

Table 6A: Indicative Program Investment Plan by Tranche
(in USD million)

| | Tranche1 | Tranche2 | Tranche3 | Total |
|------------------------------------------------------------------|--------------|---------------|---------------|---------------|
| 1. Urban Infrastructure and Service Improvement | | | | |
| Water Supply | 9.77 | 62.21 | 24.39 | 96.37 |
| Sewerage | - | - | 51.80 | 51.80 |
| Solid waste management | 3.82 | 5.72 | 4.34 | 13.87 |
| Resettlement and Land Acquisition | - | 3.76 | 7.40 | 11.17 |
| | 13.59 | 71.69 | 87.93 | 173.21 |
| 2. Capacity Development and Investment Program Management | | | | |
| Investment Program Management | 11.69 | 0.47 | 0.47 | 12.64 |
| Institutional Capacity Development | 2.35 | 3.53 | - | 5.88 |
| Staff and Incremental Recurrent cost | 3.00 | 3.00 | 0.14 | 6.14 |
| | 17.05 | 7.00 | 0.61 | 24.66 |
| 3. Taxes and Duties | 4.21 | 10.33 | 12.27 | 26.80 |
| Subtotal (A) | 34.84 | 89.03 | 100.80 | 224.67 |
| B. Contingencies^b | | | | |
| Physical contingency | 0.85 | 3.89 | 5.20 | 9.94 |
| Price contingency | 2.19 | 7.97 | 11.78 | 21.94 |
| | 3.04 | 11.86 | 16.98 | 31.88 |
| C. Financing Charges During Implementation^c | 4.79 | 12.27 | 12.06 | 29.12 |
| Total (A+B+C) | 42.66 | 113.16 | 129.85 | 285.67 |

^a In end 2008 prices.

^b Physical contingencies computed at 10% for civil works; and 5% for equipment. Price contingencies are computed at 0.5% for domestic inflation and at 0.4%–1.4% for international inflation.

^c Includes interest and commitment charges. Financing charges are estimated, assuming an interest rate computed at the six-months London interbank offered rate and a spread of 20 basis point and a commitment fee of 0.15%.

(<http://www.adb.org/Media/Articles/2007/12313-asian-loans-charges/>)

Source: Asian Development Bank estimates.

Table 6B: Indicative Program Investment Plan
(\$000)

| Item | Agartala Tripura | Aizawl Mizoram | Gangtok Sikkim | Kohima Nagaland | Shillong Meghalaya | Program Coordination | Total |
|------------------------------------------------------------------|---------------------|-------------------|-------------------|--------------------|-----------------------|-------------------------|------------------|
| A. Base Cost^a | | | | | | | |
| 1. Urban Infrastructure and Service Improvement | | | | | | | |
| a. Water Supply | | | | | | | |
| Tranche 1 | 1,340.7 | 2,342.4 | 4,832.8 | 1,254.4 | 0.0 | 0.0 | 9,770.2 |
| Tranche 2 | 33,442.6 | 18,724.5 | 2,693.0 | 9,206.1 | 0.0 | 0.0 | 64,066.2 |
| Tranche 3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| b. Sewerage and Sanitation | | | | | | | |
| Tranche 1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Tranche 2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Tranche 3 | 0.0 | 17,636.8 | 17,477.6 | 20,370.2 | 27,898.9 | 0.0 | 83,383.5 |
| c. Solid-Waste Management | | | | | | | |
| Tranche 1 | 0.0 | 0.0 | 0.0 | 3,511.3 | 304.3 | 0.0 | 3,815.7 |
| Tranche 2 | 2,430.1 | 982.1 | 1,683.3 | 398.0 | 2,134.0 | 0.0 | 7,627.4 |
| Tranche 3 | 552.5 | 2,516.2 | 0.0 | 0.0 | 1,474.3 | 0.0 | 4,542.9 |
| 2. Capacity Development and Investment Program Management | | | | | | | |
| a. Capacity Building | | | | | | | |
| Tranche 1 | 1,176.2 | 0.0 | 0.0 | 0.0 | 1,176.2 | 0.0 | 2,352.4 |
| Tranche 2 | 0.0 | 1,176.2 | 1,176.2 | 1,176.2 | 0.0 | 0.0 | 3,528.6 |
| Tranche 3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| b. Investment Program Management | | | | | | | |
| Tranche 1 | 2,801.7 | 2,942.1 | 2,779.3 | 2,787.3 | 2,769.3 | 613.1 | 14,692.9 |
| Tranche 2 | 572.5 | 572.5 | 572.5 | 572.5 | 572.5 | 613.1 | 3,475.7 |
| Tranche 3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 613.1 | 613.1 |
| 3. Taxes and Duties | 5,742.2 | 6,275.1 | 4,339.7 | 5,618.3 | 4,579.8 | 246.8 | 26,801.9 |
| Subtotal (A) | 48,058.5 | 53,167.8 | 35,554.5 | 44,894.3 | 40,909.4 | 2,086.1 | 224,670.5 |
| B. Contingencies^b | 6,255.1 | 7,725.5 | 5,175.9 | 6,800.1 | 5,790.0 | 135.3 | 31,881.9 |
| C. Financing Charges During Implementation^c | 6,625.8 | 6,925.5 | 4,544.8 | 5,802.8 | 4,960.8 | 258.7 | 29,118.4 |
| Total (A+B+C) | 60,939.4 | 67,818.7 | 45,275.1 | 57,497.2 | 51,660.1 | 2,480.0 | 285,670.7 |

^a In end 2008 prices.

^b Physical contingencies computed at 10% for civil works; and 5% for equipment. Price contingencies are computed at 0.5% for domestic inflation and at 0.4%–1.4% for international inflation.

^c Includes interest and commitment charges. Financing charges are estimated, assuming an interest rate computed at the six-months London interbank offered rate and a spread of 20 basis point and a commitment fee of 0.15%. (<http://www.adb.org/Media/Articles/2007/12313-asian-loans-charges/>)

Source: Asian Development Bank estimates.

AGARTALA - SUMMARY INVESTMENT PROGRAM IMPLEMENTATION

[illegible]

AIZAWL - SUMMARY INVESTMENT PROGRAM IMPLEMENTATION

[illegible]

GANGTOK - SUMMARY INVESTMENT PROGRAM IMPLEMENTATION

| Description | 2009 | | | | 2010 | | | | 2011 | | | | 2012 | | | | 2013 | | | | 2014 | | | | 2015 | | | |
|--------------------------------------------------------------------------------------------------------------------------------------------|-----------------|----|----|--|---------|----|-----|----|-----------------|----|----|---------|------|----|----|----|--------------|----|----|----|------|----|----|----|------|----|----|----|
| | Q2 | Q3 | Q4 | | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 |
| ADB's FFA and PFR Approval | ♦ | | | | | | ♦ | | | | | ♦ | | | | | | | | | | | | | | | | |
| Loan Signing | | | ♦ | | | | | | | | | | | | | | | | | | | | | | | | | |
| Loan Effectiveness | FFA & FR1 | ♦ | | | | | FR2 | ♦ | | | | PFR3 | ♦ | | | | | | | | | | | | | | | |
| Preliminary Tasks | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Staffing/Operationalizing of SIPMIU | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Staff orientation | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Environmental Clearances | ♦ clear PFR1 | | | | IEE/EIA | | | | ♦ clear PFR2 | | | IEE/EIA | | | | | ♦ clear PFR3 | | | | | | | | | | | |
| Project Lands Acquired and R&R activities | ♦ PFR1 complete | | | | | | | | ♦ PFR2 complete | | | | | | | | | | | | | | | | | | | |
| Part A: Urban Infrastructure and Services Improvement | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| A1 Improved Water Supply Service and Coverage - Rehabilitation and Expansion | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Construction of 3 new R.C.C. Zonal Service Reservoirs | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Construction of 31 kilometers of primary pipelines and 38 km of secondary lines | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Provision of 19,000 metered service connections | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Construction and installation of 4 chlorinators | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| A2 Improved Sanitation and Sewerage (Zone II and III and Community Latrines) | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Primary (12 km) and Secondary (30 km) Sewerage Network for Zone 2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Primary (12 km) and Secondary (30 km) Sewerage Network for Zone 3 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Construction of sewage treatment plants for Zones II and III | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Sewerage maintenance equipment, tools and lab equipment | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Community latrines | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| B3 Solid Waste Management | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| EIA and Awareness Campaign | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Transfer station (3 @ Indira Bypass) | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Parking cum garage/shop (@ UDHD parking) | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| New disposal site (Marshak) | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Primary and Secondary Collection equipment: light equip and vehicles (3 medium duty tipper, 3 large tipper trucks, 4 dumper/placer trucks) | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Equipment for compost plant | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Equipment for landfill site | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Part B: Instititutional Strengthening and Investment Program Management | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| B1.Support to Double Entry Accounting Reform | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Accounting manual | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Asset Registrar and Valuation | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Software Preparation and Adaptation | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Account Migration | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Training | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| B2. Support to Property Tax Reform | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Mapping and computerized data base | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Introduction of GIS software | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Property mapping survey | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Introduction of new tax | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| B3. Public Utility (Water and Sewerage) Strengthening | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Program on improved asset management (incl. establishment of database and asset condition systems) | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Asset Cost Drivers and Cost Models for Investment Planning | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Quality Assurance and quality control manual, procedures and systems | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| B4. Public Awareness Campaign | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Implementing India's 74th Amendment to the Constitution | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Solid Waste Management (Segregation) | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Water and solid waste management charges | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| B5. Investment Program Management | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Consultancies (DSMC): Signing and Mobilization | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Consultancies (IDC): Signing and Mobilization | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Design | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Tender and Evaluation | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Construction/Installation/Implementation | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Commissioning/Testing | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

