



Periodic Financing Request Report

Project Number: 35290-043
MFF Number: 0030
November 2015

India: North Eastern Region Capital Cities Development Investment Program (Tranche 3)

This document is being disclosed to the public in accordance with ADB's Public Communications Policy 2011.

CURRENCY EQUIVALENTS

(as of 12 November 2015)

Currency Unit	–	Indian rupees (Re/Rs)
\$1.00	=	Rs66.2217
Re1.00	=	\$0.01510

ABBREVIATIONS

ADB	–	Asian Development Bank
AzMC	–	Aizawl Municipal Council
DPR	–	detailed project report
EMP	–	environmental management plan
FFA	–	framework financing agreement
GRM	–	grievance redress mechanism
IEE	–	initial environment examination
MOUD	–	Ministry of Urban Development
NER	–	North Eastern Region
NERCCDIP	–	North Eastern Region Capital Cities Development Investment Program
NoC	–	no-objection certificate
O&M	–	operation and maintenance
PAM	–	project administration manual
PFR	–	periodic financing request
SEA	–	state executing agency
SIPMIU	–	State Investment Program Management and Implementation Unit
SWM	–	solid waste management
ULB	–	urban local body
WTP	–	water treatment plant

WEIGHTS AND MEASURES

km	–	kilometer
lpcd	–	liter per capita per day
m ²	–	square meter
MLD	–	million of liters per day
TPD	–	ton per day

NOTES

- (i) The fiscal year (FY) of the Government of India and its agencies ends on 31 March. “FY” before a calendar year denotes the year in which the fiscal year ends, e.g., FY2015 ends on 31 March 2015.
- (ii) In this report, "\$" refers to US dollars.

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TRANCHE AT A GLANCE

1. Basic Data		Project Number: 35290-043	
Project Name	North Eastern Region Capital Cities Development Investment Program – Tranche 3	Department /Division	SARD/SAUW
Country Borrower	India India	Executing Agency	Ministry of Urban Development, Urban Development Department, Urban Development and Poverty Alleviation Dept
2. Sector	Subsector(s)	ADB Financing (\$ million)	
✓ Water and other urban infrastructure and services	Urban policy, institutional and capacity development		4.82
	Urban sanitation		5.79
	Urban solid waste management		6.77
	Urban water supply		62.62
		Total	80.00
3. Strategic Agenda	Subcomponents	Climate Change Information	
Inclusive economic growth (IEG)	Pillar 2: Access to economic opportunities, including jobs, made more inclusive	Adaptation (\$ million)	0.20
Environmentally sustainable growth (ESG)	Global and regional transboundary environmental concerns	Mitigation (\$ million)	0.20
	Urban environmental improvement	CO ₂ reduction (tons per annum)	18,900
		Climate Change impact on the Project	Medium
4. Drivers of Change	Components	Gender Equity and Mainstreaming	
Governance and capacity development (GCD)	Institutional development	Effective gender mainstreaming (EGM)	✓
5. Poverty Targeting		Location Impact	
Project directly targets poverty	Yes	Urban	High
MDG-targeting (TI-M)	MDG7		
6. Risk Categorization:	Low		
7. Safeguard Categorization	Environment: B Involuntary Resettlement: B Indigenous Peoples: B		
8. Financing			
Modality and Sources		Amount (\$ million)	
ADB		80.00	
Sovereign MFF-Tranche (Loan): Ordinary capital resources		80.00	
Cofinancing		0.00	
None		0.00	
Counterpart		34.00	
Government		34.00	
Total		114.00	
9. Effective Development Cooperation			
Use of country procurement systems		Yes	
Use of country public financial management systems		Yes	

TRANCHE AT A GLANCE

Date of Receipt by ADB of PFR: 26 June 2015

Tranche Number: 3

10. Country Operations Business Plan

CPS

<http://www.adb.org/documents/india-country-partnership-strategy-2013-2017>

COBP

<http://www.adb.org/documents/india-country-operations-business-plan-2016-2018>

11. Tranche Summary

Tranche 3 will include physical investments in water supply, solid waste and sanitation improvement in Agartala and Aizawl, and non-physical investments to continue supporting implementation of urban reforms agreed under the North Eastern Region Capital Cities Development Investment Program (NERCCDIP) in these cities. Two tranches have been approved to date under NERCCDIP (Projects 1 and 2). All three projects have been sequenced based on the implementation capacity and sector priorities of the Investment Program cities, and will collectively meet the intended outcomes of NERCCDIP.

Impact and Outcome: The impact will be improved environment and well-being of urban residents in the program cities (defined by Investment Program). The outcome will be increased access to sustainable and improved urban services in Agartala and Aizawl.

Outputs: (i) water supply infrastructure constructed and rehabilitated, (ii) sanitation infrastructure constructed, (iii) solid waste management infrastructure constructed and rehabilitated, and (iv) capacity for project implementation and service delivery improved.

Implementation Arrangements: Ministry of Urban Development, Urban Development Department and Urban Development and Poverty Alleviation Dept will be the executing agencies.

Project Readiness: Project readiness is advanced. In Aizawl (i) all detailed project reports (DPRs) have been approved and most packages' bid documents prepared; (ii) 70% of contracts have been tendered, and those remaining will be by 30 December 2015; and (iii) all environmental clearances have been obtained, with only two NoCs outstanding. In Agartala (i) all DPRs except the septage management subproject have been approved; (ii) 80% of works contracts have been tendered, and the remaining ones will be by 30 December 2015; and (iii) all required NoCs have been obtained, with only Consent for Establishment for the WTP and septage treatment plant outstanding.

12. Significant Developments in the MFF and Previous Tranches

Implementation progress: As of 9 October 2015, physical progress is estimated at 87% for Project 1 and 45% for Project 2. Project 1 is expected to be completed by April 2016. Project 2 is on track for completion by June 2018 in all states. For non-physical components, most states are on schedule for the agreed institutional and financial reforms, and have fully staffed State Investment Program Management and Implementation Units (SIPMIUs) capable of project implementation. The Institutional, Financial, Regulatory, and Operational Reforms Program (the Reforms Program), agreed under the FFA, includes (i) implementation of the government's 74th Constitutional Amendment Act (1992) by establishing, strengthening, and decentralizing powers to the urban local bodies (ULBs) and water and sanitation service providers; and (ii) institutional and financial reforms to increase their revenues and sustainability. ULBs have been established in the NERCCDIP states, and the states are gradually devolving functions and powers to them. Mizoram and Tripura are leading in implementing agreed reforms, including shifting to area-based property taxes, while other states are on track and remain committed to implementing them by program completion.

Performance rating, contract awards, and disbursement: Projects 1 and 2 are rated on track. All contracts were awarded under Project 1, and 70% were awarded under Project 2. Project 2 has 14 remaining contract packages being tendered, which will be awarded by the first quarter of 2016. As of 9 October 2015, cumulative disbursement was 71% for Project 1 and 23% for Project 2. Disbursements have improved under both projects over the last 2 years. In 2014, disbursement was \$3.1 million against the target of \$2.06 million for Project 1 and \$6.9 million against the target of \$4.4 million for Project 2.

13. Milestones

Estimated Approval
24 November 2015

Estimated Effectiveness
24 May 2016

Estimated Completion^a
22 June 2019

14. Linked Documents

	Required Document	Disclosure Date
(i) Environment	IEE - Initial Environment Examination EARF - Environmental Assessment and Review Framework	
Weblink:	http://www.adb.org/projects/35290-043/documents http://www.adb.org/projects/documents/ind-nerccdip-t3-aizawl-septage-mgt-bio-digester-subproject-apr-2015-draft-iee http://www.adb.org/projects/documents/ind-nerccdip-t3-apr-2014-earf	1 July 2015 6 July 2015 6 July 2015
(ii) Involuntary resettlement	RP - Resettlement Plan RF - Resettlement Framework	
Weblink:	http://www.adb.org/projects/35290-043/documents http://www.adb.org/projects/documents/nerccip-t3-apr-2015-rf	21 July 2015 23 July 2015
(iii) Indigenous peoples	IPPF - Indigenous Peoples Planning Framework	
Weblink:	http://www.adb.org/projects/documents/nerccip-t3-apr-2015-ippf	23 July 2015

^a For Tranches, this refers to the financial closing date.

I. BACKGROUND

1. On 23 June 2009 the Asian Development Bank (ADB) approved the multitranche financing facility for the North Eastern Region Capital Cities Development Investment Program (NERCCDIP), or the Investment Program, for an amount not exceeding \$200 million. NERCCDIP supports the Government of India's strategy to provide sustainable urban infrastructure and services leading to better quality of life for people in the capitals of five North Eastern Region (NER) states, namely Agartala (Tripura), Aizawl (Mizoram), Gangtok (Sikkim), Kohima (Nagaland), and Shillong (Meghalaya).¹ NERCCDIP physical investments include improvements to water supply, sanitation (including sewerage), and solid waste management (SWM) infrastructure, coupled with non-physical investment to support urban governance, finance, service delivery reforms, capacity building, and program implementation.

2. Two tranches have been approved under NERCCDIP; \$30 million (Project 1) was approved on 1 July 2009 and became effective on 19 November 2009, and \$72 million (Project 2) was approved on 16 December 2011 and became effective on 19 February 2013.² Financial closing dates are 30 April 2016 for Project 1 and 30 June 2018 for Project 2, and the multitranche financing facility availability period ends on 22 June 2019. Projects 1 and 2 included subprojects for improvements in (i) water supply in Agartala, Aizawl, Gangtok, and Kohima; (ii) SWM in Gangtok, Kohima, and Shillong; (iii) sewerage in Aizawl and septage management in Kohima; and (iv) urban governance, financial management, and service delivery reforms in all five states. Project 3 will include physical investments in water supply, SWM, and sanitation in Agartala and Aizawl, and non-physical investments to support project implementation and reforms in these cities.³ Agartala and Aizawl were selected based on their urban reform progress and implementation performance for projects 1 and 2, following the agreed NERCCDIP framework financing agreement (FFA). The national executing agency, the Ministry of Urban Development (MOUD), on behalf of itself and the state executing agencies (SEAs)—Urban Development Department, Tripura, and Urban Development and Poverty Alleviation Department, Mizoram—submitted the periodic financing request (PFR) for NERCCDIP Tranche 3 (Project 3) on 26 June 2015, amounting to \$80 million, through the Department of Economic Affairs in India's Ministry of Finance (Appendix 5).

II. ASSESSMENT OF IMPLEMENTATION

3. **Implementation progress.** As of 9 October 2015, physical progress is estimated at 87% for Project 1 and 45% for Project 2. While Agartala, Aizawl, and Gangtok have completed 100% of Project 1 works, physical progress in Kohima and Shillong is about 75%. Project 1 is expected to be completed by April 2016. Progress in Project 2 works varies among the Investment Program cities, ranging from nearly 65% in Aizawl to 20% in Kohima. Project 2 is on track for completion by June 2018 in all states. For non-physical components, most states are on schedule for the agreed institutional and financial reforms, and have fully staffed State Investment Program Management and Implementation Units (SIPMIUs) capable of project implementation. The Institutional, Financial, Regulatory, and Operational Reforms Program (the Reforms Program), agreed under the FFA, includes (i) implementation of the government's 74th Constitutional Amendment Act (1992) by establishing, strengthening, and decentralizing powers to the urban local bodies (ULBs) and water and sanitation service providers; and (ii) institutional

¹ Referred to as the Investment Program cities and states.

² At the government's request, \$4.5 million was cancelled from Project 1 on 5 September 2012 while \$12 million was cancelled from Project 2 on 11 November 2013.

³ The design and monitoring framework for Project 3 is in Appendix 1. Loan Agreement for Project 3 is in Appendix 2. Project Agreements with State of Mizoram and State of Tripura, respectively, are in Appendices 3 and 4.

and financial reforms to increase their revenues and sustainability. ULBs have been established in the NERCCDIP states, and the states are gradually devolving functions and powers to them. All states and ULBs receiving water supply investments have approved volumetric water tariffs, and are ring-fencing and strengthening their utilities.⁴ All states and ULBs are implementing double-entry, accrual-based, accounting, and have completed mapping and preparatory steps on shifting to unit-area-based property taxes. Mizoram and Tripura are leading in implementing agreed reforms, including shifting to area-based property taxes, while other states are on track and remain committed to implementing them by program completion.⁵

4. **Performance rating, contract awards, and disbursement.** Projects 1 and 2 are rated *on track*. All contracts were awarded under Project 1, and 70% were awarded under Project 2. Project 2 has 14 remaining contract packages being tendered, which will be awarded by the first quarter of 2016. As of 9 October 2015, cumulative disbursement was 71% for Project 1 and 23% for Project 2. Disbursements have improved under both projects over the last 2 years. In 2014, disbursement was \$3.1 million against the target of \$2.06 million for Project 1 and \$6.9 million against the target of \$4.4 million for Project 2.

5. **Compliance with loan and project agreements, and Framework Financing Agreement undertakings.** Of Project 1's 57 covenants, 52 have been complied with, 3 are being complied with, and 2 are not yet due. Of Project 2's 61 covenants, 36 have been complied with, 23 are being complied with, and 2 are not yet due. Of the 13 FFA undertakings, 8 have been complied with, 4 are being complied with, and 1 is not yet due. A detailed compliance review of the covenants and undertakings is in Annex 5 of the PFR.

6. **Status of roadmap and policy framework.** NERCCDIP was guided by the government's 11th Five Year Plan (2007–2012), which aimed to reduce poverty and regional disparities by ensuring, among others, access to basic physical infrastructure.⁶ NERCCDIP's implementation has remained consistent with this roadmap. The government's commitment to develop NER was recently affirmed in its Economic Survey 2014–2015,⁷ which stated the NER states are expected to benefit significantly from various central government-sponsored grants. NERCCDIP is also consistent with recent central government schemes in the urban sector, such as the Swachh Bharat Abhiyan.⁸ In addition, NERCCDIP's urban reforms support implementation of the government's 74th Constitutional Amendment Act, which is an important focus of the government in urban centers.

7. **Lessons learned.** For the first three years, implementation of projects 1 and 2 was slow because of (i) low project readiness arising from delays in detailed design completion, tendering, and obtaining required clearances; (ii) lack of project implementation experience and inadequate staffing and capacity in the SIPMIUs; and (iii) constrained fund flow due to delays in fund reimbursement to the states from MOUD and to the SIPMIUs from state finance departments. Project 3 addresses these by (i) increasing project readiness by completing detailed design and obtaining clearances, (ii) ensuring SIPMIUs are fully staffed, (iii) ensuring adequate cash flow in the SIPMIUs through advances from MOUD to the states, and (iv)

⁴ Ring-fencing means that income, expenditure, assets and liabilities of water supply and sanitation services can be separately identified and managed.

⁵ Aizawl was the first NERCCDIP city to fully implement its online area-based property tax collection system, starting in June 2015. Agartala is expected to implement the same by October 2015.

⁶ Government of India, Planning Commission. 2011. *Eleventh Five Year Plan, 2007–2012*. Delhi.

⁷ Government of India, Ministry of Finance, Department of Economic Affairs, Economic Division. 2015. Delhi.

⁸ *Swachh Bharat Abhiyan* is a central government scheme to improve sanitation and SWM across India. Its key indicators—100% coverage of toilets and 100% collection and scientific treatment of solid waste—are included in Project 3 and will be achieved.

including loan covenants for timely budgeting and fund flow reimbursement from MOUD to the states and SIPMIUs.

8. **Environment.** Due diligence included site visits, desk reviews of monitoring reports, and discussions with stakeholders. Implementation of environmental safeguards is satisfactory. ADB reviewed and approved initial environment examinations (IEEs) and environmental management plans (EMPs), included in bids and contracts and disclosed on ADB websites, and shared relevant information locally. IEEs for Agartala water supply, Kohima SWM, and septage management subprojects were updated. No major safeguard issues were identified, and no major gaps in EMP implementation exist. Grievance redress mechanisms (GRMs) were established, and no complaints were received. Issues identified during due diligence related to weak implementation of routine construction impact and safety mitigation measures. Areas for improvement include: (i) strengthening occupational health and safety measures, particularly for personal protective equipment, first aid, adequate toileting and bathing facilities for laborers, movement on the construction sites, and maintenance of accident logs; (ii) improving material storage and handling, such as covering stockpiles to protect from dust and erosion, safely disposing of construction wastes, and ensuring disposal in pre-identified locations; and (iii) posting contact numbers on boards. All no-objection certificates (NoCs) were obtained. Semi-annual environmental monitoring reports are being submitted and publicly disclosed regularly.

9. **Social.** Due diligence on social safeguards compliance included site visits, desk reviews of monitoring reports, and discussions with affected people, SIPMIUs, and consultants. Limited social safeguard issues were identified in projects 1 and 2, such as acquisition of 11,825 square meters (m²) of land from one landowner, relocation of one household and impact on one temporary residential structure for sewerage subproject, negotiated purchase of 1,664.69 m² of land from 15 landowners, and restriction of land use beneath cable lines for five landowners. Measures used to prevent income loss and disruption included avoiding footpaths for pipe excavation, laying pipes in black-topped portion of congested roads, working nights in congested areas, using pre-cast manholes for sewerage, providing planks for pedestrian access, and assisting mobile vendors to shift to nearby locations. Semi-annual social safeguards monitoring reports, including progress on implementing gender action plan, were submitted and disclosed. GRMs were established, and no major complaints were reported. No issue on indigenous people has been reported under projects 1 and 2. Recommended improvement areas include: (i) timely updating of resettlement plan after detailed design completion and submission to ADB for no objection; (ii) timely recruitment of safeguards officers in SIPMIUs, preferably supported by qualified safeguards specialists in loan consultants; (iii) timely submission of semi-annual safeguards monitoring reports for disclosure; (iv) meaningful consultation with project-affected people and communities; and (v) dissemination of project GRM and procedures to all affected people and communities. Continuous monitoring by SIPMIUs on social safeguards compliance during civil works is recommended.

III. PERIODIC FINANCING REQUEST

A. Impact and Outcome

10. The impact will be improved environment and well-being of urban residents in the program cities (defined by the Investment Program). The outcome will be increased access to sustainable and improved urban services in Agartala and Aizawl.

B. Outputs

11. The outputs of Project 3 will be (i) water supply infrastructure constructed and rehabilitated; (ii) sanitation infrastructure constructed; (iii) SWM infrastructure constructed and rehabilitated; and (iv) capacity for project implementation and service delivery improved.

12. Output details are as follows:

- (i) **Output 1 (water supply infrastructure constructed and rehabilitated)** includes: for Aizawl, (a) intake and 37 million of liters per day (MLD) water treatment plant (WTP) constructed; (b) about 20 kilometers (km) of pumping mains constructed; (c) 9 storage reservoirs (3 MLD) constructed; (d) 4 MLD rain-water harvesting unit constructed; and (e) about 31 km of feeder mains constructed; for Agartala, (f) 31 MLD WTP rehabilitated, and (g) 12 deep tubewells (8 MLD) constructed; for both cities, (h) 30 bulk water meters in Agartala and 43 in Aizawl installed, and (i) distribution network, about 178 km in Agartala and 224 km in Aizawl, rehabilitated and expanded.
- (ii) **Output 2 (sanitation infrastructure constructed)** includes: (a) 5,290 additional households provided with decentralized septage management in Aizawl, and (b) septage treatment plant of 1 MLD capacity constructed in Agartala.
- (iii) **Output 3 (solid waste management infrastructure constructed and rehabilitated)** includes: for Aizawl, (a) two resource centers, 37 metric ton per day each, constructed; (b) two vermi compost plants, of 11 tonnes per day (TPD) capacity, constructed; (c) one mechanical compost plant (50 TPD) constructed; (d) about 20,000 m² of sanitary landfill constructed, and (e) 54 SWM collection and compaction vehicles procured; and for Agartala, (f) 151 SWM collection and compaction vehicles procured.
- (iv) **Output 4 (capacity for project implementation and service delivery improved)** includes (a) area-based property tax reforms implemented, and the assessed properties increased to 70% in Project 3 cities; (b) Aizawl Municipal Council's (AzMC's) and Agartala Municipal Corporation's (AMC's) water and sanitation divisions ring-fenced and recovering 60%–100% of their operation and maintenance (O&M) costs; (c) 100% SIPMIUs' and Investment Program Coordination Cell staff trained to adequately perform their jobs, covering construction management, procurement, safeguards, and gender equality; and (d) a single-window cell established for Aizawl's septage management.⁹

C. Investment and Financing Plans

13. The Tranche is expected to cost \$114 million, and its investment plan is shown in Table 1.¹⁰

⁹ Single-window cell will be a common platform, established under AzMC's sanitation division, to receive and process requests for emptying—and overall O&M of—the city's septage management system.

¹⁰ The cost estimates have been prepared by ADB consultants and staff, based on information from the SIPMIUs and MOUD, in particular the Detailed Project Report (DPR) and the draft procurement plan. The cost estimate model was prepared using Microsoft Excel, is available with the project team and the SIPMIUs.

Table 1: Tranche 3 Investment Plan
(\$ million)

Item	Amount ^a
A. Base Cost^b	
1. Water supply infrastructure construction and rehabilitation	79.59
2. Solid waste management infrastructure construction and rehabilitation	8.60
3. Sanitation infrastructure construction	7.36
4. Project implementation and service delivery capacity improvement	6.12
Subtotal (A)	101.67
B. Contingencies^c	7.84
C. Financing Charges During Implementation^d	4.49
Total (A+B+C)	114.00

^a Includes taxes and duties of \$10.11 million to be financed from government sources and the Asian Development Bank (ADB) as cash contribution. Exchange rate of Rs61.00 = \$1.00 has been applied.

^b In mid-2015 prices.

^c Physical contingencies computed at 3.0%. Price contingencies computed at 0.3% to 1.5% on foreign exchange costs and 6.5% to 7.5% on local currency costs, following ADB-published escalation rates at <http://lnadbg1.asaindevbank.org/erd004p.nsf>; includes provision for potential exchange rate fluctuation under the assumption of a purchasing power parity exchange rate.

^d Includes interest and commitment charges. Interest during construction for ADB loan has been computed at the 5-year fixed USD swap rate plus a spread of 50 basis point effective contractual spread. Commitment charges for the ADB ordinary capital resource loan are 0.15% per year to be charged on the undisbursed loan amount.

Source: Asian Development Bank estimates.

14. On 24 June 2015, the government submitted a PFR requesting a loan of \$80 million from ADB's ordinary capital resources to help finance Tranche 3. The loan will have a 20-year term, including a 5-year grace period, an annual interest rate determined following ADB's London interbank offered rate-based lending facility, a commitment charge of 0.15% per year, and such other terms and conditions as set forth in the loan and project agreements.¹¹ The financing plan is in Table 2. The ADB loan will partly finance (i) civil works and equipment for water supply, sanitation, and SWM infrastructure in Agartala and Aizawl; (ii) consulting services; (iii) capacity building; and (iv) project administration costs. The government has provided ADB with (i) reasons for its decision to borrow under ADB's London interbank offered rate-based lending facility based on the terms and conditions, and (ii) an undertaking that the choice was its own and not made based on any communication or advice from ADB.

Table 2: Financing Plan

Source	Amount (\$ million)	Share of Total (%)
Asian Development Bank	80.0	70.00
Government	34.0	30.00
Total	114.0	100.00

Source: Asian Development Bank estimates.

D. Implementation Arrangements

15. The implementation arrangements are summarized in Table 3 and described in detail in the project administration manual (PAM), which includes the procurement plan (Appendix 6).

¹¹ Will follow the straight line method of repayment. The average maturity is 12.75 years, and the maturity premium payable to ADB is 0.0% per annum.

Table 3: Implementation Arrangements

Table of Implementation Arrangements			
Aspects	Arrangements		
Implementation period	October 2015 ^a to December 2018		
Estimated completion date	22 December 2018 22 June 2019 (loan closing date)		
Management			
(i) Oversight body	IPCC in MOUD and the NSC chaired by the Secretary of MOUD, for monitoring and overseeing NERCCDIP following the FFA, remain unchanged and effective.		
(ii) Executing agencies	MOUD (national executing agency); UD&PAD and UDD (state executing agencies)		
(iii) Key implementing agencies	SIPMIU Aizawl and SIPMIU Agartala		
(iv) Implementation unit	No additional staff will be recruited to support Project 3, as both SIPMIUs are adequately staffed and existing SIPMIU staff can absorb Project 3.		
Procurement	ICB	None	NIL
	NCB (Works)	8 contracts	\$84.29 million
	NCB (Goods)	5 contracts	\$5.39 million
	Shopping (Goods)	2 contracts	\$0.05 million
Consulting services	QCBS	439 person-months	\$2.96 million
Retroactive financing and advance contracting	Advance contracting will be for (i) civil works, (ii) equipment and materials, and (iii) consultancy services; and retroactive financing of the same subject to a maximum amount equivalent to 20% of the total loan amount.		
Disbursement	The loan proceeds will be disbursed in accordance with ADB's <i>Loan Disbursement Handbook</i> (2015, as amended from time to time) and detailed arrangements agreed upon between the government and ADB.		

ADB = Asian Development Bank, FFA = Framework Financing Agreement, ICB = international competitive bidding, IPCC = Investment Program Coordination Cell, MOUD = Ministry of Urban Development, NCB = national competitive bidding, NERCCDIP = North Eastern Region Capital Cities Development Investment Program, NSC = national-level steering committee, QCBS = quality- and cost-based selection, SIPMIU = State Investment Program Management and Implementation Unit, UD&PAD = Urban Development and Poverty Alleviation Department, Mizoram, UDD = Urban Development Department, Tripura.

^a Tendering of contract packages, under advance action, started from May 2015.

Source: Asian Development Bank estimates.

E. Project Readiness

16. Project readiness is advanced. In Aizawl (i) all detailed project reports (DPRs) have been approved and most packages' bid documents prepared; (ii) 70% of contracts have been tendered, and those remaining will be completed by 30 December 2015; and (iii) all environmental clearances have been obtained, with only two NoCs outstanding. In Agartala (i) all DPRs except the septage management subproject have been approved; (ii) 80% of works contracts have been tendered, and the remaining ones will be by 30 December 2015; and (iii) all required NoCs have been obtained, with only Consent for Establishment for the WTP and septage treatment plant outstanding.

F. Advance Contracting and Retroactive Financing

17. ADB previously approved advance contracting for NERCCDIP projects. On the government's request, the executing agencies are proceeding with advance actions to procure Project 3 civil works, goods, and consulting services. The government has requested retroactive financing under Project 3. The executing agencies have been advised that ADB's approval of

advance contracting and retroactive financing does not constitute a commitment to finance the loan.

IV. DUE DILIGENCE

A. Technical

18. All proposed Project 3 subprojects follow the subproject selection criteria in Schedule 4 of the FFA. Water supply subprojects, after implementation of projects 1, 2, and 3, will result in citywide coverage with supply of treated water at 135 liters per capita per day (lpcd) in Agartala and Aizawl. Water supply and sanitation subprojects are sequenced, and where sewerage is not feasible, septage management support will be provided. MOUD reviewed and approved all DPRs to ensure compliance with the government's urban policies and technical standards. Technologies selected are appropriate, assessed on the basis of life cycle cost analysis, and compatible with local conditions and capabilities.¹²

B. Economic and Financial

19. **Economic analysis.** The economic rationale for government intervention is sound, since NERCCDIP and the individual projects support stronger and more sustainable basic urban services. The analysis evaluated Project 3's economic viability at an aggregate level, individually for water supply, SWM, and septage management subprojects, as well as at the town level in Agartala and Aizawl. Costs incurred in prior tranches for Agartala and Aizawl were included in the economic costs. The overall economic internal rate of return is 16.5%. At subproject level, the economic internal rates of return for Agartala and Aizawl, respectively, are 16.7% and 16.2% in the case of water supply; 13.7% and 19.5% for SWM; and 26.0% and 11.1% for septage management, indicating sufficiently high economic return compared with the economic opportunity cost of capital of 12.0%. Details are available in the Economic Analysis (Appendix 8). The result is robust against most downside risks, such as an increase in capital cost, increase in O&M cost, decrease of benefits, and delay in completion. The expected quantifiable benefits are (i) value of non-incremental water, (ii) time saved in collecting water, (iii) incremental piped water, (iv) savings in health expenditure, and (v) increased productivity. These results are likely underestimated since the subprojects have benefits that are not easily quantifiable and not accounted for in the analysis, including environmental benefits and increase in property values.

20. **Financial analysis.** A financial analysis was conducted following ADB's Guidelines on Financial Management and Analysis of Projects, 2005 to ensure Project 3 is sustainable and its revenue-generating components (water and septage) will generate sufficient revenues to cover incremental O&M (Appendix 9).¹³ Both the urban local bodies' (ULBs') financial projections demonstrate that, with higher tariffs, increased property tax coverage, and continued revenue subsidies, the revenue account can remain in surplus. Proposed water tariff revisions will meet incremental O&M cost in Aizawl and full O&M costs in Agartala. In Aizawl, full O&M costs for water is not likely to be recovered during Project 3 due to high electricity costs incurred lifting water from the source to the city.¹⁴ A subsidy for O&M of the water supply scheme in Aizawl has been agreed by the government, and covenanted to ensure adequate budgeting and provision. Though Project 3 is justified primarily by economic development and financial sustainability, the

¹² Life cycle cost analysis of the subprojects assessed and ensured that the systems selected were the least-cost options for the subproject's entire design, construction, and operational life.

¹³ Septage management charges already cover full cost of O&M.

¹⁴ No alternative water source exists in Aizawl, hence there is a need to lift water around 1,000 meters to the city.

financial internal rate of return for water supply projects are computed as 0.9% for Agartala and 3.0% for Aizawl¹⁵ against a weighted average cost of capital of 1.36%, indicating these subprojects, which account for more than 80.0% of the investments, are financially viable or require only a marginal capital subsidy.

C. Governance

21. Project-specific governance risks were identified through updated financial management assessments of the state executing agencies (SEAs), as well as of Agartala Municipal Corporation and AzMC. These draw lessons learned from projects 1 and 2, and from a financial management assessment conducted during NERCCDIP preparation. Weaknesses identified during the assessment were (i) delays in fund release, (ii) manual financial accounting by the SIPMIUs, and (iii) delays in audit completion and resolution of audit queries by ULBs. Despite these and initial delays, implementation of projects 1 and 2 is satisfactory, primarily because of dedicated and strong SIPMIUs. Though the overall pre-mitigation financial management risk was assessed as moderate—with mitigating measures, experienced SEAs, and implementing structures in place—financial management arrangements for Project 3 are acceptable. Specific undertakings to address financial management risks for the overall Investment Program, included in the FFA, remain relevant for Project 3 and on schedule. The Investment Program also includes measures to strengthen the ULBs' institutional and financial structures under its reform program, and these are on track. Details of these policy requirements and supplementary measures are described in the PAM of Project 3.

22. ADB explained and discussed its Anticorruption Policy (1998, as amended to date) with the government and SEAs. The specific policy requirements and supplementary measures are described in the PAM of Project 3.

D. Poverty, Social, and Gender Dimensions

23. Project 3 is classified as category EGM for gender. Project 3 will be socially inclusive and gender focused (Appendix 10). Initiatives include (i) subsidized water supply connections for poor, disadvantaged, and female-headed households;¹⁶ (ii) employment opportunities for the poorest men and women (ragpickers) at Aizawl SWM facilities; and (iii) inclusion of poor households in the septage management subproject (more than 40%). Community involvement in the septage management subproject is anticipated to enhance sustainability. The Gender Action Plan, included in the PAM, focuses on positive impacts on and outcomes for women, providing targets for consultations with women, training of low-income groups, including women in plumbing, and employment opportunities for women in project-related construction work and O&M of facilities. It will also result in health benefits and time savings for women as water fetchers and caregivers, through increased access to water supply, improved SWM and sanitation systems, better living conditions, and long-term institutional capacity to promote inclusive development within project cities. Monitoring and evaluation will generate sex-disaggregated information to track gender impacts. Project 3's gender-focused activities complement ongoing activities under projects 1 and 2.

¹⁵ Reflecting a higher tariff level and willingness to pay in Aizawl.

¹⁶ Registrar General & Census Commissioner of India defines a female-headed household as one where a woman bears the chief responsibility for household maintenance and makes decisions on behalf of the household.

E. Safeguards

24. **Environment.** Project 3 is classified as category B for environment. All proposed Project 3 sites in Agartala and Aizawl are not located within or adjacent to eco-sensitive areas. No significant impacts are anticipated. Five IEEs with EMPs were prepared for all subprojects following ADB's Safeguard Policy Statement (2009) (Appendix 11). The environmental assessment and review framework prepared during project preparation in 2009 was updated to reflect requirements of the Safeguard Policy Statement (Appendix 11). Any impacts due to construction and operation will be site-specific, short in duration, not significant, and can be avoided and/or mitigated through measures identified in the EMPs. The IEEs will be disclosed to stakeholders and affected people in understandable language and form. The IEEs will form part of the bidding and contract documents, and will be monitored during implementation. Both SIPMIUs have demonstrated good capacity in implementation of previous projects. Adequate consultant support is included and/or continued in Project 3 to promote sufficient environmental monitoring. EMP implementation reporting to ADB will be done on a semi-annual basis. The climate risk rating for Project 3 is medium. The SIPMIUs will continue to incorporate adequate measures in project design, as outlined in PAM, to reduce the risks identified.

25. **Social.** Project 3 is classified as category B for both involuntary resettlement and indigenous people. Limited impacts on involuntary resettlement are envisaged. Total land requirement is assessed at about 195,875 m².¹⁷ Project 3 received a voluntary land donation of 21,308 m² and also identified 76,288.5 m² of government land. There are potential livelihood consequences for 59 ragpickers, which will be mitigated. Two resettlement plans and two due diligence reports were prepared (Appendix 11). The Resettlement Framework and Indigenous People Planning Framework, which ensures any unforeseen impacts to indigenous peoples during NERCCDIP implementation, including Project 3, were updated (Appendix 11). Project 3 will have positive impacts on indigenous peoples; no negative impacts were identified.¹⁸ Because impacts will be positive and indigenous peoples are the majority beneficiaries, measures for indigenous peoples have been included in the project design and resettlement plans in lieu of separate indigenous people's plans. All safeguards documents will be disclosed to affected people and communities. The progress of resettlement plan finalization, implementation, and confirmation of due diligence report findings will be reported in semi-annual social safeguards monitoring reports.

F. Risks and Mitigating Measures

26. Major risks and mitigating measures are summarized in Table 4. Integrated benefits and impacts from Project 3 are expected to outweigh costs.

¹⁷ Impacts on involuntary resettlement are in the forms of acquisition or negotiated settlement for privately owned or leased land, for a total 87,674 m² in Aizawl for water supply and SWM infrastructure from two private land owners and four governments land lease holders (*Periodic Patta*). Agartala's Project 3 water supply facilities, requiring 72 m² of land, are proposed within the boundaries of two sites obtained for Project 2 facilities.

¹⁸ All subproject sites in Agartala were found to be within urban limits, and no indigenous peoples or indigenous peoples areas were affected. The population of Mizoram comprises 99% Scheduled Tribes and that of Aizawl comprises 92%, hence Category B for indigenous people impacts is triggered. All subproject sites are within AzMC's area, and affected project persons and beneficiaries follow an urban lifestyle.

Table 4: Summary of Risks and Mitigating Measures

Risks	Mitigating Measures
Government's ability and policy to increase tariffs and provide subsidies	Both states and ULBs have already approved water supply tariffs, and are collecting SWM tariffs. Both ULBs are preparing sanitation tariffs, with consultant support, and have provided firm commitments to continue implementing all.
High staff turnover in AzMC, AMC, and the SIPMIUs	All positions in the two SIPMIUs are now filled, which are adequate to handle additional subprojects under Project 3. Both states and ULBs have provided firm commitments to continue with the current staff.
State fiscal position is affected by unforeseen circumstances delaying timely release of funds	MOUD provides loan to the states on the state's share of finances. Both MOUD and the states have provided firm commitments to transfer all funds within 30 days of receipt. These have been covenanted in the Project 3 loan agreement.

AMC = Agartala Municipal Council, AzMC = Aizawl Municipal Corporation, MOUD = Ministry of Urban Development, SIPMIU = State Investment Program Management and Implementation Unit, SWM = Solid Waste Management, ULB = urban local body.

Source: Asian Development Bank.

G. Risk Categorization

27. The risk categorization of the project is *low risk*, as it fulfills all of the required features. With reference to OM Section D11/OP para. 6, Project 3 features include (i) a loan amount for a project not exceeding \$200 million, (ii) a sound record of ADB's previous experience in the sector in the project states, (iii) reasonable executing agencies' capacity and (iv) safeguard categorization other than A.

V. ASSURANCES AND CONDITIONS

28. The government and the SEAs have assured ADB that implementation of the project shall conform to all applicable ADB policies including those concerning anticorruption measures, safeguards, gender, procurement, consulting services, and disbursement as described in detail in the PAM and loan documents.

29. The government and the SEAs have agreed with ADB on certain covenants for the project, which are set forth in the draft loan and project agreements.

VI. RECOMMENDATION

30. On the basis of the approval of ADB's Board of Directors for the provision of loans under the multitranche financing facility in an aggregate principal amount not exceeding \$200,000,000 to India for the North Eastern Region Capital Cities Development Investment Program, it is recommended that the President approve the proposed tranche as described in para. 14 and such other terms and conditions as are substantially in accordance with those set forth in the draft loan and project agreements for the proposed tranche.

DESIGN AND MONITORING FRAMEWORK FOR PROJECT 3

Impact the Program is aligned with:

Improved environment and well-being of urban residents in the program cities (defined by Investment Program).

Project Results Chain	Performance Indicators with Targets and Baselines	Data Sources and Reporting ¹	Risks
Outcome Increased access to sustainable and improved urban services in Agartala and Aizawl	By 2020, a. Additional 30,000 HHs in Aizawl and 40,000 HHs in Agartala receive treated ² water for a minimum of 12 hours per day (including FHH) (2015 baseline: Agartala: 3-4 hours and Aizawl: 1-2 hours on average) b. Additional 75,800 HH in Agartala and 5,290 HH in Aizawl manage their septage safely ³ c. 105,130 HHs in Agartala and 71,700 HHs in Aizawl receive improved SWM services of 100% collection and treatment (Aizawl 2015 baseline: collection 80%, treatment – 0; Agartala 2015 baseline: collection 70%, treatment – 0) d. O&M cost recovery of water and sanitation services reaches 100% in Agartala and 60% ⁴ in Aizawl (2015 baseline: Aizawl - 20%, Agartala- 5%)	a-d. AzMC and AMC's Water and Sanitation Division's Annual reports	Government's ability and policy to increase tariffs and provide subsidies.
Outputs 1. Water Supply Infrastructure constructed and rehabilitated	By 2020, (2015 baseline – 0) Aizawl and Agartala: 1a. Distribution network, 224 km in Aizawl and 178 km in Agartala, constructed/ rehabilitated (15% women workers in Aizawl) 1b. Bulk water meters- 43 in Aizawl and 30 in Agartala – installed Aizawl: 1c. Intake and (37 MLD) WTP constructed 1d. 20.5 km of pumping mains constructed 1e. 9 storage reservoirs of 2.8 MLD combined capacity constructed 1f. 1 rain water harvesting unit of 4.1 MLD constructed (15% women workers)	1a–i. Quarterly Progress reports from the Agartala and Aizawl SIPMIU	High staff turnover in AzMC AMC, and SIPMIUs. State fiscal position is affected by unforeseen circumstances causing delays on timely release of funds.

¹ All data sources and reports will be verified by a third party appointed by the respective state governments.

² In accordance with the standards prescribed by the Bureau of Indian Standards code number 10500:2012.

³ In accordance with the urban services benchmarks of Ministry of Urban Department, Government of India.

⁴ Pumping cost of Aizawl's water supply, including that in Project 3, is very high since water is being pumped over 1000 meters and there are no alternatives. As population grows, more demand measures and other pilots, such as rainwater harvesting, are implemented. It is expected that by 2030 full cost recovery can be made.

	<p>1g. 31.6 km of feeder mains constructed</p> <p>Agartala:</p> <p>1h. 1 WTP of 31.5 MLD capacity rehabilitated</p> <p>1i. 12 deep tube wells of 8.52 MLD combined capacity constructed</p>		
2. Sanitation infrastructure constructed	<p>By 2020,</p> <p>2a. Decentralized septage treatment systems constructed for 5290 HHs in Aizawl (including low income households)</p> <p>2b. 1 MLD septage treatment plant constructed in Agartala</p>	2a-b. Quarterly progress reports from Aizawl and Agartala SIPMIUs	
3. Solid waste management infrastructure constructed and rehabilitated	<p>By 2020, (2015 baseline- 0)</p> <p>Aizawl:</p> <p>3a. 2 resource centers (37 MT/day each) constructed (15% women workers)</p> <p>3b. 2 vermi compost plant (11 TPD) constructed (15% women workers)</p> <p>3c. 1 mechanical compost plant (50 TPD) constructed</p> <p>3d. 20,000 m² sanitary landfill constructed</p> <p>Aizawl and Agartala:</p> <p>3e. SWM vehicles procured: 54 for Aizawl and 151 for Agartala</p>	3a–e. Quarterly progress reports from Aizawl and Agartala SIPMIUs	
4. Capacity for project implementation and service delivery improved	<p>By 2020,</p> <p>4a. Area-based property tax reforms implemented, and the assessed properties increased to a minimum of 70%, in both cities (2015 baseline: Agartala- 53% Aizawl- 33%)</p> <p>4b. AzMC and AMC's water and sanitation divisions fully ring-fenced⁵ (2015 baseline: NA)</p> <p>4c. 100% SIPMIUs' and IPCC staff trained in their respective areas, such as planning, construction management, procurement, safeguards, and gender equality (2015 baseline: Less than 20% staff in SIPMIUs and IPCC trained)</p> <p>4d. A single window cell established for septage management in AzMC (30% women workers in the cell)</p>	<p>4a. AzMC and AMC's annual progress reports</p> <p>4b. AzMC and AMC's Water and sanitation division's annual reports</p> <p>4c. Quarterly progress reports of the two SIPMIUs</p> <p>4d. AzMC and AMC's annual and quarterly progress reports</p>	

⁵ So that income, expenditure, assets and liabilities of water supply and sanitation can be separately identified and managed.

Key Activities with Milestones**Output 1. Water supply infrastructure constructed and rehabilitated**

- 1.1 Based on DPRs, prepare and issue bid documents for the sub-projects of Agartala and Aizawl (Q3 2015)
- 1.2 Complete evaluation and issue contracts for the subprojects (Q1 2016)
- 1.3 Start construction and rehabilitation in Agartala and Aizawl (Q1 2016 – Q2 2016)
- 1.4 Commission project and water supply system operational in Agartala and Aizawl by 2018

Output 2. Sanitation infrastructure constructed

- 2.1 Based on DPRs, prepare and issue bid documents for the sub-projects of Agartala and Aizawl (Q2 2015)
- 2.2 Complete evaluation and issue contracts for the subprojects (Q1 2016)
- 2.3 Start construction and complete delivery of equipment in Agartala and Aizawl (Q1 2016 – Q2 2017)
- 2.4 Commission project and implement septage management Agartala and Aizawl by 2018

Output 3. Solid waste management infrastructure constructed and rehabilitated

- 3.1 Based on DPRs, prepare and issue bid documents for the sub-projects of Agartala and Aizawl (Q2 2015)
- 3.2 Complete evaluation and issue contracts for the subprojects (Q4 2015 - Q1 2016)
- 3.3 Start construction and complete delivery of equipment in Agartala and Aizawl (Q1 2016 – Q2 2017)
- 3.4 Commission project and implement segregation of waste at source (HH) by 2018

Output 4. Capacity for project implementation and service delivery improved

- 4.1 Unit Area based property tax implemented (Q4 2015)
- 4.2 Agreed user charges fully implemented in both Aizawl and Agartala (Q2 2017)
- 4.3 Ring fencing of water supply services completed (Q1 2018)
- 4.4 Training programs for SIPMIU and IPCC staff initiated (Q1 2016)

Inputs**ADB: \$80,000,000 (OCR loan)****Government: \$34,000,000**

Source: Asian Development Bank

AMC = Agartala Municipal Corporation; AzMC = Aizawl Municipal Council; DPR = detailed project report; FHH = female headed household; GE = Gender Equity; G/CD = Governance and Capacity Development; HHs = households; IPCC = Investment program Coordination Cell; km = kilometer; lpcd = Litres per capita per day; m² = square meter; MLD = million liters per day; MT = metric ton; NA = Not applicable, O&M = Operations and Maintenance; Q = Quarter; SIPMIU = State Investment Program Management and Implementation Unit; SWM = Solid Waste Management; TPD = tonnes per day; WTP = water treatment plant.

LOAN NUMBER _____-IND

LOAN AGREEMENT
(Ordinary Operations)

(North Eastern Region Capital Cities Development
Investment Program – Project 3)

between

INDIA

and

ASIAN DEVELOPMENT BANK

DATED _____

IND 35290

LOAN AGREEMENT (Ordinary Operations)

LOAN AGREEMENT dated _____ between INDIA acting by its President ("Borrower") and ASIAN DEVELOPMENT BANK ("ADB").

WHEREAS

(A) by a framework financing agreement dated 14 May 2009 as amended to date ("FFA"), between the Borrower and ADB, ADB has agreed to provide a multitranche financing facility to the Borrower for purposes of financing projects under the North Eastern Region Capital Cities Development Investment Program ("NERCCDIP");

(B) by a periodic financing request dated 24 June 2015, the Borrower has applied to ADB for a loan for the purposes of the Project described in Schedule 1 to this Loan Agreement;

(C) the Project will be carried out by (i) the Borrower's Ministry of Urban Development or any successor thereto ("MOUD"); (ii) the State of Mizoram ("Mizoram"); and (iii) the State of Tripura ("Tripura") and for this purpose the Borrower will make available to MOUD, Mizoram, and Tripura the proceeds of the Loan provided for herein upon terms and conditions mutually satisfactory to ADB and the Borrower; and

(D) ADB has agreed to make a loan to the Borrower from ADB's ordinary capital resources upon the terms and conditions set forth herein and in the Project Agreements of even date herewith between ADB, MOUD and each State;

NOW THEREFORE the parties hereto agree as follows:

ARTICLE I

Loan Regulations; Definitions

Section 1.01. All the provisions of the Ordinary Operations Loan Regulations Applicable to LIBOR-Based Loans Made from ADB's Ordinary Capital Resources, dated 1 July 2001 ("Loan Regulations"), are hereby made applicable to this Loan Agreement with the same force and effect as if they were fully set forth herein, subject, however, to the following modifications thereof:

(a) Section 3.03 is deleted and the following is substituted therefor:

Commitment Charge; Credit. (a) The Borrower shall pay a commitment charge on the unwithdrawn amount of the Loan at the rate and on the terms specified in the Loan Agreement.

(b) ADB shall provide to the Borrower a credit at the rate specified in the Loan Agreement, which credit shall remain fixed for the term of the Loan. ADB shall apply the amount of the credit against the interest payable by the Borrower.

(b) Section 3.06 is deleted and the following is substituted therefor:

(a) Following any announcement by ADB that the Fixed Spread applicable to new Loans shall be reduced, ADB shall provide a Rebate to any Borrower with an outstanding Loan on which a higher Fixed Spread is applicable. The amount of the Rebate shall be determined by multiplying (i) the difference between the Fixed Spread applicable to the outstanding Loan and the Fixed Spread that will be applied to new Loans (expressed as a percentage per annum), by (ii) the principal amount of the outstanding Loan on which the Borrower shall pay interest for all interest periods commencing on and after the effective date of the lower Fixed Spread that will be applied to new Loans.

(b) Following any announcement by ADB that its Funding Cost Margin calculations with respect to any Loan Currency (or Approved Currency) in any Semester resulted in ADB achieving savings, ADB shall provide a Rebate to the Borrower. The amount of the Rebate shall be determined by multiplying (i) the Funding Cost Margin (expressed as a percentage per annum) by (ii) the principal amount of the Loan on which the Borrower shall pay interest for the Interest Period commencing immediately after the Semester for which the Funding Cost Margin was calculated. ADB shall apply the amount of the Rebate against the interest payable by the Borrower for the Interest Period commencing immediately after the Semester for which the Funding Cost Margin was calculated.

(c) Section 3.07 is deleted and the following is substituted therefor:

(a) Following any announcement by ADB that the Fixed Spread applicable to new Loans shall be increased, any Borrower with an outstanding Loan on which a lower Fixed Spread is applicable shall pay ADB a Surcharge. The amount of the Surcharge shall be determined by multiplying (i) the difference between the Fixed Spread that will be applied to new Loans and the Fixed Spread applicable to the outstanding Loan (expressed as a percentage per annum), by (ii) the principal amount of the outstanding Loan on which the Borrower shall pay interest for all interest periods commencing on and after the effective date of the higher Fixed Spread that will be applied to new Loans.

(b) Following any announcement by ADB that its Funding Cost Margin calculations with respect to any Loan Currency (or Approved Currency) in any Semester resulted in ADB incurring additional costs, the Borrower shall pay ADB a Surcharge. The amount of the Surcharge shall be determined by multiplying (i) the Funding Cost Margin (expressed as a percentage per annum) by (ii) the principal amount of the Loan on which the Borrower shall pay interest for the Interest Period commencing immediately after the Semester for which the Funding Cost Margin was calculated. ADB shall add the amount of the Surcharge to the interest payable by the Borrower for the Interest Period commencing immediately after the Semester for which the Funding Cost Margin was calculated.

Section 1.02. Wherever used in this Loan Agreement, the several terms defined in the Loan Regulations have the respective meanings therein set forth unless modified herein or the context otherwise requires. Additional terms used in this Loan Agreement have the following meanings:

(a) “Capital City” or “Capital Cities” refers to each or all of the following cities: Agartala, in Tripura; and Aizawl, in Mizoram;

(b) “Consulting Guidelines” means ADB’s Guidelines on the Use of Consultants by Asian Development Bank and its Borrowers (2013, as amended from time to time);

(c) “Consulting Services” means the services to be financed out of the proceeds of the Loan as described in paragraph 2 of Schedule 1 to this Loan Agreement;

(d) “EARF” means the environmental assessment and review framework for the Project, including any update thereto, prepared and submitted by the Borrower through the relevant Project Executing Agency and cleared by ADB;

(e) “EMP” means each environmental management plan under the Project, including any update thereto, incorporated in the IEE;

(f) “Environmental Safeguards” means the principles and requirements set forth in Chapter V, Appendix 1, and Appendix 4 (as applicable) of the SPS;

(g) “Facility” means the multitranche financing facility provided by ADB to the Borrower for purposes of financing projects under the Investment Program;

(h) “Financing Arrangements” means the arrangements between the Borrower and the States as per current policy of the Borrower, and acceptable to ADB;

(i) “GAP” means the gender action plan for Project 3;

(j) “Goods” means equipment and materials to be financed out of the proceeds of the Loan, including related services such as transportation, insurance,

installation, commissioning, training, and initial maintenance, but excluding Consulting Services;

(k) “HH” means households;

(l) “IEE” means each initial environmental examination for the Project, including any update thereto, prepared and submitted by the Borrower through the relevant Project Executing Agency pursuant to the requirements set forth in the EARF and cleared by ADB;

(m) “Indigenous Peoples Safeguards” means the principles and requirements set forth in Chapter V, Appendix 3, and Appendix 4 (as applicable) of the SPS;

(n) “Investment Program” or “Program” refers to the NERCCDIP as defined below;

(o) “Involuntary Resettlement Safeguards” means the principles and requirements set forth in Chapter V, Appendix 2, and Appendix 4 (as applicable) of the SPS;

(p) “IPCC” means Investment Program Coordination Cell, established under the first project under NERCCDIP;

(q) “IPEC” means Investment Program Empowered Committee, established under the first project under NERCCDIP;

(r) “IPP” means an indigenous peoples plan for the Project, including any update thereto, prepared and submitted by the Borrower through the relevant Project Executing Agency pursuant to the requirements set forth in the IPPF and cleared by ADB;

(s) “IPPF” means the indigenous peoples planning framework for the Project, including any update thereto, prepared and submitted by the Borrower through the relevant Project Executing Agency and cleared by ADB;

(t) “IPPMS” means Investment Program performance monitoring system established by IPCC, as described more fully in paragraph 21 of Schedule 5 to this Loan Agreement;

(u) “km” means kilo meter(s);

(v) “kV” means kilo volt(s);

(w) “Loan Disbursement Handbook” means ADB’s Loan Disbursement Handbook (2015, as amended from time to time);

(x) “MLD” means million liters per day;

(y) “MT” means metric tonnes;

(z) “NRW” means non-revenue water;

(aa) “NSC” means National Steering Committee, established under the first project under NERCCDIP;

(bb) “O&M” means operations and maintenance;

(cc) “PAM” means the Project administration manual dated October 2015 and agreed between the Borrower and ADB, as updated from time to time in accordance with the respective administrative procedures of the Borrower and ADB;

(dd) “PFR” means the periodic financing request submitted or to be submitted by the Borrower, for the purposes of each loan under the Facility, and for the purpose of this Loan Agreement means the periodic financing request dated 24 June 2015.

(ee) “Procurement Guidelines” means ADB’s Procurement Guidelines (2015, as amended from time to time);

(ff) “Procurement Plan” means the procurement plan for the Project as included in the PAM, and agreed between the Borrower, MOUD, the States, and ADB, as updated from time to time in accordance with Procurement Guidelines, Consulting Guidelines, and other arrangements agreed with ADB;

(gg) “Project area” refers to the Capital Cities defined under (a) above;

(hh) “Project Executing Agencies” for the purposes of, and within the meaning of the Loan Regulations, means (i) at the national level, MOUD or any successor thereto acceptable to ADB; and (ii) at the State level, the SEAs, as defined hereunder, or any successor thereto acceptable to ADB;

(ii) “Project facilities” means the equipment or facilities to be provided under the Project;

(jj) “RF” means the resettlement framework for the Project, including any update thereto, prepared and submitted by the Borrower through the relevant Project Executing Agency and cleared by ADB;

(kk) “RP” means a resettlement plan for the Project, including any update thereto, prepared and submitted by the Borrower through the relevant Project Executing Agency pursuant to the requirements set forth in the RF and cleared by ADB;

(ll) “RRP” refers to the Report and Recommendations of ADB’s President to ADB’s Board for the Facility;

(mm) “Safeguard Policy Statement” or “SPS” means ADB’s Safeguard Policy Statement (2009);

(nn) “Safeguards Monitoring Report” means each report prepared and submitted by the Borrower through the relevant Project Executing Agency to ADB that describes progress with implementation of, and compliance with, the EMP, the RP and the IPP (as applicable), including any corrective and preventative actions;

(oo) “SEA” or “SEAs” means state-level Executing Agency or Agencies and refers to any or all of the following: (i) for Mizoram: its Urban Development and Poverty Alleviation Department; and (ii) for Tripura: its Urban Development Department;

(pp) “SIPMIU” means State Investment Program Management and Implementation Unit, established under the first project under NERCCDIP;

(qq) “SSC” means State Steering Committee, established under the first project under NERCCDIP;

(rr) “State” or “States” means any or all of the States of Mizoram and Tripura of the Borrower;

(ss) “ULB” or “ULBs” refers to any or all urban local body or bodies of a State, or all States, as the context may require;

(tt) “Urban Reform Program” refers to the Urban Institutional, Financial, Regulatory, and Operational Program agreed between the Borrower, the States, and ADB and which is included in Appendix 12 to the RRP, in as far as it is applicable to the Project;

(uu) “Works” means construction or civil works to be financed out of the proceeds of the Loan, including services such as drilling or mapping, and project related services that are provided as part of a single responsibility or turnkey contract, but excluding Consulting Services; and

(vv) “WTP” means water treatment plant.

ARTICLE II

The Loan

Section 2.01. (a) ADB agrees to lend to the Borrower from ADB's ordinary capital resources an amount of eighty million Dollars (\$80,000,000) as such amount may be converted from time to time through a Currency Conversion in accordance with the provisions of Section 2.06 of this Loan Agreement.

(b) The Loan has a principal repayment period of 15 years, and a grace period as defined in paragraph (c) of this Section.

(c) The term “grace period” as used in paragraph (b) hereinabove means the period prior to the first Principal Payment Date in accordance with the amortization schedule set forth in Schedule 2 to this Loan Agreement.

Section 2.02. The Borrower shall pay to ADB interest on the principal amount of the Loan withdrawn and outstanding from time to time at a rate for each Interest Period equal to the sum of:

- (a) LIBOR; and
- (b) 0.60% as provided by Section 3.02 of the Loan Regulations, less a credit of 0.10% as provided by Section 3.03 of the Loan Regulations.

Section 2.03. The Borrower shall pay a commitment charge of 0.15% per annum. Such charge shall accrue on the full amount of the Loan (less amounts withdrawn from time to time), commencing 60 days after the date of this Loan Agreement.

Section 2.04. Interest and other charges on the Loan shall be payable semiannually on 01 May and 01 November in each year.

Section 2.05. The Borrower shall repay the principal amount of the Loan withdrawn from the Loan Account in accordance with the provisions of Schedule 2 to this Loan Agreement.

Section 2.06. (a) The Borrower may at any time request any of the following Conversions of the terms of the Loan in order to facilitate prudent debt management:

- (i) a change of the Loan Currency of all or any portion of the principal amount of the Loan, whether withdrawn and outstanding or unwithdrawn, to an Approved Currency;
- (ii) a change of the interest rate basis applicable to all or any portion of the principal amount of the Loan withdrawn and outstanding from a Floating Rate to a Fixed Rate, or vice versa; and
- (iii) the setting of limits on the Floating Rate applicable to all or any portion of the principal amount of the Loan withdrawn and outstanding by the establishment of an Interest Rate Cap or Interest Rate Collar on said Floating Rate.

(b) Any conversion requested pursuant to paragraph (a) hereinabove that is accepted by ADB shall be considered a "Conversion", as defined in Section 2.01(6) of the Loan Regulations, and shall be effected in accordance with the provisions of Article V of the Loan Regulations and the Conversion Guidelines.

ARTICLE III

Use of Proceeds of the Loan

Section 3.01. (a) The Borrower shall make the proceeds of the Loan available to MOUD and the States upon terms and conditions mutually agreeable between ADB and the Borrower and shall cause MOUD and the States to apply such proceeds to the financing of expenditures on the Project in accordance with the provisions of this Loan Agreement and the Project Agreements.

(b) Of the Loan proceeds, the Borrower shall provide (i) to MOUD an amount equivalent to one million one hundred thousand Dollars (\$1,100,000); (ii) to Mizoram an amount equivalent to fifty-eight million three hundred thousand Dollars (\$58,300,000); and (iii) to Tripura an amount equivalent to twenty million six hundred thousand Dollars (\$20,600,000). MOUD and the States shall apply the proceeds of the Loan in accordance with the allocation of Loan proceeds under Schedule 3 to this Loan Agreement.

Section 3.02. The proceeds of the Loan shall be allocated and withdrawn in accordance with the provisions of Schedule 3 to this Loan Agreement, as such Schedule may be amended from time to time by agreement between the Borrower and ADB.

Section 3.03. Except as ADB may otherwise agree, the Borrower shall procure, or cause to be procured, the items of expenditure to be financed out of the proceeds of the Loan in accordance with the provisions of Schedule 4 to this Loan Agreement. ADB may refuse to finance a contract where any such item has not been procured under procedures substantially in accordance with those agreed between the Borrower and ADB or where the terms and conditions of the contract are not satisfactory to ADB.

Section 3.04. Except as ADB may otherwise agree, the Borrower shall cause all Goods, Works and consulting services financed out of the proceeds of the Loan to be used exclusively in the carrying out of the Project.

Section 3.05. The Loan Closing Date for the purposes of Section 9.02 of the Loan Regulations shall be 22 June 2019 or such other date as may from time to time be agreed between the Borrower and ADB.

ARTICLE IV

Particular Covenants

Section 4.01. (a) The Borrower shall cause the Project to be carried out by the Project Executing Agencies with due diligence and efficiency and in conformity with sound applicable technical, financial, business and urban development practices.

(b) In the carrying out of the Project and operation of the Project facilities, the Borrower shall perform, or cause to be performed by the Project Executing Agencies, all obligations set forth in Schedule 5 to this Loan Agreement.

Section 4.02. The Borrower shall make available, or cause to be made available by each Project Executing Agency, promptly as needed, the funds, facilities, services, land and other resources as required, in addition to the proceeds of the proceeds of the Loan, for the carrying out of the Project.

Section 4.03. The Borrower shall ensure, or cause the States to ensure, that the activities of its departments and agencies with respect to the carrying out of the Project and operation of the Project facilities are conducted and coordinated in accordance with sound administrative policies and procedures.

Section 4.04. The Borrower shall enable ADB's representatives to inspect the Project, the Goods and Works, and any relevant records and documents.

Section 4.05. (a) The Borrower shall or shall cause MOUD to (i) maintain separate accounts and records for the Project; (ii) prepare annual financial statements for the Project in accordance with accounting principles acceptable to ADB; (iii) have such financial statements audited annually by independent auditors whose qualifications, experience and terms of reference are acceptable to ADB, in accordance with international standards for auditing or the national equivalent acceptable to ADB; (iv) as part of each such audit, have the auditors prepare a report (which includes the auditors' opinion on the financial statements, use of the Loan proceeds and on the use of the procedures for imprest fund and statement of expenditures) and a management letter (which sets out the deficiencies in the internal control of the Project that were identified in the course of the audit, if any); and (v) furnish to ADB, no later than 9 months after the end of each related fiscal year, copies of such audited financial statements, audit report and management letter, all in the English language, and such other information concerning these documents and the audit thereof as ADB shall from time to time reasonably request.

(b) ADB shall disclose the annual audited financial statements for the Project and the opinion of the auditors on the financial statements within 30 days of the date of their receipt by posting them on ADB's website.

Section 4.06. In so far as it relates to the Project, the Borrower shall take all actions which shall be necessary on its part to enable MOUD and each State to perform its obligations under each Project Agreement, and shall not take or permit any action which would interfere with the performance of such obligations.

Section 4.07. (a) In so far as it relates to the Project, the Borrower shall exercise its rights under the Financing Arrangements in such a manner as to protect the interests of the Borrower and ADB and to accomplish the purposes of the Loan.

(b) In so far as it relates to the Project, no rights or obligations under the Financing Arrangements shall be assigned, amended, abrogated or waived without prior notice to ADB.

ARTICLE V

Effectiveness

Section 5.01. A date 90 days after the date of this Loan Agreement is specified for the effectiveness of the Loan Agreement for the purposes of Section 10.04 of the Loan Regulations.

ARTICLE VI

Miscellaneous

Section 6.01. The Secretary, Additional Secretary, Joint Secretary, Director, or Deputy Secretary in the Department of Economic Affairs of the Ministry of Finance of the Borrower is designated as representative of the Borrower for the purposes of Section 12.02 of the Loan Regulations.

Section 6.02. The following addresses are specified for the purposes of Section 12.01 of the Loan Regulations:

For the Borrower

The Secretary
Department of Economic Affairs
Ministry of Finance
North Block
New Delhi – 110001
India

Facsimile Numbers:

+91 11 2309-2511.

For ADB

Asian Development Bank
6 ADB Avenue
Mandaluyong City
1550 Metro Manila
Philippines

Facsimile Numbers:

+63 2 636-2444

+63 2 636-2293.

IN WITNESS WHEREOF the parties hereto, acting through their representatives thereunto duly authorized, have caused this Loan Agreement to be signed in their respective names and to be delivered at the principal office of ADB, as of the day and year first above written.

INDIA

By

[Name and designation]

ASIAN DEVELOPMENT BANK

By

[Name and designation]

SCHEDULE 1

Description of the Project

1. The objective of the Project is to increase sustainable and improved urban services in the Project area.
2. The Project comprises the following 4 parts:

1. Water Supply Infrastructure Constructed and Rehabilitated

a. Aizawl

- (i) construction of around intake and around 37 MLD WTP;
- (ii) construction of around 20 km of pumping mains;
- (iii) construction of around 9 storage reservoirs;
- (iv) construction of 1 rain water harvesting unit;
- (v) construction of around 31 km of feeder mains;
- (vi) installation of around 43 bulk water meters;
- (vii) rehabilitation and expansion of around 224 km of distribution network; and
- (viii) connection and provision of meter to around 30,000 additional HH.

b. Agartala

- (i) rehabilitation of around 31 MLD WTP; and
- (ii) construction and rehabilitation of around 12 deep tubewells;
- (iii) installation of around 30 bulk water meters;
- (iv) rehabilitation and expansion of around 178 km of distribution network; and
- (v) connection and metering of around 40,000 additional HH.

2. Solid Waste Management Infrastructure Constructed and Rehabilitated

a. Aizawl

- (i) construction of two resource centers;
- (ii) construction of two vermi compost plant;
- (iii) construction of one mechanical compost plant;
- (iv) construction of around 20,000 m² sanitary landfill; and
- (v) provision of around 54 solid waste collection and compaction vehicles.

b. Agartala

- (i) provision of around 151 solid waste collection and compaction vehicles.

3. Septage Infrastructure Constructed

a. Aizawl

- (i) provision of around 5,290 additional HH with decentralized septage management using bio-digesters and other technologies on a pilot scale.

b. Agartala

- (i) provision of around five cesspool cleaners.

4. Capacity for Project Implementation and Service Delivery Improved

- (i) support the implementation of area-based property tax reforms and increase the number of assessed properties to 70% in the Capital Cities;
- (ii) support Aizawl Municipal Council's and Agartala Municipal Corporation's water and sanitation divisions to ring-fence and recover between 60%-100% of their O&M costs;
- (iii) provide training to 100% SIPMIUs' and IPCC's staff in planning, construction management, procurement, safeguards, and gender equality; and
- (iv) establishment of a single window cell for Aizawl's septage management.

