.1 Summarized Response on Financial Management

Particulars	SADA / UIT Alwar	DIMTS, HSRDC, RRVPNL, JVVNL	PHED	MCF	Remarks
Implementing Agency	• Legal Status: Special autonomous bodies under State's Statute. • Similar Project Experience: No prior experience. • Reporting requirements: Monthly Accounts, Demand Collection Balance (DCB) Statement and Annual Financial Statement. • Independent Governing Body: Yes. Independent board is responsible for management. Report to Urban Development Department (UDD) of respective state.	• Legal Status: Body corporate registered under Companies Act, 1956 • Similar Project Experience: No prior experience for DIMTS and HSRDC. RRVPNL and JVVNL have executed projects financially assisted by World Bank • Reporting requirements: Monthly Accounts, Quarterly Results, Annual Financial Statement. • Independent Governing Body: Independent Board of Directors managing day to day affairs of respective companies.	• Legal Status: Haryana State Government Department • Similar Project Experience: No prior experience. • Reporting requirements: Monthly Accounts, Demand Collection Balance (DCB) Statement and Annual Financial Statement. • Independent Governing Body: No. A State Government Department.	• Legal Status: Urban local body (ULBs) constituted under Municipal Act of Haryana. • Similar Project Experience: No prior experience. • Reporting requirements: Monthly Accounts, Demand Collection Balance (DCB) Statement and Annual Financial Statement. • Independent Governing Body: No. Directorate of Local Bodies under Urban Development Department (UDD) of GoH governs ULB.	• Lacks experience handling similar funded project. • IA staff lacks experience, technical knowledge to undertake such a large sized project

Particulars	SADA / UIT Alwar	DIMTS, HSRDC, RRVPNL, JVVNL	PHED	MCF	Remarks
Funds Flow Arrangements	- No previous experience of ADB disbursements. - Counterpart funding will be provided for in the SADA, Gwalior and UIT, Alwar's Budgets.	- No previous experience of ADB disbursements. - Counterpart funding will be provided for in the respective Company's annual budgets.	- No previous experience of ADB disbursements. - Counterpart funding will be provided for in the PHED's annual budgets.	- No previous experience of ADB disbursements. - Counterpart funding will be provided for in the GoH's and ULBs' annual budgets.	Past experience of IAs in carrying out developmental works was non-availability of funds on timely basis.
Staffing	- Present staff not trained in ADB procedures and are recruited through respective State services / directly recruited. - Staffing not adequate in case of SADA, Gwalior. - Present staff is permanent and are transferable within SADAs / UITs.	- Present staff not trained in ADB procedures and are recruited through State Services / directly. - Staffing adequate except in the case of HSRDC. - All present ULB staff is permanent except in the case of HSRDC.	- Present staff not trained in ADB procedures and are recruited through State Services. - Staffing not adequate. - All present staff is permanent and are transferable within State.	- Present staff not trained in ADB procedures and are recruited through State Municipal Services. - Staffing not adequate. - All present ULB staff is permanent and are transferable within ULBs.	- Present staffing at IAs, excepting DIMTS, RRVPNL and JVVNL not adequate, not properly qualified, trained and lacks ability and capacity to handle a project of this size. - Training and capacity building is to be provided. - Project financial management and accounting system modules and manual to be developed for training of project finance and accounting staff.
Accounting Policies and Procedures	Cash based accounting system, plan to switch over to	All have adopted double entry accrual based accounting	Cash based accounting system; Project will use	Cash based accounting system, plan to switch over to	SADA Gwalior, UIT Alwar, PHED and MCF will need assistance,

Particulars	SADA / UIT Alwar	DIMTS, HSRDC, RRVNL, JVVNL	PHED	MCF	Remarks
	plan to switch over to double entry (accrual) based system Project will use accrual based accounting system; - Controls are in place for the authorization / approvals, recording of transactions, payments and recording of payments in cash book in accordance with the budget heads approved; - Accounting records are retained on a permanent basis as per requirement.	based accounting system; - Controls are in place for the authorization / approvals, recording of transactions, payments and recording of payments in cash book in accordance with the budget heads approved; - Accounting records are retained on a permanent basis as per requirement.	Project will use accrual based accounting system; - Controls are in place for the authorization / approvals, recording of transactions, payments and recording of payments in cash book in accordance with the budget heads approved; - Accounting records are retained on a permanent basis as per requirement.	plan to switch over to double entry (accrual) based system; Project will use accrual based accounting system; - Controls are in place for the authorization / approvals, recording of transactions, payments and recording of payments in cash book in accordance with the budget heads approved; - Accounting records are retained on a permanent basis as per requirement.	capacity building and handholding in implementation of financial reforms.
Segregation of Duties	Adequate internal checks and controls are in place with respect to authorization, recording of transaction, custody of assets, order, receipt & accounting of goods and services etc.	Adequate internal checks and controls are in place with respect to authorization, recording of transaction, custody of assets, order, receipt & accounting of goods and services etc.	Adequate internal checks and controls are in place with respect to authorization, recording of transaction, custody of assets, order, receipt & accounting of goods and services etc.	Adequate internal checks and controls are in place with respect to authorization, recording of transaction, custody of assets, order, receipt & accounting of goods and services etc.	
Budgeting System	Accounts Officer is responsible for the preparation of the annual budget. Accounts Officer is	Accounts / Budget Officer is responsible for the preparation of the annual budget. Accounts / Budget	Accounts Officer is responsible for the preparation of the annual budget. Accounts Officer is	Accounts Officer is responsible for the preparation of the annual budget. Accounts Officer is	Clear targets not defined; the Project targets and budget for project activities

Particulars	SADA / UIT Alwar	DIMTS, HSRDC, RRVNL, JVVNL	PHED	MCF	Remarks
	responsible for presentation of the budget before Board for approval. Further it is sent to Urban Development Department in State Government for approval. - Explanatory notes to the budget provide sufficient details. Financial ceilings prescribed in the budget are adhered to. All variations or excess expenditure over budget requires prior approval. - Adequate procedures to plan and budget developmental activities.	Officer is responsible for presentation of the budget before Board for approval. HSRDC does not have a budgeting system. - Explanatory notes to the budget provide sufficient details. Financial ceilings prescribed in the budget are adhered to. All variations or excess expenditure over budget requires prior approval. - Adequate procedures to plan and budget developmental activities.	responsible for presentation of the budget before SE's Office for approval. Final approval at State Level. - Explanatory notes to the budget provide sufficient details. Financial ceilings prescribed in the budget are adhered to. All variations or excess expenditure over budget requires prior approval. - Adequate procedures to plan and budget developmental activities.	responsible for presentation of the budget before Municipal Board for approval. - Explanatory notes to the budget provide sufficient details. Financial ceilings prescribed in the budget are adhered to. All variations or excess expenditure over budget requires prior approval. - Adequate procedures to plan and budget developmental activities.	should be well defined and based on realistic and valid assumption. - Variance analysis on regular basis to be provided for under the project. - HSRDC should also adopt budgeting system.
Payment Systems	- Procedures in respect of payments of invoices, bills etc is adequate. - Pre-audit system in place ensuring all the checks are carried out before payments are made. - All invoices, bills etc are stamped paid and duly checked,	- Procedures in respect of payments of invoices, bills etc is adequate. - Pre-audit system in place ensuring all the checks are carried out before payments are made. - All invoices, bills etc are stamped paid and duly checked,	- Procedures in respect of payments of invoices, bills etc is adequate. - Pre-audit system in place ensuring all the checks are carried out before payments are made. - All invoices, bills etc are stamped paid and duly checked,	- Procedures in respect of payments of invoices, bills etc is adequate. - Pre-audit system in place ensuring all the checks are carried out before payments are made. - All invoices, bills etc are stamped paid and duly checked,	

Particulars	SADA / UIT Alwar	DIMTS, HSRDC, RRVPNL, JVVNL	PHED	MCF	Remarks
	reviewed and approved prior to payment.	reviewed and approved prior to payment.	reviewed and approved prior to payment.	reviewed and approved prior to payment.	
Policies And Procedures	- Cash basis of accounting being followed. - Accounting rules & standards as laid down by the Act / State Government is being followed. - Government orders, circulars etc supplement the accounting rules. - The extant rules define conflict of interest and related party transactions and provide adequate safeguards.	- Accrual basis of accounting being followed. - Accounting rules & standards as laid down by the Acts are being followed. - The extant rules define conflict of interest and related party transactions and provide adequate safeguards.	- Cash basis of accounting being followed. - Accounting rules & standards as laid down by the Act / GoH is being followed. - Government orders, circulars etc supplement the accounting rules. - The extant rules define conflict of interest and related party transactions and provide adequate safeguards.	- Cash basis of accounting being followed. - Accounting rules & standards as laid down by the Act / GoH is being followed. - Government orders, circulars etc supplement the accounting rules. - The extant rules define conflict of interest and related party transactions and provide adequate safeguards.	To change over to Double Entry / Accrual System.
Cash and Bank	- SADA – Joint signatory – Chief Executive Officer and Accounts Officer. - UIT Alwar – Upto Rs. 1 Million, Secretary UIT. More than Rs. 1 Million, joint signatories – Secretary and Chairman of UIT - Cash book generally up to date.	- DIMTS – Joint signatory – Senior Vice President (F&A), Vice President (F&A), Vice President (Human Resources) – any two out of above. - HSRDC – Joint signatory – DGM 1 and DGM 2 for expenditure upto Rs. 1 Lakh; Managing Director and DGM (mostly 1) for expenditure more	PHED – authorized signatory - Drawing and Disbursing Officers of the Divisions of PHED –a) for Works – Executive Engineer b) for Salary – Superintending Engineer and for Head Office – Registrar as delegated by the	- Municipal Board – Joint signatory – Financial Controller and Municipal Commissioner. - Cash book generally up to date, receipts/deposits & payments generally recorded on timely basis; - Bank reconciliation statements are prepared and cash is	Backlog in bank reconciliation should be cleared and reconciliation should be completed upto date.

Particulars	SADA / UIT Alwar	DIMTS, HSRDC, RRVPNL, JVVNL	PHED	MCF	Remarks
	up to date, receipts/deposits & payments generally recorded on timely basis; Bank / Treasury reconciliation statements are prepared and cash is reconciled regularly.	than Rs. 1 lakh and transfer of funds to Division (Ex.Engr) offices - RRVPNL – a) At Head Office: Single authorized signatory- Chief Accounts Officer (CAO) or Senior Accounts Officer (Sr. AO); b) At Circle Office: Single authorized signatory – Accounts Officer (AO) - JVVNL – Joint signatory – Same as for RRVPNL - Cash book generally up to date, receipts/ deposits & payments generally recorded on timely basis; - Bank reconciliation statements are prepared and cash is reconciled regularly. In HSRDC there is some backlog in Bank Reconciliation	Engineer in Chief - Cash book generally up to date, receipts/deposits & payments generally recorded on timely basis; - Bank / Treasury reconciliation statements are prepared and cash is reconciled regularly.	prepared and cash is reconciled regularly. There is huge backlog in bank reconciliation.	
Safeguard over Assets	Physical control over assets is provided by the existing systems & procedures through maintenance of register.	Physical control over assets is provided by the existing systems & procedures through maintenance of register.	Physical control over assets is provided by the existing systems & procedures through maintenance of register.	Physical control over assets is provided by the existing systems & procedures through maintenance of register.	Insufficient safeguards over assets, needs improvement, records need to be kept up to

Particulars	SADA / UIT Alwar	DIMTS, HSRDC, RRVPNL, JVVNL	PHED	MCF	Remarks
	- Financial records for assets are not being maintained. - Physical verification and reconciliation with the register not carried out. - Assets, excepting vehicles, are not insured.	- Financial records for assets are being maintained. - Physical verification and reconciliation with the register carried out. - Assets, excepting vehicles, are not insured.	- Financial records for assets are not being maintained. - Physical verification and reconciliation with the register not carried out. - Assets, excepting vehicles, are not insured.	- Financial records for assets are not being maintained. - Physical verification and reconciliation with the register not carried out. - Assets, excepting vehicles, are not insured.	date, periodical physical verification & reconciliation to be carried out and all assets (after completion) to be insured under the project.
Other Offices and Implementing Entities	No, there are no other offices in case both SADA and UIT;	- No, there are no other offices; - In case of HSRDC, RRVPNL and JVVNL – Circle / Division offices - Presently there are established procedures & controls for flow of funds, financial information, reconciliations, accountability & audits in relation to these offices.	Yes, Circle / Division offices - Presently there are established procedures & controls for flow of funds, financial information, reconciliations, accountability & audits in relation to these offices.;	No, there are no other offices;	To be covered under the Project depending on the decision of State with respect to financing and implementation issues.
Other	Advice for reporting of frauds etc to appropriate authority under the project not specified.	Advice for reporting of frauds etc to appropriate authority under the project not specified.	Advice for reporting of frauds etc to appropriate authority under the project not specified.	Advice for reporting of frauds etc to appropriate authority under the project not specified.	To be provided for.
Internal Audit	- SADA – outsourced to a firm of Chartered Accountants. - UIT - At present no internal audit.	- DIMTS – outsourced to a firm of Chartered Accountants. - HSRDC – Outsourced to a Chartered Accountant from	At present no internal audit. However, in-house pre-audit exists.	At present no internal audit. However, in-house pre-audit exists.	

Particulars	SADA / UIT Alwar	DIMTS, HSRDC, RRVPNL, JVVNL	PHED	MCF	Remarks
		FY2010. RRVPNL and JVVNL – In-house Internal Audit department carried out internal audit.			
External Audit	- Director of Local Fund is the Statutory Auditor and performs the audit as per standards laid down by the CAG of India. - In addition, Accountant General (Audit)'s office also carries out the audit on annual basis for SADA. - Audit reports issued. - Separate audit of project financial statements proposed.	- Independent firm of Chartered Accountants is the Statutory Auditor and performs the audit as per standards laid down by the ICAI of India. - In addition, Accountant General (Audit)'s office also carries out special audit as and when required as provided u/s 619 of Companies Act. - Audit reports issued. - Separate audit of project financial statements proposed.	- Accountant General (Audit)'s office also carries out the audit on annual basis. - Audit reports issued. - Separate audit of project financial statements proposed.	- Director of Local Fund is the Statutory Auditor and performs the audit as per standards laid down by the CAG of India. - In addition, Accountant General (Audit)'s office also carries out the audit on annual basis. - Audit reports issued. - Separate audit of project financial statements proposed.	Separate audit of project financial statements in accordance with the accepted auditing standards proposed.
Reporting & Monitoring	Present reporting system inadequate to meet project reporting requirements, with only financial figures being reported against the budget allotments.	Present reporting system adequate to meet project reporting requirements excepting in case of HSRDC.	Present reporting system inadequate to meet project reporting requirements, with only financial figures being reported against the budget allotments.	Present reporting system inadequate to meet project reporting requirements, with only financial figures being reported against the budget allotments.	To be provided for under the Project.

Particulars	SADA / UIT Alwar	DIMTS, HSRDC, RRVPNL, JVVNL	PHED	MCF	Remarks
Information Systems	- No. Process of computerization of accounting records in the initial stages. - Present system not adequate to generate project financial reports. - Inadequate training of present staff of SADA and UIT. - Inadequate safeguard of the confidentiality, integrity and availability of data.	- Computerized accounting records are maintained, excepting in case of HSRDC where it is outsourced. - Present system adequate to generate project financial reports. - Adequate training of present staff of IAs, excepting in case of HSRDC. - Adequate safeguard of the confidentiality, integrity and availability of data.	- No. Process of computerization of accounting records in the initial stages. - Present system not adequate to generate project financial reports. - Inadequate training of present staff of PHED. - Inadequate safeguard of the confidentiality, integrity and availability of data.	- No. Process of computerization of accounting records in the initial stages. - Present system not adequate to generate project financial reports. - Inadequate training of present staff of ULB. - Inadequate safeguard of the confidentiality, integrity and availability of data.	To be provided for under the Project.

Details of financial management assessments for each IA are available in **Annex F 2.1 to 2.8**.

6.0 Accounting Information System

NCRPB:

51. NCRPB's information system is not automated. Reports are being prepared manually and using MS Office Excel. The reports of financial figures are available in limited formats in computerized accounting system being maintained in "TALLY" accounting software. Comprehensive computerization is also under process under ADTA in NCRPB.

Implementing Agencies

52. This is given in the summary table 1.1

7.0 Conclusion

NCRPB:

53. The assessment results indicate that the financial management systems, covering the policies and practices regarding financial planning, programming, accounting, monitoring and reporting, internal auditing, internal controls, external auditing, funding, organization, and personnel of the executing agency, are sufficient to satisfy ADB of the capability and capacity of NCRPB to produce timely and reliable financial data and reports, and to achieve standards of performance. However, in order to achieve further efficiency in its internal process following are the significant suggestions for reform in NCRPB:

1. Creation and filling up of following three posts to augment existing staffing:
 - a) Fund Manager for managing the funds of NCRPB including foreign exchange currency management- **However this may not arise** ;
 - b) Project Loan and Maintenance of MIS for management of projects funded by NCRPB as well as for maintenance of Project Management Information System (PMIS); and
 - c) Internal Auditor/ professional firm of chartered accountant (outsourced) for internal audit of NCRPB.
2. Implementation of Computerization is in progress under ADTA – package A and C. **Under implementation**
3. Preparation of Accounting and Financial Management Manual in line with the new computerization of systems being implemented.
4. Development of suitable training policy for the accounts and finance staff of NCRPB.

Implementing Agencies

Special Area Development Authority (SADA), Gwalior, Urban Improvement Trust (UIT) and Municipal Corporation of Faridabad (MCF)

- i Reforming the accounting system in order to introduce and implement the accrual based double entry accounting system including development of Financial Management and Accounting System Manual in SADA;

- ii Providing regular (refreshing) training to both the existing and new staff in the new accounting practices and the computerized management information system;
- iii Close monitoring of the plan for computerization of the financial management and budget system

Delhi Integrated Multimodal Transport Services (DIMTS)

54. DIMTS being a nodal agency for transport initiatives has presented a request for a larger scale TA support from NCRPB and the project

B. Financial Analysis

1.0 Past Financial Performance

NCRPB

55. NCRPB is a statutory body under an Act of Parliament. In terms of its primary function of planning, its authority flows from the Act and has been upheld as binding on states and local authorities by the Supreme Court. As regards its financing function, the Fund is neither a NBFC regulated by the RBI nor a company within SEBI's supervision. The liabilities of the entity are those of GOI in event of dissolution and hence the rationale for its high rating and its ability to be viewed as almost equivalent to sovereign risk. As such, issues of capital adequacy, provisioning norms and pricing restrictions do not apply as with other lenders in the private sector (IDFC) nor ones in the public sector (HUDCO, IDBI, IIFCL)
56. As the NCRPB does not have share capital (company format) or contribution (Trust format) grants received from GOI are accounted for as and lent out along with reflows. Up till March 31, 2009 the entity has lent out INR 29073 million (around \$ 620 Million) TO 119 ongoing projects and has had no default. The lending is usually on a State or bank guarantee mode without any serious attempt to conduct financial appraisal of the repayment capacities of the borrowers or projects. The need for a state guarantee from non state government entity (such as a UDA) is required by the Rules under the Act. The entity has also structured third party no default escrows with Banks as additional security measures.

Financial Analysis

Financial Analysis of NCRPB: A detailed analysis of NCRPB's finances is given in Table 1.2:

Table 1.2 – NCRPB Financial Performance Analysis

ANALYSIS OF NCRPB FINANCES										
NATIONAL CAPITAL REGION PLANNING BOARD										
RS IN MILLIONS										
BALANCE SHEET AS AT 31.3.2009										
CORPUS/CAPITAL FUND & LIABILITIES	AS AT 31.3.2009		AS AT 31.3.2008		AS AT 31.3.2007		AS AT 31.3.2006		AS AT 31.3.2005	
1 NCRPB FUND (CAPITAL FUND/CORPUS)	20052.3		18229		15651		14001.3		12516.2	
2 BOND REDEMPTION RESERVE	285									
3 MARKET BORROWINGS	4651		2000				3871.5		3871.5	
TOTAL	24988.3		20229		15651		17872.8		16387.7	
ASSETS										
5 FIXED ASSETS	11.3		12.7		13.9		16		17.1	
6 INVESTMENTS OF PF/NPS	13.3		12.4		11.8		11.5		10.6	
7 CURRENT ASSETS, LOANS & ADVANCES										
A LOANS TO BORROWERS	22353.9		17711.7		12734.2		10622.7		8955.1	
B CASH & BANK BALANCES	1818.3		1729.3		2500.2		6947.8		6990.1	
C INCOME ACCRUED	330.9		264.1		209		242.2		321	
D OTHER ADVANCES, ETC	619.9		566.4		780.8		435		381.6	
25123	25123		20271.5		16224.2		18247.7		16647.8	
LESS: CURRENT LIABILITIES	-159.3	24963.7	-67.6	20203.9	-598.9	15625.3	-402.4	17845.3	-287.8	16360
TOTAL	24988.3		20229		15651		17872.8		16387.7	
NATIONAL CAPITAL REGION PLANNING BOARD										
RS IN CRORES										
INCOME & EXPENDITURE ACCOUNT FOR THE YEAR ENDED MARCH 31, 2009 (CONSOLIDATED)										
INCOME	2008-09		2007-08		2006-07		2005-06		2004-05	
1 INTEREST EARNED FROM LOAN PORTFOLIO	1321.5		949.2		740.8		660.9		809.3	
2 OTHER INTEREST EARNED	80.2		191.8		374.2		475.4		381.7	
3 GRANT IN AID FROM MOUD	23.5		18.7		19		17.7		18.3	
4 OTHER INCOME	10.7		0.9		6		1.1		0.2	
TOTAL	1435.9		1160.6		1140		1155.1		1209.5	
EXPENDITURE										
4 EXPENDITURE ON BORROWINGS	217.7		38.5		157.2		391.3		413.9	
5 OTHER EXPENDITURES	59.3		44.1		34		30.9		111.3	
6 PROVISIONS	50.6		0		319.1		246.9		261.3	
	327.6		82.6		510.3		669.1		786.5	
SURPLUS	1108.3		1078		629.7		486		423	
7 TRANSFER TO BOND REDEMPTION RESERVE	285									
8 TRANSFER TO NCRPB CORPUS	823.3		1078		629.7		486		423	

ANALYSIS	2008-09	2007-08	2006-07	2005-06	ALL RUPEES IN MILLIO 2004-05
RATIOS					
NET WORTH	20337.3	18229	15651	14001.3	12516.2
MARKET BORROWINGS	4651	2000	0	3871.5	3871.5
DEBT : EQUITY RATIO	0.23 : 1	0.11 : 1	0.00	0.28 : 1	0.31
LOANS OUTSTANDING	22353.9	17711.7	12734.2	10622.7	8955.1
TOTAL ASSETS	24988.3	20229	15651	17872.8	16387.7
AVERAGE LOANS AT YEAR END	20032.8	15222.95	11678.45	9788.9	9042.2
YIELD ON AVERAGE LOAN AMOUNT	6.60%	6.24%	6.34%	6.75%	8.95%
AVERAGE MARKET BORROWINGS AT END	3325.5	1000	1935.75	3871.5	4924.25
EXPENDITURE ON MARKET BORROWINGS	217.7	38.5	157.2	391.3	413.9
COST OF BORROWINGS	6.55%	3.85%	8.12%	10.11%	8.41%
AVERAGE NET WORTH	19283.15	16940	14826.15	13258.75	11847.2
RETURN ON AVERAGE NET WORTH	5.75%	6.36%	4.25%	3.67%	3.57%
RATIO OF NON PERFORMING LOANS TO LOANS (ie. NO DEFAULTS IN PAYMENT OF PRINCIPAL OR INTEREST)	NIL	NIL	NIL	NIL	NIL
DETAILS OF DEBT RAISED BY NCRPB AS OF 31.3.2009 AND COST OF DEBT					
	RS IN MILLIONS	WT	WEIGHTED COST		
NCRPB TAXABLE BONDS 2018	2000	8.98%	0.43	3.86%	
NCRPB TAXABLE BONDS SERIES I 2018	2651	9.15%	0.57	5.22%	
TOTAL	4651			9.08%	

Implementing Agencies

57. Financial performance of the following IAs were reviewed for the past years based on the information and data provided by them:
- Special Area Development Authority (SADA), Gwalior;
 - Public Health Engineering Department (PHED), Government of Haryana;
 - Haryana State Roads and Bridges Development Corporation (HSRDC), Haryana;
 - Municipal Corporation of Faridabad (MCF);
 - Rajasthan Rajya Vidyut Prasaran Nigam Limited (RRVPLN);
 - Jaipur Vidyut Vitharan Nigam Limited (JVVNL);
 - Urban Improvement Trust (UIT), Alwar; and
 - Delhi Integrated Multimodal Transit Systems (DIMTS), Delhi
58. Summarized financial performance of all the above IAs for the FY09 (FY08 for HSRDC, RRVPLN and JVVNL) is presented in Table 1.3.
59. RRVPLN and JVVNL operate on no profit, no loss basis as GoR has committed to bridge the revenue gap as per the Financial Restructuring Plan (FRP) at the time of trifurcation of erstwhile Rajasthan State Electricity Board (RSEB) into Generation, Transmission and Distribution companies. Tariff fixation and revisions are subject to final approval of the GoR.
60. SADA and UIT are self sustaining agencies with main source of income being sale of land and interest income. Both have been operating without any financial support from the State Government. Surpluses are carried forward and used to meet the expenses of future years as evidenced in the case of UIT, Alwar which has been having revenue deficit for the past few years.

61. PHED has been having revenue deficit over the years. Being a GoH department the revenue gap is being met by the State. Tariff fixation and revisions are subject to final approval of GoH.
62. HSRDC has been earning cash profits over the years with main source of income being the toll receipts, interest income and service charges. HSRDC has been able to sustain its operations as well meet its debt service obligations.
63. MCF has been having revenue deficits for the past four years. Main reasons for this situation has been increase in operation and maintenance expenses (CAGR – 47%), increase in establishment expenses (CAGR – 12%), increase in revenue expenditure (CAGR – 31%) as compared to the increase in revenue (CAGR - 16%). MCF has been able to sustain its operations through financial support from GoH.
64. DIMTS, a recently set up entity, has been doing well financially with revenue surplus over the past two years.

Table 1.3 Summarised Financial performance of selected Implementing Agencies for the FY 09

	INR Million							
	SADA	PHED	HSRD C	MCF	RRVP NL	JVVNL	UIT Alwar	DIMTS
Income			(FY08)		(FY08)	(FY08)		
Own Sources	297.4	493.7	559.6	1965.3	8766.4	32005.8	179.1	324.2
Grants					35.2	11466.3		
Others					312.8	930.6		
Total Income	297.4	493.7	559.6	1965.3	9114.4	44402.7	179.1	324.2
Expense								
Pay and Allowances (Establishment)	9.4	2909.2	21.8	638.1	3508.3	2363.9	54.9	97.3
Operation and Maintenance Development Expenses	176.5	2795.5		2242.4	1750.4	37159.3	294.1	120.1
Finance Charges	17.5		238.5	4.7	2067.2	3450.1		0.4
Depreciation			418.3		1200.0	1204.3		5.2
Others			0.2	107.9	588.5	225.0	78.3	3.3
Total Expenses	203.3	5704.7	678.9	2993.1	9114.4	44402.7	427.3	226.3
Revenue Surplus / (Deficit)	94.0	(5211.0)	(119.3)	(1027.8)	0.0	0.0	(248.1)	97.8

Source: Accounts of IAs

7.0 Cost Recovery and Profitability

NCRPB

65. Surpluses, if any, are retained within NCRPB and invested in safe securities to further promote the objectives for which NCRPB was created. NCRPB's funds are primarily grant funds from Government, which are free of dividend expectations. NCRPB has resorted to market borrowings through private placement of bonds.
66. The funds are on lent at a competitive rate and revolved. Rule 40 prescribes "Interest shall be charged at such rates as may be specified by NCRPB for any particular loan or for the class of loans concerned and the rate of interest prescribed by the Government from time to time shall invariably be adopted by the Board".
67. Interest rate is determined based on the weighted average cost of capital from all sources of funds – i.e. Grants from GoI, Internal accruals, and borrowings. Revision in interest rate is done with the approval of Ministry of Urban Development (MoUD), GoI.
68. Current rate of interest is as follows:
 - a) For urban infrastructure projects covering solid waste, water, sewerage and roads – 8.25% per annum; and
 - b) For others – 9.5% per annum.
69. To the above interest rate, an incentive of 1.50% per annum is given for a) adherence of project to regional plan; b) timely implementation of project; c) adherence to cost estimates; d) drawal of loan as per drawdown schedule; and e) timely repayment etc.
70. There has been no default in repayment of loans and interest by borrowers to NCRPB.

Implementing Agencies

71. The operations of the IAs which are part of the State Government (PHED, PWD) are subsidized from the state budget for operational deficits as well as debt service. The cost of providing services is much more than the tariff set for water supply (15% for PHED, Haryana). There are many factors like political will, quality of service, collection efficiency, high employee cost etc. which contributes to such a low cost recovery. In case of PWD, roads project are of non-revenue nature and operations cost are met out of the department budget.
72. The two power companies, one transmission and one distribution, are operating on a no profit no loss basis as per provision of Financial Restructuring Plan (FRP) as approved by the Government of Rajasthan. Revenue gap is reflected as subvention receivable from the GoR. In this also the tariff do not match the cost of operations and tariff increases are regulated by the Regulatory Authority subject to the approval of GoR.
73. DIMTS is a agency which has been formed to implement the projects of Transport Department of GoNCT. Its main incomes are in the form of project management fee, consultancy fee etc. which are adequate to cover its cost of operations and earn surplus.

74. The two development authorities, in Madhya Pradesh and Alwar, do not have any dividend obligations. The surpluses, if any, are retained for meeting the objectives for which they were set up. Operational deficit till date, in case of UIT Alwar, has been met from internal accruals and accumulated surpluses from sale of land.
75. HSRDC is fully owned by GoH and has been set up as an implementing agency for road projects in the Haryana. Surpluses are retained and used for achieving the objects of the entity. Losses are subsidized by the GoH.

8.0 Financial Improvement Action Plan

Implementing Agencies

76. PHED – Pataudi Water Supply and Sewerage
77. Water tariff increase proposed in volumetric basis from end of project implementation year @ Rs. 15 per KL in FY 2014. Further 20% increase has been proposed in FY2019 and thereafter every four years. The analysis shows that the average tariff, for the water supply fully cover incremental O&M costs with their average tariffs higher than AIFC for O&M. Minimum tariff required to recover the full O&M cost is INRs.1.5/KL (at 2009 prices) in FY2014. Under recovery of cost due to constraints in increasing tariff will have to be subsidized by GoH.
78. Sewerage: Presently, PHED levies monthly charge of Rs. 6 per closet seat wherever sewerage system is present. This is too low to cover the operation cost of operations. Proposed sewerage is @30% surcharge on water charges and a connection fee of Rs. 2250 per connection. Like water supply, sewerage operation is subsidized by the State Government. In Pataudi and Haily Mandi towns, at present, there is no sewerage system and hence no revenue.

Affordability Analysis

Implementing Agencies

PHED – Pataudi Water Supply and Sewerage

79. **Willingness To Pay (Survey Results).** For survey purposes, the households were categorized into 4 income groups as. The 4 household categories are: High Income Group (HIG), Middle Income Group (MIG), Low Income Group (LIG), and poor including below poverty level. The composition of the population by income group is as follows: HIG (20%), MIG (12.8%), LIG (21.6%), and poor (45.6%).
80. The results of the survey did not specify an amount that each group is willing to pay for improved water supply and sanitation services. The survey however indicated a low willingness to pay among the poor and a bit higher willingness to pay from the non-poor for obvious financial reason. The low willingness to pay for improved services among the poor is largely due to: i) relative satisfaction with the present water supply and sanitation services; ii) use of water from street tap, which is the major source of water among the poor, is currently free of charge; and iii) respondents' view that government has the responsibility to provide the services to its residents.
81. **Affordability Analysis.** An analysis was undertaken to determine if the beneficiaries, in particular the LIG and poor households, could afford the proposed tariff charges. The generally accepted guideline is

that the combined charges for water supply and sanitation should not exceed 5% of household income. The average household income gathered in the socio-economic survey (November 2009) and the assumed water usage in 2013-14 were used in the analysis. The analysis tested the projected tariffs that would prevail in 2013-14, with new tariffs introduced in 2013-14. Proposed increase in tariff in FY 2014 is well within the affordability levels and ranges from 2.3 to 2.9% of income for different income group. Meter and connection costs, if included in the BPL/poor group, then it crosses the affordable limit. Under the subproject, cost of meters / connections has been proposed for poor.

Table 1.4: Household Affordability Analysis

Income Group	HH Mean Income*	Water Usage in 2013	Water Charge in 2013 at 2009 Price		Sewerage Charge in 2013 at 2009 Price	
	Rs./Year.	KL/Year.	Rs./Year.	% of Income	Rs./Year.	% of Income
HIG	150,000	482	2,910	1.9%	873	0.6%
MIG	84,000	365	1,890	2.3%	567	0.7%
LIG	60,000	243	1,050	1.8%	315	0.5%
UP	30,000	180	630	2.1%	189	0.6%

* Source: November 2009 survey

Projected Financial Forecasts

NCRPB

Table 1.5 Summary of financial projections for the recommended option:

FINANCIAL YEAR ENDED MARCH 31,	2011	2020
RUPEES IN MILLIONS		
	Option II	Option II
	Regional Player	Regional Player
BALANCE SHEET		
CAPITAL (INCLUDING FREE RESERVES)	25072.4	56511.5
TOTAL DEBT	17667.3	267758.2
TOTAL LIABILITIES	42739.7	324269.7
TOTAL LOANS OUTSTANDING	35990.0	270412.2
FIXED ASSETS & INVESTMENTS	5691.9	49936.2
CLOSING BALANCE OF CASH AND EQUIVALENTS	1057.8	3921.2
TOTAL ASSETS	42739.7	324269.7
INCOME AND EXPENDITURE STATEMENT		
INTEREST INCOME	2055.9	21750.7
INTEREST INCOME ON SURPLUS	84.9	105.7
TOTAL INCOME	2140.8	21856.4
INTEREST EXPENSE	539.3	16099.3
EXPENDITURE INCURRED ON RAISING BORROWING	30.0	0.0

FINANCIAL YEAR ENDED MARCH 31,	2011	2020
OVERHEADS	68.6	57.3
LOAN LOSS RESERVE	0.00	0.00
TAX	0.00	0.00
TRANSFER TO GRANT FUND	100.0	100.0
TOTAL EXPENDITURE	737.8	16256.6
NET INCOME OVER EXPENDITURE	1403.0	5599.8
Debt : Equity Ratio	0.41	3.29
CAPITAL ADEQUACY RATIO	735%	234%
EARNINGS PER SHARE of Rs 10 each (on 200.52 cr shares)		
INTEREST SPREAD RATIO	0.20%	0.29%
EARNINGS SPREAD RATIO	5.26%	2.15%
GROSS INTEREST MARGIN	302.20%	37.53%
NET MARGIN	241.43%	36.60%
AVERAGE COST OF BORROWINGS	8.05%	7.48%
AVERAGE GROSS RETURN ON LOANS	7.01%	7.87%
Less: AVERAGE COST OF FUNDS	1.74%	5.72%
Less: OTHER COSTS AS % OF TOTAL FUNDS	0.31%	0.04%
NET RETURN ON CAPITAL EMPLOYED (ASSETS)	4.95%	2.11%
RETURN ON EQUITY	6.65%	8.60%
WEIGHTED AVERAGE COST OF BORROWING (post tax)	8.52%	8.53%
WEIGHTED AVERAGE COST OF CAPITAL (POST TAX)	7.48%	8.19%
WEIGHTED AVERAGE LENDING RATE	8.80%	8.80%
LOAN LOSS RESERVE (AS A % OF LOAN OUTSTANDING)	0.00%	0.00%
INCOME TAX RATE	0.00%	0.00%
SECTORAL BREAK UP OF DISBURSEMENT	% OF	Interest
	TOTAL	
Sewerage/Solid Waste	10%	6%
Water supply	15%	7%
Transport	15%	9%
Power	40%	9%
Land development & others	20%	11%
	1.00	8.80%

Implementing Agencies

DIMTS

MMTC – Anand Vihar

82. Financial analysis has been carried out to assess the viability of the proposed project investment for MMTC at Anand Vihar based on the capacity of MMTC to generate sufficient incremental revenues with project implementation to cover the capital and operating costs of the project. The analysis was carried out on an incremental basis using the discounted cash flow methodology, and measuring the internal rate of return of the project. The analysis is based on the following assumptions:

83. The estimated project cost of the proposed redevelopment of Anand Vihar MMTC is given in Table 1.6.

Table 1.6 Cost estimates and financing plan Rs in million

Base Cost (Rupees Million)	Base Cost			Including Contingencies		
	2010	2011	Total	2010	2011	Total
I. Investment Costs	20%	80%		20%	80%	
A. Civil Works						
1. Civil Works						
Civil Works	206.19	824.76	1030.95	226.81	907.23	1134.04
Plumbing Work	7.79	31.14	38.93	8.56	34.26	42.82
Development of Site	4.25	16.98	21.23	4.67	18.68	23.35
Subtotal Civil Works	218.22	872.88	1091.11	240.04	960.17	1200.22
2. Electrical Works						
Electrical Works at site	50.01	200.02	250.03	55.01	220.03	275.03
Sub-station	19.22	76.89	96.11	21.14	84.58	105.72
HVAC Works	19.95	79.79	99.74	21.94	87.77	109.71
Subtotal Electrical Works	89.18	356.70	445.88	98.09	392.37	490.47
3. Others						
Fire Fighting	5.48	21.92	27.41	6.03	24.12	30.15
Elevators and Escalators	13.87	55.48	69.35	15.26	61.03	76.28
Miscellaneous /Steel Works	4.91	19.65	24.56	5.40	21.61	27.02
Subtotal Others	24.26	97.05	121.31	26.69	106.76	133.44
Total	331.66	1326.64	1658.30	364.83	1459.30	1824.13
Design & Construction m	25.21	100.82	126.03	27.73	110.91	138.63
Grand Total	356.87	1427.46	1784.33	392.55	1570.21	1962.76

84. **Construction Schedule:** The construction activity has been envisaged over a period of fifteen months. Construction is tentatively assumed to commence in February 2010 and the redeveloped structure is scheduled to start operating from May 2011. The table below gives the capex programme.

Particulars	Deadline
Project start date	January 2010
Construction Start	January 2010
Construction Period	15
Construction End	March 2011
Commencement of Operations	April 2011

Particulars	Deadline
Capex phasing - Year 1 (3 months)	20%
Capex phasing - Year 2 (12 months)	80%

85. The assumptions relating to means of finance for the project are described below:

Equity: GNCTD is expected to contribute Rs 578.10 million (including internal accruals during project construction phase from bidding out of the hotel).

Lenders: The balance amount is expected to be borrowed from NCRPB and other lenders. The total debt expected to be raised is Rs 1472.07 million. The indicative details of the debt are given below:

Total project cost	:	2050.17 (including Interest during construction of Rs 87.40 million)
Debt	:	1472.07
Own funds	:	578.10
D:E ratio	:	2.55:1
Loan period	:	10 years
Moratorium	:	2 years
Repayment period	:	8 years
Rate of Interest	:	9.5% p.a.

Each drawdown has its own repayment schedule

86. The construction period is 15 months, starting January 2010 and ending March 2011. Hence Interest During Construction has been worked for 3 months in 2009-10 and 12 months during 2010-2011.

87. Basic Assumptions relating to revenue and costs:

- i. **Real estate income:** The rental income from lease of kiosks, retail and office space forms the bulk of the revenue contributing about 54% of the total revenues.
- ii. **Hotel income:** The expected income from franchise of hotel is expected to contribute 25% of the total revenues.
- iii. **Bus fees, car parking charges and advertisement charges:** The revenue from these activities contributes the balance of 21% of the total revenues.
- iv. **Depreciation:** Depreciation at the appropriate rates has been taken for analysis.
- v. **Tax:** As the assets would be in the books of accounts of the Delhi Government, no income tax is applicable.
- vi. **O&M expenditure** has been assumed at about 8.25% of project cost (excluding Interest During Construction)
- vii. DIMTS is expected to be appointed as the Asset Manager of the project after commencement of operations. DIMTS is also expected to have a share of the operating surplus (details of

which have been enumerated earlier) as an incentive for maximizing revenues from the MMTC facility.

- viii. Financials for the period FY 2010 to FY 2025 has been analysed for evaluation. (Annex F 3.1)
- ix. A summary of certain critical assumptions for the Base Case of the financial model is given below:

Table 1.7 Assumptions for Financial Analysis

Particulars	Asset created	Tariff	Year on Year increase in tariff
Kiosk area created	3500 sq ft	Rs 250 per sq ft per month	7%
Retail area created	58000 sq ft	Rs 165 per sq ft per month	7%
Office area created	107600 sq ft	Rs 50 per sq ft per month	7%
Interstate bus avg. daily traffic	2,000 nos.	Rs 50 per entry	5%
Local bus avg daily traffic	1,500 nos.	Rs 35 per entry	5%
Total number of parking spaces (85% occupancy)	473 Nos	Rs 30 per day	5%
% of parking demand diverted to night parking	5%	Of Normal parking	5%
Advertising revenue per year		Rs 12 million	10%
<i>Hotel Annuity Inputs</i>			
Valuation of Hotel		Rs 950 million	
Upfront payment from Hotel developer		Rs 190 million	
Annuity payment from Hotel developer		Rs 79.4 million	10%
Hotel Concession Period		33 years	
No of days for which daily revenue is calculated in a year	300		
<i>O&M Expenses</i>			
O&M expenses (per annum) as % of Revenue (First year)		8.25%	7%

88. Following observations have been made while undertaking the financial analysis:

- (a) Substantial reliance has been placed on income from hotel and real estate (contributing 79% of revenue). Consequently, any impact of economic downturn leading to reduction in such income would greatly affect the viability of the project.
- (b) Also, a sum of Rs 285 million has been taken as inflow from the hotel developer (initial premium of Rs 190 million and first year's contribution of Rs 95 million) for funding the capital expenditure. Any delay or reduction in these amounts would impact the funds availability for the project. Government of Delhi would need to meet any shortfall in the funds availability if required.
- (c) DIMTS is expected to be appointed as the Asset Manager and is expected to be paid a fees linked to operating surplus, prior to debt service. Any shortfall in cash flows for meeting debt service due to such payment to DIMTS is to be made up by the Delhi Government

- (d) While the project financials show cash generation from day one, in the event any of the revenue profiles does not perform as per projection, there could a cash shortfall in meeting debt service. Consequently, any shortfall in meeting various commitments would need to be met by the Delhi Government.

89. **Financial Analysis:** A financial analysis has been carried out based on the above assumptions and Financial Internal Rate of Return (FIRR) is estimated at 11.64% for the Base Case. Further a sensitivity analysis of the Base case have been carried out to test the impact of adverse changes in cost and revenue assumptions on the financial rate of return and the results are given in Table 1.8 :

Table 1.8 – FIRR and Sensitivity – MMTC Anand Vihar

Sensitivities	Project Cost	Project FIRR (%)
Base Case (1)	2050.17	11.64
Project Cost Increase 10% (2)	2255.18	9.30
Rental income from real estate – Less by 10 % (3)	2050.17	10.68
Hotel income – Less by 50% (4)	2050.17	5.96
Hotel income gets postponed by 1 year (5)	2050.17	10.15
Combined impact (2) + (3) + (5)	2255.18	7.02

MMTC – Sarai Kale Khan

90. Financial analysis has been carried out to assess the viability of the proposed project investment for MMTC at Sarai Kale Khan based on the capacity of MMTC to generate sufficient incremental revenues with project implementation to cover the capital and operating costs of the project. The analysis was carried out on an incremental basis using the discounted cash flow methodology, and measuring the internal rate of return of the project. The analysis is based on the following assumptions:
91. The estimated project cost of the proposed redevelopment of Sarai Kale Khan MMTC is given in Table 1.9.

Table 1.9 – Cost Estimates and Financing Plan – MMTC Sarai Kale Khan

5. Cost estimates and financing plan;					Rs in million			
	Base Cost				Including Contingencies			
Base Cost (Rupees Million)	2010	2011	2012	Total	2010	2011	2012	Total
I. Investment Costs	10%	80%	10%		10%	80%	10%	
A. Civil Works								
1. Civil Works								
Civil Works	111.33	890.60	111.33	1113.26	122.46	979.67	122.46	1224.58
Plumbing Work	4.21	33.64	4.21	42.05	4.63	37.01	4.63	46.26
Development of Site	3.48	27.82	3.48	34.78	3.83	30.60	3.83	38.26
Subtotal Civil Works	119.01	952.07	119.01	1190.09	130.91	1047.28	130.91	1309.09
2. Electrical Works								
Electrical Works at site	16.30	130.36	16.30	162.95	17.92	143.40	17.92	179.25
Sub-station	6.54	52.32	6.54	65.40	7.19	57.55	7.19	71.94
HVAC Works	11.00	88.00	11.00	110.00	12.10	96.80	12.10	121.00
Subtotal Electrical Works	33.84	270.68	33.84	338.35	37.22	297.75	37.22	372.19
3. Others								
Fire Fighting	4.45	35.61	4.45	44.51	4.90	39.17	4.90	48.96
Elevators and Escalators	5.70	45.56	5.70	56.96	6.27	50.12	6.27	62.65
Miscellaneous /Steel Works	5.86	46.87	5.86	58.59	6.45	51.56	6.45	64.45
Subtotal Others	16.01	128.05	16.01	160.06	17.61	140.85	17.61	176.07
Total	168.85	1350.80	168.85	1688.50	185.73	1485.88	185.73	1857.35
Design & Construction m	14.94	119.55	14.94	149.43	16.44	131.50	16.44	164.38
Grand Total	183.79	1470.34	183.79	1837.93	202.17	1617.38	202.17	2021.72

92. **Construction Schedule:** The construction activity has been envisaged over a period of fifteen months. Construction is tentatively assumed to commence in January 2010 and the redeveloped structure is scheduled to start operating from April, 2011. The table below gives the capex programme.

Particulars	Deadline
Project start date	February 01, 2010
Construction Start	February 01, 2010
Construction Period	15
Construction End	April 30, 2011
Commencement of Operations	May 1, 2011
Capex phasing – 2009-2010 (2 months)	10%
Capex phasing – 2010-2011 (12 months)	80%
Capex phasing – 2011-2012 (1 month)	10%

93. The assumptions relating to means of finance for the project are described below:

Equity: GNCTD is expected to contribute Rs 590.06 million (including internal accruals during project construction phase from bidding out of the hotel.

Lenders: The balance amount is expected to be borrowed from NCRPB and other lenders. The total debt expected to be raised is Rs 1516.29 million. The indicative details of the debt are given below:

Total project cost	:	2106.35	(including Interest during construction of Rs 84.63 million)
Debt	:	1516.29	
Own funds	:	590.06	
D:E ratio	:	2.57:1	
Loan period	:	10 years	

Moratorium	:	2 years
Repayment period	:	8 years
Rate of Interest	:	9.5% p.a.

Each drawdown has its own repayment schedule

94. The construction period is 15 months, starting February 2010 and ending April 2011. Hence Interest During Construction has been worked for 2 months for 2009-10, 12 months during 2010-2011 and 1 month during 2011-12.

95. Basic Assumptions relating to revenue and costs:

- i. **Real estate income:** The rental income from lease of kiosks, retail and office space forms the bulk of the revenue contributing about 53% of the total revenues. These incomes have been assumed for a full year in Apr 2011-March 2012 as it has been indicated that many facilities would already starting operating even though some minor construction work might be continuing during 2011-2012.
- ii. **Hotel income:** The expected income from franchise of hotel is expected to contribute 37% of the total revenues.
- iii. **Bus fees, car parking charges and advertisement charges:** The revenue from these activities contributes the balance of 10% of the total revenues.
- iv. **Depreciation:** Depreciation at the appropriate rates have been taken for analysis.
- v. **Tax:** As the assets would be in the books of accounts of the Delhi Government, no income tax is applicable.
- vi. **O&M expenditure** has been assumed at about 7.8% of project cost (excluding IDC). As the facilities would start operating even before construction completion, full year's expenditure for 2012 has been assumed.
- vii. DIMTS is expected to be appointed as the Asset Manager of the project after commencement of operations, and is also expected to be paid 40% of operating surplus (based on an agreed formula for calculating the same), with the Delhi government retaining the balance to meet other expenses

96. Financials for the period FY 2010 to FY 2025 has been analysed for evaluation (Annex F 3.2)

97. A summary of certain critical assumptions for the Base Case of the financial model is given in Table 1.10:

Table 1.10 – Key Assumptions for Financial Analysis

Particulars	Asset created	Tariff	Year on Year increase in tariff
Kiosk area created	4760 sq ft	Rs 250 per sq ft per month	7%
Retail area created	30816 sq ft	Rs 175 per sq ft per month	7%
Office area created	157,371 sq ft	Rs 50 per sq ft per month	7%

Particulars	Asset created	Tariff	Year on Year increase in tariff
Interstate bus avg. daily traffic	800 nos.	Rs 50 per entry	5%
Local bus avg daily traffic	150 nos.	Rs 35 per entry	5%
Total number of parking spaces (85% occupancy)	300 Nos	Rs 30 per day	5%
% of parking demand diverted to night parking	5%	Of Normal parking	5%
Advertising revenue per year		Rs 12 million	10%
<i>Hotel Annuity Inputs</i>			
Valuation of Hotel		Rs 1240 million	
Upfront payment from Hotel developer		Rs 100 million	
Annuity payment from Hotel developer		Rs 119 million	10%
Hotel Concession Period		33 years	
No of days for which daily revenue is calculated in a year	300		
O&M Expenses O&M expenses (per annum) as % of Project Cost (First year)		7.8%	7%

98. Following observations have been made while undertaking the financial analysis:

- Substantial reliance has been placed on income from hotel and real estate (contributing 90% of revenue). Consequently, any impact of economic downturn leading to reduction in such income would greatly affect the viability of the project.
- Also, a sum of Rs 100 million and Rs 119 million have been taken as inflow from the hotel developer towards initial premium for funding the capital expenditure. Any delay or reduction in this amount would impact the funds availability for the project. Government of Delhi would need to meet any shortfall in the funds availability if required.
- DIMTS is expected to be appointed as the Asset Manager and is expected to be paid a fees linked to operating surplus, prior to debt service. Any shortfall in cash flows for meeting debt service due to such payment to DIMTS is to be made up by the Delhi Government
- While the project generates operating income, it is however not sufficient to meet the debt service obligations once the repayment of debt commences.
- The base case of the project financials shows a cumulative cash surplus only in the year 2021 and consequently, any shortfall in meeting various commitments would need to be met by the Delhi Government.

99. **Financial Analysis:** A financial analysis has been carried out based on the above assumptions and Financial Internal Rate of Return (FIRR) is estimated at 10.07% for the Base Case. Further a sensitivity

analysis of the Base case have been carried out to test the impact of adverse changes in cost and revenue assumptions on the financial rate of return and the results are given in Table 1.11:

Table 1.11 – FIRR and Sensitivity – MMTC Sarai Kale Khan

Sensitivities	Project Cost	Project FIRR (%)
Base Case (1)	2106.35	10.07
Project Cost Increase 10% (2)	2316.99	7.83
Rental income from rentals – Less by 10% (3)	2106.35	9.15
Hotel income – Less by 50% (4)	2106.35	2.89
Hotel income gets postponed by 1 year (5)	2106.35	8.15
Combined impact (2) + (3) + (5)	2316.99	4.59

PHED, Haryana

Cost Estimates of proposed water supply and sewerage projects in Pataudi is given in Table 1.12

Table 1.12 Cost Estimates for Water Supply and Sewerage sub-projects

Particulars	Costs (Rs. Million)
1. Base Cost	
Water Supply	794.8
Sewerage	120.6
Total Base cost	914.4
2. Contingencies	
- Physical contingency	91.5
- Price contingency	77.5
Total Contingencies	169.0
3. Financing Charges	7.8
Total Costs	1,091.2

100. Based on proposed tariff increases (introduction of volumetric tariff @ Rs. 15 / KL in FY2014 and 20% in FY2019 and 20% every four years thereafter), WSS division will be able to fully recover its existing plus incremental operation and maintenance. However financial support will be needed from GoH for meeting the full debt service obligation. WSS division will continue to depend on GoH subsidy till tariffs are substantially revised to ensure O&M cost recovery.

Financial Performance of Government of Haryana

101. As PHED is a department and dependent on State Funds for sustaining its operations till the time proposed tariff increases materialises, the financial performance of GoH has also been reviewed. The past financials of Haryana state is given in Annex F 3.3 of this Volume. A snap shot of the past financial position of the state government from 2004-05 to 2008-09 reflects growth in both revenues as well as expenditure. The compounded annual growth rate (CAGR) of revenue income from 2004-05 to 2007-08 is 15.37% and revenue expenditure is 9.86%. Thus the rate of growth of revenue income is more than the growth of revenue expenditure, facilitating reduction in revenue deficits from Rs. 24925.4 Million in the year 2004-05 to Rs. 1219.0 Million in the year 2007-08. However this positive trend was reversed in 2008-09 when revenues were affected by the economic slowdown, whereas revenue expenditure went up dramatically. It is hoped that this is a temporary aberration and the state will revert to its trajectory of

fiscal prudence. The CAGR of capital receipts from 2004-05 to 2006-07 is 24.20%. The capital receipt growth is compared only for three years as there is an exceptional negative trend in the year 2007-08. The CAGR for capital expenditure for same three year period is 33.22% (35.38% for four years). It may be observed that the CAGR for capital expenditure is more than the capital receipt, which shows that the state is allocating more resources for plan expenditure.

102. The financial performance of the state governments has also been analysed based on 12th Finance Commission, recommendations and compared with NCR states and the national average. The 12th Finance Commission, as part of restructuring of public finances, has recommended certain measures to improve the long term financial sustainability of Centre and state governments. The suggested indicators suggested by the 12th finance commission include the following:

- The Tax to GDP ratio should be improved to 17.6 % by 2009-10
- Debt to GDP ratio to be brought down to 75% by 2009-10
- Fiscal deficit to GDP should be less than 3%
- There should not be any revenue deficit by 2008-09
- Interest payment to revenue receipts to be brought down to 15% in case of state government

103. The above ratios were computed for Haryana and are shown in Table 1.13.

104. The analysis shows that **Haryana** has achieved most of the targets in 2008-09 except the revenue deficit and fiscal deficit which has slipped marginally. However due to the slow down in the economy the deficit has increased in the year 2008-09. Even the Centre in its budget has relaxed the norms of gross fiscal deficit by 0.5% for 2008-09 and further 0.5% for 2009-10 to extend the fiscal stimulus to accelerate the growth in economy. Further all other recommendations given by 12th finance commissions have been achieved by the state. The growth rate of gross state domestic product at nominal rates is about 9.35% and 8.02% in the year 2007-08 and 2008-09 respectively. On the whole, Haryana has demonstrated better economic and fiscal management.

Table 1.13: Government of Haryana's Fiscal Indicators

Particulars	Norms	Haryana	
		FY08	FY09
Revenue deficit/GSDP	Zero by FY09	0.12%	2.04%
fiscal deficit/ GSDP	<3%	3.46%	5.39%
Debt/GSDP	<75% by FY10	27.50%	28.61%
Interest payment/ revenue receipts	<15%	11.88%	10.81%
Tax Income/ GSDP	>17.6% by FY10	12.72%	14.41%
GSDP Growth at nominal rates		9.35%	8.02%

Source: RBI Annual report 2008-09 and respective Government website

Assumptions Used in Financial Projections

105. Water and sewerage are currently the responsibility of the Public Health Engineering Department (PHED), Government of Haryana. During the project implementation period until the actual transfer of responsibility, KSUDP and KWA will build the capacity of MC staff in water supply and sewerage asset

planning and management. Additionally, KWA in coordination with the MC will identify and map the assets within the MC jurisdiction, conduct asset condition survey and valuation and transfer the assets to the MC.

106. Financial projections performed for the division of PHED consist of projected revenue receipts and revenue expenditures during the assumed implementation period (FY 2010-11 to FY 2012-13) plus 20 years after project completion. The projected revenue receipts include water and sewerage connection and user charges. Government of Haryana (GoH) will provide grants-in-aid in case of shortfall in revenue. The projected revenue expenditures include all recurrent expenditures, including those of the subprojects, to be met from revenue receipts. The financial projections also include the PHED's (GoH's) assumed equity contribution to be met from its own resources in accordance with the financing plan.

107. The financial viability of a subproject is assessed by comparing the subproject's Financial Internal Rate of Return (FIRR) with the Financial Opportunity Cost of Capital (FOCC). As proxy for the FOCC, the Weighted Average Cost of Capital (WACC) of the subprojects in real terms is used. FIRR is the discount rate that equalizes the present values of costs and revenues over the subproject life while the WACC represents the cost incurred by the MC to implement the subprojects.

108. The WACC of the subprojects is 5% (real terms). The calculation of the WACC is shown in the table that follows.

Table 1.14: Weighted Average Cost of Capital

Particulars	Loan		Equity	Total
Weight (%)	75.00%		25.00%	100.00%
Nominal Cost (%)	9.00%		10.00%	
Tax Rate (%)	0.00%		0.00%	
Tax Adjusted Nominal Cost (%)	9.00%		10.00%	
Inflation Rate (%)	5.00%		5.00%	
Real Cost (%)	3.81%		4.76%	
Weighted Component of WACC (%)	2.86%		1.19%	4.05%
Weighted Average Cost of Capital (Real)				4.05%

109. FIRR was calculated for the revenue generating water supply and sewerage projects. The assumptions and approach used in the calculation of the FIRR include: i) all revenues and costs are stated at constant November 2009 prices; ii) all revenues and costs are calculated on an incremental basis, i.e. difference between "with project" and "without project" situations; iii) project capital expenditures are recognized at the time they are incurred; and iv) equipment replacement costs have been included every 15 years

110. The results of the FIRR calculation and sensitivity analyses are summarized in the table 1.15 below. The details of the calculation and analyses are in Annex F 3.4 to 3.6 of this Volume.