KOHIMA - SUMMARY INVESTMENT PROGRAM IMPLEMENTATION

| Description | 2009 | | | 2010 | | | 2011 | | | 2012 | | | 2013 | | | 2014 | | | 2015 | | | | |
|----------------------------------------------------------------------------------------------------|-----------------|----|----|------|----|-----|------|----|----|------|------|----|------|----|----|------|----|----|------|----|----|----|----|
| | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 |
| ADB's FFA and PFR Approval | • | | | | | | | | | | | | | | | | | | | | | | |
| Loan Signing | | • | | | | | • | | | | | • | | | | | | | | | | | |
| Loan Effectiveness | FFA & FR1 | • | | | | FR2 | • | | | | PFR3 | • | | | | | | | | | | | |
| Preliminary Tasks | | | | | | | | | | | | | | | | | | | | | | | |
| Staffing/Operationalizing of SIPMIU | | | | | | | | | | | | | | | | | | | | | | | |
| Staff orientation | | | | | | | | | | | | | | | | | | | | | | | |
| Water Allocations/Permits Secured (new Sources) | signed MOUs | | | | | | | | | | | | | | | | | | | | | | |
| Environmental Clearances | • clear PFR1 | | | | | | | | | | | | | | | | | | | | | | |
| Project Lands Acquired and R&R activities | • IEE/EIA | | | | | | | | | | | | | | | | | | | | | | |
| | • clear PFR2 | | | | | | | | | | | | | | | | | | | | | | |
| | • IEE/EIA | | | | | | | | | | | | | | | | | | | | | | |
| | • clear PFR3 | | | | | | | | | | | | | | | | | | | | | | |
| | • PFR1 complete | | | | | | | | | | | | | | | | | | | | | | |
| | • PFR2 complete | | | | | | | | | | | | | | | | | | | | | | |
| | • PFR3 complete | | | | | | | | | | | | | | | | | | | | | | |
| Part A: Urban Infrastructure and Services Improvement | | | | | | | | | | | | | | | | | | | | | | | |
| A1a Improved Water Supply Service and Coverage - Rehabilitation and Expansion | | | | | | | | | | | | | | | | | | | | | | | |
| Construction of 19 replacement R.C.C. Zonal Service Reservoirs | | | | | | | | | | | | | | | | | | | | | | | |
| Refurbishment of existing WTP | | | | | | | | | | | | | | | | | | | | | | | |
| Construction and installation of 2 chlorinators | | | | | | | | | | | | | | | | | | | | | | | |
| Provision of 30 bulk meters | | | | | | | | | | | | | | | | | | | | | | | |
| UFW program | | | | | | | | | | | | | | | | | | | | | | | |
| A1.b Improved Water Supply Service and Coverage - Rehabilitation and Expansion | | | | | | | | | | | | | | | | | | | | | | | |
| Construction of 31 kilometers of primary pipelines and 38 km of secondary lines | | | | | | | | | | | | | | | | | | | | | | | |
| Construction of 5 new R.C.C. Zonal Service Reservoirs | | | | | | | | | | | | | | | | | | | | | | | |
| Provision of 11,500 metered service connections | | | | | | | | | | | | | | | | | | | | | | | |
| A2 Improved Sanitation and Sewerage (Zone II and III and Community Latrines) | | | | | | | | | | | | | | | | | | | | | | | |
| Primary (12 km) and Secondary (30 km) Sewerage Network for Zone 2 | | | | | | | | | | | | | | | | | | | | | | | |
| Primary (12 km) and Secondary (30 km) Sewerage Network for Zone 3 | | | | | | | | | | | | | | | | | | | | | | | |
| Construction of sewage treatment plants for Zones II and III | | | | | | | | | | | | | | | | | | | | | | | |
| Sewerage maintenance equipment, tools and lab equipment | | | | | | | | | | | | | | | | | | | | | | | |
| Community latrines | | | | | | | | | | | | | | | | | | | | | | | |
| B3 Solid Waste Management | | | | | | | | | | | | | | | | | | | | | | | |
| EIA and Awareness Campaign | | | | | | | | | | | | | | | | | | | | | | | |
| Transfer station | | | | | | | | | | | | | | | | | | | | | | | |
| Parking cum garage/shop | | | | | | | | | | | | | | | | | | | | | | | |
| New disposal site and compost plant | | | | | | | | | | | | | | | | | | | | | | | |
| Primary and Secondary Collection equipment: light equip and vehicles | | | | | | | | | | | | | | | | | | | | | | | |
| Equipment for compost plant | | | | | | | | | | | | | | | | | | | | | | | |
| Equipment for landfill site | | | | | | | | | | | | | | | | | | | | | | | |
| Part B: Institutional Strengthening and Investment Program Management | | | | | | | | | | | | | | | | | | | | | | | |
| B1.Support to Double Entry Accounting Reform | | | | | | | | | | | | | | | | | | | | | | | |
| Accounting manual | | | | | | | | | | | | | | | | | | | | | | | |
| Asset Registrar and Valuation | | | | | | | | | | | | | | | | | | | | | | | |
| Software Preparation and Adaptation | | | | | | | | | | | | | | | | | | | | | | | |
| Account Migration | | | | | | | | | | | | | | | | | | | | | | | |
| Training | | | | | | | | | | | | | | | | | | | | | | | |
| B2. Support to Property Tax Reform | | | | | | | | | | | | | | | | | | | | | | | |
| Mapping and computerized data base | | | | | | | | | | | | | | | | | | | | | | | |
| Introduction of GIS software | | | | | | | | | | | | | | | | | | | | | | | |
| Property mapping survey | | | | | | | | | | | | | | | | | | | | | | | |
| Introduction of new tax | | | | | | | | | | | | | | | | | | | | | | | |
| B3. Public Utility (Water and Sewerage) Strengthening | | | | | | | | | | | | | | | | | | | | | | | |
| Program on improved asset management (incl. establishment of database and asset condition systems) | | | | | | | | | | | | | | | | | | | | | | | |
| Asset Cost Drivers and Cost Models for Investment Planning | | | | | | | | | | | | | | | | | | | | | | | |
| Quality Assurance and quality control manual, procedures and systems | | | | | | | | | | | | | | | | | | | | | | | |
| B4. Public Awareness Campaign | | | | | | | | | | | | | | | | | | | | | | | |
| Implementing India's 74th Amendment to the Constitution | | | | | | | | | | | | | | | | | | | | | | | |
| Solid Waste Management (Segregation) | | | | | | | | | | | | | | | | | | | | | | | |
| Water and solid waste management charges | | | | | | | | | | | | | | | | | | | | | | | |
| B5. Investment Program Management | | | | | | | | | | | | | | | | | | | | | | | |
| Consultancies (DSMC): Signing and Mobilization | | | | | | | | | | | | | | | | | | | | | | | |
| Consultancies (IDC): Signing and Mobilization | | | | | | | | | | | | | | | | | | | | | | | |
| Design | | | | | | | | | | | | | | | | | | | | | | | |
| Tender and Evaluation | | | | | | | | | | | | | | | | | | | | | | | |
| Construction/Installation/Implementation | | | | | | | | | | | | | | | | | | | | | | | |
| Commissioning/Testing | | | | | | | | | | | | | | | | | | | | | | | |

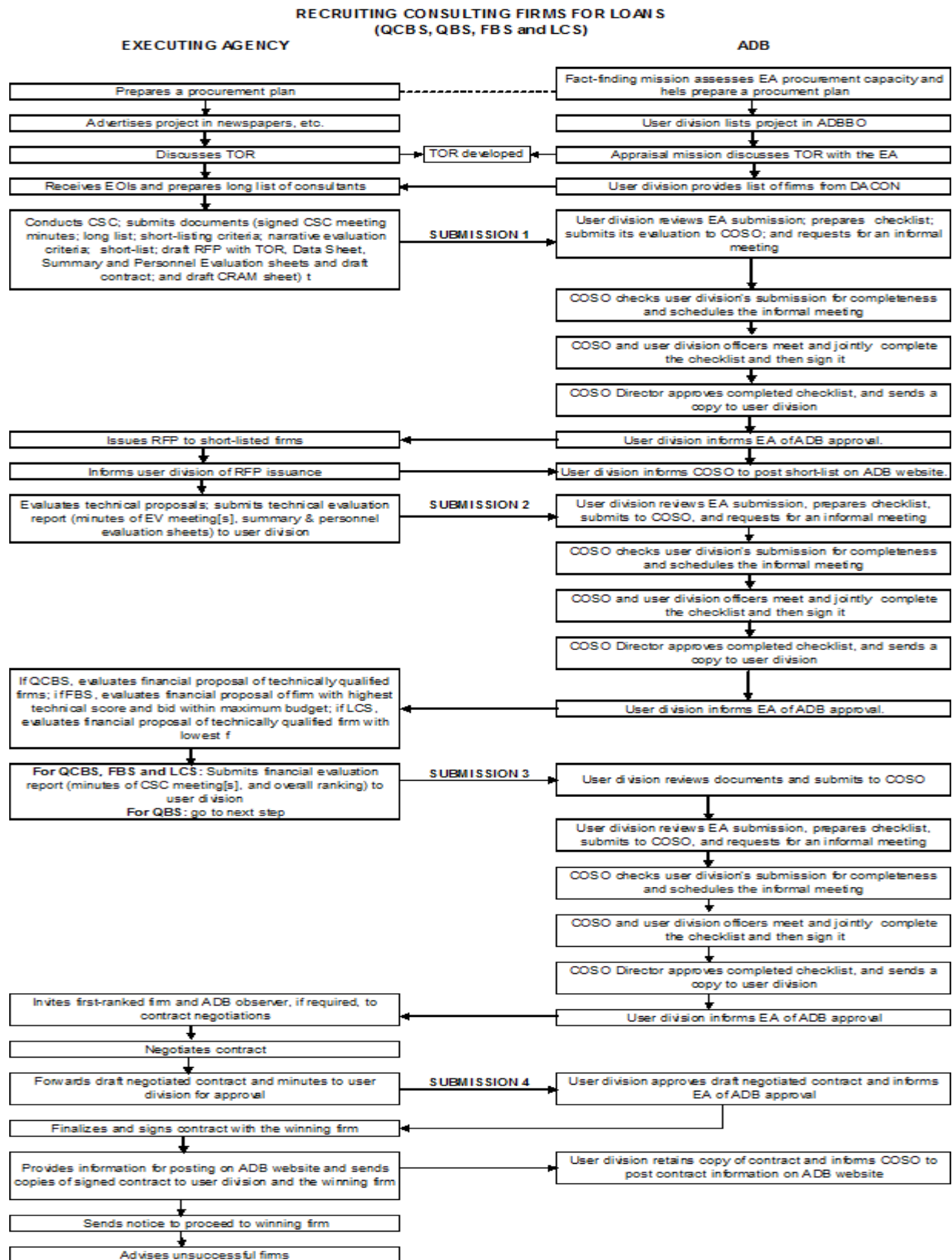
SHILLONG - SUMMARY INVESTMENT PROGRAM IMPLEMENTATION