3. The Project includes Consulting Services in relation to each of the parts.

4. The Project is expected to be completed by 22 December 2018.

SCHEDULE 2

Amortization Schedule

(North Eastern Region Capital Cities Development Investment Program – Project 3)

1. The following table sets forth the Principal Payment Dates of the Loan and the percentage of the total principal amount of the Loan payable on each Principal Payment Date (Installment Share). If the proceeds of the Loan shall have been fully withdrawn as of the first Principal Payment Date, the principal amount of the Loan repayable by the Borrower on each Principal Payment Date shall be determined by ADB by multiplying: (a) the total principal amount of the Loan withdrawn and outstanding as of the first Principal Payment Date; by (b) the Installment Share for each Principal Payment Date, such repayment amount to be adjusted, as necessary, to deduct any amounts referred to in paragraph 4 of this Schedule, to which a Currency Conversion applies.

Sequence	Date Payment Due	Installment Share (Expressed as a %)
1	1 May 2021	3.333333
2	1 November 2021	3.333333
3	1 May 2022	3.333333
4	1 November 2022	3.333333
5	1 May 2023	3.333333
6	1 November 2023	3.333333
7	1 May 2024	3.333333
8	1 November 2024	3.333333
9	1 May 2025	3.333333
10	1 November 2025	3.333333
11	1 May 2026	3.333333
12	1 November 2026	3.333333
13	1 May 2027	3.333333
14	1 November 2027	3.333333
15	1 May 2028	3.333333
16	1 November 2028	3.333333
17	1 May 2029	3.333333
18	1 November 2029	3.333333
19	1 May 2030	3.333333
20	1 November 2030	3.333333
21	1 May 2031	3.333333
22	1 November 2031	3.333333
23	1 May 2032	3.333333
24	1 November 2032	3.333333
25	1 May 2033	3.333333
26	1 November 2033	3.333333

Sequence	Date Payment Due	Installment Share (Expressed as a %)
27	1 May 2034	3.333333
28	1 November 2034	3.333333
29	1 May 2035	3.333333
30	1 November 2035	3.333343
	Total	100.000000

2. If the proceeds of the Loan shall not have been fully withdrawn as of the first Principal Payment Date, the principal amount of the Loan repayable by the Borrower on each Principal Payment Date shall be determined as follows:

(a) To the extent that any proceeds of the Loan shall have been withdrawn as of the first Principal Payment Date, the Borrower shall repay the amount withdrawn and outstanding as of such date in accordance with paragraph 1 of this Schedule.

(b) Any withdrawal made after the first Principal Payment Date shall be repaid on each Principal Payment Date falling after the date of such withdrawal in amounts determined by ADB by multiplying the amount of each such withdrawal by a fraction, the numerator of which shall be the original Installment Share specified in the table in paragraph 1 of this Schedule for said Principal Payment Date (the Original Installment Share) and the denominator of which shall be the sum of all remaining Original Installment Shares for Principal Payment Dates falling on or after such date, such repayment amounts to be adjusted, as necessary, to deduct any amounts referred to in paragraph 4 of this Schedule, to which a Currency Conversion applies.

3. Withdrawals made within 2 calendar months prior to any Principal Payment Date shall, for the purposes solely of calculating the principal amounts payable on any Principal Payment Date, be treated as withdrawn and outstanding on the second Principal Payment Date following the date of withdrawal and shall be repayable on each Principal Payment Date commencing with the second Principal Payment Date following the date of withdrawal.

4. Notwithstanding the provisions of paragraphs 1 and 2 of this Schedule, upon a Currency Conversion of all or any portion of the withdrawn principal amount of the Loan to an Approved Currency, the amount so converted in said Approved Currency that shall be repayable on any Principal Payment Date occurring during the Conversion Period, shall be determined by ADB by multiplying such amount in its currency of denomination immediately prior to said Conversion by either: (i) the exchange rate that reflects the amounts of principal in said Approved Currency payable by ADB under the Currency Hedge Transaction relating to said Conversion; or (ii) if ADB so determines in accordance with the Conversion Guidelines, the exchange rate component of the Screen Rate.

5. If the principal amount of the Loan withdrawn and outstanding from time to time shall be denominated in more than one Loan Currency, the provisions of this Schedule shall apply separately to the amount denominated in each Loan Currency, so as to produce a separate amortization schedule for each such amount.

SCHEDULE 3**Allocation and Withdrawal of Loan Proceeds**General

1. The table attached to this Schedule sets forth the Categories of Goods, Works, consulting services and other items to be financed out of the proceeds of the Loan and the allocation of amounts of the Loan to each such Category ("Table"). (Reference to "Category" in this Schedule is to a Category or Subcategory of the Table.)

Percentages of ADB Financing

2. Except as ADB may otherwise agree, the items of the Categories listed in the Table shall be financed out of the proceeds of the Loan on the basis of the percentages set forth in the Table.

Reallocation

3. Notwithstanding the allocation of Loan proceeds and the withdrawal percentages set forth in the Table:

- (a) if the amount of the Loan allocated to any Category appears to be insufficient to finance all agreed expenditures in that Category, ADB may, in consultation with the Borrower and by notice to MOUD and the States, (i) reallocate to such Category, to the extent required to meet the estimated shortfall, amounts of the Loan which have been allocated to another Category but, in the opinion of ADB, are not needed to meet other expenditures, and (ii) if such reallocation cannot fully meet the estimated shortfall, reduce the withdrawal percentage applicable to such expenditures in order that further withdrawals under such Category may continue until all expenditures thereunder shall have been made; and
- (b) if the amount of the Loan then allocated to any Category appears to exceed all agreed expenditures in that Category, ADB may, in consultation with the Borrower and by notice to MOUD and the States, reallocate such excess amount to any other Category.

Disbursement Procedures

4. Except as ADB may otherwise agree, the Loan proceeds shall be disbursed in accordance with the Loan Disbursement Handbook and detailed arrangements agreed upon between ADB and the Borrower.

Retroactive Financing

5. Withdrawals from the Loan Account may be made for reimbursement of reasonable expenditures incurred under the Project before the Effective Date, but not earlier than 12 months before the date of this Loan Agreement in connection with (i) civil works, (ii) equipment and materials, and (iii) consultancy services, subject to a maximum amount equivalent to 20% of the total loan amount.

TABLE

ALLOCATION AND WITHDRAWAL OF LOAN PROCEEDS (North Eastern Capital Cities Development Investment Program – Project 3)			
CATEGORY			ADB FINANCING BASIS
Number	Item	Total Amount Allocated for ADB Financing \$ Category	Percentage of ADB Financing from the Loan Account
1	Works and Goods	74,764,500	79.0% of total expenditure claimed
2	Consulting Services and Capacity Building	3,625,500	86.7% of total expenditure claimed
3	Project Management and Recurrent Costs	1,610,000	100% of total expenditure claimed
	Total	80,000,000	

SCHEDULE 4

Procurement of Goods and Works, and Consulting Services

General

1. The procurement of Goods, Works and Consulting Services shall be subject to and governed by the Procurement Guidelines, and the Consulting Guidelines, respectively.
2. All terms used and not otherwise defined in this Loan Agreement have the meanings provided in the Procurement Guidelines and/or the Consulting Guidelines, as applicable.

Goods and Works

3. Except as ADB may otherwise agree, Goods and Works shall only be procured on the basis of the methods of procurement set forth below:
 - (a) International Competitive Bidding;
 - (b) National Competitive Bidding; and
 - (c) Shopping.

The methods of procurement are subject to, among other things, the detailed arrangements and threshold values set forth in the Procurement Plan. The Borrower may only modify the methods of procurement or threshold values with the prior agreement of ADB, and modifications must be set out in updates to the Procurement Plan.

National Competitive Bidding

4. The Borrower and ADB shall ensure that prior to the commencement of any procurement activity under national competitive bidding, the Borrower's and the States' national competitive bidding procedures are consistent with the Procurement Guidelines. Any modifications or clarifications to such procedures agreed between the Borrower and ADB shall be set out in the Procurement Plan. Any subsequent change to the agreed modifications and clarifications shall become effective only after written approval of such change by the Borrower and ADB.

Conditions for Award of Contract; Commencement of Works

5. The Borrower shall ensure, or cause the relevant Project Executing Agency to ensure, that (i) no Works contract which involves environmental impacts is awarded until the relevant Project Executing Agency has incorporated the relevant provisions from the EMP into the Works contract; and (ii) no commencement of Works is allowed under any Works contract which involves environmental impacts and requires environmental clearances until the relevant Project Executing Agency has obtained (a) final approval of the IEE from ADB and (b) environmental clearance including approval of the environmental assessment report from the State Environmental Impact Assessment Authority.

6. The Borrower shall ensure, or cause the relevant Project Executing Agency to ensure, that no Works contract which involves involuntary resettlement impacts is awarded until the relevant Project Executing Agency has prepared and submitted to ADB the final RP based on detailed design, and obtained ADB's clearance of such RP.

7. The Borrower shall ensure, or cause the relevant Project Executing Agency to ensure, that no Works contract which involves impacts on indigenous peoples is awarded until the relevant Project Executing Agency has prepared and submitted to ADB the final IPP and obtained ADB's clearance of such IPP.

Consulting Services

8. Except as ADB may otherwise agree, the Borrower shall cause MOUD and the States to apply quality- and cost-based selection for selecting and engaging Consulting Services.

Industrial or Intellectual Property Rights

9. (a) The Borrower, through MOUD and the States, shall ensure that all Goods and Works procured (including without limitation all computer hardware, software and systems, whether separately procured or incorporated within other goods and services procured) do not violate or infringe any industrial property or intellectual property right or claim of any third party.

(b) The Borrower, through MOUD and the States, shall ensure that all contracts for the procurement of Goods and Works contain appropriate representations, warranties and, if appropriate, indemnities from the contractor or supplier with respect to the matters referred to in subparagraph (a) of this paragraph.

10. The Borrower, through MOUD and the States, shall ensure that all ADB-financed contracts with consultants contain appropriate representations, warranties and, if appropriate, indemnities from the consultants to ensure that the consulting services provided do not violate or infringe any industrial property or intellectual property right or claim of any third party.

ADB's Review of Procurement Decisions

11. Contracts procured under international competitive bidding procedures and contracts for consulting services shall be subject to prior review by ADB, unless otherwise agreed between the Borrower, the States, and ADB and set forth in the Procurement Plan.

SCHEDULE 5

Execution of Project; Financial Matters

1. The Borrower and the Project Executing Agencies shall ensure that the Project is implemented in accordance with the detailed arrangements set forth in the PAM. Any subsequent change to these documents shall become effective only after approval of such change by the Borrower and the Project Executing Agencies, and ADB as required. In the event of any discrepancy between the PAM and this Loan Agreement, the provisions of this Loan Agreement shall prevail.

Financial and institutional issues

2. The Borrower and the States shall ensure sufficient funds shall be allocated to meet all O&M costs for all assets created under the Investment Program.

3. MOUD shall ensure that any claims received from any of the States in relation to the Project, shall be reimbursed within 30 calendar days after receiving such claim.

Procurement

4. The Project Executing Agencies shall announce the Project and business opportunities associated with the Project on a Project website. The website shall disclose the following information in relation to goods and services procured for the Project: (a) the list of participating bidders, (b) the name of the winning bidder, (c) the amount of the contracts awarded, and (d) the goods and services procured. In accordance with the Procurement Guidelines, the published information for International Competitive Bidding contracts shall also include the bid prices as read out at bid opening, the reasons for rejection of unsuccessful bidders, and the duration of the awarded contract.

Governance and Anticorruption

5. The Borrower shall comply, or shall cause the Project Executing Agencies to comply, with ADB's Anticorruption Policy (1998, as amended to date), and (a) shall ensure, and cause the Project Executing Agencies to ensure, that the anticorruption provisions acceptable to ADB, the Borrower, the relevant State and the relevant Project Executing Agency are included in all bidding documents and contracts financed by ADB in connection with the Project, including provisions specifying the right of ADB to review and examine the records and accounts of the relevant State and the relevant Project Executing Agency and all contractors, suppliers, consultants, and other service providers as they relate to the Project, and as included in the PAM; (b) shall allow and assist ADB's representatives to carry out random spot checks on the work in progress and utilization of funds for the Project; (c) acknowledge that ADB reserves the right to investigate directly or through its agents any alleged corrupt, fraudulent, collusive or coercive practice relating to the Project; and (d) cooperate with any such investigation and extend all necessary assistance for satisfactory completion of such investigation, and as included in the PAM.

Policy Reforms

6. Each SEA shall, while ensuring that the requirements under the SPS are fully complied with, implement all actions specified in the Urban Institutional, Financial, Regulatory, and Operational Reform Program agreed between the Borrower, the States, and ADB and which is included in Annex 1 Schedule 6 of the FFA as amended, in as far as it is applicable to the Project.

Project scope

7. The Borrower and the States shall ensure that in the event there are any changes to the Project scope as described in Schedule 1 to this Loan Agreement, those changes shall be made in conformity with the selection criteria as set out in Schedule 4 to the FFA.

Environment

8. The Borrower shall ensure, or cause the Project Executing Agencies to ensure, that the preparation, design, construction, implementation, operation and decommissioning of the Project facilities comply with (a) all applicable laws and regulations of the Borrower and the relevant State relating to environment, health, and safety; (b) the Environmental Safeguards; (c) the EARF; and (d) all measures and requirements set forth in the respective IEE and EMP, and any corrective or preventative actions set forth in a Safeguards Monitoring Report.

Land Acquisition and Involuntary Resettlement

9. The Borrower shall ensure, or cause the Project Executing Agencies to ensure, that all land and all rights-of-way required for the Project, and all Project facilities are made available to the Works contractor in accordance with the schedule agreed under the related Works contract and all land acquisition and resettlement activities are implemented in compliance with (a) all applicable laws and regulations of the Borrower and the relevant State relating to land acquisition and involuntary resettlement; (b) the Involuntary Resettlement Safeguards; (c) the RF; and (d) all measures and requirements set forth in the respective RP, and any corrective or preventative actions set forth in a Safeguards Monitoring Report.

10. Without limiting the application of the Involuntary Resettlement Safeguards, the RF or any RP, the Borrower shall ensure, or cause the Project Executing Agencies to ensure, that no physical or economic displacement takes place in connection with the Project until:

- (a) compensation and other entitlements have been provided to affected people in accordance with the RP; and
- (b) a comprehensive income and livelihood restoration program has been established in accordance with the RP.

Indigenous Peoples

11. The Borrower shall ensure, or cause the Project Executing Agencies to ensure, that the preparation, design, construction, implementation and operation of the Project and all Project facilities comply with (a) all applicable laws and regulations of the Borrower and the relevant State relating to indigenous peoples; (b) the Indigenous Peoples Safeguards; (c) the IPPF; and

(d) all measures and requirements set forth in the respective IPP, and any corrective or preventative actions set forth in a Safeguards Monitoring Report.

Human and Financial Resources to Implement Safeguards Requirements

12. The Borrower shall ensure, or cause the Project Executing Agencies to ensure, that all necessary budgetary and human resources to fully implement the EMP, the RP and the IPP (if required) are made available. Each Project Executing Agency shall designate at least one expert to supervise implementation of the EMPs and RPs.

Safeguards – Related Provisions in Bidding Documents and Works Contracts

13. The Borrower shall ensure, or cause the Project Executing Agencies to ensure, that all bidding documents and contracts for Works contain provisions that require contractors to:

- (a) comply with the measures and requirements relevant to the contractor set forth in the IEE, the EMP, the RP and the IPP (to the extent they concern impacts on affected people during construction), and any corrective or preventative actions set out in a Safeguards Monitoring Report;
- (b) make available a budget for all such environmental and social measures;
- (c) provide ADB and the relevant Project Executing Agency with a written notice of any unanticipated environmental, resettlement or indigenous peoples risks or impacts that arise during construction, implementation or operation of the Project that were not considered in the IEE, the EMP, the RP or the IPP;
- (d) adequately record the condition of roads, agricultural land and other infrastructure prior to starting to transport materials and construction; and
- (e) fully reinstate pathways, other local infrastructure, and agricultural land to at least their pre-project condition upon the completion of construction.

Safeguards Monitoring and Reporting

14. The Borrower shall cause the Project Executing Agencies to:

- (a) submit semiannual Safeguards Monitoring Reports to ADB and disclose relevant information from such reports to affected persons promptly upon submission;
- (b) submit to ADB semi-annual reports on the carrying out of measures set forth in the EMP, RP and IPP (if required) and any corrective or preventive measures set forth in a Safeguards Monitoring Report;
- (c) if any unanticipated environmental and/or social risks and impacts arise during construction, implementation or operation of the Project that were not considered in the IEE, the EMP, the RP or the IPP, promptly inform ADB of the occurrence of such risks or impacts, with detailed description of the event and proposed corrective action plan;

- (d) no later than three months from the commencement of Project implementation, engage qualified and experienced external experts or qualified non-governmental organizations under a selection process and terms of reference acceptable to ADB, to verify information produced through the project monitoring process for resettlement, environment and indigenous peoples (if any), and facilitate the carrying out of any verification activities by such external experts; and
- (e) report any actual or potential breach of compliance with the measures and requirements set forth in the EMP, the RP or the IPP promptly after becoming aware of the breach.

Prohibited List of Investments

15. The Borrower shall ensure, or cause the Project Executing Agencies to ensure, that no proceeds of the Loan are used to finance any activity included in the list of prohibited investment activities provided in Appendix 5 of the SPS.

Labor Standards

16. The Project Executing Agencies shall ensure that Works contracts under the Project follow all applicable labor laws of the Borrower and the relevant State and that these further include provisions to the effect that contractors; (a) carry out HIV/AIDS awareness programs for labor and disseminate information at worksites on risks of sexually transmitted diseases and HIV/AIDS as part of health and safety measures for those employed during construction; and (b) follow and implement all statutory provisions on labor (including not employing or using children as labor, equal pay for equal work), health, safety, welfare, sanitation, and working conditions. Such contracts shall also include clauses for termination in case of any breach of the stated provisions by the contractors.

17. The Borrower shall ensure, or cause the Project Executing Agencies to ensure, that (a) the GAP is implemented in accordance with its terms; (b) the bidding documents and contracts include relevant provisions for contractors to comply with the measures set forth in the GAP; (c) adequate resources are allocated for implementation of the GAP; and (d) progress on implementation of the GAP, including progress toward achieving key gender outcome and output targets, are regularly monitored and reported to ADB.

18. (a) The Project Executing Agencies shall ensure that towards smooth implementation of the Project, grievances if any from stakeholders relating to implementation or use of funds are addressed effectively and efficiently.

(b) The Borrower shall ensure that each State and Project Executing Agency complies with all the requirements and obligations on its part as included in this Loan Agreement and the applicable Project Agreement to meet the objectives of the Project in a timely and efficient manner.

Construction Supervision, Recording, and Reporting

19. Within 3 months of the Effective Date, each SEA shall have approved a time-bound plan, with budget allocation, to strengthen construction supervision, recording, and reporting systems through the use of modern technology. Each SEA shall establish a quality control cell and

operationalize an internal third party technical audit mechanism. All Works contracts shall include provisions for third party inspection for quality control.

Project Performance Monitoring and Evaluation

20. IPPMS shall be used to monitor and evaluate each project under the Facility, including the Project. IPPMS shall include: (i) procedures and data collection and reporting; (ii) performance indicators for physical infrastructure, capacity development, and program management support; and (iii) target dates for reaching the performance indicators. Within 6 months of the Effective Date, each State, through its SIPMIU, shall have established baseline indicators for each target.

Project Review

21. The Borrower, the States, and ADB shall jointly review the Project at least twice a year and conduct a detailed mid-term review towards the end of the third year of Project implementation.

Communications and Participation

22. The Project Executing Agencies shall ensure, or cause the Project Executing agencies to ensure, that the project is undertaken in conformity with the communication strategy as agreed between ADB, the Borrower and the Project Executing Agencies and referred in the PAM.

Counterpart Funds

23. The States shall make available the Loan proceeds to the SEAs under appropriate arrangements acceptable to ADB, and ensure:

- (a) sufficient counterpart funds from its budget for each fiscal year, in a timely manner, are provided for the efficient implementation of the Project; and
- (b) adequate funds towards O&M of Project facilities, through budgetary allocations or other means, are provided in a timely manner to the SEAs, during and after the Project's completion.

LOAN NUMBER ____-IND

PROJECT AGREEMENT

(North Eastern Region Capital Cities Development
Investment Program – Project 3)

between

ASIAN DEVELOPMENT BANK

and

MINISTRY OF URBAN DEVELOPMENT

and

STATE OF MIZORAM

DATED _____

IND 35290

PROJECT AGREEMENT

PROJECT AGREEMENT dated _____ between ASIAN DEVELOPMENT BANK ("ADB") on the one hand, and MINISTRY OF URBAN DEVELOPMENT, acting by the President of India ("MOUD"), and the STATE OF MIZORAM, acting by its Governor ("State") on the other hand.

WHEREAS

(A) by a Loan Agreement of even date herewith between India ("Borrower") and ADB, ADB has agreed to make to the Borrower a loan of eighty million Dollars (\$80,000,000) on the terms and conditions set forth in the Loan Agreement, but only on the condition that a portion of the proceeds of the Loan be made available to MOUD and the State and that MOUD and the State agree to undertake certain obligations towards ADB as hereinafter set forth; and

(B) MOUD and the State, in consideration of ADB entering into the Loan Agreement with the Borrower, have agreed to undertake the obligations hereinafter set forth;

NOW THEREFORE the parties hereto agree as follows:

ARTICLE I

Definitions

Section 1.01. Wherever used in this Project Agreement, unless the context otherwise requires, the several terms defined in the Loan Agreement and in the Loan Regulations (as so defined) have the respective meanings therein set forth, except that for purposes of this Project Agreement, the term "the Project" means Part 1.a, Part 2.a, Part 3.a and Part 4 (in so far as occurring in Aizawl) of the Project, as described in paragraph 2 of Schedule 1 to the Loan Agreement.

ARTICLE II

Particular Covenants

Section 2.01. (a) MOUD and the State shall carry out the Project with due diligence and efficiency, and in conformity with sound administrative, financial, engineering, environmental, governance and urban development practices.

(b) In the carrying out of the Project and operation of the Project facilities, MOUD and the State shall perform all obligations set forth in the Loan Agreement to the extent that they are applicable to MOUD and the State.

Section 2.02. MOUD and the State shall make available, promptly as needed, the funds, facilities, services, equipment, land and other resources which are required, in addition to the proceeds of the Loan, for the carrying out of the Project.

Section 2.03. (a) In the carrying out of the Project, MOUD and the State shall employ competent and qualified consultants and contractors, acceptable to ADB, to an extent and upon terms and conditions mutually satisfactory to ADB and the Borrower.

(b) Except as ADB and the Borrower may otherwise agree, all Goods, Works and Consulting Services to be financed out of the proceeds of the Loan shall be procured in accordance with the provisions of Schedule 4 to the Loan Agreement. ADB may refuse to finance a contract where Goods, Works or consulting services have not been procured under procedures substantially in accordance with those agreed between the Borrower and ADB or where the terms and conditions of the contract are not satisfactory to ADB.

Section 2.04. MOUD and the State shall carry out the Project in accordance with plans, design standards, specifications, work schedules and construction methods mutually acceptable to ADB and the Borrower. MOUD and the State shall furnish, or cause to be furnished, to ADB, promptly after their preparation, such plans, design standards, specifications and work schedules, and any material modifications subsequently made therein, in such detail as ADB shall reasonably request.

Section 2.05. (a) MOUD and the State shall take out and maintain with responsible insurers, or make other arrangements satisfactory to ADB for, insurance of Project facilities to such extent and against such risks and in such amounts as shall be consistent with sound practice.

(b) Without limiting the generality of the foregoing, MOUD and the State undertakes to insure, or cause to be insured, the Goods to be procured including imported for the Project and to be financed out of the proceeds of the Loan against hazards incident to the acquisition, transportation and delivery thereof to the place of use or installation, and for such insurance any indemnity shall be payable in a currency freely usable to replace or repair such Goods.

Section 2.06. MOUD and the State shall maintain, or cause to be maintained, records and accounts adequate to identify the Goods, Works and consulting services and other items of expenditure financed out of the proceeds of the Loan, to disclose the use thereof in the Project, to record the progress of the Project (including the cost thereof) and to reflect, in accordance with consistently maintained sound accounting principles, its operations and financial condition.

Section 2.07. (a) ADB, MOUD, and the State shall cooperate fully to ensure that the purposes of the Loan will be accomplished.

(b) MOUD and the State shall promptly inform ADB through the Borrower of any condition which interferes with, or threatens to interfere with, the progress of the Project, the performance of its obligations under this Project Agreement or the Financing Arrangements, or the accomplishment of the purposes of the Loan.

(c) ADB, MOUD, and the State, shall from time to time, at the request of either party, exchange views through their representatives with regard to any matters relating to the Project, MOUD, the State, and the Loan.

Section 2.08. (a) In so far as it relates to the Project, MOUD and the State shall furnish to ADB all such reports and information as ADB shall reasonably request concerning (i) the Loan and the expenditure of the proceeds thereof; (ii) the Goods, Works and consulting services and other items of expenditure financed out of such proceeds; (iii) the Project; (iv) the administration, operations and financial status of the State; and (v) any other matters relating to the purposes of the Loan.

(b) Without limiting the generality of the foregoing, MOUD and the State shall furnish to ADB quarterly reports on the execution of the Project and on the operation and management of the Project facilities. Such reports shall be submitted in such form and in such detail and within such a period as ADB shall reasonably request, and shall indicate, among other things, progress made and problems encountered during the quarter under review, steps taken or proposed to be taken to remedy these problems, and proposed program of activities and expected progress during the following quarter.

(c) Promptly after physical completion of the Project, but in any event not later than 3 months thereafter or such later date as ADB may agree for this purpose, MOUD and the State shall prepare and furnish to ADB a report, in such form and in such detail as ADB shall reasonably request, on the execution and initial operation of the Project, including its cost, the performance by MOUD and the State of their respective obligations under this Project Agreement and the accomplishment of the purposes of the Loan.

Section 2.09. (a) The State shall (i) maintain separate accounts and records for the Project; (ii) prepare annual financial statements for the Project in accordance with accounting principles acceptable to ADB; (iii) have such financial statements audited annually by independent auditors whose qualifications, experience and terms of reference are acceptable to ADB; (iv) as part of each such audit, have the auditors prepare a report (which includes the auditors' opinion on the financial statements and use of the Loan proceeds as well as on the use of statement of expenditures) and a management letter (which sets out the deficiencies in the internal control of the Project that were identified in the course of the audit, if any) and (v) furnish to ADB, through MOUD, promptly after their preparation but in any event not later than 6 months after the close of the fiscal year to which they relate, certified copies of such audited financial statements, audit report and management letter, all in the English language and such other information concerning these documents and the audit thereof as ADB shall from time to time reasonably request.

(b) ADB shall disclose the annual audited financial statements for the Project and the opinion of the auditors on the financial statements within 30 days of the date of their receipt by posting them on ADB's website.

(c) In addition to annual audited financial statements referred to in subsection (a) hereinabove, the State shall ensure that the relevant ULBs shall (i) provide their annual financial statements prepared in accordance with national accrual-based financing reporting standards acceptable to ADB; (ii) have such financial statements audited annually by independent auditors whose qualifications, experience and terms of reference are acceptable to ADB, in accordance with international standards for auditing or the national

equivalent acceptable to ADB; and (iii) furnish to ADB, no later than 1 month after approval by the relevant authority, copies of such audited financial statements in the English language and such other information concerning these documents and the audit thereof as ADB shall from time to time reasonably request.

(d) The State shall enable ADB, upon ADB's request, to discuss the financial statements for the Project and its financial affairs where they relate to the Project with the auditors appointed by the State pursuant to subsection (a)(iii) hereinabove, and shall authorize and require any representative of such auditors to participate in any such discussions requested by ADB. This is provided that such discussions shall be conducted only in the presence of an authorized officer of the State, unless the State shall otherwise agree.

Section 2.10. MOUD and the State shall enable ADB's representatives to inspect the Project, the Goods and Works financed out of the proceeds of the Loan and any relevant records and documents.

Section 2.11. (a) MOUD and the State shall, promptly as required, take all action to carry on its operations, and to acquire, maintain and renew all rights, properties, powers, privileges and franchises which are necessary in the carrying out of the Project or in the conduct of its business.

(b) In relation to the Project, MOUD and the State shall at all times conduct their respective operations in accordance with sound technical, financial, business, development and operational practices, and under the supervision of competent and experienced management and personnel.

(c) In relation to the Project, MOUD and the State shall at all times operate and maintain their respective plants, equipment and other property, and from time to time, promptly as needed, make all necessary repairs and renewals thereof, all in accordance with sound technical, financial, business, development, operational and maintenance practices.

Section 2.12. Except as ADB may otherwise agree, in relation to the Project, MOUD and the State shall not sell, lease or otherwise dispose of any of its assets which shall be required for the efficient carrying on of its operations or the disposal of which may prejudice its ability to perform satisfactorily any of its obligations under this Project Agreement.

Section 2.13. Except as ADB may otherwise agree, in relation to the Project, MOUD and the State shall apply the proceeds of the Loan to the financing of expenditures on the Project in accordance with the provisions of the Loan Agreement and this Project Agreement, and shall ensure that all Goods, Works and consulting services financed out of such proceeds are used exclusively in the carrying out of the Project.

Section 2.14. Except as ADB may otherwise agree, the State shall duly perform all its obligations under the Financing Arrangements, and shall not take, or concur in, any action which would have the effect of assigning, amending, abrogating or waiving any rights or obligations of the parties under the Financing Arrangements.

Section 2.15. The State shall promptly notify ADB of any proposal to amend, suspend or repeal any provision of its constitutional documents, which, if implemented, could adversely affect the carrying out of the Project or the operation of the Project facilities. The State shall afford ADB an adequate opportunity to comment on such proposal.

ARTICLE III

Effective Date; Termination

Section 3.01. This Project Agreement shall come into force and effect on the date on which the Loan Agreement shall come into force and effect. ADB shall promptly notify MOUD and the State of such date.

Section 3.02. All the provisions of this Project Agreement shall continue in full force and effect notwithstanding any cancellation or suspension under the Loan Agreement.

ARTICLE IV

Miscellaneous

Section 4.01. Any notice or request required or permitted to be given or made under this Project Agreement and any agreement between the parties contemplated by this Project Agreement shall be in writing. Such notice or request shall be deemed to have been duly given or made when it shall be delivered by hand or by mail, telegram, cable, telex, facsimile or radiogram to the party to which it is required or permitted to be given or made at its address hereinafter specified, or at such other address as such party shall have designated by notice to the party giving such notice or making such request. The addresses so specified are:

For ADB

Asian Development Bank
6 ADB Avenue
Mandaluyong City
1550 Metro Manila
Philippines

Facsimile Numbers:

+63 2 636-2444
+63 2 636-2293.

For MOUD

Secretary
 Ministry of Urban Development
 Government of India
 Maulana Azad Road
 Nirman Bhawan
 New Delhi - 110011
 India

Fascimile Number:

+91 11 2306-1459.

For the State

Principal Secretary/Secretary
 Urban Development and Poverty Alleviation Department
 Government of Mizoram
 New Secretariat Complex
 Aizawl- 796001
 Mizoram, India

Fascimile Number:

+91 389 233-6466.

Section 4.02. (a) Any action required or permitted to be taken, and any documents required or permitted to be executed, under this Project Agreement by or on behalf of (i) MOUD may be taken or executed by its Joint Secretary (UD); and (ii) the State may be taken or executed by its Principal Secretary, Urban Development and Poverty Alleviation Department, or by such other person or persons as he/she shall so designate in writing to ADB.

(b) MOUD and the State shall furnish to ADB sufficient evidence of the authority of each person who will act under paragraph (a) of this Section, together with the authenticated specimen signature of each such person.

Section 4.03. No delay in exercising, or omission to exercise, any right, power or remedy accruing to either party under this Project Agreement upon any default shall impair any such right, power or remedy or be construed to be a waiver thereof or an acquiescence in such default; nor shall the action of such party in respect of any default, or any acquiescence in any default, affect or impair any right, power or remedy of such party in respect of any other or subsequent default.

IN WITNESS WHEREOF the parties hereto, acting through their representatives thereunto duly authorized, have caused this Project Agreement to be signed

in their respective names and to be delivered at the principal office of ADB, as of the day and year first above written.

ASIAN DEVELOPMENT BANK

By _____
[Name and designation]

MINISTRY OF URBAN DEVELOPMENT

By _____
[Name and designation]

STATE OF MIZORAM

By _____
[Name and designation]

LOAN NUMBER ____-IND

PROJECT AGREEMENT

(North Eastern Region Capital Cities Development
Investment Program – Project 3)

between

ASIAN DEVELOPMENT BANK

and

MINISTRY OF URBAN DEVELOPMENT

and

STATE OF TRIPURA

DATED _____

IND 35290

PROJECT AGREEMENT

PROJECT AGREEMENT dated _____ between ASIAN DEVELOPMENT BANK ("ADB") on the one hand, and MINISTRY OF URBAN DEVELOPMENT, acting by the President of India ("MOUD"), and the STATE OF TRIPURA, acting by its Governor ("State") on the other hand.

WHEREAS

(A) by a Loan Agreement of even date herewith between India ("Borrower") and ADB, ADB has agreed to make to the Borrower a loan of eighty million Dollars (\$80,000,000) on the terms and conditions set forth in the Loan Agreement, but only on the condition that a portion of the proceeds of the Loan be made available to MOUD and the State and that MOUD and the State agree to undertake certain obligations towards ADB as hereinafter set forth; and

(B) MOUD and the State, in consideration of ADB entering into the Loan Agreement with the Borrower, have agreed to undertake the obligations hereinafter set forth;

NOW THEREFORE the parties hereto agree as follows:

ARTICLE I

Definitions

Section 1.01. Wherever used in this Project Agreement, unless the context otherwise requires, the several terms defined in the Loan Agreement and in the Loan Regulations (as so defined) have the respective meanings therein set forth, except that for purposes of this Project Agreement, the term "the Project" means Part 1.b, Part 2.b, Part 3.b and Part 4 (in so far as occurring in Agartala) of the Project, as described in paragraph 2 of Schedule 1 to the Loan Agreement.

ARTICLE II

Particular Covenants

Section 2.01. (a) MOUD and the State shall carry out the Project with due diligence and efficiency, and in conformity with sound administrative, financial, engineering, environmental, governance and urban development practices.

(b) In the carrying out of the Project and operation of the Project facilities, MOUD and the State shall perform all obligations set forth in the Loan Agreement to the extent that they are applicable to MOUD and the State.

Section 2.02. MOUD and the State shall make available, promptly as needed, the funds, facilities, services, equipment, land and other resources which are required, in addition to the proceeds of the Loan, for the carrying out of the Project.

Section 2.03. (a) In the carrying out of the Project, MOUD and the State shall employ competent and qualified consultants and contractors, acceptable to ADB, to an extent and upon terms and conditions mutually satisfactory to ADB and the Borrower.

(b) Except as ADB and the Borrower may otherwise agree, all Goods, Works and Consulting Services to be financed out of the proceeds of the Loan shall be procured in accordance with the provisions of Schedule 4 to the Loan Agreement. ADB may refuse to finance a contract where Goods, Works or consulting services have not been procured under procedures substantially in accordance with those agreed between the Borrower and ADB or where the terms and conditions of the contract are not satisfactory to ADB.

Section 2.04. MOUD and the State shall carry out the Project in accordance with plans, design standards, specifications, work schedules and construction methods mutually acceptable to ADB and the Borrower. MOUD and the State shall furnish, or cause to be furnished, to ADB, promptly after their preparation, such plans, design standards, specifications and work schedules, and any material modifications subsequently made therein, in such detail as ADB shall reasonably request.

Section 2.05. (a) MOUD and the State shall take out and maintain with responsible insurers, or make other arrangements satisfactory to ADB for, insurance of Project facilities to such extent and against such risks and in such amounts as shall be consistent with sound practice.

(b) Without limiting the generality of the foregoing, MOUD and the State undertakes to insure, or cause to be insured, the Goods to be procured including imported for the Project and to be financed out of the proceeds of the Loan against hazards incident to the acquisition, transportation and delivery thereof to the place of use or installation, and for such insurance any indemnity shall be payable in a currency freely usable to replace or repair such Goods.

Section 2.06. MOUD and the State shall maintain, or cause to be maintained, records and accounts adequate to identify the Goods, Works and consulting services and other items of expenditure financed out of the proceeds of the Loan, to disclose the use thereof in the Project, to record the progress of the Project (including the cost thereof) and to reflect, in accordance with consistently maintained sound accounting principles, its operations and financial condition.

Section 2.07. (a) ADB, MOUD, and the State shall cooperate fully to ensure that the purposes of the Loan will be accomplished.

(b) MOUD and the State shall promptly inform ADB through the Borrower of any condition which interferes with, or threatens to interfere with, the progress of the Project, the performance of its obligations under this Project Agreement or the Financing Arrangements, or the accomplishment of the purposes of the Loan.

(c) ADB, MOUD, and the State, shall from time to time, at the request of either party, exchange views through their representatives with regard to any matters relating to the Project, MOUD, the State, and the Loan.

Section 2.08. (a) In so far as it relates to the Project, MOUD and the State shall furnish to ADB all such reports and information as ADB shall reasonably request concerning (i) the Loan and the expenditure of the proceeds thereof; (ii) the Goods, Works and consulting services and other items of expenditure financed out of such proceeds; (iii) the Project; (iv) the administration, operations and financial status of the State; and (v) any other matters relating to the purposes of the Loan.

(b) Without limiting the generality of the foregoing, MOUD and the State shall furnish to ADB quarterly reports on the execution of the Project and on the operation and management of the Project facilities. Such reports shall be submitted in such form and in such detail and within such a period as ADB shall reasonably request, and shall indicate, among other things, progress made and problems encountered during the quarter under review, steps taken or proposed to be taken to remedy these problems, and proposed program of activities and expected progress during the following quarter.

(c) Promptly after physical completion of the Project, but in any event not later than 3 months thereafter or such later date as ADB may agree for this purpose, MOUD and the State shall prepare and furnish to ADB a report, in such form and in such detail as ADB shall reasonably request, on the execution and initial operation of the Project, including its cost, the performance by MOUD and the State of their respective obligations under this Project Agreement and the accomplishment of the purposes of the Loan.

Section 2.09. (a) The State shall (i) maintain separate accounts and records for the Project; (ii) prepare annual financial statements for the Project in accordance with accounting principles acceptable to ADB; (iii) have such financial statements audited annually by independent auditors whose qualifications, experience and terms of reference are acceptable to ADB; (iv) as part of each such audit, have the auditors prepare a report (which includes the auditors' opinion on the financial statements and use of the Loan proceeds as well as on the use of statement of expenditures) and a management letter (which sets out the deficiencies in the internal control of the Project that were identified in the course of the audit, if any) and (v) furnish to ADB, through MOUD, promptly after their preparation but in any event not later than 6 months after the close of the fiscal year to which they relate, certified copies of such audited financial statements, audit report and management letter, all in the English language and such other information concerning these documents and the audit thereof as ADB shall from time to time reasonably request.

(b) ADB shall disclose the annual audited financial statements for the Project and the opinion of the auditors on the financial statements within 30 days of the date of their receipt by posting them on ADB's website.

(c) In addition to annual audited financial statements referred to in subsection (a) hereinabove, the State shall ensure that the relevant ULBs shall (i) provide their annual financial statements prepared in accordance with national accrual-based financing reporting standards acceptable to ADB; (ii) have such financial statements audited annually by independent auditors whose qualifications, experience and terms of reference are acceptable to ADB, in accordance with international standards for auditing or the national

equivalent acceptable to ADB; and (iii) furnish to ADB, no later than 1 month after approval by the relevant authority, copies of such audited financial statements in the English language and such other information concerning these documents and the audit thereof as ADB shall from time to time reasonably request.

(d) The State shall enable ADB, upon ADB's request, to discuss the financial statements for the Project and its financial affairs where they relate to the Project with the auditors appointed by the State pursuant to subsection (a)(iii) hereinabove, and shall authorize and require any representative of such auditors to participate in any such discussions requested by ADB. This is provided that such discussions shall be conducted only in the presence of an authorized officer of the State, unless the State shall otherwise agree.

Section 2.10. MOUD and the State shall enable ADB's representatives to inspect the Project, the Goods and Works financed out of the proceeds of the Loan and any relevant records and documents.

Section 2.11. (a) MOUD and the State shall, promptly as required, take all action to carry on its operations, and to acquire, maintain and renew all rights, properties, powers, privileges and franchises which are necessary in the carrying out of the Project or in the conduct of its business.

(b) In relation to the Project, MOUD and the State shall at all times conduct their respective operations in accordance with sound technical, financial, business, development and operational practices, and under the supervision of competent and experienced management and personnel.

(c) In relation to the Project, MOUD and the State shall at all times operate and maintain their respective plants, equipment and other property, and from time to time, promptly as needed, make all necessary repairs and renewals thereof, all in accordance with sound technical, financial, business, development, operational and maintenance practices.

Section 2.12. Except as ADB may otherwise agree, in relation to the Project, MOUD and the State shall not sell, lease or otherwise dispose of any of its assets which shall be required for the efficient carrying on of its operations or the disposal of which may prejudice its ability to perform satisfactorily any of its obligations under this Project Agreement.

Section 2.13. Except as ADB may otherwise agree, in relation to the Project, MOUD and the State shall apply the proceeds of the Loan to the financing of expenditures on the Project in accordance with the provisions of the Loan Agreement and this Project Agreement, and shall ensure that all Goods, Works and consulting services financed out of such proceeds are used exclusively in the carrying out of the Project.

Section 2.14. Except as ADB may otherwise agree, the State shall duly perform all its obligations under the Financing Arrangements, and shall not take, or concur in, any action which would have the effect of assigning, amending, abrogating or waiving any rights or obligations of the parties under the Financing Arrangements.

Section 2.15. The State shall promptly notify ADB of any proposal to amend, suspend or repeal any provision of its constitutional documents, which, if implemented, could adversely affect the carrying out of the Project or the operation of the Project facilities. The State shall afford ADB an adequate opportunity to comment on such proposal.

ARTICLE III

Effective Date; Termination

Section 3.01. This Project Agreement shall come into force and effect on the date on which the Loan Agreement shall come into force and effect. ADB shall promptly notify MOUD and the State of such date.

Section 3.02. All the provisions of this Project Agreement shall continue in full force and effect notwithstanding any cancellation or suspension under the Loan Agreement.

ARTICLE IV

Miscellaneous

Section 4.01. Any notice or request required or permitted to be given or made under this Project Agreement and any agreement between the parties contemplated by this Project Agreement shall be in writing. Such notice or request shall be deemed to have been duly given or made when it shall be delivered by hand or by mail, telegram, cable, telex, facsimile or radiogram to the party to which it is required or permitted to be given or made at its address hereinafter specified, or at such other address as such party shall have designated by notice to the party giving such notice or making such request. The addresses so specified are:

For ADB

Asian Development Bank
6 ADB Avenue
Mandaluyong City
1550 Metro Manila
Philippines

Facsimile Numbers:

+63 2 636-2444
+63 2 636-2293.

For MOUD

Secretary
 Ministry of Urban Development
 Government of India
 Maulana Azad Road
 Nirman Bhawan
 New Delhi - 110011
 India

Fascimile Number:

+91 11 2306-1459.

For the State

Principal Secretary/Secretary, Urban Development Department
 Government of Tripura
 Capital Complex
 Agartala – 799006
 Tripura, India

Fascimile Number:

+91 381 241-0145.

Section 4.02. (a) Any action required or permitted to be taken, and any documents required or permitted to be executed, under this Project Agreement by or on behalf of (i) MOUD may be taken or executed by its Joint Secretary (UD); and (ii) the State may be taken or executed by its Principal Secretary, Urban Development Department, or by such other person or persons as he/she shall so designate in writing to ADB.

(b) MOUD and the State shall furnish to ADB sufficient evidence of the authority of each person who will act under paragraph (a) of this Section, together with the authenticated specimen signature of each such person.

Section 4.03. No delay in exercising, or omission to exercise, any right, power or remedy accruing to either party under this Project Agreement upon any default shall impair any such right, power or remedy or be construed to be a waiver thereof or an acquiescence in such default; nor shall the action of such party in respect of any default, or any acquiescence in any default, affect or impair any right, power or remedy of such party in respect of any other or subsequent default.

IN WITNESS WHEREOF the parties hereto, acting through their representatives thereunto duly authorized, have caused this Project Agreement to be signed in their respective names and to be delivered at the principal office of ADB, as of the day and year first above written.

ASIAN DEVELOPMENT BANK

By _____
[Name and designation]

MINISTRY OF URBAN DEVELOPMENT

By _____
[Name and designation]

STATE OF TRIPURA

By _____
[Name and designation]

Ms Sheyphali B. Sharan
Director (ADB.I)
Tel No. 23092494
e-mail: sheyphali.sharan@nic.in



भारत सरकार
 वित्त मंत्रालय
 आर्थिक कार्य विभाग
 Government of India
 Ministry of Finance
 Department of Economic Affairs

नई दिल्ली / New Delhi.....

D. O. No. 5/23/2005-ADB-I

June 24, 2015

Dear Mr. Kim,

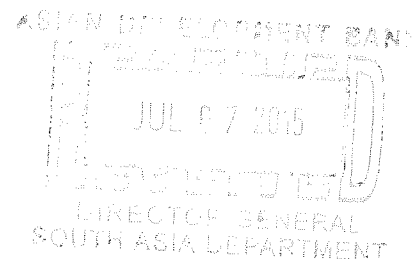
This has reference to Framework Financing Agreement (FFA) for the North Eastern Region Capital Cities Development Investment Programme (NERCCDIP) dated 14th May, 2009 between Asian Development Bank (ADB) and INDIA. Expressions defined in the FFA shall have the same meanings herein.

2. Pursuant to the provisions of FFA, INDIA requests ADB to process this Period Financing Request (PER) for tranche 3, in the form of a loan from its Ordinary Capital Resources (OCR). The proposed financing amounts, terms, conditions and financing plan are specified in Attachment A hereto. Descriptions of the investment project for which financing is hereby requested are also set out in Attachment hereto.

Yours sincerely,

[Sheyphali B. Sharan]

Mr. Hun Kim,
Director General,
 South Asia Department, Manila
Philippines. D.O.



Parmod Kumar
Director (UD)
Ph : 011-23062195
e-mail : dirud-mud@nic.in



भारत सरकार
शहरी विकास मंत्रालय
निर्माण भवन
GOVERNMENT OF INDIA
MINISTRY OF URBAN DEVELOPMENT
NIRMAN BHAWAN

नई दिल्ली - 110011, तारीख 20
New Delhi - 110011, Dated the 20

No.K-14011/17/2014-NERUDP (Vol.2)
Dated, the 16th June, 2015

To: Asian Development Bank
6 ADB Avenue
Mandaluyong City, Metro Manila

ATTENTION: H. Kim, Director General, South Asia Department

Dear Mr. Kim:

RE: North Eastern Region Capital Cities Development Investment Program: Periodic
Financing Request # 3

Please refer to the Framework Financing Agreement for North Eastern Region Capital Cities Development Investment Program (the Investment Program) dated 14 May 2009 between Asian Development Bank (ADB) and India. Expressions defined in the FFA shall have the same meanings herein.

Pursuant to the provisions of the FFA, INDIA requests ADB to process this Periodic Financing Request (PFR) for tranche 3, in the form of a loan from its Ordinary Capital Resources. The proposed financing amounts, terms, conditions, and financing plan are specified in Attachment A hereto. Descriptions of the projects for which financing is hereby requested are set out in Attachments hereto.

INDIA hereby certifies that it is in full compliance with the understanding set out in the FFA.

Yours sincerely

(Parmod Kumar)
Director (UD)
Ministry of Urban Development
Government of India



भारत सरकार
शहरी विकास मंत्रालय
निर्माण भवन

GOVERNMENT OF INDIA
MINISTRY OF URBAN DEVELOPMENT
NIRMAN BHAWAN

नई दिल्ली - 110011, तारीख 20
New Delhi - 110011, Dated the 20

No.K-14011/17/2014-NERUDP
Dated 28th May, 2015

To

Shri Ajay S. Singh
Director (ADB-1)
Department of Economic Affairs
Ministry of Finance
North Block, New Delhi



Subject:- ADB assisted NERUDP – Tranche-III – PFR-3

Draft Periodic Financing Request for Loan-3 under North Eastern Region Capital Cities Development Investment Programme (NERCCDIP) is enclosed for further necessary action. The estimated cost of the PFR-3 is \$114 million (₹ 684 crore @ ₹60/\$). The Water Supply, SWM, and Septage management projects in Aizawl and Agartala have been proposed to be taken up under Tranche-III.

Encl : Draft PFR-3

Yours faithfully

(Parmod Kumar)
Director (UD)

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Attachment

Project Description The projects proposed for financing under the requested PFR are:

Part A: Improved Urban Infrastructure and Services

- (i) Water supply distribution network improvement in the central water zone of Agartala covering rehabilitation and renewal of the distribution system;
- (ii) Water supply distribution network improvement in 35 zones of Aizawl covering rehabilitation and renewal of the distribution system and increase in treatment capacity;
- (iii) Augmentation of bulk water supply in Aizawl by 37 million litres a day (MLD) and treatment of the same;
- (iv) Implementation of decentralized septage management system for 5290 HHs;
- (v) Septage management improvement in Agartala and Aizawl;
- (vi) Sanitary landfill and compost plant development, and purchase of collection equipment for SWM improvement in Aizawl; and
- (vii) Purchase of collection equipment for SWM in Agartala.

Part B: Capacity Building and Investment Program Management

- (i) Consulting support to Aizawl and Agartala state implementing program management units (SIPMIUs) and central-level executing agency for continuing urban reforms, capacity building, and project implementation; and
- (ii) Incremental administration for project implementation.

The Design and Monitoring Framework for this tranche is in **Annex 1**. Additional details are in **Annex 2**.

Cost Estimates and Financing Plan

The total cost of the projects is estimated at \$ 114 million, inclusive of taxes, duties, and interest and other charges on the loan during construction. The detailed cost estimates and financing plan are in **Annex 3**.

Project/ component	Counterpart (\$ m)	ADB (\$ m)	Total (\$ m)
A. Base Costs:			
1. Water supply improvement	9.98	56.57	66.56
2. Solid waste management	1.09	6.15	7.24
3. Sanitation improvement	0.92	5.22	6.14
4. Project management, urban reforms and capacity development	0.33	5.26	5.58
Total Base Cost	12.32	73.20	85.52
B. Contingencies	5.50	6.80	12.30
C. Financing Charges	4.68	0.00	4.68
D. Taxes and duties	11.50	0.00	11.50
Total Investment Program Cost	34.00	80.00	114.00

Loan Amount and Terms	The request is for a loan of \$80 million from the OCR of the Asian Development Bank (ADB) provided under ADB's London interbank offered rate (LIBOR)-based lending facility, with a (25) year term including a grace period of (5) years, an interest rate determined in accordance with ADB's LIBOR-based lending facility, and such other terms and conditions as agreed in the FFA, and further supplemented under the Loan and Project Agreements. ¹
Period of Loan Utilization	The projects are expected to be completed by 22 June 2019. No disbursements from the loan account will be requested or made later than 22 June 2019.
Advance Contracting and Retroactive Financing	Advance contracting is requested for procurement of civil works, goods and consulting services. Retroactive financing is requested for the consulting services, civil works and goods, not exceeding the amount of 20% of the loan amount, incurred before loan effectiveness, but not earlier than 12 months before the signing of the legal agreement.
Implementation Arrangements	The central executing agency will be the Ministry of Urban Development (MOUD) in Delhi. The state-level executing agencies will be the Urban Development & Poverty Alleviation Department (UD&PAD) for Aizawl and Urban Development Department (UDD) for Agartala. There is no change in the proposed implementation structure from what was proposed in the agreed Facility Administration Manual (FAM) for NERCCDIP.
Procurement and Consulting Services	Procurement of all goods and services under this project will be carried out in accordance with ADB's <i>Procurement Guidelines</i> (2013, as amended from time to time) and <i>Guidelines on the Use of Consultants</i> (2013, as amended from time to time). The procurement plan is attached as Annex 4 .
Confirmation of Continuing Validity of and Adherence to Provisions of FFA, Previous Agreements, and the Design and Monitoring Framework	INDIA confirms that the understandings set out in the FFA and provisions of previous loan agreements for Tranche 1 and Tranche 2 have been adhered, and remain true to date. A full report on compliance is attached as Annex 5 .

¹ This should be suitably revised based if the source of funding is ADF or if the loan is in local currency.

Readiness of the Project for Implementation

Project readiness for the proposed Project 3 is advanced. For Aizawl (i) all detailed project reports (DPRs) have been approved and bid documents for most packages are completed; (ii) 60% of works contracts will be tendered by 30 June 2015, and all remaining contracts will be tendered by 30 July 2015; (iv) all environmental clearances have been obtained; (v) only two no-objection certificates (NOCs) are outstanding and being pursued from Forest and Industry departments of the state government. For Agartala (i) all DPRs, except for the septage management subproject, have been approved, (ii) 80% of works contracts will be tendered by 15 May 2015, and the remaining by 30 June 2015, (iii) Consent for Establishment (CfE) for the WTP and septage treatment plant are outstanding and being pursued at the state's PCB, and (iv) all NoCs have been obtained. Summaries of DPRs are attached as **Annex 6**.

Advance action is expected for 90% of works packages in both states, and 2 consulting packages in Aizawl.

Safeguards

The following safeguards documents are included:

For Projects 1 and 2: Report on the status of compliance with ADB's safeguards policies and guidelines for subprojects under Project 1 and Project 2 (**Annex 7**);

For Project 3: Safeguards documents for the proposed subprojects under the project including (**Annex 8**).

- **Environment:** Initial Environmental Examination and updated Environmental Assessment and Review Framework
- **Resettlement:** Resettlement Plan and updated Resettlement Framework
- **Indigenous People:** N.A.

ANNEX 1: DESIGN AND MONITORING FRAMEWORK – NERCCDIP PROJECT 3

Impacts the Project is aligned with:

Project is aligned with Improved environment and well-being of urban residents in the program cities.

Project Results Chain	Performance Indicators with Targets and Baselines	Data Sources and Reporting	Risks
Outcome Sustainable and increased access to better urban services in two project cities	By 2020, a. 0.84 million people in two project cities receiving a minimum 135 lpcd treated water 24 hours/day. (2015 baseline: Agartala- 70 lpcd at 4 hours /day and Aizawl 70 lpcd at 8 hours/ day).	a. AzMC and AMC's Water Division's Annual reports	Urban services tariffs not implemented or adequately collected
	b. Non-revenue water reduced to less than 20% in both cities (2015 average –40%)	b. AzMC and AMC's Water Division's Annual reports	
	c. 26,000 people treating their septage, and 354,000 people receiving services of single-window cell in AzMC for septage management, in Aizawl (2015 baseline: 0 and no cell)	c. AzMC and AMC's sanitation division's annual reports	
	d. 0.84 million people in both cities provided with improved SWM services of 100% collection and treatment (Aizawl 2015 baseline: collection 80%, treatment – nil;; Agartala 2015 baseline: collection 70%, treatment – nil	d. AzMC and AMC's SWS division's annual reports	
	e. O&M cost recovery of water and sanitation services reaches 100% in Agartala and 60% ¹ in Aizawl (2015 baseline: Aizawl - 20%, Agartala- 5%)	e. reports in a, b, and c	
Outputs 1. Water Supply Infrastructure constructed and rehabilitated	(2015 baseline – nil) Aizawl and Agartala: 1a. 30,000 new HHs in Aizawl and 40,000 new HHs in Agartala connected with water supply (including FHH) 1b. Distribution network, 224 km in Aizawl and 178 km in Agartala, constructed (15% women workers in Aizawl) 1c. Bulk water meters- 43 in Aizawl and 30 in Agartala – installed Aizawl: 1d. Intake and WTP (37 MLD) constructed 1e. 20.5 km of pumping mains constructed 1f. 9 storage reservoirs of 2.8 MLD	1a–j. Quarterly Progress reports from the Agartala and Aizawl SIPMIU	Staff resources inadequate and staff frequently transferred in AzMC AMC, and SIPMIUs; SIPMIUs not receiving funds on a timely basis

¹ Pumping cost of Aizawl's water supply, including that in Project 3, is very high since water is being pumped over 1000 metres and there are no alternatives. As population grows, more demand measures and other pilots, such as rainwater harvesting, are implemented. It is expected that by 2030 full cost recovery can be made.

	<p>combined capacity constructed</p> <p>1g. 1 rain water harvesting unit of 4.1 MLD constructed (15% women workers)</p> <p>1h. 31.6 km of feeder mains constructed</p> <p>Agartala:</p> <p>1i. 1 WTP of 31.5 MLD capacity rehabilitated</p> <p>1j. 12 deep tube wells of 8.52 MLD combined capacity constructed</p>		
2. Solid waste management infrastructure constructed and rehabilitated	<p>(2015 baseline- nil)</p> <p>Aizawl:</p> <p>2a. 2 resource centers (37 MT/day each) constructed (15% women workers)</p> <p>2b. 2 vermi compost plant (11 TPD) constructed (15% women workers)</p> <p>2c. 1 mechanical compost plant (50 TPD) constructed</p> <p>2d. 20,000 m2 sanitary landfill constructed</p> <p>Aizawl and Agartala:</p> <p>2e. SWM vehicles procured, 54 for Aizawl, and 151 for Agartala</p>	2a-e. Quarterly progress reports from Aizawl and Agartala SIPMIUs	
3. Septage management infrastructure constructed	<p>(2015 Aizawl 2015 baseline: 0; Agartala baseline: 30%)</p> <p>3a. 5290 HHs provided with decentralized septage management in Aizawl (including low income households)</p> <p>3b. 5 cesspool cleaners procured in Agartala</p> <p>3c. 1 MLD septage treatment plant constructed in Agartala</p>	3a-c. Quarterly progress reports from Aizawl and Agartala SIPMIUs	
4. Project implementation and service delivery capacity improved	<p>4a. Area-based property tax reforms implemented in both cities and their tax revenue increased to 70% (2015 baseline: Agartala- 65%, Aizawl- nil)</p> <p>4b. AzMC and AMC's water and sanitation divisions fully ring-fenced (2015 baseline: NA)</p> <p>4c. 100% SIPMIUs' and IPCC staff trained in their respective areas, such as planning, construction management, procurement, safeguards, and gender equality (2015 baseline: SIPMIUs and IPCC not fully staffed and less than 20% trained)</p> <p>4d. A single window cell established for Septage Management in AzMC (30% women workers in the cell)</p> <p>4e. Project implemented within time and budget.</p>	<p>4a. AzMC and AMC's annual progress reports</p> <p>4b. AzMC and AMC's Water and sanitation division's annual reports</p> <p>4c. Quarterly progress reports of the two SIPMIUs</p> <p>4d. AzMC and AMC's annual and quarterly progress reports</p> <p>4e. Quarterly progress reports of the two SIPMIUs</p>	

Key Activities with Milestones**Output 1. Water supply infrastructure constructed and rehabilitated**

- 2.1 Based on DPRs, prepare and issue bid documents for the sub-projects of Agartala and Aizawl (Q2 2015)
- 2.2 Complete evaluation and issue contracts for the subprojects (Q1 2016)
- 2.3 Start construction and rehabilitation in Agartala and Aizawl (Q1 2016 – Q2 2016)
- 2.4 Commission project and water supply system operational in Agartala and Aizawl by 2018

Output 2. Solid waste management infrastructure constructed and rehabilitated

- 3.1 Based on DPRs, prepare and issue bid documents for the sub-projects of Agartala and Aizawl (Q2 2015)
- 3.2 Complete evaluation and issue contracts for the subprojects (Q4 2015 - Q1 2016)
- 3.3 Start construction and complete delivery of equipment in Agartala and Aizawl (Q1 2016 – Q2 2017)
- 3.4 Commission project and implement segregation of waste at source (HH) by 2018

Output 3. Sanitation infrastructure constructed

- 4.1 Based on DPRs, prepare and issue bid documents for the sub-projects of Agartala and Aizawl (Q2 2015)
- 4.2 Complete evaluation and issue contracts for the subprojects (Q1 2016)
- 4.3 Start construction and complete delivery of equipment in Agartala and Aizawl (Q1 2016 – Q2 2017)
- 4.4 Commission project and implement septage management Agartala and Aizawl by 2018

Output 4. Project cities' financial management, project implementation and sustainable service delivery capacity improved

- 1.1 Unit Area based Property Tax Implemented (Q4 2015)
- 1.2 User charges fully recovering operational cost (Q2 2017)
- 1.3 Ring fencing of water supply services completed (Q1 2018)
- 1.4 Training of all SIPMIU and IPCC staff completed (Q3 2016)

Inputs**ADB: \$80,000,000 (OCR loan)****Government: \$34,240,000**

ANNEX 2: DETAILED PROJECT DESCRIPTION

1. Investment Program

1. On 23 June 2009 the Asian Development Bank (ADB) approved the Multitranchise Financing Facility (MFF) for the North Eastern Region Capital Cities Development Investment Program (NERCCDIP or the Investment Program) for an aggregate amount not exceeding \$200 million. The NERCCDIP supports the government's strategy to provide sustainable urban infrastructure and services leading to better quality of life for people in the capital cities of five states in the North Eastern region (NER) of India, namely Agartala (Tripura), Aizawl (Mizoram), Gangtok (Sikkim), Kohima (Nagaland), and Shillong (Meghalaya), referred to as the Investment Program cities. The NER of India, where the five Investment Program states are located, is one of India's least-developed regions. It is remote, landlocked, and far from the markets in the mainland. Physical investments under NERCCDIP include improvements to water supply, sanitation including sewerage, and solid waste management infrastructure, coupled with non-physical investment to support urban governance, finance, service delivery reforms, capacity building and Investment Program implementation.

2. Projects 1 and 2, supported by tranches 1 and 2 of the NERCCDIP, included subprojects for improvements in (i) water supply in Agartala, Aizawl, Gangtok and Kohima, (ii) solid waste management (SWM) in Gangtok, Shillong, Kohima, and (iii) sewerage in Aizawl and septage management in Kohima; and supported improvements in urban governance, financial management and service delivery reforms in all five states. Project 3, supported by the proposed tranche 3 of NERCCDIP, will include physical investments in water supply, solid waste and sanitation improvement in Agartala and Aizawl, and non-physical investments to continue supporting program implementation and urban reforms in these cities.

3. All three projects have been sequenced based on the implementation capacity and sector priorities of the Investment Program cities, and will collectively meet the intended outcomes of NERCCDIP. Aizawl and Agartala were selected for financing under Project 3 based on their progress on urban reforms and implementation performance of Projects 1 and 2, in accordance with the agreed framework financing framework (FFA) for NERCCDIP.

2. Detailed Description of Project 3

4. The detailed description and outputs from Project 3 is as follows:

Part A: Improved Urban Infrastructure and Services

A1. Water Supply

5. The water supply subproject in Agartala will include rehabilitation and renewal of the water supply distribution network in the city's central water zone¹. In detail, the works under this subproject will include (i) rehabilitation of water treatment plant with 31.5 million of liters per day (MLD) capacity; and (ii) construction and rehabilitation of 12 deep tube wells, with 8.52 MLD combined capacity; (iii) installation of 30 bulk water meters; (iv) rehabilitation and expansion of 178 km of distribution network; and (v) connection and metering of 40,000 additional households (HH).

¹ Works in the South Zone of Agartala was included in Project 2, while works in the North Zone was completed under a government funded scheme. With Project 3, renewal and rehabilitation of the entire city's water supply system in Agartala will be completed to enable supply of 135 liters per capita per day to population of Agartala on a 24*7 basis.

6. The Aizawl water supply sub project will include augmentation of water supply source augmentation and rehabilitation of water supply network in the remaining parts of the city - in addition to what was covered under Projects 1 and 2 – to ensure that all residents in Aizawl can receive a water supply of 135 liters per capita per day on a 24*7 basis. In detail it will include the following: (i) augmentation of water source and construction of 37 (MLD) water treatment plant; (ii) construction of 20.5 km of pumping mains; (iii) construction of nine (2.8 MLD combined capacity) storage reservoirs; (iv) construction of one (4.1 MLD) rain water harvesting unit; (v) construction of 31.6 km of feeder mains; (vi) installation of 43 bulk water meters; (vi) rehabilitation and expansion of 224 km of distribution network; and (vii) connection and metering of 30,000 HH.

A2. Solid Waste Management

7. Solid waste management subprojects in Agartala will include procurement of 151 solid waste collection and compaction vehicles procured.

8. Solid waste management subprojects in Aizawl will include: (i) construction of two resource centers (37 metric ton /day each); (ii) construction of two vermi compost plants (11 tonnes per day (TPD)); (iii) construction of one mechanical compost plant (50 TPD); (iv) construction of a 20,000 m² sanitary landfill, and (v) procurement of 54 solid waste collection and compaction vehicles.

A3. Septage Management

9. Septage management sub-projects consist of improving septage management system for improved sanitation in both Aizawl and Agartala. The following sub-projects are proposed: (i) provision of decentralized septage management to 5,290 additional HH in Aizawl; (ii) procurement of five cesspool cleaners in Agartala; and (iii) construction of one MLD septage treatment plant in Agartala.

Part B: Capacity Building and Investment Program Management

10. The project will continue to provide support to Aizawl and Agartala through : (i) implementation of area-based property tax reforms in Project 3 cities and increase in number of assessed properties to 70%; (ii) ring-fencing of Aizawl Municipal Council's and Agartala Municipal Corporation's water and sanitation divisions and recovering between 60%-100% of their operations and maintenance costs; (iii) training of 100% SIPMIUs' and Investment Program Coordination Cell staff to adequately perform their jobs, such as planning, construction management, procurement, safeguards, and gender equality; (iv) establishing a single-window cell (SWC)² for Aizawl's septage management, and (v) implementation of project within time and budget.

11. The project will also provide incremental administration support to the state executing agencies and the national executing agency of the Investment Program.