Table 1.15: Summary of Financial Evaluation

Component	NPV @ 4% Rs. Million	FIRR, SI & SV	Base Case	Capital Costs + 10%	O&M Costs + 10%	Revenues - 10%	Benefit s Delay by One Year
Water	247.5	FIRR (%)	6.3	5.4	6.1	5.1	4.2
				1.6	0.4	2.4	
		SV (%)		61	253	41	
Sewerage	(14.5)	FIRR (%)	3.2	2.4	2.7	1.9	2.3
		SI		3.1	1.5	6.6	

Component	NPV @ 4% Rs. Million	FIRR, SI & SV	Base Case	Capital Costs + 10%	O&M Costs + 10%	Revenues - 10%	Benefit s Delay by One Year
		SV (%)		33	66	15	
Water and Sewerage	233.0	FIRR (%)	5.9	4.7	5.4	4.7	5.3
				2.5	1.0	2.7	
		SV (%)		41	99	38	
NPV = Net Present Value							
SI = Sensitivity Indicator (ratio of percentage change in NPV to the percentage change in a variable)							
SV = Switching Value (percentage change in a variable required for the NPV to become zero)							
Sensitivity analyses were also carried out to determine the possible effects of adverse changes on the subprojects. The adverse changes are: i) 10% increase in capital costs; ii) 10% increase in O&M costs; iii) 10% decrease in revenues; and iv) one year delay in benefits. Analysis reveals that project is most sensitive to changes in revenues.							

Average Incremental Financial Cost and Subsidy

111. In setting the tariff, the appropriate target level to achieve subproject financial adequacy and sustainability is the long run marginal (LRM) cost which includes both the incremental investment and O&M costs. The Average Incremental Financial Cost (AIFC) is regarded as an approximation of the LRM cost. The AIFC for each project was calculated by dividing the present value of the incremental subproject costs streams (capital and O&M) by the present value of the incremental volume of wastewater flow. The costs and quantity streams were both discounted at the WACC of 4%.

112. The following table 1.16 summarizes the calculation of the AIFC, its relation with the average tariff and the resultant financial subsidy.

Table 1.16: Average Incremental Financial Cost

Particulars	Water	Sewerage	Water + Sewerage
PV of Project Costs @ 4% (Rs. Million)	1,166.46	200.23	1,343.58
PV of Project Revenues @ 4% (Rs. Million)	802.96	193.24	1,443.71
PV of Quantity* @ 4%	33	17.31	28.66
AIFC**	35.56	11.57	46.88
AIFC (Rs./KL) for O&M	9.61	4.30	10.59
Average Tariff**	24.48	11.17	50.38
Financial Surplus (Subsidy)**	(11.08)	(0.40)	3.49
AIFC Recovery (%)	69%	97%	107%

113. The average tariff of the sewerage subproject could not cover fully all its costs.

Conclusion

NCRPB

114. Summary of the financial analysis:

- i. NCRPB's financial position is robust with a very low gearing and the D:E ratio analysis indicates a ratio of 0.23:1, which is a very low gearing for a financial intermediary indicating inefficient use of scarce government grants
- ii. With such a low D:E ratio, NCRPB's return on net worth is only about 5.75%. This is also due to its loans being charged low interest rates as these loans are for financing infrastructure development.
- iii. The yield from its loan portfolio is only 6.6%, which indicates that NCRPB is a low cost lender to its borrowers. It is accepted that NCRPB's interest rates on loans are the cheapest among its peer group on account of the in built subsidies..
- iv. NCRPB has not had any defaults in either payment of principal or interest by its borrowers and consequently, has maintained a NIL NPA provisioning.
- v. With a view to increase the availability of funding for financing, NCRPB has been raising Bonds in the market on a periodical basis. The basis for the resource raising is not asset quality or strength of revenue streams but the framework which allows all NCRPB liabilities be that of the sovereign. As of March 31, 2009, a sum of Rs 4651.0 million is outstanding on this account. Earlier, it had borrowed and also successfully repaid Bonds aggregating Rs 8985.5 million over a period of time. During 2009-10, NCRPB has again raised a sum of Rs 1349.0 million as Bonds at an interest rate of 8.68% pa.
- vi. Credit Rating agencies have rated NCRPB's bonds as AAA and consequently, NCRPB has been able to raise funds at interest rates of about 8.5% to 9% during the recent past.

115. Considering its policy of lending only to State Governments and to parastatals, and as it is being monitored by any Regulator, NCRPB has not laid down any exposure norms for lending

Implementing Agencies

MMTC – Anand Vihar

116. A review of the sensitivity analysis indicates that :

117. With the Project FIRR being only 11.64% p.a., the project economics is extremely sensitive to any variation in project cost and revenues.

118. While individual sensitivity analysis enumerated above shows the impact of each scenario separately, a combination of increase in project cost by 10%, decrease in rental income by 10% and a postponement of hotel income by one year has a major impact on the project financials leading to a reduction in FIRR from 11.64% p.a. (in Base Case) to 7.02% p.a.

119. In view of the above, it is essential that NCRPB ensures budgetary support of the Government of Delhi as additional security apart from the security of assets created. This would provide additional comfort to NCRPB that the project would be able to meet its debt service obligations, irrespective of the performance of the project.

MMTC – Sarai Kale Khan

120. A review of the sensitivity analysis indicates that

121. With the Project FIRR being only 10.07% p.a., the project economics is extremely sensitive to any variation in project cost and revenues.

122. While individual sensitivity analysis shows the impact of each scenario separately, a combination of increase in project cost by 10%, decrease in rental income by 10% and a postponement of hotel income by one year has a major impact on the project financials leading to a reduction in FIRR from 10.07% p.a. (in Base Case) to 4.59% p.a.

123. In view of the above, it is essential that NCRPB ensures budgetary support of the Government of Delhi as additional security apart from the security of assets created. This would provide additional comfort to NCRPB that the project would be able to meet its debt service obligations, irrespective of the performance of the project.

PHED, Hayana

124. The projected financial position of Pataudi Water Supply & Sewerage (WSS) division of PHED is given in Annex F 3.7 of this Volume.

125. A review of the sensitivity analysis indicates that:

126. With the project FIRR being 6.4% for water, 3.2% for Sewer and 5.9% for combined water and sewerage the project economics is extremely sensitive to project cost and revenues. Sensitivity analysis shows that the subprojects are extremely sensitive to revenues. In case tariff revisions are not done as per the Financial Improvement Action Plan PHED will require state budgetary support for meeting its operation and maintenance cost and debt service obligations.

Road Sub-Projects:

127. No sub-project financial analysis has been carried out as the sub-projects are of non-revenue nature. Financial analysis of Government of Haryana has been carried out as State budgetary support will be required for operation and maintenance and debt service obligations.

Annex F 1: FINANCIAL MANAGEMENT ASSESSMENT

1. NCRPB

A. Introduction

128. The main instrument used to facilitate the financial management assessment was the questionnaire furnished by the ADB, which was discussed with the Director (Finance and Administration and Finance and Accounts Officer (FAO) of **National Capital Region Planning Board (NCRPB)** in October 2009. Interviews, including follow-up interviews, were conducted / September 2009 to better appreciate some of the responses and to fill up the unanswered items in the questionnaire. Most of the items in the questionnaires were filled up and consolidated by October / November 2009.

B. Findings

129. Based on the FMAQ (**Refer E**) responses documents and follow up interviews, the following observations were made:

C. Executing agency

130. NCRPB is a special purpose vehicle created under the National Capital Region Planning Board Act, 1985 for:

- a. preparation of plan for the development of the National Capital Region;
- b. co-ordinating and monitoring the implementation of the said Plan; and
- c. evolving harmonized policies for control of land uses and developing infrastructure in the Region so as to avoid any haphazard development of the Region.

131. While NCRPB has accessed market for resources, NCRPB has not implemented any ADB or any other multilateral agency project. However, the re-lending operations under the ADB loans does not largely deviate from NCRPB's day-to-day operations, and any additional tasks specific to use of ADB loans will be manageable with the existing and proposed addition to staff and the operational framework, coupled with identified capacity building activities.

D. Funds flow arrangements

132. Borrower will be NCRPB, an Executing Agency. Funds received from either ADB or any other donor agency will be deposited into National Capital Region Planning Board (NCRPB) bank account.

133. ADB Loans funds will be lent to NCRPB which in turn will on-lend them to the Borrowers / Implementation Agencies (IA). Present on-lending terms include (i) Interest rate 8.25% for urban infrastructure projects (Water, Sewerage, Solid-waste and roads) and for others 9-9.5%. Incentive rate of 1.50% (for early payment, timely implementation, adherence to project cost estimates, adherence to drawdown schedule, and adherence to regional plan) is offered for all projects. (ii) maturity period of 10 years, including a grace period of 2 years. The re-lending terms are much more restrictive than the terms at which NCRPB borrows from ADB. Interest rate is much higher (8.25% to 9.5% vs. 3% for OCR). The NCRPB however, covers foreign exchange risk. The re-lending conditions may be reviewed in consideration of the overall debt service which NCRPB should bear as a result of the new borrowings.

134. The eligible borrowers of the NCRPB loans are the participating states and the union territory for the implementation of Sub-regional Plans and Project Plans, and the State concerned for the development of the counter-magnet area, Section 22(1) of the Act. NCRPB will release the first lump sum of money in advance as the first tranche. The subsequent tranches will be released based on utilization certificate

produced by the borrower, which will be crossed checked by NCRPB's physical inspection. The released loan proceeds will be kept in the borrower's project accounts. The sub-borrower will maintain a separate project account and record all expenditures against various heads of expenditure as per the approved DPR. Sub-borrower will maintain all supporting documents for audit and verification purposes.. A separate financial management assessments were conducted for each prospective end-borrowers in [Volume 1 Chapter 4]

E. Staffing and Organization

135. Under the existing structure, NCRPB financial functions are under the responsibility of the Director (Administration and Finance). Under him is the finance and accounting section headed by the Assistant Directors, Accounts Officers, supported by other staff. Organization Chart, including qualification and experience, of Finance and Accounts department is given in Appendix 9.
136. Staff is not adequate for present level of operations. The results of FMA indicated that the potential weakness in the NCRPB's management of the ADB loans are fund management, management information system and intern audit (**please refer para 4.3 of FMAQ**). Staff for following additional posts or functions are required:
- a) Fund Manager;
 - b) Project Loan and Maintenance of MIS; and
 - c) Internal Auditor / outsourced to professional firm of Chartered Accountants
137. Staff will require regular training inter alia in ADB procedures. Extant Gol rules , Fundamental and supplementary Rules, General Financial Rules, Central Civil Service (Temporary Service) Rules, 1965, Central Civil Services (Medical Attendance) Rules, 1944, Central Government Employees Group Insurance Scheme, 1980, Central Civil Service (Leave) Rules, 1972, Central Civil Service Conduct Rules, 1955 etc. and orders and decisions issued by Central Government under those rules from time to time as applicable to the employees of the Central Government, are at present applicable to NCRPB staff Training Policy for finance and accounts staff will also need to be prepared and adopted under the Project (**Please refer Para 4.10 of FMAQ**).

F. Accounting policies and procedure

138. NCRPB prepares accounts on accrual based double entry accounting system, as per the accepted Indian accounting standards which are generally compatible with international accounting standards. The basis of accounting is accrual, recognizing significant items of income and expenditure on accrual basis. Accounting system is based on Indian Accounting Standard (IAS) as adapted by the Institute of Chartered Accountants of India (ICAI). Computerization is in the process of being implemented under ADTA – Package A&C. Accounting manuals will be prepared and implemented after approval and adoption by the NCRPB board. Separate accounts for projects will have to be maintained. All the project accounts will be incorporated in the final account of NCRPB. The chart of accounts is adequate to account for all activities of NCRPB. "Tally" accounting software is being used at present.
139. There are no major issues with the accounting policies and procedures followed by NCRPB.
140. Important papers are kept on a permanent basis and other documents are kept for several years as per government rule.

G. Segregation of Duties

141. Functional responsibilities are segregated. Separate responsibilities for budget, payment, recording, reporting and audit are assigned to separate groups of officers and staff.

H. Budgeting System

142. NCRPB prepares the budget once in a year according to financial year April-March following an assessment of funds requirement for various activities – in terms of physical and financial targets for the financial year. As a result, NCRPB does adopt a results oriented budget approach in which physical and financial targets are defined.

143. Actual expenditure is compared with budget on a monthly basis.. NCRPB also publishes monthly financial reports comparing actual against budget figures and monthly progress reports on project execution which provide information about stage of project execution. The monthly MIS (Management Information System) Report also includes a comparison of actual financial performance against budget. The budget variances are reportedly discussed in monthly meetings with the Director (Administration and Finance). A revised budget is prepared whenever necessary.

I. Payments

144. Invoice-processing and payroll preparation procedures seem to be in order based on the sample invoices. Invoices are usually stamped "PAID".

J. Policies and Procedures

145. Accrual system of accounting, based on accounting standards prescribed by Institute of Chartered Accountants of India and CAG's office, is followed. Financial Statements, as prescribed by CAG, are prepared.

146. GoI rules and regulations namely, GoI General Finance Rules, 2005 Fundamental and supplementary Rules, Central Civil Service (Temporary Service) Rules, 1965, Central Civil Services (Medical Attendance) Rules, 1944, Central Government Employees Group Insurance Scheme, 1980, Central Civil Service (Leave) Rules, 1972, Central Civil Service Conduct Rules, 1955 etc. and orders and decisions issued by Central Government under those rules from time to time as applicable to the employees of the Central Government, are followed by NCRPB. Director (A&F) holds the authority for any amendment / change that may be required.

K. Cash at Bank

147. Authorized signatories (of cheque payments) are

- i. Upto Rs. 50,000 – Joint Signatory as authorized by Member Secretary (MS) – Finance and Accounts Officer (FAO) and Drawing and Disbursement Officer (DDO); and
- ii. more than Rs. 50,000 – Joint Signatory (other than above) as authorized by MS – Director (A&F) and either of two Joint Directors.

L. Safeguard over assets

148. There are adequate safeguard over assets of NCRPB. Fixed Asset registers are being maintained. Physical verification of assets on annual basis is carried out. However, assets are not insured.

M. Other office and Implementing entities

149. NCRPB has no other implementing entities. NCRPB cells, though funded in part by NCRPB are functionally and administratively responsible to the respective State Governments and not to NCRPB. The claim for operation expenses of these cells are reimbursed to respective State Governments. Hence these cells are not implementing entities of NCRPB.

N. Internal audit

150. An officer (in-house) has been designated as Internal Auditor. He reports to Director (A&F). There is no formal report prepared and submitted. Observations are noted or made by this designated internal auditor on the concerned files and remedial actions taken there-against. One qualified and experienced person / professional firm of chartered accountant (outsourced) will be required on full time basis to carry out the internal audit of NCRPB. Internal audit in NCRPB needs to be strengthened.

O. External Audit

151. This is being done by Comptroller and Auditor General (CAG) office. There are no significant or major audit findings in the audit report for the financial year 2008-09. Apart from Statutory Audit, CAG also conducts proprietary audit of NCRPB. NCRPB accounts are also certified by an Independent Chartered Accountant firm as per the requirement of taxation laws.

P. Reporting and Monitoring

152. Financial Statements are prepared in accordance with Indian accounting standards (IAS) and in the format as prescribed by the CAG office. Three main reports are prepared, Monthly information system report (MIS), Half yearly results as prescribed by Securities Exchange Board of India (SEBI) and the statutory Audit Report by external auditors.

Q. Information System

153. NCRPB's information system is not computerized. Reports are being prepared manually and using MS Office Excel. The reports of financial figures are available in limited formats in computerized accounting system being maintained in "TALLY" accounting software. Comprehensive computerization is also under process under ADTA in NCRPB.

R. Conclusion and Recommendations

154. The assessment results indicate that the financial management systems, covering the policies and practices regarding financial planning, programming, accounting, monitoring and reporting, internal auditing, internal controls, external auditing, funding, organization, and personnel of the executing agency, are sufficient to satisfy ADB of the capability and capacity of NCRPB to produce timely and reliable financial data and reports, and to achieve standards of performance. However, in order to achieve further efficiency in its internal process following are the significant suggestions for reform in NCRPB:

155. Creation and filling up of following three posts to augment existing staffing:

- a) Fund Manager for managing the funds of NCRPB including foreign exchange currency management- **However this may not arise ;**
- b) Project Loan and Maintenance of MIS for management of projects funded by NCRPB as well as for maintenance of Project Management Information System (PMIS); and
- c) Internal Auditor/ professional firm of chartered accountant (outsourced) for internal audit of NCRPB.

156. Implementation of Computerization is in progress under ADTA – **package A and C. Under implementation**

157. Preparation of Accounting and Financial Management Manual in line with the new computerization of systems being implemented.

158. Development of suitable training policy for the accounts and finance staff of NCRPB.

S. Financial Management Assessment Questionnaire

Topic	Response	Remarks
1 Rationale for ADB loan		
1.1 What terms and conditions of a debt do typical urban sector projects require?	Typically urban infrastructure projects are long gestation and capital intensive, yielding returns over generations. These externalities over time and space justify the use of grants to support user charges. Given these externalities over time and space (benefits are across generations and municipal boundaries) While these projects may not have high Financial IRR their economic IRR would be quite significant. In view of the capital intensive nature from which revenue recovery may not be much, they need long tenor debt and also low interest rates. To summarize, urban sector projects typically require the following debt structure: 1 Long tenor debt with at least 2/3 years of moratorium of principal repayment 2 Reasonable interest rate	

Topic	Response	Remarks
1.2 What are the other financial institutions, which the current borrowers of NCRPB can borrow?	Power: REC, PFC, Insurance Companies Bonds Urban: HUDCO. Bonds, Insurance Companies with State Guarantee	
1.3 Amongst the list of institutions, which can finance urban projects? What terms and conditions (e.g. restriction on use of loan proceeds) do they offer?	Institutions such as HUDCO and Life Insurance Companies finance urban project by lending to municipal projects usually based on State Guarantees.	
1.4 What are the comparative advantages of NCRPB loans over the above loans?	NCRPB's funds are primarily grant funds from Government, which are free of dividend expectations. The funds are on lent at a competitive rate and revolved. Hence NCRPB's loans tend to be more competitive than other institutions loans.	
1.5 In what cases, will NCRPB be the only lender for the states in the National Capital Region?	It may not be correct to state that in certain cases NCRPB would be the only lender to the States in the NCR. However, NCRPB is likely to be the only direct lender to ULBs as most of the other lenders may lend only to the State Governments, which would then allocate resources to the ULBs for execution of projects.	

Topic	Response	Remarks
1.6 Why does NCRPB need ADB loan?	Infrastructure projects, especially ones in the urban infrastructure category, are typically cost recovery projects and not profit making. Such cost recovery also happens only over a long period of time as most of the urban services are priced so low that it takes a long time to recover even costs. Consequently, the implementing agencies of such projects need long term loans for effective funds management. Currently, very few lenders lend beyond ten years (even NCRPB's current loans are for ten years' tenor). ADB's long dated loans (15/20 year duration) would support NCRPB in onlending for longer periods so that implementing agencies have a better cash flow management. ADB's loan at competitive interest rates would also help NCRPB in passing on attractive interest rates for urban infrastructure / development projects which need low cost funds to provide basic necessities to its citizens. ADB Resources also enables NCRPB and IA's in improving project development and management systems through technical assistance support.	

Topic	Response	Remarks
1.7 Do the sub-loans under the ADB loans will have different terms than NCRPB's ordinary terms? If so, what will be the terms?	Interest rates will be same for sub-loans under the ADB loan as NCRPB's ordinary terms. Sub-loans provided utilizing ADB's funds may have certain terms different than NCRPB's ordinary terms, especially with respect to: 1 Procurement: NCRPB would stipulate certain procurement policies to meet ADB's procurement guidelines 2 Tenor: Certain loans provided utilizing ADB's loans could be for much longer tenor than NCRPB's ordinary loans due to ADB's long tenor loan 3 Compliance with NCRPBS ESMS	
1.8 In case there are specific requirements for the borrowers of the sub-loans under the ADB loan, how does NCRPB make them legally binding? Does NCRPN intend to modify the NCRPB rules before ADB loan agreement, or will it be stated in the sub-loan agreements?	Conditions to be complied or specific requirements to be met for borrowers of sub-loan under the ADB loan will be specified in the Sanction Letter and in the Sub-Loan Agreement. Sanction Letter is also part of the Sub Loan Agreement.	
1.9 When the borrowers of the sub-loans under the ADB loan fully repays, how does NCRPB utilize the revolved fund? Does NCRPB follow what is agreed between ADB and NCRPB, or NCRPB will use it as per NCRPB rules.	NCRPB will adopt and mainstream ADB policies and rules over the project implementation period. Thus ever after ADB loan is fully repaid NCRPB will continue to follow rules, which are in line with ADB policy and procedures.	

Topic	Response	Remarks
1.10 What is the value addition of ADB's assistance other than inflow of a large amount of lending resources?	The value addition of ADB loan to NCRPB is with respect to the following: 1 Facilitate NCRPB in providing long tenor loans to sub projects to facilitate urban infrastructure implementation	
	2 Help NCRPB in enabling sub projects in implementing best practices with respect to procurement practices, project management, environment and social safeguards, etc. 3 Facilitate NCRPB in adopting best practices in project supervision, Environment and Social Safeguards, etc.	
2. Implementing Agency		
2.1 What is the entity's legal status / registration?	Registered as legal entity under "The National Capital Region Planning Board Act, 1985.	
2.2 Has the entity implemented an externally-financed project in the past (if so, please provide details)?	No	
2.3 What are the statutory reporting requirements for the entity?	Regular Reports to Board, Half yearly results to SEBI, Audited Accounts on annual basis to MoUD and Parliament.	
2.4 Is the governing body for the project independent?	Yes	
2.5 Is the organizational structure appropriate for the needs of the project?	Yes, with recommended augmentation for position of a) Fund Manager; b) Project MIS and Monitoring Manager and c) Internal Audit.	

Topic	Response	Remarks
2.6 What is the basis of NCRPB operation?	The National Capital Region Planning Board Rules, 1985 in exercise of the powers conferred by section 36 of the NCRPB Act. Chapter VI of these Rules contains rules framed in respect of Budget, Accounts and Audit of the Board.	
2.7 What is the basis of ensuring operational transparency?	Disclosure regarding Fiscal Responsibility and Budget Management (FRBM) Rules, 2004	
2.8 Who is NCRPB accountable to?	Parliament and the standing committee of the Ministry of Urban Development.	
3. Funds Flow Arrangements		
3.1 Describe (proposed) project funds flow arrangements, including a chart and explanation of the flow of funds from ADB, government and other financiers.	Asian Development Bank (ADB) to NCRPB direct.	
3.2 Are the (proposed) arrangements to transfer the proceeds of the loan (from the government / Finance Ministry) to the entity satisfactory?	Not Applicable	
3.3 What have been the major problems in the past in receipt of funds by the entity?	Not Applicable	
3.4 In which bank will the Imprest Account be opened?	State Bank of India	
3.5 Does the (proposed) project implementing unit (PIU) have experience in the management of disbursements from ADB?	This will be the first project with ADB	Support will be required NCRPB staff will have to be trained. This can be done by the Project Management Consultant or any other Financial Management Consultant appointed under the Program. (Refer ToR of PMC in Appendix 25)

Topic	Response	Remarks
3.7 Does the entity have/need a capacity to manage foreign exchange risks?	No prior experience.	Support will be required Qualified and experienced fund manager will have to be employed on full time basis.
3.8 How are the counterpart funds accessed?	Internal accruals, borrowings and budgetary support from GoNCT / MoUD.	
3.9 How are payments made from the counterpart funds?	Counterpart funds will be transferred to Project Bank Account and payments proposed to be made from Project Bank Account.	
3.10 If part of the project is implemented by communities or NGOs, does the PIU have the necessary reporting and monitoring features built into its systems to track the use of project proceeds by such agencies?	Not Applicable	
3.11 Are the beneficiaries required to contribute to project costs? If beneficiaries have an option to contribute in kind (in the form of labor), are proper guidelines formulated to record and value the labor contribution?	Not Applicable	
Source of Funds		
3.12 What is the constitution of NCRPB fund?	Section 22(1) of the Act provides for constitution of NCRPB Fund: (i) Any grants and loans made to NCRPB by the Central Government under section 21 of the Act; (ii) All sums paid to NCRPB by the participating States and the Union territory; and (iii) All sums received NCRPB from such other sources as may be decided upon by the Government in consultation with the participating States and the Union territory.	

Topic	Response	Remarks
3.13 Where does NCRPB actually draw its financial resources?	The fund largely comprises non-lapsable grants from the Government and the National Capital Territory, Delhi. NCRPB has resorted to market borrowings through private placement of bonds.	
3.14 Is NCRPB allowed to borrow from other parties than the Government?	There is no mention of borrowing powers under Section 8 of the Act, which defines the powers of the Board. However, opinion of the Solicitor General of India clarified that: (i) NCRPB has the power to raise funds by borrowing by virtue of Clause (e) of Section 7 (Functions of the Board); (ii) By virtue of Section 22(1) (C), the decision of the Government in consultation with the participating States and the Union Territory would be necessary to identify the sources from which sums may be received; (iii) Raising funds through shares and debentures is not appropriate	
3.15 Does the Government made the decision on borrowing from multilateral development banks in consultation with the participating States and the Union Territory?	Minutes of Board Meeting / Resolution evidencing Government Approval will be provided by NCRPB. In principle scanned approval letter of the Planning Commission of Gol attached with this report.	
3.16 Can NCRPB borrower through bonds?	Yes NCRPB can borrow through bonds as and when and to the extent required. As of 31 st March 2009, Rs. 4651 Million has been raised through issue of bonds.	

Topic	Response	Remarks
3.17 If NCRPB can borrower through the bonds, why ADB has to lend? What is the comparative advantage of ADB loans over bonds?	NCRPB bonds carry higher rate of interest. Previous bonds have been issued at an average interest of about 9% per annum. As against this interest on ADB loan will be much lower about 4% per annum. Assuming effective foreign exchange risk management by NCRPB there is a clear advantage for NCRPB to go for ADB loan. Another factor is the quantum of amount which can be raised through market borrowings by issue of bonds. In addition to above two advantages the repayment period of ADB loan is expected to be much longer than the 10 year repayment period of market borrowings through issue of bonds. Besides above, there is also an advantage of transfer of best international practices during the implementation process under the ADB loans.	
3.18 What is the market rating of the bonds?	The Bonds have enjoyed an AAA rating for over 9 years from CRISIL (the subsidiary of Standard & Poor), and more recently FITCH Ratings (AAA(SO))	
3.19 What regulate NCRPB's financial transactions?	The directives of the Government regulate the NCRPB's transaction. The Securities and Exchange Board of India regulates NCRPB's borrowing through bonds.	
Uses of Funds		

Topic	Response	Remarks
3.20 For what activities can NCRPB use it fund?	(i) Providing financial assistance to the participating States and the Union territory for the implementation of Sub-regional Plans and Project Plans; (ii) Providing financial assistance to the State concerned for the development of the counter-magnet area subject to such terms and conditions as may be agreed upon between such State and the Board; (iii) Conducting surveys, preliminary studies and drawing up of plans for the National Capital Region; (iv) Meeting the salaries, allowances and other remuneration of the Member- Secretary, officers and other employees of NCRPB and for meeting other administrative expenses of the Board.	
3.21 What is the basis for NCRPB to give loans to participating states?	Rule 38 empowers NCRPB to sanction loans to state governments and their agencies for implementing the sub regional plans and project plans or for developing counter magnet areas.	
3.22 What are the terms of NCRPB loans?	The loans by NCRPB are provided as concessionary loans with a tenor of ten years including a moratorium of two years. Further, interest payments and principal repayments on these loans are on an annual basis.	

Topic	Response	Remarks
3.23 How does NCRPB set interest rate?	Rule 40 prescribes “Interest shall be charged at such rates as may be specified by NCRPB for any particular loan or for the class of loans concerned and the rate of interest prescribed by the Government from time to time shall invariably be adopted by the Board”. Interest rate is determined based on the weighted average cost of capital from all sources of funds – i.e. Grants from GoI, Internal accruals, and borrowings. Revision in interest rate is done with the approval of Ministry of Urban Development (MoUD), GoI.	
	Current rate of interest is as follows: a) For urban infrastructure projects covering solid waste, water, sewerage and roads – 8.25% per annum; and b) For others – 9.5% per annum. To the above interest rate, an incentive of 1.50% per annum is given for a) adherence of project to regional plan; b) timely implementation of project; c) adherence to cost estimates; d) drawal of loan as per drawdown schedule; and e) timely repayment etc.	

Topic	Response	Remarks
3.24 What is the minimum and maximum lending amount? What is the basis of it?	There is no limit. Sanctions as per DPR of project proposed is taken up for sanction and approval.	
3.25 What is the maximum financing percentage which NCRPB can finance a project.	The project cost is financed as 25% contribution from state agencies and balance 75% by NCRPB in the form of loans. Maximum amount of loan is 75% of the project. This is the decision of the Board taken in its' 18th Meeting.	
3.26 What is the NCRPB's repayment policy?	Borrowers shall repay the principal and interest annually. NCRPB may allow, in deserving cases, a moratorium towards repayment of principal but not for the payment of interest. NCRPB is also empowered to provide for lower rate of interest in case of punctual payments; and higher or penal rate of interest not less than 2.75% per annum above the normal rate of interest. Pre-payment of loan is, however, allowed by NCRPB on a case-to-case basis. 1% of the prepaid installment is charged as prepayment penalty.	
3.27 ADB has not accepted and will not accept any rescheduling of repayments. In case the sub-borrower delayed repayments, how does NCRPB ensure that it will repay to ADB on time. Does NCRPB has adequate financial resources?	Yes. NCRPB will maintain a adequate Reserve out of surpluses as per Business Plan for meeting its debt service liabilities as has been done in the past for domestic market borrowings.	

Topic	Response	Remarks
3.28 What are NCRPB's credit enhancement measures?	Rules 41 and 42 make it mandatory to have adequate security and agreement for loans to State government agencies. Rule 42 prescribes that "loans to such agencies shall be sanctioned only against adequate security. The security to be taken shall ordinarily be at least 33 1/3% more than the amount of loan, provided that NCRPB may accept a State guarantee in lieu of the security".	
3.29 What is the form of securities?	The Reserve Bank of India restricted state governments from giving guarantees on behalf of their agencies, in view of the Fiscal Responsibility and Budget Management Act and the current level of state finances. The State governments offer a letter of comfort. State agencies itself provide escrow mechanism with a strong responsibility upon the escrow agent to ensure compliance.	

Topic	Response	Remarks
3.30 Can NCRPB give grants to participating states?	Rule 34 of NCRPB Rules, 1985 empowers NCRPB to sanction grants-in-aid to the participating State Governments, authorities of the State Government for implementing the sub-regional plans and project plans. Procedure and conditions for sanctioning and issuance of utilization certificates for grants-in-aid are specified in Rule 35 to 37.	
3.31 What can NCRPB do in case the borrower violates the Regional Plan?	NCRPB is empowered to withhold financial assistance to the concerned participating State in case of violation of Regional Plan.	
3.32 Can NCRPB use its surplus money for investment activities?	Amended Rule 32 empowers NCRPB to invest surplus money in the RBI, Government securities or in such other securities and instruments in accordance with the guidelines and directions issued by the Government. NCRPB, in March 2004, prepared guidelines for empanelment of public and private sector banks and fixed exposure ceilings for investment based on net worth, capital adequacy ratio and credit rating of instrument.	
Loan Processing of NCRPB		

Topic	Response	Remarks
3.33 What is the procedure for loan processing?	(i) A client submits a detailed project reports (DPR). (ii) NCRPB checks compliance with the Regional Plan 2021. (iii) NCRPB appoints an appraisal agency from the panel of the national institutions. (iv) The appraisal agency gives recommendations to NCRPB (v) NCRPB requests the client for clarifications (vi) The Project Sanctioning and Monitoring Group of NCRPB approves the loan (vii) NCRPB prepares a loan agreement.	
3.34 Who prepared DPR in the client's organization? In-house engineers or consultants?	At present in all cases the preparation of DPRs of projects, with the exception of Rail over Bridge (RoBs) where Railways are also partner, is outsourced to Consultants.	
3.35 What is the coverage of appraisal by the appraisal agency? What areas do they assess?	100%. Appraisal is done in all cases.	
3.36 What are the cases which appraisal agencies or NCRPB determined that the DPR was inappropriate for NCRPB financing? Give a couple of example.	Normally inadequate DPRs are returned to IAs for improvement and modifications. Very rarely DPRs are rejected for financing.	
3.37 What does the first loan agreement agree on?	A loan agreement agrees on the first advance payment. Every advance payment is treated as a separate loan, and therefore approvals are obtained from PSMG and separate agreements are entered for each advance payment. PSMG is created by the authority of NCR Planning Board.	

Topic	Response	Remarks
3.38 What does NCRPB approve? Is it the loan agreement of the first advance only? Or is it the first advance as well as NCRPB's commitment to finance the appraised project?	NCRPB approves the entire project with specified drawdown schedule of the loan as requested in the loan application.	
Loan Administration of NCRPB		
3.39 Does NCRPB have procurement guidelines, consultant recruitment guidelines, and disbursement guidelines? Please state the titles with years of publication.	Extant Procurement procedures of Gol as per Government Finance Rules, 2005 are followed by NCRPB. All employee related service rules and regulations as prevalent in Gol are applicable to NCRPB. In respect of sub-borrowers under ADB program, NCRPB intends to adopt the procurement guidelines, consultant recruitment guidelines as laid down by ADB. These guidelines will be mainstreamed and extended to all loans extended by NCRPB over the program period.	
	As regards disbursement guidelines the existing policy/ rules of NCRPB provides as follows: a) First installment of loan is released on sanction of the project loan; b) Subsequent installment of loans are released based on the Utilization Certificate for the loan and counter part funds contributed to the project c) In rare cases (deserving ones), retroactive finance is approved.	

Topic	Response	Remarks
3.40 Which ADB's disbursement procedure is the closest to NCRPB's procedure?	Present disbursement procedure is closest to Imprest account procedure of ADB. Difference is that there is no replenishment of Imprest Account. Next installment of loan is released only on receipt of Utilization Certificate evidencing Liquidation of Earlier Installment / Advance.	
3.41 How does NCRPB determine the amount of initial and subsequent advances?	The drawdown schedule, as per the loan application document, lays down amount of initial and subsequent advances.	
3.42 How does NCRPB determine the timing for the next advance payment?	The next advance is made based on projection made in the DPR, and only after obtaining the 'Utilization Certificate' for the previous installment.	
3.43 How does NCRPB confirm that each advances are appropriately utilized?	NCRPB monitors the progress of the projects by visiting respective sites before release of subsequent installments.	
3.44 How does NCRPB determine the end of the financing project?	NCRPB obtains project completion certificate from the implementing agencies once the project ends.	
4. Staffing		
4.1 What is the (proposed) organizational structure of the accounting department? Attach an organization chart.	Present organization structure is available in Appendix 8 Required expertise is outsourced by NCRPB.	

Topic	Response	Remarks
4.2 Identify the (proposed) accounts staff, including job title, responsibilities, educational background and professional experience. Attach job descriptions and CVs of key accounting staff.	NCRPB has got a competent accounts and finance department for the present level of operations At present NCRPB accounts staff comprise of a) Finance and Accounts Officer; b) Two Assistant Directors (Finance) and c) Accounts Assistants. The qualifications and experience of present staff including job title, responsibilities are given in Annexure__ (Will be provided) .	
4.3 Is the project finance and accounting function staffed adequately?	Inadequate staffing Present staff would have to be augmented for handling following functions: a) Fund Management; b) Management Information System and Project Monitoring; c) Internal Audit.	
4.4 Is the finance and accounts staff adequately qualified and experienced?	Experienced and qualified Staff...for the present level of operations. Specialized training will be required for handling multi lateral funding agencies disbursement procedures, reporting requirement and fund management.	Exposure and specialized training will be required. TA Loan reference to be given.
4.5 Is the project accounts and finance staff trained in ADB procedures?	No.	Training in ADB procedures will be required.
4.6 What is the duration of the contract with the finance and accounts staff?	All permanent staff All staff are permanent employees.	
4.7 Indicate key positions not contracted yet, and the estimated date of appointment.	Not Applicable	
4.8 Does the project have written position descriptions that clearly define duties, responsibilities, lines of supervision, and limits of authority for all of the officers, managers, and staff?	Office orders, rules defined the policies and procedures. Please see para 5.34 for all the GoI rules.	(There is no requirement for consolidation)
4.9 At what frequency are personnel transferred?	Not Applicable	

Topic	Response	Remarks
4.10 What is training policy for the finance and accounting staff?	Not in place	Will be required under the project and is part of the computerization process under ADTA.
5. Accounting Policies and Procedures		
5.1 Does the entity have an accounting system that allows for the proper recording of project financial transactions, including the allocation of expenditures in accordance with the respective components, disbursement categories, and sources of funds? Will the project use the entity accounting system?	Yes, computerized accounting system "TALLY" is on a trial basis. NCRPB also prepares accounting information as required by the Gol either manually or using MS Office Excel.	
5.2 Are controls in place concerning the preparation and approval of transactions, ensuring that all transactions are correctly made and adequately explained?	Yes. All transactions are recorded in the form of voucher. These vouchers are prepared, checked and approved at different levels. Approved vouchers are then entered in the "Tally" accounting system.	
5.3 Is the chart of accounts adequate to properly account for and report on project activities and disbursement categories?	Yes Chart of accounts is prepared by the Finance and Account Staff. As and when any amendments are needed, approval of Director (A&F) is taken after justification of the need for such amendment(s) in Chart of Accounts.	
5.4 Are cost allocations to the various funding sources made accurately and in accordance with established agreements?	Yes. Done on regular basis. This is done automatically by the Tally accounting software concurrent with primary data entry.	
5.5 Are the General Ledger and subsidiary ledgers reconciled and in balance?	Yes. Done on regular basis. This is done automatically by the Tally accounting software concurrent with primary data entry.	

Topic	Response	Remarks
5.6 Are all accounting and supporting documents retained on a permanent basis in a defined system that allows authorized users easy access?	Yes permanently retained. Defined system means procedures prescribed for retention of accounting records and documents by Gol. The present procedures in NCRPB prescribe retention of all accounting records and supporting document on permanent basis.	
5.7 What is the size of accounting team in NCRPB?	A team of two employees, who are a part of accounts and finance department.	
5.8 What format does NCRPB follow for its financial statements?	The account heads and format of financial statements prescribed by C&AG for autonomous organizations are used. NCRPB follows the guidelines and forms advised from time to time by various departments under Ministry of Finance through Ministry of Urban Development.	

Topic	Response	Remarks
5.9 What system of accounting does NCRPB use?	The accounts of NCRPB are finalized on accrual basis and are computerized using software "Tally 7.2". At the end of fiscal year, the accounts are prepared, finalized and audited. The income is recorded and accounted for in the computerized accounts as and when sums are received and expenditures are recorded only upon payments. Journal vouchers are passed mostly at the end of year for depreciation, adjustments/ accruals. As such, NCRPB is following only cash accounting during the year and accrual accounting on an annual basis.	

Topic	Response	Remarks
5.10 What are the disadvantages in use of cash accounting during the year and accrual accounting on an annual basis? Can we say it comply with Accounting Standards issued by the Institute of Chartered Accountants of India (ICAI) and the International Public Sector Accounting Standards (IPSAS)?	One of the disadvantage of cash accounting system during the year, is at any given point of time the financial position of NCRPB in terms of assets and liabilities is not readily available. However as the accounts are computerized and double entry accounting system is in place in NCRPB, with the estimation of receivables and payables quickly at any given point of time, NCRPB can prepare its financial statements on accrual basis, thus complying with accounting standards of ICAI. Director (A&F) has informed that with the implementation of the proposed computerized system, ongoing under ADTA, NCRPB will be fully on accrual accounting system.	
5.11 What are the issues in accounting practice in NCRPB? Will they become an issue for ADB's due diligence? How NCRPB improve such issues?	All transactions related to the General Provident Fund Account and the Contributory Provident Fund Account are intermingled with the NCRPB Fund and appear in the Annual accounts of NCRPB.	

Topic	Response	Remarks
	The Accounting records kept through "Tally" are not found complete and comprehensive in respect of loan records and Loan Registers are kept on manual basis. There is no reconciliation statement made available for balances as per Loan Registers and as per respective Ledger Accounts based on Tally accounting system The Management Letter issued by CAG also points out the maintenance of bank accounts for Contributory Provident Fund against which there is no future liability. All employees are on General Provident Fund at present. Direct (A&F) NCRPB has stated that the bank accounts of Contributory Provident Fund will be closed down soon. There is only procedural delay. The implementation of the proposed computerized system, ongoing under ADTA, comprehensive loan registers / accounts will be maintained in new system and there will be no reconciliation problem.	

Topic	Response	Remarks
5.12 What is the assessment on the asset register?	List of all movable and immovable assets is available and up to date recorded in an Asset Register with details of each item, purchase details with the signature of the person handing over and taking over. Updated annual asset register with clear rules for valuation and depreciation are in place.	
5.13 What are the issues in the asset register? Will they become an issue for ADB's due diligence? How NCRPB improve such issues?	Records for unpaid bills / contingent liabilities are not maintained. No, they will not become an issue for ADB's due diligence. NCRPB, at any given point of time when they want to ascertain the financial position / status, is in a position to ascertain its status of unpaid bills / contingent liabilities within reasonable period of time according to its present practice. With the implementation of the proposed computerized system, ongoing under ADTA, this issue will be resolved. All payables and receivables will be generated by the computerized system.	
5.14 How the internal control and audit is conducted in NCRPB?	One of the two Assistant Directors (Finance) is assigned responsibility for pre-auditing specific payments like staff, allowances.	

Topic	Response	Remarks
5.15 What are the issues in the internal control and audit? Will they become an issue for ADB's due diligence? How NCRPB improve such issues?	The pre-audit checks are not applied for all disbursements and also do not have a threshold fixed above which all transactions must be pre-audited. There is no Audit committee in place. Duties are segregated amongst three or four total members of staff in Accounts and Finance, yet there is no rotation of duties practiced as some of these staff positions have remained in their present positions for last several years Internal Audit needs to be strengthened. NCRPB proposes to either recruit internal auditor, Qualified Chartered Accountant with. at least 10 years experience in internal audit of organizations in both public as well as private sector, on full time basis or outsource the same to a professional firm of Chartered Accountants. Internal Auditor ToR is available in Appendix 25 NCRPB being a small set up this is not possible. to rotate staff with specialized skills within NCRPB.	
<i>Segregation of Duties</i>		
5.16 Are the following functional responsibilities performed by different units or persons: (i) authorization to execute a transaction; (ii) recording of the transaction; and (iii) custody of assets involved in the transaction?	Yes. Authorization is done as per the delegation of powers as in the case of bank operations (refer para 5.37), recording of transaction is done by the finance and accounts staff and custody of the assets rest with the user department or section.	

Topic	Response	Remarks
5.17 Are the functions of ordering, receiving, accounting for, and paying for goods and services appropriately segregated?	Yes This is a internal control measure wherein the functions are segregated amongst the accounting staff.	
5.18 Are bank reconciliations prepared by someone other than those who make or approve payments?	Yes. Done on monthly basis.	
<i>Budgeting System</i>		
5.19 Do budgets include physical and financial targets?	Yes. NCRPB budgets are prepared as per the Gol budget preparation process / rules/ official circulars. Detailed workings are done which do not figure on the budget document. These workings contain physical target details.	
5.20 Are budgets prepared for all significant activities in sufficient detail to provide a meaningful tool with which to monitor subsequent performance?	Yes.	
5.21 Are actual expenditures compared to the budget with reasonable frequency, and explanations required for significant variations from the budget?	Yes. Monthly Fund Flow Statement Even though budget versus actual income and expenditure is not compared on a periodic basis, the Accounts Department keeps sufficient controls to ensure that Plan as well as Non-Plan grants are used in full so that the unutilized balances are not to be returned / adjusted. As per requirements from MoUD, the Board prepares and submit on monthly basis the Internal & Extra Budgetary Resources IEBR component of the Budget with actual. Also on quarterly basis, the Internal & Extra Budgetary Resources are compared with the actual.	
5.22 Are approvals for variations from the budget required in advance or after the fact?	Yes in advance	

Topic	Response	Remarks
5.23 Who is responsible for preparation and approval of budgets?	Presently, the Board prepares annual budgets estimates and provides inputs to each Five Year Plan. The budgets are prepared based upon guidelines received from Department of Economic Affairs, MoF, through MoUD using Outcome Budget approach based on guidelines issued by the Department of Expenditure, MoF, GoI dated December 17th, 2007. As stipulated under Rules 28 and 29 of the NCRPB Rules, the budgets are sent to MoUD before 15th October, each year after its approval by the Board.	
	The Board also submits the revised budget estimates for the current year based upon actual allocations by the GoI and the latest resource constraints around middle of September. The Board's approval is taken on post facto basis. No gender Budget cell is yet established in the Board. Internal and Extra Budgetary Resources (IEBR) have been prepared for inputs to 11th Five year Plan. Para 84	
5.24 Are procedures in place to plan project activities, collect information from the units in charge of the different components, and prepare the budgets?	Yes This is spelt out in the Budget preparatory process / rules / official circular (as per GoI Finance Ministry Budget Preparation Rules).	

Topic	Response	Remarks
5.25 Are the project plans and budgets of project activities realistic, based on valid assumptions, and developed by knowledgeable individuals?	Yes. Forecast of yearly activities are made based on loans sanctioned, pending applications for loans to be sanctioned in the next financial year as well as the operational revenues, in the form of interest on loans, interest on bank deposits etc, and operational costs of NCRPB.	
Payments		
5.26 Do invoice-processing procedures provide for: (i) Copies of purchase orders and receiving reports to be obtained directly from issuing departments? (ii) Comparison of invoice quantities, prices and terms, with those indicated on the purchase order and with records of goods actually received? (iii) Comparison of invoice quantities with those indicated on the receiving reports? (iv) Checking the accuracy of calculations?	Yes, verification of supplier / contractor bills with order / agreement / receiving reports for quantity and rate including calculations accuracy before payments are done.	
5.27 Are all invoices stamped PAID, dated, reviewed and approved, and clearly marked for account code assignment?	Yes	
5.28 Do controls exist for the preparation of the payroll and are changes to the payroll properly authorized?	Yes. Payroll computerization in the process of being implemented.	
Policies And Procedures		
5.29 What is the basis of accounting (e.g., cash, accrual)?	Accrual system of accounting is followed.	
5.30 What accounting standards are followed?	Indian accounting standards as prescribed by ICAI	
5.31 Does the project have an adequate policies and procedures manual to guide activities and ensure staff accountability?	Gol rules and regulations are followed by NCRPB.	
5.32 Is the accounting policy and procedure manual updated for the project activities?	Yes – Financial Statements as prescribed by CAG is followed	
5.33 Do procedures exist to ensure that only authorized persons can alter or establish a new accounting principle, policy or procedure to be used by the entity?	Yes. Gol rules and regulations. Director (A&F) holds the authority.	

Topic	Response	Remarks
5.34 Are there written policies and procedures covering all routine financial management and related administrative activities?	Yes. Gol rules and regulations. Gol General Finance Rules, 2005 Fundamental and supplementary Rules, Central Civil Service (Temporary Service) Rules, 1965, Central Civil Services (Medical Attendance) Rules, 1944, Central Government Employees Group Insurance Scheme, 1980, Central Civil Service (Leave) Rules, 1972, Central Civil Service Conduct Rules, 1955 etc. and orders and decisions issued by Central Government under those rules from time to time as applicable to the employees of the Central Government	
5.35 Do policies and procedures clearly define conflict of interest and related party transactions (real and apparent) and provide safeguards to protect the organization from them?	Yes Gol General Financial Rules, 2005	
5.36 Are manuals distributed to appropriate personnel?	Yes. All Gol Rules made available to all concerned staff.	
Cash and Bank		
5.37 Indicate names and positions of authorized signatories in the bank accounts.	Upto Rs. 50,000 – Joint Signatory as authorized by MS – FAO and DDO and more than Rs. 50,000 – Joint Signatory (other than above) as authorized by MS – Director (A&F) and either of two Joint Directors.	
5.38 Does the organization maintain an adequate, up-to-date cashbook, recording receipts and payments?	Yes on day to day basis with daily closing.	

Topic	Response	Remarks
5.39 Do controls exist for the collection, timely deposit and recording of receipts at each collection location?	Yes By the Finance and Accounts Section in NCRPB. Money received are entered in the Cash Book and deposited in Bank either on the same day or next day if banking hours are over.	
5.40 Are bank and cash reconciled on a monthly basis?	Yes. Done upto October 2009.	
5.41 Are all unusual items on the bank reconciliation reviewed and approved by a responsible official?	Yes. Finance and Accounts Officer and Director (Finance and Administration)	
5.42 Are all receipts deposited on a timely basis?	Yes Whatever moneys are received they are deposited on daily basis or the following day if received beyond banking hours.	
Safeguard over Assets		
5.43 Is there a system of adequate safeguards to protect assets from fraud, waste and abuse?	Yes Assets are numbered and bear identification marks. All assets are maintained properly by regular cleaning and maintenance contract as required.	
5.44 Are subsidiary records of fixed assets and stocks kept up to date and reconciled with control accounts?	Yes. Fixed Assets Register under the General Financial Rules, 2005 of GoI.	
5.45 Are there periodic physical inventories of fixed assets and stocks?	Yes physically verified every year	
5.46 Are assets sufficiently covered by insurance policies?	No	
Other Offices and Implementing Entities		
5.47 Are there any other regional offices or executing entities participating in implementation?	No NCRPB cells are under administrative and functional control of the urban department of the State where they are located. NCRPB reimburses the operation expenses of these cells only on the basis of reimbursement claim received from the concerned States.	

Topic	Response	Remarks
5.48 Has the project established controls and procedures for flow of funds, financial information, accountability, and audits in relation to the other offices or entities?	Not Applicable	
5.49 Does information among the different offices/implementing agencies flow in an accurate and timely fashion?	Not Applicable	
5.50 Are periodic reconciliations performed among the different offices/implementing agencies?	Not Applicable	
Other		
5.51 Has the project advised employees, beneficiaries and other recipients to whom to report if they suspect fraud, waste or misuse of project resources or property?	Yes. There is a Vigilance Cell. Director (A&F) is part time Central Vigilance Officer appointed by GoI	
6. Internal Audit		
6.1 Is there a internal audit department in the entity?	An officer (in-house) has been designated as Internal Auditor	
6.2 What are the qualifications and experience of audit department staff?		
6.3 To whom does the internal auditor report?	Director (A&F)	
6.4 Will the internal audit department include the project in its work program?	Yes All project accounts whether funded from NCRPB's own resources or from ADB loan will be covered under the internal audit. Internal audit will be done by qualified internal auditor appointed by the NCRPB.	
6.5 Are actions taken on the internal audit findings?	No formal report prepared and submitted. Notings are done on concerned files and remedial actions. Yes. As mentioned audit findings are noted on the concerned file and remedial action taken there-against.	Needs to be strengthened NCRPB is considering appointment of a qualified dedicated person or outsource to outside firm of chartered accountants for internal audit.

Topic	Response	Remarks
7. External Audit		
7.1 Is the entity financial statement audited regularly by an independent auditor? Who is the auditor?	Yes. C&AG, the statutory auditor of the GOI, performs external audit and oversight and proprietary audit as well. The certification of Accounts is also done by a CA firm selected from a panel of CA firms with C&AG office. As per section 26 of the NCRPB Act, the annual report along with Report of the C&AG is laid before Parliament within 9 months of the end of the fiscal year by 31st December	
7.2 Are there any delays in audit of the entity? When are the audit reports issued?	No. Yearly normally before end of six months from close of financial year	
7.3 Is the audit of the entity conducted according to the International Standards on Auditing?	Yes. Indian Auditing Standards which compares with International Auditing Standards	
7.4 Were there any major accountability issues brought out in the audit report of the past three years?	None	
7.5 Will the entity auditor audit the project accounts or will another auditor be appointed to audit the project financial statements?	Yes. All NCRPB, including ADB loan account operations will be covered under external audit. NCRPB's controls and procedures including, inter alia, release of funds against sub-borrowers' utilization certificates and progress (both physical and financial) will also be covered under audit.	
7.6 Are there any recommendations made by the auditors in prior audit reports or management letters that have not yet been implemented?	No major issues	
7.7 Is the project subject to any kind of audit from an independent governmental entity (e.g., the supreme audit institution) in addition to the external audit?	Audit already being done by CAG hence not applicable	

Topic	Response	Remarks
7.8 Has the project prepared acceptable terms of reference for an annual project audit?	CAG frame the ToR and Audit Program. Hence not applicable	
8. Reporting and Monitoring		
8.1 Are financial statements prepared for the entity? In accordance with which accounting standards?	Yes in accordance with CAG prescribed format and ICAI accounting standards	
8.2 Are financial statements prepared for the implementing unit?	Yes In this case it will be NCRPB. Financial statements are prepared for NCRPB.	
8.3 What is the frequency of preparation of financial statements? Are the reports prepared in a timely fashion so as to useful to management for decision making?	Monthly Fund Flow, Half yearly results as per SEBI requirement and Annual Financial Statements.	
8.4 Does the reporting system need to be adapted to report on the project components?	Yes In order to meet the reporting requirements of ADB as well as other stakeholders.	Computerization of system in the process of being implemented under ADTA
8.5 Does the reporting system have the capacity to link the financial information with the project's physical progress? If separate systems are used to gather and compile physical data, what controls are in place to reduce the risk that the physical data may not synchronize with the financial data?	Yes. Under the present system, including linking of physical and financial progress, all the work is done offline either manually or through MS Office Excel. As it is the existing staff's workload is high. With scaling up of operations under ADB / Other loan improvement to existing system is required.	However present system is being refined and improved under Computerization of system (done under ADTA)

Topic	Response	Remarks
8.6 Does the project have established financial management reporting responsibilities that specify what reports are to be prepared, what they are to contain, and how they are to be used?	Yes Following reports will be required: a) Project Financial Statements containing details of project expenditure on various sub-projects; b) Monthly progress reports; c) Quarterly progress reports; d) Project / Contract Management Information System Reports	Project Finance Accounts Manual will have to be prepared. Computerization of system under implementation
8.7 Are financial management reports used by management?	Yes New reporting requirements in new formats will entail redesign of the existing reporting formats to make it compatible with ADB / other funding agencies requirements.	In process of being redesigned under proposed Computerization
8.8 Do the financial reports compare actual expenditures with budgeted and programmed allocations?	Yes. MIS reports covering Fund Flow, Expenditure, Bank Reconciliation, Loan recoveries, Interest and Repayment schedule	

Topic	Response	Remarks
8.9 Are financial reports prepared directly by the automated accounting system or are they prepared by spreadsheets or some other means?	Partially computerized. Accounting system under "TALLY" Though there is no formal MIS in operation, some reports are generated through Tally system, which are disseminated to senior management staff. These are daily cash report and bank balances report prepared and disseminated in the first week of each month. Besides, the following routine reports are prepared at monthly interval based on requirements of MoUD:- • Monthly monitoring of IEBR component of the Budget; • Overview of Expenditure Trends; and, • Position regarding Liquidation of pending Utilization Certificates The accounts department also keeps important financial information, which is required from time to time by the management. Some of this information include the following:- • Cost of borrowing from FY 1997-98 to FY 2007-08; • Statement of Loans sanctioned; • Net Profit, Income Tax Liability, Income Tax paid year wise from FY 2002-03 to FY 2007-08; • Year wise and project wise Loans Released; • Interest Income on Loans, Interest on Bank Deposits from FY 2002-03 to 2007-08; and, • Grant –in-aid received from FY 1985-86 to date	Computerized system under implementation -ADTA
Sheladia Associates, Inc. USA	from MoUD and Delhi Govt. separately for Plan and Non-Plan etc.	79

Topic	Response	Remarks
9. Information Systems		
9.1 Is the financial management system computerized?	No, Existing MIS at NCRPB is significantly manual, although packages like Excel are used for data compilation, reporting and tracking progress. Physical and manual records supported by Tally comprise the accounting MIS. A special NIC developed package is used for payroll. As data is not integrated, there is significant scope for errors in the same data across departments and this is likely, with enhanced scale of operations. Present system cannot continually produce the reports required for accounting/financial management, treasury, loan disbursement/tracking and other systems, as per the prudential norms and risk management frameworks prevalent for Urban Infrastructure Intermediaries.	Computerized system under implementation.
9.2 Can the system produce the necessary project financial reports?	No The present system will not be able to generate project financial reports. In the absence of automated system, project financial report will have to be generated through part manual and MS Office Excel process.	Computerized system under implementation will take care of this requirement.
9.3 Is the staff adequately trained to maintain the system?	No Training will be part of the ToR of consultants who are carrying out the computerization of NCRPB.	

Topic	Response	Remarks
9.4 Does the management organization and processing system safeguard the confidentiality, integrity and availability of the data?	Yes offline. Entire loan records are kept manually in several (presently 16) registers. Though some part of loan information is maintained in Tally system, there is no full back up of these vital records. Print outs of output data are kept in confidential file. These are accessible to only Accounts and Finance personnel. Data back ups (in cartridges) are taken on daily? basis and kept in NCRPB office only.	Soft data backups should be kept outside the office of NCRPB. New computerization system under implementation should address this issue as well.

T. Supporting Documents

- i NCRPB Borrowing In-Principle Approval Letter
- ii Management Letter for the year 2008-09

Annex F1- NCRPB FINANCIAL DUE DILIGENCE REPORT

159. Financial due diligence of NCRPB was conducted and NCRPB's policies and lending were evaluated from a prudent lending requirement perspective. NCRPB's portfolio was analyzed with regard to borrower exposure norms, sector exposure norms, capital adequacy requirements, and accounting and audit policies in relation to International Accounting Standards. A summary of the observations pursuant to Financial Due Diligence of NCRPB is as follows:

Exposure Norms

160. Currently, with almost all the loans of NCRPB either directed to State Governments or to parastatals, NCRPB has not laid down any exposure limits for its loan portfolio.