| Description | 2009 | | | | 2010 | | | | 2011 | | | | 2012 | | | | 2013 | | | | 2014 | | | | 2015 | | | |
|--------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------|----|-----------|---|------|----|-----|----|------|----|----|------|------|----|----|----|------|----|----|----|------|----|----|----|------|----|----|----|
| | Q2 | Q3 | Q4 | | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 |
| ADB's FFA and PFR Approval | ◆ | | | | | | ◆ | | | | | ◆ | | | | | | | | | | | | | | | | |
| Loan Signing | | | ◆ | | | | | | | | | | | | | | | | | | | | | | | | | |
| Loan Effectiveness | | | FFA & FR1 | ◆ | | | FR2 | ◆ | | | | PFR3 | ◆ | | | | | | | | | | | | | | | |
| Preliminary Tasks | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Staffing/Operationalizing of SIPMIU | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Staff orientation | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Environmental Clearances | ◆ clear PFR1 IEE/EIA ◆ clear PFR2 IEE/EIA ◆ clear PFR3 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Project Lands Acquired and R&R activities | ◆ PFR1 complete ◆ PFR2 complete ◆ PFR3 complete | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Part A: Urban Infrastructure and Services Improvement | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| A1 Improved Sanitation and Sewerage (Zone I and Community Latrines) | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Primary (33 km) and Secondary and tertiary (60 km) Sewerage Network | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Sewage Treatment Plant (1, 10 MLD) and Disposal (+5 yr maintenance contract) | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Provision of HH connections (incl. inspection chambers, 6536) and community blocks (6), HH assistance (1000) | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Sewerage maintenance equipment, tools and lab equipment | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| A2. Solid Waste Management | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| EIA and Awareness Campaign | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Short term landfill site | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Transfer station (@ Maulai), and weighbridge | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Parking cum garage/shop (@ compost plant) | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| New disposal site (@ Mawiong) and rehabilitation of existing one (Mawlai) | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Primary and Secondary Collection equipment: light equip and vehicles (5 medium duty tipper, 6 tipper trucks, 7 dumper placer trucks) | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Equipment for compost plant | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Equipment for landfill site | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Part B: Insitutional Strengthening and Investment Program Management | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| B.1 Support to Double Entry Accounting Reform | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Accounting manual | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Asset Registrar and Valuation | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Software Preparation and Adaptation | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Account Migration | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Training | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| B.2 Support to Property Tax Reform | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Mapping and computerized data base | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Introduction of GIS software | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Property mapping survey | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Introduction of new tax | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| B.3 Public Utility (Water and Sewerage) Strengthening | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Program on improved asset management (incl. establishment of database and asset condition systems) | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Asset Cost Drivers and Cost Models for Investment Planning | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Quality Assurance and quality control manual, procedures and systems | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| B.4 Public Awareness Campaign | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Implementing India's 74th Amendment to the Constitution | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Solid Waste Management (Segregation) | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Water and solid waste management charges | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| B.5 Investment Program Management | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Consultancies (DSMC): Signing and Mobilization | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Consultancies (IDC): Signing and Mobilization | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Design | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Tender and Evaluation | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Construction/Installation/Implementation | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Commissioning/Testing | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

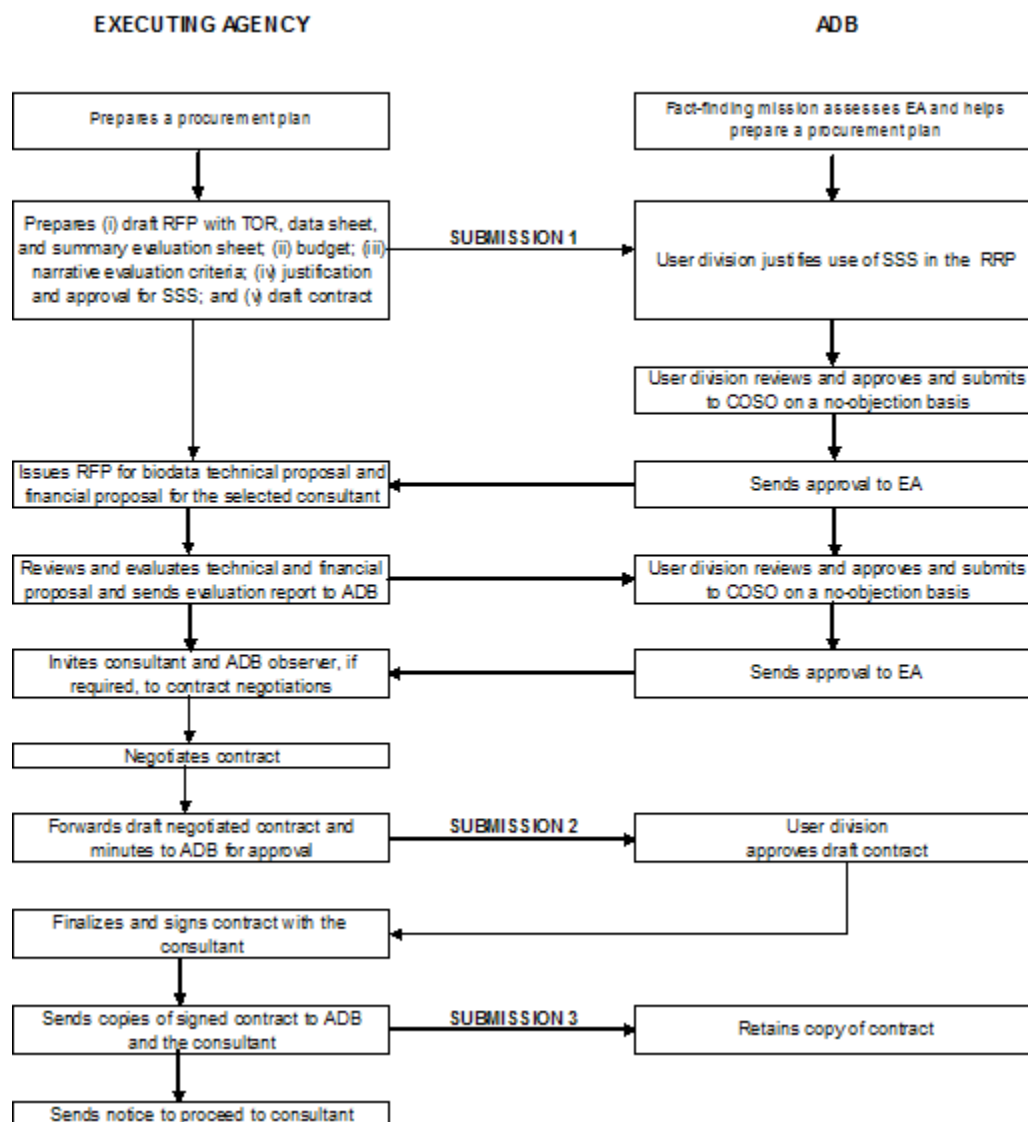
Investment Program Implementation Schedule

| Description | 2009 | | | 2010 | | | | 2011 | | | | 2012 | | | | 2013 | | | | 2014 | | | | 2015 | | | | | |
|--------------------------------------------------------------------------------------------|-----------------|---------|----|------|-----------------|---------|----|------|-----------------|------|----|------|----|----|----|------|----|----|----|------|----|----|----|------|----|----|----|--|--|
| | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | | |
| ADB's FFA and PFR Approval | ♦ | | | | | ♦ | | | | ♦ | | | | | | | | | | | | | | | | | | | |
| Loan Signing | | ♦ | | | | | ♦ | | | | ♦ | | | | | | | | | | | | | | | | | | |
| Loan Effectiveness | FFA & FR1 | ♦ | | | | FR2 | ♦ | | | PFR3 | ♦ | | | | | | | | | | | | | | | | | | |
| Preliminary Tasks | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Staffing/Operationalizing of SIPMIU | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Staff orientation | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Environmental Clearances | ♦ clear PFR1 | IEE/EIA | | | ♦ clear PFR2 | IEE/EIA | | | ♦ clear PFR3 | | | | | | | | | | | | | | | | | | | | |
| Project Lands Acquired and R&R activities | ♦ PFR1 complete | | | | ♦ PFR2 complete | | | | ♦ PFR3 complete | | | | | | | | | | | | | | | | | | | | |
| Tranche 1 (ADB loan \$30 million including financial charges) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Optimization of water supply systems | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Introduction of NRW programs in all 5 States | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Immediate refurbishment and emergency repairs | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Sample water supply rehabilitation and expansion scheme for Gangtok | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Sample SWM comprehensive site in Kohima and emergency scheme in Shillong | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| DCMS consultancy for all 5 States | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| IDC consultancy in Agartala and Shillong | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Tranche 2 (ADB loan \$79.3 million including financial charges) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Water supply rehabilitation and expansion schemes for Agartala (South Zone), Aizawl and | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SWM schemes for Agartala, Aizawl, Gangtok and Shillong | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SWM equipment for Kohima | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| IDC consultancy in Aizawl, Gangtok and Kohima | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Tranche 3 (ADB loan \$90.8 million including financial charges) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Water supply rehabilitation and expansion schemes for Agartala (Central Zone) and Shillong | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SWM equipment for Aizawl, Gangtok and Shillong | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Sewerage schemes for Aizawl, Gangtok and Kohima | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