² Single-window cell (SWC) will be a common platform, to be established under AzMC's sanitation division, to receive and process requests for emptying, and overall operations and maintenance, of the septage management system in the city.

ANNEX 3: DETAILED COST ESTIMATES

1. Project 3 is expected to cost \$ 114 million. Project 3 investment plan is given below¹ (Table 1). Detailed cost estimates by expenditure category and by financier are included in the project administration manual (PAM) for Project 3 (Appendix 3).

Table 1: Project 3 Investment Plan (\$ million)

Item	Amount ^a
A. Base Cost ^b	
1. Water supply infrastructure construction and rehabilitation	75.67
2. Solid waste management infrastructure construction and rehabilitation	8.23
3. Sanitation infrastructure construction	6.98
4. Project implementation and service delivery capacity improvement	6.14
Subtotal (A)	97.02
B. Contingencies ^c	12.30
C. Financing Charges During Implementation ^d	4.68
Total (A+B+C)	114.00

^a Includes taxes and duties of \$11.50 million to be financed from government sources. Exchange rate of INR 61 = \$ 1.00 has been applied.

^b In mid-2015 prices.

^c Physical contingencies computed at 10% for civil works and equipment and 5% for consultancy. Price contingencies computed at 0.3% to 1.5% on foreign exchange costs and 6.5% to 7.5% on local currency costs in line with escalation rates published by ADB at <http://lnadbg1.asaindevbank.org/erd004p.nsf> ; includes provision for potential exchange rate fluctuation under the assumption of a purchasing power parity exchange rate.

^d Includes interest and commitment charges. Interest during construction for ADB loan has been computed at the 5-year forward London interbank offered rate plus a spread of 0.6%. Commitment charges for the ADB OCR loan are 0.15% per year to be charged on the undisbursed loan amount.

Source: Asian Development Bank Estimates

2. The government submitted a PFR on _____ May 2015, requesting a loan of \$ 80 million from ADB's ordinary capital resources to help finance the project. The loan will have a 25-year term, including a grace period of 5 years, will follow the straight line method of repayment, will have an annual interest rate determined in accordance with ADB's London interbank offered rate (LIBOR)-based lending facility, a commitment charge of 0.15% per year, and such other terms and conditions set forth in the draft loan and project agreements. The average maturity is 15.25 years and the maturity premium payable to ADB is 0.1% per annum. The loan from ADB will finance (i) civil works and equipment for the water supply and sanitation and solid waste infrastructure in Agartala and Aizawl; (ii) consulting services; (iii) capacity building; and (iv) project administration costs. The GoI will provide \$ 34 million equivalent to cover (i) resettlement costs (ii) taxes and duties; and (iii) interest during construction. The GoI will provide the loan proceeds and counterpart funds to the states through budgetary allocations. Under the policies of GoI, the states will receive 90% of the project costs as a grant as the states are special category states. GoI will assume the foreign exchange risk. GoI has provided ADB with (i) the reasons for its decision to borrow under ADB's LIBOR-based lending facility based on these terms and conditions, and (ii) an undertaking that these choices were its own independent decision and not made in reliance on any communication or advice from ADB. The financing plan for Project 3 is given in Table 2 below.

¹ The cost estimates have been prepared by ADB consultants and staff, based on information provided by the respective SIPMIUs and MoUD, in particular the Detailed Project Report (DPR) and the draft procurement plan. The cost estimate model has been prepared using Microsoft Excel, is available with the project team and the SIPMIUs and is stored [E-ops link]

Table 2: Project 3 Financing Plan

Source	Amount (\$ million)	Share of Total (%)
Asian Development Bank	80.0	70.00
Government	34.0	30.00
Total	114.0	100.00

Source: Asian Development Bank estimates

ANNEX 4: DRAFT PROCUREMENT PLAN FOR PROJECT 3

Basic Data

Project Name: North Eastern Region Capital Cities Development Investment Program – Project 3	
Project Number: 35290-043	Approval Number: LXXXX Not yet available
Country: INDIA	Executing Agency:: The Ministry of Urban Development The Urban Development Department of Tripura The Urban Development and Poverty Alleviation Department for Mizoram
Project Procurement Classification: B	Implementing Agency: State Investment Program Management and Implementation Units (SIPMIUs): (i) Mizoram (ii) Tripura
Procurement Risk: Low	
Project Financing Amount: US\$80 million ADB Financing: US\$80 million Cofinancing (ADB Administered): N/A Non-ADB Financing: N/A	Project Closing Date: 22 June 2019
Date of First Procurement Plan: 27 April 2015	Date of this Procurement Plan: ___ May 2015

A. Process Thresholds, Review, and 18-Month Procurement Plan

1. Program Procurement Thresholds

1. Except as ADB may otherwise agree, the following process thresholds shall apply to procurement of goods and works, and engagement of consulting services.

Procurement of Goods and Works		
Method	Threshold	Comments
International Competitive Bidding (ICB) for Works	\$40,000,000	Prior Review
International Competitive Bidding for Goods	\$3,000,000	Prior Review
National Competitive Bidding (NCB) for Works	Beneath that stated for ICB, Works	Post Review, 1 st set of NCB documents to be reviewed by ADB prior to tendering of each type
National Competitive Bidding for Goods ³	Beneath that stated for ICB, Goods	
Shopping for Works	\$100,000 and below	Post Review
Shopping for Goods	\$100,000 and below	Post Review

Consulting Services	
Method	Comments
Quality and Cost Based Selection (QCBS)	Prior Review
Quality Based Selection	
Consultants' Qualifications Selection	
Least-Cost Selection	
Fixed Budget Selection	

2. Goods and Works Contracts Estimated to Cost \$1 Million or More

2. The following table lists goods and works contracts for which the procurement activity is either ongoing or expected to commence within the next 18 months.

Package No.	General Description	Estimated Value (\$, million)	Procurement Method	Review [Prior / Post/Post (Sample)]	Bidding Procedure ⁷	Advertisement Date/Award(quarter/year)	Comments ⁸
	Water Supply (Aizawl)						
AIZxx	Feeder main & distribution network	29.20	NCB	Prior	1S2E	May-15/Dec-15	PoB: NBD: Small Works
AIZxx	Construction of water reservoirs with allied services, and rainwater harvesting	2.11	NCB	Prior	1S2E	Jun-15/Jan-16	PoB: NBD: Small Works
AIZxx	37 MLD Water Supply Augmentation & WTP	23.98	NCB	Prior	1S2E	July-15/Mar-15	PoB: NBD: Small Works
	Water Supply (Agartala)						
AGTWS/ NCB/15/01	Augmentation and Rehabilitation of WSS of Agartala (CZ) Tripura	18.32	NCB	Prior	1S2E	May-15/Dec-15	PoB: NBD: Works
	Solid Waste Management (Aizawl)						
AIZxx	Procurement of Vehicle for transportation of Waste	1.04	NCB	Prior	1S2E	July-15/Jan-16	PoB: NBD: Goods
AIZxx	1. Vermi-compost and Resource Management Centre; and 2. Sanitary Landfill & Closure of existing Dump site	4.69	NCB	Prior	1S2E	July-15/Feb-16	PoB: NBD: Small Works
AGTxx	Procurement of Bins and Various SWM Vehicles	2.96	NCB	Prior	1S2E	July-15/Jan-16	PoB: NBD: Goods
	Septage Management (Aizawl)						
AIZxx	Pilot Bio-Digester	3.66	NCB	Prior	1S2E	July-15/Feb-16	PoB: NBD: Small Works
	Septage Management (Agartala)						
AGTxx	Septage Management Treatment Plant	2.08	NCB	Prior	1S2E	Jun-15/Jan-16	PoB: NBD: Small Works
AGTxx	Septage Management Treatment Vehicles	0.25	NCB	Prior	1S2E	Jun-15/Dec-15	PoB: NBD: Goods

POB = Prequalification of Bidders; BD = Bidding Document

3. Consulting Services Contracts Estimated to Cost \$100,000 or More

3. The following table lists consulting services contracts for which the recruitment activity is either ongoing or expected to commence within the next 18 months.

Package Number	General Description	Estimated Value	Recruitment Method	Review (Prior / Post)	Advertisement Date (quarter/year)	Type of Proposal ⁹	Comments ¹⁰
AIZxx	DSMC for Aizawl	2.43	QCBS	Prior	Q2, 2015	FTP	Assignment: National Quality-Cost Ratio: 90:10
AGTxx	DSMC for Agartala	0.53	SSS	Prior	Q2, 2015	-	Assignment: National Quality-Cost Ratio: 90:10

4. Goods and Works Contracts Estimated to Cost Less than \$1 Million and Consulting Services Contracts Less than \$100,000 (Smaller Value Contracts)

4. The following table groups smaller-value goods, works and consulting services contracts for which the activity is either ongoing or expected to commence within the next 18 months.

Goods and Works								
Package Number ⁶	General Description	Estimated Value (\$, million)	Number of Contracts	Procurement Method	Review [Prior / Post/Post (Sample)]	Bidding Procedure ⁷	Advertisement Date (quarter/year)	Comments ⁸
	Water Supply (Aizawl)							
AIZxx	Preparation of Water Management Plan including SCADA Installation	0.94	1	NCB	Prior	1S2E	Oct-15/ Apr-16	PoB: NBD: Goods
	Solid Waste Management (Aizawl)							
AIZxx	Procurement of Wheel Barrows	0.03	1	Shopping	Post	-	Jun-15/ Dec-15	PoB: NBD: Goods
AIZxx	Procurement of Protection Materials such as Gloves, Boots, Uniform for Waste Collectors, Sweepers etc. by	0.02	1	Shopping	Post	-	June-15/Dec-15	PoB: NBD: Goods
	Septage Management (Aizawl)							
AIZxx	Pilot Package Aerate WWTP-Johkasou System	0.25	1	NCB	Prior	1S2E	Jun-15/ Mar-15	PoB: NBD: Small works
AIZxx	Supply, Installation and Commissioning of SWS for Septage Management	0.2	1	NCB	Post	NA	Jun-15/ Mar-16	PoB: NBD: Shopping

POB = Prequalification of Bidders; BD = Bidding Document; SWS = Single Window System (SWS)

Consulting Services								
Package Number	General Description	Estimated Value	Number of Contracts	Recruitment Method	Review (Prior / Post)	Advertisement Date (quarter/year)	Type of Proposal ⁹	Comments ¹⁰

B. Indicative List of Packages Required Under the Project

5. The following table provides an indicative list of goods, works and consulting services contracts over the life of the project, other than those mentioned in previous sections (i.e., those expected beyond the current period).

Goods and Works – None							
Package Number ⁶	General Description	Estimated Value (cumulative)	Estimated Number of Contracts	Procurement Method	Review [Prior / Post/Post (Sample)]	Bidding Procedure ⁷	Comments ⁹

Consulting Services – None							
Package Number	General Description	Estimated Value (cumulative)	Estimated Number of Contracts	Recruitment Method	Review (Prior / Post)	Type of Proposal ⁹	Comments ¹⁰

C. List of Awarded and On-going, and Completed Contracts

6. The following tables list the awarded and on-going contracts, and completed contracts.

1. Awarded and On-going Contracts - None

Goods and Works							
Package Number	General Description	Estimated Value	Awarded Contract Value	Procurement Method	Advertisement Date (quarter/year)	Date of ADB Approval of Contract Award ¹¹	Comments ¹²

¹¹Date of ADB Approval of Contract Award is the date of No-Objection letter to the EA/IA.

Consulting Services							
Package Number	General Description	Estimated Value	Awarded Contract Value	Recruitment Method	Advertisement Date (quarter/year)	Date of ADB Approval of Contract Award ¹¹	Comments ¹³

¹¹Date of ADB Approval of Contract Award is the date of No-Objection letter to the EA/IA.

¹³Indicate the Consulting Firm's name and the contract signing date.

2. Completed Contracts - None

Goods and Works								
Package Number	General Description	Estimated Value	Contract Value	Procurement Method	Advertisement Date (quarter/year)	Date of ADB Approval of Contract Award ¹¹	Date of Completion ¹⁴	Comments

¹¹Date of ADB Approval of Contract Award is the date of No-Objection letter to the EA/IA

¹⁴The Date of Completion is the physical completion date of the contract.

Consulting Services								
Package Number	General Description	Estimated Value	Contract Value	Recruitment Method	Advertisement Date (quarter/year)	Date of ADB Approval of Contract Award ¹¹	Date of Completion ¹⁴	Comments

¹¹Date of ADB Approval of Contract Award is the date of No-Objection letter to the EA/IA

¹⁴The Date of Completion is the physical completion date of the contract.

D. Non-ADB Financing - None

7. The following table lists goods, works and consulting services contracts over the life of the project, financed by Non-ADB sources.

Goods and Works				
General Description	Estimated Value (cumulative)	Estimated Number of Contracts	Procurement Method	Comments

Consulting Services				
General Description	Estimated Value (cumulative)	Estimated Number of Contracts	Recruitment Method	Comments

ANNEX 5: COMPLIANCE MATRIX ON COVENANTS OF THE LOAN AND PROJECT AGREEMENTS AND UNDERTAKINGS OF THE FRAMEWORK FINANCING AGREEMENT (FFA)

A. Summary of compliance status for Project-I (Loan 2528)

1. Of the 28 Covenants under Schedule 5 of the loan agreement of Project 1 (Loan 2528), 25 have been complied with, 2 are being complied and 1 is not yet due, as shown in Table 1 below.

Table 1: Compliance with Undertakings and Loan Covenants for Project 1 (Loan 2528)

No	Reference	Aspect	MOUD	Agartala	Aizawl	Gangtok	Kohima	Shillong	Summarized
	FFA LA Sch 5. para								
Project Management									
1	1-2.	National Steering Committee		Completed	Completed	Completed	Completed	Completed	Completed
2	3-4.	Investment Program Coordination Cell (IPCC)		Completed	Completed	Completed	Completed	Completed	Completed
3	5, 8.	State executing agencies (SEA)		Completed	Completed	Completed	Completed	Completed	Completed
4	6.	State steering committee		Completed	Completed	Completed	Completed	Completed	Completed
5	7.	Invest Program Empowered Committee (IPEC)		Completed	Completed	Completed	Completed	Completed	Completed
6	9.	State Investment Program Management and Implementation Unit (SPMIU)		Completed	Completed	Completed	Completed	Completed	Completed
7	iii	Project management staffing		Being Completed	Being completed with	Completed	Completed	Completed	Being Completed with
8	27.	PPMS		Completed	Completed	Completed	Completed	Completed	Completed
9	28.	Project review		Completed	Completed	Completed	Completed	Completed	Completed
10	v	Approved plan for investment		Completed	Completed	Completed	Completed	Completed	Completed
11	xi	Public information for water supply and sanitation		Completed	Completed	Completed	Completed	Completed	Completed
12	12.	Project website		Completed	Completed	Completed	Completed	Completed	Completed
13	16.	Project scope change		Completed	Completed	Completed	Completed	Completed	Completed
14	xiii	Quality control		Being Completed with	Completed	Completed	Being Completed with	Completed	Being Completed with
Reform									

[illegible]

2. Of the 7 Covenants under Article 4 of the loan agreement of Project 1 (Loan 2528), 6 have been complied with, and 1 is being complied as shown in Table 2 below.

Table 2: Compliance with Loan Covenants under Article IV of Loan Agreement for Project 1 (Loan 2528)

No	Reference		Aspect	MOUD	Agartala	Aizawl	Gangtok	Kohima	Shillong	Summarized
	FFA	LA Article IV, para								
1		4.01(a).	Due Diligence and efficiency		Complied	Complied	Complied	Complied	Complied	Complied
2		4.01(b)	Perform obligations set out in Sch 5		Complied	Complied	Complied	Complied	Complied	Complied
3		4.02	Availability of resources		Complied	Complied	Complied	Complied	Complied	Complied
4		4.03	Adoption of sound administrative policies		Complied	Complied	Complied	Complied	Complied	Complied
5		4.04	Perform obligations under Project Agreement		Complied	Complied	Complied	Complied	Complied	Complied
6		4.05 (a)	Protection of interest of borrower and ADB		Being Complied	Complied	Being complied with	Complied	Complied	Being Complied with
7		4.05(b)	Change of obligations only after notice to ADB		Complied	Complied	Complied	Complied	Complied	Complied

3. Of the 22 covenants under Article II of the Project Agreement of Project 1 (Loan 2528), 21 have been complied with, and 1 is not yet due as shown in Table 3 below.

Table 3: Compliance with Project Covenants under Article-II of Project Agreement for Project 1 (Loan 2528)

No	Reference		Aspect	MOUD	Agartala	Aizawl	Gangtok	Kohima	Shillong	Summarized
	FFA	PA para								
Table 9: Compliance with the 10 Safeguards and the 10 Environmental and Social Requirements (ESRs)										
Project Management										
1		2.01(a)	Due Diligence and efficiency		Complied	Complied	Complied	Complied	Complied	Complied
2		2.01(b)	Perform obligations set out in LA		Complied	Complied	Complied	Complied	Complied	Complied
3		2.02	Availability of resources		Complied	Complied	Complied	Complied	Complied	Complied
4		2.03(a)	Employ qualified consultants and contractors		Complied	Complied	Complied	Complied	Complied	Complied
5		2.03(b)	Procurement of Goods, works and consultants as per Sch 4 of LA		Complied	Complied	Complied	Complied	Complied	Complied
6		2.04	Project implementation to be as per plans and specs		Complied	Complied	Complied	Complied	Complied	Complied
7		2.05(a)	Insure project facilities in accordance with sound practices		Complied	Complied	Complied	Complied	Complied	Complied
8		2.05(b)	Insure goods imported for the project		Complied	Complied	Complied	Complied	Complied	Complied
9		2.06	Maintain adequate records and accounts		Complied	Complied	Complied	Complied	Complied	Complied
10		2.07(a)	Cooperation between ADB, Gol and States to achieve loan purpose		Complied	Complied	Complied	Complied	Complied	Complied
11		2.07(b)	Inform ADB and Gol about any adverse developments		Complied	Complied	Complied	Complied	Complied	Complied
12		2.07©	Exchange of views on project matters		Complied	Complied	Complied	Complied	Complied	Complied
13		2.08	Provide reports and information to ADB		Complied	Complied	Complied	Complied	Complied	Complied

No	Reference		Aspect	MOUD	Agartala	Aizawl	Gangtok	Kohima	Shillong	Summarized
	FFA	PA para								
14		2.08(b)	Submission of quarterly progress reports to ADB		Complied	Complied	Complied	Complied	Complied	Complied
15		2.08(c)	Submission of Project completion report		Not yet due	Not yet due.	Not yet due	Not yet due	Not yet due	Not yet due
16		2.09	Maintenance and auditing of accounts		Complied	Complied	Complied	Complied	Complied	Complied
17		2.10	Enable ADB to inspect facilities and records		Complied	Complied.	Complied.	Complied.	Complied.	Complied
18		2.11(a)	To take actions necessary for project execution		Complied	Complied	Complied	Complied	Complied	Complied
19		2.11(b)	Conduct business in accordance with sound practices		Complied	Complied	Complied	Complied	Complied	Complied
20		2.11(c)	Carry out O&M of facilities created		Complied	Complied	Complied	Complied	Complied	Complied
21		2.12	Transfer or disposal of assets with ADB permission		Complied	Complied	Complied	Complied	complied	Complied
22		2.13	Loan proceeds to be applied for the project purpose only		Complied	Complied	Complied	Complied	Complied	Complied

4. Of the 13 undertakings under Schedule 6 of the FFA, 8 have been complied with, 4 are being complied with and 1 is not yet due. Compliance with FFA undertakings for both loans is reported in Table 7.

B. Summary of compliance status for Project 2 (Loan 2834)

1. Of the 31 covenants under Schedule 5 of the loan agreement of Project 2 (Loan 2834), 8 have been complied with, 22 are being complied with, and 1 is not yet due as shown in Table 4 below.

Table 4: Compliance with Undertakings and Loan Covenants for Project 2 (Loan 2834)

No	Reference FFA LA Sch 5, para	Aspect	MOUD	Agartala	Aizawl	Gangtok	Kohima	Shillong	Summarized
Project Management									
1	1-2-3.	National Steering Committee		Complied	Complied	Complied	Complied	Complied	Complied
2	4-5	Investment Program Coordination Cell (IPCC)		Complied	Complied	Complied	Complied	Complied	Complied
3	6	State executing agencies (SEA)		Complied	Complied	Complied	Complied	Complied	Complied
4	7-8	State steering committee		Complied	Complied	Complied	Complied	Complied	Complied
5	7-8.	Invest Program Empowered Committee (IPEC)		Complied	Complied	Complied	Complied	Complied	Complied
6	9.	State Investment Program Mgt. and Implementation Unit (SIPMIU)		Complied	Complied	Complied	Complied	Complied	Complied
7 iii	10	Project management staffing		Being Complied	Complied	Being complied	Being Complied	Complied	Being Complied with
8	30	PPMS		Complied	Complied	Complied	Complied	To be Complied	Not yet due
9	31.	Project review		Being Complied with	Being Complied with	Being Complied with	Being Complied with	Being Complied with	Being Complied with
10 v		Approved plan for investment		Being Complied with	Being Complied with	Being Complied with	Being Complied with	Being Complied with	Being Complied with
11 xi	13	Public information for water supply and sanitation		Being Complied with	Being Complied with	Being Complied with	Being Complied with	Being Complied with	Being Complied with
12	13.	Project website		Complied	Complied	Complied	Complied	Complied	Complied
13	17.	Project scope change		Being Complied with	Being Complied with	Being Complied with	Being Complied with	Being Complied with	Being Complied with
14	29.	Quality control		Being Complied with	Being Complied with	Being Complied with	Being Complied with	Being Complied with	Being Complied with
Reform									
15 ii	16	Urban reform program (refer details)		Being Complied.	Being Complied	Being complied	Being complied	Being complied	Being Complied

2. Of the 7 Covenants under Article IV of the loan agreement of Project 2 (Loan 2834), 6 have been complied with, and 1 is being complied with as shown in Table 5 below.

Table 5: Compliance with Loan Covenants under Article IV of Loan Agreement for Project-II (Loan 2834)

No	Reference		Aspect	MOUD	Agartala	Aizawl	Gangtok	Kohima	Shillong	Summarized
	FFA	LA Article IV, para.								
1		4.01(a)	Due Diligence and efficiency		Complied	Complied	Complied	Complied	Complied	Complied
2		4.01(b)	Perform obligations set out in Sch 5		Complied	Complied	Complied	Complied	Complied	Complied
3		4.02	Availability of resources		Complied	Complied	Complied	Complied	Complied	Complied
4		4.03	Adoption of sound administrative policies		Complied	Complied	Complied	Complied	Complied	Complied
5		4.04	Enable ADB to inspect facilities							
6		4.05	Perform obligations under Project Agreement		Complied	Complied	Complied	Complied	Complied	Complied
7		4.06 (a)	Protection of interest of borrower and ADB		Being Complied	Complied	Being complied with	Complied	Complied	Being Complied with
8		4.06(b)	Change of obligations only after notice to ADB		Complied	Complied	Complied	Complied	Complied	Complied

No	Reference		Aspect	MOUD	Agartala	Aizawl	Gangtok	Kohima	Shillong	Summarized
	FFA	PA para								
			quarterly progress reports to ADB							
15		2.08©	Submission of Project completion report		Not yet due	Not yet due	Not yet due	Not yet due	Not yet due	Not yet due
16		2.09	Maintenance and auditing of accounts		Complied	Complied	Complied	Complied	Complied	Complied
17		2.10	Enable ADB to inspect facilities and records		Complied	Complied	Complied	Complied	Complied	Complied
18		2.11(a)	To take actions necessary for project execution		Complied	Complied	Complied	Complied	Complied	Complied
19		2.11(b)	Conduct business in accordance with sound practices		Complied	Complied	Complied	Complied	Complied	Complied
20		2.11©	Carry out O&M of facilities created		Complied	Complied	Complied	Complied	Complied	Complied
21		2.12	Transfer or disposal of assets with ADB permission		Complied	Complied	Complied	Complied	complied	Complied
22		2.13	Loan proceeds to be applied for the project purpose only		Complied	Complied	Complied	Complied	Complied	Complied

4. Of the 13 undertakings under Schedule 6 of FFA 2 have been complied with, 10 are being complied, and 1 is not yet due.

C. Compliance with FFA undertakings, Annex 1 to Schedule 6 of the FFA: Urban Institutional, Financial, Regulatory and Operational Reform Program

Table 7: Compliance with FFA Undertakings

Reform Program	Compliance Status				
	Agartala	Kohima	Aizawl	Shillong	Gangtok
Overall Comment for all States	In summary, all five Investment Program ULBs and states are on-track to implementing the agreed institutional and financial reforms. The key reforms under the Institutional, Financial, Regulatory and Operational Reforms Program, agreed under the FFA includes (i) implementation of the Gol's 74th Constitutional Amendment Act by establishing, building capacity of and decentralizing powers to the urban local bodies (ULBs); (ii) strengthening the water and sewerage service providers; and (iii) financial reforms to increase revenues and achieve better financial management of the ULBs and service providers. All ULBs have been established in the Investment Program states, and the states are gradually devolving functions and powers to them. All states and ULBs receiving water supply investments have approved the volumetric water tariffs as agreed, and are ring-fencing and strengthening their utilities. All states and ULBs are implementing double-entry accrual based accounting. All states and ULBs have completed mapping and preparatory steps on shifting to and implementing the unit-area based property taxes. Tripura and Mizoram are more advanced in implementing all agreed reforms, including shifting to area-based property tax, while other states are on track and remain committed to implementing them all by the completion of the Investment Program.				
A	Implement 74 th Constitutional Amendment (CA) -Objectives: Implementing decentralization measures through establishing and strengthening elected ULBs.				
A1	within six months of loan effectiveness and submit a plan approved by the State Empowered Committee (SEC) containing (i) a situational assessment of the capacities of the various functional arms of the Urban Local Body (ULB) (ii) a time bound ULB capacity development and resource program and (iii) a time bound action plan for developing further functions in phased manner to ULBs in line with 74th CAA and JNNURM.	Completed.	Completed	Completed	Completed
A2	Individual Tasks for each city for A2 →	Within six months of 1st tranche approval, develop and submit to MOUD and ADB an administrative, organizational, operational development strategy and plan approved by the SEC and the Agartala Municipal	Within six months of 1st tranche approval, develop and submit to MOUD and ADB an action plan approved by the SEC to gradually transfer to SMC responsibility and resources for urban	Within six months of 1st tranche approval establish an administrative arm the ULB, including an acting CEO, accounting and engineering units. Transfer/reallocate staff as necessary.	Within one year of 1st tranche approval, conduct a public debate, involving all stakeholders, on the need for an urban governance set up for the greater Shillong area. Submit a
					Within six months of 1 st tranche approval establish an administration arm of the Gangtok Municipal Council (GMC), including an acting CEO, accounting and engineering units. Transfer/ reallocate

A3	Compliance status for A.2 —→	<p>Council including (a) finalization of the jurisdictions, mandate and power of zones/wards and their logistical requirements, (b) organizational structure of AgMC (considering also the expansion of boundaries of AgMC), its political and administrative wings, departments, sections, and their job descriptions, (c) asset management and operation systems development, and (d) personnel management and staff augmentation/development.</p>	<p>functions and to build necessary capacities, including developing administrative, organizational, operational and financial system & staffing.</p>		<p>report to ADB and MOUD</p>	<p>staff as necessary.</p>
		<p>Being Complied. Most work has been done. However, asset management and development systems will be finalized after the Water distribution network and the SWM project is completed.</p>	<p>Being Complied. Process has been initiated by the State Government. Solid waste management has been transferred and other functions have been discussed with State to transfer functions along with funds, and functionaries. with Urban Development and recommendations of it has been submitted to State</p>	<p>Being Complied. Eight functions have already been transferred, including sanitation and solid waste management</p>	<p>Being Complied. First round of discussions with various stakeholders completed. Govt decision on public debate is awaited.</p>	<p>Being Complied. The following functions have been devolved partially: - Urban Poverty Alleviation - Civil works - Calling tender, its acceptance and execution of tender Works up to (Rs 5 Million) - Trade License - Car Parking - Bazar Contract - Sanitation - Solid Waste management, Collection and Disposal of Municipal Solid Waste and levy of</p>

						Sanitation charges.
A4	Within 3 years of 1st tranche approval and prior to tranche 3 approval (expected end 2011), All States must have (i) substantially devolved functions to their respective capital cities (for no less than those sectors supported under the Investment program but also expected in other areas) (ii) adequately staffed engineering, administrative and financial sections of the ULBs and allocated sufficient budget to initiate activities in newly established ULBs and (iii) transferred assets associated with these functions.	Being Completed. Most functions including water devolved. Assets being created under WS network are yet to be transferred to the AMC	Being Completed. SWM already with the KMC. As for other functions they are awaiting the fresh elections, which are held up because the case is in courts.	Being Completed. Administrative, financial, and engineering sections are constituted and functions transferred. In addition funds under various schemes like 13 th FC etc. along with GIA from state government are allocated to AMC.	Being Completed. SWM functions already with SMB. A water and sewerage board is envisaged, but modalities are being worked out.	Being Completed. GMC is functioning with the following sections: Administrative, Accounting, Engineering, Trade License, Bazar and Solid Waste Management wing. In addition funds under various schemes like 13 th FC, SJSRY etc. from state government are allocated to GMC. SPMU has drafted the Sikkim Municipalities Service Rules 2013 along with the organizational structure.
B						
Service Delivery						
Reforms for Efficient and Financially Sustainable Service Providers						
B1.1	Within One year of 1st tranche approval, restructure PHED/SMC (as per agreed model) and create one single city ring fenced area headed by a senior officer with control over city water and sewerage operations as well as separate accounting and balance sheet.	Being Completed. The Water division of PHE has been transferred to AMC along with staff. Hence ring fencing done. Further integration will take place gradually.	. Being Completed. Discussions have commenced, but a final decision is to be taken after elections of KMC	Being Completed. Draft Aizawl Water Supply, Sewerage & Drainage Board Bill 2010 were drafted by the government on 13 th May 2013. In the 12 th SSC meeting held in October 2013, it was decided to transfer the function of water supply and sewerage to Aizawl Municipal Council from PHED.	Being Completed. The report of the reforms committee has been submitted to the government and final decision has to be taken by the government of Meghalaya.	Being Completed. Several discussions have been held with PHED but a final discussion is still required to be taken. Ring fencing within WS & PHED not possible. However the distribution of water supply and collection of revenue function will be transferred to Gangtok Municipal

									Corporation by August 2015
B1.2	Issue order to use double entry accounting, assets inventory and assets management in the circle within two years for Shillong and Agartala & within three years for Aizawl, Gangtok and Kohima of 1st tranche approval and implement within 1 year of WS subject's approval (expected 2nd tranche).	Completed	Completed	Completed	Completed	Completed	Completed	Completed	Completed
B1.3	Develop performance Improvement plans within one year of approval of WSS sub-projects and start implementing them.	Completed	Completed	Completed	Completed	Being Completed. Performance improvement plan can only be developed once the government decides decision of the institutional structure.	Completed	Completed	Completed
B1.4	Within two years of 2nd tranche approval, commence implementation of selected options of financially self-sustainable, efficient and commercially operated water and sewerage agency and start consultations with ADB on option available.	Completed	Completed	Being Completed. The project of WS is still being implemented. Although discussions have been held, the final decision will be taken after completion of the project.	Being Completed. Orders to constitute Water Sector Reforms Committee to facilitate institutional reforms for water supply and sewerage function in Aizawl issued on July 19, 2012.	Being Completed. To be developed with the help of the individual consultant.	Being Completed. SIPMIU has drafted the Performance Based Contract Agreement for GMC and WS&PHED. The function of distribution of water would be transferred to GMC after issue of notification by GoSk. It will be transferred by August 2015. Notification issued on 14.11.2014	Being Completed. SIPMIU has delivered the PSP policy document for GoSk.	Being Completed. SIPMIU has delivered the PSP policy document for GoSk.
B1.5	Within 1 year of 2nd tranche approval, and based on the results of the PSP study, conduct consultations and develop a plan and proposals for components with potential for PSP.	Being Completed. PSP options developed. Further decisions have to be taken by the government.	Being Completed. PSP options developed. Further decisions have to be taken by the government.	Being Completed. PSP options developed. Further decisions have to be taken by the government.	Being Completed. Proposals for potential PSP is under preparation.	Being Completed. PSP options developed. Further decisions have to be taken by the government.	Being Completed. SIPMIU has delivered the PSP policy document for GoSk.	Being Completed. SIPMIU has delivered the PSP policy document for GoSk.	Being Completed. SIPMIU has delivered the PSP policy document for GoSk.
B1.6	Within four years of tranche approval of WS sub-projects, approve appropriate arrangements /laws for regulating the water service providers	Not Yet Due	Not Yet Due	Not Yet Due	Not Yet Due	Not Applicable as water services are not covered under the project.	Not Yet Due	Not Yet Due	Not Yet Due

Improved Operational Efficiency					
B2.1.	Prior to loan effectiveness, issue Government Order to implement a NRW reduction program, as well as a bulk and consumer metering program, and commence implementation within 6 months of 1st tranche approval.	Complied	Complied	Complied	Complied
Regulatory Compliance					
B3.1	In state whose capital cities receive funds from the MFT for subprojects in the sewerage and sanitation sector, the state will approve, within six months of tranche approval (generally 3rd) regulation to (a) enforce all households with access to a sewerage pipeline to connect to the sewerage system within one year of network completion (b)enforce all household not to discharge their sanitary waste without treatment and maintain their septic tanks in specified level of efficiency(c) Require new buildings to obtain sanitary waste discharge permit and,(d) enforce generators of large quantities of waste such as industries not to discharges their waste without treatment and to maintain at specified levels of efficiency.	Not Yet Due	Not Yet Due	Not Yet Due	Not Yet Due
B3.2	In States whose cities receive funds from the Facility for subprojects in the solid waste management sector, the States will approve, at the latest by the commencement of civil works, regulations regarding (a) the discharge of solid waste (b)the separation of wastes and disposal of hazardous wastes,(c) the installation of improved procedures for vehicle routing, asset control and staff management and (d) establishment of operations and maintenance procedures for vehicles and other equipment (e) the monitoring of waste collection treatment, revenue and costs ,staff	Complied	Complied	Complied	Complied

	costs and other inputs.								
C	Financial								
	Municipal Financial Management								
C1	Within 2 years of 1st tranche approval for Agartala and Shillong and within 2 years of 2nd tranche approval for Aizawl, Gangtok and Kohima, capital cities will have completed migration to an accrual based double entry accounting system.	Complied & Implemented	Complied. Kohima Municipal Council accounts maintained on dual basis. Complete migration to accrual based double entry accounting system once notification is issued by the Govt.	Complied. Accrual based Double Entry Accounting System is installed and financial statements prepared since 2008-09 to 2011-12	Complied & Implemented	Complied. Accrual based Double Entry Accounting System is in place. The financial statements for the FY 12-13 and FY 13-14 have been finalised using the system. The Sikkim Municipal Accounting Manual (SMAM) has been submitted.			
	Property Tax Improvements								
C2.1	Within 18 months of 2nd tranche approval, Agartala will have implemented Property tax reforms including preparation of GIS based property mapping, unit area based and self-assessment based property tax system whilst Shillong will have updated its system and retrained staff.	Being completed. GIS system developed. Tax Implementation awaiting cabinet approval	Not Applicable	Not Applicable	Being complied. Unit area system finalized. Staff trained. Implementation of new system after cabinet approval.	Not Applicable			
C2.2	Within 18 months of 2nd tranche approval, Aizawl, Gangtok and Kohima will have introduced property tax, following the unit area based and self-assessment based property tax system.	Not applicable	Being Completed. Discussion initiated with stakeholders.	Being Completed. Property Tax rules formulated and submitted on 17.12.2012 and the final draft submitted on 14.05.2013. Survey & GIS mapping completed, GIS based software is ready and on test, rules prepared and under discussion with government.	Not Applicable	Being Completed. SIPMIU has achieved the following: 1. Amendments to the Sikkim Municipalities Act 2007 for implementation of UAM.2. Proposed Sikkim Municipalities (Property Tax Management) Rules, 2013.3.			

				IDC handed over all the bound survey forms along with ward wise maps and ward wise analytical report on 30.09.2013. Implementation expected in 2015.		Drafted the proposed Zoning for UAM and Guidance Values Area Values and Multiplicative Factors.
C2.3	Within 3 years of 1st tranche approval for Agatata and Shillong and 3 years of 2nd tranche approval for Aizawl, Gangtok and Kohima Collection efficiency should be no less than 60 % and 85% one year later.	Being Complied. Collection efficiency above 60%	No property tax is levied currently.	Being Complied. Collection efficiency is about 75%	Being Complied. Collection efficiency is 70%	Being Complied. No property tax is levied currently. However, plans to implement property tax are under way.
Introduction and Rationalization of User Charges						
C3.1	Within 1 year of 1st tranche approval, develop (with guidance from Supplementary Appendix M Plan) and submit a Financial Action Plan to ensure improved utility financial performance.	Being Complied. User charges notified. However, implementation will be done after installation of water meters.	Being Complied. User charges notified. However, implementation will be done after installation of water meters.	Being Complied. Draft FIAP is ready but without formal institutional set up of the utility service provider, it could not be finalized.	Being Complied. User charges are collected. Financial plan for improving financial performance submitted. Will be complied with.	Being Complied. Report on "Tariff and Rationalization of User Charges" drafted. The same would be implemented after completion of metering.
C3.2	In line with JNNURM's MOA, within 1 year of 3rd tranche approval, implement solid waste collection charges to generate sufficient revenues to meet 100% of the cost that is incurred in undertaking O&M of existing and project-created SWM assets and services.	Not yet due.	Not yet due.	Not yet due.	Not yet due.	Not yet due.
C3.3	In line with JNNURM's MOA, within 1 year of 3rd tranche approval, implement volumetric water charges with regular adjustments to tariffs to generate sufficient revenues to meet 100% of the cost that is incurred in undertaking O&M of existing and project-created water and sewerage assets.	Not yet due.	Not yet due.	Not yet due.	Not yet due.	Not yet due.

ANNEX 6: SUMMARY OF DETAILED PROJECT REPORTS

(Summary DPRs attached)

No. Q-14014/19/Tri(W/S)/2007-CPHEEO

Government of India

Ministry of Urban Development

CPHEEO

**Appraisal Note for Consideration of Projects under NERUDP (Tranche-III) of
Ministry of Urban Development**

(Water Supply)

1	Proposal	Augmentation and Rehabilitation of Water Supply system of Agartala (Central Zone)
2	Name of State/UT	Tripura
3	Name of City	Agartala
4	Objectives	<ul style="list-style-type: none"> • Ensure distribution of potable water to the population of Agartala (Central Zone) with a per capita supply of 135 lpcd as per norms. • Rehabilitation of Existing Water Treatment Plants for improved efficiency. • To provide potable water to increased population through augmentation of the ground water abstraction by installing deep tube wells.
5	Whether CDP is prepared	yes
6	Background	<p>Agartala, the capital of Tripura, the third smallest Indian State is considered as the gateway to the North-Eastern India. The Agartala Municipal Council, established in 1871 with an area of only 3 sq km is one of the oldest municipalities. At present, the area of the Agartala Municipal Council (with 35 Wards) covers an area of 62 sq km. Considering the natural geographical division created by the rivers Haora and Katakhal, AMC areas has been demarcated to distinguish the three (3) Water Supply Zones.</p> <ol style="list-style-type: none"> 1. Northern zone: The area is located, north of katakhal River. This zone comprises mainly the Northern extension of the present AMC area (Ward-1 to 8) and periphery areas viz. Narsingarbil and Gandhigram CT. 2. Central zone: The area bounded by Haora River embankment on the South and Katakhal River on the North. This zone mainly comprises the

erstwhile AMC area and the newly extended areas (Ward 9 to 16 and Ward 18 to 22).

3. Southern zone: This area is located at the South of Haora River. This zone includes the Southern part on the extended AMC (Ward-23 to 35) and the adjoining areas of Ananda Nagar, Dukli, Madhupur, Madhuban and Charipara.

The project area under the investment programme has been defined to be the area comprising of the central zone and some left out components in south zone of Agartala within Municipal limits. Works for North Zone have been sanctioned under JNNURM Programme. Works for South zone had been approved under Tranche II and works in question are of Central zone and are being taken in Tranche III.

Existing status of water supply:

The present water supply is being met from surface source from river Haora and from Tube wells. The present water availability in Agartala is 39.6 MLD against a demand of 70 MLD. The distribution network coverage is about 32.31 over entire city and water is being supplied @87LPCD with 4 hour supply in a day.

Presently, a combination of RCC and Steel reservoirs feed the existing distribution system. The steel reservoirs are quite old and some of these may need to be rehabilitated or replaced immediately. Zone wise status is as below:

North Zone: The works required to improve water supply in this zone have been taken under JNNURM programme. Before implementing it there were only 3 nos. of over head reservoirs of total capacity 1226 KL, 23 nos Tube wells and a network of about 143 km distribution system. The existing water supply is an average of 61 lpcd and covering 23 % by connections Under JNNURM following works were approved.

1. Installation of 12 nos. new tube wells.

2. Construction of 4 nos..Ground Water Treatment Plants.
3. Construction of 12 nos. of over head reservoirs with a total capacity of 7450 KL.
4. Replacement of 130 km of existing pipeline and extension of 116 km new pipe line.
5. Providing 28000 House and 1000 commercial service connections including installation of meters.

The above works are under execution. So far work of 2 nos GWTP, 12 nos. TW, 8 nos. OHSR and about 132 km pipe line has been completed and under testing/commissioning. The works are expected to be completed by December'14 After implementation of these works; the whole area of this zone will be fully covered.

South Zone: The works required to improve water supply in this zone have been taken under **NERCCDIP being funded by ADB programme.** Before implementing it there were only 4 nos. of RCC/steel over head reservoirs of total capacity 2170 KL, 27 nos. Tube wells, part supply from one surface water treatment plant in Bardwali) and a network of about 160 km distribution system. The existing water supply is an average of 100 lpcd and covering 23 % of population. Under Tranche I & II of NERUDP following works have been approved.

1. Replacement/Installation of 22 nos. new tube wells (16 for South Zone & 6 for Central Zone)
2. Construction of 7 Nos. Ground Water Treatment Plants with a total capacity of 40000 KLD.
3. Construction of 14 Nos. of over head reservoirs with a total capacity of 10610 KL
4. Replacement of 146.5 km of existing pipeline and extension of 85.5 km new pipe line.
5. Providing 15000 House and commercial service connections.

The above works are under execution. It and are likely to be completed by December'15. After implementation of

	<p>these works, the whole area of this zone will be fully covered.</p> <p>Central Zone: At present there are only 6 nos. of RCC/steel over head reservoirs of total capacity 2470 KL & 2 nos Ground reservoirs of total capacity 1360 KI (part of supply from one treatment plant also feed a section of South Zone), 11 nos. Tube wells and a network of about 141 km distribution system. The existing water supply is an average of 125 lpcd and covering 70% of population including public stand post. This project in question is for improvement of water supply for this zone only. It has been proposed to provide the source augmentation by replacement of 12 nos TW and by rehabilitation of existing distribution pipe lines and extension of new pipe lines.</p>
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8	Service level benchmark (as per annexure) before and after the project (for entire town):							
	Entire town						Project area- Central Zone	
	Sl. No.	Indicator	Unit	Bench-marks	Baseline before project	After project	Baseline before project	After project
	1	Coverage	%	100	32.33%	100%	53%	100%
	2	Per Capita Supply	lpcd	135	86	135	125	135
	3	Metering	%	100	0%	100	0%	100%
	4	Non-Revenue water	%	20	22%	10%	22%	100%
	5	Continuity Supply	Hours / day	24	4	24	4	24
	6	Quality	% water sample meeting water standards	100	87	100	87	100
	7	Efficiency in redressal of customer complaints	%	80	83	80	83	80
	8	Cost recovery of water supply services	%	100	16.5	100	16.5	100
	9	Efficiency in collection of charges	%	90	82	90	82	90

9	Water availability																					
	Availability of source	<p style="text-align: right;"><i>exnls</i></p> <p>North Zone-Tubewell source (23 nos. And 12 nos new)</p> <p>Water supply requirement for the Central Zone and south zones of Agartala is presently met from both surface and ground water sources. The supply is met through-</p> <ul style="list-style-type: none">• Surface Water from Haora River• Ground Water through deep tube wells (existing 38 nos) <p>There are two intakes on the river Haora:</p> <ul style="list-style-type: none">• Older Intake at College Tillah (with an Installed Capacity of – 13.5 MLD), exclusively for Central Zone• New intake (Commissioned in 2000) at Burdowali (installed capacity of – 18 MLD). It also covers part of South Zone. <p style="text-align: center;">Details of Existing Sources of Water Supply</p> <table><tr><th>Sl. No.</th><th>Source of Supply</th><th>Installed Capacity</th><th>Present production as assessed</th></tr><tr><td>1.</td><td>College Tillah WTP</td><td>13.5 Mld</td><td>13.6 Mld</td></tr><tr><td>2.</td><td>Burdowali WTP</td><td>18.0 Mld</td><td>14.0 Mld</td></tr><tr><td>3.</td><td>Tube wells (11 Tubewells)</td><td>1.90 Mld</td><td>1.90 Mld</td></tr><tr><td colspan="2">Total Assessed Generation</td><td>33.40 Mld</td><td>29.5 Mld</td></tr></table> <p>Out of which 8 MLD is meant for south Zone and rest for Central Zone.</p> <p>The zone in question i.e. Central Zone is served by 11 nos. of tube wells, spread mostly on the fringe areas along with 2 nos. Surface Water Treatment Plants. The deep tube wells operate daily for a period of 4-8 hours at the maximum resulting in generation of around 1.9 MLD.</p> <p>Ground Water in Agartala contains significantly high iron content, necessitating the need for iron removal treatment. Available reports indicate that the iron content for deeper aquifers vary between 3-5 mg/l and at times up to 7 mg/l from which most of the deep bore wells extract the water. Only part of the underground water is treated for iron removal.</p> <p>Out of the 11 nos. of tube wells in Central Zone, Iron removal plants are installed in 6 tubewells(5 of these have conventional system –</p>	Sl. No.	Source of Supply	Installed Capacity	Present production as assessed	1.	College Tillah WTP	13.5 Mld	13.6 Mld	2.	Burdowali WTP	18.0 Mld	14.0 Mld	3.	Tube wells (11 Tubewells)	1.90 Mld	1.90 Mld	Total Assessed Generation		33.40 Mld	29.5 Mld
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3.	Tube wells (11 Tubewells)	1.90 Mld	1.90 Mld																			
Total Assessed Generation		33.40 Mld	29.5 Mld																			

		which is spray aeration followed by filtration and 1 is a packaged type plant). There are 27 tubewells are feeding for south zones and iron removal plants are installed in 4 tubewells.
10	Need of the project	<p>As the coverage of distribution system in central zone is 70%, it is necessary to strengthen the existing distribution system alongwith augmentation of raw water sources.</p> <ol style="list-style-type: none"> 1. Existing inadequacies in the water supply system and the need for project formulation are the: <ol style="list-style-type: none"> i. Increase in water demand ii. Under-utilization of Existing Surface Water Treatment Plants iii. Insufficient storage capacity iv. Under-utilization of ground water resources v. High Unaccounted for water vi. Inefficient distribution system vii. Ineffective treatment of ground water viii. Lack of Water Conservation and Community Awareness 2. The pipe material in the existing distribution network is generally DI/ CI. In certain localities PVC pipes have also been used. Due to the high iron content in the water obtained from tube-wells, the pipes get clogged with iron deposits. 3. The total length of existing pipeline network is 141 Kms. The distribution system is old (around 35-40 years back). Due to widening of the roads, the pipelines run along the carriageway of the road and are more towards centre of the road. This makes it difficult to attend to repairs in case of leakages. The construction of roads and drains has resulted in the road level being raised and the existing water pipes now lay buried deep at a depth of 2-2.5 m below the road surface. 4. Supply period from tube well is limited to 4-8 hours depending on the demand and the command area. Non-operation of one tube well in a particular locality, due to mechanical failure or otherwise results in acute shortage of water in the area. Therefore, it is necessary to improve the water supply system by augmentation of distribution to achieve 24x7 water supply.

11	Population	Year	Population			
			North Zone	South Zone	Central Zone (Project Area)	Total
		Census 2011	101684	156590	141766	400040
		Base Year 2016	137975	158467	156929	453371
		Intermediate 2031	166583	181926	215555	564064
		Design 2046	229884	252670	301531	784085
12	Water demand (MLD)	Year	Water demand in MLD			
			North Zone	South Zone	Central Zone (Project Area)	Total
		Base Year 2016	21.70	24.92	24.68	71.30
		Intermediate 2031	26.20	28.61	33.90	88.71
		Design 2046	36.15	39.74	47.42	123.31
13	Proposed source					
	Ground	Tube wells				
	Surface	From Haora River with two treatment plants of capacity 13.5MLD & 18 MLD at College Tillah and Burdowall respectively.				
14	Project components	Following works have been proposed as detailed below				
		1. Providing and laying of 177.28 km distribution pipelines in the Central Zone of Agartala including micro-tunnelling of 51 km as detailed below				
		Sl No.	Pipe	Dia (mm)	Length (M)	
		1	HDPE	90	72073	
		2	HDPE	110	40196	
		3	HDPE	160	8158	
		4	HDPE	200	5048	
		5	HDPE	250	5159	
		6	HDPE	315	558	
		7	HDPE	355	333	
		8	HDPE	400	276	
		9	DI	150	23427	
		10	DI	200	9894	
		11	DI	250	4842	
		12	DI	300	3355	

		<table><tr><td>13</td><td>DI</td><td>350</td><td>2485</td></tr><tr><td>14</td><td>DI</td><td>400</td><td>1479</td></tr><tr><td></td><td></td><td></td><td>177283</td></tr></table>	13	DI	350	2485	14	DI	400	1479				177283
13	DI	350	2485											
14	DI	400	1479											
			177283											
		<p>2. Procurement and installation of domestic water meters 25000 nos. for Central and 15000 nos. for South Zone as the same was not covered in the ongoing project.</p> <p>3. Construction of new Jackwell of 13.5 MLD Capacity including rehabilitation of the Existing Treatment Plant at College Tillah.</p> <p>4. Construction of new Ground level Service reservoir including rehabilitation of the Existing Treatment Plant at Bardowali of 18.0 MLD capacity.</p> <p>5. Installation of an estimated 14 Nos. deep tube wells along with pumping machineries including replacement of existing tube wells to augment water production for Agartala including replacement of existing tube wells.</p>												
15	Whether HSC component. provided	At present about 40785 service connections are there in the town and 22952 nos. in Central Zone. These connections in central zone are to be replaced to new pipe lines. Thus a total of 20000 nos. Of 15mm and 5000 nos. of 20 mm of house service connections with flow meters for Central zone and 15000 water meters for South zone have been included.												
16	Land required under project and Status of land availability	No land acquisition is required, land is available.												
17	Estimated cost (Proposed)	Rs. 11077.36 lacs (original) revised to 10329.72 lacs based on Tripura SOR 2010 updated to current price level and market rates for water supply items.												
18	Time lines for Implementation	30 months from date of approval												
19	Funding Pattern	GOI : 90% State : 10% (ADB Loan: 70%)												
20	Whether the project (or part of the project) has been taken for funding earlier through any other Scheme	No												
21	Implementing	SIPMIU on behalf of Govt of Tripura.												

	Agency																			
22	Annual O&M expenditure	The present project is for the works proposed in tranche III of NERUDP programme with ADB loan for Central zone where as works of South zone are being executed under Tranche I & II where as works for North zone has been executed under JNNURM Programme which are under testing/commissioning. The O &M expenditures have been worked out for all the zones (Total town as a whole)																		
	- Existing	Overall Operation and Maintenance costs (2013-14) (for entire town) <table> <tr> <th>Sl. No.</th><th>Type of Expenses</th><th>Annual Cost (crore INR)</th></tr> <tr> <td>1.</td><td>Cost of Manpower</td><td>10.00</td></tr> <tr> <td>2.</td><td>Power Costs</td><td>2.50</td></tr> <tr> <td>3.</td><td>Costs on Chemicals</td><td>1.50</td></tr> <tr> <td>4.</td><td>Miscellaneous Expenses</td><td>3.00</td></tr> <tr> <td colspan="2">Overall Expenses incurred on Operation and Maintenance</td><td>17.00</td></tr> </table>	Sl. No.	Type of Expenses	Annual Cost (crore INR)	1.	Cost of Manpower	10.00	2.	Power Costs	2.50	3.	Costs on Chemicals	1.50	4.	Miscellaneous Expenses	3.00	Overall Expenses incurred on Operation and Maintenance		17.00
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1.	Cost of Manpower	10.00																		
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4.	Miscellaneous Expenses	3.00																		
Overall Expenses incurred on Operation and Maintenance		17.00																		
	- Proposed	Overall Operation and Maintenance costs (Year 2016-17) <table> <tr> <th>Sl. No.</th><th>Type of Expenses</th><th>Annual Cost (crore INR)</th></tr> <tr> <td>1.</td><td>Cost of Manpower</td><td>11.17</td></tr> <tr> <td>2.</td><td>Power Costs</td><td>4.70</td></tr> <tr> <td>3.</td><td>Costs on Chemicals</td><td>2.42</td></tr> <tr> <td>4.</td><td>Miscellaneous Expenses</td><td>3.66</td></tr> <tr> <td colspan="2">Overall Expenses incurred on Operation and Maintenance</td><td>21.95</td></tr> </table>	Sl. No.	Type of Expenses	Annual Cost (crore INR)	1.	Cost of Manpower	11.17	2.	Power Costs	4.70	3.	Costs on Chemicals	2.42	4.	Miscellaneous Expenses	3.66	Overall Expenses incurred on Operation and Maintenance		21.95
Sl. No.	Type of Expenses	Annual Cost (crore INR)																		
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2.	Power Costs	4.70																		
3.	Costs on Chemicals	2.42																		
4.	Miscellaneous Expenses	3.66																		
Overall Expenses incurred on Operation and Maintenance		21.95																		
23	Agency Responsible for O&M	Agartala Municipal Corporation																		
24	Tariff (Rs. per month)																			
	- Existing	The present water supply operations are currently run by the state-level Public Health Engineering Department (PHED). At present, water charges are determined at the state level and levied and collected by the AMC. The details of the existing water service charges are as follows: Domestic Connection : INR 30 per month Non-Domestic Connection : INR 360 per month New Connection Free : INR 500 per month																		
	- Proposed Water Tariff Structure																			

	Sl. No.	Consumption per Month	No. of Units (in KL)	Rate Per Unit	Remarks		
	1	Domestic Connection	1 – 6	INR 5.0/ KL	Domestic Connection Fee – INR 1500 Revision provision : 25% Every 5 th Year		
			6 – 8	INR 10.0/ KL			
			8 – 10	INR 18.0/ KL			
			10 – 15	INR 25.0/ KL			
			Above 15	INR 35.0/ KL			
	2	Non-Domestic Connection	Up to 15	INR 25.0/ KL	Non Domestic Connection Fee – INR 3000 Revision provision : 25% Every 5 th Year		
			Above 15	INR 35.0/ KL			
25	Revenue generation (Rs. Lakh)	Rs 37.56 lakh (2010-11) Rs 40.60 lakh (2011-12) Rs 42.90lakh (2012-13) Rs 44.49lakh (2013-14)					
	- Proposed	Rs.25.14 crore (partly met with increasing the tariff plan, balance with increase in number of connections)					
			Details		No. of Connections	Tariff	Revenue in Rs. crore
				Present	New	Total	Volumetric variable as per consumption
			Domestic	40785	10215	51000	
			Non-Domestic	225	3775	4000	
			Total			55000	
							22.95
							2.19
							25.14
26	FIRR	4.8% at base cost					
27	Summary of Environment Impacts and mitigation measures (with population above 40 lakh only)	Not applicable					
28	CPHEEO's Technical comments	Attached					
29	SLSC Approval Detail						
	a. Approval date						

	b. Approval letter No.	
	c. SLNA approval note available	
	d. State and ULB Share & budget	
30	List anticipated hindrances in project implementation and measures for solutions	No anticipated hindrances
31	Whether the project is recommended for Sanction or not (Y/N)	Yes, Recommended for sanction.
32	If not, please mention reasons and area for improving DPR	Not applicable
33	Estimated cost for consideration & approval	Rs. 10096.00 Lacs (As per Annexure - I)

On perusal of the project, it has been observed that the project has been framed as per the guidelines of the manual on Water Supply and Treatment published by the Ministry. The proposal reveals the need for implementing the project. Since, the need is established; the project is approved from technical angle for execution at a cost of Rs. 10096.15 lacs as per Annexure-I (As per 2010 SOR and updated to current price level). While implementing the scheme SIPMIU Agartala may address the following technical issues/remarks enclosed at Annexure-II.

Annexure I

Name of the Scheme: Augmentation and Rehabilitation of Water Supply system of Agartala (Central Zone)

Abstract of Estimated Cost

(based on Tripura SOR 2010 updated to 2014 with 7% escalation per year)

in Rs.lacs.

Sl. No.	Description of work	Original cost submitted	Cost proposed in revised DPR	Cost Appraised by CPHEEO	Remarks
1	Construction of Jack well at College Tilla	123.81	98.84	98.84	
2	Expansion and rehabilitation of existing Surface water treatment Plant at College Tilla of 13.5 mld capacity	312.99	312.83	312.83	
3	Expansion and rehabilitation of existing Surface water treatment Plant at Bardwali of 18 mld capacity and construction of 2.0 mld UGR	505.93	531.26	531.26	
4	New Intake water system at Balurchar	939.56	0	0	Dropped due to non reliability of water sources throughout the year.
5	New Intake water system at Aralia	701.87	0	0	
6	Construction of 14 Nos new Tube Wells	363.03	412.75	353.79	Allowed for 12 nos Tube wells. 2 nos tube wells will be required after more than 10 years
7	Providing distribution system for 178 Km length of HDPE PN6 PE 100 of 90 mm to 400 mm diameter & DI, K-7 pipe of 150 to 400 mm diameter and 25000 nos. House Service Connections.	6408.1	7798.73	7630.93	Cost reduced by restricting the required casing pipe for 50%
8	Providing and installation of 40000 domestic water meters	1399.5	874.44	874.44	
	Sub-total	10754.79	10028.85	9802.09	
	Contingencies @ 3%	322.64	300.87	294.06	
	GRAND TOTAL COST	11077.43	10329.72	10096.15	

Rs.100.96 crore (say)

Annexure-II**Name of the Scheme: Augmentation and Rehabilitation of Water Supply system of Agartala (Central Zone)****Technical Comments:**

1. The following may be ensured by SIPMIU/Agartala Municipal Corporation.
 - Obtain the Administrative approval from the State Govt. for the said scheme and no expenditure shall be incurred without the Administrative approval & Technical sanction of the project by the Government of Tripura
2. The scheme shall be executed as per the guidelines indicated in the Manual on Water Supply and Treatment (3rd edition revised and updated) published by the Ministry of Urban Development in May 1999. As such the scheme has been accorded technical approval by CPHEEO based on the norms of 135 LPCD.
3. The project shall be implemented as per the specifications of relevant codes of practice published by the Bureau of Indian Standards (BIS) and in agreement with all the statutory requirements. Structural design of various components of the scheme may be got approved from the competent authority before actual implementation of the scheme.
4. It is suggested that before starting the execution of the project conditional assessment of existing pipes shall be carried out and if some pipes are in good condition the same shall be retained in the system.
5. The water distribution network should be rechecked to its optimisation before start of execution of the project.
6. As laying of pipeline is shown to be economical by Trenchless technology process than by traditional method of open trench. Therefore it is suggested to use this method to its maximum where ever possible.
7. Before starting the execution of pumping main, the design of pumping main should be redone by considering water hammer pressure and the design should be got approved by competent authority before execution. While laying the pumping main, the adequate water hammer device should be provided in the alignment to prevent breakage or failure of pipe. A copy of the design may be forwarded to the Ministry for reference.
8. All electrical and mechanical equipment and machinery and other materials such as pipes, fittings, valves and specials should conform to relevant BIS Specifications. Air valves may be provided at strategic locations in the gravity mains/ transmission mains.

9. The Agartala Municipal Corporation shall take efforts to provide 100% water supply facilities in Agartala town. The Implementing Agency shall provide Bulk Meters for service reservoirs and house service connection so as to have water audit.
10. A plan of action for giving house service connections during the implementation period of the work should be prepared and a suitable provision should be made in the bye-laws to levy user charges on the beneficiaries. House service connections should be made compulsory by amending the existing bye-laws.
11. The SIPMIU, Arartala, while selecting the size and type of pipe material for rising mains/ gravity mains must keep in view the techno-economic viability of the different types of pipe materials.
12. Quality of water supplied should be monitored regularly to maintain the drinking water quality guidelines as prescribed in the Manual on Water Supply & Treatment published by the Ministry of Urban Development, Government of India in May, 1999.
13. Land acquisition process, if any, should be initiated by Agartala Municipal Corporation, immediately so as to avoid time and cost over-run of the scheme, if required.
14. The implementation schedule has been furnished in the DPR and should be strictly adhered to in order to avoid time over run and resultant cost over-runs. The project should be completed within the stipulated time frame of 30 months. It is suggested that SIPMIU Agartala, monitor it regularly and if any shortcomings found during monitoring, the same will be mitigated with suitable action/Action Plan then and there.
15. Uninterrupted electric power supply must be ensured by Agartala Municipal Corporation for trouble free operation and maintenance of the scheme.
16. The Agartala Municipal Corporation/SIPMIU must ensure availability of trained technical manpower to execute the scheme in time and for its annual operation & maintenance after commissioning of the scheme.
17. To the extent possible, involvement of community, right from the planning stage to operation and maintenance may be ensured.
18. Suitable water cess / tariff as envisaged in the DPR may be imposed on the beneficiaries to recover at least the O&M cost of the project to start with. However, full cost recovery should be achieved at the earliest should be aimed at.
19. The cost estimates have been framed based on the current Schedule of Rates 2010 and updated to current year. Any cost overrun due to time overrun has to be borne by the Government of Tripura.

20. Necessary clearances / approvals, if any may also be obtained by the Implementing Agency from Railway Authorities, State/ National Highway Authorities, Forest Department, PHE Department, Pollution Control Board wherever necessary before implementing the scheme.
21. Any change in the scope/ objective/ design of the project should be intimated to the CPHEEO, Ministry of Urban Development to obtain a fresh/ revised approval prior to execution of works.