Norms applicable for Financial Institutions

161. Normally, a Financial Intermediary's exposure limits are evaluated with regard to:

- Single borrower limit
- Single group of borrowers limit
- Limits of sectoral lending

Borrower/Borrower group exposure norms:

162. Reserve Bank of India has laid down detailed guidelines for exposure limits for financial intermediaries. A synopsis of the same is given below:

Category of Borrower	Exposure Limit
Single Borrower	15% of capital funds (Tier 1 and Tier 2 capital)
Single Borrower including additional credit exposure for financing Infrastructure projects	20% of capital funds (Tier 1 and Tier 2 capital)
Single Borrower including Infrastructure project finance and specific Board approval	25% of capital funds (Tier 1 and Tier 2 capital)
Borrowers belonging to a group	40% of capital funds (Tier 1 and Tier 2 capital)
Borrowers belonging to a group including additional credit exposure for financing Infrastructure projects	50% of capital funds (Tier 1 and Tier 2 capital)
Borrowers belonging to a group including Infrastructure project finance and specific Board approval	55% of capital funds (Tier 1 and Tier 2 capital)

163. **Sectoral norms:** With regard to the exposure norms for sectors, RBI has indicated that the financial intermediaries may also consider fixing internal limits for aggregate commitments to specific sectors, e.g. textiles, jute, tea, etc., so that the exposures are evenly spread over various sectors. These limits could be fixed by the banks having regard to the performance of different sectors and the risks perceived. The limits so fixed may be reviewed periodically and revised, as necessary.

164. In the instant case of NCRPB, all the loans are provided only to either State Governments and/or parastatals. Consequently, NCRPB currently does not have any norms either for borrowers or sectors. It is also pertinent to point out that given its current organisational structure of having been set up by a specific Act of Parliament, NCRPB does not come under any Regulatory Authority as far as various norms are concerned and consequently, none of the norms enumerated above are applicable to it.

However, an analysis was made of the NCRPB's loans was carried out with specific focus on the regional concentration and the results have been summarised in the table below:

165. An analysis lending by States indicates that while Haryana constitutes only 40% of the land area of the NCR, its total borrowings is in excess of 60%, while in case of States like Rajasthan and Uttar Pradesh, their borrowings percentages of the total are much lower than the proportion of land. While at one level this data shows that Haryana has been proactive in borrowing monies in order to finance development, it also indicates that there could be a disproportionate deployment of finance.

166. In view of the above, however, NCRPB may consider having some internal norms regarding State exposure so that a balanced development of various areas under the NCR may be achieved.

Capital Adequacy with reference to the National Regulatory framework (RBI guidelines) and Bank for International Settlements guidelines.

167. As indicated earlier, NCRPB has been set up by an Act of Parliament and consequently, does not come within the purview of the RBI as regarding various norms which are stipulated for financial intermediaries like Banks, Financial Institutions, etc.

168. However, with a view to benchmark industry best practices, an analysis of NCRPB's capital adequacy has been done vis a vis RBI's guidelines on capital adequacy. Currently, RBI has migrated towards Basel II guidelines. However, to ensure smooth transition from Basel I norms, RBI has recommended a parallel run of both Basel I norms and the revised Basel II norms to be disclosed for the year ending March 31, 2009.

169. Basel II norms (framed by Bank for International Settlements) for capital adequacy norms for Banks

- i. As per RBI requirement, financial institutions should maintain a minimum Capital to Risk-weighted Assets Ratio (CRAR) of 12% on an ongoing basis.
- ii. A bank should compute total CRAR in the following manner:
 - a. Eligible total capital Funds
 - b. Credit Risk Weighted Assets (CRWA) + Market Risk WA + Operational Risk WA

170. **Capital Charge on Credit Risk:** The direct loan/credit/overdraft exposure of Banks to the State Governments and the investments in State Government securities will attract zero risk weight. State Government guaranteed claims would attract 20% risk weight. Claims on public sector entities would attract risk weights similar to corporates.

171. Claims on corporate shall be risk weighted as per the ratings assigned by the rating agencies registered with the Securities Exchange Board of India (SEBI) and accredited by the RBI. The following table indicates the risk weight applicable to claims on corporate:

Domestic Rating Agency	AAA	AA	A	BBB	BB & below	Unrated
Risk Weight	20%	30%	50%	100%	150%	100%

172. As against the RBI minimum CAR of 12% which is to be maintained by a Financial Institution, NCRPB's CAR is in excess of 100%. This is however due to its loans being predominantly to the State Governments which do not require any risk allocation. However, in future, when NCRPB would have to lend to projects based on project risk, this comfortable CRAR could come down to more realistic levels just like any other financial intermediary

III Accounting Standards and Audit

173. The International Accounting Standards (IAS) which would be applicable to NCRPB (if applied as part of benchmarking of best practices) are the following:

- IAS 1 Presentation of Financial Statements
- IAS 16 Property, Plant and Equipment
- IAS 18 Revenue
- IAS 19 Employee Benefits
- IAS 20 Accounting for Government Grants and Disclosure of Government Assistance
- IAS 23 Borrowing Costs
- IAS 24 Related Party Disclosures
- IAS 26 Accounting and Reporting by Retirement Benefit Plans
- IAS 30 Disclosures in the Financial Statements of Banks and Similar Financial Institutions – **Superseded by IFRS 7 effective 2007**
- IAS 32 Financial Instruments: Presentation – Disclosure provisions superseded by IFRS 7 effective 2007
- IAS 37 Provisions, Contingent Liabilities and Contingent Assets
- IAS 38 Intangible Assets
- IAS 39 Financial Instruments: Recognition and Measurement

174. A review of the significant accounting policies adopted by NCRPB indicates that they are generally in accordance with the applicable IAS. According to IAS 1, a company has to prepare a complete set of financial statements comprising of:

- (a) a statement of financial position as at the end of the period;
- (b) a statement of comprehensive income for the period;
- (c) a statement of changes in equity for the period;
- (d) a statement of cash flows for the period;
- (e) notes, comprising a summary of significant accounting policies and other explanatory information; and
- (f) a statement of financial position as at the beginning of the earliest comparative period when an entity applies an accounting policy retrospectively or makes a retrospective restatement of items in its financial statements, or when it reclassifies items in its financial statements.

175. IAS 1 also specifies that an entity may use titles for the statements other than those used in this Standard. A review of NCRPB's Annual Accounts for the year ended March 31, 2009, shows that all the applicable statements stipulated by IAS 1 have been prepared by NCRPB. While the annual accounts itself is generally in accordance with the Standards, only in case of retirement benefits has NCRPB not followed the applicable IAS.

176. The Revised Accounting Standard 15 was issued in the FY 2007-2008. According to that standard, the retirements benefits needs to be provided on the basis of actuarial liability. Also the liability which has been ascertained upto the first date of the financial year (1.4.2008) should be charged off to the Capital Fund and only the liability for the FY 2008-2009 has to be charged off to Income & Expenditure statement for the year (the funds to meet this provision has been transferred from the Income & Expenditure (Plan).

This is the transitional provision as per the standard. However, the NCRPB has charged off the entire liability in the current year Income & Expenses Account (Notes to Accounts point number 6 (a)). Since they have a Corpus Account, the liability upto 31.3.08 should have been set off in the corpus /capital accounts and only the liability for the year 2008-2009 should have been routed through the Income & Expenditure Account. Except for this, there is no materially significant variation between the applicable IAS and the NCRPB accounts statement for the year 2008-09.

177. However, going forward, as a financial intermediary and depending on the organisation structure which NCRPB decides to adopt, all the applicable IAS need to be adopted by it and the accounting statements need to be prepared in accordance with such IAS.

178. Currently, NCRPB does not have any subsidiaries and also does not have guarantees outstanding to any entities to whom it has disbursed funds. With reference to related party transactions, the same is not applicable in this case. Related party transactions happen when a lender lends money to a related entity and such transactions are sought to be prevented as the lending may be done in such cases without adequate due diligence and without adequate security, which could lead to bad loans. However, in the present instance, as there are specific guidelines in the NCRPB Act and NCRPB Rules about methodology of giving loans to borrowers and security thereon, the conflict of interest aspect would not be applicable.

179. NCRPB does not currently have any contingent liabilities related to its shareholding nor substantial credit exposures to its affiliates/subsidiaries, etc. However, its lending portfolio has to necessarily be to the State Governments and parastatals within the NCR region and consequently, all its lending are to State Governments and parastatals, and that too with adequate security, either risk domiciled on State Governments or other forms of security like mortgage and/or escrow accounts. While some of the lending could become Non Performing Assets due to defaults, it would not be appropriate to term such loans to other government owned/controlled institutions as having a negative effect on its financial standing.

180. **NCRPB audit policies:** As indicated earlier, NCRPB's significant accounting policies, where appropriate, are generally in accordance with the IAS. NCRPB's audit is conducted by the office of the Comptroller and Auditor General of India and the audited accounts are placed before the Parliament once audit is completed.

IV Compliance of NCRPB to OM's

OP Requirements	Norms of RBI/ Regulator for Banks/FIs	Existing Situation	Next Steps/ Road Map requirements
<i>(i) financial soundness as evidenced by adequate capital, asset quality, liquidity, and profitability</i>		At present NCRPB has no regulator and is governed by its own Acts and controls imposed by GOI regulations	However, as NCRPB (apart from its planning function) also acts as a financial intermediary, it would be necessary to follow the prudential norms stipulated by Reserve Bank of India or any other appropriate Regulator so that NCRPB gains strength as a Financial Intermediary
Capital Adequacy	Minimum 12%	As most of the loans of NCRPB are to the State Governments for which	As against a CRAR of 12% required by RBI for Financial Institutions, NCRPB has a very

OP Requirements	Norms of RBI/ Regulator for Banks/FIs	Existing Situation	Next Steps/ Road Map requirements
		zero risk weightage needs to be provided, and certain other loans are also only to State Government agencies (with State Government guarantees) where only 20% risk weightage needs to be provided (as stipulated by the Reserve Bank of India in its circular regarding calculation of Capital Adequacy Norms), the Capital to Risk Weighted Assets Ratio (CRAR) of NCRPB is almost in excess of 100%.	high CRAR due to mostly lending only to State Government/agencies. In future when NCRPB proposes to lend to borrowers based on project risk/asset security, the Capital Adequacy norms would be applied and then NCRPB would need to monitor the CRAR very closely in order to meet the prudential norms for a financial institution.
Asset Quality	NPA's and Provisioning	Till date there has been no defaults and consequently, no provisioning for Non Performing Assets have been made.	In future when NCRPB proposes to lend to borrowers based on project risk/asset security, a more substantive credit appraisal of the borrower needs to be undertaken by NCRPB and cash flows of the project need to be monitored such that no/less provisioning is required due to payment defaults.
Liquidity	RBI norm of Statutory Liquidity Ratio (SLR) of 24% (of their Net Demand and Time liabilities) and Cash Reserve Ratio (CRR) of 5% (of the Banks's relevant deposits)	NCRPB's liabilities are only long tenure Bonds. Also, NCRPB is creating a Bond Reserve for one such Bond issue. Even otherwise, with a low D:E ratio, and a comfortable reverse cash flow from repayments and interest payments, coupled with no defaults till now, NCRPB's liquidity position is comfortable. Loan to Deposit ratio of NCRPB would be 100% indicating a good liquidity position	As and when NCRPB accesses more debt (in various forms), it might be prudent to meet appropriate prudential norms of the RBI stipulated for a FI as NCRPB effectively also performs the lending functions of a Financial Institution. Hence meeting such prudential norms which are appropriate would provide strength to the operations of NCRPB
Debt Equity Ratio	NA	While there is no guideline of D:E Ratio for Banks/FIs, the CRAR (as explained earlier) needs	With Own funds of Rs 2033.73 crores and Debt of Rs 465.1 crores (as of March 31, 2009) the D:E position is only 0.23: 1

OP Requirements	Norms of RBI/ Regulator for Banks/FIs	Existing Situation	Next Steps/ Road Map requirements
		to be met. As indicated earlier, NCRPB's CRAR is in excess of 100% due to its asset profile.	which gives a lot of scope for raising additional debt. Typically, financial intermediaries like Non Banking Financing Companies, Banks, etc. leverage their own funds at least 5 to 8 times. Consequently, NCRPB can raise substantial debt in future in order to channelise funds for development (During 2009-10, NCRPB has raised additional Bonds of Rs 134.90 crs at 8.68% p.a.)
ROI and ROE	NA	As NCRPB's D:E ratio is very low and it finances infrastructure at a low rate of interest, its Return on Equity is only 5.75% pa	A Financial Intermediary's ROE can only increase with increased leverage. While average cost of borrowings is 6.55% p.a., the weighted average cost of funds is only 1.69% p.a. due to low D:E ratio. The average yield on loans is 6.60% p.a. giving a margin of about 4.91% p.a. However, as the D:E ratio increases due to raising of additional debt, the WACC would go up reducing the margin earned from lending. However, as leverage increases due to additional borrowings, the absolute net earnings of NCRPB would increase provided the interest rates on loans are maintained or increased based on the cost of capital. Therefore, NCRPB needs to leverage its Owned Funds in order efficiently use scarce resources.
<i>(ii) adequate credit and risk management policies, operating systems, and procedures;</i>			
credit and risk management policies,		NCRPB has no risk management framework as most of the loans are guarantee backed and no financial due diligence of sub project cash flow is carried out.	With reduced dependence on State Government backed projects and increased lending to projects based on project risk, NCRPB capabilities would need to be enhanced to include credit risk evaluation,

OP Requirements	Norms of RBI/ Regulator for Banks/FIs	Existing Situation	Next Steps/ Road Map requirements
		Interest Rate Risk: At present the interest rate risk is marginal as almost 80% of the funds on lent are grants from GOI/Delhi Government and only a small portion has been raised from the Market. Further NCR's borrowing and loans are on fixed terms and consequently the interest rate risk is negligible.	Asset Liability management, etc. Apart from a detailed review of project cash flows, the interest rate risk and maturity risk of both NCRPB's borrowings and its lending need to be managed such that the Assets and Liabilities are matched on these fronts.
Operating systems, and procedures		NCRPB being a Board under the Government of India, appropriate operating systems and procedures are being followed for budgeting, periodical review of performance vs budget, loan sanctions, raising of finance, etc.	NCRPB would however need to implement much stronger systems and procedures in case of increased borrowing and also lending in order to scale up its business model in the area of Financial Intermediation
(iii) compliance with prudential regulations, including exposure limits;		Being an entity not regulated by any entity, loans are guaranteed and financing is demand responsive, there has been no need for any exposure norms.	However, with increasing access to market borrowings and also to Multilateral borrowings, there is a need to comply with the prudential norms for financial intermediaries of the RBI, other Regulators and also of the Lending agencies, if any so that NCRPB emerges as a strong Financial Intermediary.
(iv) acceptable corporate and financial governance and management practices including, among other things, transparent financial disclosure policies and practices		The management of NCRPB is being carried out as stipulated in the Act and regulations and follow basic principles of governance. Further the Audit of accounts are carried out by CAG and Placed in the Parliament.	Current disclosures however are not adequate if evaluated from a regulatory disclosure perspective for a Financial Intermediary. NCRPB needs to adopt the appropriate disclosure requirements stipulated for Banks/FIs by RBI or other relevant regulatory agencies in order to meet this requirement
(v) sound business objectives and strategy		The development policy of NCRPB is governed	

OP Requirements	Norms of RBI/ Regulator for Banks/FIs	Existing Situation	Next Steps/ Road Map requirements
and/or plan;		by the Regional Plan and is not backed by a business plan reflecting the entities capital investment program.	
(vi) autonomy in lending and pricing decisions		As per Rules of the NCRPB, interest shall be charged at such rate as may be specified by the Board for any particular loan or for the class of loans concerned and the rate of interest prescribed by the Government from time to time shall invariably be adopted by the Board. However, in practice, NCRPB, after considering the changes in the interest rate scenario in general and its own cost of funds in particular, prepares a note for revision of interest rates, which is forwarded to the Government which, after considering the representation of NCRPB, approves the revision, with changes, if necessary.	A more dynamic lending and pricing mechanism needs to be implemented to operate as a Financial Intermediary in the market place derive the benefit of interest rate and foreign exchange rate movements and also any other matter. Pricing decisions also need to be project risk specific and any other matter relevant to pricing.
(vii) adequate policies, systems, and procedures to assess and monitor the economic, social, and environmental impact of subprojects in accordance with parameters established by ADB for this purpose.		NCRPB has appointed external agencies to evaluate the Detailed Project Reports submitted by the IAs and submit report to the NCRPB.	
Financial intermediaries should have or build up capacity for mobilizing domestic resources.		NCRPB has over the last two years raised Rs 600 crores as Bonds from institutional investors. Salient features are given in Annexure 1	Based on the past experience it is felt that NCRPB has the requisite capability to raise finance in the domestic markets.
Use of ADB Funds		Currently capacity to repay is not assessed as	The Project financing will be based on an economic and

OP Requirements	Norms of RBI/ Regulator for Banks/FIs	Existing Situation	Next Steps/ Road Map requirements
		majority of the projects are backed by State Guarantees. However the ongoing ADB TA's are addressing the issue and enhancing the capacities of NCRPB and borrowers in appraisal.	financial appraisal of sub project and an tariff / rate reforms based on an agreed timeframe.
Re-lending rates from the borrower of the ADB FIL to the financial intermediary should have local cost anchors		Currently NCRPB rates are below market rates as it blends GOI and Government of Delhi's contributions with market borrowings.	Will be decided based on WACC and, lending policy and considerations related to risk appraisal of the proposal including factoring foreign exchange risks applicable to FI Loans (Examine possibility of GOI bearing Exchange Risks).

ANNEX F 2 IMPLEMENTING AGENCIES

2.1 SPECIAL AREA DEVELOPMENT AUTHORITY (SADA) GWALIOR

I Financial Performance

181. Summarized position of Receipts and Payments for a period of three years is given in Table below

Rs. Million

Particulars	FY 05-06	FY 06-07	FY 07-08	FY 08-09	Growth Rate %
Receipts:					
Premium on Land	330.2	74.1	91.5	245.4	-9%
Loans		96.0	145.3		
Other income and receipts	16.2	23.1	26.6	36.4	31%
Interest Income	11.3	61.9	14.9	14.5	9%
Other receipts	0.9	0.8	3.0	1.1	
Total Income	358.5	255.9	281.4	297.4	-6%
Payments					
Expenditure on Schemes / Plans	152.8	32.8	79.8	176.5	152.8
Repayment of Loans	138.7	153.7	153.7	118.1	
Interest on Loans	37.1	30.8	20.3	17.5	-22%
Salary and Establishment	3.6	3.3	4.5	5.8	17%
Contingent and Administration	3.9	1.7	3.3	3.3	-6%
Other Expenditure	0.8	0.1	0.4	0.3	-25%
Total Expenditure	337.0	222.3	261.8	321.5	

182. SADA, Gwalior follows cash based system of accounting and is yet to switch over to double entry accrual based accounting system. Hence, there is no balance sheet prepared for SADA, Gwalior.

183. Projects are executed through loan funds from NCRPB and Madhya Pradesh Finance Corporation and own sources of revenue. SADA has sourced majority of its loan funds from NCRPB. It has also accessed loan funds from Madhya Pradesh State Financial Corporation in the financial year 2006-07. SADA has been successful in meeting its debt service obligations from its own resources. GoMP guarantee is used in providing security and comfort to lenders at present. SADA is exploring various proposals from private developers for setting up educational institutions in SADA area.

II Financial Management Assessment Report

Introduction

184. The main instrument used to facilitate the financial management assessment was the questionnaire furnished by the ADB, which was discussed with the Superintending Engineer and Accountant of **Special Area Development Authority (SADA)** in September 2009. Interviews, including follow-up interviews, were conducted / September 2009 to better appreciate some of the responses and to fill up the unanswered items in the questionnaire. Most of the items in the questionnaires were filled up and consolidated by September / October 2009.

Findings

185. Based on the FMAQ responses documents and follow up interviews, the following observations were made:

Implementing agency

186. SADA is an Special Area Development Authority (SADA) set up by Government of Madhya Pradesh (GoMP) through special Statute under the State Housing and Environment Department. Main mandate of SADA was to develop Gwalior West (an area of 30000 hectares) which is 15 kms from the main Gwalior city. SADA is autonomous authority and is headed by a Board comprising of Chairman (a political nominee) and Chief Executive Officer (CEO) who is either an Indian Administrative Service (IAS) or State Administrative Service (SAS) officer.

187. SADA has not implemented any ADB or any other multilateral agency project.

Funds flow arrangements

188. Funds received from either ADB or any other donor agency is deposited into Reserve Bank of India – Government of India (GoI) account. From GoI, funds are transferred to National Capital Region Planning Board (NCRPB) bank account.

189. ADB Loans funds will be lent to NCRPB which in turn will re-lend them to SADA. Usually re-lending terms include (i) Interest rate 7-7.5%, (ii) maturity period of 10 years, and (iii) grace period of 1 year. The re-lending terms are much more restrictive than the terms at which NCRPB borrows from ADB. Interest rate is much higher (7.5% vs. 3% for OCR). The NCRPB however, covers foreign exchange risk. The re-lending conditions should be reviewed in consideration of the overall debt service which SADA should bear as a result of the new borrowings.

190. Past SADA Financial Statements show that the SADA's capacity to repay Loans has been satisfactory.

Staffing and Organization

191. Under the existing structure, SADA financial functions are under the responsibility of the Accounts Officer (AO). This position is vacant for the past few months. He is assisted by one Accountant who in turn is assisted by one assistant. There are 3 staffs under the finance and accounting section. Present staff has long experience in the accounts department. Sanction has been sought for additional posts of one Assistant Accounts Officer (AAO) and one Accountant. It is noted that there is not one chartered accountant in the organization.

192. Staff is just adequate for present level of operations. Qualified staff will be required for implementing and maintaining double entry accounting system.

Accounting policies and procedure

193. SADA prepares accounts as per the GoMP Accounts Code. Separate accounts for projects will have to be maintained. All the project accounts will be incorporated in the final account of SADA. SADA is in the process of switching over to double entry accrual based accounting system. The chart of accounts is adequate to account for all activities of SADA.

194. Important papers are kept on a permanent basis and other documents are kept for several years as per government rule.

Segregation of Duties

195. Functional responsibilities appear to be segregated. Separate responsibilities for budget, payment, recording, reporting and audit are assigned to separate groups of officers and staff.

Budgeting System

196. SADA prepares the budget once in a year according to financial year (April-March following an incremental approach in which the new budget figures are based on previous year's values plus a 20-30% increase. As a result, SADA does not adopt a results oriented budget approach in which physical and financial targets are defined. Investment activities are planned by the Technical section in accordance with the SADA Development Plan; however, funding for such activities is provided for from internal resources (sale of plots etc.) or from borrowings, separate from the operational budget of SADA maintained by the accounting and finance division. Operation and maintenance activities are not planned ahead but they are executed on a need basis.
197. Actual expenditure is compared with budget once in a year in February. SADA also publishes monthly financial reports comparing actual against budget figures and monthly progress reports on project execution which provide information about stage of project execution. The monthly MIS (Management Information System) Report also includes a comparison of actual financial performance against budget. The budget variances are reportedly discussed in monthly meetings with the Financial Controller. A revised budget is prepared whenever necessary.

Payments

198. Invoice-processing and payroll preparation procedures seem to be in order based on the sample invoices. Invoices are usually stamped "PAID".

Policies Procedures

199. The basis of accounting is cash. SADA has adopted and follows GoMP finance and accounts rules. SADA is in the process of introducing accrual accounting following the International Accounting Standard (IAS) and Indian Accounting Standard (IAS) as adapted by the Institute of Chartered Accountants of India (ICAI). Accounting manuals will be prepared and implemented after approval and adoption by the SADA board.

Cash at Bank

200. Authorized signatories (of cheque payments) are Accounts Officer (or person designated by CEO as AO) jointly with Chief Executive Officer for all payments.

Safeguard over assets

201. Inventory is taken for SADA fixed assets and store materials. There is no policy of taking of insurance cover for assets.

Other office and Implementing entities

202. There are no other office and implementing entity under SADA.

Internal audit

203. This is presently outsourced to a professional chartered accountant though officially not termed as internal audit. Discussion with Chartered Accountant revealed that apart from few clerical errors there are no major findings. He has promised to send his last audit report to TA consultant soon.

External Audit

204. Local Fund Auditor has taken up the audit this year of SADA for the last four years (there is a backlog). SADA's accounts are also subject to audit by Accountant General's (AG's) office (also pending for the last four years). The Audit Report for the last four years till FY 2008-09 is yet to be finalized.

Reporting and Monitoring

205. Financial Statements are prepared in accordance with Government accounting standards and Indian accounting standards (IAS). Three main reports are prepared, annual report (not regularly published), Monthly information system report (MIS) and the statutory Audit Report by external auditors. SADA is in the process of outsourcing the work of e-governance, computerization and conversion to accrual based double entry accounting system.

Information System

206. As mentioned earlier SADA is in the process of outsourcing computerization of entire system. At present report preparation is done using ms-office excel spreadsheets and ms-word.

III Conclusion and Recommendations

207. In the absence of accrual based accounting system, the balance sheet of SADA showing its assets and liabilities is not prepared. Due to this reason the financial statements of SADA fail to provide a true and fair view of the SADA fiscal situation.

208. Over the last few years SADA has been able to finance its operating expenditures out of own revenues. Capital expenditures are partly financed out of own sources, GoI loans and grants and other direct (for e.g. from NCRPB) loans.

209. Finally, the lack of computerization of the financial management system is another serious impediment to the efficient budget process. Budget data are still recorded in the manual ledger in the accounting and finance department, while at the zonal level information on billing and collection is kept in the consumer ledger which is not reconciled with the general ledger. Financial reports are prepared by spreadsheet which is a lengthy procedure.

IV Suggested Steps for Reform

210. SADA is presently addressing these difficulties through the computerization contracts which have been approved or are about to be approved. While it is important that these system improvements proceed as planned, it is equally critical that the institutional framework is properly set up for a commercially viable entity. Many deficiencies cannot be corrected by computerization, e.g. proper recording of transactions, analysis and reconciliation of accounts, and compliance with rules and policies.

211. In addition to the above initiatives, specific intervention is needed as follows:

- Reforming the accounting system in order to introduce and implement the accrual based double entry accounting system including development of Financial Management and Accounting System Manual in SADA;

- Providing regular (refreshing) training to both the existing and new staff in the new accounting practices and the computerized management information system;
- Close monitoring of the plan for computerization of the financial management and budget system;
- Introducing the obligation to reply to the auditor's comments within a given time frame and to publish the consolidated accounts.

Financial Management Assessment Questionnaire - SADA

Topic	Response	Remarks
1. Implementing Agency		
1.1 What is the entity's legal status / registration?	An Authority set up under GoMP Statute	
1.2 Has the entity implemented an externally-financed project in the past (if so, please provide details)?	No	
1.3 What are the statutory reporting requirements for the entity?	No Statutory reporting requirements.	
1.4 Is the governing body for the project independent?	Yes. Board of SADA	
1.5 Is the organizational structure appropriate for the needs of the project?	Yes	
2. Funds Flow Arrangements		
2.1 Describe (proposed) project funds flow arrangements, including a chart and explanation of the flow of funds from ADB, government and other financiers.	GoI to NCRPB to GoMP (Finance) to GoMP (Housing & Environment) to SADA	
2.2 Are the (proposed) arrangements to transfer the proceeds of the loan (from the government / Finance Ministry) to the entity satisfactory?	Yes	
2.3 What have been the major problems in the past in receipt of funds by the entity?	None	
2.4 In which bank will the Imprest Account be opened?	SADA's bank accounts – Union Bank of India, Oriental Bank of Commerce	
2.5 Does the (proposed) project implementing unit (PIU) have experience in the management of disbursements from ADB?	No.	
2.7 Does the entity have/need a capacity to manage foreign exchange risks?	No prior experience.	
2.8 How are the counterpart funds accessed?	Direct SADA Finances.	
2.9 How are payments made from the counterpart funds?	Project Bank Account of SADA	
2.10 If part of the project is implemented by communities or NGOs, does the PIU have the necessary reporting and monitoring features built into its systems to track the use of project proceeds by such agencies?	Not Applicable	

Topic	Response	Remarks
2.11 Are the beneficiaries required to contribute to project costs? If beneficiaries have an option to contribute in kind (in the form of labor), are proper guidelines formulated to record and value the labor contribution?	Not Applicable	
3. Staffing		
3.1 What is the (proposed) organizational structure of the accounting department? Attach an organization chart.	Present organization structure is available in Annexure ____.	
3.2 Identify the (proposed) accounts staff, including job title, responsibilities, educational background and professional experience. Attach job descriptions and CVs of key accounting staff.	Accounts Officer – on deputation from State Finance Services (post vacant now) and Accountant – Permanent SADA employee	
3.3 Is the project finance and accounting function staffed adequately?	No	short staffed. SADA has requested for sanction of additional posts – one Assistant Accounts Officer (AAO) and one Accountant.
3.4 Is the finance and accounts staff adequately qualified and experienced?	Experiences.	Qualified staff needs to be augmented and strengthened.
3.5 Is the project accounts and finance staff trained in ADB procedures?	No.	Training in ADB procedures will be required.
3.6 What is the duration of the contract with the finance and accounts staff?	All permanent staff	
3.7 Indicate key positions not contracted yet, and the estimated date of appointment.	None	
3.10 Does the project have written position descriptions that clearly define duties, responsibilities, lines of supervision, and limits of authority for all of the officers, managers, and staff?	Yes. Rules of GoMP is followed by SADA	
3.11 At what frequency are personnel transferred?	Transferable with GoMP's Development Authorities	
3.12 What is training policy for the finance and accounting staff?	No Training policy. However training is imparted in Accounts Training Centre	

Topic	Response	Remarks
4. Accounting Policies and Procedures		
4.1 Does the entity have an accounting system that allows for the proper recording of project financial transactions, including the allocation of expenditures in accordance with the respective components, disbursement categories, and sources of funds? Will the project use the entity accounting system?	Yes. Cash based accounting system as per GoMP accounting and finance rules	
4.2 Are controls in place concerning the preparation and approval of transactions, ensuring that all transactions are correctly made and adequately explained?	Yes	
4.3 Is the chart of accounts adequate to properly account for and report on project activities and disbursement categories?	In line with Government budget heads for receipt and expenditure (both revenue and capital)	
4.4 Are cost allocations to the various funding sources made accurately and in accordance with established agreements?	Yes. Done on regular basis.	
4.5 Are the General Ledger and subsidiary ledgers reconciled and in balance?	Yes. Primary records for receipt and payment maintained.	
4.6 Are all accounting and supporting documents retained on a permanent basis in a defined system that allows authorized users easy access?	Yes as per GoMP rules	
<i>Segregation of Duties</i>		
4.7 Are the following functional responsibilities performed by different units or persons: (i) authorization to execute a transaction; (ii) recording of the transaction; and (iii) custody of assets involved in the transaction?	Yes.	
4.8 Are the functions of ordering, receiving, accounting for, and paying for goods and services appropriately segregated?	Yes	
4.9 Are bank reconciliations prepared by someone other than those who make or approve payments?	Yes.	
<i>Budgeting System</i>		
4.10 Do budgets include physical and financial targets?	Yes	
4.11 Are budgets prepared for all significant activities in sufficient detail to provide a meaningful tool with which to monitor subsequent performance?	Yes	
4.12 Are actual expenditures compared to the budget with reasonable frequency, and explanations required for significant variations from the budget?	Yes, yearly.	

Topic	Response	Remarks
4.13 Are approvals for variations from the budget required in advance or after the fact?	Yes, due approval process in place	
4.14 Who is responsible for preparation and approval of budgets?	Compiled by Accounts section based on inputs from other sections. Approved by Board of SADA	
4.15 Are procedures in place to plan project activities, collect information from the units in charge of the different components, and prepare the budgets?	Yes	
4.16 Are the project plans and budgets of project activities realistic, based on valid assumptions, and developed by knowledgeable individuals?	Yes. In house – past experience.	
Payments		
4.17 Do invoice-processing procedures provide for: (i) Copies of purchase orders and receiving reports to be obtained directly from issuing departments? (ii) Comparison of invoice quantities, prices and terms, with those indicated on the purchase order and with records of goods actually received? (iii) Comparison of invoice quantities with those indicated on the receiving reports? (iv) Checking the accuracy of calculations?	Yes, verification of supplier / contractor bills with order / agreement / receiving reports for quantity and rate including calculations accuracy before payments are done.	
4.18 Are all invoices stamped PAID, dated, reviewed and approved, and clearly marked for account code assignment?	Yes	
4.19 Do controls exist for the preparation of the payroll and are changes to the payroll properly authorized?	Yes.	
Policies And Procedures		
4.20 What is the basis of accounting (e.g., cash, accrual)?	Cash based system of accounting is followed.	
4.21 What accounting standards are followed?	Government accounting standards	
4.22 Does the project have an adequate policies and procedures manual to guide activities and ensure staff accountability?	Yes – GoMP finance and accounting rules	
4.23 Is the accounting policy and procedure manual updated for the project activities?	To be done	Project Finance and Accounts Manual will have to provide for this
4.24 Do procedures exist to ensure that only authorized persons can alter or establish a new accounting principle, policy or procedure to be used by the entity?	Yes	
4.25 Are there written policies and procedures covering all routine financial management and related administrative activities?	Yes	

Topic	Response	Remarks
4.26 Do policies and procedures clearly define conflict of interest and related party transactions (real and apparent) and provide safeguards to protect the organization from them?	Yes	
4.27 Are manuals distributed to appropriate personnel?	Yes	
Cash and Bank		
4.28 Indicate names and positions of authorized signatories in the bank accounts.	Chief Executive Officer (CEO) and Accounts Officer (AO) Joint Signatories	One must jointly with person so designated by CEO
4.29 Does the organization maintain an adequate, up-to-date cashbook, recording receipts and payments?	Yes. All manual records	
4.30 Do controls exist for the collection, timely deposit and recording of receipts at each collection location?	Yes	
4.31 Are bank and cash reconciled on a monthly basis?	Yes. Done on monthly basis	
4.32 Are all unusual items on the bank reconciliation reviewed and approved by a responsible official?	Yes	
4.33 Are all receipts deposited on a timely basis?	Yes	
Safeguard over Assets		
4.34 Is there a system of adequate safeguards to protect assets from fraud, waste and abuse?	Yes	
4.35 Are subsidiary records of fixed assets and stocks kept up to date and reconciled with control accounts?	Yes	
4.36 Are there periodic physical inventories of fixed assets and stocks?	Yes	
4.37 Are assets sufficiently covered by insurance policies?	No	
Other Offices and Implementing Entities	No other office(s).	
4.38 Are there any other regional offices or executing entities participating in implementation?	Not Applicable	
4.39 Has the project established controls and procedures for flow of funds, financial information, accountability, and audits in relation to the other offices or entities?	Not Applicable	
4.40 Does information among the different offices/implementing agencies flow in an accurate and timely fashion?	Not Applicable	
4.41 Are periodic reconciliations performed among the different offices/implementing agencies?	Not Applicable	
Other		
4.42 Has the project advised employees, beneficiaries and other recipients to whom to report if they suspect fraud, waste or misuse of project resources or property?	Yes	

Topic	Response	Remarks
5. Internal Audit		
5.1 Is there a internal audit department in the entity?	Audit done by CA – outsourced	
5.2 What are the qualifications and experience of audit department staff?	Outsourced to Chartered Accountant (CA)	
5.3 To whom does the internal auditor report?	CEO	
5.4 Will the internal audit department include the project in its work program?	Yes	
5.5 Are actions taken on the internal audit findings?	Yes	
6. External Audit		
6.1 Is the entity financial statement audited regularly by an independent auditor? Who is the auditor?	Yes. Local Fund Auditor	
6.2 Are there any delays in audit of the entity? When are the audit reports issued?	Yes.	Audit backlog of 5 years.
6.3 Is the audit of the entity conducted according to the International Standards on Auditing?	Yes. Indian Auditing Standards which compares with International Auditing Standards	
6.4 Were there any major accountability issues brought out in the audit report of the past three years?	Audit Report not available	
6.5 Will the entity auditor audit the project accounts or will another auditor be appointed to audit the project financial statements?	Yes.	
6.6 Are there any recommendations made by the auditors in prior audit reports or management letters that have not yet been implemented?	Audit Report not available	
6.7 Is the project subject to any kind of audit from an independent governmental entity (e.g., the supreme audit institution) in addition to the external audit?	Auditor General(AG)'s office	
6.8 Has the project prepared acceptable terms of reference for an annual project audit?	Will be done	
7. Reporting and Monitoring		
7.1 Are financial statements prepared for the entity? In accordance with which accounting standards?	Yes. In accordance with Government accounting standards	
7.2 Are financial statements prepared for the implementing unit?	Yes.	
7.3 What is the frequency of preparation of financial statements? Are the reports prepared in a timely fashion so as to useful to management for decision making?	Yearly Financial Statements (Receipt and Payments Statements)	
7.4 Does the reporting system need to be adapted to report on the project components?	Yes to be modified based on accrual based system	

Topic	Response	Remarks
7.5 Does the reporting system have the capacity to link the financial information with the project's physical progress? If separate systems are used to gather and compile physical data, what controls are in place to reduce the risk that the physical data may not synchronize with the financial data?	No. To be developed	
7.6 Does the project have established financial management reporting responsibilities that specify what reports are to be prepared, what they are to contain, and how they are to be used?	No. Under development – cash based system.	These will be to be established through Project Finance and Accounts Manual
7.7 Are financial management reports used by management?	Yes, those prepared based on manual records	
7.8 Do the financial reports compare actual expenditures with budgeted and programmed allocations?	Yes – budget vs actuals	
7.9 Are financial reports prepared directly by the automated accounting system or are they prepared by spreadsheets or some other means?	No. Manual. Some reports are prepared by spreadsheets	
8. Information Systems		
8.1 Is the financial management system computerized?	No.	Proposal called up from IT firm.
8.2 Can the system produce the necessary project financial reports?	No	-do-
8.3 Is the staff adequately trained to maintain the system?	Not Applicable	-do-
8.4 Does the management organization and processing system safeguard the confidentiality, integrity and availability of the data?	Yes	

ANNEX F 2.2: ALWAR URBAN IMPROVEMENT TRUST (UIT)

I Financial Performance –

212. Summarized position of income and expenditure for a period of three years is given in Table below:

Item	FY 2004	FY 2005	FY 2006	FY 2008	FY 2009
	<i>Rs. million</i>				
Income					
Sale of Land	125.41	117.92	264.58	178.94	96.21
Other Income	49.84	45.58	43.42	91.20	82.93
Income from NCRPB / State	-	-	25.00	-	-
Total Income	175.25	163.50	333.00	270.15	179.13
Expenditure					
Pay & Allowances	15.86	16.08	21.04	27.43	39.55
Office Expenses	4.09	5.77	5.35	20.02	15.34
Land Acquisition	12.01	26.57	1.59	97.96	59.64
Development Works	46.45	93.46	133.47	334.54	234.44
Others	3.27	3.19	2.31	0.00	0.00
Loan Repayment / Interest	84.67	65.56	66.25	0.59	0.00
Repayment of HUDCO Loan	6.73	6.36	5.05	0.00	0.00
Other Liabilities	16.27	20.36	26.07	21.42	78.30
Total Expenditure	189.35	237.34	261.14	448.96	427.27
Surplus / (Deficit)	(14.10)	(73.84)	71.86	(231.81)	(248.14)

213. After showing increasing trend, income of UIT has declined in FY2009 as compared FY2008.

214. UIT, Alwar follows cash based system of accounting and is yet to switch over to double entry accrual based accounting system. Hence, there is no balance sheet prepared for UIT, Alwar.

215. Projects are executed through loan funds from NCRPB and GoR and own sources of revenue. In the past, UIT has taken loans from HUDCO. As per available information there are no outstanding loans from HUDCO. UIT has sourced its loan funds from NCRPB in addition to GoR and HUDCO. UIT has been successful in meeting its debt service obligations from its own resources and has fully repaid the HUDCO loans. Guarantee of GoR provides the security for loans raised.

II Financial Management Assessment

Introduction

216. The main instrument used to facilitate the financial management assessment was the questionnaire furnished by the ADB, which was discussed with the Superintending Engineer and Accounts Officer of **Alwar Urban Improvement Trust (UIT)** in September 2009. Interviews, including follow-up interviews, were conducted / September 2009 to better appreciate some of the responses and to fill up the

unanswered items in the questionnaire. Most of the items in the questionnaires were filled up and consolidated by September / October 2009.

Findings

217. Based on the FMAQ responses documents and follow up interviews, the following observations were made:

Implementing agency

218. Established under the Rajasthan Urban Improvement Act of 1959, the UIT is a state-level agency essentially responsible for carrying out improvement of any urban area in the State irrespective of Master Plan preparation for that area. UITs are prime agencies responsible for the implementation of the Master Plans. The UIT Alwar is primarily responsible for land acquisition and allotment for public housing, commercial development and overall city development. It is also responsible for promoting housing and infrastructure services including roads, safe water supply, waste treatment and disposal, public transport, power supply, educational and recreational facilities. Additionally, the UIT devises programs to meet housing shortages and augment supply of land for housing, particularly for the vulnerable group and implementing the GoR's new Township Policy.

219. UIT has not implemented any ADB or any other multilateral agency project.

Funds flow arrangements

220. Funds received from either ADB or any other donor agency is deposited into Reserve Bank of India – Government of India (GoI) account. From GoI, funds are transferred to National Capital Region Planning Board (NCRPB) bank account.

221. ADB Loans funds will be lent to NCRPB which in turn will re-lend them to UIT through the GoR Urban Development Department. Usually re-lending terms include (i) Interest rate 7-7.5%, (ii) maturity period of 10 years, and (iii) grace period of 1 year. The re-lending terms are much more restrictive than the terms at which NCRPB borrows from ADB. Interest rate is much higher (7.5% vs. 3% for OCR). The NCRPB however, covers foreign exchange risk. The re-lending conditions should be reviewed in consideration of the overall debt service which UIT should bear as a result of the new borrowings.

222. Past UIT Financial Statements show that the UIT's capacity to repay Loans has been satisfactory.

Staffing and Organization

223. Under the existing structure, UIT financial functions are under the responsibility of the Accounts Officer (AO). He is assisted by one Accountant who in turn is assisted by one assistant. Present staff has long experience in the accounts department.

224. Staff is just adequate for present level of operations. Qualified staff will be required for implementing and maintaining double entry accounting system.

Accounting policies and procedure

225. UIT prepares accounts as per the GoR Accounts Code. Separate accounts for projects will have to be maintained. All the project accounts will be incorporated in the final account of UIT.

226. Important papers are kept on a permanent basis and other documents are kept for several years as per government rule.

Segregation of Duties

227. Functional responsibilities appear to be segregated. Separate responsibilities for budget, payment, recording, reporting and audit are assigned to separate groups of officers and staff.

Budgeting System

228. UIT prepares the budget once in a year according to financial year (April-March following an incremental approach in which the new budget figures are based on previous year's values plus a 20-30% increase. As a result, UIT does not adopt a results oriented budget approach in which physical and financial targets are defined. Investment activities are planned by the Technical section in accordance with the UIT Development Plan; however, funding for such activities is provided for from internal resources (sale of plots etc.) or from borrowings. Operation and maintenance activities are not planned ahead but they are executed on a need basis.

229. Actual expenditure is compared with budget once in a year in February. UIT also publishes monthly financial reports comparing actual against budget figures and monthly progress reports on project execution which provide information about stage of project execution. The monthly MIS (Management Information System) Report also includes a comparison of actual financial performance against budget. The budget variances are reportedly discussed in monthly meetings with the Financial Controller. A revised budget is prepared whenever necessary.

Payments

230. Invoice-processing and payroll preparation procedures seem to be in order based on the sample invoices. Invoices are usually stamped "PAID".

Policies Procedures

231. The basis of accounting is cash. UIT has adopted and follows GoR finance and accounts rules. Accounting manuals will be prepared and implemented after approval and adoption by the UIT board.

Cash at Bank

232. Authorized signatories (of cheque payments) are Upto Rs. 1 Million, Secretary UIT. More than Rs. 1 Million, joint signatories – Secretary and Chairman of UIT.

Safeguard over assets

233. Inventory is taken for UIT fixed assets and store materials. There is no policy of taking of insurance cover for assets.

Other office and Implementing entities

234. There are no other office and implementing entity under UIT.

Reporting and Monitoring

235. Financial Statements are prepared in accordance with Government accounting standards and Indian accounting standards (IAS). Three main reports are prepared, annual report (not regularly published), Monthly information system report (MIS) and the statutory Audit Report by external auditors.

Information System

236. At present report preparation is done using ms-office excel spreadsheets and ms-word.

III Conclusion and Recommendations

237. In the absence of accrual based accounting system, the balance sheet of UIT showing its assets and liabilities is not prepared. Due to this reason the financial statements of UIT fail to provide a true and fair view of the UIT fiscal situation.

238. Over the last few years UIT has been, with GoR support, able to finance its operating expenditures out of own revenues. Capital expenditures are partly financed out of own sources, GoI loans and grants and other direct (for e.g. from NCRPB) loans.

239. UIT financial statements are subject to independent audit. According to the GoR rules the audit report should be submitted within six months from the end of the fiscal year, but usually the submission is delayed.

240. Finally, the lack of computerization of the financial management system is another serious impediment to the efficient budget process. Budget data are still recorded in the manual ledger in the accounting and finance department. Financial reports are prepared by spreadsheet which is a lengthy procedure.

IV Suggested Steps for Reform

241. UIT is presently addressing these difficulties through the computerization contracts which have been approved or are about to be approved. While it is important that these system improvements proceed as planned, it is equally critical that the institutional framework is properly set up for a commercially viable entity. Many deficiencies cannot be corrected by computerization, e.g. proper recording of transactions, analysis and reconciliation of accounts, and compliance with rules and policies.

242. In addition to the above initiatives, specific intervention is needed as follows:

- i. Reforming the accounting system in order to introduce and implement the accrual based double entry accounting system including development of Financial Management and Accounting System Manual in UIT;
- ii. Providing regular (refreshing) training to both the existing and new staff in the new accounting practices and the computerized management information system;
- iii. Close monitoring of the plan for computerization of the financial management and budget system;

Topic	Response	Remarks
1. Implementing Agency		
1.1 What is the entity's legal status / registration?	Urban Improvement Trust (UIT) under GoR Statute reporting to Urban Development and Housing Department (UDH) of GoR	
1.2 Has the entity implemented an externally-financed project in the past (if so, please provide details)?	No	

Topic	Response	Remarks
1.3 What are the statutory reporting requirements for the entity?	No Statutory reporting requirements. Only Budget report	
1.4 Is the governing body for the project independent?	Yes. Board of UIT	
1.5 Is the organizational structure appropriate for the needs of the project?	Yes	
2. Funds Flow Arrangements		
2.1 Describe (proposed) project funds flow arrangements, including a chart and explanation of the flow of funds from ADB, government and other financiers.	Gol to NCRPB to UIT, Alwar	
2.2 Are the (proposed) arrangements to transfer the proceeds of the loan (from the government / Finance Ministry) to the entity satisfactory?	Yes	
2.3 What have been the major problems in the past in receipt of funds by the entity?	None	
2.4 In which bank will the Imprest Account be opened?	UIT's bank account with –Oriental Bank of Commerce	
2.5 Does the (proposed) project implementing unit (PIU) have experience in the management of disbursements from ADB?	No.	
2.7 Does the entity have/need a capacity to manage foreign exchange risks?	No prior experience.	
2.8 How are the counterpart funds accessed?	Direct UIT, Alwar Funds.	
2.9 How are payments made from the counterpart funds?	Project Bank Account of UIT	
2.10 If part of the project is implemented by communities or NGOs, does the PIU have the necessary reporting and monitoring features built into its systems to track the use of project proceeds by such agencies?	Not Applicable	
2.11 Are the beneficiaries required to contribute to project costs? If beneficiaries have an option to contribute in kind (in the form of labor), are proper guidelines formulated to record and value the labor contribution?	Not Applicable	
3. Staffing		
3.1 What is the (proposed) organizational structure of the accounting department? Attach an organization chart.	Present organization structure is available in Annexure ____.	
3.2 Identify the (proposed) accounts staff, including job title, responsibilities, educational background and professional experience. Attach job descriptions and CVs of key accounting staff.	Competent accounts and finance staff	
3.3 Is the project finance and accounting function staffed adequately?	Yes	

Topic	Response	Remarks
3.4 Is the finance and accounts staff adequately qualified and experienced?	Experienced.	
3.5 Is the project accounts and finance staff trained in ADB procedures?	No.	Training in ADB procedures will be required.
3.6 What is the duration of the contract with the finance and accounts staff?	All permanent staff	
3.7 Indicate key positions not contracted yet, and the estimated date of appointment.	None	
3.10 Does the project have written position descriptions that clearly define duties, responsibilities, lines of supervision, and limits of authority for all of the officers, managers, and staff?	No. Rules of GoR is followed by UIT	
3.11 At what frequency are personnel transferred?	Transferable with GoR's other UITs	
3.12 What is training policy for the finance and accounting staff?	No Training policy. However training is imparted in Accounts Training Centre	
4. Accounting Policies and Procedures		
4.1 Does the entity have an accounting system that allows for the proper recording of project financial transactions, including the allocation of expenditures in accordance with the respective components, disbursement categories, and sources of funds? Will the project use the entity accounting system?	Yes. Cash based accounting system as per GoR accounting and finance rules	
4.2 Are controls in place concerning the preparation and approval of transactions, ensuring that all transactions are correctly made and adequately explained?	Yes	
4.3 Is the chart of accounts adequate to properly account for and report on project activities and disbursement categories?	No. To be specified in the Project Manual to be prepared. Presently in line with GoR budget heads for receipt & expenditure (both revenue and capital)	
4.4 Are cost allocations to the various funding sources made accurately and in accordance with established agreements?	Yes.	
4.5 Are the General Ledger and subsidiary ledgers reconciled and in balance?	Yes. Primary records for receipt and payment maintained.	
4.6 Are all accounting and supporting documents retained on a permanent basis in a defined system that allows authorized users easy access?	Yes as per GoR rules	
<i>Segregation of Duties</i>		

Topic	Response	Remarks
4.7 Are the following functional responsibilities performed by different units or persons: (i) authorization to execute a transaction; (ii) recording of the transaction; and (iii) custody of assets involved in the transaction?	Yes.	
4.8 Are the functions of ordering, receiving, accounting for, and paying for goods and services appropriately segregated?	Yes	
4.9 Are bank reconciliations prepared by someone other than those who make or approve payments?	Yes. Done upto 31 March 2009	
Budgeting System		
4.10 Do budgets include physical and financial targets?	Yes	
4.11 Are budgets prepared for all significant activities in sufficient detail to provide a meaningful tool with which to monitor subsequent performance?	Yes	
4.12 Are actual expenditures compared to the budget with reasonable frequency, and explanations required for significant variations from the budget?	Yes, yearly.	
4.13 Are approvals for variations from the budget required in advance or after the fact?	Yes, due approval process in place	
4.14 Who is responsible for preparation and approval of budgets?	Compiled by Accounts dept based on inputs from other sections. Approved by Secretary / Chairman of UIT and sent to UDH of GoR for State approval	
4.15 Are procedures in place to plan project activities, collect information from the units in charge of the different components, and prepare the budgets?	Yes	
4.16 Are the project plans and budgets of project activities realistic, based on valid assumptions, and developed by knowledgeable individuals?	Yes. In house – past experience.	
Payments		
4.17 Do invoice-processing procedures provide for: (i) Copies of purchase orders and receiving reports to be obtained directly from issuing departments? (ii) Comparison of invoice quantities, prices and terms, with those indicated on the purchase order and with records of goods actually received? (iii) Comparison of invoice quantities with those indicated on the receiving reports? (iv) Checking the accuracy of calculations?	Yes, verification of supplier / contractor bills with order / agreement / receiving reports for quantity and rate including calculations accuracy before payments are done.	
4.18 Are all invoices stamped PAID, dated, reviewed and approved, and clearly marked for account code assignment?	Yes	

Topic	Response	Remarks
4.19 Do controls exist for the preparation of the payroll and are changes to the payroll properly authorized?	Yes.	
Policies And Procedures		
4.20 What is the basis of accounting (e.g., cash, accrual)?	Cash based system of accounting is followed.	
4.21 What accounting standards are followed?	Government accounting standards	
4.22 Does the project have an adequate policies and procedures manual to guide activities and ensure staff accountability?	Yes – GoR finance and accounting rules	
4.23 Is the accounting policy and procedure manual updated for the project activities?	To be done	Project Finance and Accounts Manual will have to provide for this
4.24 Do procedures exist to ensure that only authorized persons can alter or establish a new accounting principle, policy or procedure to be used by the entity?	Not Applicable	
4.25 Are there written policies and procedures covering all routine financial management and related administrative activities?	Not Applicable	
4.26 Do policies and procedures clearly define conflict of interest and related party transactions (real and apparent) and provide safeguards to protect the organization from them?	Not Applicable	
4.27 Are manuals distributed to appropriate personnel?	Not Applicable	
Cash and Bank		
4.28 Indicate names and positions of authorized signatories in the bank accounts.	Upto Rs. 1 Million, Secretary UIT. More than Rs. 1 Million, joint signatories – Secretary and Chairman of UIT	
4.29 Does the organization maintain an adequate, up-to-date cashbook, recording receipts and payments?	Yes. All manual records	
4.30 Do controls exist for the collection, timely deposit and recording of receipts at each collection location?	Yes	
4.31 Are bank and cash reconciled on a monthly basis?	Yes. Bank reconciliation done upto 31 March '09	
4.32 Are all unusual items on the bank reconciliation reviewed and approved by a responsible official?	Yes	
4.33 Are all receipts deposited on a timely basis?	Yes	
Safeguard over Assets		
4.34 Is there a system of adequate safeguards to protect assets from fraud, waste and abuse?	Yes	

Topic	Response	Remarks
4.35 Are subsidiary records of fixed assets and stocks kept up to date and reconciled with control accounts?	Not maintained	
4.36 Are there periodic physical inventories of fixed assets and stocks?	Not done	
4.37 Are assets sufficiently covered by insurance policies?	No	
Other Offices and Implementing Entities	No other office(s).	
4.38 Are there any other regional offices or executing entities participating in implementation?	Not Applicable	
4.39 Has the project established controls and procedures for flow of funds, financial information, accountability, and audits in relation to the other offices or entities?	Not Applicable	
4.40 Does information among the different offices/implementing agencies flow in an accurate and timely fashion?	Not Applicable	
4.41 Are periodic reconciliations performed among the different offices/implementing agencies?	Not Applicable	
Other		
4.42 Has the project advised employees, beneficiaries and other recipients to whom to report if they suspect fraud, waste or misuse of project resources or property?	Yes	
5. Internal Audit		
5.1 Is there a internal audit department in the entity?	Post Audit done by Local Fund Audit	
5.2 What are the qualifications and experience of audit department staff?	Experienced Govt auditors	
5.3 To whom does the internal auditor report?	Director (Audit) in GoR Finance Department	
5.4 Will the internal audit department include the project in its work program?	Yes	
5.5 Are actions taken on the internal audit findings?	Yes	
6. External Audit		
6.1 Is the entity financial statement audited regularly by an independent auditor? Who is the auditor?	Yes. Local Fund Auditor	
6.2 Are there any delays in audit of the entity? When are the audit reports issued?	Yes. Audit done upto 2007-08	Audit backlog of 1 year.
6.3 Is the audit of the entity conducted according to the International Standards on Auditing?	Yes. Indian Auditing Standards which compares with International Auditing Standards	
6.4 Were there any major accountability issues brought out in the audit report of the past three years?	No major issues	

Topic	Response	Remarks
6.5 Will the entity auditor audit the project accounts or will another auditor be appointed to audit the project financial statements?	Yes.	
6.6 Are there any recommendations made by the auditors in prior audit reports or management letters that have not yet been implemented?	No Major issues	
6.7 Is the project subject to any kind of audit from an independent governmental entity (e.g., the supreme audit institution) in addition to the external audit?	No	
6.8 Has the project prepared acceptable terms of reference for an annual project audit?	Will be done if required	
7. Reporting and Monitoring		
7.1 Are financial statements prepared for the entity? In accordance with which accounting standards?	Yes. In accordance with Government accounting standards	
7.2 Are financial statements prepared for the implementing unit?	Yes will be done	
7.3 What is the frequency of preparation of financial statements? Are the reports prepared in a timely fashion so as to useful to management for decision making?	Yearly Financial Statements (Receipt and Payments Statements)	
7.4 Does the reporting system need to be adapted to report on the project components?	Yes to be modified based on accrual based system	
7.5 Does the reporting system have the capacity to link the financial information with the project's physical progress? If separate systems are used to gather and compile physical data, what controls are in place to reduce the risk that the physical data may not synchronize with the financial data?	No. To be developed	
7.6 Does the project have established financial management reporting responsibilities that specify what reports are to be prepared, what they are to contain, and how they are to be used?	No.	These will be to be established through Project Finance and Accounts Manual
7.7 Are financial management reports used by management?	Yes, those prepared based on manual records	
7.8 Do the financial reports compare actual expenditures with budgeted and programmed allocations?	Yes – budget vs actuals	
7.9 Are financial reports prepared directly by the automated accounting system or are they prepared by spreadsheets or some other means?	No. Manual. Some reports are prepared by spreadsheets	
8. Information Systems		
8.1 Is the financial management system computerized?	No.	
8.2 Can the system produce the necessary project financial reports?	No	

Topic	Response	Remarks
8.3 Is the staff adequately trained to maintain the system?	Not Applicable	
8.4 Does the management organization and processing system safeguard the confidentiality, integrity and availability of the data?	Yes	

ANNEX F 2.3: DELHI INTEGRATED MULTI MODAL TRANSPORT SYSTEM (DIMTS)

I Financial Performance

243. Summarized position of income and expenditure for a period of three years is given in Table below:
Rs. Million

Particulars	FY 2006-07	FY 2007-08	FY 2008-09	Growth Rate %
Income (consultancy and other services)	12.3	127.2	324.2	456
Expenditure				
Staff Cost	0	7.4	74.6	
Payment to Consultants and cost of operations	10.6	48.6	120.1	236
Administration & Others	8.8	19.3	23.1	60
Depreciation	2.4	4.0	5.2	46
Miscellaneous Expenditure Written Off	22.5	0	0	
Total Expenditure	44.5	79.4	223.0	124
Profit / (Loss) after tax	(26.0)	35.9	52.1	

244. Summarized position of sources and uses of funds as at 31st March 2009 is given in Table below.
Rs. Million

Particulars	As at 31st March 2009
Sources of Funds:	
Share Capital	146.1
Reserves and Surplus	62.0
Loans	0.0
Total Sources of Funds	208.1
Application of Funds:	
Fixed Asset (net of depreciation)	36.0
Capital Work in Progress	2.2
Deferred Tax Assets (Net)	2.5
Current Assets and Loans and Advances	910.0
Less: Current Liabilities and Provisions	742.6
Net Current Assets	167.4
Miscellaneous Expenditure	0.0
Total Application of Funds	208.1

245. DIMTS, a recently formed SPV by GoNCTD and IDFC, financial performance has shown continuous improvement.

246. DIMTS executes projects on behalf of GONCTD and funds for projects come from the Transport Department. MMTC projects are proposed to be funded through loans from NCRPB. DIMTS is a registered company and at present is playing a special purpose vehicle for GoNCTD for implementation of various projects. DIMTS can, if required in future, access open market for loan funds requirement on its own financial strength Guarantee of GoNCTD and DIMTS own financial strength provides the security for loans raised.