Appendix 13A.1



RECRUITING CONSULTING FIRMS FOR LOANS USING SSS



Indicative Procurement Plan for the Investment Program

| No | Contract No. | General Description | Contract Value | Procurement Method | Prequalification Of Bidders (y/n) | Advtsmt. Date (Q/Y) | Comments |
|--------------------------------|----------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|--------------------|-----------------------------------|---------------------|-------------------------------------|
| Agartala – Water Supply | | | | | | | |
| A1 | TW&IRP/WS/AGT/T1/NCB | Civil works, electromechanical works and associated pumping machinery, testing and commissioning pertaining to the construction of 1. 18 (replacement) deep tube wells to serve Agartala's South Zone; 2. 7 (replacement) deep tube wells to serve Agartala's Central Zone; 3. 10 (replacement) iron removal plants (IRPs) in Agartala's South Zone; 4. 7 (replacement) iron removal plants (IRPs) in Agartala's Central Zone; 5. Chlorinators in all IRPs. | 0.9 | NCB | N | Q1 2009 | Civil Works Contract (Itemized BOQ) |
| A2 | LD/WS/AGT/T1/SHP | Procurement of leak detection equipment and ancillary supplies, testing and training | 0.08 | SHP | N | Q1 2009 | Goods (Itemized BOQ) |
| A3 | WW&T/WS/AGT/T2/ICB | Procurement of equipment and ancillary supplies, civil works, testing and commissioning pertaining to 1. Construction of infiltration galleries 2. Replacement of machinery and equipments at the College Tilla WTP 3. Construction of sludge drying and disposal facilities as required at the two treatment plants 4. Installation of pumping machineries at the intake well and construction of aeration cum pre-sedimentation tanks at the existing water treatment plants 5. 9 new tube wells (7 in Central Zone and 2 in South Zone), including dedicated power supply 6. 8 iron removal plants (5 in South | 5.52 | ICB | N | Q1 2010 | Civil Works Contract (Itemized BOQ) |

| No | Contract No. | General Description | Contract Value | Procurement Method | Prequalification Of Bidders (y/n) | Advtsmt. Date (Q/Y) | Comments |
|----|----------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|--------------------|-----------------------------------|---------------------|-------------------------------------|
| | | Zone and 3 in Central Zone) 7. 7 new groundwater treatment plants, clear water reservoirs and pumping stations (5 in South Zone and 2 in Central Zone). 5. Chlorinators in all treatment plants. | | | | | |
| A4 | LAB&ST/AGT/T1/NCB | Laboratory testing equipment and stores equipment | 0.2 | NCB | N | Q1 2010 | Goods (Itemized BOQ) |
| A5 | PM&S/WS/AGTSZ/T2/NCB | Supply, laying and jointing of DI pipes for pumping mains , secondary and tertiary network pipe lines , provision of 20,000 household connections and bulk meters in the Southern Zone including those going to newly developing areas inclusive of fixing of valves and specials, construction of valve chambers, making connections, testing of entire distribution system complete job as per primary network design for following sizes of pipes. | 7.53 | ICB | N | Q1 2010 | Civil Works Contract (Itemized BOQ) |
| A6 | OHT/WS/AGTSZ/T2/NCB | Construction of 8 RCC zonal overhead tanks (7.5 ML) in the Southern Zone to serve as service reservoir including fixing of Inlet, outlet and other pipes, its' commissioning and testing, land cost, site clearance etc. complete for following zones. | 3.4 | NCB | N | Q1 2010 | Civil Works Contract (Itemized BOQ) |
| A7 | PM&S/WS/AGTCZ/T3/NCB | Supply, laying and jointing of DI pipes for pumping mains , secondary and tertiary network pipe lines , provision of 50,000 household connections and bulk meters in the Central Zone including those going to newly developing areas inclusive of fixing of valves and specials, construction of valve chambers, making connections, | 8.70 | ICB | N | Q1 2011 | Civil Works Contract (Itemized BOQ) |

| No | Contract No. | General Description | Contract Value | Procurement Method | Prequalification Of Bidders (y/n) | Advtsmt. Date (Q/Y) | Comments |
|------------------------------------------|----------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|--------------------|-----------------------------------|---------------------|-------------------------------------|
| | | testing of entire distribution system complete job as per primary network design for following sizes of pipes. | | | | | |
| A8 | OHT/WS/AGTCZ/T3/NCB | Construction of 10 RCC zonal overhead tanks (10 ML) in the Central Zone to serve as service reservoir including fixing of Inlet, outlet and other pipes, its' commissioning and testing, land cost, site clearance etc. complete for following zones. | 4.66 | NCB | N | Q1 2011 | Civil Works Contract (Itemized BOQ) |
| A9 | WM/WS/AGT/T3/ICB | Supply of all 70,000 consumer water meters including, as well as leak detection equipment. Including 3-year meter reading program. | 1.46 | ICB | N | Q4 2011 | Goods Contract (Itemized BOQ) |
| Agartala – Solid Waste Management | | | | | | | |
| A10 | PC&T/SWM/AGT/T2/NCB | Provision of primary collection and storage, including wheel plastic bins, dumper placer bins, autovans w/ containers. Provision of transportation vehicles: tipper trucks, dumper placer trucks, tractors, JBC, bulldozers etc | 0.4 | NCB | N | Q4 2010 | Goods (Itemized BOQ) |
| A11 | CP&LF/SWM/AGT/T2/NCB | Procurement of equipment and ancillary supplies, civil works, testing, commissioning, provision of record drawings and Operating Manuals and training of operational staff; including the following: 1. compost plant – civil buildings godowns, waste segregation facility, other infrastructure, plant and machinery, material handling automobiles at site; 2. development of sanitary landfill at Naginara. 3. development of transfer station and garage facilities | 2.5 | NCB | N | Q4 2009 | Civil Works Contract (Itemized BOQ) |

| No | Contract No. | General Description | Contract Value | Procurement Method | Prequalification Of Bidders (y/n) | Advtsmt. Date (Q/Y) | Comments |
|------------------------------|--------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|--------------------|-----------------------------------|---------------------|-------------------------------------|
| Aizawl – Water Supply | | | | | | | |
| B1 | OHT1/WS/AIZ/T1/NCB | Construction of 7 (replacement) ground level RCC zonal tank to serve as service reservoir including fixing of Inlet, outlet and other pipes, its' commissioning and testing, land cost, site clearance etc. complete for following zones. Zones 1, 3, 14, 15, 17, 25 and 27 (Tlangnuam, Seventh Day Tlang, Government Complex, Armed Veng, Bawngkawn, Mission Vengthlang, TB Tlang Zemabawk) | 0.97 | NCB | N | Q1 2009 | Civil Works Contract (Itemized BOQ) |
| B2 | CHL/WS/AIZ/T1/NCB | Procurement of equipment and ancillary supplies, civil works, testing and commissioning pertaining to the installation of chlorinators of Aizawl's Main Reservoir (1000MAC) and Chandmari Booster (500 MAC). Includes chlorinator rooms. | 0.17 | NCB | N | Q1 2009 | Civil Works Contract (Itemized BOQ) |
| B3 | WM1/WS/AIZ/T1/NCB | Providing and installing and giving satisfactory field testing of 13,000 domestic water meter, horizontal, inferential, multi jet, dry dial suitable for potable water and for 450C temperature, hermetically sealed totalizer and meter duly sealed against tempering, complete with couplings on both ends, and with pressure rating maximum 20 Kg/cm2 manufactured by ISO certified firms in India and minimum, maximum and transitional flows conforming to ISO : 4064/1 and IS 779: 1994 , class B, marked in metric system, along with manufacture's test and guarantee certificates including all Taxes duties etc. inclusive of cost of Installation and | 0.70 | NCB | N | Q1 2009 | Goods (Itemized BOQ)? |

| No | Contract No. | General Description | Contract Value | Procurement Method | Prequalification Of Bidders (y/n) | Advtsmt. Date (Q/Y) | Comments |
|----|--------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|--------------------|-----------------------------------|---------------------|-------------------------------------|
| | | Maintenance for 3 year Period | | | | | |
| B4 | BWM/WS/AIZ/T2/NCB | Provision for Supply, Installation Testing of Electro Magnetic Bulk Meters as per relevant 1. S.S. inclusive of 5 years of Maintenance including replacement of Parts of following sizes at designated places including fittings, specials, fixtures etc. complete. 1. 26 bulk meters (80 mm-450mm) 2. portable ultrasonic flowmeter | 0.20 | NCB | N | Q4 2009 | Goods (Itemized BOQ)? |
| B5 | OHT2/WS/AIZ/T2/NCB | Design and construction of 13 ground level RCC zonal tank to serve as service reservoir including fixing of Inlet, outlet and other pipes, its' commissioning and testing, land cost, site clearance etc. complete for following zones. Zones (3, 34 & 36), (9 & 37), (24&44), 28, 30, 31, 32, 33, 46, 38, 39, 40 and 41. | 1.02 | NCB | N | Q1 2010 | Civil Works Contract (Itemized BOQ) |
| B6 | EM&S/WS/AIZ/T2/NCB | E&M works testing, equipment provision, installation of pumps, commissioning, provision of record drawings for: 1. Bangwan Booster 2. Neiwbah Booster | 0.08 | NCB | N | Q4 2009 | Civil Works Contract (Itemized BOQ) |
| B7 | PS/WS/AIZ/T2/FA | Provision 132 KV dedicated Power line, 16.5 KM and installation, including cables and all other accessories, control panels etc. 1. Construction of 132 KV Single Circuit Transmission line from central substation, Melriat to PHE water pumping scheme at Dihmunzawl - 16 CKM 2. Cost of 132kv outgoing bay for PHE | 4.13 | NCB | N | NA | Civil Works Contract (Itemized BOQ) |