No.Q-14014/15/2012-CPHEEO
Government of India
Ministry of Urban Development
(CPHEEO)

Appraisal Note for Consideration of Projects under NERUDP (Tranche-III)

(Septage Management-)

1	Proposal	Pilot/Demonstration of Bio-digester and Packaged Aerate Wastewater Treatment Plant - Johkasou in Aizawl
2	Name of State/UT	Mizoram
3	Name of City	Aizawl
4	Objectives	<p>The objective of the present proposal is to establish feasibility and costs of large scale adoption of bio-digester technology. Approximately 5% of the Aizawl population is proposed to be covered. The pilot will also establish the feasibility of different sizes of community clusters to be connected to a bio-digester unit as also the feasibility of converting individual septic tanks to bio-reactors, with the objective of improving the quality of effluent discharged in the drain as also possibilities of recycling the treated effluent for non-potable purposes.</p> <p>To provide alternate Sanitation Solutions for 3200 HHs and Government Institutions (about 5% of population of Aizawl) in Aizawl. In order to cope with the aspiration of the residents of Aizawl City for better environment, modern on-site sanitation system, based on DRDO's Bio-digester and PAWTP-Johkasou System, will be introduced on pilot basis. The performance of this pilot project will be evaluated and if feasible, the same may be scaled up for a larger community.</p>
5	Whether CDP is prepared	Yes. A separate TA has also been carried out for Septage Management in Aizawl and Lunglei.
6	Background	<p>Aizawl, the capital of Mizoram is located on one prominent north-south ridgeline, situated between 700 metres and 1288 metres above mean sea level. It spread over an area of 129.81 sq.km. The total population of Aizawl as per 2011 census is 2,93,416. The total length of roads is about 412 km. Under Aizawl Municipal Council, there are 19 wards and 82 Local Councils. There is no sewerage network system at present situation; however, implementation of sewerage network has been initiated in Aizawl under NERCCDIP. Majority of population depend on toilet connected to septic tank for treatment of faecal matters.</p> <p>The Ministry of Urban Development, Government of India through the Asian Development Bank Technical</p>

		<p>Assistance (TA-7947 IND) grant has been implemented for Introducing Best Practices of Septage Management in Mizoram. During the study of various technologies, options for on-site treatment of human excreta and sullage within the country as well as abroad were studied.</p> <p>A case study on such technologies has also been made. The Aizawl City Sanitation Task Force constituted by the Govt. of Mizoram, in line with the provision of the National Urban Sanitation Policy, finally recommended the City Sanitation Plan and approved to adopt 2 technologies such as Bio-digester (innovated by Defence Research & Development Organization, Government of India) and Packaged Aerate Waste Water Treatment Plant (the Johkasou System of Japan). The Government of Mizoram decided to demonstrate these 2 technologies.</p> <p>The technology shall be demonstrated and adopted for community households and Institution on pilot basis.</p>
7	Present Status	<p>It is reported that as per the Baseline survey conducted in 2013, about 92% of the populations under residential, commercial and institutional have their individual toilets; 78.30% of the population have toilets connected to septic tanks and 21.70% are connected to other system. These septic tanks are either with soak pit or with effluent entering into the main drains along the road network. The effluent from septic tanks finally drains into the natural valley portions at the downstream.</p> <p>As per Census HH status 2011, 4% of households are covered under sewerage system. Out of the remaining 8% who do not have toilet within their premises, 7% populations depend on the shared toilets or community toilets and 1% defecates in open lands and drains. The households mainly have septic tanks for treatment of human excreta. Sullage (i.e. kitchen and bathroom waste) is discharged into drains. It has been reported that un-hygienic conditions prevails in un-sewered area of the city and causes pollution in the streams since the effluent of septic tank cannot be fully absorbed in the soil due to steep slope in hilly areas.</p> <p>In order to improve the situation, the State government is following a three pronged strategy:</p> <p>(i) Improving Septage Management: The managemtn of septage in the city is sought to be improved by provision of 5 cesspool cleaners under Tranche-II of the NERCCDIP. Under this, the cesspool cleaners will be used to vaccum</p>

		<p>clean the septage from the septic tanks at a pre-determined interval e.g. every 2 years, so that the operational efficiency of septic tanks is maintained. The septage is proposed to be disposed and treated in the STP plant being set up as part of the sewerage project under Tranch-II.</p> <p>(ii) Covering of congested core areas by sewerage: A Sewerage project is been implemented under North Eastern Region Capital Cities Development Investment Program (NERCCDIP) tranche-2 in Aizawl. The proposed sewerage system will cover one zone out of nine zones identified in the City Sanitation Plan (CSP) covering approximately 650 ha. (6.5 sq.km) area with about 20% populations and a network length of 45.951 kms. The sewage from this particular area will be treated in a Sewage Treatment Plant (SBR Technology) with a capacity of 10 MLD and the treated effluent will be discharged to a river in the downstream side of STP. Depending upon the experience, decision to further enlarge the sewerage system will be taken.</p> <p>(iii) Covering outskirts of the city using two different alternate technology solutions - a. DRDO's bio-digester technology and b. Packaged Aerate Wastewater Treatment Plant - (Johkasou system of Japan).</p> <p>The present proposal envisages providing on-site sanitation solution by replacing around 3200 septic tanks by community based (10-50 HH cluster) bio-digesters. Different sizes of household clusters will be tested to check their efficacy and feasibility of connection to a common system. In a few individual houses the existing septic tanks has been proposed to be converted into bio-digesters, to assess the efficacy of this sytem for individuals versus community based systems.</p> <p>Also the effectiveness of Johkasou system of Japan will be studied in Govt. institutions.</p> <p>Based on the experience of the above mentioned systems of sanitation, further expansion strategy and preferred system will be decided.</p>			
8	<p>Service level benchmark before and after the project</p> <p>Sewerage & Sanitation</p>	<table border="1"> <tr> <td>Benchmark</td> <td>Existing</td> <td>Proposed on completion of Tr-2</td> </tr> </table>	Benchmark	Existing	Proposed on completion of Tr-2
Benchmark	Existing	Proposed on completion of Tr-2			

	1	Coverage of toilets	100%	98.95%	100%
	2	Coverage of sewage network services	100%	4%	20%
	3	Collection efficiency of the sewage network	100%	0%	10%
	4	Adequacy of treatment capacity	100%	0%	20%
	5	Quality of Sewage treatment	100%	0%	20%
	6	Extent of re-use and recycling of sewage	20%	0%	0%
	7	Efficiency in redressal of customer complaints	80%	0%	0%
	8	Extend of cost recovery in sewage management	100%	0%	80%
	9	Efficiency in collection of sewage charges	90%	0%	80%

9	Need for the Project	<p>Presently 78.3% households are connected to septic tank for treatment of human waste in the capital city of Aizawl. It has been reported that effluent of septic tank percolates down-hill and discharges directly into the open drains due to thin layer of sub soil. Many septic tanks are built under the houses and do not have an access hole for desludging. Further due to high cost operation of septic tank cleaning, maximum households cannot afford routine cleaning.</p> <p>The proposal is made for demonstration of alternative technology options/solutions for on-site sanitation system with better treatment.</p> <p>Though Government of Mizoram is implementing the very first sewerage project in Aizawl City which covers only 20% of the entire city population, it would take long time to cover the entire city area by the sewerage system. The residents of un-sewered area in Aizawl City shall rely on the on-site sanitation system. <i>Even in the area covered by the sewerage system, there will remain the populations who can't be connected to the sewer networks due to the topographic reason.</i></p> <p>Therefore it is really necessary to take up the demonstration project of alternate on-site sanitation technologies in Aizawl to find out which is feasible and best option to the residents of the city.</p>		
	10	Population	Entire City	Project area for demonstration
		- As per 2011 Census	2.93 lakh	
		-Year 2014	3.13 Lakh	
	- Year 2015 (Base Year)	3.20 Lakh	16600 people (3200 Household)	
	- Year 2030 (Inter Year)	4.23 Lakh		
	-Year 2045 (Design Year)	5.34 Lakh		
11	Present area of coverage:			
	Total Area (GAPA)	129.81 sq km (Pilot Project Area - 8.044 sq km)		
12	Waste water generation	For entire city	For pilot project area	
	Year 2011	31.68 MLD		
	Year 2015	34.544 MLD	1.796 MLD	
	Year 2030 (proposed)	45.736 MLD		

Year 2045 (proposed)		57.60 MLD																																																								
14	Project Components:																																																									
1	No of packages	<div>3 – Packages as follows-</div> <div><div>1. Awareness Generation</div><div>2. Capacity building including training</div><div>3. Construction/fabrication/conversion of individual septic tank into individual bio-digester</div><div>4. Construction/fabrication of Bio-digesters (DRDO Technology) at individual and community level covering about 3200 HH as per following –</div></div> <table><tr><th>Sl no</th><th>Item</th><th>Cluster of HH</th><th>No of Units</th></tr><tr><td rowspan="4">i</td><td>Sub community toilets</td><td>10</td><td>40</td></tr><tr><td>Sub community toilets</td><td>20</td><td>60</td></tr><tr><td>Sub community toilets</td><td>30</td><td>20</td></tr><tr><td>Sub community toilets</td><td>50</td><td>20</td></tr><tr><td>ii</td><td>Reed bed treatment/ Recycling system</td><td>50</td><td>20</td></tr><tr><td colspan="2">Total</td><td>4200</td><td>160</td></tr></table> <div><div>5. Setting up Anaerobic Microbial inoculum Manufacturing Facility of capacity 60 KL.</div><div>6. Supply/Installation/Construction of Packaged Aerate Wastewater Treatment Plant (PAWTP) - Johkasou (Japan Technology) covering about 125 HH with technical assistance from Japan Sanitation Consortium (JSC) with O&M for 1 year as per following –</div></div> <table><tr><th>System capacity</th><th>No</th><th>Width (m)</th><th>Length (m)</th><th>Height (m)</th><th>Area (sqm)</th></tr><tr><td>30 Person</td><td>1</td><td>2.15</td><td>4.720</td><td>2.150</td><td>11</td></tr><tr><td>100 Person</td><td>1</td><td>2.50</td><td>7.350</td><td>2.500</td><td>19</td></tr><tr><td>500 Person</td><td>2</td><td>2.50</td><td>8.200 and 8.60</td><td>2.500</td><td>84</td></tr><tr><td>Total</td><td>4</td><td></td><td></td><td></td><td>104</td></tr></table>		Sl no	Item	Cluster of HH	No of Units	i	Sub community toilets	10	40	Sub community toilets	20	60	Sub community toilets	30	20	Sub community toilets	50	20	ii	Reed bed treatment/ Recycling system	50	20	Total		4200	160	System capacity	No	Width (m)	Length (m)	Height (m)	Area (sqm)	30 Person	1	2.15	4.720	2.150	11	100 Person	1	2.50	7.350	2.500	19	500 Person	2	2.50	8.200 and 8.60	2.500	84	Total	4				104
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<div>Bio-digester:</div> <div>Bio-digester is an eco-friendly biodegradation technology developed by DRDO, Ministry of Defence. It is an on-site decomposition mechanized sanitation system by means of which the sludge or faecal matter is decomposed to bits in the digester tank using a specific high graded bacteria (inoculum) converting them into methane and water, which can be further discharged to the desired surface. It can treat both black and grey water. Bio-digester is usually made of FRP, RCC and steel.</div> <div>Anaerobic Microbial Inoculums (AMI) Manufacturing Facility:</div> <div>Inoculum is the core for functioning of all size and design of bio-digesters.</div>																																																										

	<p>Import from remote location adds a very high transportation cost, due to which installation of local production centre is proposed. Initially it may run on pilot basis producing 60000 litres suitable for servicing 4000 single family and will be scaled up later, in accordance with the demand.</p> <p>The comparison of quality of water discharged into drains with different options as per DRDO report. The Coliform levels and BOD demand of discharge water is much lower for bio-digester as compared to septic tank. The quality of discharged water can be further improved by use of reed bed.</p> <table border="1"> <thead> <tr> <th></th><th>Septic Tank (effluent)</th><th>Bio digester/Bio tank (effluent)</th><th>Bio tank + Reed bed treatment</th></tr> </thead> <tbody> <tr> <td>pH</td><td>6.7-7.5</td><td>7.0-7.2</td><td>7.0-7.5</td></tr> <tr> <td>Turbidity (NTU)</td><td>500-800</td><td>70-90</td><td>2-5</td></tr> <tr> <td>Total Suspended Solids (mg/L)</td><td>150-300</td><td>90-120</td><td>50-80</td></tr> <tr> <td>TDS (mg/L)</td><td>500-850</td><td>350-450</td><td>100-300</td></tr> <tr> <td>VS (mg/100ml)</td><td>50-60</td><td>20-30</td><td>5-12</td></tr> <tr> <td>COD (mg/L)</td><td>1200-2000</td><td>250-300</td><td>15-25</td></tr> <tr> <td>BOD 5(mg/L)</td><td>350-500</td><td>70-120</td><td>2-4</td></tr> <tr> <td>Coliforms (MPN/ml)</td><td>>3000</td><td>300-350</td><td>0-12</td></tr> </tbody> </table>			Septic Tank (effluent)	Bio digester/Bio tank (effluent)	Bio tank + Reed bed treatment	pH	6.7-7.5	7.0-7.2	7.0-7.5	Turbidity (NTU)	500-800	70-90	2-5	Total Suspended Solids (mg/L)	150-300	90-120	50-80	TDS (mg/L)	500-850	350-450	100-300	VS (mg/100ml)	50-60	20-30	5-12	COD (mg/L)	1200-2000	250-300	15-25	BOD 5(mg/L)	350-500	70-120	2-4	Coliforms (MPN/ml)	>3000	300-350	0-12
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	<p><u>Packaged Aerate Wastewater Treatment Plant (PAWTP) – Johkasou System:</u> PAWTP is the authorised on-site sanitation facility in Japan. It can treat both black and grey water and produce the clean effluent water of which water quality is BOD 20mg/l or below, which can be discharged to the surface without further treatment. PAWTP tank is usually made of FRP, consists of anaerobic filter tank, contact aeration tank, sedimentation tank and disinfection tank.</p>																																					
2	BOQs ready Yes/No	Yes																																				
3	Analysis of Rate ready	Based on Market rates and quotations																																				
15	Land Required under Project and Status of Land availability	Land required = 8.044 sqkm. Available.																																				
16	Estimated Cost (proposed)	Rs. 1892 Lakh																																				
17	Timeliness for implementation (please attach detailed bar chart)	1 year.																																				
18	Funding Pattern	90% GoI with ADB loan under NERCCDIP Tranche 3 10% Govt. of Mizoram																																				
19	Whether the project (or part of the project) has been taken up earlier through any other scheme? If Yes please provide detail of components of the project taken up. Amount sanctioned and expenditure	No																																				
20	Implementing Agency	SIPMIU, Aizawl																																				
21	Annual O & M Expenditure (Rs. Lakh)	(existing & proposed)																																				
	Existing - Nil																																					

		2015-16	2016-17	2017-18	2018-19	2019-20	
	Proposed in Rs. lakh	5.28	5.80	6.33	6.86	7.39	
22	Agency Responsible for O & M			Aizawl Municipal Council/ Private Operators			
23	Revenue generation (Rs. Lakh)			Existing - Nil			
		2015-16	2016-17	2017-18	2018-19	2019-20	
	Proposed in Rs Lakh	9.6	10.56	11.52	12.48	13.44	
24	CPHEEO's Technical Comments:			Attached in Annexure I			
25	SLSC Approval Detail: a. Approval Date b. Approval Letter No c. SLSC approvals note available d. State and ULB Share & budget (in INR Lakh)			NA for NERUDP			
26	List anticipated hindrances in project implementation and measures for solutions			<ul style="list-style-type: none"> - Finalisation of Tender Packages & Tenders - Introduce standard PPP Structure 			
27	Whether the project is recommended for sanctioning or not (Y/N).			Yes			
28	If not, please mention reasons and area for improving DPR			Not applicable			
29	Estimated cost for consideration & approval			Rs. 904.44 Lakh. As per Annexure-I			

On perusal of the project, it has been observed that the revised project has been framed as per the guidelines of the Manual on Sewerage and Sewage Treatment Systems, 2013 published by the Ministry. Since, the need is established; the project may be approved from technical angle for execution at a revised cost of **Rs. 904.44 lakh as per Annexure-I**. While implementing the scheme, Aizawl Municipal Corporation may address the following technical issues/remarks enclosed at **Annexure-II**.

Annexure-I

Name of project - Pilot/Demonstration of Bio-digester and Packaged Aerate Wastewater Treatment Plant - Johkasou in Aizawl

Abstract of Cost as per Mizoram SOR 2013 and market rates

(in Rs. Lakh)

Sl. No.	Component	Original DPR Amount	Revised DPR Amount	Appraised by CPHEEO	Remarks
1.	Pilot Bio-Digesters (Individual Household, Community for I. 10HH – 40 nos. II. 20HH – 60 nos. III. 30 HH – 20 nos. IV. 50 HH with Treatment Of Black And Grey Water – 20 nos. V. 50 HH with recycling – 20 nos.	10,77.74	236.15 557.13 219.35 279.56 106.46 1398.65	131.20 274.80 109.60 145.60 85.00 746.20	The cost has been restricted as per the proposal considered by NBCC for community toilet. Pipeline of 63 Km of 100 mm dia has been allowed.
2.	Setting Up Anaerobic Microbial Inoculum (AMI) Manufacturing Facility At Aizawl	50.00	50.00	-	Centralized facility not allowed
3.	Pilot Packaged Aerate Wastewater Treatment Plant (PAWTP)-Johkasou System I. 30 persons II. 100 persons III. 500 persons	1,86.31	3,04.25	7.82 15.00 93.75 11.09 (Tax) 127.66	The provision made for soft components viz. International/ local consultant amounting to Rs 176.59 lakh is not been allowed.
	Sub- total (1+2+3) -A	1314.05	1752.90	873.86	
4.	IEC activities				
a	Awareness & Documentation (Cluster wise)	15.18	12.40	4.37	Restricted to 0.50% on A
b	Final Learning Workshop And Scale Up Plan	6.45	6.45	-	ADB Assistance may be availed
	Total	21.63	18.85	12.40	
5.	Capacity Building				
a	Training Cum Demonstration Of Technology At Aizawl	22.19	22.19	-	
b	Training Of Engineers' /Key Officials At DRDE Gwalior 12 Nos.	7.51	7.51	-	
c	Impact Assessment And Documentation	10.37	10.37	-	
d	Programme Support Unit	26.80	25.10	-	

	Total	66.87	65.17	-	
6.	Pilot Construction/fabrication of Bio-digesters for individual houses (100 families) for treatment of only black water	30.79	30.79	-	To be taken up under SBM or ADB separately.
7.	Pilot Construction/fabrication of Bio-digesters for individual houses (100 families) for treatment of both black and grey water	40.52	40.52	-	To be taken up under SBM or ADB separately.
	Total	1473.86	1908.23	878.23	
8.	Contingency (3%)	44.22	57.25	26.21	Contingency is to be taken @ 3%
	Total Cost	1518.08	1965.48	904.44	

Annexure-II**Name of the Scheme: Pilot/Demonstration of Bio-digester and Packaged Aerate Wastewater Treatment Plant - Johkasou in Aizawl under NERUDP****Project specific Comments:**

1. The cost of individual toilet construction is not eligible as per the guidelines and the same is to be borne by beneficiary or by ULB or availed under the savings, if any, from technical assistance provided by ADB as applicable.
2. The Japan Sanitation Consortium/TOT holders of DRDO may be engaged for O&M the Johkasou system/Bio-digester for at-least 2 years after installation and for imparting training to the staff of the ULB for further maintenance.
3. It has been proposed for setting up of aerobic inoculums manufacturing facility for 60,000 litre capacity however the same is not considered under the proposal. This item may be taken up only after successful completion of the study. Necessary inoculums for bio-digester has already been included in the cost of the bio-digester.
4. Since the quality of effluent from the proposed on-site systems is very good and having BOD value less than BOD 20mg/l, it is suggested that Aizawl Municipal Council shall take efforts to reuse the effluent locally for various non-potable applications.

General Comments:

1. Revised Administrative Approval, if any, may be obtained for the revised project. No expenditure shall be incurred without the Technical sanction of the project by the Government of Mizoram and necessary budget provision for the project cost shall be ensured by Govt. of Mizoram / Urban Local Body.
2. The State Govt. may ensure that there is no encroachment on the alignment of the sewers lines, so as to facilitate smooth execution of the project and to avoid time over run and cost over-run of the scheme.
3. The sewer network has been designed by adopting a minimum diameter of pipe of 100 mm as per the guidelines stipulated in the revised Manual on Sewerage and Sewage Treatment systems, 2013. However the design may be rechecked before starting the execution.
4. Adequate institutional capacity and expertise may be created / ensured by the Municipal Council to implement the said scheme as per the relevant specifications.
5. The project should be completed within a stipulated time period of one year.
6. Soil investigation and test bores should be done at suitable intervals along the alignment of sewers so as to ascertain the type of soil at different depths, status and behaviour of the ground water table and bearing capacity of the soil. The design may be modified, if necessary on the basis of the actual ground conditions.

7. While laying sewers of different sizes and lengths and construction of manholes, standard procedure as indicated in the Manual on Sewerage and Sewage Treatment and BIS should be followed.
8. All electrical and mechanical equipment and machinery and other materials such as pipes, fittings, specials and manhole cover should conform to relevant BIS Specifications.
9. Structural design of various components of the scheme may be got approved from the Competent authority before actual implementation of the scheme.
10. The implementation schedule furnished in the DPR and should be strictly adhered to in order to avoid time over run and resultant cost over-runs.
11. A plan of action for giving house sewer connections during the implementation period of the work should be prepared and a suitable provision should be made in the bye-laws to levy user charges on the beneficiaries. House sewer connections should be made compulsory by amending the existing bye-laws.
12. Suitable sewage cess/ tariff as envisaged in the DPR may be imposed on the beneficiaries to recover the O&M and renewal cost of the project.
13. All O&M personnel should be imparted with adequate training for smooth operation and maintenance of the scheme. Possibility of outsourcing the O&M activity through NGO /UMC also may be explored.
14. Aizawl Municipal Council must ensure availability of trained technical manpower to execute the scheme in time and for its annual operation & maintenance after commissioning of the scheme.
15. Necessary clearances / approvals may also be obtained by the implementing agency from Railway Authorities, State/ National Highway Authorities, Irrigation Department, Water Resources Department, Pollution Control Board wherever necessary before implementing the scheme.
16. The cost estimates have been framed based on the current Mizoram Schedule of Rates, DSR and market quotation.
17. The project shall be implemented as per the specifications of relevant codes of practice published by the Bureau of Indian Standards (BIS) and in agreement with all the statutory requirements.
18. No change in the scope of the approved project shall be effected without approval of the Ministry/CPHEEO.

No. Q-14014/19/Miz(S.W.M.)/2007-CPHEEO
Government of India
Ministry of Urban Development
{CPHEEO}

Appraisal Note for Consideration of the project Municipal Solid Waste Resource Management System for Aizawl City, Mizoram under NERUDP(Tr-III)

1	Proposal	Municipal Solid Waste Resource Management of Aizawl City
2	Name of State/UT	Mizoram
3	Name of City	Aizawl
4	Objectives	<p>To provide scientific Solid Waste Resource Management in compliance with MSW Rules 2000 in order to improve health and living standard of residents in Aizawl.</p> <p>To generate awareness with regard to Reduce, Reuse and Recycle of Waste and Recovery.</p> <p>To promote understanding of different kinds of waste and segregation at source so as to establish a financially and physical sustainable SWM system including resource recovery and production of compost.</p>
5	Whether CDP is prepared	Yes
6	Background	<p>Aizawl, capital city of Mizoram state and is located north of Tropic of Cancer in northern part of Mizoram and is situated on a ridge 1132m above sea level with Tlawng river valley to its west and Tuirial river valley to its east. It is situated between 92°-30' – 93° East Longitude and 23°-30' -24° North Latitude. Aizawl is linked with rest of India through the National Highway 54 (NH 54), which connects to Silchar in Assam at a distance of 180km. Shillong in Meghalaya is in the north Churachandpur in Manipur is in the north east and Agartala in Tripura in the west of Aizawl. Aizawl is connected by road to Champhai - Zokhawthar where main Indo-Myanmar border trade is being located recently.</p> <p>The nearest airport is Lengpui, 32 Km from the city. Aizawl is connected to Kolkata, Imphal and Guwahati by air.</p> <p>The city encompasses an area of 128.91 km² divided into 19 wards, comprising 82 local council (veng) inside the 19 wards. As per census 2011, the population of Aizawl city is 2.934 Lakhs and base year taken as 2015 will be about 3.198 Lakhs and 3.536 Lakhs in the year 2020.</p>

		<p>The total length of roads is about 412 kms. Existing waste collection & transportation is limited to primary routes, collection is done on weekly or biweekly basis.</p> <p>Under the ADB assisted NERCCDIP / NERUDP, an Integral Municipal Solid Waste Resource Management System for Aizawl city was prepared and presented for consideration and sanction under NERCCDIP/NERUDP in order to comply with the MSW Rules 2000.</p>
7	Present Status	<p>The present SWM system is minimal and the Aizawl Municipal Council (AMC) is unable to comply with the requirements of MSW Rules 2000 due to poor financial resources and lack of capacity. There is no practice of segregation at source. The mixed waste is collected by 96 hired vehicles having capacity 1.5 to 3 m3 in PPP mode. Existing waste collection & transportation is limited to primary routes. In secondary routes waste collection is done on weekly or biweekly basis. Allocation of sweepers & refuse vehicles is usually done by sanitary inspector. Waste is not being transported in covered vehicle. The collection efficiency is around 75 %. In Aizawl there is no proper/scientific system for collection & disposal of solid waste. Only a fraction of total waste is collected & simply disposed at dumping station at Tural about 20 km away from Aizawl City core area.</p> <p>The construction/ demolition waste generated by local residents is being transported in open vehicles and disposed off in open/ low-lying areas in the vicinity identified by the AMC. There is no engineered sanitary landfill site for safe disposal of solid waste. In addition, burning of waste is a common practice.</p> <p>Safai Karamcharis involved in primary collection of MSW do not use any Personal Protection Equipment (PPEs) such as face masks, disposable gloves, boots, hats, and proper safety clothing (sturdy colored uniform) to avoid direct contact with waste and reduce the likelihood of on-the-job injury. Manual handling of solid waste can be seen everywhere in Aizawl.</p> <p>Waste is observed to be dumped mainly in drains and some open plots by the residents, shop keepers etc. There is no scientific Solid Waste Management system within Aizawl Municipal Council Area.</p> <p>According to NEERI report in 2011 the per capita waste generation in Aizawl City is 470 gm/day and the total waste generation is 150MTD.</p> <p>In view of the non-compliance status of MSWM, there is an urgent need to scale up all components of SWM as per Municipal Solid Waste</p>

		Management Rules 2000 and also to ensure 100% coverage and recovery of waste as revenue resources and improve the service delivery as per the Service Level Bench Marks circulated by the Ministry in 2008.
8	Service level benchmark before and after the project	
	Solid Waste Management	Benchmark Existing Proposed
1	Household level Coverage of Solid Waste Management services	100% 75% 100%
2	Efficiency of Collection of Municipal Solid Waste	100% 75% 100%
3	Extent of segregation of Municipal Solid Waste	100% 10% 100%
4	Extent of segregation of Municipal Solid Waste recovered/recycled	80% 0% 80%
5	Extent of Scientific disposal of Municipal Solid Waste	100% 0% 100%
6	Extent of cost recovery in Solid Waste Management service	100% 20% 100%
7	Efficiency of redressal of Customer Complaints	80% 70% 80%
8	Efficiency in collection of user charges	90% 75% 90%
9	Need for the Project	<p>The weakness identified by AMC in the present MSW Resource Management system include:</p> <ul style="list-style-type: none"> • No segregation practiced at source • No 100% door to door collection. • Replace the hired vehicles used by AMC with new vehicles • Primary collection of waste is not appropriate. • Solid Waste is transported in open vehicles. • Collection and disposal of construction and demolition waste is not appropriate. • Disposal of solid waste is not appropriate. • Manual handling of solid waste. • Lack of awareness among town residents and civic authorities. <p>The DPR now prepared addressing all the above issues for putting in place integrated Solid Waste Resource Management system</p>

		in conformity with MSW Rules 2000.		
10	Population	- As per 2011 Census		2.934 Lakhs
		-Year 2014		3.131 Lakhs
		- Year 2015 (Base Year)		3.198 Lakhs
		-Year 2020 (Design Year)		3.536 Lakhs
		- Year 2030		4.235 Lakhs
		-Year 2045		5.345 Lakhs
11	Solid Waste Generation	Year	Per capita generation; Grams/day	Total SW, TPD
		2011	470	137.91
		2014	489	154.54
		2015	495	159.88
		2020(Design Year)	528	188.54
		2030	601	256.96
		2045	729	393.61
12	Project Components:			
	<p>In order to implement the provisions of the MSW Rules 2000, the DPR submitted by State Investment Program Management and Implementation Unit (SIPMIU), Aizawl proposes to carry out the SWM activities</p> <ul style="list-style-type: none"> • Two Covered bins of 10 L capacity each for 66094 household • Vehicles for transportation of waste (total 54 nos.) -- 3.5cum capacity of 50 Nos. 1.5cum capacity of 4 nos. • Wheel Barrows for Street sweepers -- 148 Nos. • 11 TPD capacity Vermi-Compost Plant 2 nos • 50 TPD Mechanical Compost Plant 1 No. • 37 TPD capacity Resource Management Centre 2 Nos. • Sanitary Landfill for 20% of waste for a design life of 25 years including other infrastructure facilities. (Cost restricted for 5 years) • Closure of Existing Dump Site of area 1596 sq m • Personal Protection Equipments like Gloves, Boots, uniforms for waste collector sweepers. Etc. 			

	BOQs ready Yes/No	Yes
	Analysis of Rate ready	Yes. As per Mizoram SOR 2013, DSR 2012 and market quotations for non scheduled items..
13	Land Required under Project and Status of Land availability	Land required for Integrated Solid Waste Management facility = 56,432 Sqm Land available = 1,79,548 Sqm.
14	Estimated Cost (proposed)	Rs. 3647.39 Lakh Rs. 3663.82 Lakh (Modified)
15	Timeliness for implementation (please attach detailed bar chart)	24 months. Attached in Annexure 6 and chapter 15 of DPR
16	Funding Pattern	90% GoI with ADB loan 10% from State Govt.
17	Whether the project (or part of the project) has been taken up earlier through any other scheme? If Yes please provide detail of components of the project taken up. Amount sanctioned and expenditure	No
18	Implementing Agency	State Investment Program Management and Implementation Unit (SIPMIU), Aizawl
19	Annual O & M Expenditure (Rs. Lakh)	
	Existing	2013-14 – Rs. 726.61 Lakhs
	Proposed	2015-16 – Rs. 893.75 Lakhs 2016-17 – Rs. 938.44 Lakhs 2017-18 – Rs. 947.37 Lakhs
20	Agency Responsible for O & M	Aizawl Municipal Council
21	Charge for Solid Waste Management -Existing	Rs. 30 per HH
	-Proposed	Rs 30 per HH with an increase of 5% annually.

22	Revenue generation (Rs. Lakh)	
	Existing	2013-14 – about Rs. 14.09 Lakhs
	Proposed	2016-17 – Rs. 1024.43 Lakhs
23	CPHEEO's Technical Comments:	As placed in Annexure II
24	SLSC Approval Detail: a. Approval Date b. Approval Letter No c. SLSC approvals note available d. State and ULB Share & budget (in INR Lakh)	Not Applicable
25	List anticipated hindrances in project implementation and measures for solutions	Nil
26	Whether the project is recommended for sanctioning or not (Y/N).	Yes
27	If not, please mention reasons and area for improving DPR	Not applicable
28	Estimated cost for consideration & approval	Rs. 3308.80 Lakhs , Details are given in Annexure I

On perusal of the project, it has been observed that the project has been framed as per the guidelines of NERUDP and the Manual on Municipal Solid Waste Management, 2000 and MSW Rules 2000 published by the Ministry. Since, the need is established; the project may be approved from technical angle for execution at a revised cost of **Rs. 3308.80 Lakhs as per Annexure-I** (as per Mizoram SOR 2013 & current market rate). While implementing the scheme, Aizawl Municipal Council may address the following technical issues/remarks enclosed at **Annexure-II**.

Annexure -I

Name of the Project: Municipal Solid Waste Resource Management System for Aizawl City, Mizoram under NERUDP(Tr-III)

	Particulars		Cost as per DPR	Appraised Cost	Remarks
			(Rs. In Lakhs)	(Rs. In Lakhs)	
1	Collection and Transportation including Primary Collection				
	(a) Two Covered bins for each HH (10 L each)	66094 household	561.79	281.32	10 L has been considered instead of 20 L bins
	(b) Vehicles for transportation of waste (54 nos.). i). 3.5 cum capacity 50 no.	3.5cum capacity of 50 Nos.	493	493	As per the current market rate
		1.5cum capacity of 4 nos.	30.96	30.96	-do-
	(c) Wheel Barrows for Street sweepers.	148 Nos.	14.06	14.06	-do-
2	2 nos of 11 TPD capacity Vermi-Compost Plant		141.26	130.02	Cost reduction is due to deletion of implements and machinery which are common to both plants.
3	2 Nos. of 37 TPD capacity Resource Management Centre		145.08	145.08	
4	1 No. of 50 TPD Mechanical Compost Plant				
	(a). Civil Works Cost		601.41	601.41	
	(b). Mechanical Cost		231.64	231.64	

5	Sanitary Landfill of area 20023 sq. m			
	(a). for the first 5 years	943.11	918.01	<i>The cost of landfill cover has been modified as per the actual requirement for 5 years</i>
	(b). Other Infrastructural facilities at sanitary landfill	293.92	293.92	
	(c) Additional cost for Lab equipment's, furniture, plumbing work, fire fighting & electrical work	24.73	4.81	<i>Additional cost is allowed only for Lab equipments</i>
6	Personal Protection Equipments like Gloves, Boots, uniforms for waste collector sweepers. Etc. (354 nos)	10.17	10.17	
7	Closure of Existing Dump Site of area 1596 sq. m	48.8	42.5	<i>Capping cost modified as per closure cover design given in Manual</i>
	Total	3539.34	3196.91	
	Contingencies @ 3%	106.18	95.90	
	Capacity Building, IEC @ 0.5%	17.7	15.99	
	Grand Total	3663.22	3308.80	

Annexure -II

Name of the Project: Municipal Solid Waste Resource Management System for Aizawl City, Mizoram under NERUDP (Tr-III)

Technical Comments:

1. The scheme should be implemented as per the Municipal Solid Waste Rules 2000 taking into consideration of the existing infrastructure in the city and in accordance with the guidelines of the Manual on Municipal Solid Waste Management (May, 2000) published by the Ministry.
2. Before implementing the project, Aizawl Municipal Council (AMC) should obtain the requisite technical and administrative sanctions from the competent authorities.
3. The implementing agency should make applications to the Mizoram Pollution Control Board (MPCB) for setting up the municipal solid waste treatment plants (compost plants) and sanitary land fill facility and obtain the necessary authorizations from the MPCB.
4. Accordingly all the households should be advised/ educated through media, etc for the segregation of two types of waste and AMC shall ensure that the segregated waste is collected at household level. The sanitary workers should be properly trained and sensitized to collect the segregated waste into the two different bins and not to mix the waste.
5. Integration of scrap dealers for selling of the recovered solid waste from the two nos of 37 TPD resource management centres should be made in order to ensure that the recovered materials are sold and thus it contributes to the revenue generation as proposed in the revised DPR.
6. It has been proposed to provide 54 vehicles to collect and transport solid waste directly to the landfill site and the resource management centre situated at the outskirts of the Aizawl city. In this regard, it is suggested that in order to reduce the O&M cost with respect to the transportation facilities, transfer stations may be proposed, wherever feasible. However, due to land constraint, no transfer station has been proposed.
7. It has been proposed to distribute two nos of 20 L bins each to the households for the collection of bio-degradable and non bio-degradable waste. However it is found that 10 L bins are sufficient to meet the

requirement and therefore two nos of 10 L bins has been allowed and the cost is reduced accordingly.

8. It has been observed that the operation of plant is done by engaging private agency for mechanical composting, vermi composting as well as resource management centre for 1 year only. After which AMC will take over the entire solid waste management system and will engage any agency through PPP mode with revenue sharing.
9. Aizawl Municipal Council(AMC) should ensure that there should not be littering in the street/open spaces by the residents for which if required the bye-laws may be amended to enforce penal action against the polluters.
10. The design of sanitary landfill has been done for 5 years (2015 to 2020). Sanitary landfill facility for beyond 5 years shall have to be created by the AMC with their own funds. However, planning shall be done for 25-30 years and land earmarked to accommodate the rejects for a period up to 2040 AD.
11. Before implementing the project for Solid Waste Management in AMC should take up IEC (Information, Education and Communication Campaigns) in association with NGOs/CBOs involved in the Sector for effective implementation and success of the project. The beneficiary of urban population should be well informed of the advantages of segregation of waste in the households / places of generation so that they may follow it scrupulously.
12. The AMC workers should be educated on the matters of personal protection while dealing with municipal solid waste. Informal arrangements may also be made for extending facilities for regular health checkups, preventive immunization etc. to the upgraded rag pickers engaged as primary collectors of municipal solid waste.
13. The AMC should explore the possibility of PSP (Private Sector Participation)/Public Private Partnership arrangements for setting up and maintenance of compost plants and sanitary landfill facilities with adequate safeguards built in to ensure compliance with the municipal solid waste Rules 2000.
14. The AMC should ensure the proper maintenance of the transport fleet in order to keep the vehicles in fit condition at all times as per the guidelines of the Manual. For this purpose, the Corporation may explore the possibility of outsourcing the vehicle maintenance services from private parties while

extending the facility of workshop /garage/parking /washing arrangements for the vehicles.

15. The AMC should ensure that all the municipal solid waste reaching the compost plant / sanitary land fill facilities is properly documented with necessary details such as weight, place from which lifted, time of receipt etc.
16. The compost plant should have the enough platform area which can accommodate / receive the higher volumes of municipal solid waste on days of special importance.
17. The compost plant and sanitary landfill facilities should have all the infrastructural facilities such as weigh bridges, operational area, operational buildings with amenities, laboratory for sample analysis, simple vehicle maintenance facilities such as puncture shops, illumination, internal roads, fencing, security etc. as per the Municipal Solid Waste Rules, 2000 and the Manual on Municipal Solid Waste Management published by the Ministry.
18. The AMC should explore the possibility for bulk marketing of the compost by tying up with Agricultural Institutions and associations of Agriculturists in order to ensure marketability of the compost which will help in the sustainability of the project.
19. The setting up and operation of the municipal solid waste treatment plant and sanitary land fill facility shall be in accordance with the Municipal Solid Waste Rules 2000 and the norms of State PCB. The sanitary land fill facility shall also be subject to the post-closure operational requirements as laid down in the said rules.
20. The AMC should explore the possibility of adopting Bio-remediation as the treatment method in the existing landfill site, as per the guidelines given in the Manual.
21. O&M costs have been worked out & AMC needs to impose relevant taxes and should ensure that user charges are levied and collected from all the generators of municipal solid waste in order to meet the O&M expenses of the primary & secondary collection & transport and also for its treatment & land filling. The corporation should also generate adequate user charges for establishing an asset replacement fund as municipal solid waste management equipment has a short life span of 4-10 years only.

22. No change in the scope/design/nature of the project shall be effected without prior approval from M/o Urban Development.
23. The equipment and machineries should be in accordance with BIS and as specified in the DPR.
24. The project shall be completed within the stipulated period of 2 years. The price escalation, if any due to time of cost over run shall be borne by the State Govt./ Municipal Corporation.

Q-12045/8/1/UIDSSMT/2013-CPHEEO
Government of India
Ministry of Urban Development
CPHEEO

Subject:- Municipal Solid Waste Management System of Agartala City.

Appraisal Note for Consideration of Projects under NERUDP

(Solid Waste Management)

1	Proposal	Procurement of Equipments for primary & secondary collection of solid waste (SWM-01) and procurement of vehicles for transportation of waste (SWM-03) for SWM Agartala
2	Name of State/UT	Tripura
3	Name of City	Agartala
4	Objectives	<p>The project of Municipal Solid Waste Management for Agartala city is undertaken by Agartala municipal council, Tripura under their own funds. Only procurement of equipments for primary and secondary collection of solid waste and procurement of vehicles for transportation of waste is to be considered under NERUDP.</p> <p>Objectives are:</p> <ol style="list-style-type: none"> 1. To provide for improving health and living standard of residents in Agartala through SWM in compliance with MSW Rule 2000. 2. To focus on a clean Agartala city. 3. To improve SWM system. 4. To reduced drainage blocking/choking. 5. To transport the solid waste through covered vehicles. 6. To provide proper waste storage facilities/storage bins. 7. To provide dumper placer bins so the road side remain clean. 8. To provide regular & uniform waste collection facility throughout the city. 9. To achieve the targeted service level benchmark.
5	Whether CDP is prepared	Yes
6	Background	<p>Background:</p> <p>Tripura is considered the gateway to north eastern India and is located in the south west of north eastern Region of India. It lies approximately between latitude 22°56' and 24°32' and longitude 91°10' and 91°21'. The total area of Tripura is 10486 sq. km.</p> <p>The Agartala is the head quarter of Tripura. The North Eastern Region Urban Development Programme (NERUDP) initiated to improve the urban environment and to promote reform for sustainable, efficient and responsive urban service delivery in capital cities of five states of North Eastern Region under ADB funding scheme. Agartala is one of them. Agartala city also needs better infrastructure amenities like other Indian cities. The AMC area is 76.504 sq. km approximately and of GAPA is 92 sq. km approximately.</p>

The Population of Agartala is approximately 4 lakhs based on 2011 census. Presently there are 35 wards in AMC with approximately 50,000 households.

Solid waste is transported in open vehicles: Solid waste is being transported in open vehicles. Because the vehicles are not covered properly, the waste, which is in light weight could get flown out of vehicle and get littered on the road. The loading and unloading of waste is being done manually and *safai karamcharis* involved in this activity do not use any Personal Protection Equipments (PPE). Hardly 40 to 60% of total waste is collected & simply disposed off at dumping site at Hapania at about 7 km from Agartala city for last 25 years. As the Hapania site is fully saturated, the SWM activity has been shifted to Devender Chander nagar.

The total no. of vehicles/machinery involved in collection and transportation of the waste to the dumping site are 45 nos. including 1 no. Mechanical sweeping machine.

1. Primary collection vehicles = 19 Nos.
2. Secondary Transportation vehicles = 13 Nos.
3. Dumper placer vehicle, skid loader, Back hoe loader and Bulldozer = 12 Nos.
4. Mechanical sweeping machine = 1 No.

There is no scientific Solid Waste Management within Agartala Municipal Council Area.

Safai Karamcharis involved in primary collection of MSW do not use any Personal Protection Equipments (PPEs) such as face mask, disposable gloves, boots, hats, and proper safety clothing (sturdy colored uniform) etc to avoid direct contact with waste and reduce the likelihood of on-the-job injury. Manual handling of the solid waste can be seen everywhere in Agartala.

The current state of affairs indicates that a change is needed in the mindset of the staff involved in managing MSW in Agartala city. Furthermore, they need to understand the environmental, social, and economic implications of an unorganized MSW management system. Likewise, public participation is very essential in successful implementation of the MSW management plan in any town. Therefore, a planned and concerted effort is required to bring about awareness among the public and make them realize their responsibilities as individuals and as a community as a whole. In summary, public awareness, community participation, transparent administration, accountability at all levels is the need

7

		of time so as to ensure success of any MSW management plan.																																
	Present Status	<p>The present SWM system is minimal and inadequate in Agartala and Agartala Municipal Council (AMC) is unable to comply with the requirements of MSW Rules 2000.</p> <p>The solid waste generation scenario in AMC is as follows:</p> <table border="1"> <tr> <td>Per capita generation of MSW</td><td>450 gm/day</td></tr> <tr> <td>Census 2011 population</td><td>4,00,040 souls</td></tr> <tr> <td>Total Qty of MSW (2011)</td><td>179.86 MT/day</td></tr> <tr> <td>Bulk density of MSW (2011)</td><td>500 kg/m³</td></tr> <tr> <td>Total volume of MSW (2011)</td><td>359.72 m³/day</td></tr> </table> <p>The present SWM Operational efficiency in AMC is as follows:</p> <table border="1"> <tr> <td>Door to door collection</td><td>Partially (40%)</td></tr> <tr> <td>Secondary storage</td><td>Nil</td></tr> <tr> <td>Transportation</td><td>By AMC collection vehicles and through NGOs.</td></tr> <tr> <td>MSW generation(2014)</td><td>184.48 MT/D</td></tr> <tr> <td>MSW generation (2015) Base Year</td><td>199.22 MT/D</td></tr> <tr> <td>MSW Generation (2020) Design year.</td><td>217.30 MT/D</td></tr> <tr> <td>Present MSW Collection</td><td>160 to 170 MT/D</td></tr> <tr> <td>Collection</td><td>40% to 65%</td></tr> <tr> <td>Transportation</td><td>40% to 65%</td></tr> <tr> <td>Processing Treatment</td><td>Nil</td></tr> <tr> <td>Disposal</td><td>Open dumping without any processing</td></tr> </table> <p>In view of unsatisfactory status of MSWM, there is an urgent need to scale up all components of SWM as per Municipal Solid Waste Management Rules 2000 and also to ensure 100% coverage performance and recovery from waste as revenue resources as per the Service Level Bench Marks circulated by the Ministry in 2008.</p>	Per capita generation of MSW	450 gm/day	Census 2011 population	4,00,040 souls	Total Qty of MSW (2011)	179.86 MT/day	Bulk density of MSW (2011)	500 kg/m ³	Total volume of MSW (2011)	359.72 m ³ /day	Door to door collection	Partially (40%)	Secondary storage	Nil	Transportation	By AMC collection vehicles and through NGOs.	MSW generation(2014)	184.48 MT/D	MSW generation (2015) Base Year	199.22 MT/D	MSW Generation (2020) Design year.	217.30 MT/D	Present MSW Collection	160 to 170 MT/D	Collection	40% to 65%	Transportation	40% to 65%	Processing Treatment	Nil	Disposal	Open dumping without any processing
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8	Service level benchmark before and after the project	<table border="1"> <thead> <tr> <th></th><th>Solid Waste Management</th><th>Benchmark</th><th>Existing</th><th>Proposed</th></tr> </thead> <tbody> <tr> <td>1</td><td>Household level Coverage of Solid Waste Management services</td><td>100%</td><td>65%</td><td>100%</td></tr> <tr> <td>2</td><td>Efficiency of Collection of Municipal Solid Waste</td><td>100%</td><td>65%</td><td>100%</td></tr> <tr> <td>3</td><td>Extent of segregation of Municipal Solid Waste</td><td>100%</td><td>0%</td><td>100%</td></tr> <tr> <td>4</td><td>Extent of segregation of Municipal Solid Waste recovered/recycled</td><td>80%</td><td>0%</td><td>80%</td></tr> <tr> <td>5</td><td>Extent of Scientific disposal of Municipal Solid</td><td>100%</td><td>0%</td><td>100%</td></tr> </tbody> </table>		Solid Waste Management	Benchmark	Existing	Proposed	1	Household level Coverage of Solid Waste Management services	100%	65%	100%	2	Efficiency of Collection of Municipal Solid Waste	100%	65%	100%	3	Extent of segregation of Municipal Solid Waste	100%	0%	100%	4	Extent of segregation of Municipal Solid Waste recovered/recycled	80%	0%	80%	5	Extent of Scientific disposal of Municipal Solid	100%	0%	100%		
	Solid Waste Management	Benchmark	Existing	Proposed																														
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5	Extent of Scientific disposal of Municipal Solid	100%	0%	100%																														

		Waste			
		6	Extent of cost recovery in Solid Waste Management service	100%	20% 100%
		7	Efficiency of redressal of Customer Complaints	80%	70% 80%
		8	Efficiency in collection of user charges	90%	75% 90%
9	Need for the Project	The project of SWM is being undertaken by AMC under their own funds and work is already in progress. The present DPR is prepared only for procurement of equipments for primary & secondary collection of solid waste & procurement of vehicles for transportation of waste to landfill site.			
10	Population				
	- As per 2011 Census	400040			
	-Year 2014	426648			
	- Year 2015 (Base Year)	442705			
	-Year 2020 (Design Year)	482889			
	- Year 2030	556684			
11	Solid Waste Generation	Per capita generation; Grams/day as per DPR	Total SW, TPD		
	Year 2011	450	180.07 MTPD		
	Year 2014	450	190.99 MTPD		
	Year 2015	450	199.22 MTPD		
	Year 2020	450	217.22 MTPD		
	Year 2030	450	250.51 MTPD		
12	Project Components:				
	1	No of packages	3 Packages <ul style="list-style-type: none">• Procurement of Equipments and vehicles for primary collection of solid waste (hand carts, containers and vehicles).• Procurement of vehicles and equipments for secondary collection (garbage compactors and loader).• Mechanical road sweeping Machine.		
	2	BOQs ready Yes/No	Yes		
	3	Analysis of Rate ready	Yes		
	Components: 1. Procurement of equipments for primary collection like: <ul style="list-style-type: none">. Handcarts with 6 bins.. Electric/battery driven vehicles with tipping arrangement.. 4 wheeler vehicles with 1 cum container and tipping arrangement.. 3 cum containers.. 1.1 cum containers. 2.Procurement of vehicles and equipments for secondary collection of municipal solid waste including transportation like: <ul style="list-style-type: none">. Movable refuse garbage Compactor of capacity 14 cum.				

	.Mechanical road sweeping machines.						
13	Land Required under Project and Status of Land availability			Land is available SWM project undertaken by AMC under their own funds.			
14	Estimated Cost (proposed)			Rs. 1469.59 Lakhs			
	Appraised Cost						
15	Timeliness for implementation (please attach detailed bar chart)			12 months. No bar charts is required			
16	Funding Pattern			ADB assisted NERCCDIP Tranche 3			
17	Whether the project (or part of the project) has been taken up earlier through any other scheme? If Yes please provide detail of components of the project taken up. Amount sanctioned and expenditure			No Project of SWM landfill site is in progress under separately funds arranged by AMC.			
18	Implementing Agency			SIPMIU, Agartala			
19	Annual O & M Expenditure (Rs. Lakh)			Existing & Proposed (year.....)			
		2013-14	2014-15	2015-16	2016-17	2017-18	
	Existing		-	-	-	-	
	Proposed	-	-				
20	Agency Responsible for O & M			Agartala Municipal Council			
21	Charge for Solid Waste Management						
	- Existing			Rs. 30 per HH			
	- Proposed (year)			30 Years (increased with nominal cost escalation) *Rs 30 per HH with 5% and above increase annually.			
22	Revenue generation (Rs. Lakh)			Existing & Proposed (year.....)			
	Tax Revenue : AMC – All sectors			Rs. Lakh			
		2012-13	2013-14	2014-15	2015-16	2014-15	2015-16
	Existing			NA	-	-	-
	Proposed						
	*Revenue from all sectors except SWM, since there is no generation of SWM till date. **Revenue generation from sale of compost and recyclable and user charges excluding property tax.						
23	CPHEEO's Technical Comments:			CPHEEO comments and their compliance are attached as Annexure-2.			
24	SLSC Approval Detail: a. Approval Date b. Approval Letter No c. SLSC approvals note available d. State and ULB Share & budget (in INR Lakh)			NA for NERUDP			
25	List anticipated hindrances in project implementation and measures for solutions			- Finalisation of Tender Packages & Tenders - Introduce standard PPP Structure			
26	Whether the project is recommended for sanctioning or not (Y/N).			Yes			
27	If not, please mention reasons and area for improving DPR			Not applicable			

28	Revised Estimated cost for consideration & approval	Rs. 1469.59 Lakh , Details are given in DPR
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Annexure -1

Abstract Estimate of Appraised Cost (Rs. In Lakh)

	Particulars		Original Cost (Rs. In Lakh)	Revised Cost (Rs. In Lakhs)	Appraised Cost	Notes
1.	Hand carts with 6 bins	135 Nos.	8,10,000	16,20,000		
2.	Vehicles	Electric/battery operated vehicle 0.5 cum capacity	64,50,000	54,00,000		
		4 wheeler auto tipper 1.0 cum capacity	7,18,20,000	5,50,80,000		
		Compactor 14.0 cum capacity	2,52,00,000	3,60,00,000		
		Compactor 10.5 cum capacity	1,28,00,000	-		
		Prime mover/ Hook loader	34,00,000	-		
3.	Containers	1.1 cum capacity	1,18,80,000	64,96,920		
		3.0 cum capacity	1,27,20,000	1,25,81,730		
4.	Mechanical Sweeping Machine		85,00,000	2,55,00,000		
	Total Cost (including 3% contingencies)		15,82,87,400	14,69,59,010		

**ANNEX 7: STATUS OF ENVIRONMENTAL AND SOCIAL SAFEGUARDS COMPLIANCE FOR PROJECT 1 AND PROJECT 2 BY
CONTRACT PACKAGE**

A. Environmental

Package No.	Name of Package	Status	Environmental Compliance	Safeguards	Actions
A. Agartala					
1. Tranche 1 - AGT/WS-01/M/NCB/11/2	Procurement of ERW Pipes for Drilling of Tube wells	Completed	No civil works thus no IEE/EMP prepared for the project.		Not applicable
2. Tranche 1 -WS-01 (R1)	Replacement of Tube-wells (06 nos.), Lot-1	Completed	CFE not required for tube well package. IEE and EMP approved by ADB and included in bidding and contract documents. All site NOCs obtained. Safeguard orientation training program conducted before start of construction. SIPMIU submitted to ADB semiannual environmental monitoring report (SEMR) on EMP compliance.		Include in SEMR (covering period Jan-Jun 2015) post-construction clean-up and response to ADB comments on previous monitoring reports.
3. Tranche 1 -WS-01 (R3)	Replacement of 16 Tube-wells (08 nos.), Lot-2	Completed			
4. Tranche 1 -WS-01 (R2)	Replacement of 16 Tube-wells (08 nos.), Lot-3	Tube wells at 8 locations replaced - Renters colony, Vivekananda nagar, Jogendra nagar electric supply office, Mahasakti, Pratapgarh I, Katashola Jogendra nagar II and Amtoli and Sahapara	CFE not required for tube well package. IEE and EMP approved by ADB and included in bidding and contract documents. IEE posted on ADB website. All sites NOC obtained. Safeguard orientation training program conducted before start of construction. SIPMIU submitted to ADB SEMR on EMP compliance.		Include in SEMR (covering period Jan-Jun 2015) post-construction clean-up and response to ADB comments on previous monitoring reports. For on-going works, closely monitor EMP implementation, specifically occupational health and safety (wearing PPE), and disposal of muck/excess excavated materials and construction wastes.
		Drilling of borehole; reaming, lowering of pipes including development; installation of pump, motor including Trail run and commissioning all completed			
		Installation of pumps and Electrical works for pump house & pump and motor going on			
5. Tranche 1 -WS-01(R3)CIV	Construction of pump house for 16 Tube wells, Lot 4	Construction of pump house building and allied works	CFE not required. IEE and EMP approved by ADB and included		Include in SEMR (covering period Jan-Jun 2015) post-

Package No.	Name of Package	Status	Environmental Compliance	Safeguards	Actions
		completed at 14 locations- namely Gazaria camper bazaar, Sripally, Srinagar, Beitoli, Pragati school, Bhagal Singh colony, West Pratapgarh, Renters colony, Vivekananda nagar, Mahashakti, Jogendra nagar electric supply office, Pratapgarh I, Katashola and Jogendra nagar II. Final stage work going on. No pump house will be constructed at Amtoli and Sahapara – existing structure will be used	in bidding and contract documents. IEE posted on ADB website. All sites NOC obtained. Safeguard orientation training program conducted before start of construction. SIPMIU submitted to ADB SEMR on EMP compliance.		construction clean-up and response to ADB comments on previous monitoring reports. For on-going works, closely monitor EMP implementation, specifically occupational health and safety (wearing PPE), and disposal of muck/excess excavated materials and construction wastes.
6.	Tranche 2 - AGT/(WS-03)/NCB/1/6	Procurement and Installation of Bulk Flow Meter	18 nos. bulk meters installed. All bulk meters procured & location identified. Time extension for 3 months given.	No civil works thus no IEE/EMP prepared for the project.	Not applicable
7.	Tranche 2 - (WS-02,07 &08)/ICB/1/8	Construction of 7 Nos. Ground Water Treatment Units (GWTPs)	On-going construction at 7 locations: - PHE Complex, opposite Pragati School - Area near Battala Burial ground - Camper Bazar - Deendayal Ashram - PHE Stores, Dukli - Pratapgarh – Sadhu Tilla - Area near AMC zonal office (ward 35) - Near Aralia-II DTW Boundary wall has been completed.	CFE obtained and valid up to completion of construction. Updated IEE and EMP approved by ADB and included in bidding and contract documents. IEE posted on ADB website. Safeguard orientation training program conducted before start of construction. SIPMIU submitted to ADB SEMR on EMP compliance.	Disclose final IEE in SIPMIU website. Comply terms and conditions of the CFE and NOCs. Obtain CFO prior to commissioning of completed works. Closely monitor EMP implementation, specifically occupational health and safety, public safety arrangement, disposal of overburden materials and construction wastes. Include in SEMR (covering period Jan-Jun 2015) response to ADB comments on previous monitoring reports.

Package No.	Name of Package	Status	Environmental Safeguards	Actions
8. Tranche 2 - AGT/MS-09/ICB/11/7	Construction of Service Reservoirs, 9 Nos. Ratt Type out of total 14 Nos (Lot - 1)	7 Nos. under construction, of remaining 2, design completed and approved. Work suspended/slow.	CFE not required. Draft IEE and EMP approved by ADB and included in bidding and contract documents. IEE posted on ADB website. Safeguard orientation training program conducted before start of construction. All site NOCs obtained. Safeguard orientation training program conducted before start of construction. SIPMIU submitted to ADB SEMR on EMP compliance.	Submit final IEE to ADB for review and approval. Conduct contractors training on EMP implementation. Closely monitor EMP implementation, specifically occupational health and safety, public safety arrangement, and disposal of overburden materials. Include in SEMR (covering period Jan-Jun 2015) response to ADB comments on previous monitoring reports.
9. Tranche 2 - AGT/MS-09/ICB/11/7	Construction of Service Reservoirs, 5 Nos Pile Type out of total of 14 nos. (Lot - 2)	2 nos. design approved and under construction. Piling with pile cap of one OHSR has been presently suspended.	CFE not required. Updated IEE and EMP approved by ADB and included in bidding and contract documents. IEE posted on ADB website. Safeguard orientation training program conducted before start of construction. All site NOCs obtained. Safeguard orientation training program conducted before start of construction. SIPMIU submitted to ADB SEMR on EMP compliance.	Disclose final IEE in SIPMIU website. Closely monitor EMP implementation, specifically occupational health and safety, public safety arrangement, disposal of overburden materials, conduct on-site air quality and noise level monitoring. Include in SEMR (covering period Jan-Jun 2015) response to ADB comments on previous monitoring reports.
10. Tranche 2 - AGT/MS-10/1/ICB/11/4	Procurement of 59km DI Pipes for Laying of Rising Mains in Agartala City	Supply completed.	No civil works thus no IEE/EMP prepared for the project.	Not applicable
11. Tranche 2 - WS-06	Laying of 59 Kms of new Primary Mains (Rising Mains)	Work commenced. & 12 Km pipe laid.	CFE not required. Updated IEE and EMP approved by ADB and included in bidding and contract documents. IEE posted on ADB website. Safeguard orientation training program conducted before start of construction. All site NOCs obtained. Safeguard orientation training program conducted before start of construction. SIPMIU submitted to ADB SEMR on EMP compliance.	Disclose final IEE in SIPMIU website. Closely monitor EMP implementation, specifically occupational health and safety, public safety arrangement, disposal of overburden materials and construction wastes, etc. Consult affected communities continuously. Provide signboards to include contact persons from contractors.

Package No.	Name of Package	Status	Environmental Compliance	Safeguards	Actions
12.	Tranche 2 - AGTWS10-3/ICB/11/9	Laying of Distribution Network for South Zone of Agartala (Lot-I & Lot-II) Total 232 Km, 105 Km Lot-I and 127 Km Lot-II	Lot-I-Total 60.00 km pipe laying completed. Work in progress. Lot-2 Total 63.67 km pipeline completed. Work in progress	CFE not required. Updated IEE and EMP approved by ADB and included in bidding and contract documents. IEE posted on ADB website. Safeguard orientation training program conducted before start of construction. All site NOCs obtained. Safeguard orientation training program conducted before start of construction. SIPMIU submitted to ADB SEMR on EMP compliance.	DSMC and SIPMIU. Include in SEMR (covering period Jan-Jun 2015) response to ADB comments on previous monitoring reports. Disclose final IEE in SIPMIU website. Closely monitor EMP implementation, specifically occupational health and safety, public safety arrangement, disposal of overburden materials and construction wastes, etc. Consult affected communities continuously. Provide signboards to include contact persons from contractors, DSMC and SIPMIU. Include in SEMR (covering period Jan-Jun 2015) response to ADB comments on previous monitoring reports.
B. Aizwal					
1.	Tranche 1 – Supply, Installation and Commissioning of 2 nos. of Chlorinators	Completed	CFE not required. Updated IEE and EMP approved by ADB and included in bidding and contract documents. IEE posted on ADB website. Safeguard orientation training program conducted before start of construction. All site NOCs obtained. Safeguard orientation training program conducted before start of construction. SIPMIU submitted to ADB SEMR on EMP compliance.	Include in SEMR (covering period Jan-Jun 2015) post-construction clean-up and response to ADB comments on previous monitoring reports.	
2.	Tranche 1 – Construction of 7 Ground Level RCC Zonal Tank and Buildings	Completed	CFE not required. Updated IEE and EMP approved by ADB and included in bidding and contract documents. IEE posted on ADB website. Safeguard orientation training program conducted	Include in SEMR (covering period Jan-Jun 2015) post-construction clean-up and response to ADB comments on previous monitoring reports.	

Package No.	Name of Package	Status	Environmental Compliance	Safeguards	Actions
			before start of construction. All site NOCs obtained. Safeguard orientation training program conducted before start of construction. SIPMIU submitted to ADB SEMR on EMP compliance.		
3.	Tranche 1 – Supply, Installation, Testing and Commissioning of 15000 nos. of Water Meters	Completed	No civil works thus no IEE/EMP prepared for the project.	Not applicable	
4.	Tranche 2 – Supply, Installation & Commissioning of Booster Pumps	Installations complete and ready for testing.	No civil works thus no IEE/EMP prepared for the project.	Not applicable	
5.	Tranche 2 – Construction of 3 Nos. Water Reservoirs	3 reservoirs completed & handing over to the concerned department is in progress.	CFE not required. Updated IEE and EMP approved by ADB and included in bidding and contract documents. IEE posted on ADB website. Safeguard orientation training program conducted before start of construction. All site NOCs obtained. Safeguard orientation training program conducted before start of construction. SIPMIU submitted to ADB SEMR on EMP compliance.	Include in SEMR (covering period Jan-Jun 2015) post-construction clean-up and response to ADB comments on previous monitoring reports.	
6.	Tranche 2 – Purchase & Installation of Bulk & Domestic Water Meters	19000 domestic meters and 39 nos. Bulk meters installed.	No civil works thus no IEE/EMP prepared for the project.	Not applicable	
7.	Tranche 2 – Supply, Installation & Commissioning of Cesspool Cleaner	Commissioned	No civil works thus no IEE/EMP prepared for the project.	Not applicable	

Package No.	Name of Package	Status	Environmental Compliance	Safeguards	Actions
8.	Tranche 2 – Site/Land Development & Approach Road to STP	AR&LD/SEW/AIZ/T2/NCB-6	Site development work in progress.	CFE obtained and valid up to completion of construction. Updated IEE and EMP approved by ADB and included in bidding and contract documents. IEE posted on ADB website. Safeguard orientation training program conducted before start of construction. SIPMIU submitted to ADB SEMR on EMP compliance.	Disclose final IEE in SIPMIU website. Include in SEMR (covering period Jan-Jun 2015) response to ADB comments on previous monitoring reports and status of compliance with CFE and NOCs. CFO to be obtained prior to commissioning of completed works. Closely monitor EMP implementation, specifically occupational health and safety, public safety, arrangement, disposal of overburden materials etc. Provide signboards with contact details of contractor, DSMC and SIPMIU.
9.	Tranche 2 – 10 MLD Construction of Sewerage Treatment Plant	STP/SEW/AIZ/T2/NCB-7			
9.	Tranche 2 – 10 Nos. Community Toilet Blocks	CT/SEW/AIZ/T2/NCB-4	Out of 10 locations work is in progress at 6 locations.	CFE not required. Updated IEE and EMP approved by ADB and included in bidding and contract documents. IEE posted on ADB website. Safeguard orientation training program conducted before start of construction. All site NOCs obtained. Safeguard orientation training program conducted before start of construction. SIPMIU submitted to ADB SEMR on EMP compliance.	Disclose final IEE in SIPMIU website. Closely monitor EMP implementation, specifically occupational health and safety, public safety arrangement, disposal of overburden materials and construction wastes, etc. Provide signboards to include contact persons from contractors, DSMC and SIPMIU. Include in SEMR (covering period Jan-Jun 2015) response to ADB comments on previous monitoring reports.
10.	Tranche 2 – Feeder Mains Water Distribution in 3 zones Total 108 Km	P&SN/WS/AIZ/T2/ICB-2	15.11 km of pipe line laid and 12.1 km tested.	CFE not required. Updated IEE and EMP approved by ADB and included in bidding and contract documents. IEE posted on ADB website. Safeguard orientation training program conducted before start of construction. All site NOCs obtained. Safeguard	Disclose final IEE in SIPMIU website. Closely monitor EMP implementation, specifically occupational health and safety, public safety arrangement, disposal of overburden materials and construction wastes, etc.

Package No.	Name of Package	Status	Environmental Compliance	Safeguards	Actions
12.	Tranche 2 – Procurement of Primary and Secondary Sewerage Networks	P&S/SEW/AIZ/T2/NCB-5 Total length of 7.6 km DMC pipe and 4.8 km UPVC pipe supplied.	No civil works thus no IEE/EMP prepared for the project.	orientation training program conducted before start of construction. SIPMIU submitted to ADB SEMR on EMP compliance.	Conduct continuous consultations with affected communities. Provide signboards to include contact persons from contractors, DSMC and SIPMIU. Include in SEMR (covering period Jan-Jun 2015) response to ADB comments on previous monitoring reports.
13.	Tranche 2 – Purchase installation of dedicated power supply	P&S/MS/AIZ/T2/ICB-3 Construction in quarters and finalization of 132kv tower location is in progress.	No civil works thus no IEE/EMP prepared for the project.		Not applicable
14.	Tranche 2 – Purchase of Household bins for SWM project	New Item Bidding in process	No civil works thus no IEE/EMP prepared for the project.		Not applicable
C. Kohima					
1.	Tranche 1 – Construction of 18 RCC Ground level water tanks & Refurbishment of 7.5 MLD capacity Water Treatment plant	(KHM-WS1 Tranche-1) Completed	CFE obtained and valid up to completion of construction. Updated IEE and EMP approved by ADB and included in bidding and contract documents. IEE posted on ADB website. Safeguard orientation training program conducted before start of construction. SIPMIU submitted to ADB SEMR on EMP compliance.		Disclose final IEE in SIPMIU website. Obtain CFO prior to commissioning of completed works. Place signboards of completed works in consultation with the PHED. Include in SEMR (covering period Jan-Jun 2015) post-construction clean-up, afforestation and response to ADB comments on previous monitoring reports.
2.	Tranche 1 – Civil works and procurement equipment of development of	(KHM-SWM1 Tranche1) Under construction – Nearing completion	CFE obtained and valid up to completion of construction. NOCs and SPCB clearance obtained. Updated IEE and EMP approved by ADB and		Disclose final IEE in SIPMIU website. Obtain CFO prior to commissioning of completed works. Conduct environmental safeguards.