II Financial Management Assessment

Introduction

The main instrument used to facilitate the financial management assessment was the questionnaire furnished by the ADB, which was discussed with the Vice President of **Delhi Integrated Multi Modal Transit Systems Limited (DIMTS)** in August / September 2009. Interviews, including follow-up interviews, were conducted / September 2009 to better appreciate some of the responses and to fill up the unanswered items in the questionnaire. Most of the items in the questionnaires were filled up and consolidated by September / October 2009.

Findings

247. Based on the FMAQ responses documents and follow up interviews, the following observations were made:

Implementing agency

248. DIMTS is a special purpose vehicle created recently (about 3 to 4 years) by Government of National Capital Region Delhi (GoNCTD) for implementing / executing various transport related projects in the National Capital Region. Recently 50% of equity capital of DIMTS was acquired by Infrastructure Development Finance Corporation (IDFC).

249. DIMTS has not implemented any ADB or any other multilateral agency project.

Funds flow arrangements

250. Funds received from either ADB or any other donor agency is deposited into Reserve Bank of India – Government of India (GoI) account. From GoI, funds are transferred to National Capital Region Planning Board (NCRPB) bank account.

251. ADB Loans funds will be lent to NCRPB which in turn will re-lend them to GoNCTD – Transport Department which in turn will transfer the money to DIMTS. Usually re-lending terms include (i) Interest rate 7-7.5%, (ii) maturity period of 10 years, and (iii) grace period of 1 year. The re-lending terms are much more restrictive than the terms at which NCRPB borrows from ADB. Interest rate is much higher (7.5% vs. 3% for OCR). The NCRPB however, covers foreign exchange risk. The re-lending conditions should be reviewed in consideration of the overall debt service which GoNCTD should bear as a result of the new borrowings.

252. Borrower will be GoNCTD – Transport Department. As mentioned earlier DIMTS will only be an implementing agency.

Staffing and Organization

253. Under the existing structure, DIMTS financial functions are under the responsibility of the Financial Controller. Under him is the finance and accounting section headed by the Accounts Officers, supported by other staff.

254. Staff is adequate for present level of operations.

Accounting policies and procedure

255. DIMTS prepares accounts as per the accepted Indian accounting standards which are generally compatible with international accounting standards. Separate accounts for projects will have to be maintained. All the project accounts will be incorporated in the final account of DIMTS. The chart of accounts is adequate to account for all activities of DIMTS.

256. There are no major issues with the accounting policies and procedures followed by DIMTS.

257. Important papers are kept on a permanent basis and other documents are kept for several years as per government rule.

Segregation of Duties

258. Functional responsibilities appear to be segregated. Separate responsibilities for budget, payment, recording, reporting and audit are assigned to separate groups of officers and staff.

Budgeting System

259. DIMTS prepares the budget once in a year according to financial year (April-March following an assessment of funds requirement for various activities – in terms of physical and financial targets for the financial year. As a result, DIMTS does adopt a results oriented budget approach in which physical and financial targets are defined. Investment activities are planned by the Technical section in accordance with the DIMTS Development Plan; however, funding for such activities is provided for by the GoNCTD – Transport Department as part of the Annual Development Fund allocation and the use of fund is recorded into the Project Budget, separate from the operational budget of DIMTS maintained by the accounting and finance division.

260. Actual expenditure is compared with budget on regular basis. DIMTS also publishes monthly financial reports comparing actual against budget figures and monthly progress reports on project execution which provide information about stage of project execution. The monthly MIS (Management Information System) Report also includes a comparison of actual financial performance against budget. The budget variances are reportedly discussed in monthly meetings with the Senior Vice President (Finance and Accounts). A revised budget is prepared whenever necessary.

Payments

261. Invoice-processing and payroll preparation procedures seem to be in order based on the sample invoices. Invoices are usually stamped "PAID".

Policies Procedures

262. The basis of accounting is accrual, recognizing significant items of income and expenditure on accrual basis. Accounting system is based on Indian Accounting Standard (IAS) as adapted by the Institute of Chartered Accountants of India (ICAI). Accounting manuals will be prepared and implemented after approval and adoption by the DIMTS board.

Cash at Bank

263. Authorized signatories (of cheque payments) are Divisional Manager (Finance) jointly with Managing Director for all payments.

Safeguard over assets

264. There are adequate safeguard over assets of DIMTS. All assets, including project assets, are adequately insured.

Other office and Implementing entities

265. DIMTS has no other implementing entities.

Internal audit

266. This is outsourced to an external professional agency. Regular internal audit is conducted and internal audit findings are addressed with suitable remedial action, wherever required.

External Audit

267. This is being done by an independent professional firm of chartered accountants. There are no significant or major audit findings in the audit report for the financial year 2008-09.

Reporting and Monitoring

268. Financial Statements are prepared in accordance with Indian accounting standards (IAS). Three main reports are prepared, annual report (not regularly published), Monthly information system report (MIS) and the statutory Audit Report by external auditors.

Information System

269. DIMTS's information system is computerized. ERP system implementation is also under process in DIMTS.

III Conclusion and Recommendations

270. The budget process and financial management represent important tools to keep track of the financial performance of the organization, to gauge the effectiveness of its management and to identify areas of interventions and reform. In the case of DIMTS, however, management reports shows that the financial statements produced by the Accounting and Finance Section of DIMTS are used as a tool for efficient allocation of scarce resources. There are no major auditing issues in the audit report of DIMTS.

271. In the financial year 2007-08 DIMTS has been able to finance its operating expenditures out of own revenues. Capital expenditures are financed out of GoNCTD funds, on whose behalf DIMTS is implementing projects.

IV Suggested Steps for Reform

272. DIMTS has the systems and procedures in place being a newly formed organization under Companies Act. There are no significant suggestions for reform in DIMTS, excepting for the preparation and adoption of a written manual containing the Policies and Procedures including for financial management and accounting functions. We understand that this will be done during the implementation of the ERP system which is under progress.

273. DIMTS being a nodal agency for transport initiatives has presented a request for a larger scale TA support from NCRPB and the project

274. Financial Management Assessment Questionnaire

Topic	Response	Remarks
1. Implementing Agency		
1.1 What is the entity's legal status / registration?	Registered as Company under Companies Act, 1956.	
1.2 Has the entity implemented an externally-financed project in the past (if so, please provide details)?	No	
1.3 What are the statutory reporting requirements for the entity?	As applicable to companies under the Companies Act and other extant rules.	
1.4 Is the governing body for the project independent?	Yes	
1.5 Is the organizational structure appropriate for the needs of the project?	Yes	
2. Funds Flow Arrangements		
2.1 Describe (proposed) project funds flow arrangements, including a chart and explanation of the flow of funds from ADB, government and other financiers.	Gol (DEA - Expenditure) to GoNCTD (Finance) to Transport Department / DIMTS Fin Institutions to DIMTS	
2.2 Are the (proposed) arrangements to transfer the proceeds of the loan (from the government / Finance Ministry) to the entity satisfactory?	Yes	
2.3 What have been the major problems in the past in receipt of funds by the entity?	None	
2.4 In which bank will the Imprest Account be opened?	State Bank of India	
2.5 Does the (proposed) project implementing unit (PIU) have experience in the management of disbursements from ADB?	No.	
2.7 Does the entity have/need a capacity to manage foreign exchange risks?	No prior experience.	
2.8 How are the counterpart funds accessed?	Through GoNCTD State Plan Funds.	
2.9 How are payments made from the counterpart funds?	Counterpart funds will be transferred to Project Bank Account and payments proposed to be made from Project Bank Account.	
2.10 If part of the project is implemented by communities or NGOs, does the PIU have the necessary reporting and monitoring features built into its systems to track the use of project proceeds by such agencies?	Not Applicable	
2.11 Are the beneficiaries required to contribute to project costs? If beneficiaries have an option to contribute in kind (in the form of labor), are proper guidelines formulated to record and value the labor contribution?	Not Applicable	

Topic	Response	Remarks
3. Staffing		
3.1 What is the (proposed) organizational structure of the accounting department? Attach an organization chart.	Present organization structure is available in Annexure _____. Required expertise is outsourced by DIMTS.	
3.2 Identify the (proposed) accounts staff, including job title, responsibilities, educational background and professional experience. Attach job descriptions and CVs of key accounting staff.	DIMTS has got a competent accounts and finance department	
3.3 Is the project finance and accounting function staffed adequately?	Adequate	
3.4 Is the finance and accounts staff adequately qualified and experienced?	Yes	
3.5 Is the project accounts and finance staff trained in ADB procedures?	No.	Training in ADB procedures will be required.
3.6 What is the duration of the contract with the finance and accounts staff?	All permanent staff	
3.7 Indicate key positions not contracted yet, and the estimated date of appointment.	None	
3.10 Does the project have written position descriptions that clearly define duties, responsibilities, lines of supervision, and limits of authority for all of the officers, managers, and staff?	No. However, approved Delegation of Powers is in place and in use.	
3.11 At what frequency are personnel transferred?	Not Applicable	
3.12 What is training policy for the finance and accounting staff?	Not Applicable	
4. Accounting Policies and Procedures		
4.1 Does the entity have an accounting system that allows for the proper recording of project financial transactions, including the allocation of expenditures in accordance with the respective components, disbursement categories, and sources of funds? Will the project use the entity accounting system?	Yes	
4.2 Are controls in place concerning the preparation and approval of transactions, ensuring that all transactions are correctly made and adequately explained?	Yes	
4.3 Is the chart of accounts adequate to properly account for and report on project activities and disbursement categories?	Yes with suitable amendments as and when necessitated	
4.4 Are cost allocations to the various funding sources made accurately and in accordance with established agreements?	Yes. Done on regular basis.	
4.5 Are the General Ledger and subsidiary ledgers reconciled and in balance?	Yes. Done on regular basis.	

Topic	Response	Remarks
4.6 Are all accounting and supporting documents retained on a permanent basis in a defined system that allows authorized users easy access?	Yes.	
<i>Segregation of Duties</i>		
4.7 Are the following functional responsibilities performed by different units or persons: (i) authorization to execute a transaction; (ii) recording of the transaction; and (iii) custody of assets involved in the transaction?	Yes.	
4.8 Are the functions of ordering, receiving, accounting for, and paying for goods and services appropriately segregated?	Yes	
4.9 Are bank reconciliations prepared by someone other than those who make or approve payments?	Yes. Done on monthly basis.	
<i>Budgeting System</i>		
4.10 Do budgets include physical and financial targets?	Yes	
4.11 Are budgets prepared for all significant activities in sufficient detail to provide a meaningful tool with which to monitor subsequent performance?	Yes. Weekly meeting.	
4.12 Are actual expenditures compared to the budget with reasonable frequency, and explanations required for significant variations from the budget?	Yes	
4.13 Are approvals for variations from the budget required in advance or after the fact?	Yes in advance	
4.14 Who is responsible for preparation and approval of budgets?	Senior Vice President (F&A) , Managing Director and DIMTS Board of Directors	
4.15 Are procedures in place to plan project activities, collect information from the units in charge of the different components, and prepare the budgets?	Yes	
4.16 Are the project plans and budgets of project activities realistic, based on valid assumptions, and developed by knowledgeable individuals?	Yes	
<i>Payments</i>		
4.17 Do invoice-processing procedures provide for: (i) Copies of purchase orders and receiving reports to be obtained directly from issuing departments? (ii) Comparison of invoice quantities, prices and terms, with those indicated on the purchase order and with records of goods actually received? (iii) Comparison of invoice quantities with those indicated on the receiving reports? (iv) Checking the accuracy of calculations?	Yes, verification of supplier / contractor bills with order / agreement / receiving reports for quantity and rate including calculations accuracy before payments are done.	

Topic	Response	Remarks
4.18 Are all invoices stamped PAID, dated, reviewed and approved, and clearly marked for account code assignment?	Yes	
4.19 Do controls exist for the preparation of the payroll and are changes to the payroll properly authorized?	Yes.	
Policies And Procedures		
4.20 What is the basis of accounting (e.g., cash, accrual)?	Accrual system of accounting is followed.	Recognizes significant items of income and expenditure on accrual basis.
4.21 What accounting standards are followed?	Indian accounting standards as prescribed by ICAI	
4.22 Does the project have an adequate policies and procedures manual to guide activities and ensure staff accountability?	No manual in use	Will have to be prepared. ERP system is under implementation
4.23 Is the accounting policy and procedure manual updated for the project activities?	Not Applicable	
4.24 Do procedures exist to ensure that only authorized persons can alter or establish a new accounting principle, policy or procedure to be used by the entity?	Not Applicable	
4.25 Are there written policies and procedures covering all routine financial management and related administrative activities?	Not Applicable	
4.26 Do policies and procedures clearly define conflict of interest and related party transactions (real and apparent) and provide safeguards to protect the organization from them?	Yes	
4.27 Are manuals distributed to appropriate personnel?	Not Applicable	
Cash and Bank		
4.28 Indicate names and positions of authorized signatories in the bank accounts.	Senior Vice President (F&A), Vice President (F&A), Vice President (Human Resources)	
4.29 Does the organization maintain an adequate, up-to-date cashbook, recording receipts and payments?	Yes	
4.30 Do controls exist for the collection, timely deposit and recording of receipts at each collection location?	Yes	
4.31 Are bank and cash reconciled on a monthly basis?	Yes	
4.32 Are all unusual items on the bank reconciliation reviewed and approved by a responsible official?	Yes	
4.33 Are all receipts deposited on a timely basis?	Yes	

Topic	Response	Remarks
Safeguard over Assets		
4.34 Is there a system of adequate safeguards to protect assets from fraud, waste and abuse?	Yes	
4.35 Are subsidiary records of fixed assets and stocks kept up to date and reconciled with control accounts?	Yes	
4.36 Are there periodic physical inventories of fixed assets and stocks?	Yes	
4.37 Are assets sufficiently covered by insurance policies?	Yes	
Other Offices and Implementing Entities		
4.38 Are there any other regional offices or executing entities participating in implementation?	No	
4.39 Has the project established controls and procedures for flow of funds, financial information, accountability, and audits in relation to the other offices or entities?	Not Applicable	
4.40 Does information among the different offices/implementing agencies flow in an accurate and timely fashion?	Not Applicable	
4.41 Are periodic reconciliations performed among the different offices/implementing agencies?	Not Applicable	
Other		
4.42 Has the project advised employees, beneficiaries and other recipients to whom to report if they suspect fraud, waste or misuse of project resources or property?	Yes	
5. Internal Audit		
5.1 Is there a internal audit department in the entity?	No. This is outsourced to professional agency	
5.2 What are the qualifications and experience of audit department staff?	Not Applicable	
5.3 To whom does the internal auditor report?	Audit Committee of Board of Directors of DIMTS	
5.4 Will the internal audit department include the project in its work program?	Yes	
5.5 Are actions taken on the internal audit findings?	Yes	
6. External Audit		
6.1 Is the entity financial statement audited regularly by an independent auditor? Who is the auditor?	Yes. Independent firm of Chartered Accountants – M/s Mallya Shenoy & Associates., Chartered Accountants	
6.2 Are there any delays in audit of the entity? When are the audit reports issued?	No. Yearly normally before end of six months from close of financial year	

Topic	Response	Remarks
6.3 Is the audit of the entity conducted according to the International Standards on Auditing?	Yes. Indian Auditing Standards which compares with International Auditing Standards	
6.4 Were there any major accountability issues brought out in the audit report of the past three years?	None	
6.5 Will the entity auditor audit the project accounts or will another auditor be appointed to audit the project financial statements?	Yes.	
6.6 Are there any recommendations made by the auditors in prior audit reports or management letters that have not yet been implemented?	No major issues	
6.7 Is the project subject to any kind of audit from an independent governmental entity (e.g., the supreme audit institution) in addition to the external audit?	No	
6.8 Has the project prepared acceptable terms of reference for an annual project audit?	Will be done	
7. Reporting and Monitoring		
7.1 Are financial statements prepared for the entity? In accordance with which accounting standards?	Yes in accordance with Companies Act and ICAI accounting standards	
7.2 Are financial statements prepared for the implementing unit?	Yes.	
7.3 What is the frequency of preparation of financial statements? Are the reports prepared in a timely fashion so as to useful to management for decision making?	Monthly Trial Balance, Quarterly, Half yearly and yearly Financial Statements.	Monthly profitability, Quarterly results
7.4 Does the reporting system need to be adapted to report on the project components?	System already in place	
7.5 Does the reporting system have the capacity to link the financial information with the project's physical progress? If separate systems are used to gather and compile physical data, what controls are in place to reduce the risk that the physical data may not synchronize with the financial data?	Yes	
7.6 Does the project have established financial management reporting responsibilities that specify what reports are to be prepared, what they are to contain, and how they are to be used?	Yes	Project Finance Accounts Manual will have to be prepared. ERP system under implementation
7.7 Are financial management reports used by management?	Yes	

Topic	Response	Remarks
7.8 Do the financial reports compare actual expenditures with budgeted and programmed allocations?	Yes	
7.9 Are financial reports prepared directly by the automated accounting system or are they prepared by spreadsheets or some other means?	ERP system under implementation	
8. Information Systems		
8.1 Is the financial management system computerized?	No (except for reports which can be generated from Tally at end of the year). ERP system under implementation.	
8.2 Can the system produce the necessary project financial reports?	Yes	
8.3 Is the staff adequately trained to maintain the system?	Yes	
8.4 Does the management organization and processing system safeguard the confidentiality, integrity and availability of the data?	Yes	

ANNEX F 2.4 HARYANA STATE ROADS DEVELOPMENT CORPORATION HSRDC)

I Financial Performance

275. Summarized position of income and expenditure for a period of three years is given in Table below:

Rs. Million

Particulars	FY 03-04	FY 04-05	FY 05-06	FY 06-07	FY 07-08	Growth Rate %
Income:						
Toll Receipts	247.2	298.6	312.6	371.1	409.4	13
Interest on Deposits	5.6	14.1	7.1	87.1	122.6	116
Service Charges	-	-	-	-	25.6	
Other Income	0.3	0.0	1.9	6.7	2.0	
Total Income	253.1	312.7	321.6	464.9	559.6	22
Expenditure						
Admin Expenses	0.5	16.9	0.9	2.3	18.3	141
Financial Expenses	158.5	159.8	327.0	284.7	238.5	11
Personnel Expenses	-	-	-	0.2	3.6	
Depreciation	143.7	196.3	279.7	427.9	418.3	31
Miscellaneous Expenditure W/Off	0.2	0.2	0.2	0.2	0.2	
Total Expenditure	303.0	373.3	607.8	715.2	678.9	22
Profit / (Loss) after Previous Year Expenses & Tax	(74.4)	(61.3)	(274.9)	(250.4)	(161.5)	

276. Summarized position of sources and uses of funds as at 31st March 2008 is given in Table below:

Rs. Million

Particulars	As at 31 st March 2008
Sources of Funds:	
Share Capital	500.0
Share Application Money	720.4
Reserves and Surplus (Grants from GoI and GoH)	680.2
Loans (from HUDCO)	2033.8
Total Sources of Funds	3934.4
Application of Funds:	
Fixed Asset (net of depreciation)	4366.7
Capital Work in Progress	511.9
Current Assets and Loans and Advances	3226.6
Less: Current Liabilities and Provisions	5062.3
Net Current Assets	(1835.7)
Miscellaneous Expenditure	891.5
Total Application of Funds	3934.4

277. There is no cash loss incurred by HSRDC. Has been successful in meeting its debt obligation from own resources. Main sources of income are toll receipts, interest on deposits and fees / service charges.

278. HSRDC executes projects on behalf of the Public Works Department of Government of Haryana (GoH). Funds for various projects are received from the GoH and are transferred to the concerned Divisions executing the sanctioned projects as per requirements. On its own HSRDC has executed State Highways projects few years ago, which were funded by way of loans from HUDCO. HSRDC is servicing these loans from toll receipts collections and own sources of income. Presently it is managing funds on behalf of PWD of GoH for implementation of various projects. GoH guarantee and fixed assets of the company is used in providing comfort to the lenders at present. HSRDC has outsourced the function / activity of managing and collection of Toll Receipts to private contractors / operators.

Part II Financial Management Assessment

Introduction

279. The main instrument used to facilitate the financial management assessment was the questionnaire furnished by the ADB, which was discussed with the Accounts Officer of **Haryana State Roads and Bridges Corporation (HSRDC)** in September 2009. Interviews, including follow-up interviews, were conducted / September 2009 to better appreciate some of the responses and to fill up the unanswered items in the questionnaire. Most of the items in the questionnaires were filled up and consolidated by September / October 2009.

Findings

280. Based on the FMAQ responses documents and follow up interviews, the following observations were made:

Implementing agency

281. HSRDC is a Company registered under Companies Act, 1956. HSRDC is fully owned by Government of Haryana (GoH) and has been entrusted with the responsibility of executing / implementing transport related (including State Highways) projects in the State of Haryana. HSRDC does work of providing funds, as received from the GoH, to the concerned Public Works Department (PWD) division implementing / executing the project. Once funds received from GoH are transferred to the concerned PWD division office the role of HSRDC for that specific project ends. Actual payments and expenditure are incurred and accounted at the PWD division office level and consolidated at State PWD.

282. HSRDC has also implemented State Highways project on its own few years' ago for which loans were taken from Housing and Urban Development Corporation (HUDCO). Toll contracts have been awarded to contractors for collection of tolls on these roads. Revenue of the HSRDC comprises mainly of toll receipts, fee charges from GoH on funds management, interest income on funds placed as term deposits with bank etc.

283. HSRDC has not implemented any ADB or any other multilateral agency project.

Funds flow arrangements

284. Funds received from either ADB or any other donor agency is deposited into Reserve Bank of India – Government of India (GoI) account. From GoI, funds are transferred to National Capital Region Planning Board (NCRPB) bank account.

285. ADB Loans funds will be lent to NCRPB which in turn will re-lend them to GoH. PWD of GoH will then transfer the funds to HSRDC. PWD will be the borrower and will be responsible for repayment of loans to NCRPB. Usually re-lending terms include (i) Interest rate 7-7.5%, (ii) maturity period of 10 years, and (iii)

grace period of 1 years. The re-lending terms are much more restrictive than the terms at which NCRPB borrows from ADB. Interest rate is much higher (7.5% vs. 3% for OCR). The NCRPB however, covers foreign exchange risk. The re-lending conditions should be reviewed in consideration of the overall debt service which HSRDC should bear as a result of the new borrowings.

286. Past HSRDC Financial Statements show that the HSRDC's capacity to repay Loans has been satisfactory. However for project loans from NCRPB for implementing projects in NCR the PWD of GoH will be the main borrower and GoH will be responsible for repayment of loan obligations.

Staffing and Organization

287. Under the existing structure, HSRDC financial functions are under the responsibility of the Accounts Officer. He is assisted by other staffs who have been appointed on temporary contract basis. In addition HSRDC has outsourced the accounting function to a professional chartered accountant who will be responsible for maintaining books of account in computerized accounting software named "Tally". Recently HSRDC has obtained necessary sanction for the appointment of permanent staff in various positions. At present only the Accounts Officer (AO) is permanent staff of HSRDC.

Accounting policies and procedure

288. HSRDC prepares accounts as per provisions of the Companies Act, 1956. Separate accounts for projects will have to be maintained. Accounting function, as mentioned earlier, has been outsourced to a professional chartered accountant. Computerized accounting software "Tally" has been adopted for this. Required staff is being deputed by the Chartered Accountant for this purpose and reports to Accounts Officer of HSRDC.

289. Some of the more critical deficiencies include lack of accountability and internal control mechanisms as evidenced by the backlog of bank reconciliation (more than five months), auditor's observation concerning failure of the internal control system regarding accounting of forfeiture of security deposit of toll contractor etc.

290. Important papers are kept on a permanent basis and other documents are kept for several years as per government rule.

Segregation of Duties

291. Functional responsibilities appear to be segregated. Separate responsibilities for budget, payment, recording, reporting and audit are assigned to separate groups of officers and staff.

Budgeting System

292. HSRDC has not adopted budgeting system for its operations.

Payments

293. Invoice-processing and payroll preparation procedures seem to be in order based on the sample invoices. Invoices are usually stamped "PAID".

Policies Procedures

294. The financial statements are prepared under the historical cost convention in accordance with the generally accepted accounting principles in India and the provisions of the Companies Act, 1956. Revenue / income and cost / expenditure are generally accounted for on accrual basis as they are earned

or incurred except in case of significant uncertainties. Accounting manuals will have to be prepared and implemented after approval and adoption by the HSRDC board.

Cash at Bank

295. Authorized signatories (of cheque payments) are Deputy General Manager (DGM) jointly with Managing Director for all payments and transfer of funds without any limit. Joint signatories of both DGMs for payments upto Rs. 1 lakh.

296. A major concern expressed is the backlog of bank reconciliation.

Safeguard over assets

297. Inventory is taken for HSRDC fixed assets, excepting for infrastructure assets like roads, and store materials. HSRDC has a policy for taking insurance cover for its fixed assets, excepting for infrastructure assets like roads, and store materials.

Other office and Implementing entities

298. HSRDC has other PWD division offices who actually implement the projects and accounts for all expenditure in their books of account. HSRDC's role is only to facilitate availability of GoH provided funds on timely basis without any lapse. To this extent reconciliation and accounting of funds received and transferred, project-wise, is done.

Internal audit

299. At present there is no system of internal audit in HSRDC. Post audit function has been outsourced to professional chartered accountant from this financial year onwards, who is also responsible for the maintenance of books of account under computerized accounting software "Tally".

External Audit

300. External audit has been done by an independent firm of chartered accountants, M/s Bansal, Moza & Associates for the FY 2006-07. Audit of financial statements for the FY 2007-08 is ongoing. Financial statements for the FY 2008-09 are under compilation for statutory audit. Statutory audit is also done by Accountant General (AG) office. The Audit Report for the FY 2007-08 and 2008-09 is yet to be finalized.

Reporting and Monitoring

301. Financial Statements are prepared in accordance with Indian accounting standards (IAS) and provisions of Companies Act, 1956. Three main reports are prepared, annual report (not regularly published), Monthly information system report (MIS) and the statutory Audit Report by external auditors. PWD division offices, however, follow the GoH finance and account rules and prepared monthly accounts and yearly accounts accordingly. These PWD division offices follow GoH's cash basis of accounting system. The salaries and other expenses of these PWD division offices are paid for by GoH.

Information System

302. Reports are generated using MSOffice Excel and Word. Information system is yet to be computerized.

III Conclusion and Recommendations

303. In the case of HSRDC there is no budgeting system. Auditors have also observed that internal control system needs to be strengthened. HSRDC needs to initiate required steps to strengthen the internal control systems and procedures.
304. Over the last few years HSRDC has been able to finance its operating expenditures out of own revenues. Capital expenditures are partly financed out of GoH grants, GoI loans and grants and other direct (for e.g. from NCRPB) loans.
305. Finally, the lack of computerization of the financial management system is another serious impediment to the efficient financial control and management. Financial reports are prepared by spreadsheet which is a lengthy procedure.

IV Suggested Steps for Reform

306. HSRDC is presently addressing these difficulties through the outsourcing of accounting functions. While it is important that these system improvements proceed as planned, it is equally critical that the institutional framework is properly set up for a commercially viable entity. Many deficiencies cannot be corrected by outsourcing of computerized accounts, e.g. proper recording of transactions, analysis and reconciliation of accounts, and compliance with rules and policies.

Financial Management Assessment Questionnaire

Topic	Response	Remarks
1. Implementing Agency		
1.1 What is the entity's legal status / registration?	Registered as Company under Companies Act, 1956.	
1.2 Has the entity implemented an externally-financed project in the past (if so, please provide details)?	No	
1.3 What are the statutory reporting requirements for the entity?	As applicable to companies under the Companies Act and other extant rules.	
1.4 Is the governing body for the project independent?	Yes	
1.5 Is the organizational structure appropriate for the needs of the project?	Yes	
2. Funds Flow Arrangements		
2.1 Describe (proposed) project funds flow arrangements, including a chart and explanation of the flow of funds from ADB, government and other financiers.	GoI (DEA - Expenditure) to GoH (Finance) to PWD / HSRDC Fin Institutions to HSRDC	
2.2 Are the (proposed) arrangements to transfer the proceeds of the loan (from the government / Finance Ministry) to the entity satisfactory?	Yes	
2.3 What have been the major problems in the past in receipt of funds by the entity?	None	
2.4 In which bank will the Imprest Account be opened?	State Bank of Patiala	
2.5 Does the (proposed) project implementing unit (PIU) have experience in the management of disbursements from ADB?	No.	

Topic	Response	Remarks
2.7 Does the entity have/need a capacity to manage foreign exchange risks?	No prior experience.	
2.8 How are the counterpart funds accessed?	Through State Plan Funds and Direct Loans to HSRDC.	
2.9 How are payments made from the counterpart funds?	At present funds are transferred to concerned Divisions (Ex Eng) for works. Counterpart funds will be transferred to Project Bank Account and payments proposed to be made from Project Bank Account.	
2.10 If part of the project is implemented by communities or NGOs, does the PIU have the necessary reporting and monitoring features built into its systems to track the use of project proceeds by such agencies?	Not Applicable	
2.11 Are the beneficiaries required to contribute to project costs? If beneficiaries have an option to contribute in kind (in the form of labor), are proper guidelines formulated to record and value the labor contribution?	Not Applicable	
3. Staffing		
3.1 What is the (proposed) organizational structure of the accounting department? Attach an organization chart.	Present organization structure is available in Annexure __. All staff are on deputation from State Public Works Department and get their salary from GoH	
3.2 Identify the (proposed) accounts staff, including job title, responsibilities, educational background and professional experience. Attach job descriptions and CVs of key accounting staff.	Recently only sanction for accounts and finance staff has been obtained. Till date all staff is on temporary contract basis.	
3.3 Is the project finance and accounting function staffed adequately?	Not adequate, excepting Accounts Officer, all staff is outsourced on contract basis.	
3.4 Is the finance and accounts staff adequately qualified and experienced?	Only Accounts Officer is experienced	Needs to be addressed
3.5 Is the project accounts and finance staff trained in ADB procedures?	No.	Training in ADB procedures will be required.
3.6 What is the duration of the contract with the finance and accounts staff?	Staff is contracted on short term basis based on requirement.	
3.7 Indicate key positions not contracted yet, and the estimated date of appointment.	As the sanction obtained recently, regular posting is expected soon	

Topic	Response	Remarks
3.10 Does the project have written position descriptions that clearly define duties, responsibilities, lines of supervision, and limits of authority for all of the officers, managers, and staff?	No. However, approved Delegation of Powers is in place and in use.	
3.11 At what frequency are personnel transferred?	Not Applicable	
3.12 What is training policy for the finance and accounting staff?	Not Applicable	
4. Accounting Policies and Procedures		
4.1 Does the entity have an accounting system that allows for the proper recording of project financial transactions, including the allocation of expenditures in accordance with the respective components, disbursement categories, and sources of funds? Will the project use the entity accounting system?	No accounting manual or code in use. At present accounting function of maintenance of books of account is outsourced to a Chartered Accountant. Tally software is being used.	
4.2 Are controls in place concerning the preparation and approval of transactions, ensuring that all transactions are correctly made and adequately explained?	Yes. Accounts Officer and DGM	
4.3 Is the chart of accounts adequate to properly account for and report on project activities and disbursement categories?	Yes with suitable amendments as and when necessitated	
4.4 Are cost allocations to the various funding sources made accurately and in accordance with established agreements?	Yes. Done on regular basis.	
4.5 Are the General Ledger and subsidiary ledgers reconciled and in balance?	Yes. Done on regular basis.	
4.6 Are all accounting and supporting documents retained on a permanent basis in a defined system that allows authorized users easy access?	Yes.	
<i>Segregation of Duties</i>		
4.7 Are the following functional responsibilities performed by different units or persons: (i) authorization to execute a transaction; (ii) recording of the transaction; and (iii) custody of assets involved in the transaction?	Yes.	
4.8 Are the functions of ordering, receiving, accounting for, and paying for goods and services appropriately segregated?	Yes	
4.9 Are bank reconciliations prepared by someone other than those who make or approve payments?	Yes. Done on monthly basis.	
<i>Budgeting System</i>	<i>No Budgeting System in place. Not Applicable</i>	Needs to be addressed
4.10 Do budgets include physical and financial targets?	Not Applicable	

Topic	Response	Remarks
4.11 Are budgets prepared for all significant activities in sufficient detail to provide a meaningful tool with which to monitor subsequent performance?	Not Applicable	
4.12 Are actual expenditures compared to the budget with reasonable frequency, and explanations required for significant variations from the budget?	Not Applicable	
4.13 Are approvals for variations from the budget required in advance or after the fact?	Not Applicable	
4.14 Who is responsible for preparation and approval of budgets?	Not Applicable	
4.15 Are procedures in place to plan project activities, collect information from the units in charge of the different components, and prepare the budgets?	Not Applicable	
4.16 Are the project plans and budgets of project activities realistic, based on valid assumptions, and developed by knowledgeable individuals?	Not Applicable	
Payments		
4.17 Do invoice-processing procedures provide for: (i) Copies of purchase orders and receiving reports to be obtained directly from issuing departments? (ii) Comparison of invoice quantities, prices and terms, with those indicated on the purchase order and with records of goods actually received? (iii) Comparison of invoice quantities with those indicated on the receiving reports? (iv) Checking the accuracy of calculations?	Yes, verification of supplier / contractor bills with order / agreement / receiving reports for quantity and rate including calculations accuracy before payments are done.	
4.18 Are all invoices stamped PAID, dated, reviewed and approved, and clearly marked for account code assignment?	Yes	
4.19 Do controls exist for the preparation of the payroll and are changes to the payroll properly authorized?	Yes as per GoH rules. All staff is getting paid by GoH.	
Policies And Procedures		
4.20 What is the basis of accounting (e.g., cash, accrual)?	Mercantile system of accounting is followed.	Recognizes significant items of income and expenditure on accrual basis.
4.21 What accounting standards are followed?	Indian accounting standards as prescribed by ICAI	
4.22 Does the project have an adequate policies and procedures manual to guide activities and ensure staff accountability?	No Accounting code / manual used.	Has to be provided in Project Finance and accounts Manual
4.23 Is the accounting policy and procedure manual updated for the project activities?	Not Applicable	

Topic	Response	Remarks
4.24 Do procedures exist to ensure that only authorized persons can alter or establish a new accounting principle, policy or procedure to be used by the entity?	Not Applicable.	
4.25 Are there written policies and procedures covering all routine financial management and related administrative activities?	Yes for administrative activities (based on GoH rules). No for financial management activities – for guidance help of outsourced Chartered Accountant is taken.	
4.26 Do policies and procedures clearly define conflict of interest and related party transactions (real and apparent) and provide safeguards to protect the organization from them?	Not Applicable	
4.27 Are manuals distributed to appropriate personnel?	Not Applicable	
Cash and Bank		
4.28 Indicate names and positions of authorized signatories in the bank accounts.	Joint authorized signatory- DGM 1 and DGM 2 for expenditure upto Rs. 1 Lakh; Managing Director and DGM (mostly 1) for expenditure more than Rs. 1 lakh and transfer of funds to Division (Ex.Engr) offices.	
4.29 Does the organization maintain an adequate, up-to-date cashbook, recording receipts and payments?	No cash transactions. Imprest operation only. Bank book - Yes	
4.30 Do controls exist for the collection, timely deposit and recording of receipts at each collection location?	Yes – toll collections through RTGS and DDs -26 accounts with HDFC Bank	
4.31 Are bank and cash reconciled on a monthly basis?	Yes. Backlog is about 5 months	
4.32 Are all unusual items on the bank reconciliation reviewed and approved by a responsible official?	Yes	
4.33 Are all receipts deposited on a timely basis?	Yes	
Safeguard over Assets		
4.34 Is there a system of adequate safeguards to protect assets from fraud, waste and abuse?	Yes except Roads Infrastructure Assets	
4.35 Are subsidiary records of fixed assets and stocks kept up to date and reconciled with control accounts?	Yes except Roads Infrastructure Assets	
4.36 Are there periodic physical inventories of fixed assets and stocks?	No	
4.37 Are assets sufficiently covered by insurance policies?	Yes except Roads Infrastructure Assets	

Topic	Response	Remarks
Other Offices and Implementing Entities		
4.38 Are there any other regional offices or executing entities participating in implementation?	No own ongoing works. Transfers funds to PWD Division Offices for their works execution.	
4.39 Has the project established controls and procedures for flow of funds, financial information, accountability, and audits in relation to the other offices or entities?	Yes – funds for PWD works are routed through HSRDC by RTGS and DDs to Divisions. Divisions are accountable for payments and accounting of Works expenditures against funds received from HSRDC.	
4.40 Does information among the different offices/implementing agencies flow in an accurate and timely fashion?	Yes. Once funds received from GoH is transferred to concerned Division, role of HSRDC ends.	
4.41 Are periodic reconciliations performed among the different offices/implementing agencies?	Yes (for funds received and transferred).	
Other		
4.42 Has the project advised employees, beneficiaries and other recipients to whom to report if they suspect fraud, waste or misuse of project resources or property?	No written Policy and Procedure.	
5. Internal Audit	No Internal Audit	
5.1 Is there a internal audit department in the entity?	Not Applicable	Only this year the
5.2 What are the qualifications and experience of audit department staff?	Not Applicable	Outsourced CA has been given
5.3 To whom does the internal auditor report?	Not Applicable	Additional task of
5.4 Will the internal audit department include the project in its work program?	Not Applicable	Post audit by HSRDC.
5.5 Are actions taken on the internal audit findings?	Not Applicable	
6. External Audit		
6.1 Is the entity financial statement audited regularly by an independent auditor? Who is the auditor?	Yes. Independent firm of Chartered Accountants – M/s Bansal, Moza & Associates., Chartered Accountants	
6.2 Are there any delays in audit of the entity? When are the audit reports issued?	No. Yearly normally before end of six months from close of financial year	
6.3 Is the audit of the entity conducted according to the International Standards on Auditing?	Yes. Indian Auditing Standards which compares with International Auditing Standards	

Topic	Response	Remarks
6.4 Were there any major accountability issues brought out in the audit report of the past three years?		This is a State Government owned company. Instances of weak internal controls, especially in the area of reconciliation procedures, have been pointed out.
6.5 Will the entity auditor audit the project accounts or will another auditor be appointed to audit the project financial statements?	Yes.	
6.6 Are there any recommendations made by the auditors in prior audit reports or management letters that have not yet been implemented?		No major issues. Internal control system procedures needs to be strengthened especially in the area of reconciliation of accounts.
6.7 Is the project subject to any kind of audit from an independent governmental entity (e.g., the supreme audit institution) in addition to the external audit?	Yes from Accountant General's office	
6.8 Has the project prepared acceptable terms of reference for an annual project audit?	Will be done	
7. Reporting and Monitoring		
7.1 Are financial statements prepared for the entity? In accordance with which accounting standards?	Yes in accordance with Companies Act and ICAI accounting standards	
7.2 Are financial statements prepared for the implementing unit?	Yes. For the Division Offices as per GoH finance rules.	
7.3 What is the frequency of preparation of financial statements? Are the reports prepared in a timely fashion so as to useful to management for decision making?	Monthly Trial Balance, Half yearly and yearly Financial Statements.	
7.4 Does the reporting system need to be adapted to report on the project components?	Yes	
7.5 Does the reporting system have the capacity to link the financial information with the project's physical progress? If separate systems are used to gather and compile physical data, what controls are in place to reduce the risk that the physical data may not synchronize with the financial data?	As mentioned earlier HSRDC is responsible for routing of funds to Division Offices where actual work implementation will be done. Information system will have to be installed in division offices and GoH PWD.	

Topic	Response	Remarks
7.6 Does the project have established financial management reporting responsibilities that specify what reports are to be prepared, what they are to contain, and how they are to be used?	No	These will be to be established through Project Financial Management Manual
7.7 Are financial management reports used by management?	Yes for funds received and transferred position at HSRDC level	Actual works status reports are not received by HSRDC but by GoH PWD
7.8 Do the financial reports compare actual expenditures with budgeted and programmed allocations?	Yes for funds received and transferred position at HSRDC	Same as above
7.9 Are financial reports prepared directly by the automated accounting system or are they prepared by spreadsheets or some other means?	At HSDRC – outputs from Tally accounting software are generated	No at State PWD level. To be done.
8. Information Systems		
8.1 Is the financial management system computerized?	No (except for reports which can be generated from Tally at end of the year)	
8.2 Can the system produce the necessary project financial reports?	No	
8.3 Is the staff adequately trained to maintain the system?	No Training	
8.4 Does the management organization and processing system safeguard the confidentiality, integrity and availability of the data?	Yes	

ANNEX F 2.5: RAJASTHAN RAJYA VIDYUT PRASARAN NIGAM LIMITED – (RRVPNL)

I Financial Performance:

307. Summarized position of income and expenditure for a period of three years is given in Table below

Rs. Million

Particulars	FY 04-05	FY 05-06	FY 06-07	FY 07-08	Growth Rate %
Income:					
Revenue from Sale of Power	1,625	1,333	1,457	1,534	-2%
Revenue from Transmission & SLDC charges & Gen Cost Recovered	5,037	5,735	5,697	7,233	13%
Revenue from Subsidies and Grants	24	34	32	35	13%
Other Income	881	1,013	402	313	-29%
Total Income	7,567	8,115	7,587	9,114	6%
Expenditure					
ULDC / NRLDC Charges	112	124	127	129	5%
Generation of Power	1,246	1,246	1,048	1,048	-6%
Repairs and Maintenance	477	535	620	664	12%
Employee Costs	2,379	2,665	2,991	3,744	16%
Administration & Other Expenses	274	319	388	347	8%
Depreciation	1,264	1,607	1,090	1,200	-2%
Total Expenditure	5,753	6,497	6,263	7,132	7%
Less: Expenditure Capitalized	436	419	592	583	10%
Net Expenditure	5,317	6,077	5,671	6,549	7%
Profit/(Loss) before interest & taxes	2,251	2,038	1,916	2,566	4%
Interest, finance charges & lease rent	2,094	2,000	2,148	2,310	3%
Less: Interest, fin charges capitalized	245	202	278	243	0%
Net Interest, finance charges & L Rent	1,850	1,797	1,869	2,067	4%
Extraordinary Items	461	164	164	589	8%
Profit/(Loss) after interest before taxes	(60)	77	(117)	(90)	15%
Prior Period Income/Expenses & FB Tax	60	(77)	117	90	18%
Profit / (Loss) after Previous Year Expenses & Tax	0	0	0	0	

308. Summarized position of sources and uses of funds as at 31st March 2008 is given in Table below:

Rs.

Million

Particulars	As at 31 st March 2008
Sources of Funds:	
Share Capital	9,390
Reserves and Surplus (Grants from GoI and GoH)	1,327
Loans (from PFC, REC, Banks and Others)	35,027
Total Sources of Funds	45,744
Application of Funds:	
Fixed Asset (net of depreciation)	28,045
Capital Work in Progress	6,565
Investment	7
Current Assets and Loans and Advances	20,896
Less: Current Liabilities and Provisions	9,948

Particulars	As at 31 st March 2008
Net Current Assets	10,948
Miscellaneous Expenditure	180
Total Application of Funds	45,744

309. Company is following no profit / loss policy for preparing its financial statements as under Financial Restructuring Plan, the GoR will meet the revenue gap. There are constraints on RRVPNL to raise tariffs to fully recover the cost of operations. But for GoR subsidy / subvention, shown as receivables from GoR by the company, RRVPNL has actually incurred losses over the years.

310. Company has substantial outstanding loans and borrowings which are secured mainly by GoR guarantee, default escrow on collections and fixed assets of the company. RRVPNL has sourced its loan funds, as on 31st March 2009, from REC (34.8%), commercial banks (18.6%), LIC (14.5%), market borrowings through bonds (13.5%), GoR (5.9%), Hudco (4.3%), PFC (3.8%), World Bank (3.1%) and NCRPB (1.5%). RRVPNL has been successful in arranging funds, inter alia, from open market, financial institutions, commercial banks, World Bank etc. Proportion of NCRPB's loan to loans is very insignificant. RRVPNL has been successful in meeting its debt service obligations. GoR guarantee and default escrow on collection account and fixed assets of the company provides the security for loans raised by RRVPNL.

II Financial Management Assessment

Introduction

311. The main instrument used to facilitate the financial management assessment was the questionnaire furnished by the ADB, which was discussed with the Chief Accounts Officer and Senior Accounts Officer of Rajasthan Rajya Vidyut Prasaran Nigam Limited (RRVPNL) in August / September 2009. Interviews, including follow-up interviews, were conducted / September 2009 to better appreciate some of the responses and to fill up the unanswered items in the questionnaire. Most of the items in the questionnaires were filled up and consolidated by September / October 2009.

Findings

312. Based on the FMAQ responses documents and follow up interviews, the following observations were made:

Implementing agency

313. RRVPNL is a Company registered under Companies Act, 1956. It was formed in June 2000 on trifurcation of erstwhile Rajasthan State Electricity Board (RSEB). The Company has been operating during the years since formation, on no profit-no-loss basis as per the requirement of the Financial Restructuring Plan for power sector approved by the Government of Rajasthan (GoR). RRVPNL jurisdiction is transmission of power generated from generation and interstate power-grids to the distribution stations / sub-stations. RRVPNL is responsible for creation of necessary infrastructure to facilitate transmission of power within the State. RRVPNL is fully owned by GoR and is managed by Board of Directors comprising of Chairman & Managing Director, technical director, finance director and other directors.

314. RRVPNL has not implemented any ADB or any other multilateral agency project. However it has borrowed money from Indian Financial Institutions, Banks, Power Finance Corporation, Rural Electrification Corporation and has been successfully meeting its debt service obligations over the years.

Funds flow arrangements

315. Funds received from either ADB or any other donor agency is deposited into Reserve Bank of India – Government of India (GoI) account. From GoI, funds are transferred to National Capital Region Planning Board (NCRPB) bank account.
316. ADB Loans funds will be lent to NCRPB which in turn will re-lend them to RRVPNL through the GoR. Usually re-lending terms include (i) Interest rate 7-7.5%, (ii) maturity period of 10 years, and (iii) grace period of 1 years. The re-lending terms are much more restrictive than the terms at which NCRPB borrows from ADB. Interest rate is much higher (7.5% vs. 3% for OCR). The NCRPB however, covers foreign exchange risk. The re-lending conditions should be reviewed in consideration of the overall debt service which RRVPNL should bear as a result of the new borrowings.
317. Past RRVPNL Financial Statements show that the RRVPNL's capacity to repay Loans has been satisfactory.

Staffing and Organization

318. Under the existing structure, RRVPNL financial functions are under the responsibility of the Director Finance. Under him is the finance and accounting section headed by the Chief Accounts Officer, supported by Senior Accounts Officers, Accounts Officers and other accounts and finance staff. Most of the staffs have long experience from the accounts department. Qualified chartered accountants have been inducted into the company during past few years.
319. Staff is adequate for present level of operations.

Accounting policies and procedure

320. RRVPNL prepares financial statements under the historical cost convention in accordance with the generally accepted accounting principles, the provisions of the Companies Act, 1956, applicable provisions of the Electricity Act, 2003 and provisions / rules saved therein, as adopted consistently by the Company. In cases where the provisions of Electricity (Supply) Annual Accounts Rules, 1985 (ESAAR) are not in consonance with the Accounting Standards / provisions of the Companies Act, 1956, ESAAR, 1985 is applied while preparing the financial statements. The Company generally follows Mercantile (accrual) System of Accounting and recognizes significant items of income and expenditure on accrual basis except those with significant uncertainties.
321. Important papers are kept on a permanent basis and other documents are kept for several years as per government rule.

Segregation of Duties

322. Functional responsibilities appear to be segregated. Separate responsibilities for budget, payment, recording, reporting and audit are assigned to separate groups of officers and staff.

Budgeting System

323. RRVPNL prepares the budget once in a year according to financial year (April-March following an incremental approach, for operation and maintenance activities, in which the new budget figures are based on previous year's values plus a 20-30% increase. For capital expenditure budgets the Company adopts results oriented budget approach in which physical and financial targets are defined. Investment activities are planned by the technical section in accordance with the RRVPNL Development Plan.

324. Actual expenditure is compared with budget once in a year in February. RRVPNL also publishes monthly financial reports comparing actual against budget figures and monthly progress reports on project execution which provide information about stage of project execution. The monthly MIS (Management Information System) Report also includes a comparison of actual financial performance against budget. The budget variances are reportedly discussed in monthly meetings with the Director (Finance). A revised budget is prepared whenever necessary.

Payments

325. Invoice-processing and payroll preparation procedures seem to be in order based on the sample invoices. Invoices are usually stamped "PAID".

Policies Procedures

326. The basis of accounting is accrual. RRVPNL has laid down policies and procedures covering its entire range of activities. RRVPNL has also in place financial management and accounting manual which is amended from time to time to cater to the change in requirements. This Manual is available with all the finance and accounts sections in all offices of the company.

Cash at Bank

327. Authorized signatories (of cheque payments) are: a) At Head Office: Single authorized signatory- Chief Accounts Officer (CAO) or Senior Accounts Officer (Sr. AO); b) At Circle Office: Single authorized signatory – Accounts Officer (AO).

Safeguard over assets

328. Inventory is taken for RRVPNL fixed assets and store materials. Excepting for materials at site and cash in transit, the company does not have a policy of taking insurance cover for its assets.

Other office and Implementing entities

329. RRVPNL has a number of circle and division offices under its jurisdiction spread over the entire state of Rajasthan. These offices are responsible for carrying out new development and construction of transmission system works as well as maintenance of existing power transmission systems in the State. Regular reconciliation is carried out between head office, circle offices and division offices as well as with other companies and outside agencies on periodical basis.

Internal audit

330. RRVPNL has in house internal audit department. This department is headed by Controller of Internal Audit and has qualified and experienced staff. Internal audit of various offices are carried out as per the internal audit plan and reports are prepared. Audit findings are generally taken up for compliance and suitable actions taken there-against.

External Audit

331. External audit has been done by an independent firm of chartered accountants, M/s Ghiya & Company, Chartered Accountants for the FY 2007-08. Audit of financial statements for the FY 2008-09 is ongoing and is being carried out by M/s S.R.Goyal & Company, Chartered Accountants. Statutory audit is also done by Accountant General (AG) office. The Audit Report for the 2008-09 is yet to be finalized.

Reporting and Monitoring

332. The Company has reached to the state of implementation of integrated MIS and Computerization project with effect from 1st April 2008. Installations of computer hardware at the Central Data Centre as well as in field offices spread throughout the State of Rajasthan, have been completed. The website www.rvpn.co.in has been put into operation and design of intranet and document hosting finalized. Most of the software modules are installed and put to operational acceptance test. The coding of locations, inventory and that for project and schemes has also been finalized. Three main reports are prepared, annual report, Monthly information system report (MIS) and the statutory Audit Report by external auditors.

Information System

333. See comments under Reporting and Monitoring.

III Conclusion and Recommendations

334. In the case of RRVPNL management reports shows that the financial statements produced by the Accounting and Finance Section of RRVPNL are used as a tool for efficient allocation of scarce resources. There are no major auditing issues in the audit report of RRVPNL.

335. In the financial year 2007-08 RRVPNL has been able to finance its operating expenditures out of own revenues. Capital expenditures are financed out of own funds, borrowings from GoR and outside institutions.

IV Suggested Steps for Reform

336. RRVPNL has the systems and procedures in place being a newly formed organization under Companies Act. There are no significant suggestions for reform in RRVPNL.

Financial Management Assessment Questionnaire

Topic	Response	Remarks
1. Implementing Agency		
1.1 What is the entity's legal status / registration?	Registered as Company under Companies Act on 19 th June 2000.	
1.2 Has the entity implemented an externally-financed project in the past (if so, please provide details)?	Yes – projects funded by World Bank (in erstwhile entity RSEB before trifurcation)	
1.3 What are the statutory reporting requirements for the entity?	As applicable to companies under the Companies Act.	
1.4 Is the governing body for the project independent?	Yes	
1.5 Is the organizational structure appropriate for the needs of the project?	Yes	

Topic	Response	Remarks
2. Funds Flow Arrangements		
2.1 Describe (proposed) project funds flow arrangements, including a chart and explanation of the flow of funds from ADB, government and other financiers.	GoI (DEA - Expenditure) to GoR (Finance) to RRVPNL	
2.2 Are the (proposed) arrangements to transfer the proceeds of the loan (from the government / Finance Ministry) to the entity satisfactory?	Yes	
2.3 What have been the major problems in the past in receipt of funds by the entity?	None	
2.4 In which bank will the Imprest Account be opened?	State Bank of Bikaner and Jaipur	
2.5 Does the (proposed) project implementing unit (PIU) have experience in the management of disbursements from ADB?	No.	However, has experience of management of disbursements from World Bank
2.7 Does the entity have/need a capacity to manage foreign exchange risks?	No prior experience.	But yes they have the capacity to manage FE risk.
2.8 How are the counterpart funds accessed?	Direct. IA will contribute from its own budget.	
2.9 How are payments made from the counterpart funds?	Counterpart funds will be transferred to Project Bank Account and payments proposed to be made from Project Bank Account.	
2.10 If part of the project is implemented by communities or NGOs, does the PIU have the necessary reporting and monitoring features built into its systems to track the use of project proceeds by such agencies?	Not Applicable	
2.11 Are the beneficiaries required to contribute to project costs? If beneficiaries have an option to contribute in kind (in the form of labor), are proper guidelines formulated to record and value the labor contribution?	Not Applicable	
3. Staffing		
3.1 What is the (proposed) organizational structure of the accounting department? Attach an organization chart.	Present organization structure is available in Annexure __	
3.2 Identify the (proposed) accounts staff, including job title, responsibilities, educational background and professional experience. Attach job descriptions and CVs of key accounting staff.	See Annexure	
3.3 Is the project finance and accounting function staffed adequately?	Yes	

Topic	Response	Remarks
3.4 Is the finance and accounts staff adequately qualified and experienced?	Present staff possesses the requisite experience.	
3.5 Is the project accounts and finance staff trained in ADB procedures?	No.	Training in ADB procedures will be required.
3.6 What is the duration of the contract with the finance and accounts staff?	All permanent staff. No contract staff in F&A section.	
3.7 Indicate key positions not contracted yet, and the estimated date of appointment.	None	
3.10 Does the project have written position descriptions that clearly define duties, responsibilities, lines of supervision, and limits of authority for all of the officers, managers, and staff?	No. However, approved Delegation of Powers is in place and in use.	
3.11 At what frequency are personnel transferred?	Infrequent transfers and that too within organization only	
3.12 What is training policy for the finance and accounting staff?	In-house training facility / centre.	
4. Accounting Policies and Procedures		
4.1 Does the entity have an accounting system that allows for the proper recording of project financial transactions, including the allocation of expenditures in accordance with the respective components, disbursement categories, and sources of funds? Will the project use the entity accounting system?	Yes proper commercial double entry accounting system is in place. Accounting code including chart of accounts is in use in entire organization.	
4.2 Are controls in place concerning the preparation and approval of transactions, ensuring that all transactions are correctly made and adequately explained?	Yes.	
4.3 Is the chart of accounts adequate to properly account for and report on project activities and disbursement categories?	Yes with suitable amendments as and when necessitated	
4.4 Are cost allocations to the various funding sources made accurately and in accordance with established agreements?	Yes. Done on regular basis.	
4.5 Are the General Ledger and subsidiary ledgers reconciled and in balance?	Yes. Done on regular basis.	
4.6 Are all accounting and supporting documents retained on a permanent basis in a defined system that allows authorized users easy access?	Yes.	
<i>Segregation of Duties</i>		
4.7 Are the following functional responsibilities performed by different units or persons: (i) authorization to execute a transaction; (ii) recording of the transaction; and (iii) custody of assets involved in the transaction?	Yes.	