| No | Contract No. | General Description | Contract Value | Procurement Method | Prequalification Of Bidders (y/n) | Advtsmt. Date (Q/Y) | Comments |
|-----------------------------|--------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|--------------------|-----------------------------------|---------------------|-------------------------------------|
| | | feeder at central substation, Melriat. 3. Cost of 132/33kv power substation at Dihmunzawl PHE department complex with 2*12.5MVA transformers, 3 nos. 132kv Bays, 5 Nos. 33kv bays with associate equipments | | | | | |
| B8 | P&SN/WS/AIZ/T2/NCB | Supply, laying and jointing of DI pipes for main feeder pipe lines (56 km), secondary and tertiary network pipe lines (110 km) and new connections including those going to newly developing areas inclusive of fixing of valves and specials, construction of valve chambers, making connections, testing of entire distribution system complete job as per primary network design for following sizes of pipes. | 11.06 | ICB | N | Q1 2010 | Civil Works Contract (Itemized BOQ) |
| B9 | WM2/WS/AIZ/T2/ICB | Providing and installing and giving satisfactory field testing of 20,000 domestic water meter, horizontal, inferential, multi jet, dry dial suitable for potable water and for 450C temperature, hermetically sealed totalizer and meter duly sealed against tempering, complete with couplings on both ends, and with pressure rating maximum 20 Kg/cm2 manufactured by ISO certified firms in India and minimum, maximum and transitional flows conforming to ISO : 4064/1 and IS 779: 1994 , class B, marked in metric system, along with manufacture's test and guarantee certificates including all Taxes duties etc. inclusive of cost of Installation and Maintenance for 3 year Period | 0.90 | NCB | N | Q4 2010 | Goods Contract (Itemized BOQ) |
| Aizawl – Solid Waste | | | | | | | |

| No | Contract No. | General Description | Contract Value | Procurement Method | Prequalification Of Bidders (y/n) | Advtsmt. Date (Q/Y) | Comments |
|--------------------------|----------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|--------------------|-----------------------------------|---------------------|-------------------------------------|
| B10 | PC&T/SWM/AIZ/T3/NCB | Provision of primary collection and storage, including wheel plastic bins, dumper placer bins, autovans w/ containers. Provision of transportation vehicles: tipper trucks, dumper placer trucks, tractors, | 0.83 | NCB | N | Q4 2010 | Goods (Itemized BOQ) |
| B11 | CP&LF/SWM/AIZ/T2/NCB | Procurement of equipment, vehicles and ancillary supplies, civil works, testing, commissioning, provision of record drawings and Operating Manuals and training of operational staff; including the following: 1. compost plant – civil buildings godowns, waste segregation facility, other infrastructure, plant and machinery, material handling automobiles at Muallungthu site; 2. development of sanitary landfill at Muallungthu. | 3.06 | NCB | N | Q4 2009 | Civil Works Contract (Itemized BOQ) |
| Aizawl – Sewerage | | | | | | | |
| B12 | P&SN/SEW/AIZ/T3/ICB | 1. Clearance of vegetation. 2. Procurement of 23 km DI K-7 grade pipes and ancillary supplies for primary sewer network (150-900 mm dia) and 30 km secondary network, civil works, testing, commissioning, provision of record drawings and Operating Manuals and training of operational staff. 3. Construction of Circular R.C.C. Manholes and ventilation shafts as per type design/drawing on sewer line and provided with tight fitting FRC manhole frames and covers ISI marked or of approved make and provision of encapsulated PVC foot rests for the following diameter. | 14.89 | ICB | N | Q4 2010 | Civil Works Contract (Itemized BOQ) |

| No | Contract No. | General Description | Contract Value | Procurement Method | Prequalification Of Bidders (y/n) | Advtmt. Date (Q/Y) | Comments |
|-------------------------------|--------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|--------------------|-----------------------------------|--------------------|-------------------------------------|
| | | 4. Construction of 3.34 m wide approach road of WBM plus BT from the existing road to the STP, including culverts. 5. Supply and lay of 30 km secondary collectors and mains along the existing road stretches and along hillsides, by gravity. 6. 3,600 household connections. | | | | | |
| B13 | STP/SEW/AIZ/T3/NCB | Procurement of equipment and ancillary supplies, civil works, testing, commissioning, provision of record drawings and Operating Manuals and training of operational staff; including the following: 1. Construction of biotower sewage treatment plant with capacity of 7 MLD | 0.79 | NCB | N | Q4 2010 | Civil Works Contract (Itemized BOQ) |
| B14 | SCM/SEW/AIZ/T3/NCB | Procurement of Sewer Cleaning Machinery for maintenance of networks | 0.17 | NCB | N | Q2 2011 | Goods (Itemized BOQ) |
| B15 | LCS/SEW/AIZ/T3/NCB | Civil works, equipment and ancillary supplies pertaining to the construction of community toilets households, who neither have toilets nor have toilet spaces in their households | 0.33 | NCB | N | Q4 2010 | Civil Works Contract (Itemized BOQ) |
| Gangtok – Water Supply | | | | | | | |
| C1 | OHT1/WS/GTK/T1/NCB | Construction of 3 new ground level RCC zonal tank to serve as service reservoir including fixing of Inlet, outlet and other pipes, its' commissioning and testing, land cost, site clearance etc. complete for following zones. | 0.29 | NCB | N | Q1 2009 | Civil Works Contract (Itemized BOQ) |
| C2 | P&S/WS/GTK/T1/NCB | Supply, laying and jointing of 29 km DI pipes for main feeder pipe lines, 38 km of secondary and tertiary network pipe lines and 18,000 connections including those going to newly developing areas | 5.07 | ICB | N | Q1 2009 | Civil Works Contract (Itemized BOQ) |

| No | Contract No. | General Description | Contract Value | Procurement Method | Prequalification Of Bidders (y/n) | Advtsmt. Date (Q/Y) | Comments |
|---------------------------|-----------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|--------------------|-----------------------------------|---------------------|-------------------------------------|
| | | inclusive of fixing of valves and specials, construction of valve chambers, making connections, testing of entire distribution system complete job as per primary network design for following sizes of pipes. | | | | | |
| C3 | EMZ5/WS/GTK/T1/NCB | Civil works testing, commissioning, provision of record drawings for: 1. Construction of sump of 10.5 m diameter with all pipes valves and appurtenances. 2. Construction of pump house of 3.5 x 3m size with all pipes valves and appurtenances. 3. Supply and installation of 2 pump set of 45 kw with all accessories and making electric connection. | 0.06 | NCB | N | Q1 2009 | Civil Works Contract (Itemized BOQ) |
| C4 | CHL/WS/GTK/T1/NCB | Procurement of equipment and ancillary supplies, civil works, testing and commissioning pertaining to the installation of 4 chlorinators of Gantok's Main Reservoir, Enchey reservoir, Housing Tank, Hanuman Tok. | 0.16 | NCB | N | Q1 2009 | Civil Works Contract (Itemized BOQ) |
| C5 | WM1/WS/GTK/T2/ICB | Supply and installation of all 43 bulk and 18,000 consumer water meters including, as well as leak detection equipment. Three year maintenance program. | 1.21 | ICB | N | Q4 2010 | Goods Contract (Itemized BOQ) |
| Gangtok – Sewerage | | | | | | | |
| C6 | P&SNZ2/SEW/GTK/T3/ICB | 1. Clearance of vegetation. 2. Procurement of 12 km DI K-7 grade pipes and ancillary supplies for primary sewer network (150-900 mm dia) and 30 km secondary network, civil works, testing, commissioning, provision of record drawings and Operating Manuals and training of operational | 8.77 | ICB | N | Q4 2010 | Civil Works Contract (Itemized BOQ) |

| No | Contract No. | General Description | Contract Value | Procurement Method | Prequalification Of Bidders (y/n) | Advtsmt. Date (Q/Y) | Comments |
|----|-----------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|--------------------|-----------------------------------|---------------------|-------------------------------------|
| | | <p>staff.</p> <p>3. Construction of Circular R.C.C. Manholes and ventilation shafts as per type design/drawing on sewer line and provided with tight fitting FRC manhole frames and covers ISI marked or of approved make and provision of encapsulated PVC foot rests for the following diameter.</p> <p>4. Construction of 1.9 km 3.34 m wide approach road of WBM plus BT from the existing road to the STP, including culverts.</p> <p>5. Supply and lay of 30 km secondary collectors and mains along the existing road stretches and along hillsides, by gravity.</p> <p>6. 3,700 household connections.</p> | | | | | |
| C7 | STPZ2/SEW/GTK/T3/NCB | <p>Procurement of equipment and ancillary supplies, civil works, testing, commissioning, provision of record drawings and Operating Manuals and training of operational staff; including the following:</p> <p>1. Construction of Extended Aeration with Sludge drying beds / filter press sewage treatment plant with capacity of 4 MLD</p> | 0.7 | NCB | N | Q4 2010 | Civil Works Contract (Itemized BOQ) |
| C8 | P&SNZ3/SEW/GTK/T3/ICB | <p>1. Clearance of vegetation.</p> <p>2. Procurement of 12 km DI K-7 grade pipes and ancillary supplies for primary sewer network (150-900 mm dia) and 30 km secondary network, civil works, testing, commissioning, provision of record drawings and Operating Manuals and training of operational staff.</p> <p>3. Construction of Circular R.C.C.</p> | 7.86 | ICB | N | Q4 2010 | Civil Works Contract (Itemized BOQ) |