Package No.	Name of Package	Status	Environmental Compliance	Safeguards	Actions
	sanitary landfill, compost plant & Internal access				permitting/clearance requirements and SWM O&M orientation to asset owners prior to turn-over. Include in SEMR (covering period Jan-Jun 2015) response to ADB comments on previous monitoring reports.
3.	Tranche 2 – Supplying and laying of distribution network of 318 km length in KMC area.			(KHM-WS2 Tranche-2) Under construction	Disclose final IEE in SIPMIU website. Closely monitor EMP implementation, specifically occupational health and safety, public safety arrangement, disposal of overburden materials and construction wastes, etc. I monitoring. Conduct continuous consultations with affected communities. Provide signboards to include contact persons from contractors, DPMC and SIPMIU. Include in SEMR (covering period Jan-Jun 2015) response to ADB comments on previous monitoring reports.
4.	Tranche 2 – Additional facilities for water Network-7 additional reservoirs			KHM-WS2 Addl. (1) DPR approved	Ensure IEE and EMP is included in bidding and contract documents. Upon receipt of approved IEE, disclose IEE in SIPMIU website and to affected communities in language and form they understand.
5.	Tranche 2 – Improving sanitation facilities by providing 5 community toilets			KHM-SEW2 Addl. (1) DPR approved	Ensure IEE and EMP is included in bidding and contract documents. Upon receipt of approved IEE, disclose IEE in SIPMIU website and to affected communities in language and form they understand.
6.	Tranche 2 – Procurement of 30 Transportation			KHM-SWM2 Addl. DPR approved is under process	Submit final IEE to ADB for review and approval. Include in subproject design compliance

Package No.	Name of Package	Status	Environmental Compliance	Safeguards	Actions
	vehicles and 56000 HH bins. Provision for resource centre for solid waste Recycling facilities for dry Waste at the Lerie landfill site		Kohima. Forest NOC and environmental clearance obtained		with terms and conditions of CFE and NOCs. Ensure IEE and EMP is included in bidding and contract documents. Upon receipt of approved IEE, disclose IEE in SIPMIU website and to affected communities in language and form they understand. Provide EMP implementation orientation to contractors prior to start of civil works. Closely monitor EMP implementation.
7.	Tranche 2 – Septage management of Kohima city comprising of 8 cesspool cleaner and STP of 0.25 MLD capacity including site development	KHM-SEW2 Addl. (2)	DPR approved is under process	IEE report is under preparation. Consent for CFE is required prior to start the construction and CTO after the completion of construction.	Submit final IEE to ADB for review and approval. Include in subproject design compliance with terms and conditions of CFE and NOCs. Ensure IEE and EMP is included in bidding and contract documents. Upon receipt of approved IEE, disclose IEE in SIPMIU website and to affected communities in language and form they understand. Provide EMP implementation orientation to contractors prior to start of civil works. Closely monitor EMP implementation.
8.	Tranche 2 – 21 bulk Water Meters and 20,000 Domestic Meters	KHM-WS2 Addl. (2)	DPR approved	No civil works thus no IEE/EMP prepared for the project.	Not applicable
D.	Gangtok				
	Tranche 1 – Supplying and Laying distribution system in Burtuk & Chandman Zones, construction of GLSR, pump house, installing	GTKWA-1/Tt-1	Awarded and all civil works were completed in December 2013	IEE was prepared by PPTA team and disclosed. EMP included in the contract. EMP was provided to the Contractors. EMP under implementation. Consultations were conducted during implementation. Forest Clearance and Tree cutting	Disclose final IEE in SIPMIU website. Include in SEMR (covering period Jan-Jun 2015) post-construction clean-up and response to ADB comments on previous monitoring reports.

Package No.	Name of Package	Status	Environmental Compliance	Safeguards	Actions
pump sets and allied works in Gangtok, Sikkim.			permission obtained and conditions complied with		
Tranche 2 -- Construction of Solid Waste Landfill, Leachate Treatment Plant & Associated Works at Gangtok	GTK-SWM-2/Tr2:	Awarded and works in progress	IEE submitted and approved by ADB. EMP included in the contract and provided to contractors for implementation. EMP under implementation. Consultations are being conducted during implementation. Environmental clearance and Consents taken from SEIAA and SPCB. Tree cutting permission application has been submitted to the State Forest Department.		Disclose final IEE in SIPMIU website. Contractor to prepare site-specific EMP implementation plan and OH&S measures specified in the EMP. Closely monitor workers' use of PPEs. Obtain, on a priority basis, required permit/clearance/NOC from Forest Department. Improve conditions of workers on-site camp/resting area and sanitation facilities. Restrict access to worksites (unauthorized persons should not be allowed at all times). Include in SEMR (Jan-Jun 2015) compliance with terms and conditions of CFE and NOCs and response to ADB comments on previous monitoring reports.
Tranche 2 -- Debundling of Secondary Distribution System and Extending Water Supply to Peripheral Areas with Allied Works in Gangtok (Lot 1 and Lot 2)	GTK-WA-1/Tr2	Awarded and works in progress	CFE not required. All site NOCs obtained. Updated IEE and EMP approved by ADB and included in bidding and contract documents. IEE posted on ADB website. Safeguard oriented training program conducted before start of construction. SIPMIU submitted to ADB SEMR on EMP compliance.		Disclose final IEE in SIPMIU website. Contractor to prepare site-specific EMP implementation plan and OH&S measures specified in the EMP. Closely monitor workers' use of PPEs. Closely monitor EMP implementation, specifically occupational health and safety, public safety arrangement, disposal of overburden materials and construction wastes, etc. I monitoring. Conduct continuous consultations with affected communities. Provide signboards to include contact

Package No.	Name of Package	Status	Environmental Compliance	Safeguards	Actions
					persons from contractors, DSMC and SIPMIU. Implement traffic management plan. Include in SEMR (covering period Jan-Jun 2015) response to ADB comments on previous monitoring reports.
E.	Kohima				
	Development of short term Sanitary Landfill site-Civil Works & Procurement of Bulldozer	(Tranche1- LF&R/SWM/SH/T/1/NCB-1)	Under construction	CFE is obtained from MSPCB however CFE validity has expired. Environmental clearance and Forest clearances are obtained. Updated IEE and EMP approved by ADB and included in bidding and contract documents. IEE posted on ADB website. Safeguard orientation training program conducted before start of construction. SIPMIU submitted to ADB SEMR on EMP compliance.	Obtain, on a priority basis, CFE renewal. Disclose final IEE in SIPMIU website. Contractor to prepare site-specific EMP implementation plan and OH&S measures specified in the EMP. Closely monitor workers' use of PPEs. Obtain, on a priority basis, required permit/clearance/NOC from Forest Department. Request for CFE amendment to include workers on-site resting camp and sanitation facilities. Restrict access to work sites (unauthorized persons should not be allowed at all times). Provide proper safety sign boards to be placed. Include in SEMR (Jan-Jun 2015) compliance with terms and conditions of CFE, environmental clearance, and NOCs and response to ADB comments on previous monitoring reports.
	Construction of Garage cum workshop of staff rest room at marten, Mawiong	(Tranche2- NERCCDIP/TR02/SHG/SWM/01)	Under construction		
	Procurement of primary and secondary collection vehicles, workshop machines	(Tranche2 NERCCDIP/TR02/SHG/SWM-/02)	Supply in progress	No civil works thus no IEE/EMP prepared for the project.	Not applicable
	Procurement of different type of	(NERCCDIP/TR-02/SHG/SWM/03-r1)	Supply completed	No civil works thus no IEE/EMP prepared for the project.	Not applicable

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Package No.	Name of Package	Status	Environmental Compliance	Safeguards	Actions
	bins and personnel protective equipment Shillong				
	Expansion Marten landfill (Phase-II) by 8500sqm, at the existing site to increase the life to about 15 yrs.	DPR approved	CFE is obtained from MSPCB however validity is expired Environmental clearance and Forest clearances are obtained. Updated IEE and EMP approved by ADB and included in bidding and contract documents. IEE posted on ADB website. Safeguard orientation training program conducted before start of construction. SiPMIU submitted to ADB SEMR on EMP compliance.		Obtain, on a priority basis, CFE renewal. Disclose final IEE in SiPMIU website. Contractor to prepare site-specific EMP implementation plan and OH&S measures specified in the EMP. Closely monitor workers' use of PPEs. Obtain, on a priority basis, required permit/clearance/NOC from Forest Department. Request for CFE amendment to include workers on-site resting camp and sanitation facilities. Restrict access to worksites (Unauthorized persons should not be allowed at all times). Provide proper safety sign boards to be placed. Include in SEMR (Jan-Jun 2015) compliance with terms and conditions of CFE, environmental clearance, and NOCs and response to ADB comments on previous monitoring reports.

B. Social

Package No.	Name of Package	Status	Social Safeguards Compliance	Actions
A. Agartala				
1. Tranche 1 -AGTWS-01/M/NCB/11/2	Procurement of ERW Pipes for Drilling of Tube wells	Completed	No issue reported in the submitted SMR period July - December 2015 GRM established	Dissemination of GRM and procedures to the project affected communities.
2. Tranche 1 -WS-01 (R1)	Replacement of Tube-wells (05 nos.). Lot-1	Completed		
3. Tranche 1 -WS-01 (R3)	Replacement of 16 Tube-wells (08 nos.).	Completed		

Package No.	Name of Package	Status	Social Safeguards Compliance	Actions
	Lot-2			
4. Tranche 1 -WS-01 (R2)	Replacement of 16 Tube-wells (08 nos.), Lot-3	Tube wells at 8 locations replaced		
5. Tranche 1 -WS-01(R3)CIV	Construction of pump house for 16 Tube wells, Lot 4	Construction of pump house building and allied works completed at 14 locations		
6. Tranche 2 -AGT/(WS-03)/NCB/11/6	Procurement and Installation of Bulk Flow Meter	18 nos. bulk meters installed. All bulk meters procured & location identified. Time extension for 3 months given.	No issue reported in the submitted SM/R period July – December 2015. All activities located within the road ROW and existing facilities.	Dissemination of GRM and procedures to the project affected communities.
7. Tranche 2 - (WS-02,07 &08)/CB/11/8	Construction of 7 Nos. Ground Water Treatment Units (GWTPs)	On-going construction at 7 locations: Boundary wall has been completed.		
8. Tranche 2 -AGT/(WS-09)/CB/11/7	Construction of Service Reservoirs, 9 Nos. Raft Type out of total 14 Nos (Lot - 1)	7 Nos. under construction, of remaining 2, design completed and approved. Work suspended/slow.		
9. Tranche 2 -AGT/(WS-09)/CB/11/7	Construction of Service Reservoirs, 5 Nos Pile Type out of total of 14 nos. (Lot - 2)	2 nos. design approved and under construction. Piling with pile cap of one OHSR has been presently suspended.		
10. Tranche 2 -AGTWS-10/11/CB/11/4	Procurement of 59km DI Pipes for Laying of Rising Mains in Agartala City	Supply completed.		
11. Tranche 2 -WS-06	Laying of 59 Kms of new Primary Mains (Rising Mains)	Work commenced. & 12 Km pipe laid.	No issue reported and to be continuously monitored	Pipeline ROW on google earth map to be shared with ADB for review.
12. Tranche 2 -AGTWS10-3/CB/11/9	Laying of Distribution Network for South Zone of Agartala (Lot-I & Lot-II) Total 232 Km, 105 Km Lot-I and 127 Km Lot-II	Lot-I-Total 60.00 km pipe laying completed. Work in progress. Lot-2 Total 63.67 km pipeline completed. Work in progress	No issue reported and to be continuously monitored	
B. Aizwal				
1. CHLWS/AIZT/1/NCB-1	Tranche 1 – Supply.	Completed	No issue reported. SM/R period	Dissemination of GRM and

Package No.	Name of Package	Status	Social Safeguards Compliance	Actions
	Installation and Commissioning of 2 nos. of Chlorinators		July – December 2014 submitted for disclosure. GRM established	procedures to the project affected communities.
2.	OHTWS/AIZ/T1/NCB-3 Tranche 1 – Construction of 7 Ground Level RCC Zonal Tank and Buildings	Completed		
3.	WM1/WS/AIZ/T1/NCB-2 Tranche 1 – Supply, Installation, Testing and Commissioning of 15000 nos. of Water Meters	Completed		
4.	EM&SWS/AIZ/T2/NCB-1 Tranche 2 – Supply, Installation & Commissioning of Booster Pumps	Installations complete and ready for testing.	No issue reported.	Dissemination of GRM and procedures to the project affected communities.
5.	GLRWS/AIZ/T2/NCB-3 Tranche 2 – Construction of 3 Nos. Water Reservoirs	3 reservoirs completed & handing over to the concerned department is in progress.		
6.	WM1/WS/AIZ/T2/ICB-1 Tranche 2 – Purchase & Installation of Bulk & Domestic Water Meters	19000 domestic meters and 39 nos. Bulk meters installed.		
7.	SCM/SEW/AIZ/T2/NCB-2 Tranche 2 – Supply, Installation & Commissioning of Cesspool Cleaner	Commissioned		
8.	AR&LD/SEW/AIZ/T2/NCB-6 Tranche 2 – Site/Land Development & Approach Road to STP	Site development work in progress.	RP prepared and implemented. No issue reported.	Pending the formal land transfer to the acquiring agency.

Package No.	Name of Package	Status	Social Safeguards Compliance	Actions
9.	STP/SEW/AIZ/T2/NCB-7 Tranche 2 – 10 MLD Construction of Sewerage Treatment Plant			
9.	CT/SEW/AIZ/T2/NCB-4 Tranche 2 – 10 Nos. Community Toilet Blocks	Out of 10 locations work is in progress at 6 locations.	No issue reported and to be continuously monitored	NA
10.	P&SN/WS/AIZ/T2/NCB-2 Tranche 2 – Feeder Mains Water Distribution in 3 zones Total 108 Km	15.11 km of pipe line laid and 12.1 km tested.	No issue reported and to be continuously monitored. Temporary impacts are avoided.	NA
12.	P&SN/SEW/AIZ/T2/NCB-5 Tranche 2 – Procurement of Primary and Secondary Sewerage Networks	Total length of 7.6 km DW/C pipe and 4.8 km UPVC pipe supplied.		
13.	PS/WS/AIZ/T2/NCB-3 Tranche 2 – Purchase installation of dedicated power supply	Construction in quarters and finalization of 132kv tower location is in progress.	Updated RP prepared and submitted to ADB for review.	Pending land acquisition process for transmission line component.
14.	New Item Tranche 2 – Purchase of Household bins for SWM project	Bidding in process	No issue	NA
C. Kohima				
1.	KHM-WS1 Tranche-1) Tranche 1 – Construction of 18 RCC Ground level water tanks & Refurbishment of 7.5 MLD capacity Water Treatment plant	Completed	No issue reported. SMR period July – December 2014 submitted to ADB for disclosure. GRM established	Dissemination of GRM and procedures to the project affected communities.
2.	(KHM-SWM1 Tranche1) Tranche 1 – Civil works and procurement equipment of development of sanitary landfill, compost plant & internal access	Under construction – Nearing completion	Encroachers and SWM boundary issues with the neighboring land owners were observed and reported.	Updated RP to be submitted by 15 May 2015. Meaningful public consultation with the SWM surrounding communities to be conducted and reported in the next submission of SMR (Jan-Jun 2015).
3.	(KHM-WS2 Tranche-2) Tranche 2 – Supplying	Under construction	No issue reported and to be	Dissemination of GRM and

Package No.	Name of Package	Status	Social Safeguards Compliance	Actions
	and laying of distribution network of 318 km length in KMC area.		continuously monitored	procedures to the project affected communities.
4. KHM-WS2 Addl. (1)	Tranche 2 – Additional facilities for water Network-7 additional reservoirs	DPR approved	No issue reported and to be continuously monitored during civil works activity. Land donations are proposed.	IR and IP checklist should be prepared and submitted to confirm no IR and IP impacts identified.
5. KHM-SEW2 Addl.(1)	Tranche 2 – Improving sanitation facilities by providing 5 community toilets	DPR approved		Submission of third validation party report on land donation activities. To be included in SMR Jan-Jul 2015.
6. KHM-SWM2 Addl.	Tranche 2 – Procurement of 30 Transportation vehicles and 56000 HH bins. Provision for resource centre for solid waste Recycling facilities for dry Waste at the Lerie landfill site	DPR approved is under process		Dissemination of GRM and procedures to the project affected communities.
7. KHM-SEW2 Addl. (2)	Tranche 2 – Septage management of Kohima city comprising of 8 cesspool cleaner and STP of 0.25 MLD capacity including site development	DPR approved is under process		
8. KHM-WS2 Addl. (2)	Tranche 2 – 21 bulk Water Meters and 20,000 Domestic Meters	DPR approved		
D. Gangtok				
GTK/WA-1/Tr-1	Tranche 1 – Supplying and Laying distribution system in Burtuk & Chandman Zones, construction of GLSR, pump house, installing pump sets and allied works in Gangtok, Sikkim.	Awarded and all civil works were completed in December 2013	No issue reported. SMR Jul – December 2014 submitted for review and disclosure. GRM established	Dissemination of GRM and procedures to the project affected communities.
GTK-SWM-2/Tr2:	Tranche 2 – Construction of Solid	Awarded and works in progress	Final RP need to be submitted and reviewed. Close	Submission of revised final RP

Package No.	Name of Package	Status	Social Safeguards Compliance	Actions
	Waste Landfill, Leachate Treatment Plant & Associated Works at Gangtok		monitoring during civil works activity required.	
GTK-WA-1/T2	Tranche 2 – Debunching of Secondary Distribution System and Extending Water Supply to Peripheral Areas with Allied Works in Gangtok (Lot 1 and Lot 2)	Awarded and works in progress	Final RP need to be submitted and reviewed. Close monitoring during civil works activity required.	Submission of revised final RP
E. Shillong				
(Tranche1- LF&R/SWM/SH/T1/NCB-1)	Development of short term Sanitary Landfill site-Civil Works & Procurement of Bulldozer	Under construction	No issue reported and to be continuously monitored during civil works activity. SMR July – December 2014 submitted. GRM established	Dissemination of GRM and procedures to the project affected communities.
(Tranche2- NERCCDIP/TR02/SHG/ SWM/01)	Construction of Garage cum workshop of staff rest room at marten, Mawiong	Under construction		
(Tranche2 NERCCDIP/TR02/SHG/SWM- /02)	Procurement of primary and secondary collection vehicles, workshop machineries	Supply in progress	NA	NA
(NERCCDIP/TR-02/SHG/SWM/03-r1)	Procurement of different type of bins and personnel protective equipment Shillong	Supply completed	NA	NA
	Expansion Marten Landfill (Phase-II) by 8500sqm, at the existing site to increase the life to about 15 yrs.	DPR approved	Draft RP prepared and approved. GRM established.	NA

ADB = Asian Development Bank; CFE = Consent for Establishment; CFO = consent for operation; DSMC = Design Supervision and Monitoring Consultant; EMP = Environmental Management Plan; GRM = Grievance Redress Mechanism; IEE = Initial Environmental Examination; IP = indigenous peoples; IR = involuntary resettlement; MPSCB = Meghalaya State Pollution Control Board; NOC = no objection certificate; OH&S = occupation health and safety; OHSR = overhead service reservoir; PHE = Public Health Engineering; PHED = Public Health Engineering Department; PPE = personal protective equipment; PPTA = project preparatory technical assistance; ROW = right of way; RP = Resettlement Plan; NA = not applicable; SEMR = Social Environmental Monitoring Report; SPMU = State Investment Programme Management and Implementation Unit; SMR = social monitoring report; SWM = solid waste management.

ANNEX 8: SAFEGUARD DOCUMENTS

(To be provided, available upon request)

Project Administration Manual

Project Number: 35290-043

Loan No.: LXXXX

November 2015

India: North Eastern Region Capital Cities
Development Investment Program (Tranche 3)

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Project Administration Manual Purpose and Process

The project administration manual (PAM) describes the essential administrative and management requirements to implement the project on time, within budget, and in accordance with Government and Asian Development Bank (ADB) policies and procedures. The PAM should include references to all available templates and instructions either through linkages to relevant URLs or directly incorporated in the PAM.

The Ministry of Urban Development (MOUD), the national-level executing agency, and the Urban Development Departments (UDD) of Tripura and the Urban Development and Poverty Alleviation Department (UD&PAD) for Mizoram, the state-level executing agencies, and the State Investment Program Management and Implementation Units (SIPMUIs) for Agartala, Tripura, and Aizawl, Mizoram, the implementing agencies, are wholly responsible for the implementation of this project, as agreed jointly between the borrower and ADB, and in accordance with Government and ADB's policies and procedures. ADB staff is responsible to support implementation including compliance by these agencies of their obligations and responsibilities for project implementation in accordance with ADB's policies and procedures.

At Loan Negotiations the borrower and ADB shall agree to the PAM and ensure consistency with the Loan agreement. Such agreement shall be reflected in the minutes of the Loan Negotiations. In the event of any discrepancy or contradiction between the PAM and the Loan Agreement, the provisions of the Loan Agreement shall prevail.

After ADB Board approval of the project's Report and Recommendation of the President (RRP) to the Board of Directors changes in implementation arrangements are subject to agreement and approval pursuant to relevant Government and ADB administrative procedures (including the Project Administration Instructions) and upon such approval they will be subsequently incorporated in the PAM.

ABBREVIATIONS

ADB	=	Asian Development Bank
ADF	=	Asian Development Fund
APFS	=	audited project financial statements
CQS	=	consultant qualification selection
DMF	=	design and monitoring framework
EARF	=	environmental assessment and review framework
EIA	=	environmental impact assessment
EMP	=	environmental management plan
ESMS	=	environmental and social management system
GACAP	=	governance and anticorruption action plan
GDP	=	gross domestic product
ICB	=	international competitive bidding
IEE	=	initial environmental examination
IPP	=	indigenous people plan
IPPF	=	indigenous people planning framework
LAR	=	land acquisition and resettlement
LIBOR	=	London interbank offered rate
NCB	=	national competitive bidding
NGOs	=	nongovernment organizations
PAI	=	project administration instructions
PAM	=	project administration manual
PIU	=	project implementation unit
QBS	=	quality based selection
QCBS	=	quality- and cost based selection
RRP	=	report and recommendation of the President to the Board
SBD	=	standard bidding documents
SEA	=	State Executing Agency
SOE	=	statement of expenditure
SPRSS	=	summary poverty reduction and social strategy
SPS	=	Safeguard Policy Statement
TOR	=	terms of reference

I. PROJECT DESCRIPTION

A. Project's Rationale, Location and Beneficiaries

1. On 23 June 2009 the Asian Development Bank (ADB) approved the multitranche financing facility for the North Eastern Region Capital Cities Development Investment Program (NERCCDIP), or the Investment Program, for an amount not exceeding \$200 million. NERCCDIP supports the Government of India's strategy to provide sustainable urban infrastructure and services leading to better quality of life for people in the capitals of five North Eastern Region (NER) states, namely Agartala (Tripura), Aizawl (Mizoram), Gangtok (Sikkim), Kohima (Nagaland), and Shillong (Meghalaya).¹ NERCCDIP physical investments include improvements to water supply, sanitation (including sewerage), and solid waste management (SWM) infrastructure, coupled with non-physical investment to support urban governance, finance, service delivery reforms, capacity building, and program implementation.

2. Two tranches have been approved under NERCCDIP; \$30 million (Project 1) was approved on 1 July 2009 and became effective on 19 November 2009, and \$72 million (Project 2) was approved on 16 December 2011 and became effective on 19 February 2013.² Financial closing dates are 30 April 2016 for Project 1 and 30 June 2018 for Project 2, and the multitranche financing facility availability period ends on 22 June 2019. Projects 1 and 2 included subprojects for improvements in (i) water supply in Agartala, Aizawl, Gangtok, and Kohima; (ii) SWM in Gangtok, Kohima, and Shillong; (iii) sewerage in Aizawl and septage management in Kohima; and (iv) urban governance, financial management, and service delivery reforms in all five states. Project 3 will include physical investments in water supply, SWM, and sanitation in Agartala and Aizawl, and non-physical investments to support project implementation and reforms in these cities. Agartala and Aizawl were selected based on their urban reform progress and implementation performance for projects 1 and 2, following the agreed NERCCDIP framework financing agreement (FFA). The national executing agency, the Ministry of Urban Development (MOUD), on behalf of itself and the state executing agencies (SEAs)—Urban Development Department, Tripura, and Urban Development and Poverty Alleviation Department, Mizoram—submitted the periodic financing request (PFR) for NERCCDIP Tranche 3 (Project 3) on 26 June 2015, amounting to \$80 million, through the Department of Economic Affairs in India's Ministry of Finance (Appendix 5 of the PFR Report).

B. Impact and Outcome

3. The impact will be improved environment and well-being of urban residents in the program cities (defined by Investment Program). The outcome will be increased access to sustainable and improved urban services in Agartala and Aizawl.

C. Outputs

4. The outputs of Project 3 will be: (i) water supply infrastructure constructed and rehabilitated; (ii) sanitation infrastructure constructed; (iii) solid waste management infrastructure constructed; and (iv) capacity for project implementation and service delivery improved.

¹ Referred to as the Investment Program cities and states.

² \$4.5 million was cancelled from Project 1 on 5 September 2012 on the government's request while \$12 million was cancelled from Project 2 on the government's request effective 11 November 2013.

5. The details of the project outputs are as follows:

- (i) **Output 1 (water supply infrastructure constructed and rehabilitated)** includes: for Aizawl, (a) intake and 37 million of liters per day (MLD) water treatment plant (WTP) constructed; (b) about 20 kilometers (km) of pumping mains constructed; (c) 9 storage reservoirs (3 MLD) constructed; (d) 4 MLD rain-water harvesting unit constructed; and (e) about 31 km of feeder mains constructed; for Agartala, (f) 31 MLD WTP rehabilitated, and (g) 12 deep tubewells (8 MLD) constructed; for both cities, (h) 30 bulk water meters in Agartala and 43 in Aizawl installed, and (i) distribution network, about 178 km in Agartala and 224 km in Aizawl, rehabilitated and expanded.
- (ii) **Output 2 (sanitation infrastructure constructed)** includes: (a) 5,290 additional households provided with decentralized septage management in Aizawl, and (b) septage treatment plant of 1 MLD capacity constructed in Agartala.
- (iii) **Output 3 (solid waste management infrastructure constructed and rehabilitated)** includes: for Aizawl, (a) two resource centers, 37 metric ton per day each, constructed; (b) two vermi compost plants, of 11 tonnes per day (TPD) capacity, constructed; (c) one mechanical compost plant (50 TPD) constructed; (d) about 20,000 of m² sanitary landfill constructed, and (e) 54 SWM collection and compaction vehicles procured; and for Agartala, (f) 151 SWM collection and compaction vehicles procured.
- (iv) **Output 4 (capacity for project implementation and service delivery improved)** includes (a) area-based property tax reforms implemented, and the assessed properties increased to 70% in Project 3 cities; (b) Aizawl Municipal Council's (AzMC's) and Agartala Municipal Corporation's (AMC's) water and sanitation divisions ring-fenced and recovering 60%–100% of their operation and maintenance (O&M) costs; (c) 100% SIPMIUs' and Investment Program Coordination Cell staff trained to adequately perform their jobs, covering construction management, procurement, safeguards, and gender equality; and (d) a single-window cell established for Aizawl's septage management.³

³ Single-window cell will be a common platform, established under AzMC's sanitation division, to receive and process requests for emptying—and overall O&M of—the city's septage management system.

II. IMPLEMENTATION PLANS

A. Project Readiness Activities

Milestones	Responsible Agency	2015										2016	
		Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec		Jan	Feb
Advance contracting actions	SIPMIUs, UDD, UD&PAD, MOUD												
Surveys and detailed design of all subprojects completed													
• Tendering of 30% of the subprojects completed	SIPMIUs, UDD, UD&PAD, MOUD							X					
• Tendering of all subprojects completed	SIPMIUs, UDD, UD&PAD, MOUD									X			
ADB loan due diligence mission fielding	ADB	X											
Loan negotiations	ADB, MOUD, UDD, UD&PAD				X								
ADB Management approval	ADB					X							
Signing of Loan agreement	ADB, DEA, MOUD, UDD, UD&PAD								X				
Government legal opinion provided	ADB, DEA, MOUD, UDD, UD&PAD									X			
Government budget inclusion	MOUD	X					X						
Loan effectiveness	ADB, DEA											X	

ADB = Asian Development Bank; DEA = Department of Economic Affairs; MOUD = Ministry of Urban Development; PIU = project implementation unit; SIPMIU = State Investment Program Management and Implementation Unit; UDD = Urban Development Department; UD&PAD = Urban Development and Poverty Alleviation Department.

Project Readiness Checklist of the Government of India

Sl. No	Milestones	Action Points	Responsible Agency	Action taken
1	Before loan fact-finding mission of ADB			
		1.1 Feasibility study report and preliminary design completed	States/MOUD	completed
2	Before loan appraisal mission of ADB	2.1 Concurrence of the line Ministry/Competent Authority	MOUD/DEA	completed
		2.2 Approval under FRBM Act from Dept. of Expenditure	DEA	completed
		2.3 Approval for Govt of India guarantee by Budget Division, if required		completed
		2.3 Approval for Govt of India guarantee by Budget Division, if required	DEA	completed
		2.4 Commitment to provide counterpart funds	MOUD	completed
		2.5 Budgeting for at least 30% of land acquisition and resettlement requirements completed, if any	MOUD/States	completed
		2.6 Designation of SIPMIU/IPCC staff completed and core staff for the project assigned	States/MOUD	completed
		2.7 Procurement plan for the project detailing contract packages, modes of procurement, pre-requisites for awarding the contracts, approval flow chart, decision making structure and schedule for each contract be in place	ADB/MOUD/States	completed
		2.8 Terms of reference (ToR) for all consultancy contracts are prepared and approved/reviewed by ADB	ADB/MOUD/States	ongoing
		2.9 Environmental Management Plan (EMP) for the first two years of project implementation be finalized. Complete IEE/EIA and secure ADB approval	ADB/MOUD/States	completed
		2.10 Relief & Resettlement Plan for the first two years of the project implementation should be finalized and confirmation regarding R&R activities are aligned with the Procurement Plan be conveyed	ADB/MOUD/States	completed
3	Before loan negotiations	3.1 Bidding documents for all contracts, including criteria for consultant recruitment and procurement, to be awarded during first 12 months of project implementation should be prepared, approved and issued. Issue of RFP for consultants and calling of bids for	ADB/MOUD/States	ongoing

Sl. No	Milestones	Action Points	Responsible Agency	Action taken
		civil works.		
		3.2 Project Implementation Plan / Administration Manual / Memorandum covering scope, organization and its ToR, procurement, budgeting, disbursement, reporting and auditing arrangements be finalized	ADB/ MOUD/States	completed
		3.3 At least 50% of land acquisition (if required) to be completed	States/MOUD	completed
		3.4 Establish (a) financial management system (b) auditing arrangement (c) fund flow arrangement (d) system of oversight	ADB/ States/MOUD	completed
		3.5 All Statutory clearances like environment / forest clearances to be in place	States	ongoing
		3.6 Administrative clearances for temporary use of land i.e. right of way taken	States	ongoing
		3.7 Administrative approval for shifting of utilities taken	States	ongoing
		3.8 At least 30% of the tendering work should be completed for awarding	ADB/ MOUD/States	ongoing
		3.9 Provision of budget for project implementation in first financial year	MOUD/States	ongoing
4	Before loan signing	4.1 Award of contracts for consultancy services to be completed and at least 30% contracts for civil works to be awarded within a month after loan signing	ADB/ MOUD/States	ongoing
5	Before loan effectiveness	5.1 Dedicated PIUs to be established, if need be.	EA	completed
		5.2 Legal opinions taken	DEA/MOUD	Not yet due

ADB = Asian Development Bank; DEA = Department of Economic Affairs; EA = executing agency; EIA = environmental impact assessment; EMP = environmental management plan; FRBM = fiscal responsibility and budget management; IEE = initial environmental assessment; MOUD = Ministry of Urban Development; PIU = project implementation unit; PPTA = project preparatory technical assistance; RFP = request for proposal

B. Overall Project Implementation Plan

	Output and Activities	2015			2016				2017				2018 ⁴			
		Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
For Aizawl & Agartala																
Output 1: Water Supply Infrastructure constructed and rehabilitated																
1	Feedermain & Distribution Networks including bulk meter															
	Tendering															
	Award of Contract															
	Implementation of works/Commissioning															
2	Construction of 9 nos. of water reservoirs with allied services and construction of rain water harvesting															
	Tendering															
	Award of Contract															
	Implementation of works/Commissioning															
3	Preparation of Water Management Plan including SCADA installation															
	Tendering															
	Award of Contract															
	Implementation of works/Commissioning															
4	37 MLD water supply augmentation & water treatment plant															
	Tendering															
	Award of Contract															
	Implementation of works/Commissioning															
5	WS distribution network improvement in Central Zone,															
	Tendering															
	Award of Contract															
	Implementation of works/Commissioning															
For Aizawl & Agartala																
Output 2: Sanitation infrastructure constructed																
6	Pilot bio-digester															
	Tendering															
	Award of Contract															
	Implementation of works/Commissioning															

⁴ Though physical activities are expected to be completed by 22 December 2018, financial closure will be done by 22 June 2019.

[illegible]

	Output and Activities	2015								2016								2017								2018 ⁴							
		Q2		Q3		Q4		Q1		Q2		Q3		Q4		Q1		Q2		Q3		Q4		Q1		Q2		Q3		Q4			
	Implementation of works/Commissioning																																
	For Aizawl & Agartala																																
	Output 4: Capacity for Project implementation and service delivery capacity improved																																
14	DSMC for Aizawl																																
	Tendering																																
	Award of Contract																																
	Engagement of services																																
15	DSMC for Agartala																																
	Tendering																																
	Award of Contract																																
	Engagement of services																																

DSMC = Design Supervision and Management Consultants; MLD = millions of liters per day; SCADA = supervisory control and data acquisition; SWM = solid waste management; WS = water supply

III. PROJECT MANAGEMENT ARRANGEMENTS

A. Project Implementation Organizations – Roles and Responsibilities

Project implementation organizations	Management Roles and Responsibilities
National-level Executing Agency	Ministry of Urban Development (MOUD)
State-level Executing Agency 1 State-level Executing Agency 2	Urban Development Department (UDD) Urban Development and Poverty Alleviation Department (UD&PAD) <ul style="list-style-type: none"> ➤ assume overall responsibility for the execution of the MFF and reporting; ➤ engage adequate permanent or fixed-term staff to implement the MFF; ➤ setup a state-level project management unit and project implementation units; ➤ provide overall strategic guidance on technical supervision and project execution; and ➤ ensure overall compliance with the loan covenants.
Implementing Agencies	State Investment Programme Management and Implementation Units (SIPMIUs) in Agartala and Aizawl <ul style="list-style-type: none"> ➤ project planning and budgeting; ➤ day-to-day assistance, supervision and guidance for the project implementation units and their consultants; ➤ review subprojects for due diligence requirements and approve subproject proposals; ➤ bidding, evaluation and contract award; ➤ responsible for managing disbursement for the project ➤ review compliance with loan covenants, contract specifications, work plans and quality control; ➤ consolidate and submit progress reports, finance and accounting/ audit reports, and matters requiring higher-level decision to ADB.
ADB	<ul style="list-style-type: none"> ➤ loan processing activities and signing of loan agreement; ➤ procurement supervision; ➤ disbursement; ➤ project administration reviews and missions; ➤ reviewing compliance with loan covenants; ➤ change in project scope or implementation arrangements, if required; and ➤ re-allocation of loan proceeds, if required.

ADB = Asian Development Bank; MOUD = Ministry of Urban Development; SIPMIU = State Investment Program Management and Implementation Unit; UD&PAD = Urban Development and Poverty Alleviation Department; UDD = Urban Development Department.

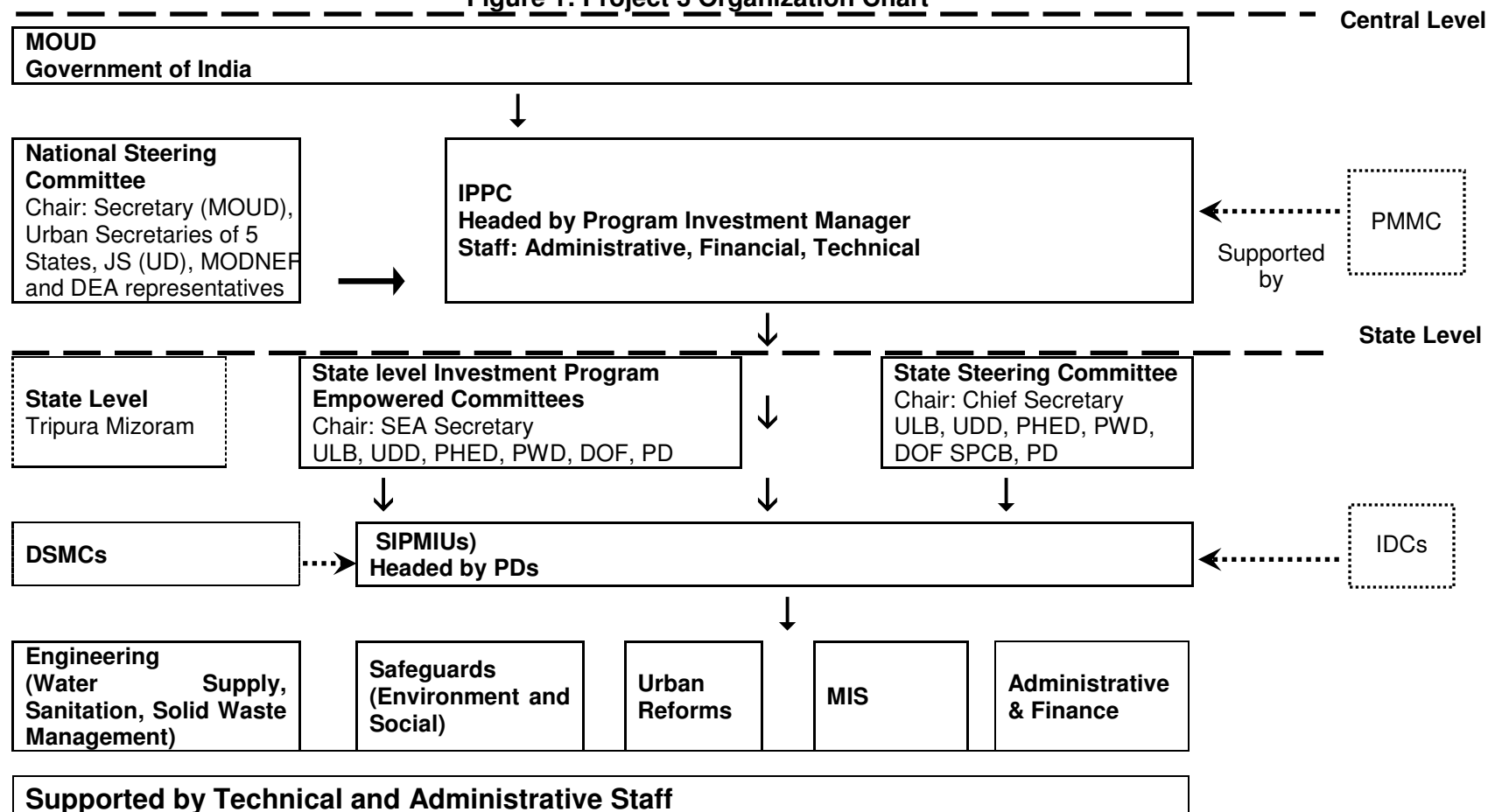
B. Key Persons Involved in Implementation

National-level Executing Agency Ministry of Urban Development	Officer's Name:	Mr. Neeraj Mandloi
	Position:	Joint Secretary (UD)
	Telephone:	+91-11-2306-3255
	Email address:	jsud@nic.in
	Office Address:	Nirman, Bhawan, New Delhi
	Officer's Name:	Mr. Parmod Kumar
	Position:	Director (UD)
	Telephone:	+91-11-2306-2195
	Email address:	dirud-mud@nic.in
	Office Address:	Nirman, Bhawan, New Delhi
State-level Executing Agency Urban Development Department Agartala, Tripura	Officer's Name:	Mr. L. Ranjan
	Position:	Principal Secretary, UDD & Health
	Telephone:	0381-232-5058
	Email address:	sudipkin@yahoo.com
	Office Address:	Urban Development Department New Secretariat Complex Agartala Tripura 799006
	Officer's Name:	Mr. K.D Chowdhury, IAS
	Position:	Project Director, SIPMIU (Agartala)
	Telephone:	+91 381 232 9301/0174
	Email address:	sipmiutripura@gmail.com
	Office Address:	SIPMIU, ADB-Assisted NERCCDIP, 2 nd Floor Khadya Bhavan Government of Tripura Office Lane, Agartala, India 799006
Urban Development and Poverty Alleviation Department Aizawl, Mizoram	Officer's Name:	Dr. C. Vanlalramsanga,
	Position:	Secretary, UD&PAD
	Telephone:	+91-389-232-2123
	Email address:	udpamizoram@gmail.com
	Office Address:	New Secretariat, Complex, Aizawl 796001
	Officer's Name:	Mr. Valbuanga
	Position:	Project Director, SIPMIU (Aizawl)
	Telephone:	+91-0389-2340337
	Email address:	pdazl07@gmail.com
	Office Address:	U-5/A, Vega Studio, Laipuitlang, Aizawl
ADB Urban Development and Water Division, South Asia Department	Staff Name:	Mr. Sekhar Bonu
	Position:	Director
	Telephone:	+632 632-5428
	Email address:	sbonu@adb.org
Mission Leader		
	Staff Name:	Ms. Neeta Pokhrel
	Position:	Senior Urban Development Specialist
	Telephone:	+632 632-1408
	Email address:	npokhrel@adb.org

C. Project Organization Structure

6. Project 3 organizational structure showing the reporting lines and key organizations involved in implementation, and same as for overall NERCCDIP, is shown in Figure 1.

Figure 1: Project 3 Organization Chart



DEA = Department of Economic Affairs; DOF = Department of Finance; DSMC = Design, Supervision and Management Consultant; IDC = institutional development consultant; IPCC = Investment Program Coordination Cell; MDONER = Ministry of Development of North Easter Region; MOUD = Ministry of Urban Development; PD = Project Director; PHED = Public Health Engineering Department; ; PMMC = program management and monitoring consultant; PWD = Public Works Department; SEA = state level executing agency; SIPMIU = State Investment Program Management and Implementation Unit; SPCB = State Pollution Control Board; UD = Urban Development; UDD = Urban Development Department; ULB = urban local body

IV. COSTS AND FINANCING

7. Project 3 is expected to cost \$114million, and its investment plan is shown in Table 1.⁵

Table 1: Investment Plan (\$ million)

Item	Amount ^a
A. Base Cost ^b	
1. Water supply infrastructure construction and rehabilitation	79.59
2. Solid waste management infrastructure construction and rehabilitation	8.60
3. Sanitation infrastructure construction	7.36
4. Project implementation and service delivery capacity improvement	6.12
Subtotal (A)	101.67
B. Contingencies ^c	7.84
C. Financing Charges During Implementation ^d	4.49
Total (A+B+C)	114.00

^a Includes taxes and duties of \$10.11 million to be financed from government sources and the Asian Development Bank (ADB) as cash contribution. Exchange rate of Rs 61.00 = \$1.00 has been applied.

^b In mid-2015 prices.

^c Physical contingencies computed at 3.0%. Price contingencies computed at 0.3% to 1.5% on foreign exchange costs and 6.5% to 7.5% on local currency costs, following ADB-published escalation rates at <http://lnadbg1.asaindevbank.org/erd004p.nsf>; includes provision for potential exchange rate fluctuation under the assumption of a purchasing power parity exchange rate.

^d Includes interest and commitment charges. Interest during construction for ADB loan has been computed at the 5-year fixed USD swap rate plus a spread of 50 basis point effective contractual spread. Commitment charges for the ADB ordinary capital resource loan are 0.15% per year to be charged on the undisbursed loan amount.

Source: Asian Development Bank estimates

8. On 24 June 2015, the government submitted a PFR requesting a loan of \$80 million from ADB's ordinary capital resources to help finance Project 3. The loan will have a 20-year term, including a 5-year grace period, an annual interest rate determined following ADB's London interbank offered rate-based lending facility, a commitment charge of 0.15% per year, and such other terms and conditions as set forth in the loan and project agreements.⁶ The financing plan is in Table 2. The ADB loan will partly finance (i) civil works and equipment for water supply, sanitation and SWM infrastructure in Agartala and Aizawl; (ii) consulting services; (iii) capacity building; and (iv) project administration costs. The government has provided ADB with (i) reasons for its decision to borrow under ADB's London interbank offered rate-based lending facility based on the terms and conditions, and (ii) an undertaking that the choice was its own decision and not made based on any communication or advice from ADB.

Table 2: Project 3 Financing Plan

Source	Amount (\$ million)	Share of Total (%)
Asian Development Bank	80.0	70.00
Government	34.0	30.00
Total	114.0	100.00

Source: Asian Development Bank estimates

⁵ The cost estimates have been prepared by ADB consultants and staff, based on information from the SIPMIUs and MOUD, in particular the Detailed Project Report (DPR) and the draft procurement plan. The cost estimate model was prepared using Microsoft Excel, is available with the project team and the SIPMIUs.

⁶ Will follow the straight line method of repayment. The average maturity is 12.75 years, and the maturity premium payable to ADB is 0.0% per annum.

A. Detailed Cost Estimates by Expenditure Category

		(\$ Million)			
		Gross	Net	Tax	% of Gross Base Costs
A. Investment Costs					
1	Civil Works and Equipment	95.55	86.73	8.82	93.98%
2	Resettlement	0.33	0.33	0.00	0.32%
3	Consultants – Project management and capacity development	4.18	3.67	0.51	4.11%
	Subtotal (A)	100.06	90.74	9.33	98.42%
B. Recurrent Costs – Project Management		1.61	1.61	0.00	1.58%
	Total Base Cost	101.67	92.35	9.33	100.0%
C. Contingencies					
1	Physical	3.06	2.75	0.31	3.01%
2	Price	4.78	4.30	0.48	4.70%
	Subtotal (C)	7.84	7.06	0.78	7.71%
D. Financing Charges During Implementation		4.49	4.49	0.00	4.42%
Total Project Cost (A+B+C+D)		114.00	103.89	10.11	112.13%
% of Total Project Cost		100.0%	91.1%	8.9%	

^a Includes taxes and duties of \$10.11 million to be financed from government sources and ADB. Exchange rate of INR 61 = \$ 1.00 has been applied.

^b In mid-2015 prices.

^c Physical contingencies computed at 3%. Price contingencies computed at 0.3% to 1.5% on foreign exchange costs and 6.5% to 7.5% on local currency costs in line with escalation rates published by ADB at <http://lnadbg1.asaindevbank.org/erd004p.nsf> ; includes provision for potential exchange rate fluctuation under the assumption of a purchasing power parity exchange rate.

^d Includes interest and commitment charges. Interest during construction for ADB loan(s) has been computed at the 5-year forward London interbank offered rate plus a spread of 0.5%. Commitment charges for the ADB OCR loan are 0.15% per year to be charged on the undisbursed loan amount.

C. Allocation and Withdrawal of Loan Proceeds

No.	Item	Total Amount Allocated for ADB Financing (OCR) Category	Basis for Withdrawal from the Loan Account
1	Civil Works and Equipment/Goods	74,764,500	79.0 percent of total expenditure claimed
2	Consultancy Services and Capacity Building	3,625,500	86.7 percent of total expenditure claimed
3	Project Management – Recurrent Costs	1,610,000	100 percent of total expenditure claimed
4	Unallocated	0	
	Total	80,000,000	

D. Detailed Cost Estimates by Financier

Item	ADB		Government				
	Amount	% of Cost Category	Amount (Costs)	Taxes ^a	Total	% of Cost Category	Total Cost
A. Investment Costs							
1 Civil Works and Equipment/Goods	74.76	79.0%	11.23	9.56	20.79	21.8%	95.55
2 Resettlement	0.00	0.0%	0.33	0.00	0.33	100.0%	0.33
3 Consultants – Project management and capacity development	3.62	86.7%	0.0	0.56	0.56	13.3%	4.18
Subtotal (A)	78.39	78.3%	11.56	10.11	21.67	21.7%	100.06
B. Recurrent Costs – Project Management^b	1.61	100.0%	0.0	0.00	0.0	0.0%	1.61
Total Base Cost	80.00	78.7%	11.56	10.11	21.67	21.3%	101.67
C. Contingencies	0.00	0.0%	7.74	0.00	7.74	100.0%	7.74
D. Financing Charges During Implementation	0.00	0.0%	4.49	0.00	4.49	100.0%	4.49
Total Project Cost (A+B+C+D)	80.00	70.0%	23.89	10.11	34.00	30.0%	114.00
% Total Project Cost		70%				30%	100%

^a Taxes and duties of \$10.11 million to be financed from government resources by cash contribution and ADB. The following principles will be used to determine the amount of taxes and duties to be financed in Project 3: (i) the amount will be within the reasonable threshold identified during the CPS preparation process, (ii) the amount will not represent an excessive share of Project 3 investment plan, (iii) the taxes and duties apply only to ADB-financed expenditures, and (iv) the financing of the taxes and duties is material and relevant to the success of Project 3

^b Includes salaries of staff, office, travel expenses of SIPMIUs and MoUD.

E. Detailed Cost Estimates by Outputs

		(\$ million)								
		Output 1 - Water Supply Infrastructure			Output 2 - SWM Infrastructure		Output 3 - Septage Management Infrastructure		Output 4 - Program Management and Capacity Building	
Item	Total Cost	Amount	% of Cost Category	Amount	% of Cost Category	Amount	% of Cost Category	Amount	% of Cost Category	
A.	Investment Costs ^a									
1	Civil Works and Equipment	95.55	79.59	83.3%	8.60	9.0%	7.36	7.7%	0.00	0.0%
2	Resettlement	0.33	0.00	0.0%	0.00	0.0%	0.00	0.0%	0.33	100.0%
3	Consultants – Project management and capacity development	4.18	0.00	0.0%	0.00	0.0%	0.00	0.0%	4.18	100.0%
	Subtotal (A)	100.6	79.59	79.3%	8.60	8.6%	7.36	7.3%	4.51	4.8%
B.	Recurrent Costs – Project Management ^b	1.61	0.00	0.0%	0.00	0.0%	0.00	0.0%	1.61	100.0%
	Total Base Cost	101.67	79.59	78.3%	8.60	8.5%	7.36	7.2%	6.12	6.0%
C.	Contingencies									
1	Physical ^c	3.06	2.39	78.0%	0.26	8.5%	0.22	7.2%	0.20	6.4%
2	Price ^d	4.78	3.73	78.0%	0.41	8.5%	0.34	7.2%	0.31	6.4%
	Subtotal (C)	7.84	6.12	78.0%	0.67	8.5%	0.56	7.2%	0.50	6.4%
D.	Financing Charges During Implementation – Interest During Implementation and commitment charges ^e	4.49	3.50	78.0%	0.38	8.5%	0.32	7.2%	0.29	6.4%
Total Project Cost (A+B+C+D)		114.00	89.21	78.3%	9.65	8.5%	8.25	7.2%	6.91	6.1%

SWM =Solid Waste Management

^a In mid-2015 prices. Exchange rate INR 61 = 1.00 USD

^b Includes salaries of staff, office, travel expenses of SIPMIUs and MoUD.

^c Physical contingencies computed at 3%.

^d Price contingencies computed at 0.3% to 1.5% on foreign exchange costs and 6.5% to 7.5% on local currency costs in line with escalation rates published by ADB at <http://lnadbg1.asaindevbank.org/erd004p.nsf> ; includes provision for potential exchange rate fluctuation under the assumption of a purchasing power parity exchange rate.

^e Includes interest and commitment charges, Interest during construction has been computed at the five-year forward London interbank-offered rate plus a spread of 0.5%.

Source: ADB estimates

F. Detailed Cost Estimates by Year

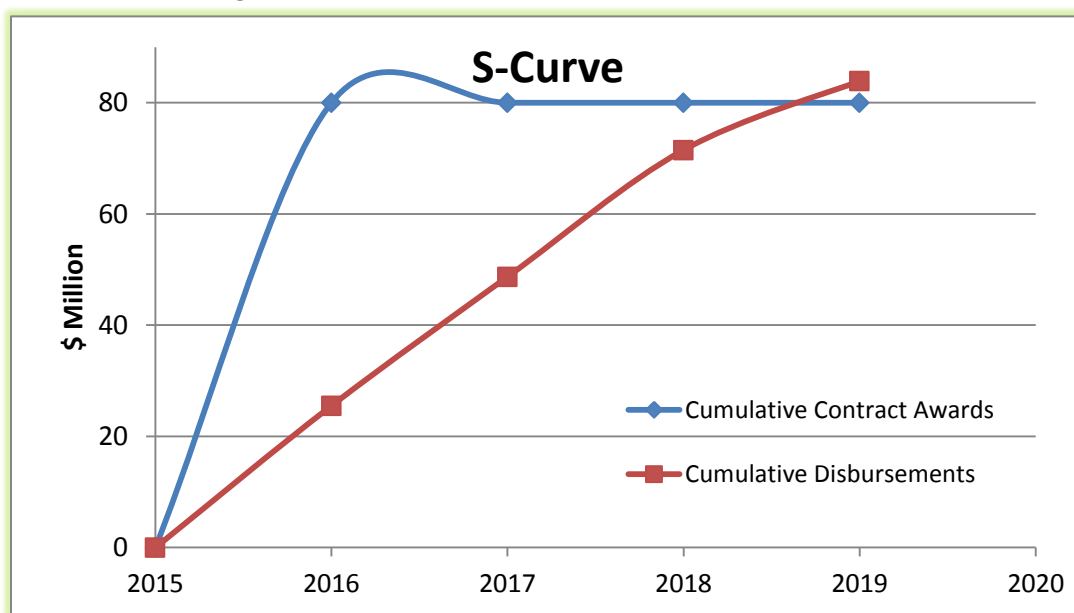
Item	Total Cost	2015	2016	2017	2018	2019
A. Investment Costs^a						
1 Civil Works and Equipment	95.55	4.78	27.71	23.89	28.67	10.51
2 Resettlement	0.33	0.02	0.10	0.08	0.10	0.04
3 Consultants – Project management and capacity development	4.18	0.21	1.21	1.05	1.25	0.46
Subtotal (A)	100.06	5.00	29.02	25.02	30.02	11.01
B. Recurrent Costs – Project Management	1.61	0.08	0.47	0.40	0.48	0.18
Total Base Cost	101.67	5.08	29.48	25.42	30.50	11.18
C. Contingencies	7.84	0.39	2.27	1.96	2.35	0.86
D. Financing Charges During Implementation	4.49	0.22	1.30	1.12	1.35	0.49
Total Project Cost (A+B+C+D)	114.00	5.70	33.06	28.50	34.20	12.54
% Total Project Cost	100%	5%	29%	25%	30%	11%

^a Includes taxes and duties of \$10.11 million to be financed by the government through cash contribution and ADB.

G. Contract and Disbursement S-Curve

9. The S-Curve below shows the estimated contract awards and disbursements over the life of the project, and annually based on contract awards and disbursement projections for ADB loan portion only.

Figure 1: S-Curve based on Values (ADB Portion)

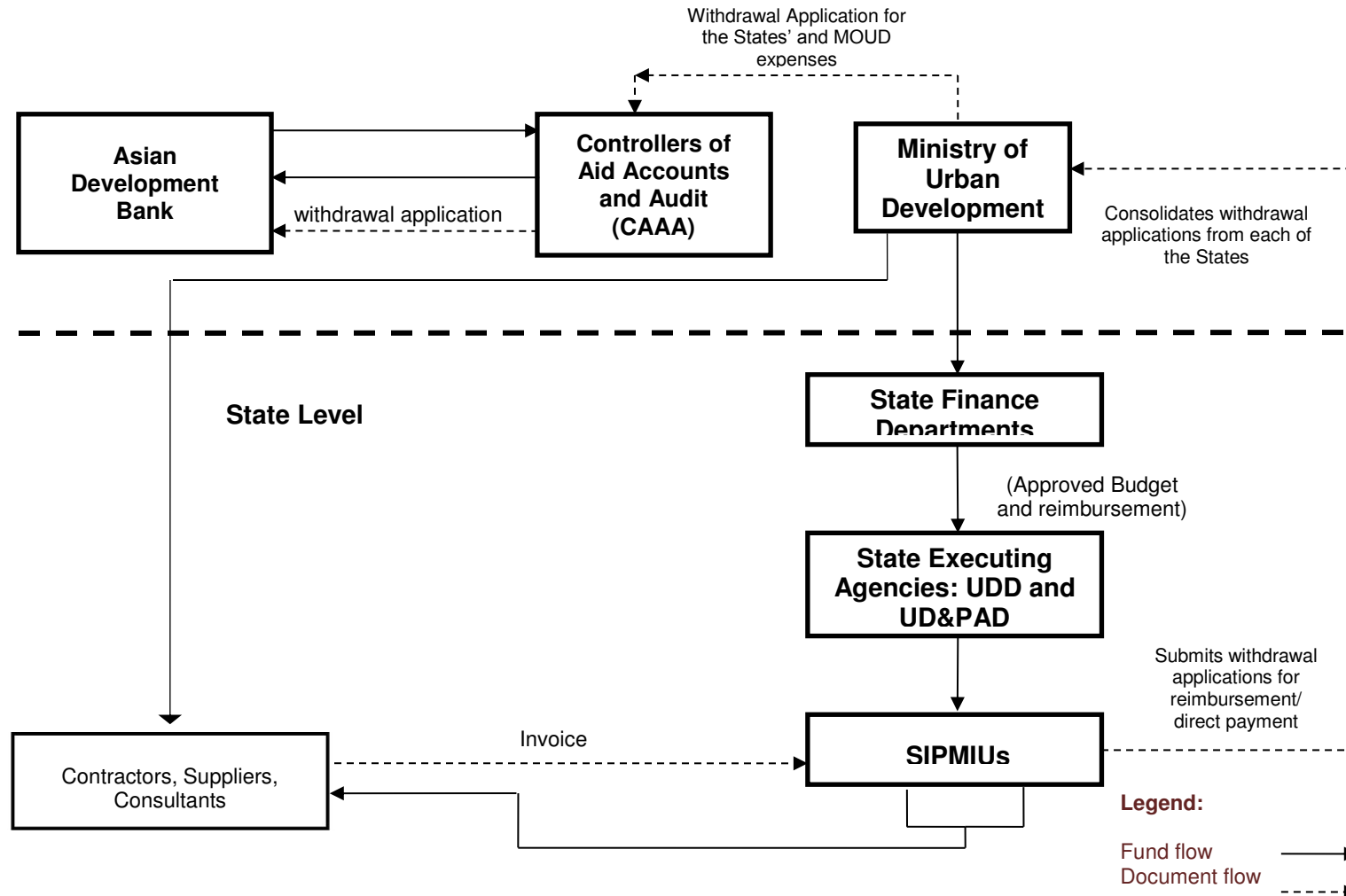


Notes:

Implementation Period: 45 months (tendering under advance action started from May 2015; Physical Completion Date: 22 December 2018; Loan Closing Date: 22 June 2019)

H. Fund Flow Diagram

Figure 2: Project 3 Funds Flowchart
(For each of the states)



Note: The Ministry of Urban Development (MOUD), the national-level executing agency, and the Urban Development Departments (UDD) of Tripura and the Urban Development and Poverty Alleviation Department (UD&PAD) for Mizoram, the state-level executing agencies and the State Investment Program Management and Implementation Units (SIPMIUs) for Agartala, Tripura and Aizawl, Mizoram, the implementing agencies are wholly responsible for the implementation of ADB financed projects, as agreed jointly between the borrower and ADB, and in accordance with Government and ADB's policies and procedures.

V. FINANCIAL MANAGEMENT

A. Financial Management Assessment

10. An updated financial management assessment (FMA) was conducted in accordance with ADB's Guidelines for the Financial Management and Analysis of Projects⁷ (the Guidelines) and ADB's Financial Due Diligence A Methodology Note⁸ for Project 3 State Executing Agencies (SEAs), i.e. (i) UDD, Tripura represented by State Program Management and Implementation Units (SIPMIU, Tripura and (ii) UD&PAD, Mizoram represented by State Program Management and Implementation Units (SIPMIU, Mizoram, as well as for the Urban Local Bodies (ULBs) in Agartala – AMC - and Aizawl - AzMC. The FMA focuses on fund flows, staffing, accounting policies and procedures, internal controls, financial reporting and monitoring, and internal and external audits. The FMA is based on (i) FMA questionnaires completed by Project 3 SIPMIUs and the ULBs, (ii) lessons learnt during the implementation of previous two projects under NERCCDIP, and (iii) lessons from project implementation experience in the sector and India in general. The FMA questionnaire completed by the SIPMIUs and the ULBs are available on request. The detailed FMA is available as supplementary linked document 2.

11. The purpose of this updated FMA is to ensure that adequate financial management arrangements are in place for Project 3 implementation. The SIPMIUs at the SEAs are responsible for implementation of Project 3. Project assets, once constructed, will be handed over to the ULBs for operation and maintenance (O&M).

12. **SEAs/SIPMIUs** - SIPMIUs were set up at UDD and UD&PAD to manage and implement NERCCDIP. Both the SIPMIUs in Agartala and Aizawl are now fully staffed and fairly experienced in implementing ADB financed projects, and with support from Design Supervision and Management Consultants (DSMC), the SIPMIUs have adequate institutional setup for implementation of Project 3. The SIPMIUs, specially created for implementation of NERCCDIP, are staffed by a pool of government officials, who have gathered significant experience over the last five years and shown their significant value-add. Their institutionalization is being explored. With the SIPMIUs in place, the financial management risk is considered low. A key challenge has been the predictability and adequacy of timely funds in SIPMIUs. Adequate budget allocation, advance from MOUD to the states and timely release of funds from both MOUD to the states and the states to the SIPMIUs are critical to ensure smooth fund flows. Assurances have been incorporated in the loan agreements that funds will be released to the SIPMIUs on time. No significant procurement issues were faced during the implementation of Projects 1 and 2. Capacity of MOUD to reimburse the SEAs and consolidate the withdrawal applications, as shown in the fund flow diagram, was assessed and found adequate. Audited project financial statements (APFS) for Projects 1 and 2 were submitted by both Project 3 SIPMIUs within the nine months submission deadline, and all received have been accepted without any remarks. There have not been any significant issues with the withdrawal applications submitted. Nonetheless, the following additional financial management improvement initiatives were identified and agreed for implementation:

At SIPMIUs and MOUD

- (i) exploring institutionalization of the SIPMIUs;
- (ii) computerization of financial accounting at the SIPMIUs by March 31, 2016;

⁷ ADB, 2005, *Financial Management and Analysis of Projects*, Manila.

⁸ ADB, 2009, *Financial Due Diligence, A Methodology Note*, Manila.

- (iii) Capacity building for APFS quality improvement in line with the Central Auditor General (CAG) approved terms of reference (ToR); and
- (iv) Assurances have been built in Project 3 for adequate budget allocation and timely funds flow from both MOUD and the states.

At Project 3 ULBs

- (i) a dedicated full time staff at AzMC; and
- (ii) Requirement for submission of APFS to ADB within one month of approval by the councils.

13. **ULB Capacity** - At the ULBs, despite certain improvements, such as implementation of double-entry accrual based accounting system, the overall financial management capacity is still weak and financial management risk is substantial. AzMC was set up only in the year 2010, and there is not a dedicated fulltime accountant in the team. Completion of the audit and availability of audited financial statements is delayed, as is the resolution of audit observations. The internal audit function is also weak. To strengthen the institutional and financial capacity of the ULBs, a number of financial reforms are being carried out under the *Urban Institutional, Financial, Regulatory and Operational Reform Program* (UIFRORP or the Reforms Program) already agreed under the FFA, which were reconfirmed after the FMA for Project 3. These include (i) migration to an accrual based double entry accounting system, (ii) creation of a single city ring-fenced division headed by a senior officer, with control over the city's water supply and sanitation operations as well as a separate accounting and balance sheet, (iii) implementation of selected option for financially self-sustainable, efficient and commercially operated water and sanitation service provider, and (iv) submission of a Financial Action Plan to ensure improved utility financial performance including implementation of volumetric water charges with regular adjustments to tariffs to generate sufficient revenues to meet 100% O&M cost recovery. All of these reforms are either complied with or in the process of being complied or not yet due.

14. The overall risk assessment for Project 3 is assessed as moderate. Despite the highlighted risks, with the ongoing actions under the Reforms Program, assurances incorporated and additional mitigation measures identified for improved financial management – as included in Table 3 below - the financial management arrangements are considered satisfactory. Key mitigating measures to reduce financial management risks include (i) exploring the institutionalization of the SIPMIUs, (ii) a dedicated full time staff at AzMC, and (iii) computerization of financial accounting at the SIPMIUs.⁹ SIPMIU's current staffing is adequate to manage and implement Projects 1 and 2, and Project 3.

Table 3: Risk Mitigation Measures on Financial Management

Risk Type	Risk Description	Risk Assessment	Proposed Mitigation Measures
1. Executing Agency	SIPMIU's Finance Sections will be responsible for financial management of Project 3, accounting and reporting on financial management. SIPMIUs will continue to follow the established financial management and accounting systems under NERCCDIP. SIPMIU staff now has significant externally funded project management	Low	Not applicable

⁹ Detailed financial management assessment can be accessed from linked document (Appendix 2) of the proposed PFR

Risk Type	Risk Description	Risk Assessment	Proposed Mitigation Measures
	experience –including ADB.		
2. Funds Flow	Delays in allocation and release of funds from both MOUD and state finance departments	Moderate	MOUD and Project 3 state governments' assurance to release the counterpart parts on timely basis
3. Staffing	Both SIPMIUs' Finance Sections are adequately staffed with competent and experienced personnel. The Sections provide professional quality service.	Low	Not applicable
4. Accounting Policies and Procedures	Policies and procedures are well documented. SIPMIUs use government accounting standards.	Low	Not applicable
5. Internal Audit	No internal audit of Aizawl SIPMIU is being carried out at present. Although conducted by State Audit Directorate in case of Agartala.	Moderate	Initiate Internal Audit at Aizawl SIPMIU
6. External Audit (project level)	Yes. CAG has the constitutional mandate to conduct external audits of externally funded projects. Annual project audit reports are typically produced within 6 to 9 months of the end of the financial year. Compliance reports are prepared and submitted in response to audit findings (paras) for disposal of the same.	Low	Not applicable
7. External Audit (entity level)	CAG conduct the audit of the UDD and UD&PAD as part of its overall state level audits.	Moderate	SEAs will submit unaudited PFS to CAG's local office within 3 months of the fiscal year end.
8. Reporting and Monitoring	Reporting systems are in place. Routine reports are produced from the accounting system – others are prepared on spreadsheets with figures extracted from the accounting system.	Moderate	With Accounting systems will be computerized by end March, which will enable better reporting and monitoring.
9. Information Systems	SIPMIUs' accounts are not computerized.	Moderate	Computerisation of SIPMIU accounts will be initiated and completed by 31 March 2016
Overall Control Risk	SIPMIUs' financial management practices and procedures are considered to be adequate for management and control of project finances – and project funds will be managed and audited.	Moderate	

ADB = Asian Development Bank; CAG = Central Auditor General; MOUD = Ministry of Urban Development; NERCCDIP = North Eastern Region Capital Cities Development Investment Program; SIPMIU = State Investment Program Management and Implementation Unit; UD&PAD = Urban Development and Poverty Alleviation Department; UDD = Urban Development Department.

