

Project Administration Manual

Project Number: 49107-010
MFF Number: 0105
Loan Number: LXXXX
April 2022

India: Tamil Nadu Urban Flagship Investment
Program (Tranche 3)

ABBREVIATIONS

ADB	–	Asian Development Bank
APFS	–	audited project financial statement
CAPP	–	community awareness and participation plan
CMSC	–	contract management and supervision consultant
COVID-19	–	Coronavirus Disease 2019
DEA	–	Department of Economic Affairs
DMA	–	Directorate of Municipal Administration
DMF	–	design and monitoring framework
EARF	–	environmental assessment and review framework
EMP	–	environmental management plan
ESS	–	environmental and social safeguards
IEE	–	initial environmental examination
GAP	–	gender action plan
GIAC	–	governance improvement and awareness consultants
GOTN	–	Government of Tamil Nadu
GRC	–	grievance redress committee
GRM	–	grievance redress mechanism
km	–	kilometer
kW	–	kilowatts
MAWS	–	Municipal Administration and Water Supply Department
MFF	–	multitranches financing facility
PAM	–	project administration manual
PIU	–	program implementation unit
PMU	–	program management unit
QCBS	–	quality- and cost-based selection
SPS	–	Safeguard Policy Statement
TNUFIP	–	Tamil Nadu Urban Flagship Investment Program
TNUIFSL	–	Tamil Nadu Urban Infrastructure Financial Services Limited
TWAD	–	Tamil Nadu Water Supply and Drainage Board
ULB	–	urban local body

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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 the policies and procedures of the government and Asian Development Bank (ADB). The PAM should include references to all available templates and instructions either through linkages to relevant URLs or directly incorporated in the PAM.

The Municipal Administration and Water Supply Department (MAWS), acting through Tamil Nadu Urban Infrastructure Financial Services Limited (TNUIFSL) and Government of Tamil Nadu (GOTN) are wholly responsible for the implementation of ADB-financed projects, as agreed jointly between the borrower and ADB, and in accordance with the policies and procedures of the government and ADB. ADB staff is responsible for supporting implementation including compliance by TNUIFSL of their obligations and responsibilities for project implementation in accordance with ADB's policies and procedures.

At loan negotiations, the borrower and ADB agreed to the PAM and ensured consistency with the loan and project agreement. Such agreement is 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 Management's approval of the project's periodic financing request, changes in implementation arrangements are subject to agreement and approval pursuant to relevant government and ADB administrative procedures (including the Facility Administration Instructions) and upon such approval, they will be subsequently incorporated in the PAM.

I. PROJECT DESCRIPTION

1. Asian Development Bank (ADB) approved a multi-tranche financing facility (MFF), the Tamil Nadu Urban Flagship Investment Program (the program), in a loan amount not exceeding \$500 million on 25 September 2018. The program aims to develop priority water supply, sewerage, and drainage infrastructure in at least 10 cities located within strategic industrial corridors of Tamil Nadu.¹ It will support innovative pilot projects, including large scale non-revenue water pilot projects happening for the first time in Tamil Nadu; strengthen urban governance; and build capacity of state and local institutions to enhance urban services delivery, environmental sustainability, and climate resilience.²

2. Project 3 is aligned with the following impacts: (i) universal access to basic water and sanitation services achieved; (ii) “world-class” cities and industrial corridors across the state developed; and (iii) water security and reduced vulnerability to climate change in urban areas achieved. Project 3 will have the following outcome: livability and climate resilience in selected cities in priority industrial corridors enhanced.

3. **Output 1: Climate-resilient sewage collection and treatment, and drainage systems developed in two cities.** Sewerage works in Coimbatore include the construction of (i) 2 STPs with a combined treatment capacity of 34.92 million liters per day (MLD)—zone 5: 15.43 MLD; zone 7: 19.49 MLD; (ii) 529 kilometers (km) of sewage collection pipelines—zone 5: 230.2 km; zone 7: 298.9 km—with 100% of the 67,545 households connected (zone 5: 24,969; zone 7: 42,576); (iii) 14 pump and lift stations with a combined capacity of 348 kilowatts (kW) (zone 5: 9 and 108 kW; zone 7: 5 and 240 kW); and (iv) 14 km of sewage pumping mains (zone 5: 9.8 km; zone 7: 4.4 km). Climate-resilient stormwater drainage systems (36 km of tertiary drains and enhancement of an existing stormwater pump station) will be established in Thoothukudi. In Coimbatore and Madurai, two all-female self-help groups (one in each city) will be trained on the benefits of household connection to the sewage collection system, water conservation, sanitation, health and hygiene, and in areas of leadership.