| No | Contract No. | General Description | Contract Value | Procurement Method | Prequalification Of Bidders (y/n) | Advtmt. Date (Q/Y) | Comments |
|------------------------------|----------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|--------------------|-----------------------------------|--------------------|-------------------------------------|
| | | <p>Manholes and ventilation shafts as per type design/drawing on sewer line and provided with tight fitting FRC manhole frames and covers ISI marked or of approved make and provision of encapsulated PVC foot rests for the following diameter.</p> <p>4. Construction of 1.9 km 3.34 m wide approach road of WBM plus BT from the existing road to the STP, including culverts.</p> <p>5. Supply and lay of 30 km secondary collectors and mains along the existing road stretches and along hillsides, by gravity.</p> <p>6. 4,200 household connections.</p> | | | | | |
| C9 | STPZ3/SEW/GTK/T3/NCB | <p>Procurement of equipment and ancillary supplies, civil works, testing, commissioning, provision of record drawings and Operating Manuals and training of operational staff; including the following:</p> <p>1. Construction of Extended Aeration with Sludge drying beds / filter press sewage treatment plant with capacity of 4 MLD</p> | 0.8 | NCB | N | Q4 2010 | Civil Works Contract (Itemized BOQ) |
| C10 | SCM/SEW/GTK/T3/NCB | Procurement of Sewer Cleaning Machinery for maintenance of networks | 0.17 | NCB | N | Q2 2011 | Goods (Itemized BOQ) |
| C11 | LCS/SEW/GTK/T3/NCB | Civil works, equipment and ancillary supplies pertaining to the construction of community toilets households, who neither have toilets nor have toilet spaces in their households | 0.58 | NCB | N | Q4 2010 | Civil Works Contract (Itemized BOQ) |
| Gangtok – Solid Waste | | | | | | | |
| C12 | PC&T/SWM/AIZ/T2/NCB | Provision of primary collection and storage, including wheel plastic bins, | 0.76 | NCB | N | Q4 2009 | Goods (Itemized |

| No | Contract No. | General Description | Contract Value | Procurement Method | Prequalification Of Bidders (y/n) | Advtsmt. Date (Q/Y) | Comments |
|------------------------------------|--------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|--------------------|-----------------------------------|---------------------|-------------------------------------|
| | | dumper placer bins, autovans w/ containers. Provision of transportation vehicles: tipper trucks, dumper placer trucks, tractors, | | | | | BOQ) |
| C13 | LF/SWM/AIZ/T2/NCB | Procurement of equipment, vehicles and ancillary supplies, civil works, testing, commissioning, provision of record drawings and Operating Manuals and training of operational staff; including the following: 1. compost plant – civil buildings godowns, waste segregation facility, other infrastructure, plant and machinery, material handling automobiles at Muallungthu site; 2. development of sanitary landfill at Muallungthu. | 0.61 | NCB | N | Q4 2009 | Civil Works Contract (Itemized BOQ) |
| Kohima - Urban Water Supply | | | | | | | |
| D1 | OHT1/WS/KOH/T1/NCB | Construction of 19 (replacement) ground level RCC zonal tank to serve as service reservoir including fixing of Inlet, outlet and other pipes, its' commissioning and testing, l and cost, site clearance etc. complete for following zones (School Ed'n, L-Khel Village, Gov't High School, Raj Bhawan, PR Hills, Assamese Church, VIP Quarters, Assam Rifles, Forest Colony, Old Zoon, Naga Hospital, DC Hospital, Assam Rifles Camp, South Police St, Fernwood + 5). | 0.32 | NCB | N | Q1 2009 | Civil Works Contract (Itemized BOQ) |
| D2 | WTP/WS/KOH/T1/NCB | Refurbishment of the 1.5 MLD treatment plant, including replacement of clarifiers, lining and structural assessments of receiving tanks, replacement of pumps and other | 0.35 | NCB | N | Q1 2009 | Civil Works Contract (Itemized BOQ) |

| No | Contract No. | General Description | Contract Value | Procurement Method | Prequalification Of Bidders (y/n) | Advtsmt. Date (Q/Y) | Comments |
|----|--------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|--------------------|-----------------------------------|---------------------|-------------------------------------|
| | | machinery, slow sand filter media, electrics and painting | | | | | |
| D3 | CHL/WS/KOH/T1/NCB | Provision for procurement and installation of chlorinators at main reservoir at Filter plant site along with pump and other accessories fittings, fixtures etc. complete of following capacities. Civil works for Chlorinator Room of Suitable size (4 M x 3 M x 4 M). Provision for Purchase of Chlorine Cylinder Termed as 'Tonner' including stand bye | 0.12 | NCB | N | Q1 2009 | Civil Works Contract (Itemized BOQ) |
| D4 | WM/WS/KOH/T1/ICB | Provision for Supply, Installation Testing of 30 Electro Magnetic Bulk Meters as per relevant 1. S.S. inclusive of 5 years of Maintenance including replacement of Parts of following sizes at designated places including fittings, specials, fixtures etc. | 0.19 | NCB | N | Q1 2009 | Goods Contract (Itemized BOQ) |
| D5 | UFW/WS/KOH/T1/QCBS | Carrying Unaccounted For Water Assessment in the Project area to minimize water loss in distribution and transmission system inclusive of Salaries to Staff, equipments , materials etc., | 0.26 | NCB | N | Q1 2009 | Goods Contract (Itemized BOQ) |
| D6 | OHT2/WS/KOH/T2/NCB | Design and construction of 5 ground level RCC zonal tank to serve as service reservoir including fixing of Inlet, outlet and other pipes, its' commissioning and testing, land cost, site clearance etc. complete for following zones. | 0.92 | NCB | N | Q1 2010 | Civil Works Contract (Itemized BOQ) |
| D7 | P&SN/WS/KOH/T2/ICB | Supply, laying and jointing of DI pipes for main feeder pipe lines (28 km), secondary and tertiary network pipe lines (91 km) and 11,500 service | 9.03 or 3.6 | ICB or NCB | N | Q1 2010 | Civil Works Contract (Itemized BOQ) |

| No | Contract No. | General Description | Contract Value | Procurement Method | Prequalification Of Bidders (y/n) | Advtsmt. Date (Q/Y) | Comments |
|-----------------------------|---------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|--------------------|-----------------------------------|---------------------|-------------------------------|
| | | connections including those going to newly developing areas inclusive of fixing of valves and specials, construction of valve chambers, making connections, testing of entire distribution system complete job as per primary network design for following sizes of pipes. | | | | | |
| D8 | WM/WS/KOH/T2/ICB | Supply of all 13? bulk and 19,000 consumer water meters including, as well as leak detection equipment. Including 3-year program for maintenance and meter reading. Providing and Installing and giving satisfactory field testing of domestic water meter, horizontal, inferential, multi jet, dry dial suitable for potable water and for 450C temperature, hermetically sealed totalizer and meter duly sealed against tempering, complete with couplings on both ends, and with pressure rating maximum 20 Kg/cm2 manufactured by ISO certified firms in India and minimum, maximum and transitional flows conforming to ISO : 4064/1 and IS 779: 1994 , class B, marked in metric system, along with manufacture's test and guarantee certificates including all Taxes duties etc | X.XX | ICB | N | Q4 2010 | Goods Contract (Itemized BOQ) |
| Kohima – Solid Waste | | | | | | | |
| D9 | PC&T/SWM/KOH/T2/NCB | Provision of primary collection and storage, including wheel plastic bins, dumper placer bins, autovans w/ containers. Provision of transportation vehicles: tipper trucks, dumper placer trucks, tractors, | 0.28 | NCB | N | Q4 2009 | Goods (Itemized BOQ) |

| No | Contract No. | General Description | Contract Value | Procurement Method | Prequalification Of Bidders (y/n) | Advtsmt. Date (Q/Y) | Comments |
|--------------------------|-----------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|--------------------|-----------------------------------|---------------------|-------------------------------------|
| D10 | CP&LF/SWM/KOH/T1/NCB | Procurement of equipment and ancillary supplies, civil works, mechanical and electrical works, testing, commissioning, provision of record drawings and Operating Manuals and training of operational staff; including the following: 1. compost plant – land development waste segregation facility, other infrastructure, plant and machinery, material handling automobiles at site; 2. development of sanitary landfill. 3. Civil works and construction/surfacing associated with the construction of access | 4.55 | NCB | N | Q1 2009 | Civil Works Contract (Itemized BOQ) |
| D11 | RD/SWM/KOH/T2/NCB | Approach road and complementary buildings | Tbc | NCB | N | Q1 2010 | Civil Works Contract (Itemized BOQ) |
| Kohima – Sewerage | | | | | | | |
| D12 | P&SNZ1/SEW/KOH/T3/ICB | Sewerage for Zone 1 1. Clearance of vegetation. 2. Procurement of 14 km DI K-7 grade pipes and ancillary supplies for primary sewer network (150-900 mm dia) and 15 km secondary network, and 3200 connections, civil works, testing, commissioning, provision of record drawings and Operating Manuals and training of operational staff. 3. Construction of Circular R.C.C. Manholes and ventilation shafts as per type design/drawing on sewer line and provided with tight fitting FRC manhole frames and covers ISI marked or of approved make and provision of encapsulated PVC foot rests for the following diameter. | 9.44 | ICB | N | Q4 2010 | Civil Works Contract (Itemized BOQ) |