15. With implementation of the risk mitigating measures in Table 3, along with implementation of the Reforms Program to strengthen the urban institutions, the financial management arrangements are considered adequate for Project 3. Financial management risks and mitigation will be updated throughout the life of the project. These measures will be updated at the mid-term review of Project 3, expected in Q4 2017, and after review missions if needed.

B. Disbursement

16. The Loan proceeds will be disbursed in accordance with *ADB's Loan Disbursement Handbook* (2015, as amended from time to time), and detailed arrangements agreed upon between the Government and ADB. Online training for SIMPIU and MOUD staff on disbursement policies and procedures is available at http://wpqr4.adb.org/disbursement_elearning. SIMPIU and MOUD staff is encouraged to avail of this training to help ensure efficient disbursement and fiduciary control.

17. Disbursement procedures given in Schedule 3 "Implementation Framework: of the FFA shall continue to remain in force.

18. **Reimbursement Using Statement of Expenditures (SOEs).** Similar to Projects 1 and 2, SIPMIUs and MOUD will predominantly use the SOE procedure for reimbursement of eligible expenditures for Project 3, in particular for payment of staff salaries. SOE records should be maintained by the SIPMIUs and made readily available for review by ADB's disbursement and review mission or upon ADB's request for submission of supporting documents on a sampling basis, and for independent audit. The SIPMIUs will be responsible for (i) preparing disbursement projections, (ii) requesting budgetary allocations for counterpart funds, (iii) collecting supporting documents, and (iv) preparing claims and sending to MOUD. MOUD will then consolidate SOEs and submit withdrawal application for admissible amount to the CAAA periodically, once a month or more often. The minimum value per withdrawal application is \$100,000 equivalent. Individual payments below this amount should be paid by the executing agency/ implementing agency and claimed from ADB through reimbursement. SOE procedures already established for projects 1 and 2 are sufficient for Project 3, and adequate capacity and experienced staff exist in MOUD and SIPMIUs to handle the same.

C. Accounting

19. The SIPMIUs at Tripura and Mizoram, as well as MOUD, will maintain separate project accounts and records for all expenditures incurred on Project 3 from all sources. The audited project financial statements from SIPMIUs will be submitted to ADB through MOUD. MOUD will submit their own project audited financial statements to ADB.

D. Auditing

20. The UDD-Tripura, UD&PAD-Mizoram, and the MOUD will cause Project 3 financial statements to be audited in accordance with International Standards on Auditing and/or in accordance with the Government's audit regulations by the CAG or any private external auditor empanelled and assigned to the audit by the CAG, acceptable to ADB. The APFS from the project states together with the auditor's opinion will be presented to ADB within six months of the end of the fiscal year by the SEAs, and within nine months by MOUD for the consolidated APFS. The additional three month extension is considered justified since there is a need for a consolidated audit of MoUD that can only take place after the state level audits are completed.

21. The audited AMC and AzMC financial statements, together with the auditors' report and management letter, will be submitted to ADB within one month after their approval by the competent authority.

22. The audit report for the project financial statements will include audit opinions which cover (i) whether the project financial statements present a true and fair view or are presented fairly, in all material respects, in accordance with the applicable financial reporting framework; (ii) whether loan proceeds have been utilized for the purposes as per ADB Loan/Project Agreement; (iii) the level of compliance for each financial covenant contained in the legal agreements for the project; (iv-a) with respect to SOEs, adequate supporting documentation has been maintained to support claims to ADB for reimbursements of expenditures incurred; and (iv-b) except for ineligible expenditures as detailed in the audit observations, if any, appended to the audit report, expenditures are eligible for financing under the Loan Agreement. If a management letter is issued by the auditor, a copy will also be submitted to ADB. Internal audit continues to be undertaken at SIPMIUs and sample internal audits shall be conducted by MOUD.

23. Compliance with financial reporting and auditing requirements will be monitored by review missions and during normal project supervision, and followed up regularly with all concerned, including the external auditor.

24. The Borrower, MOUD, and States have been made aware of ADB's approach on delayed submission, and the requirements for satisfactory and acceptable quality of the APFS.¹⁰ ADB reserves the right to require a change in the auditor (in a manner consistent with the constitution of the borrower), or for additional support to be provided to the auditor, if the audits required are not conducted in a manner satisfactory to ADB, or if the audits are substantially delayed. ADB reserves the right to verify the project's financial accounts to confirm that the share of ADB's financing is used in accordance with ADB's policies and procedures.

25. Public disclosure of the APFS, including the auditor's opinion on the project financial statements, will be guided by ADB's Public Communications Policy (2011, as amended from time to time). After review, ADB will disclose the APFS and the opinion of the auditors on the project financial statements within 30 days of the date of their receipt by posting them on ADB's website. The management letter and the ULB entity level financial statements will not be disclosed.¹¹

¹⁰ ADB approach on delayed submission of audited project financial statements:

- When audited project financial statements are not received by the due date, ADB will write to the executing agency advising that (i) the audit documents are overdue; and (ii) if they are not received within the next six months, requests for new contract awards and disbursement such as new replenishment of imprest accounts, processing of new reimbursement, and issuance of new commitment letters will not be processed.
- When audited project financial statements have not been received within 6 months after the due date, ADB will withhold processing of requests for new contract awards and disbursement such as new replenishment of imprest accounts, processing of new reimbursement, and issuance of new commitment letters. ADB will (i) inform the executing agency of ADB's actions; and (ii) advise that the loan may be suspended if the audit documents are not received within the next six months.
- When audited project financial statements have not been received within 12 months after the due date, ADB may suspend the loan.

¹¹ This type of information would generally fall under the public communication policy exceptions to disclosure. ADB.2011. *Public Communications Policy*. Paragraph 97(iv) and/or 97(v)

VI. PROCUREMENT AND CONSULTING SERVICES

A. Advance Contracting and Retroactive Financing

26. ADB previously approved advance contracting for projects under NERCCDIP. On government's request, the executing agencies are proceeding with advance actions to procure civil works, goods and consulting services under Project 3. Gol is expecting to request retroactive financing under Project 3. The executing agencies have been advised that ADB's approval of advance contracting and retroactive financing does not constitute a commitment to finance the loan. All advance contracting and retroactive financing will be undertaken in conformity with ADB's Procurement Guidelines (April 2015, as amended from time to time) and ADB's Guidelines on the Use of Consultants (March 2013, as amended from time to time).

27. Advance contracting of: (i) civil works, (ii) equipment and materials, and (iii) recruitment of consultants was requested by the executing agencies subject to these being eligible as per the agreed procedures and guidelines. Advance contracting would include: (i) tendering, and bid evaluation for civil works packages; (ii) preparation of tender documents to procure works, materials and equipment; (iii) evaluation of bids; and (iv) recruitment of consultants.

28. Except as otherwise agreed with ADB, the expenditures incurred for civil works, equipment and materials, and consulting services that are eligible for advance contracting, and project management and implementation expenses are eligible for retroactive financing of up to 20% of the proposed amount for the loan for eligible expenditures in each category incurred prior to effectiveness of the loan, but no earlier than 12 months before the signing of the loan agreement. The executing agencies have been advised that ADB's approval of advance contracting and retroactive financing does not constitute a commitment to finance the loan.

B. Procurement of Goods, Works and Consulting Services

29. All procurement of goods and works will be undertaken in accordance with ADB's Procurement Guidelines (April 2015, as amended from time to time). Standard bidding documents already endorsed by ADB for national competitive bidding under Projects 1 and 2 of NERCCDIP will be used throughout Project 3 implementation period. The procurement plan for Project 3 indicating threshold and review procedures, mode of procurement, goods, works, and consulting service contract packages and national competitive bidding guidelines is in Section C. The procurement plan will be updated by the SIPMIUs for Agartala and Aizawl, the implementing agencies for approval by ADB at least once a year (more frequently if necessary) and will cover the next 18 months of procurement activity. A delay in loan effectiveness, other start-up delays, and delays during implementation will require an unscheduled procurement plan update. ADB will review each updated procurement plan prior to its publication. When appropriate, this activity may be undertaken in the field by ADB missions working with the executing and implementing agencies.

30. International competitive bidding procedures will be used for civil works contracts estimated to cost \$40 million or more, and supply contracts valued at \$3 million or higher. Shopping will be used for contracts for procurement of works and equipment worth \$100,000 or less.

31. The DSMCs for SIPMIUs Aizawl and Agartala will be recruited according to ADB's Guidelines on the Use of Consultants (March 2013, as amended from time to time). The ToRs for all consulting services are detailed in Section D. DSMC for SIPMIU Agartala under Projects

1 and 2 will continue to provide services for Project 3. An additional 439 person-months input of national consultants is required under Project 3. All consultants will be recruited according to ADB's Guidelines on the Use of Consultants.

C. Procurement Plan

Project Name: North Eastern Region Capital Cities Development Investment Program – Project 3	
Project Number: 35290-043	Approval Number: Not yet available
Country: INDIA	Executing Agency:: The Ministry of Urban Development The Urban Development Department of Tripura The Urban Development and Poverty Alleviation Department for Mizoram
Project Procurement Classification: B	Implementing Agency: State Investment Program Management and Implementation Units (SIPMIUs): (i) Mizoram (ii) Tripura
Procurement Risk: Low	
Project Financing Amount: US\$80 million ADB Financing: US\$80 million Cofinancing (ADB Administered): N/A Non-ADB Financing: N/A	Loan Closing Date: 22 June 2019
Date of First Procurement Plan: 27 April 2015	Date of this Procurement Plan: 16 October 2015

D. Process Thresholds, Review, and 18-Month Procurement Plan

1. Program Procurement Thresholds

32. Except as ADB may otherwise agree, the following process thresholds shall apply to procurement of goods and works, and engagement of consulting services.

Procurement of Goods and Works		
Method	Threshold	Comments
International Competitive Bidding (ICB) for Works	\$40,000,000	Prior Review
International Competitive Bidding for Goods	\$3,000,000	Prior Review
National Competitive Bidding (NCB) for Works	Beneath that stated for ICB, Works	Prior review for 1 st set of NCB documents of each type; post-review for succeeding NCBs; prior review for the 1 st technical bid evaluation reports and financial bid evaluation reports of the same contract, post-review for succeeding reports.
National Competitive Bidding for Goods ³	Beneath that stated for ICB, Goods	
Shopping for Works	\$100,000 and below	Post review, EA/IA will issue public request for quotations
Shopping for Goods	\$100,000 and below	Post review, EA/IA will issue public request for quotations
Consulting Services		
Method	Comments	
Quality and Cost Based Selection (QCBS)		
Quality Based Selection		

Consultants' Qualifications Selection	Prior Review
Least-Cost Selection	
Fixed Budget Selection	

2. Goods and Works Contracts Estimated to Cost \$1 Million or More

33. The following table lists goods and works contracts for which the procurement activity is either ongoing or expected to commence within the next 18 months.

	General Description	Estimated Value (\$, million)	Procurement Method	Review [Prior / Post/Post (Sample)]	Bidding Procedure ⁷	Advertisement Date/Award (quarter/year)	Comments
	Water Supply (Aizawl)						
AIZxx	Feeder main & distribution network	29.20	NCB	Prior	1S2E	May-15/Dec-15	PB: No BD: Small Works
AIZxx	Construction of water reservoirs with allied services, and rainwater harvesting	2.11	NCB	Prior	1S2E	Jun-15/Jan-16	PB: No BD: Small Works
AIZxx	37 MLD Water Supply Augmentation & WTP	23.98	NCB	Prior	1S2E	July-15/Mar-15	PB: No BD: Small Works
	Water Supply (Agartala)						
AGT/WS/ NCB/15/01	Augmentation and Rehabilitation of WSS of Agartala (CZ) Tripura	18.32	NCB	Prior	1S2E	May-15/Dec-15	PB: No BD: Works
	Solid Waste Management (Aizawl)						
AIZxx	Procurement of Vehicle for transportation of Waste	1.04	NCB	Prior	1S2E	July-15/Jan-16	PB: No BD: Goods
AIZxx	1. Vermi-compost and Resource Management Centre; and 2. Sanitary Landfill & Closure of existing Dump site	4.69	NCB	Prior	1S2E	July-15/Feb-16	PB: No BD: Small Works
AGTxx	Procurement of Bins and Various SWM Vehicles	2.96	NCB	Prior	1S2E	July-15/Jan-16	PB: No BD: Goods
	Septage Management (Aizawl)						
AIZxx	Pilot Bio-Digester	3.66	NCB	Prior	1S2E	July-15/Feb-16	PB: No BD: Small Works
	Septage Management (Agartala)						
AGTxx	Septage Management Treatment Plant	2.08	NCB	Prior	1S2E	Jun-15/Jan-16	PB: No BD: Small Works

PB = Prequalification of Bidders; BD = Bidding Document

3. Consulting Services Contracts Estimated to Cost \$100,000 or More

34. The following table lists consulting services contracts for which the recruitment activity is either ongoing or expected to commence within the next 18 months.

Package Number	General Description	Estimated Value	Recruitment Method	Review (Prior / Post)	Advertisement Date (quarter/year)	Type of Proposal ⁹	Comments
AlZxx	DSMC for Aizawl	2.43	QCBS	Prior	Q2, 2015	FTP	Assignment: National Quality-Cost Ratio: 80:20
AGTxx	DSMC for Agartala	0.53	QCBS	Prior	Q2, 2015	BTP	Assignment: National Quality-Cost Ratio: 80:20

4. Goods and Works Contracts Estimated to Cost Less than \$1 Million and Consulting Services Contracts Less than \$100,000 (Smaller Value Contracts)

35. The following table groups smaller-value goods, works and consulting services contracts for which the activity is either ongoing or expected to commence within the next 18 months.

Goods and Works								
Package Number ⁶	General Description	Estimated Value (\$, million)	Number of Contracts	Procurement Method	Review [Prior / Post/Post (Sample)]	Bidding Procedure ⁷	Advertisement Date (quarter/year)	Comments
	Water Supply (Aizawl)							
AlZxx	Preparation of Water Management Plan including SCADA Installation	0.94	1	NCB	Prior	1S2E	Oct-15/ Apr-16	PB: No BD: Goods
	Solid Waste Management (Aizawl)							
AlZxx	Procurement of SWM goods, including PPE	0.05	1	Shopping	Post	-	Jun-15/ Dec-15	PB: No BD: Goods (Shopping)
	Septage Management (Aizawl)							
AlZxx	Pilot Package Aerate WWTP-Johkasou System	0.25	1	NCB	Prior	1S2E	Jun-15/ Mar-15	PB: No BD: Small works
AlZxx	Supply, Installation and Commissioning of SWS for Septage Management	0.2	1	NCB	Prior	NA	Jun-15/ Mar-16	PB: No BD: Goods

	Septage Management (Agartala)							
AGTx	Septage Management Treatment Vehicles	0.25	1	NCB	Prior	1S2E	Jun-15/Dec-15	PB: No BD: Goods

PB = Prequalification of Bidders; BD = Bidding Document; SWS = Single Window System (SWS)

Consulting Services								
Package Number	General Description	Estimated Value	Number of Contracts	Recruitment Method	Review (Prior / Post)	Advertisement Date (quarter/year)	Type of Proposal	Comments

E. Indicative List of Packages Required Under the Project

36. The following table provides an indicative list of goods, works and consulting services contracts over the life of the project, other than those mentioned in previous sections (i.e., those expected beyond the current period).

Goods and Works – None							
Package Number	General Description	Estimated Value (cumulative)	Estimated Number of Contracts	Procurement Method	Review [Prior / Post/Post (Sample)]	Bidding Procedure	Comments

Consulting Services – None							
Package Number	General Description	Estimated Value (cumulative)	Estimated Number of Contracts	Recruitment Method	Review (Prior / Post)	Type of Proposal	Comments

F. List of Awarded and On-going, and Completed Contracts

37. The following tables list the awarded and on-going contracts, and completed contracts.

1. Awarded and On-going Contracts - None

Goods and Works							
Package Number	General Description	Estimated Value	Awarded Contract Value	Procurement Method	Advertisement Date (quarter/year)	Date of ADB Approval of Contract Award¹¹	Comments¹²

¹¹ Date of ADB Approval of Contract Award is the date of No-Objection letter to the EA/IA.

Consulting Services							
Package Number	General Description	Estimated Value	Awarded Contract Value	Recruitment Method	Advertisement Date (quarter/year)	Date of ADB Approval of Contract Award ¹¹	Comments ¹³

¹¹ Date of ADB Approval of Contract Award is the date of No-Objection letter to the EA/IA.

¹³ Indicate the Consulting Firm's name and the contract signing date.

2. Completed Contracts - None

Goods and Works								
Package Number	General Description	Estimated Value	Contract Value	Procurement Method	Advertisement Date (quarter/year)	Date of ADB Approval of Contract Award ¹¹	Date of Completion ¹⁴	Comments

¹¹ Date of ADB Approval of Contract Award is the date of No-Objection letter to the EA/IA.

¹⁴ The Date of Completion is the physical completion date of the contract.

Consulting Services								
Package Number	General Description	Estimated Value	Contract Value	Recruitment Method	Advertisement Date (quarter/year)	Date of ADB Approval of Contract Award ¹¹	Date of Completion ¹⁴	Comments

¹¹ Date of ADB Approval of Contract Award is the date of No-Objection letter to the EA/IA.

¹⁴ The Date of Completion is the physical completion date of the contract.

G. Non-ADB Financing

38. The following table lists goods, works and consulting services contracts over the life of the project, financed by Non-ADB sources.

Goods and Works				
General Description	Estimated Value (cumulative)	Estimated Number of Contracts	Procurement Method	Comments

Consulting Services				
General Description	Estimated Value (cumulative)	Estimated Number of Contracts	Recruitment Method	Comments

H. Consultant's ToRs

39. Outline ToRs of the consultants to be engaged under Project 3 are in Appendix 1.

VII. SAFEGUARDS

A. Environmental Safeguards

40. Five draft initial environmental examinations (IEEs) with environmental management plans (EMPs) were prepared for the subprojects in accordance with ADB's SPS, 2009, and government laws. The Environmental Assessment and Review Framework (EARF) prepared in 2009 was updated and modified to reflect ADB SPS, 2009 and to provide guidance on safeguard screening, assessment, institutional arrangements, and processes to be followed for components of the project, where design takes place after ADB approval. Described below are the institutional roles and responsibilities to ensure subprojects, in its project cycle, will not deteriorate or interfere with the environmental sensitivity of a project area but rather improve environmental quality through development of infrastructure facilities.

41. **SIPMIUs.** The environmental safeguards officer in the SIPMIUs will:

- (i) confirm existing IEEs/EMPs are updated based on detailed designs and that new IEEs/EMPs are prepared in accordance with the EARF and subproject selection criteria related to safeguards;
- (ii) confirm whether IEEs/EMPs are included in bidding documents and civil works contracts;
- (iii) provide oversight on environmental management aspects of subprojects and ensure EMPs are implemented by the contractors;
- (iv) establish a system to monitor environmental safeguards of the project including monitoring the indicators set out in the monitoring plan of the EMP;
- (v) facilitate and confirm overall compliance with all Government rules and regulations regarding site and environmental clearances as well as any other environmental requirements (e.g., No Objection Certificates, Consent for Establishment, Forest Clearance, Consent for Operations, etc.), as relevant; All necessary environmental clearances should be obtained prior to contract awards to avoid delay in physical progress of relevant subprojects;
- (vi) supervise and provide guidance to the contractors to properly carry out the environmental monitoring and assessments as per approved IEEs/EMPs;
- (vii) review, monitor and evaluate the effectiveness with which the EMPs are implemented, and recommend necessary corrective actions to be taken as necessary;
- (viii) consolidate monthly environmental monitoring reports from contractors and submit semi-annual monitoring reports to ADB;
- (ix) ensure timely disclosure of final IEEs/EMPs in locations and form and language accessible to the public and local communities;
- (x) address any grievances brought about through the Grievance Redress Mechanism (GRM) in a timely manner;
- (xi) ensure adequate measures for climate change adaption and mitigation are incorporated in the detailed engineering design and implementation; and
- (xii) organize an induction course for the contractors covering, including among others, EMP implementation, health and safety, grievance redressal, and community protection.

42. The climate risk rating for Project 3 is medium. The executing agencies have conducted (and will continue to do so for the remaining DED) the following, for Agartala (i) flood risks assessed and incorporated in subprojects' DED; (ii) flood defense incorporated into DEDs; and (iii) design storm derived from projections of future rainfall intensity. For Aizawl, (i) DED of all

physical structures to take into account the seismic hazard, and consider landslides risks; and (ii) design storm derived from projections of future rainfall intensity.

B. Involuntary Resettlement & Indigenous People (Social Safeguards)

43. A Resettlement Framework and an Indigenous Peoples Planning Framework (IPPF) are prepared for Project 3. Two Resettlement Plans and two due diligence reports (DDRs) were prepared in accordance with ADB's SPS, 2009, and government laws. The Resettlement Plans were submitted to ADB for review, approval, and have been publicly disclosed. Due diligence on Indigenous People reveals that: (i) Project 3 will have positive impacts on indigenous peoples and no negative impacts were identified; (ii) the population of Aizawl comprises 92% persons from scheduled tribes, and Indigenous Peoples are the majority beneficiary of positive impacts in Aizawl; and (iii) the population of Agartala comprises 4.94% persons from scheduled tribes, who are included among project beneficiaries. Indigenous People are the majority beneficiary in Aizawl, with only positive impacts identified as shown through due diligence. Therefore measures for IPs have been included in the overall project design in lieu of a separate IPP. The IPPF has been updated to ensure that any unforeseen impacts to Indigenous Peoples during project implementation are addressed. Any unanticipated impacts of the project will be documented and mitigated based on the spirit of the principles agreed upon in the Resettlement Framework and Indigenous Peoples Planning Framework, primarily the RFCTLARRA and ADB SPS 2009 on Involuntary Resettlement. The SIPMIUs will ensure that any physically or economically affected persons are compensated prior to displacement in components ready for construction. Ragpickers' transition to jobs at the solid waste management facility will be monitored by SIPMIU. Social Development Officer, SIPMIU will assist the Program Director, SIPMIU in monitoring ragpickers' transition to jobs. SIPMIU will be assisted by the Resettlement Specialist, DSMC in monitoring of this transition. The following are institutional roles and responsibilities to ensure social safeguards requirements are followed during design and construction stages.

44. **SIPMIUs Agartala & Aizawl.** The SIPMIU on behalf of responsible state agencies will:
- (i) ensure that the Resettlement Framework provisions are adhered to and the draft RPs prepared during project processing are updated based on detailed designs;
 - (ii) screen and ensure application of safeguards requirement on Indigenous People and Indigenous Peoples Planning Framework (IPPF) if Indigenous People impacts are identified during project implementation;
 - (iii) engage in ongoing meaningful consultations with stakeholders and affected persons particularly through implementation of the consultation and participation;
 - (iv) review, approve, prepare RPs/Indigenous People Plans (IPPs) for new subprojects with support from the national social safeguards specialists of DSMC;
 - (v) ensure provision of timely payments by the Municipality to the affected persons before displacement/impact occurs in sections ready for construction;
 - (vi) inform ADB for any unanticipated impacts identified during project implementation, prepare the required corrective action plan and implemented;
 - (vii) ensure all grievances are addressed;
 - (viii) conduct oversight and develop effective mechanism to monitor implementation of Resettlement Plans/IPPs (if any) to ensure smooth project implementation, and
 - (ix) review the consolidated monthly reports by DSMC social safeguards specialist and submit semi-annual monitoring reports to ADB. The monitoring reports should record the progress of resettlement activities and any compliance issues,

grievances, corrective actions taken, follow-up actions required and status of compliance with relevant loan covenants.

45. **SIPMIUs' Social Safeguards Officers – Agartala & Aizawl.** The SIPMIUs will each be staffed with a safeguard officer and will receive assistance from the national social safeguards consultants of DSMC. The SIPMIU safeguard officer will:

- (i) update the draft Resettlement Plans prepared during project processing upon completion of detail design
- (ii) screen impacts and prepare new Resettlement Plans/IPPs in accordance with Resettlement Framework/IPPF and government rules;
- (iii) engage in ongoing meaningful consultations with stakeholders and affected persons particularly through implementation of the consultation and participation;
- (iv) ensure provision of timely payments to the affected persons by the Municipality before displacement/impact occurs in project sites ready for construction;
- (v) implement the ADB approved Resettlement Plans and/or IPPs;
- (vi) advise and/or recommend ways to minimize/avoid social safeguards impacts
- (vii) prepare and implement corrective actions in the event of any unanticipated impacts occurred during implementation to minimize and/or avoid social safeguards impacts;
- (viii) submit semiannual social safeguards monitoring reports to ADB;
- (ix) establishment of GRM at Municipality level and address any grievances brought about through the GRM in a timely manner; and
- (x) acting as focal person at SIPMIU level of GRM process.

46. **Additional requirements.** For the proposed project sites that are not fully owned/managed by the government, the participating Municipalities/ relevant state agencies will provide letters/ no objection certificate to construct and use from the landowners to SIPMIU. ADB to confirm the land availability of the proposed project activities. Associated involuntary resettlement impacts, if identified, will be mitigated through a preparation of a Resettlement Plan following the project Resettlement Framework.

47. **Project GRM.** Project GRM is established at three levels as indicated below and covers both environment and social issues. The GRM will be disclosed to the affected communities and households prior to the mobilization of contractors in any subproject areas. The Project grievance redress committee, supported by the DSMC consultants as well as the SIPMIU safeguard officers will be responsible for timely grievance redress on environmental and social safeguards issues and responsible for registration of grievances, related disclosure and communication with the aggrieved party. Contact details, procedures and complaint mechanism will be disclosed to the project affected communities at accessible locations and through various media (i.e. leaflets, newspapers, etc.). Samples of draft project leaflets, Grievance Registration Forms and monitoring templates are in the RF.

- (i) **1st Level Grievance.** The phone number of the SIPMIU office should be made available at the construction site signboards. The contractors and SIPMIU safeguard focal person can immediately resolve on-site in consultation with each other, and will be required to do so within seven days of receipt of a complaint/grievance;
- (ii) **2nd Level Grievance.** All grievances that cannot be redressed within seven days at field/ward level will be reviewed by the GRC at city level headed by District Commissioner of the Municipality with support from SIPMIU designated safeguard focal person and DSMC environment and social specialists. GRC will attempt to resolve them within 15 days. The SIPMIU designated safeguard focal

person will be responsible to see through the process of redressal of each grievance; and

- (iii) **3rd Level Grievance.** All grievances that cannot be redressed within 15 days at city level will be reviewed by the GRC at state level headed by the State Minister with support from City GRC, SIPMIU designated safeguard focal person and DSMC environment and social specialists. GRC will attempt to resolve them within 15 days. The SIPMIU designated safeguard focal person will be responsible to see through the process of redressal of each grievance.

48. **Capacity Building.** SIPMIU safeguards officers will be further trained by DSMC's social resettlement expert and by ADB safeguards specialists on ADB SPS, 2009, requirements (when the opportunity arises). The SIPMIU safeguard officer, supported by DSMC specialist, will further brief/train the SIPMIU staff, design engineers, as well the contractors. Typical modules would be as follows: (i) introduction and sensitization to ADB SPS on Involuntary Resettlement and Indigenous People policies and requirements and Resettlement Framework/IPPF; (ii) review, updating and preparation of the Resettlement Plans and IPPs (as required) upon the completion of project detailed design; (iii) improved coordination within nodal departments; (iv) monitoring and reporting system, and (v) project GRM. Briefings on safeguards principles and GRM will also be conducted to the contractors upon their mobilization by SIPMIU safeguards officers.

49. **Civil Works Contracts.** The SIPMIUs will ensure that land transfers are completed and its records are updated for subprojects involving voluntary land donation activities prior to the start of civil works. The SIPMIUs will ensure that bidding and contract documents include specific provisions requiring contractors to comply with all (i) applicable labor laws and core labor standards on prohibition of child labor as defined in national legislation for construction and maintenance activities, on equal pay for work of equal value regardless of gender, ethnicity or caste, and on elimination of forced labor, and (ii) the requirement to disseminate information on sexually transmitted diseases including HIV/AIDS to employees and local communities surrounding the Project sites. Relevant provisions of the gender action plan (GAP) will be shared with the contractors' responsibilities by the SIPMIU and Project Municipalities. Contractors will carry out all environmental and social mitigation and monitoring measures outlined in their contract. DSMC specialists will assist the SIPMIUs in monitoring contractor's compliance activities. Pursuant to *ADB's Safeguard Policy Statement (SPS) (2009)*, ADB funds may not be applied to the activities described on the ADB Prohibited Investment Activities List set forth in Appendix 5 of the SPS.

VIII. GENDER AND SOCIAL DIMENSIONS

50. Project 3 is classified as category EGM for gender. Project 3 will be socially inclusive and gender-focused.¹² Key initiatives include (i) subsidised water supply connections for poor, female-headed households (FHH)¹³ and other disadvantaged households; (ii) employment opportunity for poorest of poor men and women (ragpickers) at the SWM facilities created in Aizawl; and (iii) inclusion of poor households in the septage management subproject (more than 40%). Community involvement in the septage management subproject is anticipated to enhance sustainability. The Gender Action Plan (GAP), shown in Table 4 below, focuses on positive impacts and outcomes to women, providing specific targets for consultations with women,

¹² Updated Summary Poverty Reduction and Social Strategy (Appendix 2).

¹³ Registrar General & Census Commissioner of India, 2011, defines a FHH as the one where a woman generally bears the chief responsibility for the maintenance of the household and takes decisions on behalf of the household.

training of low income group people, including women in plumbing, and employment opportunities to women in project-related construction work and jobs related to operation and maintenance of facilities created. It will also result in health benefits and time savings to women as water fetchers and care-givers, arising out of increased access to water supply, improved solid waste management and sanitation systems, improved living conditions and long term institutional capacity to promote inclusive development within project cities. Monitoring and evaluation will generate sex-disaggregated information to enable tracking of gender impacts envisaged under Project 3. Gender-focused activities in Project 3 complement on-going activities under projects 1 and 2. GAP implementation in Projects 1 and 2 were supported adequately by ADB through capacity development of project staff. Target indicators in construction related outputs on participation of female laborers in some of program states, such as Meghalaya and Nagaland, were difficult to achieve due to labor restrictions, geographic conditions and cultural factors. The respective SIPMIUs at Agartala and Aizawl will be responsible for implementing, monitoring and reporting on progress of GAP implementation in Project 3. As explicitly mentioned in loan agreement for Project 3, all contractors must ensure compliance with provisions of; (i) Contract Labour Regulation & Abolition Act 1970; and (ii) Building and other Construction Workers (Regulation of Employment & Condition of Services Act 1996, which envisage to provide adequate facilities at the work place/working conditions to encourage women's employment such as separate toilet facilities, child care facilities, and appropriate working hours.

Table 4: Gender Action Plan for Project 3

Activities	Target Indicators	Responsibility	Timeline
Construction related activities			
Increase employment opportunities for women in civil works with compliance of core labor standard ¹⁴ including same pay for work of equal value ¹⁵ (Outputs 1, 2 and 3)	Aizawl: Women employed in civil works in city water supply distribution network and solid waste management subprojects [Target: 15% women]	SIPMIU Aizawl	Project duration
Output 1 - Water Supply infrastructure constructed and rehabilitated			
Design policy to provide subsidized water connections and meters to poor and BPL FHHs ¹⁶ Impart skills training to community members in plumbing	Agartala and Aizawl • Policy designed for subsidized water connections and meters to poor and BPL FHHs in each state • 2 training programs conducted in plumbing for 50 community members in each state [target 25M/25F]	SIPMIU Agartala and SIPMIU Aizawl. Skill training to be supported by the NGOs	Project duration
Output 2 - Sanitation infrastructure constructed			
Raise awareness and impart hygiene education in the user community on decentralized septage management system in Aizawl and ensure community participation in its O&M	• 5 awareness workshop in each town for 500 select community members [M250/F250] • 30% women in O&M structures established	SIPMIU Aizawl.	Project duration
Output 3 - Solid waste management infrastructure constructed and rehabilitated			
Conduct 1 consultation meeting in each town among community members—including SC/ST/other weaker section—to obtain their needs and priorities in the manner and schedule of waste collection	Aizawl and Agartala: 200 community members consulted through 4 campaigns in each town [Target - 100M/100F]	SIPMIU Agartala and SIPMIU Aizawl supported by NGOs already mobilized	Year 1
Ensure adequate representation of women in O&M Provide employment opportunity for ragpickers	Aizawl • 30% representation of women in O&M of compost plant and material resource centers ensured • All ragpickers employed at the SWM facilities (40% women)	SIPMIU Aizawl supported by the DSMC/NGO	Year 2 Project duration Year 4

¹⁴ As per the provisions of; (i) Prevention of Sexual Harassment at Workplace Act 2013; (ii) Protection of Children from Sexual Offence Act, 2013; (iii) Contract Labour Regulation & Abolition Act 1970; and (iv) Building and other Construction Workers (Regulation of Employment & Condition of Services Act 1996.

¹⁵ In all construction work under Tranche 3:(i) all bidding documents include relevant clauses on core labor standards and equal pay; (ii) all contractors oriented on key gender concepts, equal pay, core labor standards, and risks to women and children; and (iii) all contractors maintain labor registers showing names, sex, and wages of workers

¹⁶ Registrar General & Census Commissioner of India, 2011, defines a FHH as the one where a woman generally bears the chief responsibility for the maintenance of the household and takes decision.

Output 4- Capacity for project implementation and service delivery improved			
Train SIPMIUs' and IPCC staff on gender mainstreaming and key gender issues in water, sanitation solid waste management sectors	Agartala and Aizawl: 100% SIPMIUs' and IPCC staff trained [Target: 30% women]	SIPMIU Agartala and SIPMIU Aizawl	Year 1
Collect sex-disaggregated data through gender inclusive project management information system to measure impact of the project on men and women	Agartala and Aizawl: <ul style="list-style-type: none"> • 1 training for SIPMIUs' staff to collect, analyze and use sex disaggregated information and data; • Gender indicators included in PPMS and updated bi-annually with sex-disaggregated data 	SIPMIU Agartala and SIPMIU Aizawl	Quarter 1 of Year 1
Strengthen project management, implementation, monitoring, and staff capacity in gender mainstreaming	Agartala and Aizawl: SIPMIUs include a gender focal point- for supervision and coordination on GAP-and a gender specialist/ staff with TOR to implement, monitor, and report on GAP activities	SIPMIU Agartala and SIPMIU Aizawl	Q1 of Year 1
Establish a single window system for Aizawl's Septage Management	The single window cell is established in AzMC and staffed with 30% women	AzMC	Year 1

AzMC = Aizawl Municipal Council; BPL = below poverty line; DSMC = Design Supervision and Management Consultant; GAP; gender action plan; FHHs = female headed households; IPCC = investment program coordination cell; NGO=non-government organization; O&M= operations and maintenance; TOR = term of reference; PPMS = project performance monitoring system; SIPMIUs = State Investment Program Management and Implementation Units

IX. PERFORMANCE MONITORING, EVALUATION, REPORTING AND COMMUNICATION

A. Project Design and Monitoring Framework

Impact the Program is aligned with: Improved environment and well-being of urban residents in the program cities (defined by Investment Program).			
Project Results Chain	Performance Indicators with Targets and Baselines	Data Sources and Reporting ¹⁷	Risks
Outcome Increased access to sustainable and improved urban services in Agartala and Aizawl	By 2020, a. Additional 30,000 HHs in Aizawl and 40,000 HHs in Agartala receive treated ¹⁸ water for a minimum of 12 hours/ day (including FHH) (2015 baseline: Agartala: 3-4 hours/ day, and Aizawl: 1-2 hours/day, on average) b. Additional 75,800 HH in Agartala and 5,290 HH in Aizawl manage their septage safely ¹⁹ c. 105,130 HHs in Agartala and 71,700 HHs in Aizawl receive improved SWM services of 100% collection and treatment (Aizawl 2015 baseline: collection 80%, treatment – 0; Agartala 2015 baseline: collection 70%, treatment – 0) d. O&M cost recovery of water and sanitation services reaches 100% in Agartala and 60% ²⁰ in Aizawl (2015 baseline: Aizawl - 20%, Agartala- 5%)	a-d. AzMC and AMC's Water and Sanitation Division's Annual reports	Government's ability and policy to increase tariffs and provide subsidies.
Outputs 1. Water Supply Infrastructure constructed and rehabilitated	By 2020, (2015 baseline – 0) Aizawl and Agartala: 1a. Distribution network, 224 km in Aizawl and 178 km in Agartala, constructed/ rehabilitated (15% women workers in Aizawl) 1b. Bulk water meters- 43 in Aizawl and 30 in Agartala – installed Aizawl: 1c. Intake and (37 MLD) WTP constructed 1d. 20.5 km of pumping mains constructed 1e. 9 storage reservoirs of 2.8 MLD combined capacity constructed 1f. 1 rain water harvesting unit of 4.1 MLD constructed (15% women workers)	1a–i. Quarterly Progress reports from the Agartala and Aizawl SIPMIU	High staff turnover in AzMC AMC, and SIPMIUs. State fiscal position is affected by unforeseen circumstances causing delays on timely release of funds.

¹⁷ All data sources and reports will be verified by a third party appointed by the respective state governments.

¹⁸ In accordance with the standards prescribed by the Bureau of Indian Standards Code number 10500:2012.

¹⁹ In accordance with the urban services benchmarks of the Ministry of Urban Department, Government of India.

²⁰ Pumping cost of Aizawl's water supply, including that in Project 3, is very high since water is being pumped over 1000 metres and there are no alternatives. As population grows, more demand measures and other pilots, such as rainwater harvesting, are implemented. It is expected that by 2030 full cost recovery can be made.

	<p>1g. 31.6 km of feeder mains constructed</p> <p>Agartala:</p> <p>1h. 1 WTP of 31.5 MLD capacity rehabilitated</p> <p>1i. 12 deep tube wells of 8.52 MLD combined capacity constructed</p>		
2. Sanitation infrastructure constructed	<p>By 2020,</p> <p>2a. Decentralized septage treatment systems constructed for 5290 HHs in Aizawl (including low income households)</p> <p>2b. 1 MLD septage treatment plant constructed in Agartala</p>	2a-b. Quarterly progress reports from Aizawl and Agartala SIPMIUs	
3. Solid waste management infrastructure constructed and rehabilitated	<p><i>By 2020,</i> <i>(2015 baseline- 0)</i></p> <p>Aizawl:</p> <p>3a. 2 resource centers (37 MT/day each) constructed (15% women workers)</p> <p>3b. 2 vermi compost plant (11 TPD) constructed (15% women workers)</p> <p>3c. 1 mechanical compost plant (50 TPD) constructed</p> <p>3d. 20,000 m² sanitary landfill constructed</p> <p>Aizawl and Agartala:</p> <p>3e. SWM vehicles procured: 54 for Aizawl and 151 for Agartala</p>	3a–e. Quarterly progress reports from Aizawl and Agartala SIPMIUs	
4. Capacity for project implementation and service delivery improved	<p>By 2020,</p> <p>4a. Area-based property tax reforms implemented, and the assessed properties increased to a minimum of 70%, in both cities (2015 baseline: Agartala - 53%, Aizawl - 33%)</p> <p>4b. AzMC and AMC's water and sanitation divisions fully ring-fenced²¹ (2015 baseline: NA)</p> <p>4c. 100% SIPMIUs' and IPCC staff trained in their respective areas, such as planning, construction management, procurement, safeguards, and gender equality (2015 baseline: Less than 20% staff in SIPMIUs and IPCC trained)</p> <p>4d. A single window cell established for septage management in AzMC (30% women workers in the cell)</p>	<p>4a. AzMC and AMC's annual progress reports</p> <p>4b. AzMC and AMC's Water and sanitation division's annual reports</p> <p>4c. Quarterly progress reports of the two SIPMIUs</p> <p>4d. AzMC and AMC's annual and quarterly progress reports</p>	

²¹ Ring-fencing means that income, expenditure, assets and liabilities of water supply and sanitation can be separately identified and managed.

Key Activities with Milestones**Output 1. Water supply infrastructure constructed and rehabilitated**

- 1.1 Based on DPRs, prepare and issue bid documents for the sub-projects of Agartala and Aizawl (Q3 2015)
- 1.2 Complete evaluation and issue contracts for the subprojects (Q1 2016)
- 1.3 Start construction and rehabilitation in Agartala and Aizawl (Q1 2016 – Q2 2016)
- 1.4 Commission project and water supply system operational in Agartala and Aizawl by 2018

Output 2. Sanitation infrastructure constructed

- 2.1 Based on DPRs, prepare and issue bid documents for the sub-projects of Agartala and Aizawl (Q2 2015)
- 2.2 Complete evaluation and issue contracts for the subprojects (Q1 2016)
- 2.3 Start construction and complete delivery of equipment in Agartala and Aizawl (Q1 2016 – Q2 2017)
- 2.4 Commission project and implement septage management Agartala and Aizawl by 2018

Output 3. Solid waste management infrastructure constructed and rehabilitated

- 3.1 Based on DPRs, prepare and issue bid documents for the sub-projects of Agartala and Aizawl (Q2 2015)
- 3.2 Complete evaluation and issue contracts for the subprojects (Q4 2015 - Q1 2016)
- 3.3 Start construction and complete delivery of equipment in Agartala and Aizawl (Q1 2016 – Q2 2017)
- 3.4 Commission project and implement segregation of waste at source (HH) by 2018

Output 4. Capacity for project implementation and service delivery improved

- 4.1 Unit Area based property tax implemented (Q4 2015)
- 4.2 Agreed user charges fully implemented in both Aizawl and Agartala (Q2 2017)
- 4.3 Ring fencing of water supply services completed (Q1 2018)
- 4.4 Training programs for SIPMIU and IPCC staff initiated (Q1 2016)

Inputs**ADB: \$80,000,000 (OCR loan)****Government: \$34, 000,000**

Source: Asian Development Bank

AMC = Agartala Municipal Corporation; AzMC = Aizawl Municipal Council; DPR = detailed project report; FHH = female headed household; GE = Gender Equity; G/CD = Governance and Capacity Development; HHs = households; IPPC = Investment program Coordination Cell; km = kilometer; lpcd = Litres per capita per day; m² = square meter; MLD = million liters per day; MT = metric ton; NA = Not applicable, O&M = Operations and Maintenance; Q = Quarter; SIPMIU = State Investment Program Management and Implementation Unit; SWM = Solid Waste Management; TPD = tonnes per day; WTP = water treatment plant.

B. Monitoring

51. **Project performance monitoring.** The existing DSMCs, engaged under Project 1, will assist the SIPMIUs in completing baseline data collection. The new DSMC for Aizawl and the existing and new DSMCs for Agartala will assist the SIPMIUs to monitor performance of Project 3 using the targets, indicators, assumptions, and risks in the project design and monitoring framework, including how beneficiaries will be involved in project monitoring and evaluation, and report it in the quarterly progress reports to be submitted to ADB. These reports will provide information necessary to update ADB's project performance reporting system.²²

52. Compliance monitoring:

53. **Safeguards monitoring:** Project 3 SIPMIUs will submit separate semi-annual safeguard monitoring reports on environmental and social safeguards (EMR & SMR) to ADB, which will be disclosed on ADB's website. The monitoring reports will be prepared by the SIPMIUs' safeguards officers, with inputs from the consultants and contractors. The status of safeguards implementation, issues, and corrective actions are to be clearly reported to ADB. The status of safeguards implementation will also be discussed at each ADB review mission, with necessary issues and agreed actions recorded in Aide Memoires. The outline of the semiannual safeguards monitoring report is the Appendix 3.

²² ADB's project performance reporting system is available at:
<http://www.adb.org/Documents/Slideshows/PPMS/default.asp?p=evaltool>

54. **Gender and social dimensions monitoring:** The progress of GAP implementation will be closely reviewed and monitored at each ADB review mission and incorporated in the quarterly progress reports as well as evaluation reports and sent to ADB. Sex disaggregated database will be developed and data regularly updated during implementation. The evaluation of GAP implementation will be carried out as part of benefit monitoring, including at project completion. Core labor standards, including equal wage for women and men for work of equal value, will be closely monitored.

C. Evaluation

55. SIPMIUs will conduct regular review meetings, preferably twice a month with all the contractors, consultants, and SIPMIU staff, under Project 3 to evaluate implementation progress and explore mitigation measures to address any bottlenecks and issues. A monthly report is prepared and circulated to all that identifies the corrective measures taken on the previous month's issues. The PPMS also aims to detect any deficiency and discrepancy between the plan and the execution of the project in order to ensure that timely corrections can be made to adjust the design and implementation issues. ADB conducts an annual review meeting to evaluate the project progress.

56. In addition, a midterm review of Project 3 will be undertaken during the implementation period. The midterm review will evaluate in detail the scope of the loans, implementation arrangements, any outstanding issues, environment and resettlement as well as other safeguard issues, achievement of scheduled targets, contract management progress, and other issues, as appropriate and generate agreement on any changes that may be needed. Within 6 months of physical completion of Project 3, MOUD, with inputs from the SIPMIUs, will submit a project completion report to ADB.²³

D. Reporting

57. SIPMIUs will provide ADB the following reports, all of which are subject to web disclosure in compliance with ADB's *Public Communications Policy* (2011):

- (i) Quarterly progress reports (QPRs) in a format consistent with ADB's project performance reporting system within 30 days of the end of each quarter;²⁴
- (ii) Semi-annual safeguards monitoring reports;
- (iii) Consolidated annual reports including: (a) progress achieved by output as measured through the DMF indicator's performance targets; (b) key implementation issues and solutions; (c) updated procurement plan; and (d) updated implementation plan for next 12 months;
- (iv) A project completion report²⁵ within 6 months of physical completion of the project; and
- (v) Audited consolidated project financial statements and associated auditor's report within nine months of the end of each fiscal year.

²³ Project completion report format is available at: <http://www.adb.org/Consulting/consultants-toolkits/PCR-Public-Sector-Landscape.rar>

²⁴ An outline is provided in Appendix 6.

²⁵ Project completion report format is available at: <http://www.adb.org/Consulting/consultants-toolkits/PCR-Public-Sector-Landscape.rar>.

E. Stakeholder Communication Strategy

58. The consultation and participation plan²⁶ for Project 3 (Appendix 4) has been prepared. Information flows will focus on: (i) sharing project information (scope and progress) with decision makers, responsible agencies, consultants and contractors; (ii) explain the project and resolve concerns raised by affected persons; and (iii) involve beneficiaries in field-level monitoring activities. They provide information on: (i) who is responsible to ensure the actions and strategy are implemented, and (ii) what resources are required to implement the plan and strategy.

X. ANTICORRUPTION POLICY

59. The Borrower, MOUD, and SEAs are advised of ADB's Anticorruption Policy (1998, as amended to date). Consistent with its commitment to good governance, accountability and transparency, implementation of the Project 3 shall adhere to ADB's Anticorruption Policy.²⁷ ADB reserves the right to review and examine, directly or through its agents, any alleged corrupt, fraudulent, collusive, or coercive practices relating to the Project. In this regard, investigation of government officials, if any, would be requested by ADB to be undertaken by the government.

60. To support these efforts, relevant provisions of ADB's Anticorruption Policy are included in the Loan Regulations and the bidding documents. In particular, all contracts financed by ADB shall include provisions specifying the right of ADB to audit and examine the records and accounts of the states and implementing agencies and all contractors, suppliers, consultants, and other service providers as they relate to the Project 3y. Individuals/entities on ADB's anticorruption debarment list are ineligible to participate in ADB-financed activity and may not be awarded any contract under the project.

61. ADB's Anticorruption Policy designates the Office of Anticorruption and Integrity (OAI) as the point of contact to report allegations of fraud or corruption among ADB-financed projects or its staff. OAI is responsible for all matters related to allegations of fraud and corruption. For a more detailed explanation refer to the Anticorruption Policy and Procedures. Anyone coming across evidence of corruption associated with the project may contact the Anticorruption Unit by telephone, facsimile, mail, or email at the following numbers/addresses:

by email at integrity@adb.org or anticorruption@adb.org

by phone at +63 2 632 5004

by fax to +6326362152

by mail at the following address (Please mark correspondence Strictly Confidential):

Office of Anticorruption and Integrity
Asian Development Bank
6 ADB Avenue Mandaluyong City
1550 Metro Manila, Philippines

²⁶ *Staff Guide to Consultation and Participation*: <http://www.adb.org/participation/toolkit-staff-guide.asp> and, *CSO Sourcebook: A Staff Guide to Cooperation with Civil Society Organizations*: <http://www.adb.org/Documents/Books/CSO-Staff-Guide/default.asp>.

XI. ACCOUNTABILITY MECHANISM

62. People who are, or may in the future be, adversely affected by the project may submit complaints to ADB's Accountability Mechanism. The Accountability Mechanism provides an independent forum and process whereby people adversely affected by ADB-assisted projects can voice, and seek a resolution of their problems, as well as report alleged violations of ADB's operational policies and procedures. Before submitting a complaint to the Accountability Mechanism, affected people should make a good faith effort to solve their problems by working with the concerned ADB operations department. Only after doing that, and if they are still dissatisfied, should they approach the Accountability Mechanism.

XII. RECORD OF PAM CHANGES

63. {All revisions/updates during course of implementation should retain in this Section to provide a chronological history of changes to implemented arrangements recorded in the PAM.}

OUTLINE TERMS OF REFERENCE FOR CONSULTANTS

1A. DESIGN, CONSTRUCTION SUPERVISION AND MANAGEMENT CONSULTANTS FOR AIZAWL

I. SCOPE OF SERVICES

1. The design, supervision and management consultant (DSMC) for Aizawl will: (i) conduct surveys, investigations and tests, (ii) technical appraisal of subprojects and updating preliminary designs, (iii) detailed engineering designs/review of design, (iv) construction supervision and contract monitoring, (v) manage and implement water supply and septage management subprojects, and (vi) monitoring safeguard measure and preparation and monitoring project performance monitoring system (PPMS).

II. TEAM COMPOSITION, KEY ACTIVITIES, AND QUALIFICATION REQUIREMENTS

2. The required inputs will be of 385 person months key experts (national consultants), as well as 324 person months of non-key experts (support staff). Detailed breakdown of the type of consultants and their inputs is given in Table 1. The overall responsibility will be with the team leader. The indicative schedule of inputs is as follows:

- (i) contract management (1 specialist, 40 person-months);
- (ii) water supply (1 specialist, 22 person-months);
- (iii) sanitation (1 specialist, 12 person-months);
- (iv) solid waste management (1 specialist, 12 person-months);
- (v) Electrical Engineer (1 specialist, 6 person months);
- (vi) Mechanical Engineer (1 specialist, 6 person months);
- (vii) Structural Engineer (1 specialist, 4 person months);
- (viii) supervision engineers (4 person, 144 person-months);
- (ix) finance management (1 specialist, 9 person-months);
- (x) community development and public awareness (1 specialist, 40 person-months);
- (xi) resettlement & social safeguards (1 specialist, 40 person-months);
- (xii) environmental safeguards (1 specialist, 40 person-months); and
- (xiii) monitoring and evaluation (1 specialist, 10 person-months).

A. Specific Terms of Reference - Key Experts

3. **Team Leader/Contract Management Expert (Design and Construction Supervision).** It is preferred that the Team Leader be a professionally qualified graduate civil engineer with preferably ten years or more experience in (i) designing (ii) project management and (iii) contract management in major projects in the field of urban development. The Team Leader shall be solely responsible for the design review and construction supervision of the urban water and sanitation and solid waste management schemes. He shall also be responsible for overseeing the implementation of due diligence aspects into contractual agreements under the project. He will report directly to the SIPMIU Project Director (PD). Preferably the Team leader be competent in planning, designing, contractual management, resolving problems, quality maintenance, budgeting and financial control, progress monitoring, international procurement procedures, communication skills and documentation. The specific tasks include:

- (i) Assist the PD and other staff in the day-to-day management of project activities;
- (ii) Assist the PD and other staff in planning, control and management of the teams' work;

- (iii) Assist in developing implementation schedules and resource requirements;
- (iv) Assist in monitoring progress, evaluating results and identification and resolution of constraints; and
- (v) Coordinate activities with various implementing agencies and stakeholders, including communities and NGOs.

4. **Water Supply Engineer/ Network Modeling Design and Non-revenue water (NRW) expert.** The Water Supply Engineer should be a professionally qualified engineer. Experience of 6 years or more in managing major projects in the water sector is an added advantage. The Water Supply Engineer will be responsible for

- (i) Designing/Design Review and reviewing topographical, geotechnical and other surveys;
- (ii) Conduct a full detailed engineering design/reviewing the design of treated water transmission lines for Aizawl, distribution networks, storage structures other parts of the system, water supply source augmentation including intake and treatment plant as deemed necessary; and
- (iii) The expert will conduct on-the-job training particularly in non-revenue water reduction with use of the latest international equipment and techniques for (i) detecting and recording losses in the water distribution network, (ii) addressing both apparent and real water losses.

5. **Sewerage and Wastewater Treatment Specialist.** The sewerage specialist shall be a professionally qualified civil engineer. Experience of 6 years or more in design of sewerage systems is an added advantage. The sub-team's specific tasks include:

- (i) Review design prepared by Contractor for sewerage treatment plant
- (ii) Prepare and review design for Sewerage networks
- (iii) Assist SIPMIU in Sewerage sub-project contract management
- (iv) Assist the Resident Engineers/Asst. Engineer as required

6. **Solid Waste Management Specialist.** Solid Waste Management Specialist shall be a professionally qualified engineer/environment expert/MBBS. Experience of 6 years or above in Solid Waste Management is an added advantage. The Solid Waste Management specialist's specific tasks include:

- (i) Assist the Resident/Asst. Engineers as required;
- (ii) Review contractor's proposals for the most suitable, economic and easy to operate and maintain system;
- (iii) Provide overall guidance and advice to the SPMIU in matters pertaining to solid waste management policies and their application; and
- (iv) Review the detailed designs prepared for Aizawl solid waste management and provide advice to the SIPMIU.

7. **Electrical/Mechanical Engineer.** The specialists should be a graduate engineer in the field of electrical and/or mechanical engineering with an experience of 6 years or more. Experience in the design of (a) plant for water, sewerage and solid waste management systems and pumping stations and (b) highly automated systems on water or sewerage systems is an added advantage. The specific tasks include:

- (i) Review the design the electrical and mechanical plant equipment including specification and schedules;
- (ii) Liaise with the designers, electrical/mechanical and ICA engineers on operational philosophy and when preparing the system design and drawings;

- (iii) Assist SIPMIU staff in the approval of specification of electromechanical goods to be supplied by the contractor;
- (iv) Assist in the preparation of documentation and supervision of the dedicated power supply for the water scheme; and
- (v) Review the contractor's assessment of the power requirements and establish power availability and assist SIPMIU staff obtaining the requirement from CES.

8. **Structural engineer.** The structural engineer should be an engineer, preferably a civil engineer with relevant experience in structural engineering. Experience of 6 years and above of which 4 years in structural design of concrete water retaining structures is an added advantage. The duties of Structural engineer are:

- (i) Review soil investigations;
- (ii) to review all structural designs and necessary structural drawings and specifications, including components relating to reservoir construction/rehabilitation, water supply components, sewerage components and building construction; and
- (iii) ensure compliance with applicable building rules of the State, with a specific focus on compliance on seismic resistant requirements.

9. **Assistant Engineer/Resident Engineers.** The Assistant Engineer/Resident Engineers should be a graduate civil engineer. Experience of 4 years or more in supervising construction works within the water sector is preferable. The tasks will be to oversee the following activities:

- (i) Assist SIPMIU staff designs review
- (ii) Review and approve the construction methodology and schedule submitted by the contractor;
- (iii) Implement a construction management system for the works;
- (iv) Directly supervise and monitor the contractors activity to ensure satisfactorily standards, quality assurance, control of workmanship and progress; and
- (v) Check contractors' setting out.

10. **Community Development, GAP Implementation and Public Awareness Specialist.** The Community Development & Public Awareness Specialist should be a graduate in Social Sciences. Experience of 4 years or more in Social development related works is preferable. The specific tasks for Community Awareness and Participation Specialist will be:

- (i) Assist the SIPMIU in the design, preparation, planning and management of the community participation and awareness program;
- (ii) Prepare an inventory and review recent and current community-based initiatives in Aizawl; organizations involved, mechanisms used, successes achieved;
- (iii) Plan and deliver initial briefing, training and orientation of SIPMIU in community participation and awareness programs;
- (iv) Assist and advise the SIPMIU on how to manage and co-ordinate the implementation of the environmental public health and water optimization awareness programs;
- (v) Provide continuous guidance on suitable mechanisms for participatory interaction with and training of local government and CBOs;
- (vi) Develop and implement specific measures to ensure participation of vulnerable groups, including women and the poor;
- (vii) Assist SIPMIU in implementation & monitoring of GAP;
- (viii) Support in capacity building for Gender mainstreaming activities under the project at each level;

- (ix) Monitor GAP implementation progress, collect data disaggregated by sex and submit update on progress and achievement in template presented by ADB at each quarter;
- (x) Monitor performance and impact of the community participation in the field and on the towns, if needed make adjustments to the program; review field reports; and advise SIPMIU on actions required; prepare annual reports on performance and impact of community participation and development activities;
- (xi) Plan and organize regular training events, including workshops and seminars for the duration of the Program;
- (xii) Prepare Information, Education and Communication materials and media campaigns, advertisement clippings, Web pages, etc. of the Investment Program and first tranche;
- (xiii) Promote Investment Program's Urban Governance, Finance, and Service Delivery Improvement Action Plan;
- (xiv) Prepare Awareness campaign on (a) the need for and application of user charges for improved urban services, (b) water optimization and conservation program, (c) environmental and social issues, such as, and (d) resettlement entitlements through various media means;
- (xv) Disseminate information about the Investment Program to the target groups especially women. Build stakeholders' awareness on the long-term benefits and short-term inconvenience of the Program in order to gain full support to the beneficiaries towards the Program;
- (xvi) Make the beneficiaries aware of preventive care to avoid any health related hazards;
- (xvii) Make the beneficiaries aware of their responsibilities, including issues such as user charges and property tax reform etc. for achieving the goal of the program;
- (xviii) Make the beneficiaries aware of the existing health care facilities and how to make optimal use of these;
- (xix) Invite feedback from beneficiaries on aspects of the program and sub-programs and advise the SIPMIU of how these might influence future program and sub-programs design;
- (xx) Assist SIPMIU in implementation and monitoring of GAP;
- (xxi) Support in capacity building for gender mainstreaming activities under the project at each level; and
- (xxii) Monitor GAP implementation progress, collect data disaggregated by sex and submit update on progress and achievement in template presented by ADB at each quarter.

11. Environmental Specialist. The Environmental specialist should be a graduate in Environmental Science/ Engineering. The expert with 5 years or more experience of which 3 years in the performance of environmental assessments with particular reference to dam construction and wastewater projects and the impact of construction works will be an added advantage. The expert's specific tasks include:

- (i) Assist the SIPMIU in the preparation of the necessary environmental impact assessments in accordance with ADB, GoI and Government of Mizoram standards for environmental assessment of Investment Program tranches and subprojects;
- (ii) Assist SIPMIU in obtaining environmental clearances and consents to establish and operate;
- (iii) Assist the SIPMIU in reviewing, preparing and updating initial environmental examinations and environmental management plan for the Project;

- (iv) Ensure the implementation of IEEs and environmental impact assessments are consistent with Government and ADB policies, and the EARF agreed upon by the Government and ADB for Mizoram's sub-projects; and
- (v) Provide advice and support to ensure SIPMIU obtain necessary Government approvals.

12. **Resettlement & Social Safeguards Specialist.** The specialist should have a degree in Social Science with 5 years or more experience will be an added advantage. Resettlement issues will be managed and coordinated by a domestic Resettlement Specialist in the SIPMIU. The specialist shall provide advice on any resettlement issues and assist the SIPMIU and other bodies in the processing and resolution of resettlement claims. He/she shall provide advice on the correct procedures to be followed and prepare a schedule of when actions should be taken relevant to the design and construction program. The action plan shall comply with the relevant policies of the Government of India and ADB's SPS (2009), Resettlement Frameworks. Specific responsibilities and actions include:

- (i) Assist the SIPMIU in coordinating all social issues and ensuring that all sub-projects comply with Government and ADB social safeguards. This includes the preparation of Corrective Action Plan (CAP) when required;
- (ii) Assist the SIPMIU in disseminating of project information and GRM process and procedures, preparing and updating Resettlement Plans, Indigenous People Development Plans (IPDPs) and confirming the finding of due diligence report (DDRs) prepared;
- (iii) Assist the SIPMIU in the preparation of Semiannual social safeguard monitoring reports (SMR) for submission to ADB and disclosure;
- (iv) Coordinate valuation by the valuation committees and finalization of compensation packages;
- (v) Prepare and review all social safeguards documents (RPs, SMRs and IPDPs, as required) developed by SIPMIU and ensure that comments from the ADB are integrated in finalized documents;
- (vi) Monitor the compliance of land ownership transfer of the project lands prior to the starts of civil works;
- (vii) Supervise and monitor implementation of the Resettlement Plans and IPDPs (to be undertaken through a recruited NGO under the DSC); and
- (viii) Support the SIPMIU in monitoring and implementation of project GRM and when finding solution for complaints and grievances. For any recurring issues and complaint specific actions/mitigation plans may be prepared.

13. **Financial Management Specialist.** The Financial Management Specialist should be a Chartered Accountant from recognized professional institution with 6 years or more professional experience in the field. Knowledge in current international/national accounting standards and generally accepted procedure is an added advantage. He/she will:

- (i) Liaise with senior accountants in the Investment Program Coordination Cell (IPCC) and SIPMIU;
- (ii) Assist SIPMIU to establish a sound accounting practice and systems to manage resources available at the investment program;
- (iii) Assist in budgetary control processes, design budget procedures, and budget formats;
- (iv) Train SIPMIU staff in the preparation of annual budget estimates and disbursement plans in line with Project Account requirement;
- (v) Review the financial management system of Government agencies involved in the Program and make recommendations for optimal integration;

- (vi) Advise on the establishment of billing & collection system;
- (vii) Assist in preparing annual project account as per Accrual based double entry accounting system;
- (viii) Assist in audit of project account by Auditor General;
- (ix) Assist in preparing reimbursement claim; and
- (x) Any other issue relating to finance/account.

14. **Monitoring and Evaluation Specialist.** The specialist should have a degree in a relevant subject (evaluation, public health or related subject) with 6 years' experience in the field is preferable. He/she will:

- (i) assess the SIPMIU/Government's M&E procedures, indicators, and reports;
- (ii) identify physical, institutional, and financial data to be analyzed to monitor sustainability and impact of project services, and achievement of an Action Program and Performance Criteria for development, and agree these with the IPCC;
- (iii) Establish an Investment Program Performance Monitoring System within the three months of loan effectiveness and submit it to ADB;
- (iv) Prepare a framework for continuous monitoring throughout the investment program; and
- (v) draft a conceptual design of the MIS/M&E program;

15. All proposed experts are required to perform other relevant functions as required by the TOR.

B. Non-Key Expert:

16. **Junior Engineers.** The consultant should also provide 9 nos. of Junior Engineer with approximately 324 person months as a Non-Key Expert. It is preferred that the Junior Engineer be a Diploma in Civil Engineering. 4 years experience in supervision of works in water supply sector will be an added advantage.

III. SCHEDULE OF REPORTING AND SUBMISSIONS

17. The team leader is responsible for delivery of all reports. The DSMC is required to submit following reports, for each subprojects, to the SIPMIU Director in English. All reports should be submitted as required below and in an electronic and hard copy format.

- (i) Inception report in 5 copies plus a soft copy, one month after the issue of letter of commencement of work. This report should include the related works, details of program of works and deliverable with time schedule up to the project period, which the consultant proposes to implement;
- (ii) Design review report in 5 copies plus a soft copy three months after the commencement of work, which will give the opinion on design criteria, concepts, outline and implementation arrangements;
- (iii) Final design review report in 5 copies plus a soft copy;
- (iv) Commissioning report in 5 copies plus a soft copy;
- (v) Report on completion in 5 copies plus a soft copy;
- (vi) Progress Reports in 5 copies plus a soft copy at monthly, quarterly, semi-annually and yearly intervals, summarizing financial situation of all work and contracts, progress achieved, difficulties encountered and issue to be resolved;
- (vii) O&M manuals 5 copies plus a soft copy; and
- (viii) Final Report in 5 copies with soft copy.

1 B: DESIGN, CONSTRUCTION SUPERVISION AND MANAGEMENT CONSULTANTS FOR AGARTALA

I. SCOPE OF SERVICES

1. The design, supervision and management consultant (DSMC) will: (i) conduct surveys, investigations and tests, (ii) technical appraisal of subprojects and updating preliminary designs; (iii) detailed engineering designs/review of design, (iv) construction supervision and contract monitoring, (v) monitoring safeguard measure and preparation and monitoring project performance monitoring system (PPMS).

II. TEAM COMPOSITION, KEY ACTIVITIES AND QUALIFICATION REQUIREMENTS

2. The team will comprise of 375 person months Key Experts (national consultants), as well as 381 person months of Non-Key Experts (support staff) time. Detail breakdown of the type of consultants, and individual inputs is given in Table 2. Specific tasks of the sub-teams and expertise required is given in the following paragraphs. The overall responsibility will be with the Team Leader. The indicative schedule of inputs is as follows:

- (i) contract management (1 specialist, 12 person-months),
- (ii) water supply (1 specialist, 6 person-months),
- (iii) sanitation (1 specialist, 2 person-months),
- (iv) supervision engineers (12 person-months),
- (v) community development and public awareness (1 specialist, 9 person-months),
- (vi) resettlement & social safeguards (1 specialist, 6 person-months),
- (vii) environmental safeguards (1 specialist, 4 person-months), and
- (viii) monitoring and evaluation (1 specialist, 6 person-months).