Topic	Response	Remarks
4.8 Are the functions of ordering, receiving, accounting for, and paying for goods and services appropriately segregated?	Yes	
4.9 Are bank reconciliations prepared by someone other than those who make or approve payments?	Yes. Done on monthly basis.	
Budgeting System		
4.10 Do budgets include physical and financial targets?	Yes.	
4.11 Are budgets prepared for all significant activities in sufficient detail to provide a meaningful tool with which to monitor subsequent performance?	Yes.	
4.12 Are actual expenditures compared to the budget with reasonable frequency, and explanations required for significant variations from the budget?	Yes on yearly basis when accounts are prepared.	
4.13 Are approvals for variations from the budget required in advance or after the fact?	Approvals obtained in advance	
4.14 Who is responsible for preparation and approval of budgets?	Finance and Budget section. Approved by Board.	
4.15 Are procedures in place to plan project activities, collect information from the units in charge of the different components, and prepare the budgets?	Yes.	
4.16 Are the project plans and budgets of project activities realistic, based on valid assumptions, and developed by knowledgeable individuals?	Yes. Separately done for Capital and Revenue	
Payments		
4.17 Do invoice-processing procedures provide for: (i) Copies of purchase orders and receiving reports to be obtained directly from issuing departments? (ii) Comparison of invoice quantities, prices and terms, with those indicated on the purchase order and with records of goods actually received? (iii) Comparison of invoice quantities with those indicated on the receiving reports? (iv) Checking the accuracy of calculations?	Yes, verification of supplier / contractor bills with order / agreement / receiving reports for quantity and rate including calculations accuracy before payments are done.	
4.18 Are all invoices stamped PAID, dated, reviewed and approved, and clearly marked for account code assignment?	Yes	
4.19 Do controls exist for the preparation of the payroll and are changes to the payroll properly authorized?	Yes	
Policies And Procedures		
4.20 What is the basis of accounting (e.g., cash, accrual)?	Mercantile system of accounting is followed.	Recognizes significant items of income and expenditure on accrual basis.

Topic	Response	Remarks
4.21 What accounting standards are followed?	Indian accounting standards as prescribed by ICAI	
4.22 Does the project have an adequate policies and procedures manual to guide activities and ensure staff accountability?	Yes. Accounting code / manual is followed	
4.23 Is the accounting policy and procedure manual updated for the project activities?	Yes	
4.24 Do procedures exist to ensure that only authorized persons can alter or establish a new accounting principle, policy or procedure to be used by the entity?	Yes. Amendments to Accounting Code / Manual are possible only after proper approvals.	
4.25 Are there written policies and procedures covering all routine financial management and related administrative activities?	Yes	
4.26 Do policies and procedures clearly define conflict of interest and related party transactions (real and apparent) and provide safeguards to protect the organization from them?	Yes	
4.27 Are manuals distributed to appropriate personnel?	Yes	
Cash and Bank		
4.28 Indicate names and positions of authorized signatories in the bank accounts.	At Head Office: Single authorized signatory- Chief Accounts Officer (CAO) or Senior Accounts Officer (Sr. AO). At Circle Office: Single authorized signatory – Accounts Officer (AO)	
4.29 Does the organization maintain an adequate, up-to-date cashbook, recording receipts and payments?	Yes	
4.30 Do controls exist for the collection, timely deposit and recording of receipts at each collection location?	Yes	
4.31 Are bank and cash reconciled on a monthly basis?	Yes	
4.32 Are all unusual items on the bank reconciliation reviewed and approved by a responsible official?	Yes	
4.33 Are all receipts deposited on a timely basis?	Yes	
Safeguard over Assets		
4.34 Is there a system of adequate safeguards to protect assets from fraud, waste and abuse?	Yes	
4.35 Are subsidiary records of fixed assets and stocks kept up to date and reconciled with control accounts?	Yes	
4.36 Are there periodic physical inventories of fixed assets and stocks?	Yes	

Topic	Response	Remarks
4.37 Are assets sufficiently covered by insurance policies?	No.	Insurance done only for Materials at Site and Cash in Transit
Other Offices and Implementing Entities		
4.38 Are there any other regional offices or executing entities participating in implementation?	Yes. Circle and Division Offices of the Company.	
4.39 Has the project established controls and procedures for flow of funds, financial information, accountability, and audits in relation to the other offices or entities?	Yes	
4.40 Does information among the different offices/implementing agencies flow in an accurate and timely fashion?	Yes	
4.41 Are periodic reconciliations performed among the different offices/implementing agencies?	Yes	
Other		
4.42 Has the project advised employees, beneficiaries and other recipients to whom to report if they suspect fraud, waste or misuse of project resources or property?	Yes	
5. Internal Audit		
5.1 Is there a internal audit department in the entity?	Yes	
5.2 What are the qualifications and experience of audit department staff?	2 Audit Officers qualified chartered accountants in IA department. Others are in house experienced staff	
5.3 To whom does the internal auditor report?	Controller of Internal Audit who in-turn reports to Board of Directors	
5.4 Will the internal audit department include the project in its work program?	Yes	
5.5 Are actions taken on the internal audit findings?	Yes	
6. External Audit		
6.1 Is the entity financial statement audited regularly by an independent auditor? Who is the auditor?	Yes. Independent firm of Chartered Accountants – M/s S.R.Goyal & Co., Chartered Accountants	
6.2 Are there any delays in audit of the entity? When are the audit reports issued?	No. Yearly normally before end of six months from close of financial year	
6.3 Is the audit of the entity conducted according to the International Standards on Auditing?	Yes. Indian Auditing Standards which compares with International Auditing Standards	

Topic	Response	Remarks
6.4 Were there any major accountability issues brought out in the audit report of the past three years?	Significant issue is with regard to the accounting policy of company on "No Profit No Loss" with State Government financing the revenue gap	This is a State Government owned company. GoR is committed to FRP
6.5 Will the entity auditor audit the project accounts or will another auditor be appointed to audit the project financial statements?	Yes	
6.6 Are there any recommendations made by the auditors in prior audit reports or management letters that have not yet been implemented?	No major issues	
6.7 Is the project subject to any kind of audit from an independent governmental entity (e.g., the supreme audit institution) in addition to the external audit?	Yes from Accountant General's office	
6.8 Has the project prepared acceptable terms of reference for an annual project audit?	Will be done	
7. Reporting and Monitoring		
7.1 Are financial statements prepared for the entity? In accordance with which accounting standards?	Yes in accordance with Companies Act and Electricity (Supply) Annual Accounts Rules, 1985	
7.2 Are financial statements prepared for the implementing unit?	Yes	
7.3 What is the frequency of preparation of financial statements? Are the reports prepared in a timely fashion so as to useful to management for decision making?	Monthly Trial Balance, Half yearly and yearly Financial Statements.	
7.4 Does the reporting system need to be adapted to report on the project components?	Yes	
7.5 Does the reporting system have the capacity to link the financial information with the project's physical progress? If separate systems are used to gather and compile physical data, what controls are in place to reduce the risk that the physical data may not synchronize with the financial data?	Separate systems are used. Physical progress reports are generated by Technical Section and Finance Section generate the financial information. Both are consolidated for report purpose.	
7.6 Does the project have established financial management reporting responsibilities that specify what reports are to be prepared, what they are to contain, and how they are to be used?	Yes.	
7.7 Are financial management reports used by management?	Yes	
7.8 Do the financial reports compare actual expenditures with budgeted and programmed allocations?	Yes	

Topic	Response	Remarks
7.9 Are financial reports prepared directly by the automated accounting system or are they prepared by spreadsheets or some other means?	Offline automated system. Company is considering a proposal for converting to online automated system. Part of reports are prepared in excel spreadsheets	
8. Information Systems		
8.1 Is the financial management system computerized?	No only partial offline automated system	
8.2 Can the system produce the necessary project financial reports?	No	
8.3 Is the staff adequately trained to maintain the system?	Training needs to be strengthened	
8.4 Does the management organization and processing system safeguard the confidentiality, integrity and availability of the data?	Yes	

ANNEX F – 2.6: JAIPUR VIDYUT VITHARAN NIGAMLIMITED (JVNL)

I Financial Performance

337. Summarized position of income and expenditure for a period of three years is given in Table below:

Rs. Million				
Particulars	FY 05-06	FY 06-07	FY 07-08	Growth Rate %
Income:				
Revenue from Sale of Power	25,586	27,649	32,006	12
Revenue from Subsidies and Grants	3,395	4,341	11,466	84
Other Income	693	742	931	16
Total Income	29,675	32,732	44,403	22
Expenditure				
Purchase of Power	24,858	26,842	36,934	22
Repairs and Maintenance	245	237	225	-4
Employee Costs	2,241	2,392	2,651	9
Administration & Other Expenses	246	267	331	16
Other Expenses	180	261	208	7
Depreciation	1,103	1,563	1,204	4
Total Expenditure	28,873	31,562	41,553	20
Less: Expenditure Capitalized	672	731	826	11
Net Expenditure	28,201	30,830	40,728	20
Profit /(Loss) before interest & taxes	1,474	1,902	3,675	
Interest, finance charges & lease rent	1,714	2,273	3,450	
Profit/(Loss) after interest before taxes	(241)	(371)	225	
Prior Period Income / Expenses & FB Tax	241	371	(225)	
Profit / (Loss) after Previous Year Expenses & Tax	0	0	0	

Summarized position of sources and uses of funds as at 31st March 2008 is given in Table below:

Rs. Million	
Particulars	As at 31 st March 2008
Sources of Funds:	
Share Capital	4,780
Reserves and Surplus (Grants from GoI and GoH)	10,729
Loans (from PFC, REC, Banks and Others)	47,878
Total Sources of Funds	63,387
Application of Funds:	
Fixed Asset (net of depreciation)	33,695
Capital Work in Progress	7,224
Investment	5
Current Assets and Loans and Advances	40,110
Less: Current Liabilities and Provisions	17,743
Net Current Assets	22,367
Miscellaneous Expenditure	96
Total Application of Funds	63,387

338. Company is following no profit / loss policy for preparing its financial statements as under Financial Restructuring Plan, the GoR will meet the revenue gap. There are constraints on JVVNL to raise tariffs to fully recover the cost of operations. But for GoR subsidy / subvention, shown as receivables from GoR by the company, JVVNL has actually incurred losses over the years which have also being observed by CAG and Statutory Auditor.

339. Company has substantial outstanding loans and borrowings which are secured mainly by GoR guarantee, default escrow on collections and fixed assets of the company. JVVNL has sourced its loan funds, as on 31st March 2008, from commercial banks (45.2%), REC (29.4%), PFC (6.5%), GoR (5.0%), World Bank (4.4%), LIC (3.5%), Hudco (2.9%), APDRP (1.7%), market borrowings through bonds (0.9%), and SIDBI (0.2%). JVVNL has been successful in arranging funds, inter alia, from open market, financial institutions, commercial banks, World Bank etc. Proportion of NCRPB's loan to loans is very insignificant. JVVNL has been successful in meeting its debt service obligations. GoR guarantee and default escrow on collection account and fixed assets of the company provides the security for loans raised by JVVNL.

II Financial Management Assessment

Introduction

340. The main instrument used to facilitate the financial management assessment was the questionnaire furnished by the ADB, which was discussed with the Chief Accounts Officer and Senior Accounts Officer of **Jaipur Vidyut Vitharan Nigam Limited (JVVNL)** in August / September 2009. Interviews, including follow-up interviews, were conducted / September 2009 to better appreciate some of the responses and to fill up the unanswered items in the questionnaire. Most of the items in the questionnaires were filled up and consolidated by September / October 2009.

Findings

341. Based on the FMAQ responses documents and follow up interviews, the following observations were made:

Implementing agency

342. JVVNL is a Company registered under Companies Act, 1956. It was formed in June 2000 on trifurcation of erstwhile Rajasthan State Electricity Board (RSEB). The Company has been operating during the years since formation, on no profit-no-loss basis as per the requirement of the Financial Restructuring Plan for power sector approved by the Government of Rajasthan (GoR). JVVNL jurisdiction is distribution of power generated and transmitted from the distribution stations / sub-stations to the domestic, non-domestic, commercial and industrial consumers falling within the jurisdiction of the Company. JVVNL is responsible for creation of necessary infrastructure to facilitate distribution of power within its coverage area in the State. JVVNL is fully owned by GoR and is managed by Board of Directors comprising of Chairman & Managing Director, technical director, finance director and other directors.

343. JVVNL has not implemented any ADB or any other multilateral agency project. However it has borrowed money from Indian Financial Institutions, Banks, Power Finance Corporation, Rural Electrification Corporation and has been successfully meeting its debt service obligations over the years.

Funds flow arrangements

344. Funds received from either ADB or any other donor agency is deposited into Reserve Bank of India – Government of India (GoI) account. From GoI, funds are transferred to National Capital Region Planning Board (NCRPB) bank account.

345. ADB Loans funds will be lent to NCRPB which in turn will re-lend them to JVVNL through the GoR. Usually re-lending terms include (i) Interest rate 7-7.5%, (ii) maturity period of 10 years, and (iii) grace period of 1 year. The re-lending terms are much more restrictive than the terms at which NCRPB borrows from ADB. Interest rate is much higher (7.5% vs. 3% for OCR). The NCRPB however, covers foreign exchange risk. The re-lending conditions should be reviewed in consideration of the overall debt service which JVVNL should bear as a result of the new borrowings.

346. Past JVVNL Financial Statements show that the JVVNL's capacity to repay Loans has been satisfactory.

Staffing and Organization

347. Under the existing structure, JVVNL financial functions are under the responsibility of the Director Finance. Under him is the finance and accounting section headed by the Chief Accounts Officer, supported by Senior Accounts Officers, Accounts Officers and other accounts and finance staff. Most of the staffs have long experience from the accounts department. Qualified chartered accountants have been inducted into the company during past few years.

348. Staff is adequate for present level of operations.

Accounting policies and procedure

349. JVVNL prepares financial statements under the historical cost convention in accordance with the generally accepted accounting principles, the provisions of the Companies Act, 1956, applicable provisions of the Electricity Act, 2003 and provisions / rules saved therein, as adopted consistently by the Company. In cases where the provisions of Electricity (Supply) Annual Accounts Rules, 1985 (ESAAR) are not in consonance with the Accounting Standards / provisions of the Companies Act, 1956, ESAAR, 1985 is applied while preparing the financial statements. The Company generally follows Mercantile (accrual) System of Accounting and recognizes significant items of income and expenditure on accrual basis except those with significant uncertainties. Financial statements are prepared on "No Profit No Loss" basis as per provision of Financial Restructuring Plan (FRP) as approved by the Government of Rajasthan by booking revenue gap as subvention receivable from the GoR.

350. Important papers are kept on a permanent basis and other documents are kept for several years as per government rule.

Segregation of Duties

351. Functional responsibilities appear to be segregated. Separate responsibilities for budget, payment, recording, reporting and audit are assigned to separate groups of officers and staff.

Budgeting System

352. JVVNL prepares the budget once in a year according to financial year (April-March following an incremental approach, for operation and maintenance activities, in which the new budget figures are based on previous year's values plus a 20-30% increase. For capital expenditure budgets the Company

adopts results oriented budget approach in which physical and financial targets are defined. Investment activities are planned by the technical section in accordance with the JVVNL Development Plan.

353. Actual expenditure is compared with budget once in a year in February. JVVNL also publishes monthly financial reports comparing actual against budget figures and monthly progress reports on project execution which provide information about stage of project execution. The monthly MIS (Management Information System) Report also includes a comparison of actual financial performance against budget. The budget variances are reportedly discussed in monthly meetings with the Director (Finance). A revised budget is prepared whenever necessary.

Payments

354. Invoice-processing and payroll preparation procedures seem to be in order based on the sample invoices. Invoices are usually stamped "PAID".

Policies Procedures

355. The basis of accounting is accrual. JVVNL has laid down policies and procedures covering its entire range of activities. JVVNL has also in place financial management and accounting manual which is amended from time to time to cater to the change in requirements. This Manual is available with all the finance and accounts sections in all offices of the company.

Cash at Bank

356. Authorized signatories (of cheque payments) are: a) At Head Office: Single authorized signatory- Chief Accounts Officer (CAO) or Senior Accounts Officer (Sr. AO); b) At Circle Office: Single authorized signatory – Accounts Officer (AO).

Safeguard over assets

357. Inventory is taken for JVVNL fixed assets and store materials. Excepting for materials at site and cash in transit, the company does not have a policy of taking insurance cover for its assets.

Other office and Implementing entities

358. JVVNL has a number of circle and division offices under its jurisdiction. These offices are responsible for carrying out new development and construction of distribution system works as well as maintenance of existing power distribution systems in the State. Regular reconciliation is carried out between head office, circle offices and division offices as well as with other companies and outside agencies on periodical basis.

Internal audit

359. JVVNL has in house internal audit department. This department is headed by Controller of Internal Audit and has experienced staff. As and when required professionally qualified chartered accountants are engaged Internal audit of various offices are carried out as per the internal audit plan and reports are prepared. Audit findings are generally taken up for compliance and suitable actions taken there-against.

External Audit

360. External audit has been done by an independent firm of chartered accountants, M/s M.L. Gangwal & Company, Chartered Accountants for the FY 2007-08. Audit of financial statements for the FY 2008-09 is ongoing and is being carried out by M/s Jain, Shah & Company, Chartered Accountants. Statutory audit is also done by Accountant General (AG) office. The Audit Report for the 2008-09 is yet to be finalized.

Reporting and Monitoring

361. JVVNL has a well developed system of reporting and monitoring in place. Three main reports are prepared, annual report, Monthly information system report (MIS) and the statutory Audit Report by external auditors.

Information System

362. See comments under Reporting and Monitoring.

III Conclusion and Recommendations

363. In the case of JVVNL, management reports shows that the financial statements produced by the Accounting and Finance Section of JVVNL are used as a tool for efficient allocation of scarce resources. There are no major auditing issues, other than the one relating to preparation of financial statements on "No Profit, No Loss" basis with gap in revenue being shown as subvention receivable from State Government, in the audit report of JVVNL. However, the Company has contended this saying that GoR has committed so in the Financial Restructuring Plan (FRP) when the erstwhile Rajasthan State Electricity Board (RSEB) was trifurcated into three organizations (including this company).

364. In the financial year 2007-08 JVVNL has been able to finance its operating expenditures out of own revenues. Capital expenditures are financed out of own funds, borrowings from GoR and outside institutions.

IV Suggested Steps for Reform

365. JVVNL has the systems and procedures in place being a newly formed organization under Companies Act. There are no significant suggestions for reform in JVVNL.

Financial Management Assessment Questionnaire

Topic	Response	Remarks
1. Implementing Agency		
1.1 What is the entity's legal status / registration?	Registered as Company under Companies Act on 19 th June 2000.	
1.2 Has the entity implemented an externally-financed project in the past (if so, please provide details)?	Yes – projects funded by World Bank (in erstwhile entity RSEB before trifurcation)	
1.3 What are the statutory reporting requirements for the entity?	As applicable to companies under the Companies Act.	

Topic	Response	Remarks
1.4 Is the governing body for the project independent?	Yes	
1.5 Is the organizational structure appropriate for the needs of the project?	Yes	
2. Funds Flow Arrangements		
2.1 Describe (proposed) project funds flow arrangements, including a chart and explanation of the flow of funds from ADB, government and other financiers.	Gol (DEA - Expenditure) to GoR (Finance) to JVVNL	
2.2 Are the (proposed) arrangements to transfer the proceeds of the loan (from the government / Finance Ministry) to the entity satisfactory?	Yes	
2.3 What have been the major problems in the past in receipt of funds by the entity?	None	
2.4 In which bank will the Imprest Account be opened?	State Bank of Bikaner and Jaipur	
2.5 Does the (proposed) project implementing unit (PIU) have experience in the management of disbursements from ADB?	No.	However, has experience of management of disbursements from World Bank
2.7 Does the entity have/need a capacity to manage foreign exchange risks?	No prior experience.	But yes they have the capacity to manage FE risk.
2.8 How are the counterpart funds accessed?	Direct.	IA contribute from its own budget.
2.9 How are payments made from the counterpart funds?	Counterpart funds will be transferred to Project Bank Account and payments proposed to be made from Project Bank Account.	
2.10 If part of the project is implemented by communities or NGOs, does the PIU have the necessary reporting and monitoring features built into its systems to track the use of project proceeds by such agencies?	Not Applicable	
2.11 Are the beneficiaries required to contribute to project costs? If beneficiaries have an option to contribute in kind (in the form of labor), are proper guidelines formulated to record and value the labor contribution?	Not Applicable	
3. Staffing		
3.1 What is the (proposed) organizational structure of the accounting department? Attach an organization chart.	Present organization structure is available in Annexure ____	

Topic	Response	Remarks
3.2 Identify the (proposed) accounts staff, including job title, responsibilities, educational background and professional experience. Attach job descriptions and CVs of key accounting staff.	See Annexure	
3.3 Is the project finance and accounting function staffed adequately?	Yes	
3.4 Is the finance and accounts staff adequately qualified and experienced?	Present staff possesses the requisite experience.	
3.5 Is the project accounts and finance staff trained in ADB procedures?	No.	Training in ADB procedures will be required.
3.6 What is the duration of the contract with the finance and accounts staff?	All permanent staff. No contract staff in F&A section.	
3.7 Indicate key positions not contracted yet, and the estimated date of appointment.	None	
3.10 Does the project have written position descriptions that clearly define duties, responsibilities, lines of supervision, and limits of authority for all of the officers, managers, and staff?	No. However, approved Delegation of Powers is in place and in use.	
3.11 At what frequency are personnel transferred?	Infrequent transfers and that too within organization only	
3.12 What is training policy for the finance and accounting staff?	In-house training facility / centre.	
4. Accounting Policies and Procedures		
4.1 Does the entity have an accounting system that allows for the proper recording of project financial transactions, including the allocation of expenditures in accordance with the respective components, disbursement categories, and sources of funds? Will the project use the entity accounting system?	Yes proper commercial double entry accounting system is in place. Accounting code including chart of accounts is in use in entire organization.	
4.2 Are controls in place concerning the preparation and approval of transactions, ensuring that all transactions are correctly made and adequately explained?	Yes.	
4.3 Is the chart of accounts adequate to properly account for and report on project activities and disbursement categories?	Yes with suitable amendments as and when necessitated	
4.4 Are cost allocations to the various funding sources made accurately and in accordance with established agreements?	Yes. Done on regular basis.	
4.5 Are the General Ledger and subsidiary ledgers reconciled and in balance?	Yes. Done on regular basis.	
4.6 Are all accounting and supporting documents retained on a permanent basis in a defined system that allows authorized users easy access?	Yes.	

Topic	Response	Remarks
<i>Segregation of Duties</i>		
4.7 Are the following functional responsibilities performed by different units or persons: (i) authorization to execute a transaction; (ii) recording of the transaction; and (iii) custody of assets involved in the transaction?	Yes.	
4.8 Are the functions of ordering, receiving, accounting for, and paying for goods and services appropriately segregated?	Yes	
4.9 Are bank reconciliations prepared by someone other than those who make or approve payments?	Yes. Done on monthly basis.	
<i>Budgeting System</i>		
4.10 Do budgets include physical and financial targets?	Yes.	
4.11 Are budgets prepared for all significant activities in sufficient detail to provide a meaningful tool with which to monitor subsequent performance?	Yes.	
4.12 Are actual expenditures compared to the budget with reasonable frequency, and explanations required for significant variations from the budget?	Yes on yearly basis when accounts are prepared.	
4.13 Are approvals for variations from the budget required in advance or after the fact?	Approvals obtained in advance	
4.14 Who is responsible for preparation and approval of budgets?	Finance and Budget section. Approved by Board.	
4.15 Are procedures in place to plan project activities, collect information from the units in charge of the different components, and prepare the budgets?	Yes.	
4.16 Are the project plans and budgets of project activities realistic, based on valid assumptions, and developed by knowledgeable individuals?	Yes. Separately done for Capital and Revenue	
<i>Payments</i>		
4.17 Do invoice-processing procedures provide for: (i) Copies of purchase orders and receiving reports to be obtained directly from issuing departments? (ii) Comparison of invoice quantities, prices and terms, with those indicated on the purchase order and with records of goods actually received? (iii) Comparison of invoice quantities with those indicated on the receiving reports? (iv) Checking the accuracy of calculations?	Yes, verification of supplier / contractor bills with order / agreement / receiving reports for quantity and rate including calculations accuracy before payments are done.	
4.18 Are all invoices stamped PAID, dated, reviewed and approved, and clearly marked for account code assignment?	Yes	
4.19 Do controls exist for the preparation of the payroll and are changes to the payroll properly authorized?	Yes	

Topic	Response	Remarks
Policies And Procedures		
4.20 What is the basis of accounting (e.g., cash, accrual)?	Mercantile system of accounting is followed.	Recognizes significant items of income and expenditure on accrual basis.
4.21 What accounting standards are followed?	Indian accounting standards as prescribed by ICAI	
4.22 Does the project have an adequate policies and procedures manual to guide activities and ensure staff accountability?	Yes. Accounting code / manual is followed	
4.23 Is the accounting policy and procedure manual updated for the project activities?	Yes	
4.24 Do procedures exist to ensure that only authorized persons can alter or establish a new accounting principle, policy or procedure to be used by the entity?	Yes. Amendments to Accounting Code / Manual are possible only after proper approvals.	
4.25 Are there written policies and procedures covering all routine financial management and related administrative activities?	Yes	
4.26 Do policies and procedures clearly define conflict of interest and related party transactions (real and apparent) and provide safeguards to protect the organization from them?	Yes	
4.27 Are manuals distributed to appropriate personnel?	Yes	
Cash and Bank		
4.28 Indicate names and positions of authorized signatories in the bank accounts.	At Head Office: Single authorized signatory- Chief Accounts Officer (CAO) or Senior Accounts Officer (Sr. AO). At Circle Office: Single authorized signatory – Accounts Officer (AO)	
4.29 Does the organization maintain an adequate, up-to-date cashbook, recording receipts and payments?	Yes	
4.30 Do controls exist for the collection, timely deposit and recording of receipts at each collection location?	Yes	
4.31 Are bank and cash reconciled on a monthly basis?	Yes	
4.32 Are all unusual items on the bank reconciliation reviewed and approved by a responsible official?	Yes	
4.33 Are all receipts deposited on a timely basis?	Yes	
Safeguard over Assets		
4.34 Is there a system of adequate safeguards to protect assets from fraud, waste and abuse?	Yes	

Topic	Response	Remarks
4.35 Are subsidiary records of fixed assets and stocks kept up to date and reconciled with control accounts?	Yes	
4.36 Are there periodic physical inventories of fixed assets and stocks?	Yes	
4.37 Are assets sufficiently covered by insurance policies?	No.	Insurance done only for Materials at Site and Cash in Transit
Other Offices and Implementing Entities		
4.38 Are there any other regional offices or executing entities participating in implementation?	Yes. Circle and Division Offices of the Company.	
4.39 Has the project established controls and procedures for flow of funds, financial information, accountability, and audits in relation to the other offices or entities?	Yes	
4.40 Does information among the different offices/implementing agencies flow in an accurate and timely fashion?	Yes	
4.41 Are periodic reconciliations performed among the different offices/implementing agencies?	Yes	
Other		
4.42 Has the project advised employees, beneficiaries and other recipients to whom to report if they suspect fraud, waste or misuse of project resources or property?	Yes	
5. Internal Audit		
5.1 Is there a internal audit department in the entity?	Yes	
5.2 What are the qualifications and experience of audit department staff?	2 Audit Officers qualified chartered accountants in IA department. Others are in house experienced staff	
5.3 To whom does the internal auditor report?	Controller of Internal Audit who in-turn reports to Board of Directors	
5.4 Will the internal audit department include the project in its work program?	Yes	
5.5 Are actions taken on the internal audit findings?	Yes	
6. External Audit		
6.1 Is the entity financial statement audited regularly by an independent auditor? Who is the auditor?	Yes. Independent firm of Chartered Accountants – M/s S.R.Goyal & Co., Chartered Accountants	
6.2 Are there any delays in audit of the entity? When are the audit reports issued?	No. Yearly normally before end of six months from close of financial year	

Topic	Response	Remarks
6.3 Is the audit of the entity conducted according to the International Standards on Auditing?	Yes. Indian Auditing Standards which compares with International Auditing Standards	
6.4 Were there any major accountability issues brought out in the audit report of the past three years?	Significant issue is with regard to the accounting policy of company on "No Profit No Loss" with State Government financing the revenue gap	This is a State Government owned company. Both independent auditor and AG's auditor have not accepted this stand of company.
6.5 Will the entity auditor audit the project accounts or will another auditor be appointed to audit the project financial statements?	Yes	
6.6 Are there any recommendations made by the auditors in prior audit reports or management letters that have not yet been implemented?	No major issues	
6.7 Is the project subject to any kind of audit from an independent governmental entity (e.g., the supreme audit institution) in addition to the external audit?	Yes from Accountant General's office	
6.8 Has the project prepared acceptable terms of reference for an annual project audit?	Will be done	
7. Reporting and Monitoring		
7.1 Are financial statements prepared for the entity? In accordance with which accounting standards?	Yes in accordance with Companies Act and Electricity (Supply) Annual Accounts Rules, 1985	
7.2 Are financial statements prepared for the implementing unit?	Yes	
7.3 What is the frequency of preparation of financial statements? Are the reports prepared in a timely fashion so as to useful to management for decision making?	Monthly Trial Balance, Half yearly and yearly Financial Statements.	
7.4 Does the reporting system need to be adapted to report on the project components?	Yes	
7.5 Does the reporting system have the capacity to link the financial information with the project's physical progress? If separate systems are used to gather and compile physical data, what controls are in place to reduce the risk that the physical data may not synchronize with the financial data?	Separate systems are used. Physical progress reports are generated by Technical Section and Finance Section generate the financial information. Both are consolidated for report purpose.	
7.6 Does the project have established financial management reporting responsibilities that specify what reports are to be prepared, what they are to contain, and how they are to be used?	Yes.	

Topic	Response	Remarks
7.7 Are financial management reports used by management?	Yes	
7.8 Do the financial reports compare actual expenditures with budgeted and programmed allocations?	Yes	
7.9 Are financial reports prepared directly by the automated accounting system or are they prepared by spreadsheets or some other means?	Offline automated system. Company is considering a proposal for converting to online automated system. Part of reports are prepared in excel spreadsheets	
8. Information Systems		
8.1 Is the financial management system computerized?	No only partial offline automated system	
8.2 Can the system produce the necessary project financial reports?	No	
8.3 Is the staff adequately trained to maintain the system?	Training needs to be strengthened	
8.4 Does the management organization and processing system safeguard the confidentiality, integrity and availability of the data?	Yes	

ANNEX F 2.7: PUBLIC HEALTH ENGINEERING DEPARTMENT, GOVERNMENT OF HARYANA)

I Financial Performance

366. Summarized position of income and expenditure for a period of three years is given in Table below:

						Rs. Million
Particulars	FY 04-05	FY 05-06	FY 06-07	FY 07-08	FY 08-09	Growth Rate %
Income:						
Water Receipts	309.69	326.64	347.42	379.62	470.70	11%
Sewerage Receipts	14.44	17.44	19.33	15.93	23.00	12%
Total Income	324.13	344.08	366.75	395.56	493.70	11%
Expenditure						
Establishment Expenditure	1653.92	779.28	1916.95	1959.00	2909.20	15%
Operations & Maintenance	1479.16	1856.46	2126.51	3010.89	2795.50	17%
Total Expenditure	3133.08	2635.74	4043.46	4969.89	5704.70	16%
Revenue Surplus / (Deficit)	(2809.0)	(2291.7)	(3676.7)	(4574.3)	(5211.0)	17%

367. PHED follows cash based system of accounting and is yet to switch over to double entry accrual based accounting system. Hence, there is no balance sheet prepared for PHED. GoH is subsidizing the losses of the PHED over the years as there are constraints over revision of tariff rate(s) to meet the cost of operations.

368. Projects are funded mainly through State (GoH) plan allocations and borrowings from NCRPB for works in NCR. GoH guarantee is used in providing security and comfort to the lenders at present.

II Financial Management Assessment

Introduction

369. The main instrument used to facilitate the financial management assessment was the questionnaire furnished by the ADB, which was discussed with the Superintending Engineer and Assistant Accounts Officer of **Public Health Engineering Department (PHED)** of Government of Haryana in September 2009. Interviews, including follow-up interviews, were conducted / September 2009 to better appreciate some of the responses and to fill up the unanswered items in the questionnaire. Most of the items in the questionnaires were filled up and consolidated by September / October 2009.

Findings

370. Based on the FMAQ responses documents and follow up interviews, the following observations were made:

Implementing agency

371.PHED is a department of Government of Haryana (GoH). PHED is responsible for providing drinking water in both rural and urban districts of Haryana. Excepting for the two corporations of Faridabad and Gurgaon, entire State's water supply is under the jurisdiction of PHED.

372.PHED has not implemented any ADB funded project.

Funds flow arrangements

373.Funds received from either ADB or any other donor agency is deposited into Reserve Bank of India – Government of India (GoI) account. From GoI, funds are transferred to National Capital Region Planning Board (NCRPB) bank account.

374.ADB Loans funds will be lent to NCRPB which in turn will re-lend them to GoH Finance department from where the funds will be transferred to PHED. Usually re-lending terms include (i) Interest rate 7-7.5%, (ii) maturity period of 10 years, and (iii) grace period of 1 years. The re-lending terms are much more restrictive than the terms at which NCRPB borrows from ADB. Interest rate is much higher (7.5% vs. 3% for OCR). The NCRPB however, covers foreign exchange risk. The re-lending conditions should be reviewed in consideration of the overall debt service which PHED should bear as a result of the new borrowings.

375.PHED, being a department of GoH, will be looking to GoH support for repayment obligations of loans.

Staffing and Organization

376.Under the existing structure, PHED financial functions are under the responsibility of the Assistant Accounts Officer. He is assisted by Accountant and Assistants. There are 5 staffs under the finance and accounting section. Most of the staffs have long experience from the accounts department. It is noted that there is not one chartered accountant in the organization.

377.Staff is just adequate for present level of operations. Qualified staff will be required for implementing and maintaining double entry accounting system.

Accounting policies and procedure

378.PHED prepares accounts as per the GoH Finance and Accounts Rules. Separate accounts for projects will have to be maintained. All the project accounts will be incorporated in the final account of PHED. The chart of accounts is adequate to account for all activities of PHED.

379.Importance papers are kept on a permanent basis and other documents are kept for several years as per government rule.

Segregation of Duties

380.Functional responsibilities appear to be segregated. Separate responsibilities for budget, payment, recording, reporting and audit are assigned to separate groups of officers and staff.

Budgeting System

381.PHED prepares the budget once in a year according to financial year (April-March following an incremental approach in which the new budget figures are based on previous year's values plus a 20-30% increase. As a result, PHED does not adopt a results oriented budget approach in which physical and financial targets are defined. Investment activities are planned by the Engineering section in accordance with the PHED Development Plan; however, funding for such activities is provided for by the Government. Operation and maintenance activities are not planned ahead but they are executed on a need basis.

382.Actual expenditure is compared with budget once in a year in February. PHED also publishes monthly financial reports comparing actual against budget figures and monthly progress reports on project execution which provide information about stage of project execution. The monthly MIS (Management Information System) Report also includes a comparison of actual financial performance against budget. A revised budget is prepared whenever necessary.

Payments

383.Invoice-processing and payroll preparation procedures seem to be in order based on the sample invoices. Invoices are usually stamped "PAID".

Policies Procedures

384.The basis of accounting is cash. Transition to accrual based accounting system will be possible only if it is adopted at State (GoH) level.

Cash at Bank

385.Authorized signatories (of cheque payments) are the Drawing and Disbursing Officers of the Divisions of PHED –a) for Works – Executive Engineer b) for Salary – Superintending Engineer and for Head Office – Registrar as delegated by the Engineer in Chief.

Safeguard over assets

386.No inventory is taken for PHED fixed assets and store materials. There is no policy of insurance of assets in PHED.

Other office and Implementing entities

387.PHED has many division and circle offices. The offices are responsible for construction, operation and maintenance and billing and collection of water supply. Only exceptions are the municipal corporations of Faridabad and Gurgaon wherein water supply is under the jurisdiction of the urban local body. All collections and payments are through various Treasury Offices of the GoH. Reconciliation procedures are in place and are being done on regular basis.

Internal audit

388.Local fund audit section carries out the function of pre-audit in PHED. Apart from this there is no internal audit in PHED. This is as per the GoH finance and accounts rules. Action is taken on all audit observations.

External Audit

389. Statutory audit is done by Accountant General (AG) office. Audit is an ongoing process and compliance actions are taken against audit findings and recommendations.

Reporting and Monitoring

390. Financial Statements are prepared in accordance with Government accounting standards and Indian accounting standards (IAS). Three main reports are prepared, annual report (not regularly published), Monthly information system report (MIS) and the statutory Audit Report by external auditors.

Information System

391. Project (of various ongoing schemes of PHED) monitoring system is computerized to certain extent. Report showing status of all the ongoing projects are generated through computerized system. However reconciliation is required between the financial system and data as per reports generated by this computerized monitoring system. Financial management and accounting system is yet to be computerized and records are manually maintained.

III Conclusion and Recommendations

392. In the absence of accrual based accounting system, the balance sheet of PHED showing its assets and liabilities is not prepared. Financial statements of PHED fail to provide a true and fair view of the PHED fiscal situation.

393. Over the last few years PHED has not been able to finance its operating expenditures out of own revenues. Capital expenditures are partly financed out of GoH grants, GoI loans and grants and other direct (for e.g. from NCRPB) loans.

394. PHED financial statements are subject to independent audit. According to the GoH rules the audit report should be submitted within six months from the end of the fiscal year, but usually the submission is delayed.

395. Finally, the lack of computerization of the financial management system is another serious impediment to the efficient budget process. Budget data are still recorded in the manual ledger in the accounting and finance department, while at the zonal level information on billing and collection is kept in the consumer ledger which is not reconciled with the general ledger. Financial reports are prepared by spreadsheet which is a lengthy procedure.

IV Suggested Steps for Reform

396. PHED is presently addressing these difficulties through the computerization contracts which have been approved or are about to be approved. While it is important that these system improvements proceed as planned, it is equally critical that the institutional framework is properly set up for a commercially viable entity. Many deficiencies cannot be corrected by computerization, e.g. proper recording of transactions, analysis and reconciliation of accounts, and compliance with rules and policies.

Financial Management Assessment Questionnaire

Topic	Response	Remarks
1. Implementing Agency		
1.1 What is the entity's legal status / registration?	Department of Government of Haryana	
1.2 Has the entity implemented an externally-financed project in the past (if so, please provide details)?	No	
1.3 What are the statutory reporting requirements for the entity?	As per Government of Haryana (GoH) rules.	
1.4 Is the governing body for the project independent?	No. Part of the Department	
1.5 Is the organizational structure appropriate for the needs of the project?	Yes	
2. Funds Flow Arrangements		
2.1 Describe (proposed) project funds flow arrangements, including a chart and explanation of the flow of funds from ADB, government and other financiers.	GoI to GoH (Finance) to PHED	
2.2 Are the (proposed) arrangements to transfer the proceeds of the loan (from the government / Finance Ministry) to the entity satisfactory?	Yes	
2.3 What have been the major problems in the past in receipt of funds by the entity?	None	
2.4 In which bank will the Imprest Account be opened?	No bank account operations at present. Applied for to State Finance Department	
2.5 Does the (proposed) project implementing unit (PIU) have experience in the management of disbursements from ADB?	No.	
2.7 Does the entity have/need a capacity to manage foreign exchange risks?	No prior experience.	
2.8 How are the counterpart funds accessed?	Through GoH State Plan Funds.	
2.9 How are payments made from the counterpart funds?	Counterpart funds will be through Treasury operations till the Project Bank is opened.	
2.10 If part of the project is implemented by communities or NGOs, does the PIU have the necessary reporting and monitoring features built into its systems to track the use of project proceeds by such agencies?	Not Applicable	
2.11 Are the beneficiaries required to contribute to project costs? If beneficiaries have an option to contribute in kind (in the form of labor), are proper guidelines formulated to record and value the labor contribution?	Not Applicable	

Topic	Response	Remarks
3. Staffing		
3.1 What is the (proposed) organizational structure of the accounting department? Attach an organization chart.	Present organization structure is available in Annexure ____.	
3.2 Identify the (proposed) accounts staff, including job title, responsibilities, educational background and professional experience. Attach job descriptions and CVs of key accounting staff.		
3.3 Is the project finance and accounting function staffed adequately?	Yes	- but inadequate – short staffed
3.4 Is the finance and accounts staff adequately qualified and experienced?	Only in Government Accounting System	– Not Adequate
3.5 Is the project accounts and finance staff trained in ADB procedures?	No.	Training in ADB procedures will be required.
3.6 What is the duration of the contract with the finance and accounts staff?	All permanent staff	
3.7 Indicate key positions not contracted yet, and the estimated date of appointment.	None	
3.10 Does the project have written position descriptions that clearly define duties, responsibilities, lines of supervision, and limits of authority for all of the officers, managers, and staff?	No. However, approved Delegation of Powers is in place and in use.	
3.11 At what frequency are personnel transferred?	Within PHED (once in 3 years)	
3.12 What is training policy for the finance and accounting staff?	No Training policy. However training is imparted in Haryana Institute of Public Administration (HIPA)	
4. Accounting Policies and Procedures		
4.1 Does the entity have an accounting system that allows for the proper recording of project financial transactions, including the allocation of expenditures in accordance with the respective components, disbursement categories, and sources of funds? Will the project use the entity accounting system?	Yes. Cash based accounting system.	
4.2 Are controls in place concerning the preparation and approval of transactions, ensuring that all transactions are correctly made and adequately explained?	Yes	
4.3 Is the chart of accounts adequate to properly account for and report on project activities and disbursement categories?	In line with Government budget heads for receipt and expenditure (both revenue and capital)	
4.4 Are cost allocations to the various funding sources made accurately and in accordance with established agreements?	Yes. Done on regular basis.	

Topic	Response	Remarks
4.5 Are the General Ledger and subsidiary ledgers reconciled and in balance?	Yes. Primary records for receipt and payment maintained.	
4.6 Are all accounting and supporting documents retained on a permanent basis in a defined system that allows authorized users easy access?	Yes as per GoH rules	
<i>Segregation of Duties</i>		
4.7 Are the following functional responsibilities performed by different units or persons: (i) authorization to execute a transaction; (ii) recording of the transaction; and (iii) custody of assets involved in the transaction?	Yes.	
4.8 Are the functions of ordering, receiving, accounting for, and paying for goods and services appropriately segregated?	Yes	
4.9 Are bank reconciliations prepared by someone other than those who make or approve payments?	Yes.	
<i>Budgeting System</i>		
4.10 Do budgets include physical and financial targets?	Yes	
4.11 Are budgets prepared for all significant activities in sufficient detail to provide a meaningful tool with which to monitor subsequent performance?	Yes	
4.12 Are actual expenditures compared to the budget with reasonable frequency, and explanations required for significant variations from the budget?	Yes, yearly.	
4.13 Are approvals for variations from the budget required in advance or after the fact?	Yes, due approval process in place	
4.14 Who is responsible for preparation and approval of budgets?	Engineering in Chief (EIC)	
4.15 Are procedures in place to plan project activities, collect information from the units in charge of the different components, and prepare the budgets?	Yes	
4.16 Are the project plans and budgets of project activities realistic, based on valid assumptions, and developed by knowledgeable individuals?	Yes. In house – past experience.	
<i>Payments</i>		
4.17 Do invoice-processing procedures provide for: (i) Copies of purchase orders and receiving reports to be obtained directly from issuing departments? (ii) Comparison of invoice quantities, prices and terms, with those indicated on the purchase order and with records of goods actually received? (iii) Comparison of invoice quantities with those indicated on the receiving reports? (iv) Checking the accuracy of calculations?	Yes, verification of supplier / contractor bills with order / agreement / receiving reports for quantity and rate including calculations accuracy before payments are done.	

Topic	Response	Remarks
4.18 Are all invoices stamped PAID, dated, reviewed and approved, and clearly marked for account code assignment?	Yes	
4.19 Do controls exist for the preparation of the payroll and are changes to the payroll properly authorized?	Yes.	
Policies And Procedures		
4.20 What is the basis of accounting (e.g., cash, accrual)?	Cash based system of accounting is followed.	
4.21 What accounting standards are followed?	Government accounting standards	
4.22 Does the project have an adequate policies and procedures manual to guide activities and ensure staff accountability?	Yes	
4.23 Is the accounting policy and procedure manual updated for the project activities?	Yes. Government financial accounting rules	
4.24 Do procedures exist to ensure that only authorized persons can alter or establish a new accounting principle, policy or procedure to be used by the entity?	Yes	
4.25 Are there written policies and procedures covering all routine financial management and related administrative activities?	Yes	
4.26 Do policies and procedures clearly define conflict of interest and related party transactions (real and apparent) and provide safeguards to protect the organization from them?	Yes	
4.27 Are manuals distributed to appropriate personnel?	Yes	
Cash and Bank		
4.28 Indicate names and positions of authorized signatories in the bank accounts.	Works – Executive Engineer; Salary – Superintending Er, HO – EIC, Registrar	
4.29 Does the organization maintain an adequate, up-to-date cashbook, recording receipts and payments?	Yes	
4.30 Do controls exist for the collection, timely deposit and recording of receipts at each collection location?	Yes	
4.31 Are bank and cash reconciled on a monthly basis?	Yes. Quarterly reconciliation with Treasury	
4.32 Are all unusual items on the bank reconciliation reviewed and approved by a responsible official?	Yes – Treasury reconciliation	
4.33 Are all receipts deposited on a timely basis?	Yes with Govt Treasury	
Safeguard over Assets		
4.34 Is there a system of adequate safeguards to protect assets from fraud, waste and abuse?	Yes	

Topic	Response	Remarks
4.35 Are subsidiary records of fixed assets and stocks kept up to date and reconciled with control accounts?	No	
4.36 Are there periodic physical inventories of fixed assets and stocks?	No	
4.37 Are assets sufficiently covered by insurance policies?	No	
Other Offices and Implementing Entities		
4.38 Are there any other regional offices or executing entities participating in implementation?	Yes	
4.39 Has the project established controls and procedures for flow of funds, financial information, accountability, and audits in relation to the other offices or entities?	Yes	
4.40 Does information among the different offices/implementing agencies flow in an accurate and timely fashion?	Yes	
4.41 Are periodic reconciliations performed among the different offices/implementing agencies?	Yes. Each accounting unit is responsible for this.	
Other		
4.42 Has the project advised employees, beneficiaries and other recipients to whom to report if they suspect fraud, waste or misuse of project resources or property?	Yes	
5. Internal Audit	No Internal Audit	Only pre audit at Division office
5.1 Is there a internal audit department in the entity?	Not Applicable	
5.2 What are the qualifications and experience of audit department staff?	Not Applicable	
5.3 To whom does the internal auditor report?	Not Applicable	
5.4 Will the internal audit department include the project in its work program?	Not Applicable	
5.5 Are actions taken on the internal audit findings?	Not Applicable	
6. External Audit		
6.1 Is the entity financial statement audited regularly by an independent auditor? Who is the auditor?	Yes. Accountant General (AG) office	
6.2 Are there any delays in audit of the entity? When are the audit reports issued?	No. Yearly. Ongoing process	
6.3 Is the audit of the entity conducted according to the International Standards on Auditing?	Yes. Indian Auditing Standards which compares with International Auditing Standards	
6.4 Were there any major accountability issues brought out in the audit report of the past three years?	Audit Report not available	

Topic	Response	Remarks
6.5 Will the entity auditor audit the project accounts or will another auditor be appointed to audit the project financial statements?	Yes.	
6.6 Are there any recommendations made by the auditors in prior audit reports or management letters that have not yet been implemented?	Audit Report not available	
6.7 Is the project subject to any kind of audit from an independent governmental entity (e.g., the supreme audit institution) in addition to the external audit?	AG's office	
6.8 Has the project prepared acceptable terms of reference for an annual project audit?	Will be done	
7. Reporting and Monitoring		
7.1 Are financial statements prepared for the entity? In accordance with which accounting standards?	Yes. In accordance with Government accounting standards	
7.2 Are financial statements prepared for the implementing unit?	Yes.	
7.3 What is the frequency of preparation of financial statements? Are the reports prepared in a timely fashion so as to useful to management for decision making?	Monthly Trial Balance, Half yearly and yearly Financial Statements.	
7.4 Does the reporting system need to be adapted to report on the project components?	Yes to be modified based on accrual based system	
7.5 Does the reporting system have the capacity to link the financial information with the project's physical progress? If separate systems are used to gather and compile physical data, what controls are in place to reduce the risk that the physical data may not synchronize with the financial data?	At present both are prepared independently in separate offline systems. Controls needs to be strengthened for synchronization of physical and financial data	
7.6 Does the project have established financial management reporting responsibilities that specify what reports are to be prepared, what they are to contain, and how they are to be used?	No. Under development – cash based system.	These will be to be established through Project Financial Management Manual
7.7 Are financial management reports used by management?	Yes, those prepared based on manual records	
7.8 Do the financial reports compare actual expenditures with budgeted and programmed allocations?	Yes	
7.9 Are financial reports prepared directly by the automated accounting system or are they prepared by spreadsheets or some other means?	No. Manual. Some reports are prepared by spreadsheets.	
8. Information Systems		
8.1 Is the financial management system computerized?	No. Ongoing process.	

Topic	Response	Remarks
8.2 Can the system produce the necessary project financial reports?	Yes, only funds received and expended.	
8.3 Is the staff adequately trained to maintain the system?	No Training	
8.4 Does the management organization and processing system safeguard the confidentiality, integrity and availability of the data?	Yes	

ANNEX F 2.8: MUNICIPAL CORPORATION OF FARIDABAD (MCF)

I Financial Performance

397. Summarized position of income and expenditure for a period of three years is given in Table below:

Rs. Million						
Particulars	FY 04-05	FY 05-06	FY 06-07	FY 07-08	FY 08-09	Growth Rate %
Income:						
Tax Receipts	42.8	45.2	46.0	53.3	52.3	5
Property Tax	260.1	246.9	266.1	339.8	332.8	6
Other Tax	168.4	204.7	194.2	193.1	189.8	3
Fees and User Charges	359.5	411.9	814.5	537.4	586.7	13
Sale & Hire Charges	187.2	35.9	57.8	469.2	803.7	44
Revenue Grants	50.9	73.0	81.7	126.1	0.0	
Total Income	1068.9	1017.5	1460.4	1718.7	1965.3	17
Expenditure						
Establishment Expenditure	393.0	463.9	503.4	522.8	608.7	12
Administrative Expenditure	11.7	17.1	31.5	32.6	29.4	26
Operation and Maintenance	478.1	676.0	1033.3	1546.7	2242.4	47
Interest Payments	13.7	8.0	5.3	3.0	4.7	-23
Other Expenditure	113.6	88.2	109.1	106.1	107.9	-1
Total Expenditure	1010.2	1253.2	1682.6	2211.0	2993.1	31
Revenue Surplus / (Deficit)	58.7	(235.7)	(222.2)	(492.3)	(1,027.8)	

398. MCF follows cash based system of accounting and is yet to switch over to double entry accrual based accounting system. Hence, there is no balance sheet prepared for MCF. GoH is subsidizing the losses of the MCF over the years as there are constraints over revision of tax / tariff rate(s) to meet the cost of operations.

399. MCF has sourced its loan funds entirely from NCRPB for the execution of its infrastructure projects under JNNURM. MCF share in JNNURM projects has been sourced through loan funds from NCRPB with balance funds coming in the form of grants from GoI and GoH. MCF has sought loan funds from NCRPB for meeting MCF's share of ongoing as well as executed projects under JNNURM.

400. MCF is yet to switch over to double entry accrual based accounting system and has not yet prepared its balance sheet. Once this is accomplished, MCF will be in a better position to raise required loan funds from market, financial institutions, commercial banks etc. on its own financial strength. GoH guarantee is used in providing security and comfort to the lenders at present.

II Financial Management Assessment

Introduction

401. The main instrument used to facilitate the financial management assessment was the questionnaire furnished by the ADB, which was discussed with the Financial Controller and Assistant Accounts Officer of **Municipal Corporation of Faridabad (MCF)** in September 2009. Interviews, including follow-up interviews, were conducted / September 2009 to better appreciate some of the responses and to fill up the unanswered items in the questionnaire. Most of the items in the questionnaires were filled up and consolidated by September / October 2009.

Findings

402. Based on the FMAQ responses documents and follow up interviews, the following observations were made:

Implementing agency

403. MCF is an Urban Local Body (ULB). Till recently it was the only Municipal Corporation in the State of Haryana. MCF jurisdiction covers Old Municipal Towns of Faridabad, Ballabgarh, New Industrial Town along with 38 revenue villages. The Development Plan of Faridabad comprises of 91 Sectors (maximum number of Sectors in any development plan of Haryana) with the biggest projected population of 10 lacs upto 2001 and 17.5 lacs upto 2011 A.D. Recently Gurgaon ULB in Haryana has also become a Municipal Corporation.

404. MCF has not implemented any ADB or any other multilateral agency project.

Funds flow arrangements

405. Funds received from either ADB or any other donor agency is deposited into Reserve Bank of India – Government of India (GoI) account. From GoI, funds are transferred to National Capital Region Planning Board (NCRPB) bank account.

406. ADB Loans funds will be lent to NCRPB which in turn will re-lend them to MCF. Usually re-lending terms include (i) Interest rate 7-7.5%, (ii) maturity period of 10 years, and (iii) grace period of 1 years. The re-lending terms are much more restrictive than the terms at which NCRPB borrows from ADB. Interest rate is much higher (7.5% vs. 3% for OCR). The NCRPB however, covers foreign exchange risk. The re-lending conditions should be reviewed in consideration of the overall debt service which MCF should bear as a result of the new borrowings.

407. Past MCF Financial Statements show that the MCF's capacity to repay Loans has been satisfactory.

Staffing and Organization

408. Under the existing structure, MCF financial functions are under the responsibility of the Financial Controller. Under him is the finance and accounting section headed by the Accounts Officers (two sanctioned posts – one post currently vacant), supported by Assistant Accounts Officers (two sanctioned posts – one post currently vacant). There are 33 staffs under the finance and accounting section. Most of the staffs have long experience from the accounts department. It is noted that there is not one chartered accountant in the organization.

409. Staff is just adequate for present level of operations. Qualified staff will be required for implementing and maintaining double entry accounting system.

Accounting policies and procedure

410. MCF prepares accounts as per the Municipal Accounts Code. Separate accounts for projects will have to be maintained. All the project accounts will be incorporated in the final account of MCF. MCF is in the process of switching over to double entry accrual based accounting system. The chart of accounts is adequate to account for all activities of MCF.

411. Some of the more critical deficiencies include lack of accountability and internal control mechanisms as evidenced by the backlog of bank reconciliation (more than five years).

412. Important papers are kept on a permanent basis and other documents are kept for several years as per government rule.

Segregation of Duties

413. Functional responsibilities appear to be segregated. Separate responsibilities for budget, payment, recording, reporting and audit are assigned to separate groups of officers and staff.

Budgeting System

414. MCF prepares the budget once in a year according to financial year (April-March following an incremental approach in which the new budget figures are based on previous year's values plus a 20-30% increase. As a result, MCF does not adopt a results oriented budget approach in which physical and financial targets are defined. Investment activities are planned by the Mechanical Engineering section in accordance with the MCF Development Plan; however, funding for such activities is provided for by the Government as part of the Annual Development Fund allocation and the use of fund is recorded into the Development Budget, separate from the operational budget of MCF maintained by the accounting and finance division. Operation and maintenance activities are not planned ahead but they are executed on a need basis.

415. Actual expenditure is compared with budget once in a year in February. MCF also publishes monthly financial reports comparing actual against budget figures and monthly progress reports on project execution which provide information about stage of project execution. The monthly MIS (Management Information System) Report also includes a comparison of actual financial performance against budget. The budget variances are reportedly discussed in monthly meetings with the Financial Controller. A revised budget is prepared whenever necessary.

Payments

416. Invoice-processing and payroll preparation procedures seem to be in order based on the sample invoices. Invoices are usually stamped "PAID".

Policies Procedures

417. The basis of accounting is cash. MCF is in the process of introducing accrual accounting following the International Accounting Standard (IAS) and Indian Accounting Standard (IAS) as adapted by the Institute of Chartered Accountants of India (ICAI). Accounting manuals will be prepared and implemented after approval and adoption by the MCF board.

Cash at Bank

418. Authorized signatories (of cheque payments) are Financial Controller jointly with Municipal Commissioner for all payments.

419. A major concern expressed is the backlog (more than 5 years) of bank reconciliation.

Safeguard over assets

420. No inventory is taken for MCF fixed assets and store materials. There is no policy of insurance of assets.

Other office and Implementing entities

421. MCF has three zonal revenue offices. The zonal revenue offices are responsible for billing and collection of property tax. All collections are deposited into the designated bank and the pay-in-slips are sent to the Main Office of MCF where necessary reconciliation and accounting is done. Property tax billing system is computerized.

Internal audit

422. Local fund audit section carries out the function of pre-audit in MCF. This section is headed by the Joint Director who reports to the Director Audit in the Finance Department of the State Government.

External Audit

423. Till FY 2008-09 only audit being done was by the Local Fund Audit section. Statutory audit from the FY 2008-09 is done by Accountant General (AG) office. The Audit Report for the FY 2008-09 is yet to be finalized.

Reporting and Monitoring

424. Financial Statements are prepared in accordance with Government accounting standards and Indian accounting standards (IAS). Three main reports are prepared, annual report (not regularly published), Monthly information system report (MIS) and the statutory Audit Report by external auditors.

Information System

425. Only the property tax billing system is computerized.

III Conclusion and Recommendations

426. The budget process and financial management represent important tools to keep track of the financial performance of the organization, to gauge the effectiveness of its management and to identify areas of interventions and reform. In the case of MCF, however, management reports shows that the financial statements produced by the Accounting and Finance Section of MCF are perceived more as a ritual annual presentation of financial information about operating receipts and expenditures, rather than as a tool for efficient allocation of scarce resources. In the absence of accrual based accounting system, the balance sheet of MCF showing its assets and liabilities is not prepared. Due to this reason coupled with weak internal control with regard to the backlog (more than 5 years) in bank reconciliation of MCF, the financial statements of MCF fail to provide a true and fair view of the MCF fiscal situation.