4. **Output 2: Water supply system in one city improved with smart features.** Works in Madurai include the (i) commissioning of 813 km of new distribution pipelines, with 100% of the 163,958 households connected to 115 newly established district metered areas with smart water features to reduce nonrevenue water; and (ii) construction of 15 inline booster pumps (combined capacity of 70 kW).

5. **Output 3: Institutional capacity, public awareness, and urban governance strengthened.** This output includes targets to raise the awareness of students, teachers, and women’s groups about water conservation and hygiene, and develop the capacity of stakeholders for gender mainstreaming in urban governance. The governance improvement and awareness consultants (GIAC) engaged under Project 1 for the program will continue to support output 3.

6. The scope of Project 3 is included in Table 1.

¹ ADB. 2018. [*Report and Recommendations to the President to the Board of Directors: Proposed Multitranchise Financing Facility, Technical Assistance Grant, and Administration of Grant, India: Tamil Nadu Urban Flagship Investment Program*](#). Manila.

² ADB. 2015. [*India: State-Level Support for National Flagship Urban Programs: Project Preparatory Technical Assistance Report*](#). Manila.

Table 1: Scope of Project 3

Item	Description	Unit	Tranche 3
			2022–2026
Output 1	Sewage treatment capacity newly added	MLD	34.92
	Sewage collection pipelines constructed	km	529
	Number of house service connections	nos.	67,545
	Sewage pumping capacity added	kW	348
	Tertiary stormwater drains constructed	km	36
	All women SHG trained	nos.	2
Output 2	Water distribution pipelines constructed	km	813
	Water supply customer connections provided	nos.	163,958
	Pumps added	kW	70
	District metered areas established	nos.	115
Output 3	Awareness campaign for 200 School children, teachers and administrators and 3 women groups on water conservation and hygiene conducted	nos.	2
	Training on gender and social inclusion in urban governance provided to ULB staff	nos.	60

km=kilometer, kW=kilowatt, MLD=million liters per day, nos=numbers, SHG=self-help group, ULB=urban local body.

II. IMPLEMENTATION PLANS

A. Project Readiness Activities

Table 2: Project Readiness Activities

Indicative Activities	2021				2022												Responsible Agency/ Government	
	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D		
Advance contracting actions																		TNUIFSL, ULBs
Retroactive financing actions																		TNUIFSL, ULBs
Establish project implementation arrangements																		GOTN, TNUIFSL, TWAD, ULBs
ADB management approval																		ADB
Loan signing																		GOI, GOTN, ADB
Government legal opinion provided																		GOTN
Government budget inclusion																		GOTN
Loan effectiveness																		Government of India, GOTN, ADB

ADB=Asian Development Bank, GOTN=Government of Tamil Nadu, TNUIFSL=Tamil Nadu Urban Infrastructure Financial Services Limited, TWAD=Tamil Nadu Water Supply and Drainage Board, ULB=urban local body.

Source(s): Asian Development Bank

B. Overall Project Implementation Plan

Table 3: Overall Project Implementation Plan

Activities	2022 (Quarter)				2023 (Quarter)				2024 (Quarter)				2025 (Quarter)				2026 (Quarter)				2027 (Quarter)			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
A. DMF																								
Output 1: Climate-resilient sewage collection and treatment, and drainage systems developed in two cities																								
1.1 Award contract for Coimbatore sewerage packages				■	■	■																		
1.2 Award contract for Thoothukudi stormwater drainage packages						■	■																	
1.3 Construct and commission works				■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
Output 2: Water supply system in one city improved with smart features																								
2.1 Award contract for Madurai water supply package				■																				
2.2 Construct and commission works				■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
Output 3: Institutional capacity, public awareness, and urban governance strengthened																								
3.1 Implement awareness raising activities				■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
3.2 Implement GAP and CAPP				■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
B. Management Activities																								
Establishment of PIU in Coimbatore by TWAD"		■	■																					
Mobilize PDC				■	■																			
Annual and/or midterm review								■	■			■	■			■	■			■	■			
Project completion report																						■	■	