A. Specific Terms of Reference - Key Experts

3. **Team Leader/Contract Management Expert (Design and Construction Supervision).** It is preferred that the Team Leader be a professionally qualified graduate civil engineer with preferably ten years or more experience in (i) designing (ii) project management and (iii) contract management in major projects in the field of urban development. The Team Leader shall be solely responsible for the design review and construction supervision of the urban water and sanitation and solid waste management schemes. He shall also be responsible for overseeing the implementation of due diligence aspects into contractual agreements under the project. He will report directly to the SIPMIU Project Director. Preferably the Team leader be competent in planning, designing, contractual management, resolving problems, quality maintenance, budgeting and financial control, progress monitoring, international procurement procedures, communication skills and documentation. The specific tasks include:

- (i) Assist the Project Director and other staff in the day-to-day management of Project activities;
- (ii) Assist the Project Director and other staff in planning, control and management of the teams' work;
- (iii) Assist in developing implementation schedules and resource requirements;
- (iv) Assist in monitoring progress, evaluating results and identification and resolution of constraints; and
- (v) Coordinate activities with various implementing agencies and stakeholders, including communities and NGOs.

4. **Water Supply Engineer (Network Modeling Design & NRW).** The Water Supply Engineer should be a professionally qualified engineer. Experience of 6 years or more in managing major projects in the water sector is an added advantage. The Water Supply Engineer will be responsible for:

- (i) Designing/Design Review and reviewing topographical, geotechnical and other surveys;
- (ii) Conduct a full detailed engineering design/reviewing the design of treated water transmission lines for Aizawl, distribution networks, storage structures other parts of the system, water supply source augmentation including intake and treatment plant as deemed necessary; and
- (iii) The expert will conduct on-the-job training particularly in Leak Detection and Rectification Programme (Non-Revenue Water Reduction) with use of the latest international equipment and techniques for (a) detecting and recording losses in the water distribution network, and (b) addressing both apparent and real water losses.

5. **Sewerage and Wastewater Treatment Specialist.** The sewerage specialist shall be a professionally qualified engineer, preferably a civil or chemical engineer. Experience of 6 years or more in design of sewerage systems is an added advantage. The sub-team's specific tasks include:

- (i) Review design prepared by Contractor for STP;
- (ii) Prepare and review design for Sewerage networks;
- (iii) Assist SIPMIU in Sewerage sub-project contract management; and
- (iv) Assist the Resident Engineers/Asst. Engineer as required.

6. **Assistant Engineer/Resident Engineers.** Assistant Engineer/Resident Engineers will be a professionally qualified engineer, preferably a graduate of civil engineering. Experience of 4 years or more in supervising construction works within the water sector is preferable. The tasks will be to oversee the following activities:

- (i) Assist SIPMIU staff designs review;
- (ii) Review and approve the construction methodology and schedule submitted by the contractor;
- (iii) Implement a construction management system for the works;
- (iv) Directly supervise and monitor the contractors activity to ensure satisfactorily standards, quality assurance, control of workmanship and progress; and
- (v) Check contractors' setting out.

7. **Community Development and Public Awareness Specialist.** The Community Development & Public Awareness Specialist will preferably be a graduate in Social Sciences. Experience of 4 years or more in social development related works is preferable. The specific tasks for Community Awareness and Participation Specialist will be:

- (i) Assist the SIPMIU in the design, preparation, planning and management of the community participation and awareness program;
- (ii) Prepare an inventory and review recent and current community-based initiatives in Aizawl; organizations involved, mechanisms used, successes achieved;
- (iii) Plan and deliver initial briefing, training and orientation of SIPMIU in community participation and awareness programs;
- (iv) Assist and advise the SIPMIU on how to manage and co-ordinate the implementation of the environmental public health and water optimization awareness programs;

- (v) The Community Development and Public Awareness Specialist will also mobilize community organizers to support SIPMIU in the management and implementation of the water supply and septage management subprojects to:
 - (a) ensure close co-ordination between beneficiary households, government and septage land donors, SIPMIU, AMC and DSMC during implementation of house connections for water supply as well as sewerage/bio-digesters;
 - (b) generate awareness among households about the septage management subproject and its benefits, proposed technology, project cost, implementation schedule, potential impacts-temporary (during construction) and permanent, grievance redress procedures during implementation and expected average response time, operation and maintenance needs; water conservation and maintenance of household connections/pipelines, combined monthly billing for water and sewerage/septage management etc.;
 - (c) mobilise community, form user groups for common facilities (water and septage), establish procedures for handling operation and maintenance issues and reporting any issues that they cannot resolve, to AMC;
 - (d) organise training of willing community members (men and women) from low income groups in plumbing and maintenance work;
 - (e) identify (through joint verification with SIPMIU and DSMC) poor and vulnerable households requiring water supply connection subsidy; support low income households to apply for subsidized water supply connections;
 - (f) hold meetings with user communities of common facilities every six months to monitor progress and issues;
 - (g) participate in meetings with DSMC, SIPMIU and AMC as and when required;
 - (h) submit monthly progress reports; and
 - (i) document lessons learned each year, identify problem areas and follow-up actions to ensure sustainability; analyze and report impacts of project interventions.
- (vi) Assist SIPMIU in implementation and monitoring of GAP;
- (vii) Support in capacity building for gender mainstreaming activities under the project at each level; and
- (viii) Monitor GAP implementation progress, collect data disaggregated by sex and submit update on progress and achievement in template presented by ADB at each quarter.

8. **Environmental Specialist.** Preferably the Environmental specialist will be a graduate in Environmental Science/ Engineering. The expert with 5 years or more experience of which 3 years in the performance of environmental assessments with particular reference to urban water and sanitation projects and the impact of construction works will be an added advantage. The expert's specific tasks include:

- (i) Assist the SIPMIU in the preparation of the necessary environmental impact assessments in accordance with ADB, GoI and Government of Tripura standards for environmental assessment of Investment Program tranches and subprojects;
- (ii) Assist SIPMIU in obtaining environmental clearances and consents to establish and operate;

- (iii) Assist the SIPMIU in reviewing, preparing and updating initial environmental examinations and environmental management plan for the Project;
- (iv) Ensure the implementation of IEEs and environmental impact assessments are consistent with Government and ADB policies, and the EARF agreed upon by the Government and ADB for Tripura's sub-projects; and
- (v) Provide advice and support to ensure SIPMIU obtain necessary government approvals.

9. **Resettlement & Social Safeguards Specialist.** It is preferred that the specialist have a degree in Social Science with 5 years or more experience in dealing with resettlement and social safeguards issues of infrastructure projects. Resettlement issues will be managed and coordinated by a Resettlement Specialist in the SIPMIU. The specialist shall provide advice on any resettlement issues and assist the SIPMIU and other bodies in the processing and resolution of resettlement claims. He/she shall provide advice on the correct procedures to be followed and prepare a schedule of when actions should be taken relevant to the design and construction program. The action plan shall comply with the relevant policies of the Government of India and ADB's SPS (2009), Resettlement Frameworks. Specific responsibilities and actions include:

- (i) Assist the SIPMIU in coordinating all social issues and ensuring that all sub-projects comply with Government and ADB social safeguards. This includes the preparation of Corrective Action Plan (CAP) when required;
- (ii) Assist the SIPMIU in disseminating of project information and GRM process and procedures, preparing and updating Resettlement Plans (RPs), Indigenous People Development Plans (IPDPs) and confirming the finding of due diligence report (DDRs) prepared;
- (iii) Assist the SIPMIU in the preparation of Semiannual social safeguard monitoring reports (SMR) for submission to ADB and disclosure;
- (iv) Coordinate valuation by the valuation committees and finalization of compensation packages;
- (v) Prepare and review all social safeguards documents (RPs, SMRs and IPDPs, as required) developed by SIPMIU and ensure that comments from the ADB are integrated in finalized documents;
- (vi) Monitor the compliance of land ownership transfer of the project lands prior to the starts of civil works;
- (vii) Supervise and monitor implementation of the Resettlement Plans and IPDPs (to be undertaken through a recruited NGO under the DSC); and
- (viii) Support the SIPMIU in monitoring and implementation of project GRM and when finding solution for complaints and grievances. For any recurring issues and complaint specific actions/mitigation plans may be prepared.

10. **Monitoring and Evaluation (M&E) Specialist.** The specialist preferably having a degree in a relevant subject, such as engineering, with 6 years' experience in evaluation and monitoring of infrastructure projects) in the field is preferred. He/she will:

- (i) assess the SIPMIU/Government's M&E procedures, indicators, and reports;
- (ii) identify physical, institutional, and financial data to be analyzed to monitor sustainability and impact of project services, and achievement of an Action Program and Performance Criteria for development, and agree these with the IPCC;
- (iii) Establish an Investment Program Performance Monitoring System within the three months of loan effectiveness and submit it to ADB;

- (iv) Prepare a framework for continuous monitoring throughout the investment program; and
- (v) draft a conceptual design of the M&E program.

B. Non-Key Expert:

11. **Junior Engineers:** The consultant should also provide nine (9) Junior Engineers with approximately 234 person months as Non-Key Experts. It is preferred that the Junior Engineer have a minimum of Diploma in Civil Engineering. Four years' experience in supervision of works in water supply sector will be an added advantage.

III. SCHEDULE OF REPORTING AND SUBMISSIONS

12. The team leader is responsible for delivery of all reports. The DSMC is required to submit following reports, for each subprojects, to the SIPMIU Director in English. All reports should be submitted as required below and in an electronic and hard copy format.

- (i) Inception report in 5 copies plus a soft copy, one month after the issue of letter of commencement of work. This report should include the related works, details of program of works and deliverable with time schedule up to the project period, which the consultant proposes to implement;
- (ii) Design review report in 5 copies plus a soft copy three months after the commencement of work, which will give the opinion on design criteria, concepts, outline and implementation arrangements;
- (iii) Final design review report in 5 copies plus a soft copy;
- (iv) Commissioning report in 5 copies plus a soft copy;
- (v) Report on completion in 5 copies plus a soft copy;
- (vi) Progress Reports in 5 copies plus a soft copy at monthly, quarterly, semi-annually and yearly intervals, summarizing financial situation of all work and contracts, progress achieved, difficulties encountered and issue to be resolved;
- (vii) O&M manuals 5 copies plus a soft copy; and
- (viii) Final Report in 5 copies with soft copy.

UPDATED SUMMARY POVERTY REDUCTION AND SOCIAL STRATEGY

Country:	India	Project Title:	North Eastern Region Capital Cities Development Investment Program (NERCCDIP) Project 3
Lending/Financing Modality:	Multi-tranche Financing Facility (MFF)	Department/ Division:	South Asia Department/ Urban Development and Water Division

I. POVERTY AND SOCIAL ANALYSIS AND STRATEGY

Poverty targeting: targeted intervention—MDGs/SDGs

A. Links to the National Poverty Reduction and Inclusive Growth Strategy and Country Partnership Strategy

Reduction of poverty incidence and deprivation in India is a priority of the Government of India (GoI). North Eastern Region Capital Cities Development Investment Program (NERCCDIP) was framed within GoI's 11th Five-year Plan (2007-2012), which aimed to reduce poverty and regional disparities by ensuring, among others, access to basic physical infrastructure. NERCCDIP's implementation has remained consistent with this roadmap. Government's commitment for the development of NER, as one of the least developed regions in India, was recently affirmed in its Economic Survey 2014-2015, saying that the NER states are expected to benefit significantly from various central-government sponsored grants to the states in India. NERCCDIP is also consistent with recently launched central government schemes in the urban sector, such as the Swachh Bharat Abhiyan. In addition, the urban reforms under the NERCCDIP continue to support implementation of the 74th Constitutional Amendment Act of GoI, which is an important pillar and focus of the government in the urban centers. The proposed Project 3 of the NERCCDIP includes community participation components, particularly for water supply and septage management subprojects, and is expected to address deficiencies in urban services in two selected capital cities - Agartala and Aizawl - of NER states and boost the regional economy through improved services. Water supply, septage management and solid waste management, improvements will also directly contribute to achieving the Sustainable Development Goals (SDGs) 6 and 11, which build on the MDGs.

B. Results from the Poverty and Social Analysis during Due Diligence

1. Key poverty and social issues. Urban poverty in the targeted NER states under NERCCDIP is estimated to range from 3.66% in Sikkim, 9.26% in Meghalaya, 6.36% in Mizoram, 7.42% in Tripura to 16.48% in Nagaland; against 13.7% urban poverty at all-India level. An estimated 0.275 million urban poor (0.5% of urban poor population in India) live in these states, of which the majority are estimated to live in the state capitals (*Economic Survey, India, 2014-15* (footnote b)). However, it is commonly understood that income poverty data alone does not accurately reflect all the dimensions of poverty in the NER. Inadequate infrastructure especially water availability and a stagnant manufacturing industry are known to have affected economic growth in the NER. Lack of access to reliable and quality urban services, time spent on water collection, and water and vector-borne disease burden, are some of the key issues that affect the population of the target cities, especially the poor. Project 3 subprojects are designed to ensure NERCCDIP's contribution to the impact and outcome of MDG7/related SDGs. Baseline and impact monitoring through the Project Performance Monitoring System (PPMS) is already in place at the implementing agencies of NERCCDIP.

2. Beneficiaries. In combination with Projects 1 and 2 investments under NERCCDIP, Project 3 seeks to provide full coverage of water supply, sanitation and solid waste management (SWM) facilities, including low income areas within the municipal boundaries, in Aizawl and Agartala. Targeted populations will include currently unconnected houses, which are the poor, disadvantaged, female-headed, and minorities/migrants/disadvantaged ethnic groups. Poor female-headed households (FHH) and below poverty line (BPL) households will benefit from subsidized water supply and free sewerage connections in NERCCDIP areas as well as employment opportunities for unskilled construction work. The poorest and most vulnerable households - men and women- will also directly benefit from jobs created under NERCCDIP for O&M of facilities created. Time savings and health benefits as a result of the water supply and sewerage/septage subprojects will lead to benefits / opportunity cost savings for the poor (and non-poor), especially women and girl children. Under the septage management component in Aizawl; 121 bio-digesters are proposed in low income areas; to benefit over 2,200 low income households, including BPL households. Improvements in water supply and environmental quality through water supply, sanitation and SWM improvement will lead to public health improvements, which is expected to benefit the community and the poor in particular.

3. Impact channels. Impact channels include access to improved water supply, sewerage/ septage management and SWM services for all, including poor and vulnerable households and female-headed households, in NERCCDIP areas.

4. Other social and poverty issues. NERCCDIP addresses poverty and vulnerability indirectly, through the delivery of improved water supply and sanitation services, which by their very nature, lead to social, economic, health and environmental benefits. NERCCDIP, including Project 3, will also directly benefit the poor and vulnerable, including FHH, through employment in construction work and O&M of facilities created. However, it does not address the issue of

unemployment and income poverty in totality; these will be addressed by government schemes.

5. Design features.NERCCDIP contains pro-poor elements in its design and targets inclusion of poor and vulnerable. Pro-poor design elements include subsidizing connection costs for water supply, free connections for sewerage, and community participation programs. Project 3 subprojects, like subprojects under Projects 1 and 2, are hinged on community awareness, mobilisation and participation with the involvement of local NGOs/CBOs/women's groups.

II. PARTICIPATION AND EMPOWERING THE POOR

1. Participatory approaches and project activities.

Consultation workshops, meetings, focus group discussions, and structured interviews were undertaken with stakeholders during project preparation. The participation strategy for Project 3 envisages involvement of civil society, such as NGOs/CBOs/women's groups, in awareness generation, community mobilization, formation of user groups for common facilities and identification of households requiring connection subsidies in Aizawl and Agartala. It targets the poor and women's participation and inclusion in project benefits. Participatory processes are anticipated to enhance sustainability. Consultations will be documented and reported in the periodic monitoring reports.

2. Participation plan.

☒ Yes. ☐ No.

A specific component of the community awareness and participation strategy is the community mobilization and awareness program, specifically focusing on (i) water conservation, prevention of water leakage and wastage within their premises/locality, (ii) institutional set up on septage management, including the community's role and responsibilities, and formation of user groups; (ii) providing assistance to poor and vulnerable, including poor FHH to apply for connection subsidies; and (iii) SWM, including awareness generation, role and responsibilities of communities for safe and hygienic disposal of waste and prevention of dumping and open burning. This will be implemented by the Community Development and Public Awareness Experts in the SIPMIUs, with support of DSMCs and local NGOs/CBOs/women's groups. They will identify and involve such entities, to assist in outreach activities, positively influence and improve knowledge of general public, build the capacity of local CBOs/NGOs, and identify specific activities for empowering local community to participate and benefit from NERCCDIP activities.

III. GENDER AND DEVELOPMENT

Gender mainstreaming category: Effective Gender Mainstreaming (EGM)

A. Key issues. Primary and secondary data on status of women in Agartala and Aizawl reveal the following: although female literacy is high, it is a few percentage points lower than male literacy. Unemployment is higher among women, and the disparities in unemployment levels and in average earnings between male and FHH increase with lower incomes. There is also a high correlation between poverty and gender of household head. Agartala recorded an alarming decline in child sex ratio (0-6 years) by 13 points as per Census 2011, compared with Census 200, while in Aizawl the condition was better. While day-to-day household decisions are made by women, all major decisions are made by male members of the family. Lack of basic urban infrastructure and services affects women more than men. Women play a primary role in managing water collection, sanitation and waste management. Water collection takes an average of 3–4 hours per day, reducing time for women's engagement in productive activities that could increase household income and improve their position within the household and community. Women are more exposed to diseases from contaminated water. A reduction in diseases, aside from reducing treatment costs and productivity losses, would also reduce the burden of care-giving for the sick, a role often taken on by women in the household. Tranche 3 subprojects are designed to address these issues.

B. Key actions.

☒ Gender action plan ☐ Other actions or measures ☐ No action or measure

The gender strategy ensures that gender issues are addressed, holistic empowerment of women is promoted, women benefit equally from the project, and interventions avoid gender bias. A gender action plan (GAP) has been formulated and agreed with SIPMIUs to maximize Project 3 benefits to women. Specific benefits to women will include; (i) increased opportunities for women in income generation through involvement in construction activities and provision of skill training; (ii) capacity building and greater participation of women in management and O&M of sanitation and SWM infrastructure created. The GAP also envisages an enabling institutional environment for gender mainstreaming.

IV. ADDRESSING SOCIAL SAFEGUARD ISSUES	
A. Involuntary Resettlement 1. Key impacts. Key IR impacts are in forms of acquisition or negotiated settlement for privately owned or leased land for a total 87674 m ² in Aizawl for water supply and solid waste infrastructure from two private land owners (considering sites obtained exclusively for Project 3) and four Government land lease holders (Periodic Patta). Agartala's water supply facilities under Project 3 requiring 72 m ² land are also proposed within the boundaries of 2 sites obtained for Project 2 facilities. Voluntary land donations from private entities and non-profit institutions, of 21,308 m ² were received for (i) construction of approach road of the proposed WTP, (ii) three water reservoirs and their approach roads, and (iii) septage management facilities in Aizawl. Government land of 76,288.5 m ² was identified for water supply and solid waste sites and 10,532.6 m ² land for septage management sites in both states. There are potential livelihood consequences for 59 ragpickers, which will be mitigated. One temporary structure on acquired land is affected. In Agartala, trenchless technology of pipelaying is proposed in congested road stretches whereas in Aizawl, pipelaying in congested market areas is proposed at night; hence, temporary impacts to businesses are avoided. The Resettlement Framework for the program is updated. Two draft Resettlement Plans and 2 draft Due Diligence Reports are prepared; these documents are to be updated and confirmed after some remaining detailed measurement surveys are completed. 2. Strategy to address the impacts. For permanent impacts, affected persons are entitled to compensation at replacement value. GRM for the project is in place and safeguards documents are available in local language at SIPMIU, municipal and land revenue offices. 3. Plan or other Actions.	Safeguard Category: <input type="checkbox"/> A <input checked="" type="checkbox"/> B <input type="checkbox"/> C <input type="checkbox"/> FI <input checked="" type="checkbox"/> Resettlement plan <input checked="" type="checkbox"/> Resettlement framework <input type="checkbox"/> Environmental and social management system arrangement <input type="checkbox"/> No action <input type="checkbox"/> Combined resettlement and indigenous peoples plan <input type="checkbox"/> Combined resettlement framework and indigenous peoples planning framework <input type="checkbox"/> Social impact matrix
B. Indigenous Peoples	
Safeguard Category: <input type="checkbox"/> A <input checked="" type="checkbox"/> B <input type="checkbox"/> C <input type="checkbox"/> FI	
1. Key impacts. In case of Agartala: all subproject sites are within urban limits, no IPs/IP areas are affected. In case of Aizawl subprojects: the population of Mizoram and of Aizawl comprises 99% and 92% scheduled tribes respectively; hence Category B for Indigenous People impacts is triggered. Since Indigenous People comprise the overwhelming majority of project beneficiaries, no specific IPP needs to be prepared for Aizawl. Affected persons and beneficiaries of the project follow an urban way of life. The IPPF has been updated to ensure that any unforeseen impacts to Indigenous Peoples during project implementation are addressed. 2. Is broad community support triggered? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No 3. Strategy to address the impacts. Due diligence on Indigenous People reveals that: (a) Project 3 will have positive impacts on indigenous peoples and no negative impacts were identified; (b) Scheduled tribe population is the majority beneficiary of positive impacts in Aizawl city, which has 92% scheduled tribe population, triggering Category B for Indigenous People impacts; and (c) the population of Agartala comprises 4.94% persons from scheduled tribes, who are included among project beneficiaries. Indigenous People are the majority beneficiary in Aizawl, with only positive impacts identified as shown through due diligence. Therefore measures for Indigenous Peoples have been included in the overall project design and affected IPs are included in the prepared RP, negating the need for a separate IPP. The IPPF has been updated to ensure that any unforeseen impacts to Indigenous Peoples during project implementation are addressed. 4. Plan or other actions.	
<input type="checkbox"/> Indigenous peoples plan <input checked="" type="checkbox"/> Indigenous peoples planning framework <input type="checkbox"/> Environmental and social management system arrangement <input type="checkbox"/> Social impact matrix <input type="checkbox"/> No action	<input type="checkbox"/> Combined resettlement plan and indigenous peoples plan <input type="checkbox"/> Combined resettlement framework and indigenous peoples planning framework <input type="checkbox"/> Indigenous peoples plan elements integrated in project with a summary
V. ADDRESSING OTHER SOCIAL RISKS	
A. Risks in the Labor Market 1. Relevance of the project for the country's or region's or sector's labor market, indicated as high (H), medium (M), and low or not significant (L). <input type="checkbox"/> unemployment (L) <input type="checkbox"/> underemployment (L) <input type="checkbox"/> retrenchment (L) <input type="checkbox"/> core labor standards (H) 2. Labor market impact. Contractors' agreements will have clauses on adherence to core labor standards and preference in project-related construction work (skilled and unskilled) from the local community. Affected persons and poor and vulnerable persons including women to be given preference for project-related construction work by contractors, and for O&M related work.	
B. Affordability Connection charge for water supply will be subsidized for poor and vulnerable households including poor FHH to	

ensure their inclusion. The water supply connection charge for poor and vulnerable households (50% subsidy), will be payable in up to 5 monthly installments, and will be affordable. Connections to sewerage system and bio-digesters will be free for all households, including poor, vulnerable and FHH in project coverage areas. User charges for water and sewerage will be affordable for the lowest consumption slab at less than 4% of mean monthly household income.

C. Communicable Diseases and Other Social Risks

1. The impact of the following risks are rated as high (H), medium (M), low (L), or not applicable (NA):

☐ (L) Communicable diseases ☐ (NA) Human trafficking

☐ (L) Others (please specify) Child labour

2. Risks to people in project area. Contractors and construction workers will be made aware on communicable diseases including HIV/AIDS risks. SIPMIUs in collaboration with DSMCs shall raise awareness amongst contractors and workers. Employment of child labour by contractors will not be allowed; a clause to this effect will be part of the contractors' agreement.

VI. MONITORING AND EVALUATION

1. **Targets and indicators.** See the Design and Monitoring Framework and the Gender Action Plan for key targets and indicators.

2. **Required human resources.** Social Development Officer at SIPMIU Aizawl and Social Safeguards Officer at SIPMIU Agartala have been recruited and mobilized. Civil society will be involved in community mobilisation and awareness generation for septage management in Aizawl, and in providing assistance to poor and vulnerable households, including female headed households to apply for subsidies.

3. **Information in the project administration manual (PAM).** Refer to PAM for details.

4. **Monitoring tools.** Baseline data disaggregated by sex, ethnicity and socio-economic status for output and outcome indicators will be updated and reported every quarter. Activities under the gender action plan will be implemented by the SIPMIUs and respective ULBs. The SIPMIUs will be responsible for submitting semi-annual progress monitoring reports on the GAP. The SIPMIUs, assisted by DSMCs, will be responsible for preparing compliance and safeguards monitoring reports on a quarterly basis. A mid-term review will be undertaken 18 months after loan approval. The mid-term review will evaluate the scope of the loan, implementation arrangements, safeguard issues, achievement of targets, contract management progress and other issues, including mid-course corrections. An evaluation will be undertaken one year after the closure of the project, and lessons learned documented. Findings of the project completion report will be disseminated within ADB and with key government officials at the national and state level.

BPL = below poverty line; CBO = community-based organization; DSMC = Design Supervision and Management Consultants; FHH = female headed household; GAP = Gender Action Plan; GOI = Government of India; NER = North Eastern Region; NERCCDIP = North Eastern Region Capital Cities Development Investment Program; NGO = non-government organization; O&M = Operations and Maintenance; SDGs = sustainable development goals; SIPMIU = State Investment Program Management and Implementation Unit; SWM = solid waste management; ULB = urban local body; WTP = water treatment plant.

Sources:

Census of India, 2001 and 2011, Department of Census Operations, Gol, 2001 and 2011.

Government of India, Economic Survey of India 2014-15, Ministry of Finance, Gol, 2015.

Government of India, Press Note on Poverty Estimates 2011-12, Planning Commission, Gol, July 2013.

OUTLINE OF SOCIAL SAFEGUARDS MONITORING REPORT DURING PROJECT IMPLEMENTATION PERIOD

Following requirements of the ADB Safeguard Policy Statement (2009) and the *Operations Manual* section on safeguard policy (OM F1), borrowers/clients are required to establish and maintain procedures to monitor the status of implementation of safeguard plans and ensure progress is made toward the desired outcomes. For projects categorized as A or B in Involuntary Resettlement and/or Indigenous People, the Borrowers/clients are required to submit semiannual monitoring reports for ADB review. The level of detail and comprehensiveness of a monitoring report is commensurate with the complexity and significance of social safeguards impacts (IR and IP) and with the current status of project implementation phase.

This outline can be used for periodic monitoring report (semiannual) and RP/IPP completion report to start the civil works in the impacted areas. A safeguard monitoring report may include the following elements:

A. Executive Summary

This section provides a concise statement of project scope and impacts, key findings and recommended actions.

B. Background of the Report and Project Description

This section provides a general description of the project, including:

- Background/context of the monitoring report which includes the information on the project, project components, safeguards categorizations and general scope of the social safeguards impacts.
- Information on the implementation progress of the project activities, scope of monitoring report and requirements, reporting period, including frequency of submission and changes in project scope and adjusted safeguard measures, if applicable
- Summary table of identified impacts and the mitigation actions.

C. Scope of Impacts

This section outlines the detail of

- Scale and scopes of the project's safeguards impacts,
- Vulnerability status of the affected people/communities,
- Entitlements matrix and other rehabilitation measures, as applicable, as described in the approved final RP(s) /IPP(s).

D. Compensation and Rehabilitation¹

This section describes the process and progress of the implementation of the safeguards plan and other required activities as determined in the plan. This includes:

- Payment of the affected assets compensation, allowances, loss of incomes, etc. to the entitled persons;
- Provisions of other types of entitlement as described in the matrix and implementation of livelihood rehabilitation activities as determined in the plan.

¹ Depending on the status of the final detail design during the submission of the report this activity might not yet started. Provide the information on the expected date the activity to be conducted instead.

CONSULTATION AND PARTICIPATION PLAN FOR PROJECT 3

Consultation and Participation Activity	Target Stakeholders	Type of Participation	Objectives of the C&P Activity	Responsible Unit/Persons	Time Frame	Cost Estimate
Orientation Workshops for government officials, officers, and staff on all three projects under NERCCDIP (1 whole day)	75-100 Government officials and staff consisting of representatives from MOUD, UDD, UD&PAD, SIPMIUs, IPCC, PCB (state and local offices), ULBs, DSMC, community organizations and Contractor(s).	<ul style="list-style-type: none"> • Information sharing • Consultation • Shared responsibility • Shared decision-making 	<ul style="list-style-type: none"> • Introduce NERCCDIP, and demonstrate the link between improved water supply and sanitation with good health, women's empowerment, and environmental conservation • Present safeguards disclosure, issues related to environmental and social risks and their mitigation, monitoring and reporting requirements • Present key GAP activities and issues • Discuss roles of stakeholders • Gather suggestions and agree on recommendations 	ADB Project Team, PMMC	Year 1: 1 Program orientation workshop	\$1,500 X 1 = \$1,500
<ul style="list-style-type: none"> • SIPMIU/PMMC/DSMC/c community organisations monitoring and information sharing Meetings (half day) • State Steering Committee Meetings (half day) 	SIPMIUs, members of the State Steering Committee, DSMC, private Contractor(s) and community organizations	<ul style="list-style-type: none"> • Information sharing • Shared responsibility • Shared decision-making • Control 	<ul style="list-style-type: none"> • Share information on NERCCDIP and its activities • Review compliance with gender, social safeguards, environment, awareness campaign, gender frameworks and plans • Discuss progress in implementation, including problems encountered and means to mitigate/address them • Regularly report on the progress of implementation 	SIPMIUs, DSMC, ADB Project Team	Planning Workshop: Annually SIPMIU, DSMC, community organizations, government bodies meetings: Semi-annually State Steering Committee Meetings: Quarterly	Planning Workshop: \$750 X 3 years = \$2,250 x 2=4500 SIPMIU/PMMC/DSMC Monitoring Meetings: \$300 X 2 X 3 years = \$600x3=1800 SSC Meetings: \$300 X 4 X 3 years = \$3600 x 2=7200 Total=18900
Orientation workshop for Contractors/labourers	All program-related staff and laborers in Contractor(s)'s teams	<ul style="list-style-type: none"> • Information sharing 	<ul style="list-style-type: none"> • Construction management • Quality assurance • Core labour standards, HIV/AIDS • Employment opportunities for local poor men and women • Environmental and social safeguards and mitigation measures • Assistance to be provided to APs 	SIPMIUs, DSMC, community organizations, Contractors	Year 1 of Project 3:	\$750x2=\$1500

Consultation and Participation Activity (C&P)	Target Stakeholders	Type of Participation	Objectives of the C&P Activity	Responsible Unit/Persons	Time Frame	Cost Estimate
			during construction • Gender sensitization			
1 orientation workshop in each town in the first year of implementation for community members (end users and affected person) (<i>half day</i>)	• 200 community members, with at least 30% women, including SC and ST participating per program orientation seminar	• Information sharing • Consultation • Shared decision-making	<ul style="list-style-type: none"> • Introduce NERCCDIP, highlighting its importance and benefits to the community • Demonstrate the link between improved water supply, sanitation and solid waste management and good health, women's empowerment, and environmental conservation • Proposed schedule of waste collection • Present safeguards and social frameworks and plans, benefits for poor and vulnerable (subsidies etc.) • Gather views related to present level of service and recommendations 	SIPMIU, DSMC, community organizations/organisers	Year 1 of Project 3: 2 workshops	$\$ 500 \times 4 \text{ workshops for community members} = \$2,000$ $\times 2 = 4000$ Total: \$4,000
Consultations with affected persons on resettlement, entitlement, compensation issues, special protection measures for vulnerable (<i>1-2 hours each</i>)	• Affected Persons including women	• Information sharing • Consultation	<ul style="list-style-type: none"> • Introduce NERCCDIP and show link between improved water supply and sanitation/solid waste infrastructure and good health, women's empowerment, and environmental conservation. Show possible livelihood/business opportunities and protection measures for vulnerable • Solicit the views of affected persons including all women affected persons on resettlement and compensation; job opportunities, mitigate potential conflict • Inform about grievance redress mechanism and contacts • Discuss potential disruptions and assistance available Gather recommendations 	SIPMIU, DSMC, Contractors, community organizations DSMC/ community organizations		Total: \$ 3000

Consultation and Participation Activity (C&P)	Target Stakeholders	Type of Participation	Objectives of the C&P Activity	Responsible Unit/Persons	Time Frame	Cost Estimate
			<ul style="list-style-type: none"> • Agree on mitigation measures 			
20 meetings with low income communities (end users and affected persons) from project areas in each town (<i>half day</i>)	Representatives of slums including women and FHH	<ul style="list-style-type: none"> • Information sharing • Consultation 	<ul style="list-style-type: none"> • Introduce NERCCDIP, highlighting its importance and benefits • Discuss importance of participation in user groups, maintenance of facilities, opportunities for participation in project (plumbing training and employment in construction-related work and O&M of project facilities), health & hygiene awareness • Subsidised connections for poorest households and installment scheme • Mitigate potential conflict 	SIPMIU, DSMC, community organizations / organizers and Contractors	Year 1-3 of Project 3	20 Meetings = 20 x \$100 = \$2000x2=\$4000
Participatory review meetings for septage management (<i>half day</i>)	Beneficiary communities, including land donors	<ul style="list-style-type: none"> • Information sharing • Shared responsibility 	<ul style="list-style-type: none"> • Issues and concerns during program implementation • Discuss and recommend measures to mitigate / address the problems • Monitor progress of project implementation 	SIPMIU, community organizations/ organizers, Contractors	Participatory Monitoring Meetings: Semiannually	Budgeted under DSMC
TOTAL COST OF CONSULTATION AND PARTICIPATION						\$ 32,900

ADB = Asian Development Bank; DSMC = Design Supervision and Management Consultants; FHH = female headed household; GAP = Gender Action Plan; IPPC = Investment Program Coordination Cell; MOUD = Ministry of Urban Development; NERCCDIP = North Eastern Region Capital Cities Development Investment Program; O&M = Operations and Maintenance; PCB = Pollution Control Board; PMMC = Program Management and Monitoring Consultant; SIPMIU = State Investment Program Management and Implementation Unit; UDD = Urban Development Department; UD&PAD = Urban Development & Poverty Alleviation Department; ULBs = urban local bodies.

GAP IMPLEMENTATION QUARTERLY PROGRESS UPDATE FORMAT FOR PROJECT 3

Activities	Indicators and Targets	Progress to Date		Issues and Challenges
		Progress in last three-months (MM/YY to MM/YY) (This should include information on progress in last three-months-- qualitative and quantitative updates (sex-disaggregated data)	Cumulative Progress (This should include information on progress (qualitative and quantitative updates including sex-disaggregated data) from the start of the implementation of the GAP to the previous quarter's progress report.)	(This should include reasons why an activity was not fully implemented, or if targets fall short, or reasons for delay, etc.)
Construction related activities				
Increase employment opportunities for women in civil works with compliance of core labor standard ¹ including same pay for work of equal value ² (Outputs 1, 2 and 3)	Aizawl: Indicator: Number of Women employed in civil works in city water supply distribution network and solid waste management subprojects Target: in all civil works - 15% women]			
Output 1 - Water Supply Infrastructure constructed and rehabilitated				
Design policy to provide subsidized water connections and meters to poor and BPL FHHs Impart skills training to community members in plumbing	Agartala & Aizawl: Indicator: Steps initiated to design policy for subsidized water connections and meters to poor and BPL FHHs in each state Target: Policy to provide subsidized water connections and meters to poor and BPL FHHs Indicator: number of training programs conducted in plumbing for 100 community members in each state Target: 50M/50F			
Output 2 - Sanitation infrastructure constructed				
Raise awareness and impart hygiene education in the user community on decentralized septage management system in Aizawl and ensure community participation in its O&M	Indicator: 5 awareness workshop in each town for 500 select community members including representatives from SHGs and Community-based women's organizations Target: 5 awareness workshop in each town for 500 community members M300/F200			

¹ As per the provisions of; (i) Prevention of Sexual Harassment at Workplace Act 2013; (ii) Protection of Children from Sexual Offence Act, 2013; (iii) Contract Labour Regulation & Abolition Act 1970; and (iv) Building and other Construction Workers (Regulation of Employment & Condition of Services Act 1996.

² In all construction work under Tranche 3: (i) all bidding documents include relevant clauses on core labor standards and equal pay; (ii) all contractors oriented on key gender concepts, equal pay, core labor standards, and risks to women and children; and (iii) all contractors maintain labor registers showing names, sex, and wages of workers

	Indicator: O&M of the structures established Target: 30% women in O&M of the structures established			
Output 3 - Solid waste management infrastructure constructed and rehabilitated				
Conduct consultation meetings in each town among community members—including SC/ST/other weaker section—to include their needs and priorities in the manner and schedule of waste collection	Agartala & Aizawl: Indicator: community members consulted through 4 meetings in each town Target: 200 community members through 4 meetings of which 60 are women/girls			
Provide employment to all affected rag pickers at existing dump sites	Aizawl: Indicator: Affected rag packers employed at the new solid waste facilities created Target; of all employed rag pickers, 40% women			
Ensure adequate representation of women in O&M	Indicator: (i) O&M structures created; and (ii) representation of women in O&M of all new solid waste facilities created ensured Target: 30% representation of women in O&M			
Output 4 - Project cities' financial management, project implementation and sustainable service delivery capacity improved				
Train SIPMIUs' and IPCC staff on gender mainstreaming and key gender issues in water, sanitation solid waste management sectors	Agartala and Aizawl: Indicator: 100% SIPMIUs' and IPCC staff trained Target: 30% women			
Collect sex-disaggregated data through gender inclusive project management information system to measure impact of the project on men and women	Agartala and Aizawl: Indicator: training for SIPMIUs' staff to collect, analyze and use sex disaggregated information and data; Target: 1 training program Indicator: gender indicators in PPMS included Target: updated bi-annually with sex-disaggregated data			
Strengthen project management, implementation, monitoring, and staff capacity in gender mainstreaming	Agartala and Aizawl: Target and indicator: (i) a gender focal point in each SIPMIU is designated for supervision and coordination on GAP; and (ii) a gender specialist/ staff with TOR to implement, monitor, and report on GAP activities			
Establish a single window system for Aizawl's Septage Management	Indicator: The single window system is established and Target: staffed with 30% women			

CONTRIBUTION TO THE ADB RESULTS FRAMEWORK

No.	Level 2 Results Framework Indicators (Outputs and Outcomes)	Targets	Methods / Comments
1	Households with new/ improved water supply (number)	176,820	Aizawl : 30,000 households newly connected, and 71,690 households in total receiving improved water supply Agartala: 40,000 households newly connected and 105,130 households in total receiving improved water supply
2	Households with new/improved sanitation (number)	147,490	Aizawl- 5,290 households additional and 71,690 households in total receiving improved sanitation services Agartala – 75,800 households in total receiving improved sanitation services
3	Water supply pipes installed or upgraded (km)	402	Aggregate for Aizawl (224) and Agartala (178); inclusive of distribution pipes, pumping mains, and feeder mains
4	Waste water treatment capacity added or improved (cubic meters per day)	1,000	Wastewater treatment capacity refers to septage treatment plant constructed in Agartala

Source: Asian Development Bank estimates based on government's detailed engineering design reports

ECONOMIC ASSESSMENT FOR PROJECT 3

A. Introduction

1. Project 3 of the North Eastern Capital Cities Development Investment Program (NERCCDIP or the Investment Program) will finance improvements in water supply, sanitation, and solid waste management (SWM), along with strengthened institutional capacity and improved project implementation, in Agartala and Aizawl.

2. The macroeconomic context for the Investment Program has been explained in the Report and Recommendations of the President to the Board of Directors for NERCCDIP.¹ Two tranches (Projects 1 and 2) have been approved to date under NERCCDIP. This specific economic analysis has been conducted for Project 3, in accordance with Asian Development Bank's (ADB's) relevant guidelines, including the Guidelines for the Economic Analysis of the Projects and Guidelines for the Economic Analysis of Water Supply Projects. To maintain comparability across subprojects, the methodologies and parameters followed are in principle similar to those used in the analysis of Projects 1 and 2.

B. Rational and Objectives

3. The Government of India (GoI) has actively intervened in this sector as proposed water supply, sanitation and SWM are basic public goods that generate externalities over time, and are interlinked services for which integrated planning is required. Project 3 aims to increase economic potential through development of basic urban infrastructure in Agartala and Aizawl. Under Project 3, three subprojects in each city have been selected, in terms of physical infrastructure, to maximize its contribution to balanced economic growth potential.

4. **Sector Development Plan and Associated Policies.** Government's involvement in basic urban services is also in line with the urban sector development plans and programs that GoI is pursuing. Project 3 will cover part of the 10-year period financing requirements in Agartala and Aizawl. NERCCDIP was framed within GoI's 11th Five-year Plan (2007-2012)² which aimed to reduce poverty and regional disparities by ensuring, among others, access to basic physical infrastructure.

C. Least Cost and Affordability Analysis

5. The design of water supply, SWM, and septage management services selected is the least overall cost alternative. The design, diameter, and materials for the water supply pipes have been chosen based on water demand, pressure to be sustained, and the traffic conditions on the roads in which the piped networks are to be laid. Although the initial capital expenditure is necessary due to larger service area and choice of technology, this is offset during the asset life by lower operations and maintenance (O&M) costs, greater asset life, and opportunity for new connections as the cities grow.

6. The affordability analysis conducted indicates that the proposed user charges are higher than the willingness to pay (WTP) in Aizawl. Proposed tariff at INR40/kiloliter (kl) for the first slab for consumption upto 5 kl per month is higher than the WTP in Aizawl, which is

¹ ADB. 2009. *Report and Recommendation of the President to the Board of Directors Proposed Multitranchise Financing Facility India for North Eastern Region Capital Cities Development Investment Program* Manila.

² Government of India, 2011, The 11th Five-year Plan, Planning Commission, Delhi.

INR28.06/kl.³ Proposed tariff at Agartala of Rs5/kl for the first slab is higher than the WTP of INR3.8/kl (footnote7). Nonetheless, proposed tariff is well within the 5% threshold of household income.⁴ The very low WTP and tariff in Agartala, compared with Aizawl, indicates significant scope in Agartala for conducting awareness campaigns on paying for water, and subsequently increasing tariff. Details of beneficiaries under Project 3 are shown in Table 1.

Table 1: Expected Project Beneficiaries

Details	Agartala	Aizawl	Total
Total population-2020 ^a	467,313	347,001	814,314
Average HH size ^c	4.4	4.8	
Total no of HHs	105,135	71,694	181,541
Total beneficiary population - 2020	337,178	191,772	528,950
- Water	216,000	162,100	378,100
- Septage	106,600	25,600	132,200
- Solid Waste Management	14,578	4,072	28,650
Projected Population (2040)	669,598	497,038	1,166,636
Per Capita Income (Rs./year) State	58,300	60,150	
Poverty population percentage	22.5	7.9	

HH = household.

D. Assumptions

7. The analysis is based on the assumptions shown below. Parameters are drawn from the socio-economic survey done in 2005,⁵ a more recent 2014 baseline survey⁶ in Aizawl, a 2011 WTP Survey⁷ in Agartala, public statistics, field surveys, and discussions with experts.

- (i) The analysis is conducted up to year 2040 for all projects. The implementation period for Project 3 is 5 years.
- (ii) All costs are in April 2015 prices and are converted at an exchange rate of US\$1=INR 61.00.
- (iii) Non revenue water will reduce from the current estimates of 40% to 20% by the year 2020 with project intervention.
- (iv) Economic costs are apportioned on the basis of tradable and non-tradable goods and further adjusted for skilled and unskilled labour costs. Conversion factors are used when necessary and appropriate.
- (v) Annual O&M costs included establishment costs, electricity, chemical, repairs and maintenance, and others.
- (vi) A population growth, in each town of 2-3%, is projected, based on historical trend. The base figures are derived from Census of India, 2011.
- (vii) Domestic /Non Domestic: Despite higher availability of water, all domestic consumers are expected to be provided with average consumption of 98.8 liters per capita per day (lpcd) in Aizawl and 103.4 lpcd in Agartala, based on WTP.

³ Source: PPTA socio economic survey 2005, which assessed the willingness to pay at INR.150 per month per household. This has been adjusted for growth in per capita income and divided by the average monthly household consumption of 14.35 kl in Aizawl.

⁴ Refer financial analysis linked document.

⁵ The socio-economic survey was conducted during PPTA in 2005.

⁶ Baseline survey was conducted in Aizawl by Design Supervision and Management Consultants in August 2014.

⁷ Willingness to Pay (WTP) survey was conducted in Agartala by Institutional Development Consultants in November 2011 after doing the pilot survey in one ward in May 2011.

Non-domestic consumers' demand is assumed to be 10% in Agartala and 1% in Aizawl.

E. Economic Costs

8. Subprojects' financial costs are estimated at 2015 prices, excluding price contingency, financing charges, and taxes and duties. The costs comprise those for civil works, equipment, and 10% physical contingencies. The costs also include skilled and unskilled labour. The subproject life is assumed to be 20 years with salvage values. The analysis is based on domestic numeraire in 2015 constant prices. The shadow wage factor of 0.65 in case of Agartala and 0.71 in case of Aizawl, and the shadow exchange factor of 1.03 are applied to convert financial values to economic values. O&M costs have also been assessed based on the shadow wage factor and the shadow exchange factor. Table 2 shows a summary of the financial and economic costs.

Table 2: Subproject costs

Sub Project	Financial Cost (\$ Million)	Economic Costs (\$ Million)
Agartala		
Water Supply	54.4	45.34
Solid Waste Management	3.3	2.6
Septage Management	2.6	2.04
Aizawl		
Water Supply	77.2	65.473
Solid Waste Management	6.4	5.6
Septage Management	4.4	3.593

Water supply project costs include all funded under Projects 1 and 2, and government funded capital works in both the cities.

9. Opportunity cost of water is negligible because additional water being pumped and treated is not diverted from other sources but extracted afresh.

F. Economic Benefits

10. An additional 30 million liters per day (MLD) and 37 MLD of water will be available for use from FY2020 onwards in Agartala and Aizawl respectively.⁸ By FY2020, households with access to water in Aizawl and Agartala will increase from 54% to 100%. Although this allows all households access to 135 lpcd per month,⁹ based on water tariff and WTP for average likely consumption of various income groups, it is expected that only an average of 103.4 lpcd and 98.8 lpcd in Agartala and Aizawl respectively will be consumed. Four major project economic benefits have been quantified for water supply subproject as shown below.

11. **Benefits from time saved in collecting water.** The time savings of households represents the time spent in obtaining water from other sources prior to NERCCDIP. The survey assessed an average of 3 minutes in Agartala and 30 minutes in Aizawl per day per household for collecting water from other sources. At present connected households get supply of about 70 lpcd. These households also source about 30% of their water requirement (average 30 lpcd) from other sources. Table 3 below shows the economic value of time saved in Project 3 cities in FY2020, which would increase annually with population growth.

⁸ 10.80 MLD from ongoing government funded project in the North Zone and 19.2 MLD from the both existing and new tubewells in central and south zone s of Agartala.

⁹ Gol's standards require that 135 lpcd be used as design parameter for cities the size of Agartala and Aizawl.

Table 3: Economic Benefits from Time Saved in Collecting Water in 2020

City	Household number		Time saving per year per HH (working days)	Shadow price per labor per day (\$)	Economic Benefit (\$ in million per year)
	Unconnected	Connected (30% from other sources)			
Aizawl	33,491	38,204	18	\$3.61	\$2.55
Agartala	48,656	56,479	2.25	\$2.13	\$0.27

Source: Socio-economic Survey reports 2005, WTP survey by loan consultants in 2011 in Agartala; and Baseline survey conducted in August 2014 in Aizawl.

12. **Benefits from non-incremental water:** Under this, cost of purchasing water from vendors, cost of treatment, storage tank and other O&M costs have been quantified. Economic value of non-incremental water has been assessed at INR90¹⁰ and INR129¹¹ per kl, in Agartala and Aizawl, respectively.

13. **Health benefits:** This represents both (i) savings in medical cost and (ii) increase in earnings due to avoided sick days, which have been estimated at an average of INR2, 072 and INR2, 270 in Agartala and Aizawl, respectively, per annum per household. These were computed as follows: (i) for Agartala: the 2011 WTP survey assessed the monthly health expenditure at INR973 per household, which was adjusted for GDP per capita growth since 2011 and one day lost due to sickness arising out of water borne diseases. Of the monthly health expenditure, 25% is assumed to arise out of water borne diseases, of this 45% is assumed to be saved from the increased water supply services and 55% from the improved septage management services. (ii) For Aizawl, it included value of one sick day saved and monthly household health expenditure which was assessed at INR1270 in the 2014 baseline survey. Of the monthly health expenditure, 25% is assumed to arise out of water borne diseases, of which 45% is assumed to be saved from the increased water supply services and 55% from the improved septage management services.

14. **Incremental benefit.** This represents additional water that will become available to households that were already connected, but that will potentially use more water as a result of the 24/7 connection. WTP has been used to quantify the incremental benefit and is determined at INR3.8¹² and INR28¹³ per kl for Agartala and Aizawl, respectively.

15. With respect to SWM subprojects, the quantifiable economic benefits represent (i) the avoided cost of household health expenditure and (ii) time savings. 10% of total health expenditure,¹⁴ other than that related to water borne diseases, has been assumed to result from poor solid waste management.

¹⁰ Agartala – Time taken for treatment 15 minutes per day per household, monthly purification cost of INR50 and O&M of storage tank – INR20 per month applied on drinking water requirement which is 20% of the monthly average consumption. No purchase from vendor considered as the WTP survey did not indicate any sourcing of water from private vendors.

¹¹ Aizawl – Purification of water costs same as Agartala. Sourcing of water from private vendors is through tankers only and taken at INR450/kl, which is three times the rate charged by Aizawl PHED for tanker water supply.

¹² Agartala – WTP survey 2011 assessed WTP as INR3/kl. This has been adjusted to 2015 using the GDP per capita growth rate.

¹³ Aizawl – PPTA survey 2005 assessed WTP per month per household at INR150. This has been adjusted using the GDP per capita growth rate till 2014 and divided by the average monthly household consumption.

¹⁴ Of the total monthly health expenditure 75% considered arising out of other than water borne diseases.

16. With respect to septage management subprojects, the quantifiable economic benefits represent (i) the avoided cost of household health expenditure, (ii) avoided disposal costs in Aizawl assumed at Rs2100¹⁵ per household per year and (iii) related increased productivity from less sick days. 55% of health expenditure related specifically to water borne diseases has been assumed to result from poor sanitation and water contamination (see Para 13).

17. Economic internal rate of return (EIRR) was calculated and compared to the economic opportunity cost of capital estimated at 12%. A summary of the EIRR along with sensitivity analysis is included in Table 4.

Table 4: Summary of Subprojects and EIRR (%)

Subprojects	Base	Sensitivity Tests				
		Capital Costs +10%	O&M Costs +10%	Benefits -10%	One Year Delay	All Combined
Agartala						
Water Supply	16.7	15.5	16.6	15.3	16.0	14.0
SWM	13.7	12.5	10.7	9.2	13.3	4.4
Septage Management	26.0	23.8	25.0	22.6	26.0	19.7
Aizawl						
Water Supply	16.2	14.9	16.0	14.6	13.0	16.0
SWM	19.5	17.6	19.0	16.9	19.4	14.4
Septage Management	11.1	9.8	11.0	9.6	10.9	8.1
Overall – Consolidated	16.5	15.1*		14.9	16.4	13.8
Switching Values %**		31		28		

Source: ADB estimates.

*Total costs – capital plus operation and maintenance ** Switching value represents the percentage increase/decrease in costs/benefits that will bring the EIRR to 12%

18. All the subprojects are individually viable as the EIRRs are more than the economic opportunity cost of capital of 12%, except for Aizawl septage management, which is a pilot innovative scheme. Overall Project EIRR is 16.5%, which is reflected in the consolidated cost benefit analysis in Table 5. For water supply, though Aizawl has higher WTP for incremental water and higher economic value time saved on water collection and non-incremental water, the higher project cost and O&M cost - due to higher pumping cost in hilly terrain - has resulted in a lower EIRR as compared to Agartala. SWM EIRR is higher in Aizawl than Agartala as the incremental O&M cost of equipment and vehicles to be procured as per detailed project report were taken to be quite high. Septage management in Agartala has a particularly high EIRR as household coverage for basic septage management services will increase from 30% to 100% of the population area. The septage management subproject in Aizawl has an EIRR slightly lower than 12% but this represents a pilot innovative scheme, with likely higher unquantified benefits including future cost savings and changed behaviours. Nonetheless, the total investment in Aizawl exceeds the 12% hurdle rate at 16.2%, as does the consolidated investment in septage management at 12.05%.

19. Besides the above quantifiable benefits, Project 3 will also generate non-quantifiable benefits which include the impacts of improved school attendance and educational performance, reduction in unpaid labor that is tending to the sick, environmental impact of sanitation, improvement in property values, and others.

¹⁵ Source: Aizawl Municipal Council – present charge / fee levied.

Consolidated Cost – Benefit Analysis for Project 3 (INR Million)

Year	Economic Cost (Rs Million)					Economic Benefits (Rs Million)					Net Economic Benefit (Rs Million)				
	Agartala Water	Aizawl Water	Agartala SWM+Sept age	Aizawl SWM+Sept age	Total Cost	Agartala Water	Aizawl Water	Agartala SWM+Sept age	Aizawl SWM+Sept age	Total Economic Benefits	Base Case	Construction + O&M Cost increase	Benefit decrease	Delay in operation by one year	Combined Worst Scenario
1	1,316	494	69.0	156	2,035	-	-	-	-	-	(2,035)	(2,238)	(2,035)		
2	561	567	172.8	267	1,568	-	-	16	-	16	(1,552)	(1,709)	(1,554)	(2,035)	(2,238)
3	247	915	113.9	157	1,433	-	-	89	105	193	(1,240)	(1,383)	(1,259)	(1,552)	(1,711)
4	247	807	73.6	19	1,147	-	-	120	106	226	(921)	(1,035)	(943)	(1,240)	(1,403)
5	247	688	73.8	19	1,028	-	-	123	110	233	(795)	(898)	(819)	(921)	(1,058)
6	174	623	74.0	19	890	653	668	126	113	1,560	671	582	515	(795)	(921)
7	26	101	74.2	19	220	787	962	129	117	1,995	1,776	1,754	1,576	671	604
8	26	101	74.2	19	220	791	975	133	121	2,019	1,799	1,777	1,597	1,776	1,598
9	26	101	74.6	19	220	794	988	136	125	2,043	1,823	1,801	1,618	1,799	1,619
10	26	101	74.8	19	220	798	1,002	139	129	2,067	1,847	1,824	1,640	1,823	1,640
11	26	101	74.9	19	221	801	1,016	143	133	2,092	1,872	1,850	1,662	1,847	1,662
12	26	101	75.3	19	221	805	1,030	146	135	2,116	1,895	1,873	1,683	1,872	1,684
13	26	101	75.5	19	221	808	1,044	150	136	2,139	1,918	1,896	1,704	1,895	1,705
14	26	101	75.9	19	221	812	1,054	153	137	2,157	1,936	1,913	1,720	1,918	1,726
15	26	101	76.1	19	222	816	1,060	157	138	2,171	1,950	1,928	1,733	1,936	1,742
16	26	101	76.3	109	312	820	1,066	161	140	2,187	1,875	1,844	1,656	1,950	1,755
17	26	101	108.2	177	411	824	1,073	161	141	2,198	1,787	1,746	1,567	1,875	1,688
18	26	101	187.5	114	428	828	1,079	168	142	2,216	1,789	1,746	1,567	1,787	1,608
19	26	101	93.0	19	239	832	1,085	174	157	2,248	2,010	1,986	1,785	1,789	1,610
20	26	101	77.6	19	223	832	1,088	181	160	2,262	2,039	2,016	1,812	2,010	1,809
21	26	101	77.9	19	224	837	1,115	188	162	2,302	2,078	2,056	1,848	2,039	1,835
22	26	101	78.3	19	224	842	1,122	195	172	2,331	2,107	2,085	1,874	2,078	1,870
23	26	101	78.9	19	224	848	1,129	201	175	2,354	2,129	2,107	1,894	2,107	1,897
24	26	101	79.3	19	225	853	1,137	207	178	2,375	2,150	2,128	1,913	2,129	1,916
25	26	101	79.8	19	225	859	1,144	213	181	2,397	2,172	2,149	1,932	2,150	1,935
Total	3,278	6,012	2,189	1,341	12,821	16,239	20,839	3,608	3,212	43,897	31,076	29,794	26,686	28,905	24,572
ENPV @12%	2,552	3,517	795	692	7,556	3,749	4,684	951	860	10,244	2,689	1,933	1,664	2,273	966
EIRR %											16.52%	15.05%	14.90%	16.39%	13.81%
Sensitivity Index												3.24	3.58		
Switching Value												31%	28%		

O&M = operations and maintenance; SWM = solid waste management.

FINANCIAL ASSESSMENT FOR PROJECT 3

A. Introduction and Methodology

1. This financial analysis appraises the financial sustainability and viability of Project 3 of the North Eastern Region Capital Cities Development Investment Program (NERCCDIP) and was prepared in accordance with Asian Development Bank (ADB)'s Guidelines for the Financial Governance and Management of Investment Projects Financed by ADB (July 2005).

2. Financial sustainability and viability analysis assesses the ability of a project to meet its costs including capital expenditure and operation & maintenance (O&M), out of its revenue streams on a present value basis. For Project 3, financial analysis focused on whether current and proposed tariffs can meet full cost recovery for revenue generating subprojects. A discounted cash flow analysis was also conducted in real terms to determine the financial internal rate of return (FIRR) and the financial net present value. The FIRR was then compared to the weighted average cost of capital to determine whether sufficient financial returns could be achieved. Financial projections for the Aizawl Municipal Council (AzMC) and Agartala Municipal Corporation (AMC)¹ were prepared to assess the municipality's overall financial capacity to meet their responsibilities in providing urban services including those assisted under Project 3.

3. **Overall Financial Sustainability of Municipal Corporations.** Both the ULBs' financial projections with Project 3 demonstrate that, with implementation of increased tariffs, increased property tax coverage as envisaged and continued revenue subsidies the revenue account can remain in surplus. Tariffs under the reform program have not been proposed intending to cover capital costs, as they are met through a combination of government grants and subsidies, and cross-subsidy from property taxes. It is expected though that full O&M recovery is gradually achieved.² If proposed tariff revisions are made, overall water O&M costs will also be recovered in Agartala. At Aizawl, full O&M cost recovery for water will likely not be achieved in the near future, due to the higher O&M costs, in particular higher electricity costs, incurred in its very hilly terrain. Subsidy for O&M of water supply scheme in Aizawl has been agreed by the government and covenanted to ensure adequate budgeting and provision of the same. Solid Waste Management (SWM) subprojects do not recover O&M costs. Delays in tariff revisions and property tax levy and collections are considered key risks to the financial sustainability of the municipal corporations, and are being addressed through the reform program.³

4. **Project 3 Viability.** Despite tariff being set to only recover O&M costs, significant cost savings resulting from rehabilitation of water distribution network, low O&M costs associated with proposed new investments, and proposed tariff revisions for water, will meet *incremental* O&M cost in both cities, and incremental capital cost as well in Aizawl, where the water tariff structure and overall willingness to pay is higher. Though Project 3 is justified primarily on grounds of economic development and financial sustainability, the FIRR for incremental water supply projects is computed as 0.9% and 3.0% at Agartala and Aizawl,⁴ respectively, showing that water supply subprojects, which account for more than 80% of the investments, are financially viable or require only a marginal capital subsidy. The FIRR is approximately 7.5% for septage management subproject in Agartala, where the existing sanitation charge is already

¹ Referred to also as the Urban Local Bodies (ULBs).

² Septage management charges already cover the full cost of O&M at both Agartala and Aizawl.

³ Aizawl has made significant progress in implementing all agreed reforms under NERCCDIP, and has already implemented area based property tax reforms starting 15 June 2015.

⁴ Reflecting a higher tariff level and willingness to pay in Aizawl.

reasonably high. The FIRR is negative in Aizawl for the septage management subproject, which is only a pilot for a small percentage of the population.

B. Proposed User Charges and Affordability Analysis

5. The proposed user charges are summarized in Table 1 below. Aizawl proposed rates as per the Mizoram Government gazette notification No. G 25022/1/2001 – PHE/pt dated 11 November 2014 for water tariff, which increases tariff rates effective from fiscal year (FY) 2015-2016. Agartala tariff rates are as per the approved Detailed Project Report (DPR) for full O&M cost recovery, which assumes introduction of volumetric tariff compared to the current flat tariff of Rs30 per month per domestic connection.

Table 1: Proposed User Charges in Aizawl and Agartala

Description	Aizawl	Agartala
Water supply Charges– INR		
Upto 5 kl consumption	200 flat (40/kl)	5
Between 5– 10 kl	45	10 to 18
Between 10 – 20 kl	75	20 to 25
Between 20-30kl	90	35
Over 30kl	105	35
Weighted average tariff from 2019-20 assuming average consumption of 98.8 (Aizawl) and 103.4 (Agartala) lpcd	51.40 ^a	12.92 ^b
Monthly service charge (domestic/ others) ^c	100/ 500	30/250
One-time water connection fee	1,000	1,500
Tariff increase after FY 2020	25% every 5 years	
Sanitation Charges		
Septic Tank Cleaning Fee per trip ^c	2,100	1,500
Pilot septage management project monthly fee	100 INR	N/A
Solid Waste Management (SWM) ^d		
Flat monthly fee	INR 30	
SWM Tariff increase after FY 2018	5% per annum	

Source: Aizawl proposed rates as per the Mizoram Government gazette notification No. G 25022/1/2001 – PHE/pt dated 11 November 2014 for water tariff, which is effective from FY2015-16; and Agartala tariff rates as per the approved Detailed Project Report for full operation and maintenance cost recovery, which assume volumetric tariff from the current flat monthly tariffs

^a This weighted average rate for Aizawl has been computed based on the rates for different slabs of consumption, Rs40 per kl upto first 5 kl, Rs45 per kl for next 5 kl and Rs75 per kl for the next 10 kl and considering the consumption at 6 kilo litre (kl) for poor, 10 kl for low income group, 15 kl for middle income group and 19.6 kl for high income group per month.

^b This weighted average rate for Agartala has been computed based on the rates for different slabs of consumption, Rs5 per kl upto first 6 kl, Rs10 per kl for the next 2 kl, Rs18 per kl for the next 2 kl, Rs25 per kl for next 5 kl and Rs35 per kl beyond 15 kl consumption and considering the consumption at 8 kilo litre (kl) for poor, 10 kl for low income group, 15 kl for middle income group and 18 kl for high income group per month.

^c No change from the existing tariff structure.

^d The proposed tariff post project and the proposed annual increase are as per the detailed project report for solid waste which has approved in case of Aizawl and is under approval in case of Agartala. The tariff proposed in the DPR from FY 2018 is the same as the current tariff.

Kl=kilolitre

6. **Water.** At Aizawl, Government of Mizoram has recently increased the water supply charges from INR100 to INR200 per month for domestic connections for consumption upto 5 kl. Despite the increase, user charges will not be sufficient to cover O&M costs for the entire water supply infrastructure, which is currently maintained by Public Health Engineering Department

(PHED).⁵ The user charges for water, introduced under Provision of Water Supply Rules (1999), are significantly lower at Agartala which have not been revised since introduction. Volumetric tariff will be effective only from FY 2019-2020.

7. **Sanitation.** For sanitation, AMC and AzMC currently charge INR1, 500 and INR2, 100, respectively, per trip for cleaning septic tanks. This is sufficient to cover the O&M cost of septic tank cleaning machines which AMC reports at INR600 per trip. The project will increase coverage of sanitation services at Agartala from 30% to 100% households covered. The same user charge has been adopted in the analysis for Agartala, assuming that the households in uncovered areas get their septic tanks cleaned once in three years.⁶ For the pilot septage management project proposed, which will benefit approximately 5,290 households in Aizawl, a monthly user fee of INR100 is proposed from the FY2017-2018.⁷

8. **Solid Waste Management.** In case of SWM, both AzMC and AMC are charging INR30 per month per household. This charge is not enough to meet the O&M cost at either of the ULBs. AzMC was formed in 2010 and the system of billing and collection for SWM services is yet to be fully implemented.

9. **Affordability Analysis.** The proposed water, SWM, and septage management user charges are combined to assess beneficiary affordability. Table 2 shows that in both Agartala and Aizawl, at any income level the combined charges do not exceed 5% of household income, which is considered the affordability threshold, and ranges from 1.2% to 4.8%. Septage charge is not proposed to be levied on the poor households. The monthly combined charge on poor households is estimated to be INR276 and Rs80 at Aizawl and Agartala, respectively. Table 2 shows the details of affordability levels for each income group.

Table 2– Affordability Analysis – Combined Charge as % of HH Income				
Agartala	Water	Solid waste	Septage	Total
High Income Group	0.8%	0.1%	0.3%	1.2%
Middle Income Group	1.0%	0.1%	0.6%	1.7%
Low Income Group	1.3%	0.3%	1.2%	2.8%
Poor	0.8%	0.5%	0.0%	1.3%
Aizawl				
High Income Group	1.7%	0.0%	0.1%	1.8%
Middle Income Group	3.6%	0.1%	0.5%	4.2%
Low Income Group	3.7%	0.3%	0.9%	4.8%
Poor	3.7%	0.4%	0.0%	4.1%

Notes: monthly household income average based on PPTA survey in 2005 adjusted for growth in GDP per capita income till 2014

C. Discounted Cash Flow Analysis and Subproject Viability

10. **Weighted Average Cost of Capital (WACC).** The WACC is estimated at 1.36% and illustrated in Table 3.