| No | Contract No. | General Description | Contract Value | Procurement Method | Prequalification Of Bidders (y/n) | Advtmt. Date (Q/Y) | Comments |
|-----|-----------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|--------------------|-----------------------------------|--------------------|-------------------------------------|
| | | 4. Construction of 3.34 m wide approach road of WBM plus BT from the existing road to the STP, including culverts. | | | | | |
| D13 | P&SNZ2/SEW/KOH/T3/ICB | <p>Sewerage for Zone 2</p> <p>1. Clearance of vegetation.</p> <p>2. Procurement of 17 km DI K-7 grade pipes and ancillary supplies for primary sewer network (150-900 mm dia) and 11 km secondary network, and 3,500 connections, civil works, testing, commissioning, provision of record drawings and Operating Manuals and training of operational staff.</p> <p>3. Construction of Circular R.C.C. Manholes and ventilation shafts as per type design/drawing on sewer line and provided with tight fitting FRC manhole frames and covers ISI marked or of approved make and provision of encapsulated PVC foot rests for the following diameter.</p> <p>4. Construction of 3.34 m wide approach road of WBM plus BT from the existing road to the STP, including culverts.</p> | 8.24 | ICB | N | Q4 2010 | Civil Works Contract (Itemized BOQ) |
| D14 | STP/SEW/KOH/T3/NCB | <p>Procurement of equipment and ancillary supplies, civil works, testing, commissioning, provision of record drawings and Operating Manuals and training of operational staff; including the following:</p> <p>1. Construction of extended aeration treatment plant with capacity of 7 MLD (Zone 1).</p> <p>2. Construction of extended aeration treatment plant with capacity of 5 MLD (Zone 2).</p> | 2.71 | NCB | N | Q4 2010 | Civil Works Contract (Itemized BOQ) |

| No | Contract No. | General Description | Contract Value | Procurement Method | Prequalification Of Bidders (y/n) | Advtmt. Date (Q/Y) | Comments |
|------------------------------------------|----------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|--------------------|-----------------------------------|--------------------|-------------------------------------|
| D15 | SCM/SEW/KOH/T3/NCB | Procurement of Sewer Cleaning Machinery for maintenance of networks | 0.19 | NCB | N | Q2 2011 | Goods (Itemized BOQ) |
| D16 | LCS/SEW/AKOH/T3/NCB | Civil works, equipment and ancillary supplies pertaining to the construction of community toilets households, who neither have toilets nor have toilet spaces in their households. | 0.39 | NCB | N | Q4 2010 | Civil Works Contract (Itemized BOQ) |
| Shillong – Solid Waste Management | | | | | | | |
| E1 | PC&T/SWM/SHI/T3/NCB | Provision of primary collection and storage, including wheel plastic bins, dumper placer bins, autovans w/ containers. Provision of transportation vehicles: tipper trucks, dumper placer trucks, tractors, | 1.55 | ICB | N | Q1 2010 | Goods (Itemized BOQ) |
| E2 | LF&TG/SWM/SHI/T2/NCB | Procurement of equipment and ancillary supplies, civil works, testing, commissioning, provision of record drawings and Operating Manuals and training of operational staff; including the following: 1. development of new sanitary landfill. 2. development of transfer and garage station. | 1.51 | NCB | N | Q1 2009 | Civil Works Contract (Itemized BOQ) |
| E3 | LF&R/SWM/SHI/T1/NCB | Procurement of equipment and ancillary supplies, civil works, testing, commissioning, provision of record drawings and Operating Manuals and training of operational staff for short term landfill site at Mawlai's site (approx. 6 acres) as well as 1 bulldozer | 0.41 | NCB | N | Q1 2009 | Civil Works (Itemized BOQ) |
| Shillong – Sewerage | | | | | | | |
| E4 | STP/SEW/SHI/T3/NCB | Procurement of equipment and ancillary supplies, civil works, testing, | 1.61 (tbc) | NCB | N | Q4 2010 | Civil Works Contract |

| No | Contract No. | General Description | Contract Value | Procurement Method | Prequalification Of Bidders (y/n) | Advtsmt. Date (Q/Y) | Comments |
|----|---------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|--------------------|-----------------------------------|---------------------|-------------------------------------|
| | | commissioning, provision of record drawings and Operating Manuals and training of operational staff; including the following: 1. Construction of aerated lagoons sewage treatment plant with capacity of 15 MLD | | | | | (Itemized BOQ) |
| E5 | P&SN/SEW/SHI/T3/ICB | 1. Clearance of vegetation. 2. Procurement of 33 km DI K-7 grade pipes and ancillary supplies for primary sewer network (150-900 mm dia) and 60 km secondary network, civil works, testing, commissioning, provision of record drawings and Operating Manuals and training of operational staff. 3. Construction of Circular R.C.C. Manholes and ventilation shafts as per type design/drawing on sewer line and provided with tight fitting FRC manhole frames and covers ISI marked or of approved make and provision of encapsulated PVC foot rests for the following diameter. 4. Construction of 3.34 m wide approach road of WBM plus BT from the existing road to the STP, including culverts. 5. Providing connections to 6500 HHs | 22.44 (tbc) | ICB | N | Q4 2010 | Civil Works Contract (Itemized BOQ) |
| E6 | SCM/SEW/SHI/T3/NCB | Procurement of Sewer Cleaning Machinery for maintenance of networks | 0.16 | NCB | N | Q2 2011 | Goods (Itemized BOQ) |
| E7 | LCS/SEW/SHI/T3/NCB | Civil works, equipment and ancillary supplies pertaining to the construction of community toilets households, who neither have toilets nor have toilet spaces in their households | 0.85 | NCB | N | Q4 2010 | Civil Works Contract (Itemized BOQ) |

Notes:

1. Contract values have been estimated as base costs exclusive of taxes and contingencies.
2. All pipe laying costs are inclusive of road reinstatement costs.

SUGGESTIONS FOR IMPROVED CLAIM SUBMISSION

1. **Periodicity and Timeliness.** A claim is to be submitted, preferably at least once a month, if the aggregate expenditure eligible for ADB financing is equivalent to \$100,000 or more. In any case, a claim should be submitted within three months of its being incurred. For claims submitted after this period, an explanation should be provided for the delay.
2. **Delay, Omission and Duplication.** There have been some instances of duplicate claim submission and others where reimbursement claims are submitted with a long delay (6 months or even one year). This is particularly applicable where there are several field offices incurring expenditure. It is suggested that the head office of the executing agency insist on submission of claims for each month from every field office. Any office that has not incurred expenditure in a month should send a NIL report. This will ensure that issues of omission, delay and duplication of claims are eliminated.
3. **Format of Invoices for Civil Works.** While it is impossible to standardize a civil works invoice as the detailed items of work are different for different contracts, it is possible to standardize a summary invoice. We are attaching a draft invoice format, which contains a reasonable amount of basic information. It is suggested that a summary invoice in a format similar to the attached format be submitted to ADB, and the detailed invoices retained by the EAs in their offices. This will reduce the volume of documents that are being submitted to ADB, without in any way reducing their quality. The attached format may be modified suitably, so long as the basic information is provided as indicated.
4. **Format of Receipt.** A draft format in which a receipt should be obtained from the contractor is also attached. We wish to emphasize that a receipt should always indicate the details, such as cheque number and date and name of the bank on which the cheque was drawn, as well as details of the invoice(s) against which the payment was received. In case payment has been made through Real Time Gross Settlement (RTGS) or National Electronic Fund Transfer (NEFT), this may be mentioned together with value date of credit in place of cheque number and date. This format may also be modified, so long as the basic information is provided as indicated. The "pre-receipt" which is in vogue in India is not acceptable.

Draft Format for Receipt
(Preferably on Letterhead of Contractor)

Date of Receipt:

Received an amount of Rs (or other currency)... (in figures, followed by words) through RTGS / NEFT / cheque no. Dated ... drawn on (Name of Bank) per following details:

| Invoice No. | Date | Gross Amount | Net Amount |
|-------------|------|--------------|------------|
| | | | |
| | | | |
| Total | | | |

This should be signed by the contractor's representative with name and designation.

Draft Invoice Format for Civil Works

Name of Package:
 EA Contract No.
 Name of Contractor:
 Name of Consultant:
 Interim Payment Certificate No..... for the period

Date of Invoice:
 Date Received:

| Sl. No. | Description | Cumulative Value Up to date | Cumulative Value up to Previous IPC | Value for this IPC |
|--------------------|------------------------------------------|-----------------------------|-------------------------------------|--------------------|
| A | Value of Work Done | | | |
| 1 | Work Done against BOQ Items | | | |
| 2 | Variation against BOQ Items | | | |
| 3 | Extra (non-BOQ) Items | | | |
| 4 | Variation against non-BOQ Items | | | |
| 5 | Price Adjustment | | | |
| Sub-total A | Total Value of Work Done | | | |
| B | Advances Released | | | |
| 1 | Material Advance at Site | | | |
| 2 | Mobilization Advance | | | |
| Sub-total B | Advances Released | | | |
| C | Recoveries | | | |
| 1 | Material Advance incorporated in works | | | |
| | Mobilization Advance | | | |
| | Retention Money | | | |
| Sub-total C | Recoveries | | | |
| D | Penalties and Deductions | | | |
| 1 | Liquidated Damages | | | |
| 2 | Withheld as advised by Engineer | | | |
| 3 | Any other recovery (please specify) | | | |
| Sub-total D | Total Penalties and Deductions | | | |
| E | Recovery of Taxes and Duties | | | |
| 1 | Income-tax including surcharges and Cess | | | |
| 2 | Value Added Tax | | | |
| 3 | Works Contract Tax | | | |
| 4 | Royalty or Seigniorage Charges | | | |
| 5 | Any other tax (please specify) | | | |
| Sub-total E | Total taxes and duties recovered | | | |
| Sub-total F | Total Deductions (C+D+E) | | | |
| G | Net Amount Payable (A+B-F) | | | |

Approvals and Verifications

Certified that the works have been measured and quality verified as stipulated in terms of the contract and applicable construction standards.