427. According to the Act the Municipal Corporation has the power to approve both the Annual and the Supplementary Budget of MCF, but in practice the final approval is given by the Ministry of Finance and the budget is then finalized in a tripartite meeting among the Ministry of Finance, the Administrative Ministry and MCF. The budget process in MCF follows an incremental approach, it is not led by the definition of strategic targets, both physical and financial, to be achieved by the organization.
428. Over the last few years MCF has not been able to finance its operating expenditures out of own revenues. Capital expenditures are partly financed out of GoH grants, GoI loans and grants and other direct (for e.g. from NCRPB) loans.
429. MCF financial statements are subject to independent audit. According to the Municipal Act the audit report should be submitted within six months from the end of the fiscal year, but usually the submission is delayed. Accountant General (AG) office has commenced the audit of FY 2008-09. Prior to this only audit that was been done was by Local Fund Audit headed by Joint Director based in MCF. Reporting by Local Fund Auditor was to the Director Audit in Finance Department of GoH. Request has been made to MCF for a copy of the last audit report. Besides this our review revealed that MCF has huge backlog (more than five years) of bank reconciliation. This is an indication of weak internal control system.
430. Finally, the lack of computerization of the financial management system is another serious impediment to the efficient budget process. Budget data are still recorded in the manual ledger in the accounting and finance department, while at the zonal level information on billing and collection is kept in the consumer ledger which is not reconciled with the general ledger. Financial reports are prepared by spreadsheet which is a lengthy procedure.

IV Suggested Steps for Reform

431. MCF is presently addressing these difficulties through the computerization contracts which have been approved or are about to be approved. While it is important that these system improvements proceed as planned, it is equally critical that the institutional framework is properly set up for a commercially viable entity. Many deficiencies cannot be corrected by computerization, e.g. proper recording of transactions, analysis and reconciliation of accounts, and compliance with rules and policies.
432. In addition to the above initiatives, specific intervention is needed as follows:
- i. Reforming the accounting system in order to introduce and implement the accrual based double entry accounting system including development of Financial Management and Accounting System Manual in MCF;
 - ii. Providing regular (refreshing) training to both the existing and new staff in the new accounting practices and the computerized management information system; and
 - iii. Close monitoring of the plan for computerization of the financial management and budget system;

Financial Management Assessment Questionnaire

Topic	Response	Remarks
1. Implementing Agency		
1.1 What is the entity's legal status / registration?	Municipal Corporation	
1.2 Has the entity implemented an externally-financed project in the past (if so, please provide details)?	No	
1.3 What are the statutory reporting requirements for the entity?	As per Municipal Accounts Code (Government of Haryana - GoH).	
1.4 Is the governing body for the project independent?	Yes. Council.	
1.5 Is the organizational structure appropriate for the needs of the project?	Yes	
2. Funds Flow Arrangements		
2.1 Describe (proposed) project funds flow arrangements, including a chart and explanation of the flow of funds from ADB, government and other financiers.	GoI to NCRPB to MCF	
2.2 Are the (proposed) arrangements to transfer the proceeds of the loan (from the government / Finance Ministry) to the entity satisfactory?	Yes	
2.3 What have been the major problems in the past in receipt of funds by the entity?	None	
2.4 In which bank will the Imprest Account be opened?	MCF's bank account with Axis Bank Limited	
2.5 Does the (proposed) project implementing unit (PIU) have experience in the management of disbursements from ADB?	No.	
2.7 Does the entity have/need a capacity to manage foreign exchange risks?	No prior experience.	
2.8 How are the counterpart funds accessed?	Direct MCF Finances.	
2.9 How are payments made from the counterpart funds?	Project Bank Account of MCF (State and Own funds)	
2.10 If part of the project is implemented by communities or NGOs, does the PIU have the necessary reporting and monitoring features built into its systems to track the use of project proceeds by such agencies?	Not Applicable	
2.11 Are the beneficiaries required to contribute to project costs? If beneficiaries have an option to contribute in kind (in the form of labor), are proper guidelines formulated to record and value the labor contribution?	Not Applicable	

Topic	Response	Remarks
3. Staffing		
3.1 What is the (proposed) organizational structure of the accounting department? Attach an organization chart.	Present organization structure is available in Annexure ____.	
3.2 Identify the (proposed) accounts staff, including job title, responsibilities, educational background and professional experience. Attach job descriptions and CVs of key accounting staff.		
3.3 Is the project finance and accounting function staffed adequately?	Yes.	Needs to be strengthened.
3.4 Is the finance and accounts staff adequately qualified and experienced?	For present level of operations – Yes.	Qualified staff needs to be augmented and strengthened for future.
3.5 Is the project accounts and finance staff trained in ADB procedures?	No.	Training in ADB procedures will be required.
3.6 What is the duration of the contract with the finance and accounts staff?	All permanent staff	
3.7 Indicate key positions not contracted yet, and the estimated date of appointment.	None	
3.10 Does the project have written position descriptions that clearly define duties, responsibilities, lines of supervision, and limits of authority for all of the officers, managers, and staff?	Yes. Rules of GoH is followed by MCF	
3.11 At what frequency are personnel transferred?	Transferable with GoH's Municipal Corporations	
3.12 What is training policy for the finance and accounting staff?	No Training policy. However training is imparted in Haryana Institute of Public Administration	
4. Accounting Policies and Procedures		
4.1 Does the entity have an accounting system that allows for the proper recording of project financial transactions, including the allocation of expenditures in accordance with the respective components, disbursement categories, and sources of funds? Will the project use the entity accounting system?	Yes. Cash based accounting system.	Introduction of double entry accounting system under process
4.2 Are controls in place concerning the preparation and approval of transactions, ensuring that all transactions are correctly made and adequately explained?	Yes	
4.3 Is the chart of accounts adequate to properly account for and report on project activities and disbursement categories?	In line with Municipal Accounts Code	

Topic	Response	Remarks
4.4 Are cost allocations to the various funding sources made accurately and in accordance with established agreements?	Yes. Done on regular basis.	
4.5 Are the General Ledger and subsidiary ledgers reconciled and in balance?	Yes. Primary records for receipt and payment maintained.	
4.6 Are all accounting and supporting documents retained on a permanent basis in a defined system that allows authorized users easy access?	Yes as per GoH rules	
<i>Segregation of Duties</i>		
4.7 Are the following functional responsibilities performed by different units or persons: (i) authorization to execute a transaction; (ii) recording of the transaction; and (iii) custody of assets involved in the transaction?	Yes.	
4.8 Are the functions of ordering, receiving, accounting for, and paying for goods and services appropriately segregated?	Yes	
4.9 Are bank reconciliations prepared by someone other than those who make or approve payments?	Yes.	However not uptodate as there is a backlog of more than 5 years
<i>Budgeting System</i>		
4.10 Do budgets include physical and financial targets?	Yes	
4.11 Are budgets prepared for all significant activities in sufficient detail to provide a meaningful tool with which to monitor subsequent performance?	Yes	
4.12 Are actual expenditures compared to the budget with reasonable frequency, and explanations required for significant variations from the budget?	Yes, yearly.	
4.13 Are approvals for variations from the budget required in advance or after the fact?	Yes, due approval process in place	
4.14 Who is responsible for preparation and approval of budgets?	Compiled by Accounts section based on inputs from other sections. Approved by Mayor of MCF and State Government Urban Development Department.	
4.15 Are procedures in place to plan project activities, collect information from the units in charge of the different components, and prepare the budgets?	Yes	
4.16 Are the project plans and budgets of project activities realistic, based on valid assumptions, and developed by knowledgeable individuals?	Yes. In house – past experience.	

Topic	Response	Remarks
Payments		
4.17 Do invoice-processing procedures provide for: (i) Copies of purchase orders and receiving reports to be obtained directly from issuing departments? (ii) Comparison of invoice quantities, prices and terms, with those indicated on the purchase order and with records of goods actually received? (iii) Comparison of invoice quantities with those indicated on the receiving reports? (iv) Checking the accuracy of calculations?	Yes, verification of supplier / contractor bills with order / agreement / receiving reports for quantity and rate including calculations accuracy before payments are done.	
4.18 Are all invoices stamped PAID, dated, reviewed and approved, and clearly marked for account code assignment?	Yes	
4.19 Do controls exist for the preparation of the payroll and are changes to the payroll properly authorized?	Yes.	
Policies And Procedures		
4.20 What is the basis of accounting (e.g., cash, accrual)?	Cash based system of accounting is followed.	
4.21 What accounting standards are followed?	Municipal Accounts code / standards	
4.22 Does the project have an adequate policies and procedures manual to guide activities and ensure staff accountability?	Yes – Municipal accounting rules	
4.23 Is the accounting policy and procedure manual updated for the project activities?	To be done	Project Finance and Accounts Manual (PFAM)
4.24 Do procedures exist to ensure that only authorized persons can alter or establish a new accounting principle, policy or procedure to be used by the entity?	Yes at GoH level.	For Project to be defined in PFAM
4.25 Are there written policies and procedures covering all routine financial management and related administrative activities?	Yes	
4.26 Do policies and procedures clearly define conflict of interest and related party transactions (real and apparent) and provide safeguards to protect the organization from them?	Yes	
4.27 Are manuals distributed to appropriate personnel?	Not done at present.	
Cash and Bank		
4.28 Indicate names and positions of authorized signatories in the bank accounts.	Financial Controller jointly with Municipal Commissioner	
4.29 Does the organization maintain an adequate, up-to-date cashbook, recording receipts and payments?	Yes. All manual records	

Topic	Response	Remarks
4.30 Do controls exist for the collection, timely deposit and recording of receipts at each collection location?	Yes	
4.31 Are bank and cash reconciled on a monthly basis?	Yes.	However there is a back log of more than 5 years
4.32 Are all unusual items on the bank reconciliation reviewed and approved by a responsible official?	Not done. See 4.31	
4.33 Are all receipts deposited on a timely basis?	Yes	
Safeguard over Assets		
4.34 Is there a system of adequate safeguards to protect assets from fraud, waste and abuse?	Yes	
4.35 Are subsidiary records of fixed assets and stocks kept up to date and reconciled with control accounts?	Yes.	However present status not known as not updated.
4.36 Are there periodic physical inventories of fixed assets and stocks?	No	
4.37 Are assets sufficiently covered by insurance policies?	No. Only Vehicle	
Other Offices and Implementing Entities	No other office(s).	
4.38 Are there any other regional offices or executing entities participating in implementation?	Not Applicable	
4.39 Has the project established controls and procedures for flow of funds, financial information, accountability, and audits in relation to the other offices or entities?	Not Applicable	
4.40 Does information among the different offices/implementing agencies flow in an accurate and timely fashion?	Not Applicable	
4.41 Are periodic reconciliations performed among the different offices/implementing agencies?	Not Applicable	
Other		
4.42 Has the project advised employees, beneficiaries and other recipients to whom to report if they suspect fraud, waste or misuse of project resources or property?	Yes	
5. Internal Audit		
5.1 Is there a internal audit department in the entity?	Audit done by Local Fund Auditor	Pre audit wing headed by Joint Director
5.2 What are the qualifications and experience of audit department staff?	From GoH	
5.3 To whom does the internal auditor report?	Director Audit in Finance Department	
5.4 Will the internal audit department include the project in its work program?	Yes	

Topic	Response	Remarks
5.5 Are actions taken on the internal audit findings?	Yes	
6. External Audit	Not done till now	
6.1 Is the entity financial statement audited regularly by an independent auditor? Who is the auditor?	Yes. Accountant General (AG) audit started this year from FY 2008-09	
6.2 Are there any delays in audit of the entity? When are the audit reports issued?	Yes.	
6.3 Is the audit of the entity conducted according to the International Standards on Auditing?	Yes. Indian Auditing Standards which compares with International Auditing Standards	
6.4 Were there any major accountability issues brought out in the audit report of the past three years?	Audit Report not available	
6.5 Will the entity auditor audit the project accounts or will another auditor be appointed to audit the project financial statements?	Yes.	
6.6 Are there any recommendations made by the auditors in prior audit reports or management letters that have not yet been implemented?	Audit Report not available	
6.7 Is the project subject to any kind of audit from an independent governmental entity (e.g., the supreme audit institution) in addition to the external audit?	Auditor General(AG)'s office	
6.8 Has the project prepared acceptable terms of reference for an annual project audit?	Will be done	
7. Reporting and Monitoring		
7.1 Are financial statements prepared for the entity? In accordance with which accounting standards?	Yes. In accordance with Municipal accounting standards	
7.2 Are financial statements prepared for the implementing unit?	Yes.	
7.3 What is the frequency of preparation of financial statements? Are the reports prepared in a timely fashion so as to useful to management for decision making?	Monthly and Yearly Receipt and Payments Statements are prepared	
7.4 Does the reporting system need to be adapted to report on the project components?		Yes to be modified based on accrual based system
7.5 Does the reporting system have the capacity to link the financial information with the project's physical progress? If separate systems are used to gather and compile physical data, what controls are in place to reduce the risk that the physical data may not synchronize with the financial data?	No.	To be developed

Topic	Response	Remarks
7.6 Does the project have established financial management reporting responsibilities that specify what reports are to be prepared, what they are to contain, and how they are to be used?	No. To be developed.	These will be to be established through Project Financial Management Manual
7.7 Are financial management reports used by management?	Yes, those prepared based on manual records	
7.8 Do the financial reports compare actual expenditures with budgeted and programmed allocations?	Yes – budget vs actuals	
7.9 Are financial reports prepared directly by the automated accounting system or are they prepared by spreadsheets or some other means?	No. Manual. Some reports are prepared by spreadsheets	
8. Information Systems		
8.1 Is the financial management system computerized?	No.	
8.2 Can the system produce the necessary project financial reports?	No	
8.3 Is the staff adequately trained to maintain the system?	Not Applicable	
8.4 Does the management organization and processing system safeguard the confidentiality, integrity and availability of the data?	Yes	

Annex F3.1- Financial Analysis- Anand Vihar

Annex F 3

ANAND VIHAR MMTC

PROFIT AND LOSS ACCOUNT

Particulars	Rs. Million															
	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Revenue Income	51.86	325.48	355.02	383.43	414.18	447.46	483.49	522.50	564.75	610.51	660.08	713.79	772.00	835.08	903.47	977.61
Interest Income on Cash Balance																
Total Income	51.86	325.48	355.02	383.43	414.18	447.46	483.49	522.50	564.75	610.51	660.08	713.79	772.00	835.08	903.47	977.61
Total O&M Exp.	17.86	17.38	191.27	205.03	219.79	235.62	252.60	270.82	290.36	311.32	333.80	357.92	383.80	411.56	441.35	473.32
PBDIT	34.00	308.09	163.75	178.40	194.39	211.83	230.88	251.68	274.39	299.19	326.28	355.87	388.20	423.52	462.11	504.29
Interest on Debt	-	-	139.85	138.10	127.61	110.13	92.65	75.17	57.69	40.21	22.73	6.99	-	-	-	-
Interest on Working Capital	0.99	3.93	3.37	3.62	3.88	4.17	4.48	4.82	5.19	5.59	6.02	6.50	7.01	7.57	8.18	8.84
Fixed Assets Depreciation	-	-	77.50	77.50	77.50	77.50	77.50	77.50	77.50	77.50	77.50	77.50	77.50	77.50	77.50	77.50
PBT	33.00	304.16	(56.96)	(40.81)	(14.60)	20.04	56.26	94.20	134.02	175.90	220.03	264.88	303.69	338.45	376.43	417.95
Less: Income Tax payable																
Less: Deferred Tax																
PAT	33.00	304.16	(56.96)	(40.81)	(14.60)	20.04	56.26	94.20	134.02	175.90	220.03	264.88	303.69	338.45	376.43	417.95

BREAK UP OF REVENUE (Amounts in INR Millions)

BREAK UP OF REVENUE (Amounts in INR M	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Revenue from Hotel project	-	269.42	87.36	96.10	105.71	116.28	127.91	140.70	154.77	170.24	187.27	206.00	226.59	249.25	274.18	301.60
Revenue from Kiosk area	0.02	0.03	10.54	11.28	12.07	12.91	13.81	14.78	15.82	16.92	18.11	19.38	20.73	22.18	23.74	25.40
Revenue from Retail space	2.28	2.44	118.50	126.80	135.67	145.17	155.33	166.20	177.84	190.29	203.61	217.86	233.11	249.43	266.89	285.57
Revenue from Office space	0.07	0.08	64.35	68.85	73.67	78.83	84.35	90.25	96.57	103.33	110.56	118.30	126.58	135.44	144.92	155.07
Revenue from ISBT area	49.48	53.51	57.87	62.59	67.69	73.21	79.17	85.63	92.60	100.15	108.31	117.14	126.69	137.01	148.18	160.26
Parking revenues	-	-	4.40	4.62	4.85	5.09	5.35	5.61	5.89	6.19	6.50	6.82	7.16	7.52	7.90	8.29
Advertising revenues	-	-	12.00	13.20	14.52	15.97	17.57	19.33	21.26	23.38	25.72	28.30	31.12	34.24	37.66	41.43
TOTAL	51.86	325.48	355.02	383.43	414.18	447.46	483.49	522.50	564.75	610.51	660.08	713.79	772.00	835.08	903.47	977.61

BREAK UP OF COMPONENTS AS % OF REVENUE

BREAK UP OF COMPONENTS AS % OF REVENUE																
Revenue from Hotel project		83%	25%	25%	26%	26%	26%	27%	27%	28%	28%	29%	29%	30%	30%	31%
Revenue from Kiosk area		0%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%
Revenue from Retail space		1%	33%	33%	33%	32%	32%	32%	31%	31%	31%	31%	30%	30%	30%	29%
Revenue from Office space		0%	18%	18%	18%	18%	17%	17%	17%	17%	17%	17%	16%	16%	16%	16%
Revenue from ISBT area		16%	16%	16%	16%	16%	16%	16%	16%	16%	16%	16%	16%	16%	16%	16%
Parking revenues		0%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%
Advertising revenues		0%	3%	3%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%
TOTAL		100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%

ANAND VIHAR MMTc

BALANCE SHEET

Particulars	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Own funds	104.39	589.02	532.06	491.25	476.65	496.69	552.95	647.15	781.17	957.07	1,177.10	1,441.98	1,745.67	2,084.12	2,460.55	2,878.50
Market Borrowing																
Institutional Borrowings	294.41	1,472.07	1,472.07	1,435.27	1,251.26	1,067.25	883.24	699.23	515.22	331.22	147.21	-	-	-	-	-
Working Capital Borrowing	8.27	32.77	28.09	30.13	32.33	34.73	37.33	40.16	43.24	46.58	50.21	54.15	58.44	63.11	68.18	73.70
Total Current liability	0.37	1.43	11.31	12.10	12.95	13.86	14.83	15.87	16.98	18.17	19.44	20.80	22.25	23.81	25.48	27.26
Deferred Tax Liability																
Total Liability	407.44	2,095.29	2,043.54	1,968.75	1,773.20	1,612.53	1,488.36	1,402.41	1,356.60	1,353.02	1,393.95	1,516.93	1,826.37	2,171.04	2,554.21	2,979.46
Gross Fixed Assets	396.05	2,050.17	2,050.17	2,050.17	2,050.17	2,050.17	2,050.17	2,050.17	2,050.17	2,050.17	2,050.17	2,050.17	2,050.17	2,050.17	2,050.17	2,050.17
Less: Acc. Depreciation	-	-	77.50	154.99	232.49	309.99	387.48	464.98	542.47	619.97	697.47	774.96	852.46	929.96	1,007.45	1,084.95
Net Block	396.05	2,050.17	1,972.67	1,895.17	1,817.68	1,740.18	1,662.68	1,585.19	1,507.69	1,430.20	1,352.70	1,275.20	1,197.71	1,120.21	1,042.71	965.22
Cash	-	-	22.10	21.31	100.54	187.81	238.94	252.19	225.71	157.44	45.13	148.73	528.48	942.87	1,395.11	1,888.72
Min. Cash Balance	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00
Cash in Bank & Reserve A/c	5.00	5.00	27.10	26.31	95.54	182.81	233.94	247.19	220.71	152.44	40.13	153.73	533.48	947.87	1,400.11	1,893.72
Accounts Receivables	6.39	40.13	43.77	47.27	51.06	55.17	59.61	64.42	69.63	75.27	81.38	88.00	95.18	102.96	111.39	120.53
Total Assets	407.44	2,095.29	2,043.54	1,968.75	1,773.20	1,612.53	1,488.36	1,402.41	1,356.60	1,353.02	1,393.95	1,516.93	1,826.37	2,171.04	2,554.21	2,979.46

CASH FLOW STATEMENT

SOURCES OF CASH																
Long-term Debt	294.41	1,177.66	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Additional Equity Support	71.39	180.47	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Incremental WC Borrowing	8.27	24.50	-	4.68	2.03	2.21	2.40	2.60	2.83	3.07	3.34	3.63	3.95	4.29	4.66	5.07
Cash Profits	33.00	304.16	20.54	36.69	62.90	97.54	133.75	171.69	211.52	253.40	297.53	342.38	381.18	415.94	453.93	495.45
Total Sources of Cash	407.07	1,686.79	15.86	38.72	65.10	99.94	136.36	174.52	214.59	256.74	301.16	346.33	385.47	420.61	459.00	500.96
Capex	396.05	1,654.12	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Repayment of Debt	-	-	-	36.80	184.01	184.01	184.01	184.01	184.01	184.01	184.01	147.21	-	-	-	-
Incremental WC Requirement	11.03	32.67	-	6.24	2.71	2.94	3.20	3.47	3.77	4.10	4.45	4.84	5.26	5.72	6.22	6.76
Cash losses	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Uses of Cash	407.07	1,686.79	6.24	39.51	186.95	187.21	187.48	187.78	188.11	188.46	188.85	152.47	5.72	6.22	6.76	7.36
Opening Cash	-	-	-	22.10	21.31	100.54	187.81	238.94	252.19	225.71	157.44	45.13	148.73	528.48	942.87	1,395.11
Surplus/Deficit	-	-	22.10	0.79	121.85	87.27	51.12	13.26	26.48	68.27	112.31	193.86	379.75	414.39	452.24	493.61
Closing Cash	-	-	22.10	21.31	(100.54)	(187.81)	(238.94)	(252.19)	(225.71)	(157.44)	(45.13)	148.73	528.48	942.87	1,395.11	1,888.72

PROJECT IRR CALCULATION

	ANAND VIHAR MMTc															
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
IRR CALCULATION	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
CASH OUTFLOW	-	396.05	-	1,654.12												
CASH INFLOWS	30.25	295.99	163.75	178.40	194.39	211.83	230.88	251.68	274.39	299.19	326.28	355.87	388.20	423.52	462.11	504.29
TOTAL	-365.80	-1,358.13	163.75	178.40	194.39	211.83	230.88	251.68	274.39	299.19	326.28	355.87	388.20	423.52	462.11	504.29
PROJECT IRR	11.64%															

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Annex F 3.2: Sarai Kale Khan Financial

SARAI KALE KHAN MMTc

PROFIT AND LOSS ACCOUNT

Rs. Million															
Particulars	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2025
Revenue Income	14.72	115.92	324.42	351.20	380.25	411.79	446.03	483.21	523.58	567.29	614.76	666.33	722.37	783.26	921.41
Interest Income on Cash Balance															
Total Income	14.72	115.92	324.42	351.20	380.25	411.79	446.03	483.21	523.58	567.29	614.76	666.33	722.37	783.26	921.41
Total O&M Exp.	14.72	15.92	164.17	175.86	188.39	201.82	216.21	231.63	248.17	265.83	284.76	305.05	326.79	350.10	401.85
PBDIT	-	100.00	160.25	175.34	191.87	209.98	229.82	251.58	275.41	301.46	330.00	361.28	395.57	433.17	519.57
Interest on Debt	-	-	102.63	143.15	134.14	117.04	99.03	81.03	63.02	45.01	27.01	9.90	0.90	0.00	0.00
Interest on Working Capital	-	-	3.06	3.29	3.53	3.80	4.10	4.42	4.77	5.15	5.57	6.02	6.51	7.05	8.28
Fixed Assets Depreciation	-	-	79.62	79.62	79.62	79.62	79.62	79.62	79.62	79.62	79.62	79.62	79.62	79.62	79.62
PBT	-	100.00	(25.06)	(50.72)	(25.43)	9.51	47.07	86.51	128.00	171.67	217.80	265.74	308.54	346.49	431.66
Less: Income Tax payable															
Less: Deferred Tax															
PAT	-	100.00	(25.06)	(50.72)	(25.43)	9.51	47.07	86.51	128.00	171.67	217.80	265.74	308.54	346.49	431.66

BREAK UP OF REVENUE (Amounts in INR Millions)

BREAK UP OF REVENUE (Amounts in INR M)	2,010	2,011	2,012	2,013	2,014	2,015	2,016	2,017	2,018	2,019	2,020	2,021	2,022	2,023	2,024	2,025
Revenue from Hotel project	-	100.00	119.00	130.90	143.99	158.39	174.23	191.65	210.82	231.90	255.09	280.60	308.66	339.52	373.47	410.82
Revenue from Kiosk area	-	-	14.28	15.28	16.35	17.49	18.72	20.03	21.43	22.93	24.54	26.25	28.09	30.06	32.16	34.41
Revenue from Retail space	-	-	64.71	69.24	74.09	79.28	84.83	90.76	97.12	103.92	111.19	118.97	127.30	136.21	145.75	155.95
Revenue from Office space	-	-	94.42	101.03	108.10	115.67	123.77	132.43	141.70	151.62	162.24	173.59	185.74	198.75	212.66	227.54
Revenue from ISBT area	14.68	15.88	17.17	18.57	20.09	21.72	23.49	25.41	27.48	29.57	31.83	34.25	36.87	39.68	42.70	45.96
Parking revenues	-	-	2.79	2.93	3.08	3.23	3.39	3.56	3.74	3.93	4.12	4.33	4.54	4.77	5.01	5.26
Advertising revenues	-	-	12.00	13.20	14.52	15.97	17.57	19.33	21.26	23.38	25.72	28.30	31.12	34.24	37.66	41.43
TOTAL	14.68	115.88	324.38	351.16	380.21	411.75	445.99	483.17	523.54	567.25	614.72	666.29	722.33	783.22	849.41	921.37

BREAK UP OF COMPONENTS AS % OF REVENUE

BREAK UP OF COMPONENTS AS % OF REVENUE																
Revenue from Hotel project		86%	37%	37%	38%	38%	39%	40%	40%	41%	41%	42%	43%	43%	44%	45%
Revenue from Kiosk area		0%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%
Revenue from Retail space		0%	20%	20%	19%	19%	19%	19%	19%	18%	18%	18%	18%	17%	17%	17%
Revenue from Office space		0%	29%	29%	28%	28%	28%	27%	27%	27%	26%	26%	26%	25%	25%	25%
Revenue from ISBT area		14%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%
Parking revenues		0%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%
Advertising revenues		0%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%
TOTAL		100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%

SARAI KALE KHAN MMTC

BALANCE SHEET

Particulars	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Own funds	51.74	528.11	518.93	468.22	442.78	452.30	499.37	585.88	713.88	885.55	1,103.35	1,369.09	1,677.62	2,024.12	2,411.23	2,842.89
Market Borrowing																
Institutional Borrowings	151.63	1,364.66	1,516.29	1,497.34	1,326.76	1,137.22	947.68	758.15	568.61	379.07	189.54	18.95	-	-	-	-
Working Capital Borrowing	-	-	25.48	27.38	29.45	31.70	34.16	36.84	39.76	42.94	46.40	50.17	54.29	58.78	63.69	69.04
Total Current liability	-	-	11.02	11.79	12.61	13.50	14.44	15.45	16.53	17.69	18.93	20.25	21.67	23.19	24.81	26.55
Deferred Tax Liability																
Total Liability	203.37	1,892.78	2,071.73	2,004.73	1,811.60	1,634.72	1,495.66	1,396.32	1,338.78	1,325.25	1,358.21	1,458.47	1,753.59	2,106.09	2,499.73	2,938.48
Gross Fixed Assets	203.37	1,892.78	2,106.35	2,106.35	2,106.35	2,106.35	2,106.35	2,106.35	2,106.35	2,106.35	2,106.35	2,106.35	2,106.35	2,106.35	2,106.35	2,106.35
Less: Acc. Depreciation	-	-	79.62	159.24	238.86	318.48	398.10	477.72	557.34	636.96	716.58	796.20	875.82	955.44	1,035.06	1,114.68
Net Block	203.37	1,892.78	2,026.73	1,947.11	1,867.49	1,787.87	1,708.25	1,628.63	1,549.01	1,469.39	1,389.77	1,310.15	1,230.53	1,150.91	1,071.29	991.67
Cash	-	-	-	9.32	107.77	208.92	272.59	296.89	279.78	219.08	112.35	61.16	429.00	853.61	1,318.71	1,828.21
Min. Cash Balance	-	-	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00
Cash in Bank & Reserve A/c	-	-	5.00	14.32	102.77	203.92	267.59	291.89	274.78	214.08	107.35	66.16	434.00	858.61	1,323.71	1,833.21
Accounts Receivables	-	-	40.00	43.30	46.88	50.77	54.99	59.57	64.55	69.94	75.79	82.15	89.06	96.57	104.73	113.60
Total Assets	203.37	1,892.78	2,071.73	2,004.73	1,811.60	1,634.72	1,495.66	1,396.32	1,338.78	1,325.25	1,358.21	1,458.47	1,753.59	2,106.09	2,499.73	2,938.48

CASH FLOW STATEMENT

CASH FLOW STATEMENT																
SOURCES OF CASH																
Long-term Debt	151.63	1,213.03	151.63	-	-	-	-	-	-	-	-	-	-	-	-	-
Additional Equity Support	51.74	376.37	15.88	-	-	-	-	-	-	-	-	-	-	-	-	-
Incremental WC Borrowing	-	-	25.48	1.90	2.07	2.25	2.46	2.68	2.92	3.17	3.46	3.77	4.12	4.49	4.90	5.35
Cash Profits	-	100.00	54.56	28.90	54.19	89.13	126.69	166.13	207.62	251.29	297.42	345.36	388.16	426.11	466.74	511.28
Total Sources of Cash	203.37	1,689.40	247.56	30.80	56.26	91.39	129.15	168.81	210.54	254.46	300.88	349.13	392.28	430.60	471.64	516.63
Capex	203.37	1,689.40	213.58	-	-	-	-	-	-	-	-	-	-	-	-	-
Repayment of Debt	-	-	-	18.95	170.58	189.54	189.54	189.54	189.54	189.54	189.54	170.58	18.95	-	-	-
Incremental WC Requirement	-	-	33.98	2.53	2.76	3.01	3.28	3.57	3.90	4.23	4.61	5.03	5.49	5.99	6.54	7.13
Cash losses	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Uses of Cash	203.37	1,689.40	247.56	21.48	173.34	192.54	192.81	193.11	193.43	193.77	194.15	175.62	24.44	5.99	6.54	7.13
Opening Cash	-	-	-	-	9.32	107.77	208.92	272.59	296.89	279.78	219.08	112.35	61.16	429.00	853.61	1,318.71
Surplus/Deficit	-	-	-	9.32	117.09	101.15	63.66	24.30	17.11	60.69	106.73	173.52	367.83	424.61	465.10	509.50
Closing Cash	-	-	-	9.32	(107.77)	(208.92)	(272.59)	(296.89)	(279.78)	(219.08)	(112.35)	61.16	429.00	853.61	1,318.71	1,828.21

IRR CALCULATION

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
IRR CALCULATION	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
CASH OUTFLOW	- 203.37	-1,689.40	-213.58													
CASH INFLOWS		100.00	206.31	175.34	191.87	209.98	229.82	251.58	275.41	301.46	330.00	361.28	395.57	433.17	474.38	519.57
TOTAL	-203.37	-1,589.40	-7.26	175.34	191.87	209.98	229.82	251.58	275.41	301.46	330.00	361.28	395.57	433.17	474.38	519.57
PROJECT IRR	10.07%															

SENSITIVITY CALCULATIONS

[illegible]

Annex F 3-3: Haryana state financials

		2004-05	2005-06	2006-07	2007-08	2008-09
	<i>All in Rs. Million</i>	Actual				Revised Estimates
I	Revenue Receipts					
1	Tax Revenue	80,600	102,800	122,230	132,520	162,230
2	Non-Tax Revenue	30,900	35,740	57,290	64,990	55,480
	Total Revenue Receipts(a) = (1)+(2)	111,490	138,530	179,520	197,510	217,710
II	Capital Receipts					
3	Recoveries of Loans	1570	2900	22,010	2140	3780
4	Misc.Capital Receipts				100	140
5	Public Debt. (Net)	14,600	22,410	8980	30	34,030
	Total Capital Receipts (b) = (3)+(4)+(5)	16,170	25,310	30,990	2270	37,950
	Total Receipts (c) = (a)+(b)	127,660	163,840	210,510	199,770	255,660
III	Revenue Expenditure					
	Non-Plan Expenditure	98,070	107,220	139,990	146,260	176,460
6	On Revenue Account	99,540	106,250	139,080	143,510	172,200
7	Interest Payments	22,350	21,000	22,650	23,460	23,540
	Plan Expenditure					
8	On Revenue Account	14,530	20,150	24,540	31,760	44,950
+	Total Revenue Expenditure (d) = (6)+(7)+(8)	136,420	147,400	186,270	198,730	240,700
IV	Capital Expenditure					
	Non-Plan Expenditure					
9	On Capital Account	-1470	970	910	2750	4260
	Plan Expenditure					
10	On Capital Account	12,520	16,920	25,210	34,370	37,300
	Total Capital Expenditure (e) = (9)+(10)	11,050	17,890	26,120	37,120	41,560
	Total Expenditure (f) = (d)+(e)	147,470	165,290	212,400	235,840	282,250
11	Revenue Surplus(+)/Deficit(-) (g) = (a)-(d)	-24,930	-8860	-6750	-1220	-22,990
12	Fiscal Surplus(+)/Deficit(-) (h) = (c)-(f)	-34,400	-23,860	-10,860	-36,100	-60,630

Source: Haryana state budgets

Annex F 3.4 Patuadi Water Supply Financial Analysis

Year	Capital Cost	Incremental O&M Cost	Total Outflow	Incremental Revenue	Total Inflow	Net Cash Flow	Capital increased 10%	Cost by 10%	O & M Cost increased by 10%	Incremental Revenue Decreased by 10%	One Year Delay
2011	174.9		174.9			(174.9)	(192.3)	(174.9)	(174.9)	(174.9)	
2012	524.6		524.6			(524.6)	(577.0)	(524.6)	(524.6)	(524.6)	(174.9)
2013	174.9		174.9			(174.9)	(192.3)	(174.9)	(174.9)	(174.9)	(524.6)
2014		22.7	22.7	69.8	69.8	47.1	47.1	44.8	40.1	(174.9)	
2015		22.7	22.7	61.5	61.5	38.7	38.7	36.5	32.6	47.1	
2016		22.7	22.7	63.7	63.7	41.0	41.0	38.7	34.6	38.7	
2017		22.7	22.7	65.7	65.7	43.0	43.0	40.7	36.4	41.0	
2018		22.7	22.7	68.0	68.0	45.2	45.2	43.0	38.4	43.0	
2019		22.7	22.7	84.6	84.6	61.9	61.9	59.6	53.4	45.2	
2020		22.7	22.7	105.2	105.2	82.5	82.5	80.2	72.0	61.9	
2021		22.7	22.7	107.0	107.0	84.3	84.3	82.0	73.6	82.5	
2022		22.7	22.7	109.5	109.5	86.7	86.7	84.5	75.8	84.3	
2023		22.7	22.7	111.5	111.5	88.8	88.8	86.5	77.6	86.7	
2024		22.7	22.7	137.2	137.2	114.4	114.4	112.2	100.7	88.8	
2025		22.7	22.7	140.2	140.2	117.5	117.5	115.2	103.4	114.4	
2026		22.7	22.7	142.1	142.1	119.3	119.3	117.1	105.1	117.5	
2027		22.7	22.7	144.2	144.2	121.5	121.5	119.2	107.1	119.3	
2028	174.9	22.7	197.6	176.1	176.1	(21.5)	(39.0)	(23.8)	(39.1)	121.5	
2029		22.7	22.7	178.7	178.7	156.0	156.0	153.7	138.1	(21.5)	
2030		22.7	22.7	181.4	181.4	158.7	158.7	156.4	140.5	156.0	
2031		22.7	22.7	183.1	183.1	160.4	160.4	158.1	142.1	158.7	
2032		22.7	22.7	223.6	223.6	200.9	158.1	142.1	178.5	160.4	
2033		22.7	22.7	226.9	226.9	204.2	142.1	158.7	181.5	200.9	
Total	1,049.1	454.5	1,503.6	2,579.9	2,579.9	1,076.3	866.5	931.1	818.3	510.9	
NPV @ 4.05%	935.1	307.5	1166.3	1592.7	1471.1	247.6	115.4	179.3	106.2	165.6	

			FIRR	SI		SV				
Base Case			6.30%							
O&M Costs Increased by 10%			10%	5.75%	0.95	105%				
Incremental Revenue Decreased by 10%			10%	5.06%	2.44	41%				
One Year Delay				4.19%						

Annex F 3.5 Pataudi Sewerage- Financial Analysis

Year	Capital Cost	Incremental O&M Cost	Total Outflow	Incremental Revenue	Total Inflow	Net Cash Flow	Capital increased 10%	Cost by 10%	O & M Cost increased by 10%	Incremental Revenue Decreased by 10%	One Year Delay
2011	13.3		13.3			(13.3)	(14.6)	(13.3)	(13.3)	(13.3)	
2012	73.0		73.0			(73.0)	(80.3)	(73.0)	(73.0)	(73.0)	(13.3)
2013	46.4		46.4			(46.4)	(51.1)	(46.4)	(46.4)	(46.4)	(73.0)
2014		5.5	5.5	9.4	9.4	3.9	3.9	3.4	3.0	(46.4)	
2015		5.5	5.5	5.2	5.2	(0.3)	(0.3)	(0.9)	(0.8)	3.9	
2016		5.5	5.5	5.8	5.8	0.3	0.3	(0.3)	(0.3)	(0.3)	
2017		5.5	5.5	6.4	6.4	0.9	0.9	0.3	0.2	0.3	
2018		5.5	5.5	7.0	7.0	1.5	1.5	0.9	0.8	0.9	
2019		5.5	5.5	9.0	9.0	3.5	3.5	2.9	2.6	1.5	
2020		5.5	5.5	11.5	11.5	6.0	6.0	5.5	4.9	3.5	
2021		5.5	5.5	12.5	12.5	7.0	7.0	6.4	5.7	6.0	
2022		5.5	5.5	13.3	13.3	7.8	7.8	7.3	6.5	7.0	
2023		5.5	5.5	14.1	14.1	8.6	8.6	8.1	7.2	7.8	
2024		5.5	5.5	17.8	17.8	12.3	12.3	11.8	10.5	8.6	
2025		5.5	5.5	18.8	18.8	13.4	13.4	12.8	11.5	12.3	
2026		5.5	5.5	19.9	19.9	14.4	14.4	13.9	12.4	13.4	
2027		5.5	5.5	21.0	21.0	15.5	15.5	14.9	13.4	14.4	
2028	26.5	5.5	32.0	26.3	26.3	(5.7)	(8.4)	(6.3)	(8.4)	15.5	
2029		5.5	5.5	27.6	27.6	22.1	22.1	21.5	19.3	(5.7)	
2030		5.5	5.5	27.4	27.4	21.9	21.9	21.3	19.1	22.1	
2031		5.5	5.5	27.9	27.9	22.4	22.4	21.9	19.7	21.9	
2032		5.5	5.5	33.9	33.9	28.5	28.5	27.9	25.1	22.4	
2033		5.5	5.5	34.4	34.4	29.0	29.0	28.4	25.5	28.5	
Total	159.2	109.7	268.9	349.2	349.2	80.3	64.4	69.3	45.4	51.3	
NPV @ 4.05%	140.7	74.2	200.2	209.1	193.2	-14.5	-28.0	-21.1	-33.1	-26.2	

			FIRR	SI	SV					
Base Case			3.16%							
Capital Costs Increased by 10%		10%	2.42%	3.06	33%					
O&M Costs Increased by 10%		10%	2.74%	1.50	66%					
Incremental Revenue Decreased by 10%		10%	1.90%	6.62	15%					
Worst Scenario			0.75%							
One year delay			2.28%							

Annex F 3.6 – Pataudi Water and Sewerage Combined

Year	Capital Cost	Incremental O&M Cost	Total Outflow	Incremental Revenue	Total Inflow	Net Cash Flow	Capital increased by 10%	Cost by 10%	O & M Cost increased by 10%	Incremental Revenue Decreased by 10%	One Year Delay
2011	188.1		188.1			(188.1)	(206.9)	(188.1)	(188.1)		
2012	597.5		597.5			(597.5)	(657.3)	(597.5)	(597.5)	(188.1)	
2013	221.3		221.3			(221.3)	(243.4)	(221.3)	(221.3)	(597.5)	
2014		28.2	28.2	79.2	79.2	51.0	51.0	48.2	43.1	(221.3)	
2015		28.2	28.2	66.6	66.6	38.4	38.4	35.6	31.8	51.0	
2016		28.2	28.2	69.5	69.5	41.3	41.3	38.5	34.3	38.4	
2017		28.2	28.2	72.1	72.1	43.9	43.9	41.1	36.7	41.3	
2018		28.2	28.2	74.9	74.9	46.7	46.7	43.9	39.2	43.9	
2019		28.2	28.2	93.6	93.6	65.4	65.4	62.6	56.0	46.7	
2020		28.2	28.2	116.7	116.7	88.5	88.5	85.7	76.9	65.4	
2021		28.2	28.2	119.5	119.5	91.2	91.2	88.4	79.3	88.5	
2022		28.2	28.2	122.8	122.8	94.6	94.6	91.8	82.3	91.2	
2023		28.2	28.2	125.6	125.6	97.4	97.4	94.6	84.9	94.6	
2024		28.2	28.2	155.0	155.0	126.8	126.8	123.9	111.3	97.4	
2025		28.2	28.2	159.0	159.0	130.8	130.8	128.0	114.9	126.8	
2026		28.2	28.2	162.0	162.0	133.8	133.8	130.9	117.6	130.8	
2027		28.2	28.2	165.2	165.2	137.0	137.0	134.2	120.5	133.8	
2028	201.4	28.2	229.6	202.4	202.4	(27.2)	(47.4)	(30.1)	(47.5)	137.0	
2029		28.2	28.2	206.3	206.3	178.1	178.1	175.3	157.5	(27.2)	
2030		28.2	28.2	208.8	208.8	180.6	180.6	177.7	159.7	178.1	
2031		28.2	28.2	211.0	211.0	182.8	182.8	180.0	161.7	180.6	
2032		28.2	28.2	257.5	257.5	229.3	186.6	170.0	203.6	182.8	
2033		28.2	28.2	261.4	261.4	233.2	171.0	187.1	207.0	229.3	
Total	1,208.3	564.1	1,772.5	2,929.1	2,929.1	1,156.6	930.9	1,000.4	863.7	923.5	
NPV @ 4.05%	1027.7	338.8	1366.5	1599.5	1599.5	233.0	87.4	158.2	73.1	139.5	
			FIRR	SI	SV						

Base Case			5.9%							
Capital Costs Increased by 10%	10%		4.7%	2.5	41%					
O&M Costs Increased by 10%	10%		5.4%	1.0	99%					
Incremental Revenue Decreased by 10%	10%		4.7%	2.7	38%					
One year delay			5.3%							

Annex F 3.7- Haryana – PHED Financials

	Projections in Rs. Million									
	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2023-24	2029-30	2032-33
A. Pataudi PHED (Project Account)										
Opening Balance		(96.3)	(417.4)	(534.2)	(493.5)	(464.7)	(434.7)	(36.3)	654.6	1,122.0
<u>Sources of Fund</u>										
Debt Drawdown	144.5	481.7	187.1							
Water Supply										
- Income -Existing	1.1	1.1	1.1	9.0	2.4	2.4	2.4	2.4	2.4	4.4
- Income – Incremental				59.5	60.9	62.9	64.9	136.5	181.0	226.9
-New Connection Fees		0.0	8.0		0.6	0.8	0.8	0.6	0.4	0.4
Sewerage and Sanitation										
- Income -Existing									0.0	(0.0)
- Income – Incremental				3.8	4.3	4.9	5.5	17.0	27.1	34.2
-New Connection Fees				5.6	0.8	0.8	0.8	0.8	0.2	0.2
Total- Inflow	144.5	481.7	195.1	68.9	66.6	69.5	72.1	155.0	208.8	261.7
<u>Disposition of Funds</u>										
Equity Drawdown	48.2	160.6	62.4							
Project Capex	192.7	642.3	249.5							
Water Supply										
- Expenditure – Existing	12.4	12.4	12.4	12.4	12.4	16.0	16.7	22.2	27.8	30.9
- Expenditure – Incremental				22.7	30.7	32.1	33.5	44.2	54.9	61.0
Sewerage and Sanitation										
- Expenditure – Existing										
- Expenditure – Incremental				5.5	7.1	7.4	7.7	10.3	12.8	14.2
Total- Outflow	240.8	802.8	311.9	28.2	37.8	39.5	41.2	54.4	67.7	75.2
Net Cash Flow	(96.3)	(321.1)	(116.8)	40.7	28.8	30.0	30.9	100.5	141.0	186.5
Govt Subsidy for Tariff										
Net Cash Flow (after subsidy)	(96.3)	(321.1)	(116.8)	40.7	28.8	30.0	30.9	100.5	141.0	186.5
Closing Balance	(96.3)	(417.4)	(534.2)	(493.5)	(464.7)	(434.7)	(403.8)	64.2	795.6	1,308.5
Cum. Closing Balance	(96.3)	(417.4)	(534.2)	(493.5)	(464.7)	(434.7)	(403.8)	64.2	795.6	1,308.5

PART II ECONOMIC ANALYSIS

1.0 Overview

The National Capital Region (NCR): Way Forward for Balanced Regional Development

433. The Economic Survey of Delhi, 2007-08 observes that “the National Capital Region is characterized by a surge of physical and economic growth of Delhi and relative underdevelopment of the rest of the area. This is primarily a problem of relationship rather than a problem of scarcity leading to a lopsided development of the region where a part of economic surplus of the periphery, which is primarily rural and agriculture based, is extracted by the core and whatever development takes place in the periphery mostly reflects the expanding need of the core.” On a closer scrutiny of the problems faced by Delhi because of its rapid growth, it appears that the solutions of many of the problems lie beyond Delhi. In the event that the region around Delhi can be developed in a similar fashion, not only it will absorb a part of the increasing population in Delhi but will also create a synergy that will foster rapid economic growth of the region. There is a definite need for a regional approach of planned development. The concept of National Capital Region (NCR) and the allied plans uphold the idea of this regional approach to planned development.

434. The NCR comprises Delhi and sub-regions of the states of Haryana (7 districts)¹, Rajasthan (1 district)² and Uttar Pradesh (5 districts)³. The materiality of each of these states in the context of the NCR is depicted in Table 2.1.

Table 2.1: Materiality of the States in the NCR Region

State	NCR Area in Sq. Km. (% of the Total NCR Area)	NCR Population in Millions (2001)	Projected NCR Population in Millions (2021)	GSDP (Rs. Millions) at Current Prices (2006-07)*	GSDP Growth Rate over Previous Year*	IEM ⁴ (2008-09) – Proposed Investment (Rs. Millions)*	State Literacy Rate (2001)*	% Population Below Poverty Line (1999-2000)*
Delhi	1483 (4.00%)	13.70	23.00	1252820.00	18.40%	0.00	82%	8.23%
Haryana	13413 (40.00%)	8.70	16.00	1264750.00	18.88%	480.00	67.91%	8.74%
Uttar Pradesh	10853 (32.00%)	11.60	19.80	3128320.00	11.82%	4460.00	57.36%	31.15%
Rajasthan	7829 (23.00%)	3.00	4.80	1420360.00	14.34%	1940.00	60.41%	15.28%

(*) For the entire state

¹ Districts in Haryana: Faridabad, Gurgaon, Rohtak, Rewari, Jhajjar, Mewat, Sonapat and Panipat

² District in Rajasthan: Alwar

³ Districts in Uttar Pradesh: Meerut, Ghaziabad, Gautam Buddha Nagar, Bulandshahr and Baghpat

⁴ IEM implies Industrial Entrepreneurs Memorandum, implemented in 2008-09

435. NCT-Delhi is the predominant growth centre in the entire NCR in terms of manufacturing/trading activity as well as concentration of employment. It is seen from the above table that a considerable portion of the population in Uttar Pradesh and Rajasthan live below the poverty line. This is attributable to over dependence on agriculture, seasonal employments and lack of industries in the state. With the proposed development of the districts (in these states) within the NCR, it is expected that economic activities will be diversified and industrialization will receive a boost. The economic benefits are expected to spill over the NCR boundaries and reach other corners of the states – correcting the economic inequality. Similarly, with economic activities being decentralized, it is expected that there will be improvements in the social infrastructure thus increasing the literacy level in the area.

436. The genesis of the National Capital Region lies in the recommendations of the first Master Plan for Delhi (MPD) notified in 1962 wherein, a broad area consisting of the Union Territory of Delhi and a few ring towns around it was conceived for being developed as a metropolitan region to reduce the population pressure on Delhi. The unprecedented growth of population especially during the post independence years and the consequent haphazard development (of the region) had been putting severe pressures on the infrastructure of Delhi. Therefore, it was suggested through various planning exercises beginning from 1956, that serious consideration should be given for a planned decentralization to outer areas and even outside the Delhi region. Finally in 1985, the Parliament enacted the Planning Board Act in 1985 with the concurrence of the constituent States of Haryana, Rajasthan and Uttar Pradesh (Delhi being only a Union Territory at that time). The Schedule to the Act has defined the region consisting of NCT Delhi and parts of the adjoining States which covers a total area of 33578 sq km. The main guidelines of the policy for a sustainable development of the NCR are⁵:

- Only such new Central Government offices, which directly serve the Ministries of the Government of India, be located in Delhi
- Existing offices of the public sector undertakings within Delhi should be encouraged to shift, whereas new offices of the public sector undertakings, to the extent possible within their operational areas should be set up outside Delhi
- Industrial growth in Delhi should be restricted – with stress on units which requires less of manpower and energy and are non-polluting and clean
- Legal and Fiscal measures are to be adopted to restrict the employment in industries and distributive trade (in Delhi)
- Major regional transport corridors and communication network be strengthened to enhance economic development within the region and decentralization of distributive trade
- Development of rural areas must be accorded top priority, with improved conditions of employment, healthcare, education and living standards
- Development of rural areas will help reduce migration to cities
- Smaller and medium sizes towns within the NCR must be developed to induce shifts in employment generation.
- Network systems in the NCR such as water bodies, trails, heritage structures, employment centres, service areas, infrastructure etc. must be developed in a comprehensive manner
- Economic restructuring of the region must be based on a comprehensive vision

⁵ For a more detailed discussion, see article: National Capital Region of Delhi – A Roadmap to Sustainable Development by Mr. A.K. Jain, Commissioner (Planning), Delhi Development Authority (available at <http://www.ashahabitat.com/knowledgebase/pdf/delhi93.pdf>)

437. According to the 2001 census, the total population of NCR was 37.1 million and the average gross density of population is 1,104 persons per sq. km. By 2021, the population in the NCR is expected to grow to 64 million. The level of urbanization in the region is as high as 56%. The most prominent and fast growing urban centres are Delhi and its adjacent areas.

438. In addition to the NCR, the NCR Planning Board has identified the Gwalior (Madhya Pradesh State); Patiala (Punjab); Hissar (Haryana); Kota (Rajasthan); and Bareilly (Uttar Pradesh) as Counter Magnet Areas (CMA) where development strategies need to be implemented in order to ease the projected population pressure on NCT-Delhi. These CMAs have been identified after consultation with the respective state governments regarding their location, population and potential growth prospects.

Regional Plan 2021

439. For the sustainable and integrated development of the NCR, a Regional Plan- 2021 has been formulated. The Plan aims at promoting growth and balanced development in the area through planning, related regulations and infrastructure based intervention. The major thrust areas under the Plan include:

- Identification and development of regional settlements – counter magnet towns capable of absorbing the demographic and economic development pressure on NCT-Delhi.
- Development of a rail-road network that is well integrated with the land use patterns, to support balanced regional development.
- Minimize the adverse environmental impact that the development of the National Capital Region might engender.
- Develop quality urban services in the NCR
- Introduce rational land use schemes in order to protect and preserve the good agricultural land in the region and utilize unproductive land for urban uses.
- Promote sustainable development in the region to improve quality of life.
- Improve the efficiency of existing methods of resource mobilisation and adopt innovative methods of resource mobilization.
- Facilitate, attract and guide private investment in desired direction.

440. Therefore the Regional Plan 2021 aims at ensuring the socio-economic and environmental sustainability of the NCR. Economically the importance of the region is immense. The NCR recorded an average annual growth of 3.6 % during the period 1991-2001. The highest growth rates have been reported by Delhi (4.7%) and Haryana (3.0%). It is ranked as one of the most profitable investment areas in the country and is currently ranked right after the Mumbai region. The area currently attracts 17% of the Foreign Direct Investments (FDI) in the country.

Increasing Investments in NCR

441. An analysis of projects and investments being planned in the country reveals that the Mumbai Metropolitan Region (MMR) led by Mumbai in the west and the National Capital Region (NCR) led by Delhi in the north are going to attract a significant investment in the near future. To increase synergy between these two future economic hubs in the country, plans are on to build a high investment Delhi-Mumbai Industrial Corridor (DMIC). The proposed DMIC, connecting NCR and MMR (Mumbai Metropolitan Region) will lie within 150 km of the Indian Railways' Dedicated Railway Freight Corridor and will run through the states of Delhi, Haryana, Uttar Pradesh, Rajasthan, Madhya Pradesh, Gujarat and Maharashtra. The DMIC is expected to create a strong economic base with world-class infrastructure that will promote local industry and attract foreign investment. The proposed development includes creation of investment regions /industrial areas and critical infrastructure along the corridor. The total investment in infrastructure in DMIC is expected to be around USD 90-100 billion. The project would have

the potential to generate employment of around 3 million mainly in the manufacturing/processing sectors. This corridor also boasts of the largest number of proposals for multiproduct SEZs. Out of the 91 Multi-product SEZs (at various stages of approval) proposed to be established in the country, about 60% fall in the states that comprise the 'Delhi-Mumbai Industrial Corridor'.

442. Besides the Delhi-Mumbai Industrial Corridor, two Dedicated Freight Corridors by the Indian Railways – Delhi-Mumbai (Western) and Delhi-Howrah (Eastern), are expected to contribute to the growth of the region. Approved for implementation by the Committee of Infrastructure in February 2006, the corridors would require an investment of at least Rs 2250000 Million and almost 5 years to complete. These corridors would be constructed, operated and maintained by a corporate entity on commercial principles, and relying on efficient technological solutions. Scarce budgetary resources would be leveraged for raising debt from the markets, based on a sound business plan. The proposed corporate entity would provide the rail infrastructure, but would not itself engage in freight business, thus providing non-discriminatory track access on payment of haulage charges by train operators. It is expected that the freight corridors would attract large scale investments in the region and also competition in freight operations.

High level of Industrialization

443. As already noted, NCT-Delhi represents the centre of growth in the NCR. Currently, industrialization in NCR is concentrated in the sub-regions of Uttar Pradesh (General Manufacturing), Haryana (Automobile, Electronics, Handloom) and Rajasthan (Marble, Leather, Textile). The region accounts for a substantial part of the country's production of cars (60%), motor cycles (55%) and tractors (25%). Industrialization in and around NCR is expected to receive further boost through the proposed creation of Special Economic Zones (SEZs)/Industrial Zones. In future Delhi is expected to attract huge investment in services and the hi-tech sector, while the rest of the NCR would attract manufacturing and other green field projects. For the comprehensive development of the NCR, the Regional Plan envisages an infrastructure investment of around USD 25.2 billion by 2021. The largest share of this investment will be in the power sector (USD 12.5 billion) followed by transport (USD 7.2 billion), water (USD 3.2 billion), sewerage (USD 2 billion) and solid waste management (USD 0.3 billion).

Haryana, Rajasthan and Uttar Pradesh – An overview

444. Haryana, covering a total area of 44212 sq. km., has a population of 21.08 million. Urban population in the state constitutes 29% of the population. Economically it is one of the middle income states in the country which traditionally depended on agriculture as the main source of livelihood. Rajasthan, lying on the western border of India has an area of 342239 sq km. As per the 2001 census, the state has a population of about 69.7 million, 81% of whom live in urban areas. Economically, it is one of the fastest growing states in the country. Uttar Pradesh, on the other hand, covering an area of 240928 sq km, is one of the most populous states in the country. According to the 2001 census, it has a population of 166 million and a population density of 689 persons per sq km.

State Domestic Product

445. NCT Delhi and the other NCR states assume a considerable position of importance in the Indian economy. On an average, the region contributes to about 20% of the Indian GDP. The performance of the individual states is presented in table 1.2.

446. When all the states and the union territories of the country are ranked according to their share in the total GDP of India (on the basis of the figures for the fiscal 2006-07), Uttar Pradesh ranks second after Maharashtra. Rajasthan and Haryana have ranks of 8 and 11 respectively. NCT Delhi, though small in size, assumes 13th position among all the states and union territories in the country. The above figures demonstrate the importance the region has with respect to the economic performance of the country as a whole.

Table 2.2: Gross State Domestic Product of NCR States at 1999-2000 Constant Prices

(Figures in Rs. Millions)

State/Union Territory	1999-2000	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07
Uttar Pradesh	1751600	1790200	1828880	1895980	1994130	2078260	2195540	2360700
Rajasthan	827200	810600	898690	809740	1041890	1022580	1091210	1169460
Haryana	512780	554770	598500	636590	693880	756760	826040	920530
Delhi	549750	571980	593210	637660	664580	735580	799160	894870
All India GDP	17865250	18643000	197260600	20482870	22227580	23883840	26128470	28643090

Source: Compiled from Data published by Central Statistical Organisation

447. During 1999-2000 and 2006-07, the Compounded Annual Growth Rate (CAGR) of the Indian GDP was approximately 6.98% per annum. Both Haryana and Delhi witnessed intense economic activity during this period and registered a CAGR of 8.72% p.a. and 7.21% p.a. respectively, which was substantially higher than the national average. During the period Rajasthan and Uttar Pradesh demonstrated a CAGR below the national average with CAGR of 5.07% and 4.35% p.a. respectively.