⁵ PHED in Aizawl is currently responsible for providing water supply services and charges against this service. This is in the process of being handed over to the municipal council.

⁶ Based on Engineers estimates

⁷ At present Aizawl Municipal Council charges Rs2, 100 per trip per household for cleaning of septic tank. Considering that septic tank is cleaned once in two years this monthly charge has been proposed.

Table 3: Estimated WACC (in %)

Item	ADB Loan Onlending as Grant	Gol Grant to GoMZ	Gol to GoMZ Loan	WACC
Weighting	80.00	10.00	10.00	
Nominal Cost ^{a), b)}	2.87	8.00	9.00	
Tax Rate	0.00	0.00	0.00	
Tax-Adjusted Nominal Cost	2.87	8.00	9.00	
Inflation Rate ^{c)}	1.50	7.00	7.00	
Real Cost	1.35	0.93	1.87	
Weighted Component of WACC	1.08	0.09	0.19	1.36

ADB = Asian Development Bank; Gol = Government of India; GoMZ = Government of Mizoram

Source: ADB estimates.

- a) Cost of ADB loan is based on 15 year fixed swap rate of 2.27% plus 0.6% fixed spread and maturity premium. Actual loan cost is taken instead of notional grant cost, as it is the higher of the two.
- b) Notional cost of Government of India grant is estimated at 8.0%, based on the Government's long-term bond rate and on lending is assumed to be at 9%.
- c) Price escalation, inflation, is based on –Domestic and International Cost Escalation Factors 2014–2018, ADB.

11. Discounted Cash Flow Analysis. Discounted cash flow analysis was undertaken in real terms using constant 2015 prices, to compute FIRR and financial net present value. The analysis was conducted on a with-project and without-project basis by estimating incremental costs and revenues over a 25-year period. The subproject capital costs and O&M costs were derived from the engineer's estimates, including, (i) capital expenditures under Projects 1, 2, and 3 as well as completed expenditures by PHED in Aizawl and under Jawaharlal Nehru National Urban Renewal Mission in Agartala; (ii) O&M expenditures, including power, staffing, chemical, parts and other expenditures; and (iii) additional capital expenditures to repair and rehabilitate the assets created under the Program. The revenue projections are based on project completion schedule, new user connection schedule as well as current and proposed tariff schedules.

12. Assumptions. Key assumptions include (i) cash flow forecasts over a 25 year period from FY2015- 2039; (ii) estimates for water demand, tap connection, household coverage for SWM and septage management, and O&M costs-based on the DPRs;⁸ (iii) tariff scenario assumes a one-time increase in the year of project completion and subsequent periodic tariff increases (See details in Table 1 above); (iv) exchange rate of US\$1=Rs61; (v) useful life of civil works and pipelines of 30 years and machinery and equipment of 15 years; and (v) a collection ratio of 80% to 85% in case of water supply,⁹ 90% in case of SWM, and 100% in case of septage management.

13. FIRR. Based on above assumptions, FIRR for water supply subprojects at Aizawl exceeds the WACC at 3.0%, but at Agartala at 0.9% is marginally below WACC. Nonetheless, even at Agartala, the project incremental revenue fully covers the project incremental O&M costs. FIRR is negative for SWM in both Aizawl and Agartala, which being non-revenue generating in nature are not expected to generate positive FIRR. For septage management

⁸ Agartala DPR for solid waste is prepared and yet to be approved. Agartala DPR for septage is under preparation.

⁹ Ratios are based on commitments in the DPR as well as service level standards committed to by the States as a condition for accessing central government sponsored grants under the 13th Finance Commission and Jawaharlal Nehru National Urban Renewal Mission.

subprojects, FIRR is negative in Aizawl and 7.5% in Agartala. This is because the subproject in Aizawl pertains to a decentralized septage management project, piloted at low cost to only 5,290 households. Agartala septage management project's FIRR at 7.5% is more than WACC, since the town is already charging adequately for septic tank cleaning, and the household coverage will increase under the project. For the two subprojects, having FIRR more than WACC (water supply in Aizawl and Sanitation in Agartala) sensitivity test results are acceptable against downside risks, including (i) capital costs increased by 10%; (ii) O&M costs increased by 10%; and (iii) revenue reduced by 10%. The FIRR's are relatively sensitive to changes in revenues. Commitment from the State Investment Programme Management and Implementation Units to implement water, solid waste and septage tariffs based on concept of cost recovery as well as to improve collection efficiencies are crucial to the financial viability and sustainability of the subprojects. Table 3 provides a summary of the FIRR's of the water supply, SWM and septage management subprojects. Although consolidated FIRR for all the subprojects taken together is negative at -0.67%, nonetheless, the incremental revenues fully meet the incremental O&M costs.

Table 3: FIRR of Subprojects (in %)

Description	Overall	Water Supply	Solid Waste Management	Septage Management
Agartala -Base Case	Negative	0.9	Negative	7.5
Aizawl - Base Case	0.83	3.0	Negative	Negative
Consolidated Base Case	-0.67	1.7	Negative	0.85

FIRR = financial internal rate of return

Source: ADB estimates.

D. Financial performance of AzMC and AMC with subprojects revenue and expenditure accounts

14. The financial analysis also assessed the impact of the proposed projects on the overall financial health of the AzMC and AMC. An analysis of financial performance of ULBs for the last three fiscal years shows that:

- (i) grants constitute a significant portion of income; 76% in AzMC and 55% in AMC;
- (ii) increase in expenditures has outpaced growth of revenue incomes, excluding grants;
- (iii) property tax was the largest source of revenue receipt; and
- (iv) cost recovery for water supply services is 20% and 5% and for SWM is 20% and 24% in AzMC and AMC respectively at present.

15. **Financial Projections of AzMC and AMC and subproject.** Financial projections for 25 years show that following the completion of the respective subprojects, introduction of property tax and tariff reforms, balances of the operating accounts will improve. The proposed user charges are sufficient to cover incremental O&M expenditures in both ULBs. At AMC, full water supply O&M cost recovery is achievable on completion of all subprojects. At Aizawl, full O&M costs for water will likely not be recovered, due to the higher O&M costs, in particular higher electricity costs incurred in hilly terrains. On an overall basis both AzMC and AMC's financial projections, with project, demonstrated positive cash balance in 2020 with subsidy support from Government till the completion of implementation of the project. Detailed projections are given in the supplementary linked document.¹⁰

¹⁰ Financial Management Assessment (Supplementary Appendix A).

UPDATED SUMMARY POVERTY REDUCTION AND SOCIAL STRATEGY

Country:	India	Project Title:	North Eastern Region Capital Cities Development Investment Program (NERCCDIP) Project 3
Lending/Financing Modality:	Multi-tranche Financing Facility (MFF)	Department/ Division:	South Asia Department/ Urban Development and Water Division

I. POVERTY AND SOCIAL ANALYSIS AND STRATEGY

Poverty targeting: targeted intervention—MDGs/SDGs

A. Links to the National Poverty Reduction and Inclusive Growth Strategy and Country Partnership Strategy

Reduction of poverty incidence and deprivation in India is a priority of the Government of India (GoI). North Eastern Region Capital Cities Development Investment Program (NERCCDIP) was framed within GoI's 11th Five-year Plan (2007-2012), which aimed to reduce poverty and regional disparities by ensuring, among others, access to basic physical infrastructure. NERCCDIP's implementation has remained consistent with this roadmap. Government's commitment for the development of NER, as one of the least developed regions in India, was recently affirmed in its Economic Survey 2014-2015, saying that the NER states are expected to benefit significantly from various central-government sponsored grants to the states in India. NERCCDIP is also consistent with recently launched central government schemes in the urban sector, such as the Swachh Bharat Abhiyan. In addition, the urban reforms under the NERCCDIP continue to support implementation of the 74th Constitutional Amendment Act of GoI, which is an important pillar and focus of the government in the urban centers. The proposed Project 3 of the NERCCDIP includes community participation components, particularly for water supply and septage management subprojects, and is expected to address deficiencies in urban services in two selected capital cities - Agartala and Aizawl - of NER states and boost the regional economy through improved services. Water supply, septage management and solid waste management, improvements will also directly contribute to achieving the Sustainable Development Goals (SDGs) 6 and 11, which build on the MDGs.

B. Results from the Poverty and Social Analysis during Due Diligence

1. Key poverty and social issues. Urban poverty in the targeted NER states under NERCCDIP is estimated to range from 3.66% in Sikkim, 9.26% in Meghalaya, 6.36% in Mizoram, 7.42% in Tripura to 16.48% in Nagaland; against 13.7% urban poverty at all-India level. An estimated 0.275 million urban poor (0.5% of urban poor population in India) live in these states, of which the majority are estimated to live in the state capitals (*Economic Survey*, India, 2014-15 (footnote b)). However, it is commonly understood that income poverty data alone does not accurately reflect all the dimensions of poverty in the NER. Inadequate infrastructure especially water availability and a stagnant manufacturing industry are known to have affected economic growth in the NER. Lack of access to reliable and quality urban services, time spent on water collection, and water and vector-borne disease burden, are some of the key issues that affect the population of the target cities, especially the poor. Project 3 subprojects are designed to ensure NERCCDIP's contribution to the impact and outcome of MDG7/related SDGs. Baseline and impact monitoring through the Project Performance Monitoring System (PPMS) is already in place at the implementing agencies of NERCCDIP.

2. Beneficiaries. In combination with Projects 1 and 2 investments under NERCCDIP, Project 3 seeks to provide full coverage of water supply, sanitation and solid waste management (SWM) facilities, including low income areas within the municipal boundaries, in Aizawl and Agartala. Targeted populations will include currently unconnected houses, which are the poor, disadvantaged, female-headed, and minorities/migrants/disadvantaged ethnic groups. Poor female-headed households (FHH) and below poverty line (BPL) households will benefit from subsidized water supply and free sewerage connections in NERCCDIP areas as well as employment opportunities for unskilled construction work. The poorest and most vulnerable households - men and women- will also directly benefit from jobs created under NERCCDIP for O&M of facilities created. Time savings and health benefits as a result of the water supply and sewerage/septage subprojects will lead to benefits / opportunity cost savings for the poor (and non-poor), especially women and girl children. Under the septage management component in Aizawl; 121 bio-digesters are proposed in low income areas; to benefit over 2,200 low income households, including BPL households. Improvements in water supply and environmental quality through water supply, sanitation and SWM improvement will lead to public health improvements, which is expected to benefit the community and the poor in particular.

3. Impact channels. Impact channels include access to improved water supply, sewerage/ septage management and SWM services for all, including poor and vulnerable households and female-headed households, in NERCCDIP areas.

4. Other social and poverty issues. NERCCDIP addresses poverty and vulnerability indirectly, through the delivery of improved water supply and sanitation services, which by their very nature, lead to social, economic, health and environmental benefits. NERCCDIP, including Project 3, will also directly benefit the poor and vulnerable, including FHH, through employment in construction work and O&M of facilities created. However, it does not address the issue of

unemployment and income poverty in totality; these will be addressed by government schemes.

5. Design features. NERCCDIP contains pro-poor elements in its design and targets inclusion of poor and vulnerable. Pro-poor design elements include subsidizing connection costs for water supply, free connections for sewerage, and community participation programs. Project 3 subprojects, like subprojects under Projects 1 and 2, are hinged on community awareness, mobilisation and participation with the involvement of local NGOs/CBOs/women's groups.

II. PARTICIPATION AND EMPOWERING THE POOR

1. Participatory approaches and project activities.

Consultation workshops, meetings, focus group discussions, and structured interviews were undertaken with stakeholders during project preparation. The participation strategy for Project 3 envisages involvement of civil society, such as NGOs/CBOs/women's groups, in awareness generation, community mobilization, formation of user groups for common facilities and identification of households requiring connection subsidies in Aizawl and Agartala. It targets the poor and women's participation and inclusion in project benefits. Participatory processes are anticipated to enhance sustainability. Consultations will be documented and reported in the periodic monitoring reports.

2. Participation plan.

☒ Yes. ☐ No.

A specific component of the community awareness and participation strategy is the community mobilization and awareness program, specifically focusing on (i) water conservation, prevention of water leakage and wastage within their premises/locality, (ii) institutional set up on septage management, including the community's role and responsibilities, and formation of user groups; (ii) providing assistance to poor and vulnerable, including poor FHH to apply for connection subsidies; and (iii) SWM, including awareness generation, role and responsibilities of communities for safe and hygienic disposal of waste and prevention of dumping and open burning. This will be implemented by the Community Development and Public Awareness Experts in the SIPMIUs, with support of DSMCs and local NGOs/CBOs/women's groups. They will identify and involve such entities, to assist in outreach activities, positively influence and improve knowledge of general public, build the capacity of local CBOs/NGOs, and identify specific activities for empowering local community to participate and benefit from NERCCDIP activities.

III. GENDER AND DEVELOPMENT

Gender mainstreaming category: Effective Gender Mainstreaming (EGM)

A. Key issues. Primary and secondary data on status of women in Agartala and Aizawl reveal the following: although female literacy is high, it is a few percentage points lower than male literacy. Unemployment is higher among women, and the disparities in unemployment levels and in average earnings between male and FHH increase with lower incomes. There is also a high correlation between poverty and gender of household head. Agartala recorded an alarming decline in child sex ratio (0-6 years) by 13 points as per Census 2011, compared with Census 200, while in Aizawl the condition was better. While day-to-day household decisions are made by women, all major decisions are made by male members of the family. Lack of basic urban infrastructure and services affects women more than men. Women play a primary role in managing water collection, sanitation and waste management. Water collection takes an average of 3–4 hours per day, reducing time for women's engagement in productive activities that could increase household income and improve their position within the household and community. Women are more exposed to diseases from contaminated water. A reduction in diseases, aside from reducing treatment costs and productivity losses, would also reduce the burden of care-giving for the sick, a role often taken on by women in the household. Tranche 3 subprojects are designed to address these issues.

B. Key actions.

☒ Gender action plan ☐ Other actions or measures ☐ No action or measure

The gender strategy ensures that gender issues are addressed, holistic empowerment of women is promoted, women benefit equally from the project, and interventions avoid gender bias. A gender action plan (GAP) has been formulated and agreed with SIPMIUs to maximize Project 3 benefits to women. Specific benefits to women will include; (i) increased opportunities for women in income generation through involvement in construction activities and provision of skill training; (ii) capacity building and greater participation of women in management and O&M of sanitation and SWM infrastructure created. The GAP also envisages an enabling institutional environment for gender mainstreaming.

IV. ADDRESSING SOCIAL SAFEGUARD ISSUES**A. Involuntary Resettlement**Safeguard Category: ☐ A ☒ B ☐ C ☐ FI

1. Key impacts. Key IR impacts are in forms of acquisition or negotiated settlement for privately owned or leased land for a total 87674 m² in Aizawl for water supply and solid waste infrastructure from two private land owners (considering sites obtained exclusively for Project 3) and four Government land lease holders (Periodic Patta). Agartala's water supply facilities under Project 3 requiring 72 m² land are also proposed within the boundaries of 2 sites obtained for Project 2 facilities. Voluntary land donations from private entities and non-profit institutions, of 21,308 m² were received for (i) construction of approach road of the proposed WTP, (ii) three water reservoirs and their approach roads, and (iii) septage management facilities in Aizawl. Government land of 76,288.5 m² was identified for water supply and solid waste sites and 10,532.6 m² land for septage management sites in both states. There are potential livelihood consequences for 59 ragpickers, which will be mitigated. One temporary structure on acquired land is affected. In Agartala, trenchless technology of pipelaying is proposed in congested road stretches whereas in Aizawl, pipelaying in congested market areas is proposed at night; hence, temporary impacts to businesses are avoided. The Resettlement Framework for the program is updated. Two draft Resettlement Plans and 2 draft Due Diligence Reports are prepared; these documents are to be updated and confirmed after some remaining detailed measurement surveys are completed.

2. Strategy to address the impacts. For permanent impacts, affected persons are entitled to compensation at replacement value. GRM for the project is in place and safeguards documents are available in local language at SIPMIU, municipal and land revenue offices.

3. Plan or other Actions.

- ☒ Resettlement plan
☒ Resettlement framework
☐ Environmental and social management system arrangement
☐ No action

- ☐ Combined resettlement and indigenous peoples plan
☐ Combined resettlement framework and indigenous peoples planning framework
☐ Social impact matrix

B. Indigenous PeoplesSafeguard Category: ☐ A ☒ B ☐ C ☐ FI

1. Key impacts. In case of Agartala: all subproject sites are within urban limits, no IPs/IP areas are affected. In case of Aizawl subprojects: the population of Mizoram and of Aizawl comprises 99% and 92% scheduled tribes respectively; hence Category B for Indigenous People impacts is triggered. Since Indigenous People comprise the overwhelming majority of project beneficiaries, no specific IPP needs to be prepared for Aizawl. Affected persons and beneficiaries of the project follow an urban way of life. The IPPF has been updated to ensure that any unforeseen impacts to Indigenous Peoples during project implementation are addressed.

2. Is broad community support triggered? ☐ Yes ☒ No

3. Strategy to address the impacts. Due diligence on Indigenous People reveals that: (a) Project 3 will have positive impacts on indigenous peoples and no negative impacts were identified; (b) Scheduled tribe population is the majority beneficiary of positive impacts in Aizawl city, which has 92% scheduled tribe population, triggering Category B for IP impacts; and (c) the population of Agartala comprises 4.94% persons from scheduled tribes, who are included among project beneficiaries. Indigenous People are the majority beneficiary in Aizawl, with only positive impacts identified as shown through due diligence. Therefore measures for Indigenous Peoples have been included in the overall project design and affected Indigenous Peoples are included in the prepared RP, negating the need for a separate IPP. The IPPF has been updated to ensure that any unforeseen impacts to Indigenous Peoples during project implementation are addressed.

4. Plan or other actions.

- ☐ Indigenous peoples plan
☒ Indigenous peoples planning framework
☐ Environmental and social management system arrangement
☐ Social impact matrix
☐ No action

- ☐ Combined resettlement plan and indigenous peoples plan
☐ Combined resettlement framework and indigenous peoples planning framework
☐ Indigenous peoples plan elements integrated in project with a summary

V. ADDRESSING OTHER SOCIAL RISKS**A. Risks in the Labor Market**

1. Relevance of the project for the country's or region's or sector's labor market, indicated as high (H), medium (M), and low or not significant (L).

- ☐ unemployment (L) ☐ underemployment (L) ☐ retrenchment (L) ☐ core labor standards (H)

2. Labor market impact. Contractors' agreements will have clauses on adherence to core labor standards and preference in project-related construction work (skilled and unskilled) from the local community. Affected persons and poor and vulnerable persons including women to be given preference for project-related construction work by contractors, and for O&M related work.

B. Affordability

Connection charge for water supply will be subsidized for poor and vulnerable households including poor FHH to ensure their inclusion. The water supply connection charge for poor and vulnerable households (50% subsidy), will be payable in up to 5 monthly instalments, and will be affordable. Connections to sewerage system and bio-digesters will be free for all households, including poor, vulnerable and FHH in project coverage areas. User charges for water and sewerage will be affordable for the lowest consumption slab at less than 4% of mean monthly household income.

C. Communicable Diseases and Other Social Risks

1. The impact of the following risks are rated as high (H), medium (M), low (L), or not applicable (NA):

☐ (L) Communicable diseases ☐ (NA) Human trafficking

☐ (L) Others (please specify) Child labour

2. Risks to people in project area. Contractors and construction workers will be made aware on communicable diseases including HIV/AIDS risks. SIPMIUs in collaboration with DSMCs shall raise awareness amongst contractors and workers. Employment of child labour by contractors will not be allowed; a clause to this effect will be part of the contractors' agreement.

VI. MONITORING AND EVALUATION

1. **Targets and indicators.** See the Design and Monitoring Framework and the Gender Action Plan for key targets and indicators.

2. **Required human resources.** Social Development Officer at SIPMIU Aizawl and Social Safeguards Officer at SIPMIU Agartala have been recruited and mobilized. Civil society will be involved in community mobilisation and awareness generation for septage management in Aizawl, and in providing assistance to poor and vulnerable households, including female headed households to apply for subsidies.

3. **Information in the project administration manual (PAM).** Refer to PAM for details.

4. **Monitoring tools.** Baseline data disaggregated by sex, ethnicity and socio-economic status for output and outcome indicators will be updated and reported every quarter. Activities under the gender action plan will be implemented by the SIPMIUs and respective ULBs. The SIPMIUs will be responsible for submitting semi-annual progress monitoring reports on the GAP. The SIPMIUs, assisted by DSMCs, will be responsible for preparing compliance and safeguards monitoring reports on a quarterly basis. A mid-term review will be undertaken 18 months after loan approval. The mid-term review will evaluate the scope of the loan, implementation arrangements, safeguard issues, achievement of targets, contract management progress and other issues, including mid-course corrections. An evaluation will be undertaken one year after the closure of the project, and lessons learned documented. Findings of the project completion report will be disseminated within ADB and with key government officials at the national and state level.

BPL = below poverty line; CBO = community-based organization; DSMC = Design Supervision and Management Consultants; FHH = female headed household; GAP = Gender Action Plan; GOI = Government of India; NER = North Eastern Region; NERCCDIP = North Eastern Region Capital Cities Development Investment Program; NGO = non-government organization; O&M = Operations and Maintenance; SDGs = sustainable development goals; SIPMIU = State Investment Program Management and Implementation Unit; SWM = solid waste management; ULB = urban local body; WTP = water treatment plant.

Sources:

Census of India, 2001 and 2011, Department of Census Operations, GoI, 2001 and 2011.

Government of India, Economic Survey of India 2014-15, Ministry of Finance, GoI, 2015.

Government of India, Press Note on Poverty Estimates 2011-12, Planning Commission, GoI, July 2013.

SAFEGUARD REPORTS

<http://www.adb.org/projects/35290-043/main?page-1=1#tabs-0-2>

Draft Initial Environmental Examination

- | | | |
|---|---|---|
| 1 | Aizawl Solid Waste Resource Management Subproject | http://www.adb.org/projects/documents/ind-nerccdip-t3-aizawl-solid-waste-resource-mgt-subproject-jun-2015-draft-iee |
| 2 | Aizawl Water Supply Subproject | http://www.adb.org/projects/documents/ind-nerccdip-t3-aizawl-water-supply-subproject-jun-2015-draft-iee |
| 3 | Aizawl Septage Management (Bio-digester) Subproject | http://www.adb.org/projects/documents/ind-nerccdip-t3-aizawl-septage-mgt-bio-digester-subproject-apr-2015-draft-iee |

Resettlement Plans

- | | | |
|---|---|---|
| 4 | Aizawl Solid Waste Management Subproject | http://www.adb.org/projects/documents/ind-nerccdip-t3-aizawl-solid-waste-management-subproject-jul-2015-rp |
| 5 | Aizawl Water Supply Subproject | http://www.adb.org/projects/documents/ind-nerccdip-t3-aizawl-water-supply-subproject-jul-2015-rp |
| 6 | Environmental Assessment and Review Framework | http://www.adb.org/projects/documents/ind-nerccdip-t3-aizawl-water-supply-subproject-jul-2015-rp |
| 7 | Resettlement Framework | http://www.adb.org/projects/documents/ind-nerccdip-t3-aizawl-water-supply-subproject-jul-2015-rp |
| 8 | Indigenous Peoples Planning Framework | http://www.adb.org/projects/documents/nerccip-t3-apr-2015-ippf/ |

GENDER ACTION PLAN
NORTH EASTERN REGION CAPITAL CITIES DEVELOPMENT INVESTMENT PROGRAM – PROJECT 3

Activities	Target Indicators	Responsibility	Timeline
Construction related activities			
Increase employment opportunities for women in civil works with compliance of core labor standard ¹ including same pay for work of equal value ² (Outputs 1, 2 and 3)	Aizawl: Women employed in civil works in city water supply distribution network and solid waste management subprojects [Target: 15% women]	SIPMIU Aizawl	Project duration
Output 1 - Water Supply infrastructure constructed and rehabilitated			
Design policy to provide subsidized water connections and meters to poor and BPL FHHs ³ Impart skills training to community members in plumbing	Agartala and Aizawl • Policy designed for subsidized water connections and meters to poor and BPL FHHs in each state • 2 training programs conducted in plumbing for 50 community members in each state [target 25M/25F]	SIPMIU Agartala and SIPMIU Aizawl. Skill training to be supported by the NGOs	Project duration
Output 2 - Sanitation infrastructure constructed			
Raise awareness and impart hygiene education in the user community on decentralized septage management system in Aizawl and ensure community participation in its O&M	• 5 awareness workshop in each town for 500 select community members [M250/F250] • 30% women in O&M structures established	SIPMIU Aizawl.	Project duration
Output 3 - Solid waste management infrastructure constructed and rehabilitated			
Conduct 1 consultation meeting in each town among community members—including SC/ST/other weaker section—to obtain their needs and priorities in the manner and schedule of waste collection	Aizawl and Agartala: 200 community members consulted through 4 campaigns in each town [Target - 100M/100F]	SIPMIU Agartala and SIPMIU Aizawl supported by NGOs already mobilized	Year 1
Ensure adequate representation of women in O&M Provide employment opportunity for ragpickers	Aizawl • 30% representation of women in O&M of compost plant and material resource centers ensured • All ragpickers employed at the SWM facilities (40% women)	SIPMIU Aizawl supported by the DSMC/NGO	Year 2 Project duration Year 4

¹ As per the provisions of; (i) Prevention of Sexual Harassment at Workplace Act 2013; (ii) Protection of Children from Sexual Offence Act, 2013; (iii) Contract Labour Regulation & Abolition Act 1970; and (iv) Building and other Construction Workers (Regulation of Employment & Condition of Services Act 1996.

² In all construction work under Tranche 3:(i) all bidding documents include relevant clauses on core labor standards and equal pay; (ii) all contractors oriented on key gender concepts, equal pay, core labor standards, and risks to women and children; and (iii) all contractors maintain labor registers showing names, sex, and wages of workers

³ Registrar General & Census Commissioner of India, 2011 defines a FHH as the one where a woman generally bears the chief responsibility for the maintenance of the household and takes decision.

Output 4- Capacity for project implementation and service delivery improved			
Train SIPMIUs' and IPCC staff on gender mainstreaming and key gender issues in water, sanitation solid waste management sectors	Agartala and Aizawl: 100% SIPMIUs' and IPCC staff trained [Target: 30% women]	SIPMIU Agartala and SIPMIU Aizawl	Year 1
Collect sex-disaggregated data through gender inclusive project management information system to measure impact of the project on men and women	Agartala and Aizawl: <ul style="list-style-type: none"> • 1 training for SIPMIUs' staff to collect, analyze and use sex disaggregated information and data; • Gender indicators included in PPMS and updated bi-annually with sex-disaggregated data 	SIPMIU Agartala and SIPMIU Aizawl	Quarter 1 of Year 1
Strengthen project management, implementation, monitoring, and staff capacity in gender mainstreaming	Agartala and Aizawl: SIPMIUs include a gender focal point- for supervision and coordination on GAP-and a gender specialist/ staff with TOR to implement, monitor, and report on GAP activities	SIPMIU Agartala and SIPMIU Aizawl	Q1 of Year 1
Establish a single window system for Aizawl's Septage Management	The single window cell is established in AzMC and staffed with 30% women	AzMC	Year 1

AzMC = Aizawl Municipal Council; BPL = below poverty line; DSMC = Design Supervision and Management Consultant; GAP; gender action plan; FHHs = female headed households; IPCC = investment program coordination cell; NGO=non-government organization; O&M= operations and maintenance; TOR = term of reference; PPMS = project performance monitoring system; SIPMIUs = State Investment Program Management and Implementation Units.

FINANCIAL MANAGEMENT ASSESSMENT UPDATE

A. Executive Summary

1. An updated financial management assessment (FMA) has been conducted in accordance with Asian Development Bank's (ADB's) Guidelines for the Financial Management and Analysis of Projects¹ (the Guidelines) and ADB's Financial Due Diligence: A Methodology Note² for the purpose of Project 3 of the North Eastern Region Capital Cities Development Investment Program (NERCCDIP). The FMA was conducted for the two State Executing Agencies (SEAs), i.e. (i) Urban Development Department (UDD), Tripura and (ii) Urban Development & Poverty Alleviation Department (UD&PAD), Mizoram as well as for the Urban Local Bodies (ULBs) in Agartala and Aizawl, i.e. Aizawl Municipal Corporation (AzMC) and Agartala Municipal Council (AMC). The FMA focuses on fund flows, staffing, accounting policies and procedures, internal controls, financial reporting and monitoring, and internal and external audit. The FMA draws on lessons learnt during the implementation of previous two tranches, FMA Questionnaires completed by the State Investment Program Management Units (SIPMIUs) and the ULBs as well as existing recent ADB country and sector level. The FMA questionnaire of SIPMIUs and ULBs is available on request. Summary financial management maturity ratings are given in Annexures A and B below for SEAs and ULBs.

2. The purpose of this updated FMA is to ensure that adequate financial management arrangements are in place for the proposed Project 3 of NERCCDIP. The SEAs are responsible for the implementation of the project. Project assets, once constructed, will be handed over to the ULBs for operation and maintenance (O&M).

3. **State Executing Agencies.** SIPMIUs were set up at both UDD and UD&PAD to manage and implement this Program. The FMA notes that the SIPMIU's in place at both the UDD and UD&PAD are now fairly experienced in implementing ADB-financed projects and with support from Design Supervision and Management Consultants, have an institutional set-up appropriate for the implementation of the project. Although the SIPMIUS were created with the needs of the Program in mind, these are staffed by a pool of government staff, have shown their significant value-add, and their institutionalization will be explored as part of the Financial Management Action Plan (FMAP). The SEAs themselves have established accounting, reporting and budgeting procedures in place in line with Government Regulations, although accounts are maintained manually and internal audit function is weak. With the SIPMIUs in place, the financial management risk at UDD and UD&PAD is considered low. Audited Project Financial Statements (APFS) for Projects 1 and 2 were submitted by SIPMIU Tripura and Mizoram within the nine months submission deadline, and there were no significant issues with the withdrawal applications submitted. Nonetheless, additional financial management improvement initiatives for UDD and UD&PAD have been incorporated into the FMAP including (i) computerization of project accounting and (ii) capacity building for the enhancement of the quality of the APFS in line with Comptroller and Auditor General (CAG) approved Terms of Reference (ToRs). A key challenge has been and continues to be the predictability and adequacy of timely counterpart funds. If budget is not allocated prior to project processing, requirement for budget allocation will be included in the legal agreement as a condition for loan effectiveness and assurances have been obtained from the State Government that Project

¹ ADB. 2005. *Financial Management and Analysis of Projects*. Manila.

² ADB. 2009. *Financial Due Diligence, A Methodology Note*. Manila.

funds will be released to the SIPMIUs on time. No significant procurement issues were faced during the implementation of Projects 1 and 2.

4. **ULB Capacity.** At the ULBs, however, despite certain improvements, the implementation of a double entry accrual based accounting system being a marked one, the overall financial management capacity is still weak and financial management risk is **substantial**. AzMC was set up only in the year 2010 and there is no full time dedicated accountant on the team. Completion of the audit and availability of audited financial statements (AFS) is delayed, as is the resolution of audit observations. Latest AFS for Aizawl are available upto FY 2012-2013 only. In the case of AMC, internal audit is done upto 31 March 2013 and external audit of three years from FY2012 to FY2014 done together. Keeping in view that the ULBs need institutional strengthening before they will be able to provide urban services, the Urban Institutional, Financial, Regulatory and Operational Reform Program requires a number of financial reforms. These include (i) migration to an accrual based double entry accounting system, (ii) creation of one single city ring fenced area headed by a senior officer, with control over city water and sewerage operations as well as separate accounting and balance sheet, (iii) implementation of selected options of financially self-sustainable, efficient and commercially operated water and sewerage agency, and (iv) submission of a Financial Action Plan to ensure improved utility financial performance including the implementation of volumetric water charges with regular adjustments to tariffs to generate sufficient revenues to meet 100% O&M cost recovery. All of these reforms are either complied with or in the process of being complied or not yet due. The complete Reform Program along with the compliance status is given in 'Checklist for Compliance with Major Undertaking and Loan Covenants Urban Institutional, Financial, Regulatory and Operational Reform Program'.³

5. The overall risk assessment for Project 3 is assessed as moderate. Despite the highlighted risks, with the ongoing actions under the Reforms Program, assurances incorporated and additional mitigation measures identified for improved financial management. The financial management arrangements are considered satisfactory, and SIPMIU's current staffing is adequate for managing and implementing its existing projects. FMAP, to reduce risk, includes:

At SEAs

- (i) exploring the institutionalization of the SIPMIUs;
- (ii) computerization of financial accounting at the SIPMIUs;
- (iii) capacity building for the enhancement of the quality of the APFS in line with CAG approved TORs; and
- (iv) adequate budget allocation and timely release of funds covenanted in the loan agreement.

At ULBs

- (i) a dedicated full time staff at AzMC; and
- (ii) requirement for submission of AFS to ADB within one month of approval by the councils.

³ Appendix 5 of the PFR from the Government.

B. Summary of Financial Management Assessment of ULBs

6. **ULBs in Aizawl and Agartala.** AzMC and AMC are autonomous local bodies under the Municipal Act.

7. **Experience of managing externally financed projects.** Although ULBs do not have any experience in implementing donor funded projects; this is not relevant since the ULBs are not implementing the Project. Nonetheless, project assets will be handed over to the ULBs after their creation, and they need to build up their capacity to subsequently operate and maintain the assets.

8. **Funds flow arrangements.** AzMC and AMC have their own sources of revenue, including property taxes and other municipal levies. These are inadequate to meet their expenditure requirements and respective state governments extend support in the form of grants to meet expenditure requirements not covered by their own revenues.

9. **Organization and staffing.** AzMC was set up in 2010 only. Present staffs are new and are on contract basis. AMC accounts department is staffed adequately.

10. **Accounting policy and procedures.** AzMC and AMC both follow a double entry accrual basis of accounting which were established and supported under the first two tranches of the MFF. Accounting manuals were also prepared to support the implementation of the accounting. The Institutional Development Consultants assisted the ULBs to implement this, and double entry book keeping has been in place at both ULBs since FY2011.

11. **Segregation of duties.** The system ensures adequate segregation of duties.

12. **Budgeting system.** The financial budget is prepared by the Accounts Officer. Budget is placed before the Council for approval. Budget is prepared in detail for all significant activities and provides benchmark for budget variance analysis. Comparison between budget and actual is carried out every six months. Actual is usually about 75% of the budget, indicating that targets are not fully achieved.

13. **Payments.** Payments are made against invoices submitted for payments and due verification. In AzMC, the Chief Executive Officer and Secretary are the joint signatories. In AMC, the Commissioner and Drawing and Disbursing Officer are joint signatories.

14. **Policies and procedures.** The accounting system of both AzMC and AMC is accrual based. The policies and procedures are maintained as stipulated by the State Municipal Accounts Manual.

15. **Internal audit.** There is no in-house internal audit system in both AzMC and AMC. In AzMC, internal audit is done by the Director of Local Fund Audit and audit is done up to FY2012-2013. However, internal audit of AMC is conducted by the State Audit Directorate. AMC has made available the last internal audit report of year ended 31 March 2013. Audit observations generally related to compliance to extant rules and regulations and lapses in performance.

16. **External audit.** The AFS are regularly audited by the Accountant General, which is independent of the entity. There is delay in the audit and audit report generally is not issued within six months from the end of the financial year. AzMC audit is completed up to the year 31

March 2013. AMC audit is completed up to FY2013-2014 and audit report covers a three year period for FY2011-2012 to FY2013-2014. Audit is conducted according to Government auditing standard issued by CAG of India.

17. **Reporting and monitoring.** Financial statements are prepared on monthly and annual basis. Financial statements and supporting schedules are prepared according to the municipal accounts manual.

C. Summary of Financial Management Assessment– SEAs

18. **Executing and Implementing Agencies.** UDD and UD&PAD are the SEAs. Fully staffed SIPMIUs have been established and are responsible for program implementation.

19. **Major experience of managing externally financed projects.** SIPMIU has successfully completed the Tranche 1 and is implementing the Tranche 2 of the ADB-assisted NERCCDIP.

20. **Funds flow arrangements.** Funds are received through budget allocation from State Governments, which in turn receives the money from Government of India, Ministry of Finance through Ministry of Urban Development (MoUD).

21. **Organization and staffing.** SIPMIU accounts section is adequately staffed. Existing personnel in SIPMIU, Agartala accounts department comprise of: (i) Accounts Officer, (ii) two Accountants, and (i) one Accounts Assistant deputed from Government of Tripura.

22. Existing personnel in SIPMIU, Aizawl accounts department comprise of: (i) Senior Accounts Officer, (ii) Accounts Officer, and (iii) one Accounts Assistant deputed from Government of Mizoram and the second Accounts Assistant is contractual that will co-terminate with the project. In addition, the third Accounts Assistant will be employed in August 2015.

23. **Accounting policy and procedures.** The accounting system is already in place as the SIPMIU has handled Tranche 1 and Tranche 2 of the ADB-assisted NERCCDIP projects. The accounting is done as defined in the chart of accounts of Government of Tripura, which is adequate. There are adequate controls and the accounting records are retained on permanent basis.

24. **Segregation of duties.** The system ensures adequate segregation of duties. Project Director authorizes all expenditure and payments. Account Officer and team are responsible for accounting and reporting. The bank reconciliations are prepared by the Accountant while approval of payments made jointly by the Project Director.

25. **Budgeting system.** The financial budget is prepared by the Accounts Officer. Project Director gets the budget approved through the Empowered Committee. Government allocates necessary budget for project activities. Budget is prepared in detail for all significant activities and provides benchmark for budget variance analysis. Comparison between budget and actual is carried out every six months. Actual is usually about 75% of the budget, indicating that targets are not fully achieved. No budget allocation has been made for the project for the current fiscal year (FY2015-2016), which requires immediate attention.

26. **Payments.** SIPMIU is responsible for payments of goods and services. Payments are made against invoices submitted for payments and due verification. Project Director and

Accounts Officer are the authorized signatories. In case of Aizawl SIPMIU, Project Director and Deputy Secretary, Finance Department, Government of Mizoram are the authorized signatories.

27. **Policies and procedures.** A cash basis of accounting is followed. The policies and procedures are maintained as stipulated by respective State Government. Financial rules of the respect State Government are followed for the project.

28. **Internal audit.** There is no in-house internal audit system. There is no internal audit done at SIPMIU, Aizawl. In SIPMIU, Agartala, however, internal audit of SIPMIU is conducted by State Audit Directorate. The last audit report available is for the year ended 31 March 2013. Audit observations covered compliance with rules, regulations, and areas for performance improvements.

29. **External audit.** The annual project financial statements are regularly audited by the Accountant General, which is independent of the entity, of respective states. There is no significant delay in the audit and audit report is generally issued within nine months from the end of financial year. Audit is conducted according to Government auditing standard issued by CAG of India. All state entities (including SIPMIU) are subject to external financial / performance / compliance audit by the Office of the CAG of India. The auditor highlighted inter-transfer of funds between Project 1 and 2 at Agartala, during the FY2014. SIPMIUs have committed to reverse the transfer and not to make such transfers in the future. CAG reviews and comments on state entities' financial reporting and records on an annual basis and following Government of India's accounting rules. The external statutory Audit Report is required to be submitted within six months from the end of each financial year although it is often delayed.

30. **Reporting and monitoring.** Financial statements are prepared on a monthly and annual basis. Financial statements and supporting schedules are prepared according to respective State Government accounting standards.

31. **Information System.** There is no computerized financial management system at SIPMIU.

32. **Supervision.** SIPMIU, through Empowered / Steering Committee, will be responsible for overall supervision of the Project. PD will regularly monitor the status of the financial covenants agreed with ADB. PD, SIPMIU, will be responsible for regular supervision of the project financial management. ADB project implementation support missions will supervise financial covenants twice a year in general and recommend corrective actions, if any.

D. Country Level Issues

33. The Country Policy and Institutional Assessment for transparency, accountability and corruption in the public sector rating (1=low to 6=high) in India was last reported at 3.6 in 2012 (World Bank 2012).⁴ Transparency, accountability, and corruption in the public sector assess the extent to which the executive can be held accountable for its use of funds and for the results of its actions by the electorate and by the legislature and judiciary, and the extent to which public employees within the executive are required to account for administrative decisions, use of resources, and results obtained. The three main dimensions assessed here are the

⁴ Available at <http://data.worldbank.org/indicator/IQ.CPA.PUBS.XQ>.

accountability of the executive to oversight institutions and of public employees for their performance, access of civil society to information on public affairs and state capture by narrow vested interests.

34. Main findings⁵ of assessment of India's public expenditure and financial accountability are:

- (i) **Assessment of Impact of Public Financial Management (PFM) Weakness:** The adoption of rule based fiscal management by enacting the Fiscal Responsibility and Budget Management Act helped in monitoring aggregate fiscal indicators, but its impact on the actual practice of financial management is not clear. The budgeting system in India is conventional input-based and more concerned with basic financial compliance; but this has not resulted in establishing effective fiscal discipline. Absence of a multi-year perspective in expenditure planning, lack of robust macro-economic forecasting on which to base the budget, and inherent weaknesses in adhering to the procedures laid down in Constitutional and legal provisions have negatively affected PFM outcomes.
- (ii) **Aggregate Fiscal Discipline:** Absence of a multi-year perspective in the expenditure planning that indicates future year commitments, a lack of effective fiscal risk assessment at an aggregate level, the unevenness and the late spike in the annual spending pattern, surrender of money at the end of the fiscal year in an annual lapsable budget cycle due to a lack of effective program management in budget implementation, an absence of a hard budget constraint, and weak internal control and internal audit system are important weaknesses of the PFM system that limit fiscal discipline. While external audit in the country is well established and facilitates the legislative in exercising control over the executive, the process of scrutiny of the audit reports has deteriorated, adversely affecting its effectiveness.
- (iii) **Strategic Allocation of Resources:** Strategic resource allocation in India is affected by the lack of well-developed sector strategies based on government objectives, developing and costing of programs to achieve those objectives and linking the resource allocation to the priorities specified in sector strategies. The cash basis of accounting followed by the government does not have the capacity to reveal the full outlays either on a program or a project. In the existing budgeting system performance information is not included to improve strategic resource allocation.
- (iv) **Efficient Service Delivery:** In the federal arrangement the sub-national governments have wide ranging responsibilities with regard to service delivery. The overall financial management system including the efficient revenue collection, expenditure control, cash and debt management to address liquidity problems, efficient intergovernmental transfer system are all important elements to facilitate better program management and service delivery.
- (v) **Prospects for Reform Planning and Implementation:** The institutional arrangement within the government provides support to initiate reform planning and implementation processes. The initiatives taken by the government in recent years has put PFM issues at the forefront. The role of PFM systems in

⁵ National Institute of Public Finance and Policy. March 2010. *Assessment of India Public Expenditure and Financial Accountability Public Financial Management Performance Assessment Report*. New Delhi.

contributing to fiscal discipline, strategic resource allocation through better program management and improving service delivery has gained attention in recent years. A comprehensive view needs to be taken to strengthen the financial management systems in the country as it will be difficult to deliver through isolated reform initiatives.

35. Project financing will consist of ADB loan and government funds. ADB and Government funds will be channeled to SIPMIU through government budgetary system allocations. Based on actual expenditures made during project implementation, SIPMIU will claim reimbursements from ADB. Statement of Expenditure ceiling is proposed to be lifted on account of the good history of submitting withdrawal applications by the SIPMIUs. In addition to the current mechanism of funds transfer under Tranche 1 and Tranche 2 of NERCCDIP, direct payment mechanism will also be applied.

36. The APFS shall be submitted to ADB within 9 months of the end of the financial year. The additional three month extension is considered justified since there is a need for a consolidated audit of MoUD which can only take place after the state level audits are completed. ADB will also provide training in the use of the new CAG approved TORs.

E. Risk Analysis

37. The risk assessment below is based on existing circumstances, staffing, and procedures.

38. **Inherent Risk** is the susceptibility of the project financial management system to factors arising from the environment in which it operates, such as country rules and regulations and entity working environment (assuming absence of any counter checks or internal controls).

Table 1: Inherent Risk Summary

Risk	Risk Assessment	Risk Mitigation Measures
1. Country-Specific : Unpredictable Budget Allocation	Moderate	Obtain firm commitment from Ministry of Finance and ensure budget allocation prior to loan effectiveness
2. Entity-Specific	Moderate	Revenue generating operations (e.g. water supply) at the ULB municipality level are not with the ULB but with Public Health and Engineering Department. The project requires ring fencing of water supply accounts as key performance criteria; and tariff revisions at regular intervals over a period of 20 years after project completion.
3. Project-Specific	Substantial	Financial absorption capacity model of ULB requires them to increase property tax collection (rates and collection efficiency which average around 60%) and increase tariffs of revenue generating services (e.g. water supply). If revenues are not increased significantly and sustained then it will be difficult for ULB to properly operate and maintain new investments. The competences and experience of the executing agency and implementing agency financial staff in automatic accounting and reporting systems are limited. Intensified continuation of ongoing financial management training program is clearly required. Same applies for related MIS & Control systems. The project will invest in capacity support to enhance municipal financial systems through a performance based approach to

Risk	Risk Assessment	Risk Mitigation Measures
		incentivize governance improvements.
Overall Inherent Risk	Medium	Political unrest and violence may destabilize the implementing agency's willingness to increase taxes and tariffs in the coming years, and possibly affect their development and financial situation. ADB will closely monitor and address specific capacity gaps with technical support and incentives for governance improvements through a performance based approach to fund allocation.

ADB = Asian Development Bank; ULB = urban local body.

39. **Control Risk** is the risk that the project's accounting and internal control framework are inadequate to ensure project funds are used economically and efficiently and for the purpose intended, and that the use of funds is properly reported.

Table 2: Control Risk Summary – SEAs

Risk Type	Risk Description	Risk Assessment	Proposed Mitigation Measures
1. Executing Entity	<ul style="list-style-type: none"> SIPMIU's Finance Sections will be responsible for project FM, accounting and reporting. SIPMIU will continue to follow project FM and accounting systems. SIPMIU staff has donor project management experience –including ADB. 	Low	<ul style="list-style-type: none"> Not applicable
2. Funds Flow	<ul style="list-style-type: none"> Delays in allocation and release of funds 	Moderate	<ul style="list-style-type: none"> MOUD and State Governments assurance to release the counterpart parts on timely basis SIPMIU will manage overall project funds
3. Staffing	<ul style="list-style-type: none"> SIPMIU's Finance Section is adequately staffed with competent and experienced personnel. The Section provides professional quality service. 	Low	<ul style="list-style-type: none"> Not applicable
4. Accounting Policies and Procedures	<ul style="list-style-type: none"> Policies and procedures are well documented. SIPMIU use Government accounting standards. 	Low	<ul style="list-style-type: none"> Not applicable
5. Internal Audit	<ul style="list-style-type: none"> SIPMIU has no internal audit cell. 	Moderate	<ul style="list-style-type: none"> However internal audit is conducted by State Audit Directorate in case of Agartala. No internal audit of Aizawl SIPMIU is being carried out at present.
6. External Audit (project level)	<ul style="list-style-type: none"> Yes. CAG has the constitutional mandate to conduct external audits of donor funded projects. Annual project audit reports are typically produced within six to nine months of the end of the financial 	Low	<ul style="list-style-type: none"> Not applicable

Risk Type	Risk Description	Risk Assessment	Proposed Mitigation Measures
	year. • Compliance reports are prepared and submitted in response to audit findings (paras) for disposal of the same.		
7. External Audit (entity level)	• CAG conducts the audit of the UDD and UD&PAD as part of its overall state level audits.	Low	• Not applicable
8. Reporting and Monitoring	• Reporting systems are in place. • Routine reports are produced from the Accounting System – others are prepared on spreadsheets with figures extracted from the accounting system.	Moderate	• Not applicable
9. Information Systems	• SIPMIU's accounts are not computerized.	Moderate	• Computerisation of SIPMIU accounts to be initiated and will be completed by 31 March 2016
Overall Control Risk	SIPMIU's financial management practices and procedures are considered to be adequate for management and control of project finances – and project funds will be managed and audited.	Moderate	

CAG= Comptroller and Auditor General, SIPMIU = State Investment Program Management Implementation Unit; UDD = Urban Development Department; UD&PAD = Urban Development and Poverty Alleviation Department.

F. Financial Projections of ULBs

40. A review of the historical and projected financial statements of the ULBs with-project, show that following the completion of the respective subprojects, introduction of property tax and tariff reforms, the balances of the operating accounts will improve. The proposed user charges are sufficient to cover incremental O&M expenditures in both ULBs. At AMC, full water supply O&M cost recovery is achievable on completion of all subprojects. At Aizawl, full O&M costs for water will likely not be recovered, due to the higher O&M costs, in particular higher electricity costs incurred in hilly terrains. On an overall basis, both AzMC and AMC's financial projections, with project, demonstrated positive cash balance in 2020 with subsidy support from Government till the completion of implementation of the project. Detailed projections are given below in Annexures C and D for Agartala and Aizawl. An analysis of financial performance of ULBs for the last three fiscal years shows that:

- (i) Grants constitute a significant portion of income; 76 in AzMC and 55 % in AMC;
- (ii) Increase in revenue expenditures has outpaced growth of revenue incomes, excluding grants;
- (iii) Property tax was the largest source of revenue receipt; and
- (iv) Cost recovery for water supply services is 20% and 5% in Aizawl and Agartala respectively and for solid waste management is 20% and 24% in AzMC and AMC respectively at present.

Financial Management Maturity Rating Criteria for Executing/ Implementing Agencies – SEAs, Agartala and Aizawl

Scoring Guidelines: (i) Many are subjective and professional judgment to be exercised (ii) Overall Rating : 0-40% = High Risk, 40 – 60% = Substantial Risk, 60% – 75 % = Moderate, 75% – 100% = Low, (iii) For low risk, at a minimum must meet criteria's 1b, 1d, 2b, 4b, and 5a, else automatically at least moderate

1. Accounting and Financial Reporting (Total 20 points)

- a. Accrual Basis of Accounting applied
- b. Computerized FMIS
- c. Monthly financial statements can be closed within 15 – 30 days
- d. Financial statement prepared in accordance with acceptable financial reporting framework
- e. Qualified Chartered Accountant in the Accounts Department
- f. Financial Management & Accounting Manual in place

Assigned Total	Score Obtained	Guidelines/ Considerations for Scoring	Comments
2	0		Cash based accounting system is in place.
4	0		The FMIS is not linked with accounting system and financial accounting is manual
4	4		Monthly financial statement prepared.
4	2		Financial Reporting Is done as per government regulations, but not under any recognized financial reporting framework
4	0		There is no qualified Chartered Accountant in the Accounts Department.
2	2		GFRs are followed

2. Budgeting and Financial Sustainability (Total 20 points)

- a. Bottom-up budgeting on annual basis with variance analysis
- b. Long term and short term budgets prepared
- c. Adequate Budget Allocation/ Releases
- d. Absorption Capacity

5	3		Variance analysis is done only at the year end.
5	2		Only annual budget is prepared.
5	2		There have been delays in release of funds
5	4		SEAs are able to spend the funds they receive

3. Internal Audit (Total 15 points)

- a. Existence of an effective IA Department
- b. Internal Audit Reports to Audit Committee (at least 2x a year)

3	1		Internal audit done by State Audit Directorate in Agartala and in Aizawl there is no internal audit.
3	1		To the State government, but once in 1-2 years

- c. Qualified IA department heads
- d. Risk based Internal Audit Manual
- e. Evidence that IA Reports are taken seriously / followed up on

3	2		Experienced
3	0		Risk based Internal Audit Manual is not in place.
3	3		Yes

4. External Audit (Total 15 points)

- a. Audited financial statements issued within 6-9 months of fiscal year end
- b. Competent independent external auditor
- c. Limited audit observations / no serious issue repeated for more than 2 years

5	3		There have been delays in the conduct of audit at both ULBs
5	5		
5	3		There are delays in compliance to audit observations at ULB level

5. Internal Controls (Total 20 points)

- a. IC commensurate to business (as assessed by auditor or ADB)
- b. Fixed Assets Register in place
- d. Adequately trained Staff in place (limited vacancies, low turnover OR adequate experience / qualifications)

10	7		The internal control is maintained according to government financial rules.
5	3		Fixed asset register is maintained but not linked with control register.
5	5		

6. Governance / Tone at the top (Total 10 points)

- a. No alleged reports of misconduct in the media
- b. Active and effective Governing Body/ Chief Executive

5	4		
5	5		

TOTAL

100.00	61
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Notes:

Overall risk assessed as **Substantial** for the SEAs

Financial Management Maturity Rating Criteria for – Aizawl Municipal Council and Agartala Municipal Corporation

Scoring Guidelines: (i) Many are subjective and professional judgment to be exercised (ii) Overall Rating : 0-40% = High Risk, 40 – 60% = Substantial Risk, 60% – 75 % = Moderate, 75% – 100% = Low, (iii) For low risk, at a minimum must meet criteria's 1b, 1d, 2b, 4b, and 5a, else automatically at least moderate

1. Accounting and Financial Reporting (Total 20 points)

- a. Accrual Basis of Accounting applied
- b. Computerized FMIS
- c. Monthly financial statements can be closed within 15 – 30 days
- d. Financial statement prepared in accordance with acceptable financial reporting framework
- e. Qualified Chartered Accountant in the Accounts Department
- f. Financial Management & Accounting Manual in place

Assigned Total	Score Obtained	Guidelines/ Considerations for Scoring	Comments
2	2		See Note 1
4	4	Fully/ partially integrated system	See Note 2
4	4	0 -15 days – 4 points ;16- 30 days 2 points]	See Note 3
4	4		See Note 4
4	0		See Note 5
2	2		See Note 6

2. Budgeting and Financial Sustainability (Total 20 points)

- a. Bottom-up budgeting on annual basis with variance analysis
- b. Long term and short term budgets prepared
- c. Adequate Budget Allocation/ Releases
- d. Absorption Capacity

5	3		See Note 7
5	2		See Note 8
5	3		See Note 9
5	3		

3. Internal Audit (Total 15 points)

- a. Existence of an effective IA Department
- b. Internal Audit Reports to Audit Committee (at least 2x a year)
- c. Qualified IA department heads
- d. Risk based Internal Audit Manual
- e. Evidence that IA Reports are taken seriously / followed up on

3	2	Effective' means adequate scope and coverage and may include outsourced functions	See Note 10
3	1		See Note 11
3	2		Experienced
3	0		See Note 12
3	3		Yes

4. External Audit (Total 15 points)

- a. Audited financial statements issued within 6-9 months of fiscal year end
- b. Competent independent external auditor
- c. Limited audit observations / no serious issue repeated for more than 2 years

5	3		See Note 13
5	5		See Note 14
5	3		See Note 15

5. Internal Controls (Total 20 points)

- a. IC commensurate to business (as assessed by auditor or ADB)
- b. Fixed Assets Register in place
- d. Adequately trained Staff in place (limited vacancies, low turnover OR adequate experience / qualifications)

10	5		See Note 16
5	2		See Note 17
5	2		See Note 18

6. Governance / Tone at the top (Total 10 points)

- a. No alleged reports of misconduct in the media
- b. Active and effective Governing Body/ Chief Executive

5	5		
5	5	frequency of meetings, time taken to take decisions	

TOTAL

100.00	65
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Overall risk assessed as moderate for both the ULBs.

Notes:

1. Accrual (Hybrid) based accounting system is in place.
2. Municipal Accounting Software has been installed and financial statements generated under the computerized system with help from Institutional Development Consultants (IDC) in both AzMC and AMC. However continuance of the same system after IDC contract is to be ensured.
3. Monthly financial statement prepared.
4. Financial statements are prepared.
5. There is no qualified Chartered Accountant in the Accounts Department.
6. Municipal Accounts Manual adopted in both Aizawl MC and Agartala MC.
7. Variance analysis is done only at the year end.
8. Only annual budget is prepared.
9. There have been delays in release of funds.
10. Internal audit is done by State Audit Directorate in both Agartala and in Aizawl MCs. In both Aizawl and Agartala MCs the internal audit is done till 31st March 2013.
11. Audit report is submitted to the State government
12. Risk based Internal Audit Manual is not in place.
13. There have been delays in the conduct of audit at both ULBs. Aizawl MC Audit is done up to 31 March 2013. Agartala MC Audit for the three years 2012 to 2014 was taken up and completed.
14. Audit is done by Auditor General's office.
15. There are delays in compliance to audit observations at ULB level.
16. The internal control is maintained according to government financial rules.
17. Fixed asset register is maintained, but updation of the same after IDC is to be ensured.
18. In Aizawl MC there is no permanent staff in accounts section only contract staff. In case of Agartala the staff involved with computerized accounting software are on contract basis

Agartala Municipal Corporation (Revenue Account)											
Particulars	Actual 2013-14	Projections in Rs. Million									
		2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2025-26	2030-31	2039-40
Agartala Municipal Corporation (Revenue Account)											
Opening Balance		93.0	154.2	224.2	340.7	457.1	569.8	677.6	1,149.8	1,312.6	246.8
Revenue Income without Project											
Tax Revenue	39.8	49.3	61.1	111.2	115.5	117.1	118.3	129.0	148.3	170.5	206.8
Non Tax Revenue	95.7	105.3	115.8	127.4	140.1	154.1	169.6	186.5	300.4	483.8	1,140.7
Grants & Contribution	268.9	291.7	316.5	343.4	372.6	404.3	438.6	475.9	715.6	1,076.0	2,242.2
Other Income	38.8										
Total- Revenue Income without Project	443.2	446.3	493.4	582.0	628.2	675.5	726.5	791.4	1,164.3	1,730.3	3,589.7
Revenue Expenditure without Project											
Salaries & Allowances	278.9	306.8	337.5	371.2	408.3	449.2	494.1	543.5	875.3	1,409.6	2,497.3
Operation and Maintenance	71.3	78.3	85.9	94.3	103.5	113.6	124.7	136.9	218.7	350.0	818.3
Total- Revenue Expenditure without Project	350.2	385.0	423.4	465.5	511.8	562.8	618.8	680.4	1,094.0	1,759.7	3,315.6
Revenue Surplus /(Deficit) (without Project)	93.0	61.2	70.0	116.5	116.4	112.7	107.7	111.0	70.2	(29.4)	274.2
Closing Balance	93.0	154.2	224.2	340.7	457.1	569.8	677.6	788.6	1,220.1	1,283.2	521.0
Water Supply Account											
- Existing Income	7.6	7.7	7.8	7.9	8.0	8.0	8.1	8.2	8.6	9.1	9.9
- Income - Incremental								276.0	411.9	540.5	975.5
-New Connection Fees	1.4	0.7	0.7	0.5	0.4	0.4	1.3	76.1	2.6	2.8	4.8
Total Revenue	7.6	8.4	8.5	8.4	8.4	8.5	9.4	360.2	423.1	552.4	990.2
Revenue Expenses											
- Expenditure - Existing	170.0	176.0	188.3	201.0	214.2	227.9	242.0	256.6	337.8	434.2	655.7
- Expenditure - Incremental								73.92	97.31	125.09	188.87
Total Expenses	170.0	176.0	188.3	201.0	214.2	227.9	242.0	330.5	435.1	559.3	844.5
Revenue Surplus /(Deficit)	(162.4)	(167.5)	(179.8)	(192.6)	(205.8)	(219.4)	(232.6)	29.7	(12.0)	(6.9)	145.7
	4.5%	4.8%	4.5%	4.2%	3.9%	3.7%	3.9%	109.0%	97.2%	98.8%	117.2%
Solid Waste Account											
- Existing Income											
- Income - Incremental				5.8	15.1	16.2	17.3	18.5	30.7	48.5	98.5
Total Revenue				5.8	15.1	16.2	17.3	18.5	30.7	48.5	98.5
Revenue Expenses											
- Expenditure - Existing											
- Expenditure - Incremental				90.4	96.4	102.5	108.9	115.4	152.0	195.3	295.0
Total Expenses				90.4	96.4	102.5	108.9	115.4	152.0	195.3	295.0
Revenue Surplus /(Deficit)				(84.6)	(81.3)	(86.3)	(91.6)	(96.9)	(121.2)	(146.8)	(196.5)
Septage Management Account											
- Existing Income											
- Income - Incremental					27.8	28.7	29.1	29.6	32.7	35.9	44.4
Total Revenue					27.8	28.7	29.1	29.6	32.7	35.9	44.4
Revenue Expenses											
- Expenditure - Existing											
- Expenditure - Incremental					20.1	22.0	23.7	25.5	35.9	50.5	93.8
Total Expenses					20.1	22.0	23.7	25.5	35.9	50.5	93.8
Revenue Surplus /(Deficit)					7.7	6.7	5.5	4.1	(3.2)	(14.6)	(49.3)
Closing Balance - All account with Project	(69.4)	(13.3)	44.4	63.5	177.7	270.8	358.9	725.5	1,083.6	1,114.8	420.8
Government subsidy required	69.4	13.3									
Closing balance after subsidy			44.4	63.5	177.7	270.8	358.9	725.5	1,083.6	1,114.8	420.8

Aiawl Municipal Council												
Particulars		Actual 2013-14	2014-15	2015-16	2016-17	2017-18	Projections in Rs. Million					
							2018-19	2019-20	2020-21	2025-26	2030-31	2039-40
Mizoram Municipal Council (Revenue Account)												
Opening Balance			39.3	76.2	148.5	222.0	294.9	366.7	437.0	776.0	1,005.2	728.4
<u>Revenue Income without Project</u>												
Tax Revenue		18.8	17.0	57.1	59.3	60.1	60.8	61.4	67.3	77.8	89.9	109.6
Non Tax Revenue		7.1	7.8	8.6	9.5	10.4	11.5	12.6	13.9	22.4	36.0	85.0
Grants & Contribution		125.9	134.8	144.2	154.3	165.1	176.6	189.0	202.2	283.7	397.8	841.9
Other Income		4.0	4.0									
Total- Revenue Income without Project		155.9	163.6	209.9	223.1	235.7	248.9	263.0	283.4	383.8	523.8	1,036.5
<u>Revenue Expenditure without Project</u>												
Salaries & Allowances		49.1	54.0	59.4	65.3	71.9	79.1	87.0	95.7	154.1	248.1	585.0
Operation and Maintenance		67.5	72.6	78.2	84.3	90.9	98.0	105.8	114.3	169.0	253.2	538.1
Debt Servicing												
Total- Revenue Expenditure without Project		116.6	126.6	137.6	149.6	162.7	177.1	192.8	209.9	323.1	501.3	1,123.2
Revenue Surplus /(Deficit) (without Project)		39.3	36.9	72.3	73.4	72.9	71.8	70.3	73.5	60.7	22.5	(86.7)
Closing Balance		39.3	76.2	148.5	222.0	294.9	366.7	437.0	510.4	836.7	1,027.7	641.7
Water Supply Account (presently PHED)												
- Existing Income		104.6	105.6	106.7	107.7	108.8	109.9	111.0	112.1	117.8	123.8	135.4
- Income - Incremental									476.9	756.1	1,006.2	1,915.2
-New Connection Fees			0.6	0.6	0.6	0.7	0.4	0.4	0.8	1.7	0.9	1.8
Total Revenue		104.6	106.2	107.3	108.4	109.5	110.3	111.4	589.8	875.7	1,130.9	2,052.4
Revenue Expenses												
- Expenditure - Existing		542.7	561.7	601.1	641.8	683.9	727.5	772.6	819.3	1,078.5	1,386.4	2,093.3
- Expenditure - Incremental									155.11	204.18	262.47	396.31
Total Expenses		542.7	561.7	601.1	641.8	683.9	727.5	772.6	974.4	1,282.7	1,648.8	2,489.6
Revenue Surplus /(Deficit)		(438.2)	(455.5)	(493.8)	(533.4)	(574.4)	(617.2)	(661.2)	(384.6)	(407.0)	(517.9)	(437.2)
		19.3%	18.9%	17.9%	16.9%	16.0%	15.2%	14.4%	60.5%	68.3%	68.6%	82.4%
Solid Waste Account												
- Existing Income												
- Income - Incremental						8.9	12.4	15.2	19.4	33.5	50.4	104.1
Total Revenue						8.9	12.4	15.2	19.4	33.5	50.4	104.1
Revenue Expenses												
- Expenditure - Existing												
- Expenditure - Incremental						27.8	29.6	31.4	33.3	43.9	56.4	85.2
Total Expenses						27.8	29.6	31.4	33.3	43.9	56.4	85.2
Revenue Surplus /(Deficit)						(18.9)	(17.2)	(16.2)	(13.9)	(10.4)	(6.0)	18.9
Septage Management Account												
- Existing Income												
- Income - Incremental					34.2	34.2	34.2	34.2	34.2	34.2	34.2	34.2
Total Revenue					34.2	34.2	34.2	34.2	34.2	34.2	34.2	34.2
Revenue Expenses												
- Expenditure - Existing												
- Expenditure - Incremental					1.3	1.4	1.4	1.5	1.6	2.1	2.8	4.2
Total Expenses					1.3	1.4	1.4	1.5	1.6	2.1	2.8	4.2
Revenue Surplus /(Deficit)					32.9	32.8	32.7	32.6	32.5	32.0	31.4	30.0
Closing Balance - All account with Project		(398.9)	(379.3)	(345.2)	(278.5)	(265.6)	(235.0)	(207.9)	144.5	451.3	535.2	253.4
Government Subsidy requirement		398.9	379.3	345.2	278.5	265.6	235.0	207.9				
Closing Balance after Government Subsidy									144.5	451.3	535.2	253.4