CAPP=community awareness and participation plan, DMF=design and monitoring framework, GAP=gender action plan, PDC=project design consultant, PIU=program implementation unit, TWAD=Tamil Nadu Water Supply and Drainage Board.
Source: Asian Development Bank

III. PROJECT MANAGEMENT ARRANGEMENTS

A. Project Implementation Organizations: Roles and Responsibilities

7. The Municipal Administration and Water Supply Department (MAWS) acting through Tamil Nadu Urban Infrastructure Financial Services Limited (TNUIFSL) will be the executing agency. A program steering committee, headed by Additional Chief Secretary, MAWS Department, Government of Tamil Nadu (GOTN), will provide overall guidance and strategic directions to the program. A program management unit (PMU) headed by the Chairperson & Managing Director, TNUIFSL acting as Program Director established under Project 1 within TNUIFSL will continue to provide overall management, planning, implementing, monitoring, reporting, and coordinating the project. The Director of Municipal Administration will act as the Deputy Program Director in the PMU. The project urban local bodies (ULBs), represented by respective Municipal Commissioners, will be the implementing agencies for works in cities/towns and will establish program implementing units (PIUs) headed by a municipal engineer as full-time Project Manager. The PIUs will comprise of dedicated staff responsible for overseeing implementation of projects on a day-to-day basis. The PIUs will be supported by a contract management and supervision consultant (CMSC) recruited by TNUIFSL.³ Coimbatore will utilize implementation support from the Tamil Nadu Water Supply and Drainage Board (TWAD) for the sewerage subprojects including construction of sewage treatment plant to strengthen implementation capacity. The TWAD shall establish a PIU in Coimbatore to support the implementation of subproject under Project 3. For the institutional capacity, public awareness and urban governance components, the PIU established under Project 1 in Directorate of Municipal Administration (DMA) shall continue in Project 3 with support of GIAC engaged for the program. Draft additional tasks of GIAC for supporting Project 3 are listed in Appendix 1.

8. The PMU staff will be mostly drawn from TNUIFSL, DMA, and municipal services, and, if required, will also be seconded from the other government departments such as TWAD, on deputation. The PIU staff will be drawn from the engineering units of the participating ULBs and augmented from the same government departments mentioned above as required. The CMSC will assist the PIUs to implement, manage, and monitor works of the project. With the help of PMU, PIUs will design infrastructure, manage procurement processes, supervise construction, assure technical quality of designs and construction, and provide support on capacity building, governance improvement, and awareness building. The implementing agencies will procure works and manage construction and commissioning activities. For social and environmental safeguards, the PMU and PIUs will appoint staff to oversee safeguards monitoring and compliance. Those staff will be supported by the CMSC and GIAC.

9. The roles and responsibilities are summarized in the table below.

Table 4: Management Roles and Responsibilities

Project Implementation Organizations	Management Roles and Responsibilities
Executing Agency: MAWS acting through TNUIFSL	<ul style="list-style-type: none"> • Negotiate, sign, and execute the program; • Allocate and release government counterpart funds on time; • Manage PSGF, PDGF, and TNUDF.

³ The CSMC recruited under Tranche 2 shall continue to support Madurai. For Thoothukudi, the scope of the CMSC recruited for ongoing stormwater drainage works in other part of the city will be extended with government fund to cover Project 3 for coordinated implementation. Draft terms of reference for Thoothukudi CMCS is attached as Appendix 2. For Coimbatore, TWAD will continue to support the project implementation.