448. In terms of the Net State Domestic Product (NSDP) at constant prices, both Delhi and Haryana shows considerable growth during the period 1999-2000 to 2006-07 (Table 2.3). For both NCT Delhi and the state of Rajasthan, the per capita NSDP is well above the NNP per capita of the Indian economy as a whole. During the fiscal 2005-06 Delhi ranked third among all the states and the union territories in terms of the NSDP. The corresponding rank of Haryana was 5. The above figures demonstrate the importance the region has with respect to the economic performance of the country as a whole.

Figure 1. Growth Rate (%) of GSDP at Current Prices (Base: 1999 – 2000)



Table 2.3 Net State Domestic Product Per Capita at 1999-2000 Constant Prices (Rs.)

State/Union Territory	1999-2000	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07
Haryana	23121	24328	25557	26622	28484	30502	32724	35779
Rajasthan	13619	12840	13933	12054	15579	14908	15543	16401
Uttar Pradesh	9719	9700	9651	9780	10080	10250	10605	11188
Delhi	38673	38623	38627	40492	40898	43745	46239	50565
India (NNP per Capita)	15881	16172	16764	17101	18317	19325	20858	22553

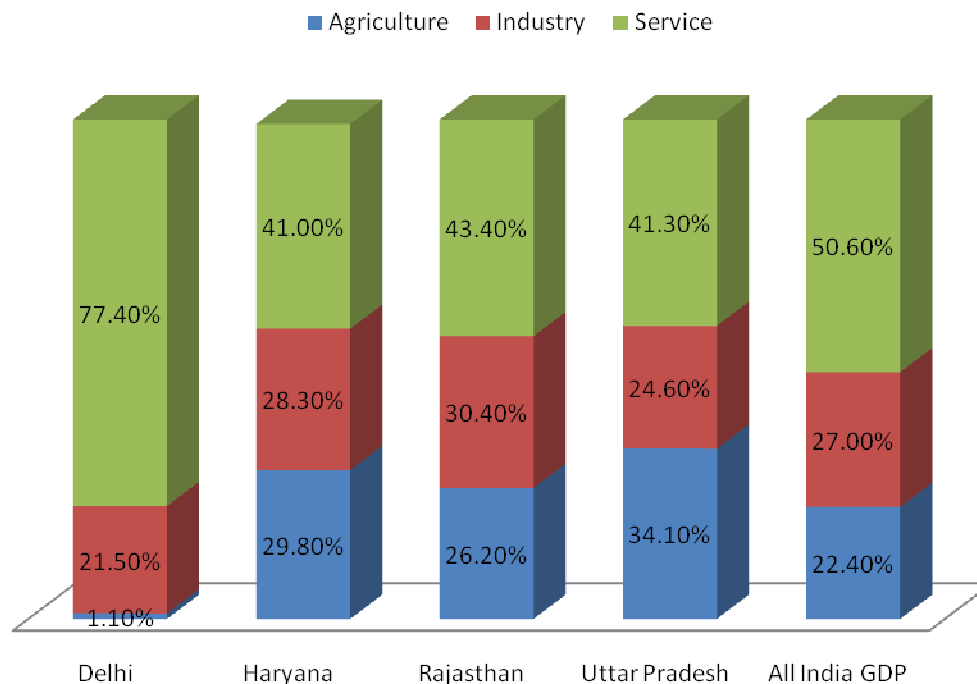
Source: Compiled from Data published by Central Statistical Organisation

5.2. Structure of the Economies

449. **Figure 2.2** demonstrates the structure of the economies of the NCR states. The economy of NCT Delhi is primarily a non agricultural economy with almost 99% of its GSDP being generated by activities in Industry and service sector.

450. For the other states in the NCR region, agriculture contributes substantially to the GSDP. For all these states the contribution of agriculture is well above the national average. In all these states Industrial activities also play a crucial role and approximately 25% of the GSDP is contributed by the industrial activities. It is interesting to note that that the contribution by the service sector in these states is about 40% and below the national average of 50.60%

Figure 2.2 Structure of Economy in NCR: Share of Sectors in the GSDP (2001-02 to 2003-04)



451. The above figures indicate that the economies of Haryana, Uttar Pradesh and Rajasthan are balanced economies with significant contributions from all the three sectors of the economy. However, during the recent years the portion of the states near to the NCT Delhi is witnessing a rapid increase concerning the activities in the industry and service sector. Many national and multinational companies are establishing their operations in the NCR region. A recent study by NASSCOM and A.T. KEARNEY⁶ shows NCR as a LEADER⁷ among 50 cities selected for the study. The leader cities are significantly ahead of the rest of the cities in terms of availability and quality of employable workforce.

452. In Haryana, over the past decade, a growing manufacturing and services sector has fuelled rapid real estate and infrastructure growth and a shift away from agriculture in the composition of the economy. This tertiary sector of the state grew at a CAGR of 11.8% p.a. during the period. The tertiary sector growth has mostly been driven by the IT and the ITES sectors. This sector contributes to about 44.3% of the GSDP. During the same period, the secondary sector, which has a share of 32.4% in the GSDP, recorded a CAGR of 8.1%. The secondary sector growth has been driven by manufacturing in sub-sectors like automobile components, auto light engineering and textiles. The per capita income of the state is US\$ 862.9 and the state has the minimum urban-rural prosperity gap in the country.

453. The state of Haryana produces 66.67% of the passenger cars, 50.00% of the tractors, 60.00% of the motor cycles, 50.00% of the refrigerators and other white goods and 25% of the sanitary-ware manufactured in the country. The robust SSI sector in the state provide repair services for capital goods

⁶ NASSCOM – A.T. Kearney Study (2008): Location Roadmap for IT-BPO Growth – Assessment of 50 Leading Cities

⁷ The study classifies cities in four categories – LEADERS, CHALLENGERS, FOLLOWERS and ASPIRANTS.

and is mostly into manufacturing of metal products, leather and fur products, wooden furniture, food processing, etc.

454. Between 2002-03 and 2007-08, Rajasthan's GSDP grew at a rate of 12.85% p.a. Though a 21% p.a. CAGR in agriculture during this period contributed greatly to the growth, the tertiary sector has the largest share in the GDSP. The tertiary sector, driven by subsectors like trade, hotels & restaurants and real estate, has a share of over 40% in the GDSP. The CAGR of the tertiary sector during the period 2002-03 to 2007-08 was 9.3%. Real estate, with a share of 46%, is the major growth driver in the tertiary sector. The secondary sector, driven by construction and having a CAGR of 12.73% during the mentioned 5 year period, has a 29.1% share in the GDSP. During the same period, the construction sector - contributing a 50 per cent share to the secondary sector, had a CAGR of 23%.

455. The industrial performance of Rajasthan is mostly driven by Micro Small and Medium Enterprises (MSME). The small and medium scale units generate seven times the employment generated by the medium and large industries. The key industries in the state include agro industries, cement products, ceramic, food processing, hand tools, handicraft, handmade paper, gems & jewellery, marble, oil industry and stone quarrying.

456. After Maharashtra, UP is the second largest economy in the country, contributing 8.17% of the Indian GDP. Though primarily an agrarian economy, the tertiary sector contributes more than 40% of the states domestic product. The primary sector contributes to about 34% of the GSDP, with agriculture contributing to 66% of the primary sector share. The high share of the tertiary sector in the state's GSDP can be attributed to tourism. One of the top tourist destinations in the country, the state draws about 25% of all tourists visiting India.

457. The secondary sector in the state is largely driven by office machinery, sugar, cotton fabrics and agro-based industries. The state has the largest share of SSI units in the country (12%). It is also the fourth largest software exporter. Despite the smallest share in the GSDP, the robust industrial activities in the state can be attributed to the presence of strong industrial infrastructure. U.P. boasts of 15 industrial areas, 12 specialized parks, 3 growth centres, Industrial Infrastructure Development Centres (IIDCs) and 12 notified Special Economic Zones (SEZ) with world class infrastructure. Most of these SEZs are located in the NCR region falling in the state. The Greater Noida region, that forms the heart of the NCR in UP, has 19% land reserved for industrial use. An integrated agro-food processing zone is proposed at Hapur lying in the Ghaziabad district. 40 IT-ITES parks, a knowledge park and two Biotech zones are also proposed. An Integrated Logistics Hubs (Free Trade Warehousing Zone) have also been proposed in collaboration between IL&FS, Mineral and Mining Trading Corporation and Mitsui (Japan), under the DMIC project.

Investments in the NCR States

458. Haryana is known for its investor friendly policies. As on March 2008, the state has received about US\$ 71.72 billion in investments, of which 65% is under implementation. Maximum investments have come in the construction sector (59.6%, mainly real estate and road construction), followed by electricity (19.2%), services (12.1%), manufacturing (11.3%) and irrigation (0.2%). Panipat, Gurgaon, Faridabad and

Bhiwani (key NCR centers) are the major centers of growth in the state. These districts together contribute to 61.9% of the total production in Haryana.

459. In the recent years, the manufacturing sector in Rajasthan has witnessed a strong inflow of investment. In June 2008, the total outstanding investment in Rajasthan stood at US\$ 27.31 billion, an impressive increase from the US\$ 13.3 billion outstanding in June 2007. 38.3% of this investment was made in construction, followed by electricity (27.4%), mining (14.6%), manufacturing (11.3%), services (9%) and irrigation (1.1%). The district of Alwar, falling in the NCR, is one of the top most industrialized districts in the state. Bone china crockery, caustic soda, cement, ceramic tiles, dyes and chemicals, edible oil, electronics, engineering machines, GI and CI pipes, granite slabs and tiles, hand tools and marble are some of the prominent industries of the district.

Social Infrastructure

460. Haryana has well developed education and health care facilities. The state boasts of 4 universities, 61 engineering colleges, 34 MCA and 56 MBA colleges, 27 Pharmacy colleges, 76 polytechnics, 355 undergraduate and 75 post graduate colleges. As far as medical infrastructure is concerned, the state has about 50 hospitals, 133 dispensaries, 85 community health centres, 420 primary health centres, 2,299 sub centres and 20 tuberculosis centres. The per capita expenditure on health in the state has increased from US\$ 4.11 in 2004-05 to US\$ 5.74 in 2007-08.

461. Haryana has one of the best infrastructures for collection of savings and disbursal of credit in the country. In 2006-07, the credit to deposit ratio in the state was 65 per cent and it achieved 107.4 per cent of the set target of the annual credit plan.

462. Rajasthan has achieved significant progress in improving its social infrastructure over the years reflected in the 9th rank as per the Human Development Index (2001). Rajasthan's education network consists of 9 universities and over 250 colleges, along with 55,000 primary and 7,400 secondary schools. The state has 41 engineering colleges, 23 polytechnics and 152 Industrial Training Institutes (ITIs), providing vocational training to students. The state has 7 medical institutes, 28 pharmacy institutes and 26 management institutes. The network of health facilities in the state comprises 126 hospitals and 1,800 health centers. In order to strengthen the social infrastructure, with private partnership, the State encourages investment in health sector. As a result, the state has witnessed tremendous growth in terms of healthcare facilities and infrastructure over recent years.

463. Banking infrastructure in Rajasthan has improved in the recent years. By the third quarter of 2006, the credit-deposit ratio in the state was 78.12% as against the all India figure of 72.99%. The outstanding scheduled commercial bank credit in Rajasthan grew from US\$ 9.4 billion as on March 31, 2006 to US\$ 12.8 billion as on March 31, 2007 - an increase of 37.2 per cent.

464. In UP, the education and health infrastructure in the state is quite well developed. UP is one of the few states in the country that has successfully implemented the "education for all" policy. The state has 38 universities, 95 polytechnic institutes, 179 industrial training institutes, 95 engineering and 16 medical colleges. Some of the leading engineering colleges and management institutes in the country are located

in the state. In the health sector the state has 74 district hospitals, 3660 primary health centers, 386 community health centers and several alternative medical units like ayurvedic, unani, etc.

Physical Infrastructure

465. The transport sector in Haryana is quite well developed. It is one of the few states in the country which has 100% metalled road connectivity in the country. It has 23871 km of road and 1462 km of national highway. The state boasts of one of the biggest state road transport undertakings in the country. The state is well connected to the Indian Railways network. Gurgaon lies in close proximity to the international airport in New Delhi while a domestic airport is located at Chandigarh, the state capital. There are civil aerodromes at Pinjore, Karnal, Hisar, Bhiwani and Narnaul.
466. Haryana's power sector is grappling with the twin challenges of serving a growing and commercially vibrant urban and industrial customer base while also managing the supply of scarce electricity to the state's traditional economic communities in rural areas. Haryana was among pioneer states in terms of initiating legal, structural, regulatory and institutional reforms in the power sector. The critical challenges facing Haryana's power sector include shortages, below cost-recovery tariffs, and limited capacity of service providers and other key stakeholders.
467. The state has seen power shortages grow in recent years, with peak-time deficits of 1200-1500 MW and off-peak deficits of 400-600 MW. This translates to 10-30% of the installed capacity of 4680 MW. These shortages have resulted in costly coping strategies adopted by consumers who could afford them (oil-based captive generation by industry, commercial entities, and wealthier households). Annual electricity demand growth forecast for the 2007-12 period ranges from 9 to 14%, with the possibility of the recent economic downturn dampening this demand growth. With rising costs and deteriorating services, state authorities have found it difficult to raise tariffs. The cost of power supply in Haryana is higher than in other states because of its long distance from primary fuel sources, old and inefficient state power generation capacity, and difficulty in securing long-term supply from non-state owned power plants on competitive terms (due to the general power shortage in the country).
468. The rapid industrialization and a steep rise in population in the state of Haryana, has placed enormous burden on the civic amenities in the towns. Various schemes are being planned for the beautification and decongestion of these towns so as to ensure their planned future growth. The Urban Local Bodies Department of Haryana proposes to construct sanitary landfill and compost plants for the disposal of municipal solid waste by grouping 2-3 towns with bigger towns in neighbourhoods where land is available. So far 19 urban centers for 38 towns have been identified for the disposal of municipal solid waste. The Union Government has proposed an allocation of Rs 4550 Million for the project for a period of 2005-10, but this amount is far from being adequate.
469. Rajasthan's road density is 41.2 km per 100 square km which is significantly less than the national average of 76.8. The low road density can be attributed to the large proportion of desert area in the state. Rajasthan has a total road length of 180,000 km. Of these, 5,655 km are national highways, 11,615 km are state highways and 7,340 km are major district roads. Through various schemes like the Missing Link project and Central Road Fund, new roads are constructed to link all villages in the state. Under the state's Mega Highways Project, over 1000 km of roads joining national highways are being upgraded into expressways, providing better and quicker connectivity. The state government has introduced the Road Infrastructure Development Company of Rajasthan Ltd (RIDCOR) to improve the state's road infrastructure. RIDCOR is a public limited company constituted as a 50:50 joint venture between the government of Rajasthan and Infrastructure Leasing and Financial Services Ltd (IL&FS). Rajasthan has benefitted significantly from the ongoing highway development programme including the DMIC. The state

has also been a pioneer in promoting private investment in development of highways, with implementation of projects on Build-Operate-Transfer (BOT) basis. Rajasthan is also well connected with the rest of the country by a rail network with a route length of about 5900 km. 65% of this network is under broad gauge. Besides road and rail transport, the airways connection of the state is also quite adequate. The state has an international airport at Jaipur and a domestic airport at Jodhpur and Udaipur.

470. The power infrastructure of Rajasthan though developed is yet not adequate. In 2005-06, the per capita consumption of electricity in the state is 572.2 kWh which is lower than the national average of 631.41 kWh. In March 2007, the state had an installed capacity of 6335 MW. By 2012 the Government of Rajasthan plans to increase the existing capacity by 3180 MW. Three new power plants have already been commissioned – one at Giral in Barmer district and two in Dholpur district. Six new plants are being constructed in Giral, Dholpur, Chhabra, Kota, Suratgarh and Barsinger. These six plants would add 1180 MW to the state's capacity. The government is exploring non-traditional energy options like biomass, solar energy and wind power. In 2004 the state government announced a policy for promoting generation of electricity through non-conventional energy sources. The aim of this policy is to encourage private investment in the renewable energy sector. Wind power projects having a total capacity of 450 MW have already been commissioned in the state. Biomass power projects with a total capacity of 46.3 MW have already been commissioned by the state. Two other similar projects with a total capacity of 15.5 MW are under construction. In Mathania near Jodhpur, a 140 MW solar plant has also come up to tap solar energy. More projects are being undertaken to increase the state's non-conventional energy capacity.

471. Water is one of the scarcest resources in Rajasthan. Almost 66% of the state is arid and 30% is semi-arid (Govt. of Rajasthan, 2005)⁸. Besides this natural feature, a fast growing population and injudicious policies have resulted in a situation where demand vastly outstrips supply. Accepted international standards deem that if water availability per person in any region is below 1000 cu m per year, then the region is water stressed. In Rajasthan, the water availability per person per year is only 809 cu m. It is expected that over time the domestic and industrial demand for water in the state will increase substantially in the near future particularly in the industrialized districts of Alwar, Kota, Jodhpur and Jaipur. To review the situation, the state government formed a committee in 2004 under the chairmanship of Prof. V. S. Vyas to suggest strategies to develop the state's water resources. Based on its observations, the committee suggested an integrated water resource management policy that is based on stakeholder participation in planning and management. However, the privatization experience of Rajasthan's surface water resources has not been encouraging. Unresolved public policy issues in the environment and social spheres hinder large-scale private investment.

472. UP is well connected through air, road and rail. It has three domestic airports - one each in Lucknow, Varanasi and Agra and the NCR region is well connected to the rest of the world through the international airport at Delhi. Efforts are underway to introduce air services in Allahabad and Gorakhpur. With a rail route length of 8546 km (2006), U.P. has the largest network in the country. Most of this route is under broad gauge. All major cities and towns in the state are linked through railways. The road connectivity in the state is second only to Maharashtra. With 1027 Km of road length per 1000 sq km in 2002, U.P. has the seventh largest road density in the country. It is well connected with the rest of the country through 37 national highways. As on 2002, the total road length in the state was 248481 km, 67% of which was surfaced. The state also boasts of the largest surfaced urban road network in the country – 50721 km.

⁸ Govt. Of Rajasthan (2005): Report of the Expert Committee on Integrated Development of Water Resources, (<http://www.solutionexchange-un.net.in/food/cr/res25070705.pdf>)

473. Power infrastructure in the state though developed is yet inadequate. The state has an installed power generation capacity of 4706 MW as on 2006. However, this capacity is not enough to meet the power demand in the state. The increasing population, urbanization and industrialization have led to rapid increase in power demand in recent years. The demand is likely to rise further in the future. To meet this demand the state government announced a new power sector policy in 2003 that was aimed at attracting private investment in the sector. Consequent to which, several major private projects such as Dadri power project of Reliance Energy Generation Limited and Roza Power Project of the Birla Group, have been implemented. Proposed projects include a 1750 MW power plant at Dadri in the Gautam Buddha Nagar district, another 740 MW gas based power plant also at Dadri and a 250 MW gas based power plant at Greater Noida. Besides encouraging private participation, the government is also offering lucrative tax benefits to prospective investors in order to improve the power sector in the state. The main aim of the government power policy is to provide additional power capacity, modernize existing plants and improve transmission facilities.

474. Like the rest of the NCR, Uttar Pradesh lies in an area which is likely to face severe water crisis in the future. Though the state receives adequate monsoon rains and is fed by several Himalayan rivers, scientific studies predict that unsustainable over exploitation is likely to deplete the water resources in the state leading to water stress. The worst affected region will be western U.P. which houses the NCR area. To ensure economically and environmentally sustainable water resource management, the Uttar Pradesh Water Management and Regulatory Commission Act was passed in 2008. As per the National Water Policy 2002, there is scope for private participation in developing infrastructure for water management in the state. Private participation helps in introducing innovative ideas, generating financial resources, introducing corporate management, and improving service efficiency and accountability to users.

II ECONOMIC ANALYSIS OF SELECTED SUB-PROJECTS

2. MULTI MODAL TRANSIT CENTRE MMTC – ANAND VIHAR

475. The objective of the development of MMTC at Anand Vihar is as listed below:

- To redevelop the existing ISBT as Multi Modal Transit Center (MMTC).
- To decongest the internal city roads by restricting the flow of inter-state buses.
- To facilitate an effective multi-modal changeover by integrating the existing ISBT with the Anand Vihar Gate Metro station and Railway Station.

476. To provide a state-of-the-art Multi Modal Transit Center that is user friendly, catering to varied passengers' comfort, pedestrian-friendly, ecologically sustainable, handicapped-friendly, and aided with facilities as per best international practices.

Demand Assessment

477. The requirement for various components of the MMTC which includes bus bays for interstate and local buses, parking space for private vehicle and parking requirement of taxi and auto are analyzed based on the demand survey data and presented in the following sections with comparison of the requirement and design provisions made in the DPR.

478. The requirement of bus bays are assessed based on dwelling time of the buses and the total number of trips. The estimate of dwelling times of intercity buses at Anand Vihar Gate is given in the **Table 2.4**.

Table 2.4 Dwelling Times of Intercity Buses at Anand Vihar Gate

Time Period (Minutes)	Distribution	
	Number	Percentage
Less than 15	88	9.7
15 to 30	79	8.7
30 to 45	385	42.3
More than 60	358	39.3
Total	910	100

479. On week days, 2715 bus trips are observed in Anand Vihar ISBT with average occupancy of 17.4 with a foot-fall of 94279.

480. Estimation of number of bus bays required for the ISBT is done based on the following assumption

- 10 minutes occupancy time for local buses.
- 20 minutes occupancy time for intercity buses at boarding bays.
- 5 minutes occupancy time for intercity buses at alighting bays.

481. For the purpose of design, 10% peak hour arrival/departure of buses have been considered and the demands for boarding and alighting bus bays are estimated accordingly. From the above table it can be noticed that over 39% of the buses stays more than 60 minutes in the terminal. No further data was available to assess the weighted average time spend by the long stay buses which will use idle parking

bays. Assessment of number of idle bus bays are made for three different average idle parking time of 1hrs, 2hrs and 3hrs. The requirement of idle bus bays assessed based on average idle time of 3hr. The estimation of number of bus bays required and the provision made in the DPR are shown in the Table 2.12 Requirement of Number of Bays.

Table 2.5 Requirement of Number of Bays and DPR Provisions

Type of Service	Requirement				Provision in the DPR for 2028
	2008	2018	2028	2048	
Local Buses	27	36	46	68	34
Interstate Buses (Boarding)	56	75	96	143	97
Interstate Buses (Alighting)	9	13	16	24	30
Interstate Buses (Idle) – 1hr	18	24	31	46	46
Interstate Buses (Idle) – 2hr	36	49	63	93	
Interstate Buses (Idle) – 3hr	55	73	94	139	

482. From the above table it can be seen that number of bays provided for local buses are less than the requirement and the provision made of alighting bus bays (interstate) are more than the requirement. However the combined number of bays provided for local and alighting bays of interstate buses satisfies the requirement. Idle bus bays are provided based an average idle time of between 1 and 2hr. This may warrant separate bus depot space for long stay buses. A dynamic assignment of bus bays during night and day time will ensure effective utilization of bays as requirement of local bus bays and interstate bays will vary during day and night. An effective computerized system is needed for bay allocation.

483. The provision made for the bays are for the requirement only upto 2028. For further expansion, idle parking bays may be shifted to a separate location and those idle bays can be converted as boarding/alighting bays. The requirement of further bays beyond may greatly depend on the transport policy at that time. Development of various modes of public transport facilities like mono rail, trams etc may further limit the requirement of addition bays. Hence the proposed plan for upto 2028 is reasonable.

484. Parking demand is assessed based on the detailed parking survey conducted. The distribution of passengers and the type and mode used are presented in **Figure 2.3**. From the distribution of the mode, it can be seen that more than half of the intercity passengers use local buses to reach the terminal.

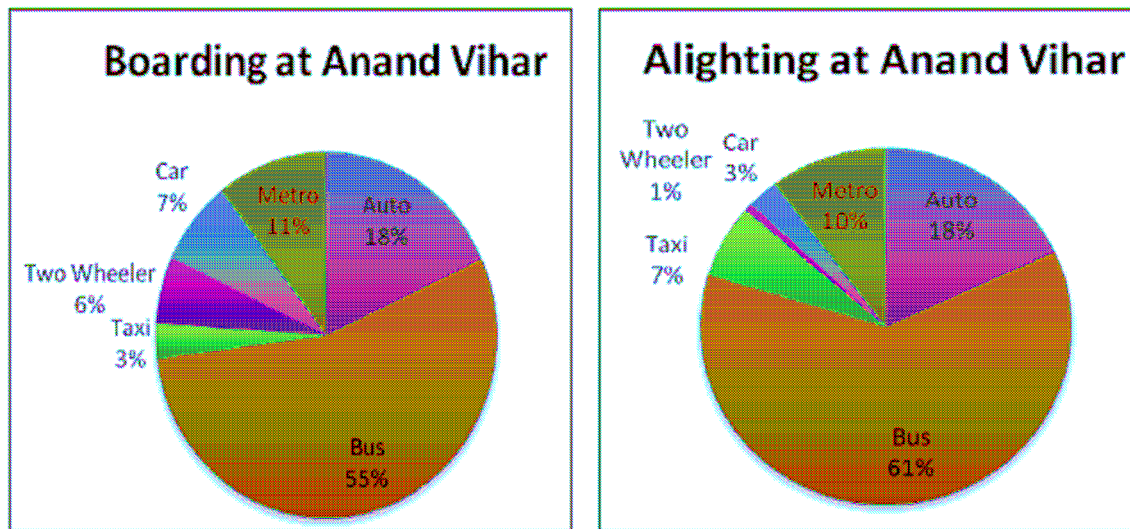


Figure 2.3 Distribution of Modes

485. The parking demand assessed based parking survey and provision made in the DPR is presented in the Table 2.6.

Table 2.6 Requirement of Parking spaces and Provisions in the DPR

Type of Vehicle	Parking Demand		DPR Provision		
	2028	2038	Total	Drop By	Pick UP
Auto Rickshaw	100	122	171	39	132
Taxi	16	18	44	17	27
Two Wheeler	70	85	100		
Car	45	55	80		

486. From the above table it can be seen that parking provision made in the DPR is more than sufficient for demand upto 2028. Multi storied parking complex may be needed in the future.

487. The demand assessed for cars and two wheelers for commercial spaces are 1288 and 85 respectively. Sufficient provision for the car and two wheeler parking is made in basement

Cost Estimates

488. The quantification of building works, site development, utilities, pedestrian facilities, parking facilities and landscaping items were calculated by the DPR consultant from the floor plans and layout plans. Plinth area based item rate estimate based on PAR-CPWD-2007 was adopted for cost estimate and the escalated cost on June 2009 was worked out by adding CPWD approved cost index of 13%. The construction items covered in cost estimates are: buildings, site development; services; rehabilitation and reconstruction, cost implication of green certified building and cost of sale/demolishing. The cost estimates also consider market rate for the Basement Floors, and all the items considered in annexure 2 to3. The project cost summary is shown in Table 2.7.

Table 2.7 Project Cost Summary

Particulars	Amount (Rs in mn)
Civil works	1030.95
Plumbing works	38.93
Electrical works	250.03
Sub-station	96.11
Fire Fighting	27.41
HVAC works	99.74
Development site	21.23
Elevators & Escalators	69.35
Miscellaneous incl. S.Teel Works, strutting/shoring/dewatering etc.	24.56
Total construction cost	1658.30
Design & Construction management	126.03
Contingency @10%	178.43
Total Construction Cost	1962.76
Interest during Construction	87.40
Total Project Cost	2050.17

PROJECT implementation and schedule

489.The project implementation arrangement as presented in the DPR is described here. Transport Department, GNCTD shall be the nodal agency implementing the Project. It has appointed DIMTS as the Project Management Consultant for implementing the project. It is envisaged that the funds released by NCRPB/lenders to GNCTD shall be provided to Transport Department for implementation of the Project. The above funds shall be transferred to Project Account (which will be established and maintained by DIMTS) for meeting the capital expenditure. The Transport Department shall undertake bid process management for identification of developer/operator for development of Hotel and receive upfront amount and the same shall be utilized for implementation of the Project. DIMTS is also proposed to be appointed as the Asset Management Entity for Operation, Maintenance and Management of MMTC after competing the construction.

490.The PPTA consultant hasn't reviewed the contractual arrangement between the GNTCD and DIMTS. It is assumed that the agreement ensures performance by the Project Management Consultant and includes proper risk management. Under the assumption, project implementation arrangement is efficient. The operation and maintenance through an Asset Management Company such as DIMTS will ensure the functional efficiency to be maintained. Also the revenue generation components will ensure sufficient funding for operation and maintenance.

491.The implementation of the project (construction phase) shall be completed over a fifteen month period.

Economic analysis

492.The MMTC planned at Anand Vihar will facilitate seamless integration of the inter-city and intra city transit options in the area and largely benefit inter modal transfer by transit passengers with reduced transfer times and improved comfort. This will also have significant impact on the utilization of transit services as

transfer between local bus to metro rail and interstate bus/train services become easy and comfortable which are important for encouraging more private vehicle users to shift to transit. The metro station is under construction and will be operational in 2010. Also the Anand Vihar railway terminal will become a main boarding/ alighting station for trains towards East. These two developments will have major impact on the transfers from/to local buses at Anand Vihar and a convenient transfer will have a positive impact on the utilization of the mode combination thus reducing personal modes for access to the metro and train services. The single ticket scheme being developed for bus and metro rail use will further help in this aspect. The ISBT is already operational and local buses are serving the transfer at present and therefore no significant transfer benefits are anticipated for those passengers transferring between interstate bus passengers transferring to local buses. However, those passengers will also benefit from the pedestrian friendly design for the MMTC which will improve the safety of passengers and improved environmental comfort. The proposed MMTC will thus provide significant community benefits and will have a positive impact on the transport movement in the area. An economic analysis of the proposed MMTC at Anand Vihar has been undertaken to determine its economic viability.

493. The Government of Delhi has included major public transport improvements including development of MMTC in its Transport Policy as explained earlier and is taking up the development of three MMTC's this year at Kashmere Gate, Anand Vihar and Sarai Kale Khan. The proposed development of MMTC at Anand Vihar is part of the larger effort by the Government of Delhi to provide improved public transport alternatives to encourage increased usage of public transport alternatives. This is especially important in the current scenario of increasing vehicle ownership and the heavy traffic congestion, which will deteriorate much faster without acceptable public transport alternatives.
494. The proposed development plan includes major commercial development also in order to recover the cost of implementation and to generate sufficient revenue for operation and maintenance. The project implementation plan also includes public-private participation for management of project implementation and operation and maintenance. The overall project design thus ensures efficiency in implementation, operation and maintenance and a dedicated funding source which will ensure the long term sustainability of the project objectives of providing attractive public transport option.
495. Economic Cost – The financial cost estimates prepared based on the project report has been converted into economic costs by excluding taxes and duties, as well as price contingencies, and using conversion factors where appropriate. For the analysis purpose the tax element of 12% included in the financial cost has been excluded. Considering the standard procedures recommended for economic feasibility analysis, the financial cost was converted into economic cost for the analysis. The O&M cost for the bus terminal is taken in the first full year of operation based on the detailed estimates made for financial analysis. The project is expected to be completed in 15 months with construction costs distributed 30% in 2010 and 70% in 2011. All costs are expressed in 2009 constant prices.
496. The major economic benefits comprise (i) vehicle operating cost saving for passengers shifting from private modes to public transport with upgrading of ISBT, (ii) time savings for passengers with easy transfer between different transit modes, (iii) improved circulation with well maintained roads compared to deteriorated roads at present, and (iv) additional employment. Other benefits are envisaged to accrue but have not been quantified. These include transit passenger satisfaction with significant environmental improvement; environment and health benefits due to reduced emissions and reduced conflict; improved ridership on metrorail with better connectivity etc.

497. The benefits included in the calculation are those which can be estimated reasonably with the survey information and some assumptions.

498. The benefit streams considered in the economic analysis are estimated based on the following:

- The construction of MMTC will increase the use of local bus to access the rail and metro at Anand Vihar. Currently, the access to the Anand Vihar terminal is by personal or para-transit modes by about 40% of trips and 60% access by local bus. It is assumed that the provision of an integrated terminal and integrated ticketing will result in increasing the share of local bus use to access to/from the terminal to 80% and reduce the share of private/para-transit modes to 20%. The resultant reduction in trips by car, taxi, auto-rickshaw and two-wheeler to access to/from MMTC will result in vehicle operating cost saving. The savings in vehicle operating cost of private/para-transit modes to access to/from the MMTC have been estimated and included in the benefits. However, no time saving is considered for the passengers for shifting the mode of access as total time taken by local bus or private/para-transit modes may be in similar magnitude with high local bus frequency.
- Well designed pedestrian circulation including elevators is assumed to reduce the passenger transfer time significantly. Also the integration will facilitate easy transfer for metro rail users and faster access by local buses from nearby areas rather than walking. Overall for the analysis, it is assumed that passengers using local bus and ISBT will save on an average 6 minutes and those using the rail and bus modes will save 10 minutes and is valued as per transit passenger travel time of Rs. 21 per hour (estimated based on per capita income of Delhi).
- Passenger and bus traffic increase is taken as per traffic forecast. It is also assumed that atleast 60% of the metro rail passengers will come by local buses and this will mostly be served by increased occupancy on the local buses but also will increase the number of local buses serving the MMTC. For the analysis, a 12% increase in local buses is assumed.
- The buses using the terminal will benefit from vehicle operating costs savings (VOC) due to improved road condition, conflict free movement and well laid out roads. The benefit is calculated for circulation length of 1.5 km for the estimated number of buses with a VOC of Rs. 19.34/km with the project and Rs. 30.44/km without the project. The roadway condition is represented by assuming a roughness index of 2.5 average with the project and 5.0 without the project. Also assumed is a speed increase of 10 kmph for conflict free movement with the project.
- The net value addition from provision of advertising spaces, parking and shopping area has been calculated and added.

499. Based on the above considerations, the economic cost and benefit streams over the analysis period have been worked out. A 25 year analysis period has been used. To be acceptable for implementation, the proposed investments have to result in an EIRR of at least equal to the opportunity cost of capital, which is set at 12 percent. NPV's are calculated using opportunity cost of capital as the discount rate. The results of economic analysis for the project Anand Vihar MMTC are given in Table 2.5 below.

Table 2.8 Results of Economic Analysis

Economic Analysis for Anand Vihar MMTC - Base Case									Values in Rs. Million
Year	Economic Cost			Economic Benefits					Net Benefits
	Capital Cost	O&M Cost	Total Cost	Vehicle operating cost saving with use of local buses for access to ISBT with the upgrading	Time savings for passengers for transfer at MMTC	Vehicle operating cost saving for buses with improved roads for circulation	Net value addition from advertizing space rentals, parking provision and shops	Total Benefits	
2010	458.53	-	458.53						(458.53)
2011	1,069.90	-	1,069.90						(1,069.90)
2012	-	63.37	63.37	133.81	112.58	22.79	31.63	300.81	237.44
2013	-	63.37	63.37	137.82	115.96	23.48	32.58	309.83	246.46
2014	-	63.37	63.37	141.96	119.44	24.18	33.56	319.13	255.76
2015	-	63.37	63.37	146.22	123.02	24.91	34.56	328.70	265.33
2016	-	63.37	63.37	150.60	126.71	25.65	35.60	338.56	275.19
2017	-	63.37	63.37	155.12	130.51	26.42	36.67	348.72	285.35
2018	-	63.37	63.37	159.77	134.43	27.22	37.77	359.18	295.81
2019	-	63.37	63.37	164.57	138.46	28.03	38.90	369.96	306.59
2020	-	63.37	63.37	168.68	141.92	28.73	39.87	379.21	315.84
2021	-	63.37	63.37	172.90	145.47	29.45	40.87	388.69	325.32
2022	-	63.37	63.37	177.22	149.11	30.19	41.89	398.41	335.03
2023	-	63.37	63.37	181.65	152.83	30.94	42.94	408.37	344.99
2024	-	63.37	63.37	186.19	156.65	31.72	44.01	418.57	355.20
2025	-	63.37	63.37	190.85	160.57	32.51	45.11	429.04	365.67
2026	-	63.37	63.37	195.62	164.58	33.32	46.24	439.77	376.39
2027	-	63.37	63.37	200.51	168.70	34.15	47.40	450.76	387.39
2028	-	63.37	63.37	205.52	172.92	35.01	48.58	462.03	398.66
2029	-	63.37	63.37	210.66	177.24	35.88	49.80	473.58	410.21
2030	-	63.37	63.37	214.87	180.78	36.60	50.79	483.05	419.68
2031	-	63.37	63.37	219.17	184.40	37.33	51.81	492.71	429.34
2032	-	63.37	63.37	223.56	188.09	38.08	52.84	502.57	439.20
2033	-	63.37	63.37	228.03	191.85	38.84	53.90	512.62	449.25
2034	-	63.37	63.37	232.59	195.69	39.62	54.98	522.87	459.50
2035	-	63.37	63.37	237.24	199.60	40.41	56.08	533.33	469.96
2036	(764.21)	63.37	(700.84)	241.98	203.59	41.22	57.20	543.99	1,244.83
							EIRR (%)		17.7
							NPV (Rs. Million)		674.6

500. The economic analysis indicates a robust economic rate of return which is well above the acceptable rate of return of 12%.

501. The cost and benefit estimates involve uncertainties. Sensitivity analysis has been carried out by changing cost and benefit estimates. The results of the sensitivity analysis are given in Table 2.9. The results indicate that even with significant adverse variation in benefits, the rate of return is above 12%. The analysis do not include the value of the overall environmental improvement and the wider impact of an integrated urban multi-modal terminal due to the difficulty in quantifying the benefits but is considered to be large enough to compensate for any adverse variation in benefit estimates included and thus the proposed MMTC at Anand Vihar is justified in social cost benefit terms.

Table 2.9 – EIRR and Sensitivity results – MMTC – Anand Vihar

Project	Scenario				
	Base case	Cost increase by 15%	Benefit decrease by 15%	Cost increase by 15% & Benefit decrease by 15%	Construction delayed by one year
	EIRR (%)	EIRR (%)	EIRR (%)	EIRR (%)	EIRR (%)
Anand Vihar MMTC	17.7	15.7	14.9	13.1	17.3

502. The economic analysis indicates an economic rate of return above the acceptable rate of return of 12% even with adverse variation in costs and benefits. The proposed MMTC at Anand Vihar fulfils a social need, have a wider impact in alleviating the traffic congestion, improving the financial sustainability of public transport operation, reducing environmental pollution and will improve and maintain the level of service for the public transit users and is therefore recommended for implementation.

2. MULTI MODAL TRANSIT CENTRE MMTC – SARAI KALE KHAN

503. The objective of the development of MMTC at Sarai Kale Khan is as listed below:

- To redevelop the existing ISBT as Multi Modal Transit Center (MMTC).
- To decongest the internal city roads by restricting the flow of inter-state buses.
- To facilitate an effective multi-modal changeover by integrating the existing ISBT with the Nizamudeen Railway Station and the planned Metro rail station.

504. To provide a state-of-the-art Multi Modal Transit Center that is user friendly, catering to varied passengers' comfort, pedestrian-friendly, ecologically sustainable, handicapped-friendly, and aided with facilities as per best international practices.

Demand Assessment

505. The requirement for various components of the MMTC which includes bus bays for interstate and local buses, parking space for private vehicle and parking requirement of taxi and auto are analyzed based on the demand survey data and presented in the following sections with comparison of the requirement and design provisions made in the DPR.

506. Assumptions were made in order to estimate the demand for intercity buses at Sarai Kale Khan terminal. Also considered is the decision to shift ISBTs to the periphery of Delhi and terminate intercity buses at the periphery of Delhi itself. The assumptions made are listed below:

- ❑ Growth rate of Delhi population would be 35% per decade, i.e., approximately 3% per annum.
- ❑ The growth rate of buses in Delhi would be 3% annually till 2018, 2.5% till 2028 and 2% from thereon.
- ❑ All the intercity buses currently using NH8 and NH10 will terminate or originate at proposed Dwarka terminal.
- ❑ Local bus routes will continue to originate from the Sarai Kale Khan terminal

507. The requirements of bus bays are assessed based on dwelling time of the buses and the total as well as peak hour number of trips. The total number of bus schedules and peak demand are given in Table 2.10 based on the above considerations (estimate shown for 2008 is based on above assumptions which are yet to materialize).

Table 2.10 Estimated Bus Volumes based on the assumptions

Type of Service	Total Buses	Peak Hour (at 10%)			
		2008	2018	2028	2048
Local Buses	396	40	53	68	101
Interstate Buses	766	77	103	132	196
<i>Note: Interstate buses at Sarai Kale Khan are after accounting for diversion of 201 buses from Kashmiri Gate to Dwarka. Local Buses at this ISBT generally pass through</i>					

508. The estimate of dwelling times of intercity buses at SKK is given in the Table 2.11.

Table 2.11 Dwelling Times of Intercity Buses at Sarai Kale Khan Gate

Time Period (Minutes)	Distribution	
	Number	Percentage
Less than 15	61	10.1
15 to 30	79	13.1
30 to 45	349	58.1
More than 60	112	18.6
Total	601	100

509. From the above table it can be noticed that 18.6% of the buses stays more than 60 minutes in the terminal. No further data was available to assess the weighted average time spend on the long stay buses which will use idle parking bays. On week days, 605 bus trips observed in ISBT SKK with average occupancy of 18.8 with a foot-fall of 22731.

510. Estimation of number of bus bays required for the ISBT is done based on the following assumption:

- 10 minutes occupancy time for local buses.
- 20 minutes occupancy time for intercity buses at boarding bays.
- 5 minutes occupancy time for intercity buses at alighting bays.

511. Time required for the circulation inside the terminal is not accounted for the above assumption and which assumed as 10 minutes. For the purpose of design, 10% peak hour arrival/departure of buses have been considered and the demands for boarding and alighting bus bays are estimated accordingly. Assessment of number of idle bus bays are made for three different average idle parking time of 1hrs, 2hrs and 3hrs. The requirement of idle bus bays assessed based on average idle time of 3hr. The estimation of number of bus bays required and the provision made in the DPR are shown in the Table 2.12 Requirement of Number of Bays.

Table 2.12 Requirement of Number of Bays and DPR Provisions

Type of Bus bays	Required on 2028	Provided
Alighting Bays	14	16
DTC Bays	11	17
Boarding Bays	52	85
Idle Bays	22	33
Total	99	151

512. The local bus demand may change after the commissioning of Metro rail in future. The requirement of local bus bays due to Metro needs to be estimated based on the passenger predictions of Metro rail.

513. The provision made for the bays are for the requirement only upto 2028. For further expansion, idle parking bays may be shifted to a separate location and those idle bays can be converted as boarding/alighting bays. The requirement of further bays beyond may greatly depend on the transport policy at that time. Development of various modes of public transport facilities like mono rail, trams etc may further limit the requirement of addition bays. Hence the proposed plan for upto 2028 is reasonable.

514. Parking demand is assessed based on the detailed parking survey conducted. The distribution of passengers and the type and mode used are presented in Figure 2.4. From the distribution of the mode, it can be seen that more than half of the intercity passengers use local buses to reach the terminal.

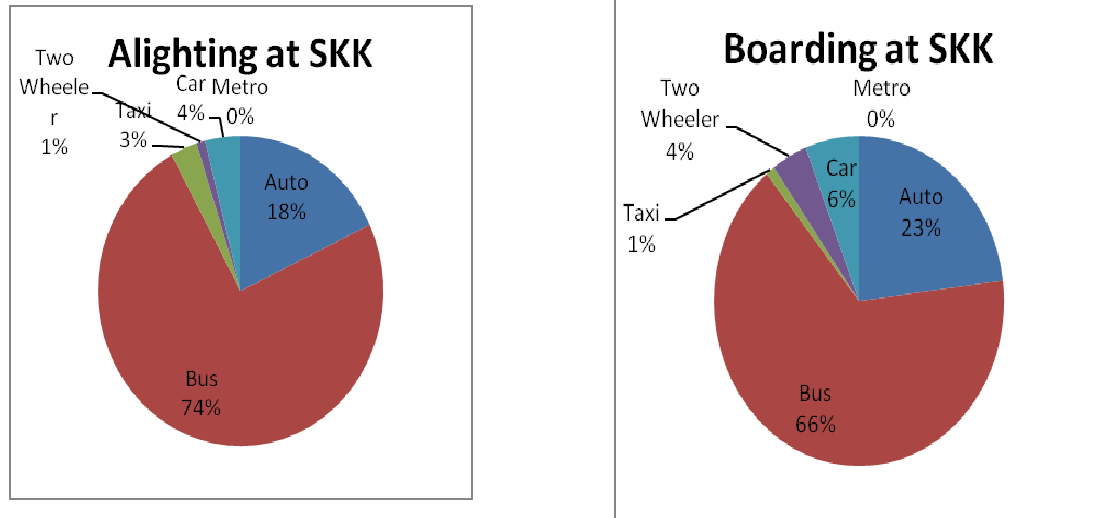


Figure 2.4 Distribution of Modes

515. The parking demand assessed based parking survey and provision made in the DPR is presented in the Table 2.13.

Table 2.13 Requirement of Parking spaces and Provisions in the DPR

Type of Vehicle	Parking Demand				
	2008	2018	2028	2038	2048
Auto	38	50	65	79	96
Taxi	6	8	11	13	16
Two Wheeler	10	14	18	22	27
Car	12	16	20	24	30

Cost Estimates

516. The quantification of building works, site development, utilities, pedestrian facilities, parking facilities and landscaping items were calculated by the DPR consultant from the floor plans and layout plans. Plinth area based item rate estimate based on PAR-CPWD-2007 was adopted for cost estimate and the current cost was worked out by adding CPWD approved cost index of 19%. The construction items covered in cost estimates are: buildings, site development; services; rehabilitation and reconstruction, cost implication of green certified building and cost of sale/demolishing. The cost estimates consider market rate for escalators, electric substation, air conditioning and for superior finishes. The project cost summary is shown in Table 2.14.

Table 2.14 Project Cost Summary

Particulars	Amount (Rs in mn)
Civil works	1113.26
Plumbing works	42.05
Electrical works	162.95
Sub-station	65.40
Fire Fighting	44.51
HVAC works	110.00
Development site	34.78
Elevators & Escalators	56.96
Miscellaneous incl. S.Teel Works, strutting/shoring/dewatering etc.	58.59
Total construction cost	1688.50
Design & Construction management	149.43
Contingency @10%(3% physical contingency and 7% price contingency)	183.79
Total Construction Cost	2021.72
Interest during Construction	84.63
Total Project Cost	2106.35

PROJECT implementation and schedule

517. The project implementation arrangement as presented in the DPR is described here. Transport Department, GNCTD shall be the nodal agency implementing the Project. It has appointed DIMTS as the Project Management Consultant for implementing the project. It is envisaged that the funds released by NCRPB/lenders to GNCTD shall be provided to Transport Department for implementation of the Project. The above funds shall be transferred to Project Account (which will be established and maintained by DIMTS) for meeting the capital expenditure. The Transport Department shall undertake bid process management for identification of developer/operator for development of Hotel and receive upfront amount and the same shall be utilized for implementation of the Project. DIMTS is also proposed to be appointed as the Asset Management Entity for Operation, Maintenance and Management of MMTC after completing the construction.

518. **Implementation structure:** The proposed structure for implementation of the project is as follows:

519. The PPTA consultant hasn't reviewed the contractual arrangement between the GNTCD and DIMTS. It is assumed that the agreement ensures performance by the Project Management Consultant and includes proper risk management. Under the assumption, project implementation arrangement is efficient. The operation and maintenance through an Asset Management Company such as DIMTS will ensure the functional efficiency to be maintained. Also the revenue generation components will ensure sufficient funding for operation and maintenance.

520. The implementation of the project (construction phase) shall be completed over a fifteen-month period once the contract is awarded.

Economic analysis

521. The MMTC planned at Sarai Kale Khan will facilitate integration of the inter-city and intra city transit options in the area and largely benefit inter modal transfer by transit passengers with reduced transfer times and improved comfort. This will also have significant impact on the utilization of transit services as transfer between local bus and interstate bus/train services as well as the planned metro rail in future become easy and comfortable which are important for encouraging more private vehicle users to shift to transit. An ISBT is in operation at SKK as well as the Nizamudeen railway station is nearby and some transfer is taking at present but the poor condition and lack of properly designed facilities makes it less attractive for commuters who have a choice between various modes including private modes. With sub-urban train operation from rail station, planned metro rail connection, local and intercity bus operation from this area make it an ideal location to develop an integrated MMTC thus creating an environment for increased public transport utilization. This is especially important in the current scenario of increasing vehicle ownership and the heavy traffic congestion, which will deteriorate much faster without acceptable public transport alternatives.
522. The Government of Delhi has included major public transport improvements including development of MMTC in its Transport Policy as explained earlier and is taking up the development of three MMTC's this year at Kashmere Gate, Anand Vihar and Sarai Kale Khan. The proposed development of MMTC at Sarai Kale Khan is part of the larger effort by the Government of Delhi to provide improved public transport alternatives to encourage increased usage of public transport alternatives.
523. The proposed development plan includes major commercial development also in order to recover the cost of implementation and to generate sufficient revenue for operation and maintenance. The project implementation plan also includes public-private participation for management of project implementation and operation and maintenance. The overall project design thus ensures efficiency in implementation, operation and maintenance and a dedicated funding source which will ensure the long term sustainability of the project objectives of providing attractive public transport option.
524. An economic analysis of the proposed MMTC at Sarai Kale Khan has been undertaken to determine its economic viability.
525. Economic Cost – The financial cost estimates prepared based on the project report has been converted into economic costs by excluding taxes and duties, as well as price contingencies, and using conversion factors where appropriate. For the analysis purpose the tax element of 12% included in the financial cost has been excluded. Considering the standard procedures recommended for economic feasibility analysis, the financial cost was converted into economic cost for the analysis. The O&M cost for the bus terminal is taken in the first full year of operation based on the detailed estimates made for financial analysis. The project is expected to be completed in 15 months with construction costs distributed 30% in 2010 and 70% in 2011. All costs are expressed in 2009 constant prices.
526. The major economic benefits comprise (i) vehicle operating cost saving for passengers shifting from private modes to public transport with upgrading of ISBT, (ii) time savings for passengers with easy transfer between different transit modes, (iii) improved circulation with well maintained roads compared to deteriorated roads at present, and (iv) additional employment. Other benefits are envisaged to accrue but have not been quantified. These include transit passenger satisfaction with significant environmental improvement; environment and health benefits due to reduced emissions and reduced conflict; improved ridership on metrorail with better connectivity etc.

527. The benefits included in the calculation are those which can be estimated reasonably with the survey information and some assumptions.

528. The benefit streams considered in the economic analysis are estimated based on the following:

- The construction of MMTC will increase the use of local bus to access the rail and metro at Sarai Kale Khan. Currently, the access to the Anand Vihar terminal is by personal or para-transit modes by about 30% of trips and 70% access by local bus. It is assumed that the provision of an integrated terminal and integrated ticketing will result in increasing the share of local bus use to access to/from the terminal to 85% and reduce the share of private/para-transit modes to 15%. The resultant reduction in trips by car, taxi, auto-rickshaw and two-wheeler to access to/from MMTC will result in vehicle operating cost saving. The savings in vehicle operating cost of private/para-transit modes to access to/from the MMTC have been estimated and included in the benefits. However, no time saving is considered for the passengers for shifting the mode of access as total time taken by local bus or private/para-transit modes may be in similar magnitude with high local bus frequency.
- Well designed pedestrian circulation including elevators is assumed to reduce the passenger transfer time significantly. Also the integration will facilitate easy transfer for metro rail users and faster access by local buses from nearby areas rather than walking. Overall for the analysis, it is assumed that passengers using local bus and ISBT will save on an average 8 minutes and those using the rail and bus modes will save 15 minutes (shuttle bus is planned for transfer to Nizamudeen station) and is valued as per transit passenger travel time of Rs. 21 per hour (estimated based on per capita income of Delhi).
- Passenger and bus traffic increase is taken as per traffic forecast.
- The buses using the terminal will benefit from vehicle operating costs savings (VOC) due to improved road condition, conflict free movement and well laid out roads. The benefit is calculated for circulation length of 1.5 km for the estimated number of buses with a VOC of Rs. 19.34/km with the project and Rs. 30.44/km without the project. The roadway condition is represented by assuming a roughness index of 2.5 average with the project and 5.0 without the project. Also assumed is a speed increase of 10 kmph for conflict free movement with the project.
- The net value addition from provision of advertising spaces, parking and shopping area has been calculated and added.

Based on the above considerations, the economic cost and benefit streams over the analysis period have been worked out as given in Table 2.15. A 25 year analysis period has been used. To be acceptable for implementation, the proposed investments have to result in an EIRR of at least equal to the opportunity cost of capital, which is set at 12. NPV's are calculated using opportunity cost of capital as the discount rate. The results of economic analysis for the project Sarai Kale Khan MMTC are summarized in Table 2.15. The economic analysis indicates an economic rate of return above the acceptable rate of return of 12%.

Table 2.15 Results of Economic Analysis

Economic Analysis for Sarai Kalai Khan MMTC - Base Case									Values in Rs. Million
Base Case									
Year	Economic Cost			Economic Benefits					Net Benefits
	Capital Cost	O&M Cost	Total Cost	Vehicle operating cost saving with use of local buses for access to ISBT with the upgrading	Time savings for passengers for transfer at MMTC	Vehicle operating cost saving for buses with improved roads for circulation	Net value addition from advertizing space rentals, parking provision and shops	Total Benefits	
2010	466.88	-	466.88						(466.88)
2011	1,089.38	-	1,089.38						(1,089.38)
2012	-	64.52	64.52	100.00	82.65	15.75	27.85	226.26	161.74
2013	-	64.52	64.52	103.00	85.13	16.23	28.68	233.05	168.52
2014	-	64.52	64.52	106.09	87.69	16.71	29.54	240.04	175.51
2015	-	64.52	64.52	109.28	90.32	17.22	30.43	247.24	182.72
2016	-	64.52	64.52	112.55	93.03	17.73	31.34	254.66	190.13
2017	-	64.52	64.52	115.93	95.82	18.26	32.28	262.30	197.77
2018	-	64.52	64.52	119.41	98.69	18.81	33.25	270.17	205.64
2019	-	64.52	64.52	122.99	101.65	19.38	34.25	278.27	213.75
2020	-	64.52	64.52	126.07	104.20	19.86	35.11	285.23	220.70
2021	-	64.52	64.52	129.22	106.80	20.36	35.98	292.36	227.83
2022	-	64.52	64.52	132.45	109.47	20.87	36.88	299.67	235.14
2023	-	64.52	64.52	135.76	112.21	21.39	37.80	307.16	242.63
2024	-	64.52	64.52	139.15	115.01	21.92	38.75	314.84	250.31
2025	-	64.52	64.52	142.63	117.89	22.47	39.72	322.71	258.18
2026	-	64.52	64.52	146.20	120.84	23.03	40.71	330.78	266.25
2027	-	64.52	64.52	149.85	123.86	23.61	41.73	339.05	274.52
2028	-	64.52	64.52	153.60	126.95	24.20	42.77	347.52	283.00
2029	-	64.52	64.52	157.44	130.13	24.80	43.84	356.21	291.69
2030	-	64.52	64.52	160.59	132.73	25.30	44.72	363.34	298.81
2031	-	64.52	64.52	163.80	135.38	25.81	45.61	370.60	306.08
2032	-	64.52	64.52	167.08	138.09	26.32	46.53	378.01	313.49
2033	-	64.52	64.52	170.42	140.85	26.85	47.46	385.57	321.05
2034	-	64.52	64.52	173.83	143.67	27.39	48.40	393.29	328.76
2035	-	64.52	64.52	177.30	146.54	27.93	49.37	401.15	336.63
2036	(778.13)	64.52	(713.60)	180.85	149.47	28.49	50.36	409.17	1,122.78
							EIRR		12.7%
							NPV (Rs. Millions)		75.7

529. The cost and benefit estimates involve uncertainties. Sensitivity analysis has been carried out by changing cost and benefit estimates. The results of the sensitivity analysis are given in Table 2.16. The results indicate that with adverse variation in benefits or costs, the rate of return falls below 12%. The analysis do not include the value of the overall environmental improvement and the wider impact of an integrated urban multi-modal terminal but is considered to be large enough to compensate for any adverse variation in benefit estimates included.

Table 2.16 Summary of Sensitivity Analysis

Project	Scenario				
	Base case	Cost increase by 15%	Benefit decrease by 15%	Cost increase by 15% & Benefit decrease by 15%	Construction delayed by one year
	EIRR (%)	EIRR (%)	EIRR (%)	EIRR (%)	EIRR (%)
Sarai Kale Khan MMTC	12.7	12.1	10.3	9.1	12.3

530. The economic analysis indicates an economic rate of return above the acceptable rate of return of 12% in the base case but with adverse variation in costs and benefits, the rate of return falls below 12%. The proposed MMTC at Sarai Kale Khan fulfils a social need, have a wider impact in alleviating the traffic congestion, improving the financial sustainability of public transport operation, reducing environmental pollution and will improve and maintain the level of service for the public transit users and is therefore recommended for implementation.

3. BADLI BY-PASS

Scope and Components

531. The proposed Badli Bypass starts from Km 16/550 of Gurgaon – Bahadurgarh road and its joins the same road at Km 18/580 and will be 5.68 km long connecting 8 roads converging in Badli town. The road is designed as a 4 lane divided carriageway and in the first phase two lane carriageway with paved shoulders will be constructed. The proposal also involves rehabilitation of existing road section of Gurgaon – Bahadurgarh road from Km 16/550 to Km 18/580 and about 1.3 km length of cross roads.