Contractor's
 Representative Consultant's Representative
 All persons should sign with name and date.

Employer's
 Representative

PAYMENT PARTICULARS

- Ad Hoc Payment: Gross Amount Rs..., Less Recovery of taxes and/or advances, Net
- Balance Payment: Net Amount Finally Payable, Less already paid

This can be attached as an additional table, if space is insufficient.

GUIDELINES FOR CALCULATING PROJECT PROGRESS

A. Introduction

1. Physical and precommencement activities are considered in calculating project implementation progress. These activities, which may include recruitment of consultants, capacity building, detailed design, preparation of bid and prequalification documents, etc., could constitute a significant proportion of overall implementation and therefore should be counted.

2. Each activity in the implementation schedule will be weighted according to its overall contribution (using time as a reference) to progress of project implementation. These weights will then be used to calculate the percentage of project progress along the entire time span of the project. This is to provide a holistic view of the pace of implementation.

B. Framework for Compiling Activity List and Assigning Weights

3. The actual project implementation progress of these activities should be reported regularly through the EA's quarterly project progress report. To ensure ADB-wide consistency, the following framework has been established; its application will be monitored through the ADB's Project Performance Report.

1. Compilation of Activity List

4. The IPCC in consultation with the SIPMIUs should identify major implementation activities and include them in the implementation schedule, which is attached as an appendix in the grant assistance report. The implementation schedule should follow the critical path of the project's major activities in project implementation taking account of various country, sector, and project constraints.

2. Assignment of Weights

5. Corresponding weights for each activity should be assigned to ensure that "project progress" measures the percentage of achievement (nonfinancial except when the project has credit components) for all events during the entire duration of the implementation schedule. To avoid disproportionate assignment of weights, to the extent possible these should be evenly distributed along the implementation schedule. When activities are concurrent, avoid "double counting."

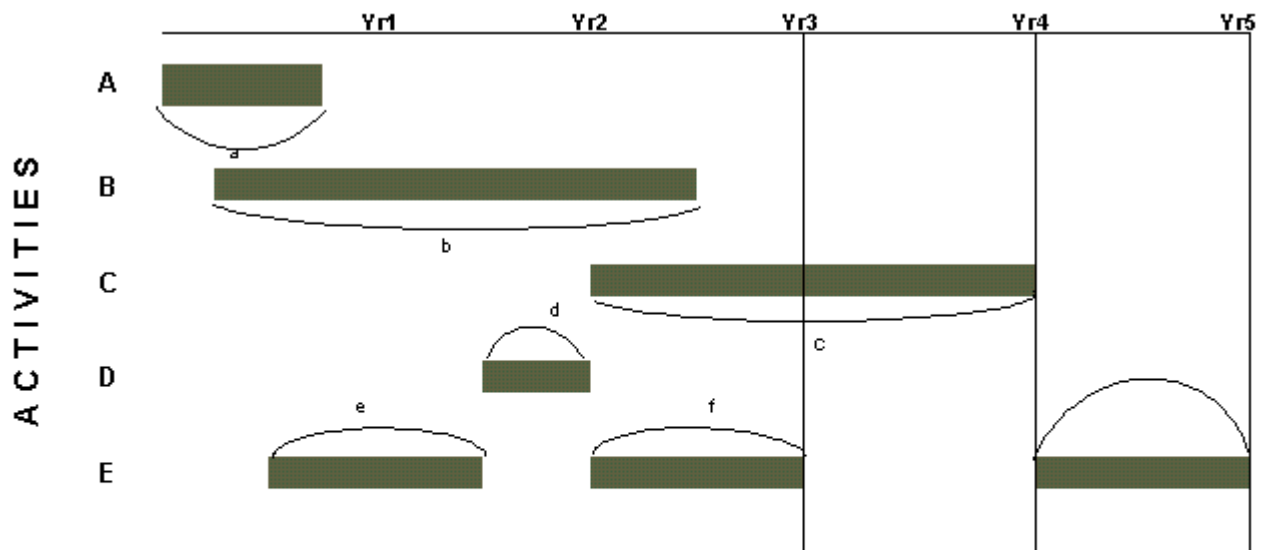
3. Computation of Project Progress

6. Once all activities are identified and corresponding weights assigned, project progress should be calculated using the following steps:

- (i) Determine the actual percentage progress (nonfinancial) of each activity.
- (ii) Multiply these percentages by the assigned weight of each activity to arrive at the weighted progress.
- (iii) Add up the resulting weighted progress of all activities to determine the project progress.

7. Attachment to this Appendix provides an illustration of this calculation using a generic sample implementation schedule and a specific example in the education sector.

Implementation Schedule with Activities and Weights



1. Sum of all weights should equal 100 percent ($a+b+c+d+e+f+g = 100\%$)
2. When calculating the percentage of "project progress," all completed activities should be counted as accomplished, regardless of when they were scheduled to be completed. For example, when calculating the percentage of "project progress" after year 3, if activity D is completed in year 3 rather than in year 2, it should still be included in the computation.
3. Total weight of each activity is as follows: Activity A— a ; Activity B— b ; Activity C— c ; Activity D— d ; and Activity E— $e + f + g$
4. Project progress of a project is the summation of the actual percentage of progress for each activity multiplied by the total weight of each activity.

Sample Implementation Schedule

| Activities | Year 1 | Year 2 | Year 3 | Year 4 | (a) Assigned Weight | (b) Actual Progress | (a) x (b) Weighted Progress |
|----------------------------------------|--------|--------|--------|--------|---------------------------|---------------------------|-----------------------------------|
| Establish PIU | | | | | 5% | 100% | 6% |
| Establish Accreditation Board, etc. | | | | | 5% | 0% | 0% |
| Appoint Staff and Budget | | | | | 4% | 75% | 3% |
| Adopt Architecture Plans | | | | | 2% | 100% | 2% |
| Shortlist Consulting Firms | | | | | 6% | 100% | 6% |
| Prepare Fellowship Program | | | | | 6% | 76% | 4% |
| Prepare Civil Works Tendering | | | | | 30% | 0% | 0% |
| Civil Works: Classrooms, Dorms, etc. | | | | | 6% | 0% | 0% |
| Procurement of Furniture and Equipment | | | | | 16% | 10% | 2% |
| Field Work of Consultants | | | | | 7% | 0% | 0% |
| Provide Fellowships | | | | | 6% | 0% | 0% |
| Conduct Study Tours | | | | | 6% | 0% | 0% |
| Provide Curriculum Standards | | | | | 6% | 0% | 0% |
| | | | | | Total Weight | 100% | |
| | | | | | Imp. Progress | | 24% |

(a) Assigned weight for each activity

(b) Actual progress of each activity

(a) x (b) weighted progress for each activity

Project progress = sum of all weighted progress for each activity

LOAN PROCESSING HISTORY

MULTITRANCHE FINANCING FACILITY (MFF)

| | | |
|-----|--------------------------------------------------------|---------------------|
| 1. | Approval of Project Preparatory Technical Assistance | 8 June 2004 |
| 2. | Concept Paper Approval | |
| 3. | Fact-Finding/Reconnaissance Mission | 15 May-2 Jun 2006 |
| 4. | Management Review Meeting (MRM) | 09 February 2007 |
| 5. | Pre-Appraisal Mission | 5 Oct – 10 Nov 2008 |
| 6. | Appraisal Mission | 13-16 January 2009 |
| 7. | Staff Review Committee Meeting | 05 February 2009 |
| 8. | Negotiation of Framework Financing Agreement (FFA) | 1 – 2 April 2009? |
| 9. | FFA Signing | 14 May 2009 |
| 10. | Submission of FFA to Management | |
| 11. | Board Circulation of RRP-MFF | |
| 12. | Board Consideration and Approval of RRP-MFF | 1 June 2009 |
| 13. | Last Periodic Financing Request Submission (estimated) | 31 December 2012 |
| 14. | Estimated Investment Program Completion Date | 31 December 2015 |
| 15. | Period of Utilization | 30 June 2016 |

FIRST PERIODIC FINANCING REQUEST (PFR) PROCESSING HISTORY

| | | |
|-----|--------------------------------------------------------------------------|---------------------|
| 1. | Approval of Project Preparatory Technical Assistance | 8 June 2004 |
| 2. | Concept Paper Approval (as a part of MFF) | |
| 3. | Fact-Finding/Reconnaissance Mission (as a part of MFF) | 15 May-2 Jun 2006 |
| 4. | Management Review Meeting (MRM) | 09 February 2007 |
| 5. | Pre-Appraisal Mission (as a part of MFF) | 5 Oct – 10 Nov 2008 |
| 6. | Appraisal Mission (as a part of MFF) | 13-16 January 2009 |
| 7. | Staff Review Committee Meeting (as a part of MFF) | 05 February 2009 |
| 8. | Loan Negotiations (as a part of MFF) | 1 – 2 April 2009? |
| 9. | 1 st Periodic Financing Request Submission (as a part of MFF) | |
| 10. | Approval of 1 st PFR | 1 July 2009 |
| 11. | Signing of Loan and Project Agreements on 1 st PFR | 4 August 2009 |
| 12. | Loan Effectiveness on 1 st PFR | 19 November 2009 |
| 13. | Estimated Project Completion Date | 31 October 2015 |
| 14. | Loan Closing Date* on 1st PFR | 30 April 2016 |