Cost Estimates

532. Detailed cost estimate was carried out as part of the DPR study and the same was approved by the PWD Haryana. The project cost estimate based on the DPR study is placed at 496.28 million. A review of the DPR estimate was done the TA consultant and is in agreement with DPR estimate. The cost estimates have been prepared for the new two lane road with provision of paved shoulder and earthen shoulder. Project cost also include provision of strengthening of the existing pavement of Bhadurgarh - Gurgaon road section for Km 16/550 to 18/580 as well as providing covered drain in this section (the provision for covered drain in BOQ is not clear but is assumed to be for this section). The strengthening of the existing Gurgaon – Bahadurgarh road section complete a full circle around Badli town. Also at crossing roads, reconstruction is proposed for an additional 60 to 535 m along the cross roads. These additional items added to the bypass are adding substantial cost to the project. Project cost estimate provide provision for cross drainage structures, longitudinal drains, junction improvements, road furniture, street lighting, environmental mitigation measures etc. The BOQ and cost estimate prepared by the DPR consultants are given in Table 2.17.

Table 2.17 Summary of Project Cost

Construction of Badli By-pass (KM. 0.00 to KM. 5.681) including upgrading of Bhadurgarh - Gurgaon road section for Km 16/550 to 18/580 and		
ABSTRACT OF PROJECT COST		
S. No.	Description	Amount (in Rupees)
1	Land Acquisition	151,883,949
2	Site clearance and dismantling	591,316
3	Earth work	43,527,460
4	Granular base course and Sub-base	69,527,469
5	Bitumenous Work	133,244,330
6	Cement Concrete Pavement	-
7	Bridges, Culverts& Causeway	18,115,325
8	Miscellaneous items/Traffic signs etc	14,019,580
9	Shifting utilities	2,840,500
10	Masonry Drain in built-up area	41,628,584
11	Retaining Wall, Brest Wall	-
12	Removal of trees and compulsory afforestation	3,976,700
13	Improvement of Railway crossing	-
A	Total	479,355,212
	Contingency 1.5%	7,190,328

	Supervision Charges 2%	9,730,911
B	Grand Total	496,276,451
	Add 6% escalation from start till completion of project	29,776,587
C	Grand Total (incl. escalation)	526,053,038

533. The cost revision for the changes recommended in the feasibility study is given below.

- Cost reduction for EW on account of 1m earthen shoulder - 28.76 Lakhs
- Cost reduction for removal of Kerb on superelevated section – 20.84 lakhs

534. The BOQ as well as the drawings and project description need to be updated to include clearly all the provisions made in the project and to give clarity during bid.

PROJECT Implementation

535. The project will be implemented by the Project Implementation Unit (PIU) of the HSRDC. The HSRDC is implementing a number of similar projects and have the institutional capacity to undertake the project. The project is proposed to be implemented as a single contract package. The procurement shall be carried out in compliance with ADB procedures. A supervision consultant shall be engaged for the contract management. The implementation of the project shall be completed over a period of 18 months (2010-11). A procurement and implementation schedule is included in the Annexures.

536. The project involves land acquisition for the entire length and may involve considerable utility shifting for the rehabilitation of Gurgaon – Bahadurgarh road section and sections of cross roads included. These are to be carried out prior to commencement of contractors mobilization to avoid delay in project implementation. A detailed utility shifting plan is to be prepared and steps to be initiated to implement them. The DPR is lacking on the utility shifting details.

Economic analysis

537. An economic analysis of the proposed Badli Bypass has been undertaken to determine its economic viability.

538. The major economic benefits comprise (i) Vehicle operating cost savings to diverted traffic with improved surface and free flow traffic situation, (ii) Vehicle operating cost savings to traffic on road through the town with improved surface and reduced congestion with traffic diversion and, (iii) travel time savings to all traffic with improved speeds. Other benefits are envisaged to accrue but have not been quantified. These include reduced emissions due to reduced congestion and improved road safety in the town sections with diversion of all truck traffic.

539. Based on the above considerations, the economic cost and benefit streams over the analysis period have been worked out using the HDM-4 model. All costs and benefits are valued in monetary terms and expressed in economic prices to avoid distortions in the input prices of labor, materials, equipment and

foreign exchange due to market imperfections. In calculating the road agency economic costs (construction and maintenance), a Conversion Factor (CF) 0.9 was used, as generally used for road projects in India, to derive economic costs from the estimated financial cost.

540. The economic cost of vehicle operating cost components and time costs (VOCs) have been calculated separately for each individual component and input to the HDM model. The input values used for recent road sector studies in India have been used.

541. A 20 year analysis period has been used. A residual value of 40% is assumed, as the land acquisition cost comprise of 30% of the cost. To be acceptable for implementation, the proposed investments have to result in an EIRR of at least equal to the opportunity cost of capital, which is set at 12 percent. NPV's are calculated using opportunity cost of capital as the discount rate. The results of economic analysis for the Badli Bypass are summarized in below. The increase in cost and decrease in benefits stream over the analysis period "with the project " is given in Table 2.18.

Project	Net Present Value (NPV) (Million INR)	Net Present Value by Cost Ratio	Internal Rate of Return (EIRR) (%)
Badli Bypass, Haryana	617.5	1.4	25.2

Table 2.18 Cost – Benefit Streams

Year	Increase in Road agency Costs	Decrease in Road User Costs		Net Benefits
		VOC	Time	
2010	221.07	0.00	0.00	-221.07
2011	218.61	0.00	0.00	-218.61
2012	-0.04	75.22	15.42	90.68
2013	-0.04	81.46	17.02	98.51
2014	-0.04	90.95	18.92	109.91
2015	-0.04	100.11	21.49	121.64
2016	6.55	107.48	22.93	123.86
2017	-5.32	117.59	24.34	147.25
2018	-0.04	122.43	25.81	148.27
2019	-0.04	130.91	27.32	158.27
2020	-0.04	139.09	28.90	168.03
2021	3.50	146.47	30.61	173.58
2022	3.06	156.91	32.24	186.08
2023	-5.32	167.39	33.91	206.62
2024	-0.04	172.68	35.71	208.42
2025	-0.04	181.49	37.52	219.05
2026	3.56	188.30	39.33	224.07
2027	-0.04	201.81	40.97	242.82
2028	3.17	192.64	39.97	229.44
2029	-5.32	162.92	35.53	203.77
2030	-0.04	125.14	31.00	156.18
2031	-176.89	85.41	26.01	288.31

		EIRR (%)	25.2
		NPV (Rs. Million)	617.5

542. The economic analysis indicates a robust economic rate of return well above the acceptable rate of return of 10%. The proposed Badli Bypass will relieve serious traffic congestion at Badli town and has an acceptable economic rate of return and is therefore recommended for implementation.

543. The cost and benefit estimates involve uncertainties. Sensitivity analysis has been carried out by changing cost and benefit estimates. The results of the sensitivity analysis are given in Table 2.19. The results indicate that with adverse variation in benefits or costs, the rate of return is still above the acceptable rate of return.

Table 2.19 – EIRR and sensitivity analysis

Project	Scenario				
	Base case	Cost increase by 15%	Benefit decrease by 15%	Cost increase by 15% & Benefit decrease by 15%	Construction delayed by one year
	EIRR (%)	EIRR (%)	EIRR (%)	EIRR (%)	EIRR (%)
Badli Bypass, Haryana	25.2	22.6	22.2	19.8	24.3

5. SONEPAT ROADS

Scope and Components

544. The five roads proposed for rehabilitation and widening is given in Table 2.20.

Table 2.20 List of Project Roads

S.No.	Name of the Road	District	Length(km)
1	Gohana-Sisana Road	Sonepat	28.563
2	Sonepat-Mehlana-Farmana Road	Sonepat	21.883
3	Sonepat-Kakroi-Bidhlan Road VT	Sonepat	19.635
4	Jagsi-Gangana Road VT	Sonepat	6.177
5	Kharkhauda-Assaudha Road	Sonepat and Jhajjar	18.045

Cost Estimates

545. The cost estimates have been prepared for widening of the existing single/intermediate road to two lane roads including strengthening of the existing pavement, strengthening / widening of existing bridge structures, construction of new bridges, rehabilitation and reconstruction / widening of cross drainage structures, longitudinal drains, junction improvements, road furniture, street lighting, environmental mitigation etc. The BOQ and cost estimate prepared by the DPR consultants is presented in Table 2.21.

Table 2.21 Project Cost Summary (in Rupees)

Items	Sonipat- Bidhalan	Jagsi - Gangana	Gohna - Sisana	Kharkhauda - Asaudha	Sonipat - Farmana
Bill No 1: Site Clearance	775140.45	332528.99	1692240.07	651867.79	986089.60
Bill No 2: EarthWork	18096297.25	6692980.95	21087585.17	12209864.94	20515326.42
Bill No 3: Sub Base and base Courses	70268678.29	24535047.63	103598533.87	40045852.79	61783416.47
Bill No 4: Bituminous Courses	55772762.13	18489064.19	143280043.70	94647663.58	64620387.90
Bill No 5: Concrete pavement	11865918.27	0.00	8625540.90	15307641.68	0.00
Bill No 6 & 7: Cross Drainage works and Bridges	15930156.15	8310967.30	23692862.04	2480750.05	13890974.96
Bill No 8: Drainage and Protection Works	15367120.00	0.00	6883800.00	19701500.00	15002678.40
Bill No 9:Traffic Safety and Road Appurtenances	25176360.75	8143514.94	35741640.28	22929797.83	27093056.35
Bill No 10: Miscellaneous Items	4907752.97	1688978.99	8761927.79	4368484.23	61783416.47
Deforestation	15708000.00	4941600.00	22850400.00	14436000.00	17506400.00
Utility shifting	3927000.00	1235400.00	5712600.00	3609000.00	4376600.00
Land Acquisition	600000.00	0.00	0.00	0.00	0.00
Sub total	238,395,186	74,370,082	381,927,173	230,388,422	287,558,346
Add 3.5% towards Physical Contingencies, Supervision, etc	8343831	2602953	13367451	8063595	10064542
Total Project cost (Rs)	246,739,017	76,973,035	395,294,624	238,452,017	297,622,888
Total Project cost (Rs. Million)	246.7	77.0	395.3	238.5	297.2
Stretch Length (km)	19.635	6.177	28.563	18.045	21.883
Cost per km (Rs. Million/km)	12.57	12.46	13.84	13.21	13.60

PROJECT Implementation

546.The project will be implemented by the Project Implementation Unit (PIU) of the HSRDC. A single construction package is recommended to have a good size project to attract larger contractors and also to have better contract management. The HSRDC is implementing a number of similar projects and have the institutional capacity to undertake the project but may need to augment its strength when taking up more projects. The procurement shall be carried out in compliance with ADB procedures. A supervision consultant shall be engaged for the contract management. The implementation of the project shall be completed over a period of 18 months (2010-11).

547.The project involves utility shifting to some extent. These are to be carried out prior to commencement of Contractor's mobilization to avoid delay in project implementation. A detailed utility shifting plan is to be prepared and steps to be initiated to implement them.

Economic analysis

548. An economic analysis of the proposed project has been undertaken to determine its economic viability.
549. The major economic benefits comprise (i) Vehicle operating cost savings to traffic on the project roads with improved surface and capacity and (ii) travel time savings to all traffic with improved speeds. Other benefits are envisaged to accrue with better access but have not been quantified. These include reduced emissions due to better level of service, social benefits and improved road safety in the town sections.
550. Based on the above considerations, the economic cost and benefit streams over the analysis period have been worked out using the HDM-4 model. All costs and benefits are valued in monetary terms and expressed in economic prices to avoid distortions in the input prices of labor, materials, equipment and foreign exchange due to market imperfections. In calculating the road agency economic costs (construction and maintenance), a Conversion Factor (CF) 0.9 was used, as generally used for road projects in India, to derive economic costs from the estimated financial cost.
551. The economic cost of vehicle operating cost components and time costs (VOCs) have been calculated separately for each individual component and input to the HDM model. The input values used for recent road sector studies in India have been used.
552. A 20 year analysis period has been used. A residual value of 10% is assumed, as the project involves widening. To be acceptable for implementation, the proposed investments have to result in an EIRR of at least equal to the opportunity cost of capital, which is set at 12 percent. NPV's are calculated using opportunity cost of capital as the discount rate. The results of economic analysis for the project are summarized below in Table 2.22.

Table 2.22 Economic Analysis Results

Road	NPV	NPV/Cost Ratio	EIRR
	(Rs. Million)		(%)
Gohana - Sisana	1804.9	5.7	57.5
Jagsi - Gangana Road	100.0	1.3	28.1
Kharkhauda-Assaudha Road	1320.3	6.8	64.8
Sonepat-Farmana	952.6	4.0	49.2
Sonepat - Kakroi Road	393.0	1.8	31.4

553. The economic analysis indicates a robust economic rate of return well above the acceptable rate of return of 10% for all project road sections. The proposed project will improve the level of service and augment capacity to sustain the level of service over the design period and has an acceptable economic rate of return and is therefore recommended for implementation.
554. The cost and benefit estimates involve uncertainties. Sensitivity analysis has been carried out by changing cost and benefit estimates. The results of the sensitivity analysis are given in Table 2.23. The results indicate that with adverse variation in benefits or costs, the rate of return is still above the acceptable rate of return.

Table 2.23 Sensitivity Analysis Results

Road Section	Economic Internal Rate Of Return Under Different Scenarios				
	Base Case	Increase In Cost by 15%	Decrease In Benefits by 15%	Increase in Cost and Decrease in Benefits By 15%	Delay in Construction by One Year
Gohana – Sisana	57.5%	52.1%	51.3%	46.5%	48.0%
Jagsi – Gangana	28.1%	24.9%	24.4%	21.6%	27.0%
Kharkhauda - Assaudha Road	64.8%	58.8%	57.9%	52.5%	53.5%
Sonepat - Farmana	49.2%	44.2%	43.5%	39.0%	39.0%
Sonepat-Kakroi-Bidhlan Road	31.4%	28.1%	27.5%	24.5%	26.1%

6. UPGRADING OF SECONDARY ROADS IN JHAJJAR DISTRICT, HARYANA

Scope and Components

555. The thirteen roads proposed for rehabilitation and widening is given in Table 2.24 .

Table 2.24 List of Project Roads

Road No.	Name of Work	Length in (km)	Existing width (m)
1.	Jharli Mohanbari Approach road	3.235	3.66
2.	Jhajjar, Talao, Chhuchakawas road	13.460	5.50
3.	Beri, Rohtak road	8.560	5.50
4.	Badli to Durina via Ladpur Munimpur	11.430	5.50
5.	Badli Pela Sondhi Yakubpur road	9.800	5.50
6.	Sahlawas Amboli Bithla Dhakla SH-22 including Jatwara approach road	16.220	3.66
7.	Subana (SH-22) Sarola Ahri road.	6.640	3.66
8.	Patauda (MDR-132 Dhani Saniyan Kahari Machroli(NH-71).	10.080	3.66
9.	Jhajjar Farrukhnagar road (SH15A) Mubarakpur Ismailpur Mundakhera (MDR-136)	11.755	3.66
10.	Badli Iqbalpur road Lohat Delhi Border.	3.765	3.66
11.	Chhuchakwas (MDR-130) Achej Paharipur, Malikpur Safipur road.	12.475	3.66
12.	Godhri Safipur Impota.	6.290	3.66
13.	Gawalision (VT)Kheri Hosdarpur Karodha Raiya (SH-22) Salodha Gijroth (NH-71)	15.020	3.66
	Total	128.73	

Cost Estimates

556. The cost estimates have been prepared for widening of the existing single/intermediate road to two lane roads including strengthening of the existing pavement, strengthening / widening of existing bridge structures, construction of new bridges, rehabilitation and reconstruction / widening of cross drainage structures, longitudinal drains, junction improvements, road furniture, street lighting, environmental mitigation etc. The BOQ and cost estimate prepared by the DPR consultants is presented in Table 2.25.

Table 2.25 Project Cost Summary

DPR of Various Roads in scheme in Jhajjar Distt:		
ABSTRACT OF PROJECT		
S. No.	Description	Amount(in Rupees)
1	Site clearance and dismentling	5223195
2	Earth work	104360605
3	Granular base course and Subbase	433965442
4	Bitumenous Work	563901415
5	Cement Concrete Pavement	261176656
6	Bridges & Culverts	88247450
7	Miscellaneous items/Traffic signs etc	132234689
8	Shifting utilities	64365000
9	Drain	143194272
10	Retaining Wall	50595400
11	Removal of trees and compulsory afforestation	90111000
12	Improvement of Railway crossing	40000000
A	Total	1,977,375,124
	Contingency 1.5%	29660627
	Supervision Charges 2%	40140715
B	Grand Total	2,047,176,466
	Add 6% escalation from start till completion of project	122830588
C	Grand Total (incl. escalation)	2,170,007,054
	SAY (Rs. Million)	2170.0

557. The cost of construction for each road is given in Table 2.26. Also the project design or the BOQ and project description is not clear about the treatment at the built-up areas. Bid documents and final BOQ are to be prepared in a comprehensive way clearly defining the improvements with no works in the built up area where there is little offset between pavement edge and buildings. Only minor repairs as per Engineer's instruction may be done in those sections. Also to be confirmed is the rehabilitation work observed in some of the sections by removing sections taken up prior to this contract award.

Table 2.26 Project Cost Estimate for Road Sections

Road Name	Length (Km)	Total Cost (Civil Works+Physical contingency+Sueprvision Cost) (Rs. Millions)	Cost per Km (Rs. Millions)
Jharli Mohanbari Approach road	3.24	50.21	15.52

Road Name	Length (Km)	Total Cost (Civil Works+Physical contingency+Sueprvision Cost) (Rs. Millions)	Cost per Km (Rs. Millions)
Jhajjar, Talao, Chhuchakawas road	13.46	267.58	19.88
Beri, Rohtak road	8.56	125.57	14.67
Badli to Durina via Ladpur Munimpur	11.43	178.49	15.62
Badli Pela Sondhi Yakubpur road	9.80	156.49	15.97
Sahlawas Amboli Bithla Dhakla SH-22 including Jatwara approach road	16.22	242.40	14.94
Subana (SH-22) Sarola Ahri road.	6.64	94.43	14.22
Patauda (MDR-132 Dhani Saniyan Kahari Machroli(NH-71).	10.08	122.63	12.17
Jhajjar Farrukhnagar road (SH15A) Mubarakpur Ismailpur Mundakhera (MDR-136) upto Distt Border.	11.76	216.22	18.39
Badli Iqbalpur road Lohat Delhi Border.	3.77	59.87	15.90
Chhuchakwas (MDR-130) Achej Paharipur, Malikpur Safipur road.	12.48	186.56	14.95
Godhri Safipur Impota.	6.29	87.60	13.93
Gawalision (VT)Kheri Hosdarpur Karodha Raiya (SH-22) Salodha Gijroth (NH-71)	15.02	260.08	17.32
Total	128.73	2047.18	15.90

PROJECT Implementation

558.The project will be implemented by the Project Implementation Unit (PIU) of the HSRDC. Since the number of road sections are many, it is recommended that two contract packages to have a good size project to attract larger contractors and also to have better contract management. The HSRDC is implementing a number of similar projects and have the institutional capacity to undertake the project but may need to augment its strength when taking up more projects. The procurement shall be carried out in compliance with ADB procedures. A supervision consultant shall be engaged for the contract management. The implementation of the project shall be completed over a period of 18 months (2010-11).

559.The project involves utility shifting to some extent. These are to be carried out prior to commencement of Contractor's mobilization to avoid delay in project implementation. A detailed utility shifting plan is to be prepared and steps to be initiated to implement them.

Economic analysis

560. An economic analysis of the proposed project has been undertaken to determine its economic viability.
561. The major economic benefits comprise (i) Vehicle operating cost savings to traffic on the project roads with improved surface and capacity and (ii) travel time savings to all traffic with improved speeds. Other benefits are envisaged to accrue with better access but have not been quantified. These include reduced emissions due to better level of service, social benefits and improved road safety in the town sections.
562. Based on the above considerations, the economic cost and benefit streams over the analysis period have been worked out using the HDM-4 model. All costs and benefits are valued in monetary terms and expressed in economic prices to avoid distortions in the input prices of labor, materials, equipment and foreign exchange due to market imperfections. In calculating the road agency economic costs (construction and maintenance), a Conversion Factor (CF) 0.9 was used, as generally used for road projects in India, to derive economic costs from the estimated financial cost.
563. The economic cost of vehicle operating cost components and time costs (VOCs) have been calculated separately for each individual component and input to the HDM model. The input values used for recent road sector studies in India have been used.
564. A 20 year analysis period has been used. A residual value of 10% is assumed, as the project involves widening. To be acceptable for implementation, the proposed investments have to result in an EIRR of at least equal to the opportunity cost of capital, which is set at 12 percent. NPV's are calculated using opportunity cost of capital as the discount rate. The results of economic analysis for the project is summarized below in Table 2.27.

Table 2.27 Economic Analysis Results for Jhijjar District Roads

Road	NPV	NPV/Cost Ratio	EIRR
	(Rs. Million)		(%)
Badli Iqbalpur road	17.41	0.3	14.4
Badli Pela Sondhi Yakubpur road	199.1	1.5	25.5
Badli to Durina	360.2	2.2	33.1
Beri - Rohtak road	173.6	1.5	27.9
Chhuchakwas - Malikpur Safipur(MDR-130)	155.8	1.0	21.9
Gawalision(SH-22)	91.3	0.4	15.4
Godhri - Safipur	18.1	0.3	13.3
Jhajjar - Farrukhnagar road	202.0	1.1	22.2
Jhajjar-Talao-Chhuchakawas	702.3	3.0	39.9
Jharli - Mohanbari	52.2	1.2	23.4
Patauda (MDR-132)	221.1	2.1	32.8
Sahlawas-Amboli-Bithla	184.1	0.8	20.8
Subana-Sarola Ahri road.	135.3	1.7	28.3

565. The economic analysis indicates a robust economic rate of return well above the acceptable rate of return of 12% for all project road sections. The proposed project will improve the level of service and augment capacity to sustain the level of service over the design period and has an acceptable economic rate of return and is therefore recommended for implementation.

566. The cost and benefit estimates involve uncertainties. Sensitivity analysis has been carried out by changing cost and benefit estimates. The results of the sensitivity analysis are given in Table 2.28. The results indicate that with adverse variation in benefits or costs, the rate of return is still above the acceptable rate of return in most cases except in the case of Godhri-Safipur and Gwalision Roads. The sensitivity analysis indicates that the economic justification for the project investment is robust.

Table 2.28 Sensitivity Analysis Results

Road Section	Economic Internal Rate Of Return Under Different Scenarios				
	Base Case	Increase In Cost by 15%	Decrease In Benefits by 15%	Increase in Cost and Decrease in Benefits By 15%	Delay in Construction by One Year
Badli Iqbalpur road	14.4%	12.4%	12.1%	10.3%	14.2%
Badli Pela Sondhi Yakubpur road	25.5%	22.9%	22.4%	20.0%	25.4%
Badli to Durina	33.1%	29.6%	29.1%	26.0%	32.5%
Beri – Rohtak	27.9%	24.8%	24.3%	21.5%	26.7%
Chucchakwas	21.8%	19.2%	18.8%	16.4%	21.2%
Gwalision	15.4%	13.3%	13.0%	11.0%	15.0%
Godhri Safipur	13.3%	11.3%	11.0%	9.1%	13.1%
Jhajjar Farrukhnagar road	22.1%	19.6%	19.3%	17.0%	21.8%
Jhajjar - Talao	39.9%	35.7%	35.1%	31.4%	37.8%
Jharli - Mohanbari	23.4%	20.8%	20.4%	18.0%	23.0%
Patauda	32.7%	29.1%	28.5%	25.3%	31.2%
Sahalwas - Bithala	20.8%	18.2%	17.8%	15.5%	20.4%
Subana Sarola Ahri road.	28.3%	25.2%	24.7%	21.9%	27.3%

7.0 Water Supply and Sewerage Project - Pataudi

City / Town Profile

567. Pataudi is a small Tehsil town in the Gurgaon District with current (2009) estimated population of around 22,000 (16,085 as per Census 2001). It is located on the Gurgaon – Rewari road at a distance of 25 km from Gurgaon and about 58 km from Delhi.

568. Besides the entire population of Pataudi, the project envisage coverage of another adjoining town of Haily Mandi and seven villages which fall en route the rising main. The total population for which the system has been designed is 112,380 which correspond to year 2040 and a design period of 30 years. The system has been designed considering service levels of 135 litres/capita/day (lpcd) for the urban population and 70 lpcd for the rural population.

569. Major Economic Activity. Both Pataudi and Hailey Mandi are primarily rural habitations where agriculture and related activities are the main sources of livelihood for the majority of the population. Because of their relatively larger size, they have also evolved as trading and service centers for the agrarian hinterland in the region and therefore experiences a fair level of traffic and floating population. However, there is very limited industrial activity in the vicinity of these towns.

570. Its importance in the NCR. Because of its proximity to the rapidly growing city of Gurgaon, being a part of the NCR, having good connectivity with other towns in the region, and expected growth on account of the upcoming special economic zone (SEZ), it assumes significance as an affordable option for absorbing future urban growth. In recognition of this potential of the town, the Government of Haryana has identified Pataudi for strengthening of, among others, water supply and wastewater management infrastructure and thereby to offer improved quality of life to the existing and prospective residents.

Economic Policy

571. *Implication on Town's growth.* Good water supply service calls for three important benchmarks, viz: a) 'Sufficient Quantity & continuous supply,' b) 'Adequate Water Pressure' and c) 'Potable, Aesthetically Satisfying Water Quality'. Because the state is moderately endowed with water resources and there appear to be more constraints on utilising these resources for water supply. The Millennium Development Goals (MDGs) (Goal No.7) enjoin upon the signatory nations requiring them "to halving the proportion of people without sustainable access to safe drinking water and basic sanitation by 2015" and 100 percent access by 2025. This implies extending coverage to households which are presently without improved sanitation, and providing proper sanitation facilities in public places to make cities open-defecation free

572. *National Urban Sanitation Policy.* National Water Policy approved by the Government of India in April 2002 recommended the following:

- ❑ *Adequate safe drinking water facilities should be provided to the entire population both in urban and in rural areas. Irrigation and multipurpose projects should invariably include a drinking water component, wherever there is no alternative source of drinking water.*
- ❑ *Drinking water needs of human beings and animals should be the first charge on any available water.*

573. Subsequent national programs like Rajiv Gandhi Rural Drinking Water Mission, Jawaharlal Nehru National Urban Renewal Mission (JNNURM) etc are focusing to improve the water supply situations in rural and urban areas to achieve the goals set in the National Water Policy. The vision of the policy is that all Indian cities and towns become totally sanitized, healthy and livable and ensure and sustain good water supply for all their citizens with a special focus on hygienic and affordable water supply for the urban poor and women.

574. Haryana has 100 percent coverage urban water supply schemes. However, the main problems comprise of intermittent water supply resulting in in-adequate terminal pressures, contamination in distribution network, high amount of UFW and poor customer care. Also unplanned use of ground water sources is resulting in many environmental issues.

575. Eleventh Five Year Plan of GoI with the support of states including Haryana have identified action program to achieve 100 per cent population coverage for better water supply in urban areas.

Review of Sector Context.

Present Status

576. Despite the increasing importance of the town in the economic growth of the national capital region, the urban infrastructure is not adequate.

577. The water supply system of Patnaudi is facing several problems at present. A low level of service in terms of low per capita water supply rate, short hours of supply, insufficient terminal pressure in the outlying areas, and non-uniform spatial supply rate are among these problems. Most of the unauthorized colonies do not receive municipal water supply. These problems affect the water consumption patterns in the following ways:

- ❑ Those colonies not receiving municipal water supply use ground water extensively to meet drinking and non-drinking needs of water.
- ❑ Areas connected to the municipal water supply system but located at the tail of service area, use ground water to supplement the municipal supply due to low rate of supply and low terminal pressure.
- ❑ Small household industries and commercial enterprises (dyeing, dairies, hotels, nursing homes, and hospitals) continue to rely heavily on ground water to meet their demands.

578. Therefore, the inadequacy in provision of water supply is likely to be the major constraint to the potential economic growth in the National Capital Region. Reduction of disparities through targeting less developed areas was a core element of the Government of India's 10th Five Year Plan (2002-2007). The objective of the 11th Five Year Plan is 'faster and more inclusive growth,' citing the issues on inequitable share of growth, which was seen as increasing disparities among states, and regions within states, between urban and rural areas, and between various sections of the community. In order to realize the Five Year Plans, investment into sewerage sector in Patnaudi town is necessary.

Justification for Government Intervention to Sector.

579. The basic urban services include water supply, sewerage, drainage and solid waste management (SWM). All of them are the mandatory functions of urban local bodies (ULB) under the 74th Constitutional Amendment Act (CAA). Unfortunately, immediate transfer of functions from the states to ULB is highly impractical due to the inadequate technical and financial strength of the ULB. Consequently, many of the state governments take initiative on capital investment and operation of water supply and sewerage while delegating SWM to ULB, which require less technical and financial strength than water supply and sewerage. In some states, the state governments take initiative on capital investment on water supply and sewerage projects. On completion of the construction they will be maintained by themselves like in Haryana State and also handed over to the ULBs for operation and maintenance in some states, similar to UP. In Haryana, generally Haryana PWD(WSSD) will develop the sewage project and maintain themselves and this will be applicable to the Pataudi Water Supply scheme also.

580. In addition to being a constitutional obligation, provision of these services has economic rationales for government intervention for the following reasons: (i) many of the services (especially wastewater treatment, drainage and solid waste management) are natural monopolies unsuited to unregulated private investment, and hence justify government intervention at least in regulation; (ii) environmental sanitation improvement (a) protects a public good such as a hygienic environment, and (b) prevents a negative situation arising from pollution; and (iii) poverty alleviation programs minimize the inefficiency in economic growth in the urban areas. The economic rationale for government intervention is therefore sound.

581. As per the vision outlined in the DPR, the specific goals of the sub-project for augmenting water supply in Pataudi and Hailey Mandi in particular are to:

- ❑ Raise water supply service level at the consumer end from the present 58 lpcd to 135 lpcd.
- ❑ Eliminate dependence on groundwater as the only source of supply considering the concerns on deteriorating quality and declining yield.
- ❑ Strengthen and refurbishing existing distribution network to minimise UAW and chances of contamination during supply.
- ❑ Install bulk water meters at strategic locations to ensure measurements and effective management of the augmented water supply system.
- ❑ Encourage residents to install domestic water meters for gradual shift towards consumption based user charges and thereby increasing service quality.

582. Recognising the challenge faced by the residents of the adjoining town of Hailey Mandi and those of the seven villages which fall enroute the rising main(s), the sub-project adopts a regional perspective and an inclusive approach by incorporating the demands of the said communities.

Demand Analysis.

583. The water supply service levels for the urban and rural populations have been considered at 135 and 70 lpcd respectively. Total production demand for urban areas has been calculated considering 20% floating population, fire fighting requirements and 15% unaccounted for water (UFW). For the rural areas separate provision for only the UFW at 15% is made. The combined production demand estimates corresponding to various stages of the sub-project are presented in the table 2.29.

Table 2.29: ESTIMATES OF WATER DEMAND AT PRODUCTION STAGE

	Demand (million litres/day)		
	Present 2010	Intermediate 2025	Ultimate 2040
Urban			
Pataudi	4.74	6.98	8.32
Hailey Mandi	5.02	7.40	8.32
Sub-total	9.76	14.38	16.64
Rural, all 7 villages	1.47	1.91	2.21
Grand total	11.23	16.29	19.35

Water Supply situation in Pataudi

584. Currently both the urban areas and all of the rural habitations are dependent on ground water as the source of supply. In the case of Pataudi the system comprises 13 odd tube wells with combined yield of about 1.9 million litres per day (mld) considering 16 hours of pumping. In the case of Hailey Mandi the number of tube wells is 14 and the combined production is around 2 mld.

585. From the point of view of water quality, it is found that both in Pataudi and Hailey Mandi this is an area of increasing concern. Pataudi is experiencing increasing levels of dissolved solids. On the other hand, in several wells in Hailey Mandi, besides salinity, the hardness and fluoride levels are found to be almost at the rejection limits. However, groundwater is supplied without any treatment.

586. It is worth mentioning at this point that the Central Ground Water Board (CGWB) has declared Pataudi and the surrounding area as highly water scarce zone. In view of this deteriorating ground water quality, there is a need for developing alternate surface water based supply system for these towns.

587. Proposed water supply project in Pataudi and Haily Mandi Towns including 7 villages is aimed to increase the supply level of 58 lpcd and 50% coverage in 2009 to 135 lpcd and 100% coverage by the year 2040.

Table 2.30: Per Capita Consumption Forecast – Pataudi, Haily Mandi water Supply

City/Town	Current Consumption	Supplied by Piped Water*	Target Consumption	Year	Supplied by piped water in Target Year (2040)
Pataudi Town	100 lpcd	58 lpcd	2040		135 lpcd

*- Only 50% of the population in Pataudi only covered under the piped water supply.

Effective Demand for Water Supply: and sewerage

588. The socio-economic baseline survey 9 was aimed at understanding the perception of the public towards the existing urban civic infrastructure and their service levels including their opinion towards the improvement of these services and their willingness to pay for assessing the 'effective demand'.

⁹ The willingness-to-pay surveys were carried out in Pataudi Municipality, Haily Mandi Municipality and wayside villages during November 2009.

589. The Base line Survey results had indicated that 77 percent HHs are willing to avail the new connections if available. Though 100% of the HHs that are willing to avail the service are willing to pay the user charges for the new household level connections, 83% of HHs were opinioned to pay less than Rs 50 per month. Present monthly charge for domestic connection is Rs 25. Also, in general, HHs were found with willing to pay the increased user charges with additional 20% to the existing one, for the increased service levels.

Identification of project rationale.

590. The present water supply system covers only part of the town area and is with more deficiencies in service delivery.

- Lack of coverage and
- Inefficient functioning of the existing system

Identification of Project Alternatives.

591. Alternative designs were assessed on three aspects, namely, cost-effectiveness, operation and maintenance capacity of the states governments and ULB, and safety to beneficiaries. The proposed design of the project incorporates that (i) service coverage are limited to municipal area, (ii) selected optimum network with least cost options including size and material for pipes (iii) decision on rehabilitation of the existing system (iv) selection of WTP locations (v) selected optimum technology for WTP operation (vi) selected technologies meet geographical restrictions and can be operated and maintained by the asset owners with minor training, and (vii) materials and equipments are locally available and incur least cost during construction and maintenance, but are internationally accepted as health hazard free. These Assessments are discussed in the design section of this DPR.

Identification and Comparison of Project Costs and Benefits.

Economic Cost:

592. From the cost estimate discussed in Section of this report, the 'base' project financial cost is estimated to Rs. 794.6 million. Considering the contingency and allowances of additional 10% for Physical contingency, the total project financial cost was worked out to Rs 874 million and this is phased during the three year construction period as follows:

- 2010-11 – 20%
- 2011-12 – 60%
- 2012-13 – 20%

593. For the analysis purpose the tax element of 12% included in the above financial cost has been excluded. Considering the standard procedures recommended for economic feasibility analysis, the above financial cost was converted into economic cost for the analysis.

594. Water under the project is proposed to be drawn from the dedicated drinking water supply canal of PHED. However for analysis purpose, economic cost of alternate use of water for irrigation purpose was assessed separately based on the Government of Haryana irrigation water rates and considered for analysis purpose..

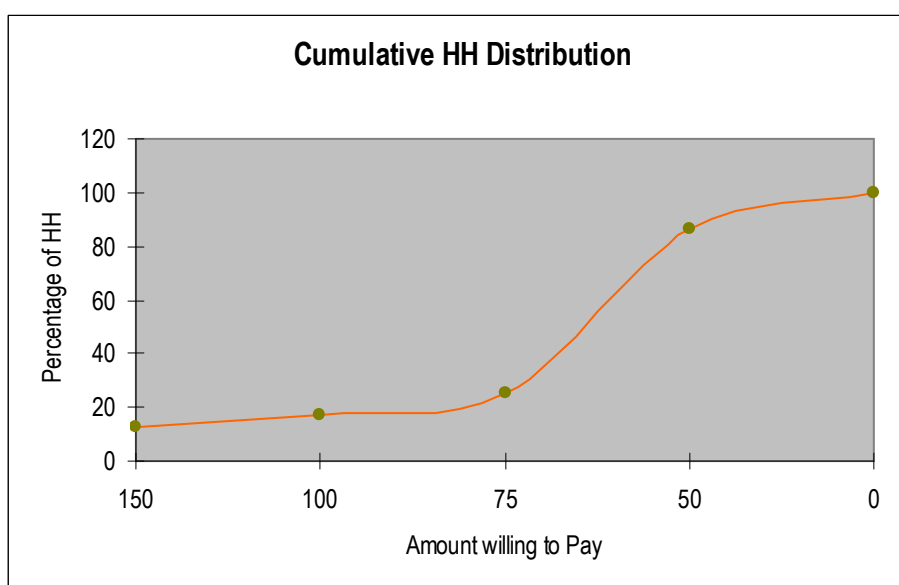
Project Benefits:

595. The main project rationale lies for the rehabilitation of the water supply system for Pataudi Town in filling the demand – supply gap resulted from

- ❑ Lack of coverage and
- ❑ Inefficient functioning of the existing system

596. Incremental Benefit: This component has a positive effect on the total consumption due to the proposed subproject. The benefit has been evaluated by using the willingness to pay (WTP) for additional consumption in the present analysis¹⁰.

597. The average amount each HH is willing to pay for water supply is Rs.60.26 per month. The average amount each HH willing to pay from among those who are willing to pay some amount is Rs.69.48. Twelve percent are willing to pay Rs.150 per month for water supply followed by 5 percent who are willing to pay Rs.100 and 8 percent had stated that they are willing to pay Rs.75. In all one-fourth are willing to pay Rs.100 and above. Sixty one percent had stated that they are willing to pay Rs.50 and the average amount that the households desire to pay is Rs.60. However, amongst those who are willing to pay some amount, the average amount that the households are willing to pay is Rs.70.



598. Non-incremental Benefit / (Loss). This is evaluated by the differential price paid by the new households, presently drawing water from other sources of water and standposts, availing the water service connection. Other non-increment benefit in the form of resource cost savings are: (a) tanker water purchase cost saving; (b) storage tank cost saving; (c) water purification cost saving; and (d) time savings. Time savings resulting from water collection, which is more acute in the dry season and is quantified using the opportunity cost of unskilled urban women laborers. Valuation of resource cost savings time savings; water purification cost saving, storage tank cost saving and tanker water purchase cost saving was done by using data and information available for a) time taken to fetch water; b) amount

¹⁰ The survey adopted Contingent Valuation method to elicit the willingness to pay of the households on water supply and sewerage services since the households are not exposed to the type of services proposed. The samples were distributed in both the municipalities and a few villages. The population was stratified based on income levels of people with input from PHED officials and within each strata samples were chosen randomly proportion to the size of the strata.

spent on purification of water; c) cost of storage tank and d) amount paid for purchasing water through tanker from the Socio-Economic survey, secondary data and physical enquiries was used.

599. Exclusions. The following benefits of water supply project have not been quantified for want of adequate data and quantification techniques. These qualitative benefits along with the quantifiable benefits discussed above, the proposed water supply system will tend to provide better living condition in the project town.

- i. Public cost of treating water borne diseases due to poor environmental sanitation;
- ii. Effects on businesses and industries, such as aquaculture and fisheries, agriculture and washing; and
- iii. Effects on tourism and tourist-related businesses.

Economic Feasibility Analysis

Analysis Period

600. The analysis period of the project is taken as 24 years from the base year 2009-10 as follows:

- Base Year 2009-10
- Construction period – 2010-11 to 2012-13
- Project opened start year – 2013-14
- End of the analysis period – 2032-33

601. Number of operating years after project improvement, considered for economic analysis – 20 years. Thus, 20 years of operation, in effect, from the operation start of the proposed project i.e. 2013-14, has been considered for economic evaluation for the project road.

Economic Feasibility criteria:

602. The cost – benefit analysis is carried out by using the discounted cash flow (DCF) technique to obtain the economic internal rate of return (EIRR) and economic net present value (ENPV) for the proposed investments and the likely quantified project benefits linked with the project during the defined project analysis period

Economic Opportunity Cost of Capital (EOCC).

603. Given the complexity of estimating country-specific economic opportunity cost of capital (EOCC), a discount rate of 12% in constant economic prices is generally used as a proxy for EOCC in the economic analysis of ADB-financed projects. The EIRR must be compared with the economic opportunity cost of capital, for interpretation purpose of project feasibility. Results of the analysis are presented in Table 2.31

Table 2.31: Economic Cost-Benefit Analysis for Water Supply Component, Pataudi Town

Details	Present Value
	(Rs. million) a/
Costs	
Capital costs	484
O&M costs	121
Economic cost for alternate use of water for irrigation purpose	2

Details	Present Value
	(Rs. million) a/
Total costs	607
Benefits	
Total Resource Cost Benefits	435
-time savings	291
Incremental Benefits	79
Total benefits	805
Economic Return Measures	
Net present value (Rs. Million)	198
EIRR (%)	15.4

a/ In 2009-10 prices. Discounted to 2009-10 at 12% real discount rate.

Source: Analysis

Sensitivity Analysis

604. Sensitivity analysis was carried out to their economic feasibility results for the following scenarios:

- ☐ Capital cost increase by 20%
- ☐ O&M costs increased by 20%
- ☐ Target beneficiaries reduced by 20%
- ☐ Delay in accrual of benefit by 1 year
- ☐ Combined adverse condition

605. Results of the sensitivity analysis for the proposed project are summarized below in Table 2.32. Detailed calculations are given in Annex E 1.

Table 2.32: Sensitivity Analysis for Water Supply Component (EIRR)

Details	EIRR	Switching Value b/
Main Evaluation (Base Case)	15.4%	
Capital Cost Overrun a/	13.2%	70.8%
O&M Cost Overrun c/	15.0%	431.9%
Decrease in Project Benefits d/	12.6%	54.7%
One Year Delay in Implementation	15.2%	
All Four Tests Combined	10.4%	

a/ 20% increase in capital cost estimates.

b/ Calculated as the percentage change in a variable required for EIRR to reduce to 12%.

c/ 20% increase in O&M cost.

d/ 20% decrease in project benefits

Source: Analysis

606. Of the four sensitivity scenarios (cost overrun, O&M cost increase, reduced beneficiaries, delay in implementation) reduced benefits is the most vulnerable to EIRR, followed by cost overrun. Considering the more sensitiveness of these variables, following implementation arrangements need to be focused more so as minimize the project risk:

- ❑ Ensuring adequate project coverage of beneficiaries through advance commitment from HHs for individual connections or making mandatory for all individual connections through project design;
- ❑ Timely implementation of the project through appropriate procurement method in which incentive for early completion may be included;
- ❑ Adequate focus for LA and utility shifting related project components so as to avoid project delay

Sewerage Project

Current sanitation arrangements

607. Both the towns are characterized by the practice of on-site sanitation. Given the rural/ agrarian setting, it is also likely that a fair part of the population, especially the poorest may also be resorting to open defecation. Most households having latrines are connected to individual septic tanks and the overflow is let out into open road side drains. Very few houses have septic tanks connected to soak pits or drainage fields. The practice of direct discharge of wastewater into open drains is also prevalent, especially in those houses where space is limited and which are located along large open drains. In monsoon the wastewater from these drains overflows onto roads and at times enters residences, causing a serious threat to public health.

Coverage

608. The sub-project will cover entire population of Pataudi and about 63% population of Hailey Mandi-Jatauli which is residing on the southern side of the railway line and where the general slope of the ground is towards the proposed location of the sewage treatment plant. Although Hailey Mandi is about 3-4 km away, the sub-project has adopted the strategy of including part of its population in order to get the benefit of natural flow pattern and scale, and avoid difficult elements of intermediate pumping and a railway crossing. Accordingly the intermediate and ultimate stage populations used for design of various components are as follows:

Economic Cost:

609. From the cost estimate discussed in Section of this report, the 'base' project financial cost is estimated to Rs. 120.6 million. Considering the contingency and allowances of additional 10% for Physical contingency, the total project financial cost was worked out to Rs 133 million and this is phased during the three year construction period as follows:

- ❑ 2010-11 – 10%
- ❑ 2011-12 – 55%
- ❑ 2012-13 – 35%

610. For the analysis purpose the tax element of 12% included in the above financial cost has been excluded. Considering the standard procedures recommended for economic feasibility analysis, the above financial cost was converted into economic cost for the analysis.

Project Benefits:

611. The survey results indicate that the potential beneficiaries are prepared to pay for the improved services of Sewerage services. The economic benefits considered are:

- ❑ Savings in septic tank capital cost;
- ❑ Savings in septic tank maintenance cost;
- ❑ Savings in days lost due to sickness and reduction in household expenditure on treatment of water borne diseases both considered based on discussions with PHED and Government of Haryana officials and other similar projects;
- ❑ Savings in cost of flooding (covering population in Haily Mandi including Jatauli town); and
- ❑ User charges

612. Avoided Economic Cost: The Socio Economic Survey collected information from sample households and the information collected from secondary sources are used to estimate the economic costs that would be avoided with improved infrastructure services for the project beneficiaries and they include: expenditure on disposing of wastewater; expenditure on treating environmental sanitation related diseases.

613. Exclusion for non-availability of adequate data- the benefits arising out of reduced pollution, reduction in the incidence of diseases and morbidity, improved environment due to cleaner city and the like are not included in this analysis as these could not be quantified and valued.

Economic Feasibility Analysis

Analysis Period

614. The analysis period of the project is taken as 24 years from the base year 2009-10 as follows:

- ❑ Base Year 2009-10
- ❑ Construction period – 2010-11 to 2012-13
- ❑ Project opened start year – 2013-14
- ❑ End of the analysis period – 2032-33

615. Number of operating years after project improvement, considered for economic analysis – 20 years. Thus, 20 years of operation, in effect, from the operation start of the proposed project i.e. 2013-14, has been considered for economic evaluation for the project road.

Economic Feasibility criteria:

616. The cost – benefit analysis is carried out by using the discounted cash flow (DCF) technique to obtain the economic internal rate of return (EIRR) and economic net present value (ENPV) for the proposed investments and the likely quantified project benefits linked with the project during the defined project analysis period

Economic Opportunity Cost of Capital (EOCC).

617. Given the complexity of estimating country-specific economic opportunity cost of capital (EOCC), a discount rate of 12% in constant economic prices is generally used as a proxy for EOCC in the economic

analysis of ADB-financed projects. The EIRR must be compared with the economic opportunity cost of capital, for interpretation purpose of project feasibility. Results of the analysis are presented in Table 2.33.

Table 2.33: Economic Cost-Benefit Analysis for Sewerage Project, Pataudi Town

Details	Present Value
	(Rs. million) a/
Costs	
Capital costs	96
O&M costs	29
Total costs	125
Benefits	
Total Resource Cost Benefits	128
-time savings	4
Incremental Benefits	22
Total benefits	154
Economic Return Measures	
Net present value (Rs. Million)	29
EIRR (%)	15.9

a/ In 2009-10 prices. Discounted to 2009-10 at 12% real discount rate.

Source: Analysis

Sensitivity Analysis

618. Sensitivity analysis was carried out to their economic feasibility results for the following scenarios:

- ☐ Capital cost increase by 20%
- ☐ O&M costs increased by 20%
- ☐ Target beneficiaries reduced by 20%
- ☐ Delay in accrual of benefit by 1 year
- ☐ Combined adverse condition

619. Results of the sensitivity analysis for the proposed project are summarized below in Table 2.34. Detailed calculations are given in Annex E 2.

Table 2.34: Sensitivity Analysis for Sewerage Project (EIRR)

Details	EIRR	Switching Value c/
Main Evaluation (Base Case) a/	15.9%	
Capital Cost Overrun b/	13.0%	54.0%
O&M Cost Overrun d/	15.1%	228.9%
Decrease in Project Benefits e/	11.7%	32.8%
One Year Delay in Implementation	15.8%	
All Four Tests Combined	8.9%	

a/ From Table 2.33.

b/ 20% increase in capital cost estimates.

c/ Calculated as the percentage change in a variable required for EIRR to reduce to 12%.

d/ 20% increase in O&M cost.

e/ 20% decrease in project benefits

Source: Analysis

620. Of the four sensitivity scenarios (cost overrun, O&M cost increase, reduced beneficiaries, delay in implementation) reduced benefits is the most vulnerable to EIRR, followed by cost overrun. Considering the more sensitiveness of these variables, following implementation arrangements need to be focused more so as to minimize the project risk:

- ❑ Ensuring adequate project coverage of beneficiaries through advance commitment from HHs for individual connections or making mandatory for all individual connections through project design;
- ❑ Timely implementation of the project through appropriate procurement method in which incentive for early completion may be included;

621. Adequate focus for LA and utility shifting related project components so as to avoid project delay.

Distribution of Project Benefits

622. Distributional analysis, which leads into calculation of the Poverty Impact Ratio (PIR) i.e., the proportion of project net benefits accruing to the poor, is presented in the Table 2.35.

623. Assumptions followed in the analysis include:

- (i) The financial effects statement for the water supply and sewerage subprojects has been adjusted by non-monetized outputs and resource cost savings. Appropriate factors for converting financial prices of resource cost savings and user charge revenue to economic prices have been used (to adjust to taxes, unskilled labour wage rate and shadow exchange rate);
- (ii) Economic values have been expressed in domestic price;
- (iii) The effect of subproject financing has been excluded;
- (iv) The effects of loss of access and other types of disruption to residents and business due to works during the construction have been excluded; and
- (v) All values are presented in the net present value (NPV) at 12 percent discount rate and calculated for the year 2009-10.

624. Main features of the distribution analysis for Pataudi Town are presented in Table and indicate;

- (i) The financial effect statement indicates that the financial results for the Project are with a net gain of Rs. 298 million in NPV terms;
- (ii) The economic effect statement indicates that the economic results for the subproject are with a net gain of Rs. 231 million in NPV terms;
- (iii) The net economic benefits of the sub project exceeded the net financial benefits by Rs. 298 million in NPV terms;
- (iv) The main beneficiaries of the subproject are Households in Pataudi (Rs. 294 million in net present value terms discounted at 12 percent).
- (v) Other gainers are unskilled laborers engaged during construction and maintenance (Rs. 19 million, in net present value terms discounted at 12 percent).

625. The assumptions used to estimate the poor proportion of each group identified in Table 2.35 are detailed in footnotes to the tables. Poor households have been defined in terms of those living Below Poverty Line (BPL) and Poor. The analysis shows that the Poverty Impact Ratio (PIR) for the subproject in Pataudi is 65 percent.

Table 2.35: Distribution of Project Benefits and Calculation of Poverty Impact Ratio (Present Value at 12%

Discount Rate a/, Rs. Details	Financial Effects	Million) Conversion Factor	Subprojects, Economic Effects	Bundi Economic minus Financial	Distribution of Project Effects				
					Households	Unskilled labour	ULB	Government	Total
Benefits									
Non-monetised Outputs ^{b/}			294	294	294				294
Resource Cost Savings ^{c/}	563	0.94 ^{e/}	530	(34)				(34)	(34)
User Charges Revenues	101	1.00	101						
Total Benefits	664		925	261					-
Costs									
Capital Cost - Unskilled labour	67	0.72 ^{f/}	48	(19)		19			19
Capital Cost - Land									
Capital Cost - Other costs	514	0.97	499	(15)				15	15
O&M - Unskilled labour		0.72 ^{f/}	-	-		-			-
O&M - Other costs	150	0.98	147	(3)				3	3
Total Costs	731		694	(37)					-
Net Benefits^{f/}	(67)		231	298					-
Gains & Losses^{g/}					294	19	-	(15)	298

Calculation of Poverty Impact Ratio

Percentage of Poor ^{h/}	46%	100%	46%	18%
Benefits to poor	134	19	-	(2.7)
Total benefits to poor				150
Total project benefits				231
Poverty Impact Ratio				65%

Notes:

a/ 12% for Water Supply and Sewerage Components.

b/ Collection time savings

c/ Resource cost savings from overhead tank capital cost and non-incremental benefit

d/ Adjusts for taxes (12%) for local costs.

e/ Adjusts for taxes at local costs and shadow wage rate.

f/ Calculated as Total Benefits - Total Costs.

g/ Calculated as sum of gains and losses

h/ Considers only Poor of Socio-economic categories whose monthly HH income is less than Rs 2500

Conclusion

626.The main evaluation has indicated that the proposed water supply sub project for Pataudi, Haily Mandi Town including seven villages and sewerage sub project for Pataudi Town and Haily Mandi (63% population connected to Trunk Sewer) town was found to be economically viable, with the calculated EIRR values exceeding the economic opportunity cost of capital. The sensitivity analysis has demonstrated the robustness of this result.

627.Furthermore, for the proposed water supply subproject, the calculated EIRR value is considered minimum estimates of economic return, as there are a number of economic benefits of reduced water pollution related issues, improvement in sanitation, tourism benefits and a cleaner city that have not been quantified.

Annex E1

Pataudi Water Supply Project

		Benefit					Cost					Sensitivity						
		Labor cost saved (stand post user)	Storage tank cost saved	Saved Cost of Water Purchased	Saved Purification Cost	Incremental Benefit	Total	Investment	OM	Economic Cost of alternate use of water	Total	Net	Capital Cost Over-run by 20 %	O&M Over-run by 20%	Benefits reduced by 20%	Worst Scenario (all combined)	One Year Delay	
1	2010	0	0	0	0	0	0	144,887	0	0	144,887	-144,887	(173,865)	(144,887)	(144,887)	(173,865)	-72,444	
2	2011	0	0	0	0	0	0	434,662	0	0	434,662	-434,662	(521,595)	(434,662)	(434,662)	(521,595)	-72,444	
3	2012	0	0	0	0	0	0	144,887	0	0	144,887	-144,887	(173,865)	(144,887)	(144,887)	(173,865)	-434,662	
4	2013	45,680	9,996	48,231	18,991	16,616	139,514	0	22,724	362	23,086	116,428	116,428	111,883	88,525	83,980	-144,887	
5	2014	46,895	266	49,514	19,492	10,826	126,993	0	22,724	362	23,086	103,907	103,907	99,362	78,508	73,964	116,428	
6	2015	48,735	403	51,457	20,215	11,571	132,382	0	22,724	362	23,086	109,295	109,295	104,750	82,819	78,274	103,907	
7	2016	50,602	408	53,428	20,949	12,328	137,716	0	22,724	362	23,086	114,629	114,629	110,085	87,086	82,541	109,295	
8	2017	52,495	414	55,427	21,694	13,097	143,126	0	22,724	362	23,086	120,040	120,040	115,495	91,415	86,870	114,629	
9	2018	54,413	420	57,453	22,450	13,877	148,613	0	22,724	362	23,086	125,526	125,526	120,982	95,804	91,259	120,040	
10	2019	56,358	426	59,506	23,217	14,668	154,175	0	22,724	362	23,086	131,089	131,089	126,544	100,254	95,709	125,526	
11	2020	57,620	276	60,838	23,746	15,213	157,693	0	22,724	362	23,086	134,607	134,607	130,062	103,068	98,523	131,089	
12	2021	58,876	275	62,164	24,274	15,758	161,347	0	22,724	362	23,086	138,261	138,261	133,716	105,991	101,447	134,607	
13	2022	60,125	273	63,484	24,803	16,303	164,989	0	22,724	362	23,086	141,902	141,902	137,358	108,905	104,360	138,261	
14	2023	61,369	272	64,797	25,331	16,848	168,617	0	22,724	362	23,086	145,531	145,531	140,986	111,808	107,263	141,902	
15	2024	62,606	271	66,103	25,860	17,394	172,233	0	22,724	362	23,086	149,147	149,147	144,602	114,700	110,155	145,531	
16	2025	63,259	143	66,793	26,185	17,729	174,109	0	22,724	362	23,086	151,023	151,023	146,478	116,201	111,656	149,147	
17	2026	63,906	142	67,476	26,510	18,064	176,097	144,887	22,724	362	167,974	8,123	8,123	3,579	(27,096)	(31,641)	151,023	
18	2027	64,546	140	68,151	26,835	18,399	178,071	0	22,724	362	23,086	154,985	154,985	150,440	119,371	85,849	8,123	
19	2028	65,179	138	68,820	27,160	18,734	180,031	0	22,724	362	23,086	156,945	156,945	152,400	120,939	116,394	154,985	
20	2029	65,805	137	69,480	27,485	19,069	181,976	0	22,724	362	23,086	158,890	158,890	154,345	122,495	117,950	156,945	
21	2030	66,423	135	70,133	27,810	19,405	183,905	0	22,724	362	23,086	160,819	160,819	156,274	124,038	119,493	158,890	
22	2031	67,034	134	70,778	28,135	19,740	185,819	0	22,724	362	23,086	162,733	162,733	158,188	125,569	121,025	160,819	
23	2032	67,637	132	71,414	28,460	20,075	187,717	-1,564,824	22,724	362	-1,541,738	1,729,456	1,729,456	1,724,911	1,691,912	1,687,367	162,733	
							0						0	0	0	0	0	
Total		1,179,563	14,801	1,245,446	489,599	325,714	3,255,123	-695,500	454,480	7,244	-233,775	3,488,899	3,315,034	3,398,003	2,837,874	2,573,113	3,488,899	
NPV @ 12%		290,729	7,791	306,967	120,452	78,914	804,854	484,639	120,814	1,926	607,379	197,475	77,906	173,312	36,504	-107,227	169,387	
EIRR		Base EIRR										15.4%						
		Sensitivity											SI	SV				
		Capital Cost Over-run by 20%										12%	13.2%	1.4	70.8%			
		O&M Cost over-run by 20%										12%	15.0%	0.2	431.9%			
		Benefits reduced by 20%										12%	12.6%	1.8	54.7%			
		Worst Scenario (all three)										12%	10.4%					
		One Year Delay in Implementation											15.2%					

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