Project Implementation Organizations	Management Roles and Responsibilities
	<ul style="list-style-type: none"> • Facilitate obtaining administrative sanction from the government for overall program and for all the subprojects with PIU staffing; • Facilitate obtaining timely government-level approvals for smooth implementation of the program; • Monitor program implementation progress and ensure timely actions for completion of the project; • Responsible for annual independent audits of program accounts; and • Plan, implement, and monitor public relations activities; safeguards; gender mainstreaming initiatives and community participation activities, with the support of PIUs.
<p>State Level Empowered Committee^a: <u>Chairperson</u> Additional Chief Secretary, MAWS <u>Members:</u></p> <ul style="list-style-type: none"> • Chairperson & Managing Director, TNUIFSL (Convener) • Director, DMA • Managing Director, TWAD 	<ul style="list-style-type: none"> • Provide strategic guidance; • Provide policy decisions to support smooth program implementation; • Facilitate inter-departmental coordination and cooperation; • Support TNUIFSL with government/ministerial level approvals; and • Review and monitor the physical and financial progress of the subprojects.
<p>Program Management Unit</p> <ul style="list-style-type: none"> • Program Director: Chairperson & Managing Director, TNUIFSL • Deputy Program Director: Director, DMA <p><u>PMU Staff (10)</u></p> <ul style="list-style-type: none"> • Technical Expert • Accounts Officer • Financial Officer/s • Safeguards Officers • Procurement Officer/s • Administrative Officer 	<p>Program and Financial Management</p> <ul style="list-style-type: none"> • Overall responsibility of the investment program and financial management and administering program procedures and guidelines; • Oversee MFF design of all projects in individual tranches; • Prepare periodic financing requests for tranches; • Review the DPRs submitted by ULBs/implementing agencies and obtain approval from ADB and government; • Undertake project appraisals based on technical, financial, economic and safeguards compliance as agreed by GOTN/TNUIFSL and ADB; • Undertake financial structuring and obtain approval for the subprojects from the Sanctioning Committee; • Sanction and disburse loan and grant funds to subprojects based on progress and timely provision of counterpart funds from state finance department; • Manage overall contract award and disbursement performance; • Manage overall fund flow; • Provide overall technical and implementation guidance to the PIUs as required; • Facilitate approval of various implementation related requests from the PIUs; • Develop annual work plans, work schedules and budgets; • Sign key documents including withdrawal applications and audit reports; • Timely submit withdrawal applications; • Establish financial accounting and control systems and ensuring accurate and timely report submissions and funds flow from ADB; • Monitor safeguards compliance of PIUs; • Act as focal point for communication with the ADB; • Ensure compliance with loan covenants, ADB's guidelines, procedures and policies; • Facilitate ADB program review missions; and

Project Implementation Organizations	Management Roles and Responsibilities
	<ul style="list-style-type: none"> • Represent the program at Tripartite Portfolio Review Meetings. <p>Accounting and Reporting</p> <ul style="list-style-type: none"> • Report the program's progress to GOTN and ADB (quarterly); • Submit audited project accounts to GOTN and ADB (annually); and, • review of internal audit reports and support corrective actions <p>Safeguards Compliance</p> <ul style="list-style-type: none"> • Review and monitor safeguards compliance by PIUs and support corrective actions as necessary; • Submit semi-annual safeguard monitoring reports to ADB; and • Guide PIUs as and when necessary on safeguards compliance and arrange capacity building for PIUs. <p>Recruitment of Consultants</p> <ul style="list-style-type: none"> • Recruit consultants in accordance with ADB consultant recruitment guidelines and make payments to them; and • Obtain ADB's concurrence for consultants' recruitment. <p>Procurement of Works/Goods Contracts</p> <ul style="list-style-type: none"> • Support ULB PIUs with preparation of bid documents as required, and with procurement process; • Obtain ADB concurrence for bid documents, bid evaluation reports and contract awards; and • Ensure compliance with ADB procurement policies and procedures.
<p>Project Implementation Units</p> <ul style="list-style-type: none"> • Three ULBs • TWAD (for sewerage subprojects in added areas of Coimbatore) • DMA <p>PIU Staff (5)^b</p> <ul style="list-style-type: none"> • Project Manager • Technical Expert • Accounts/Financial Officer • Safeguards-gender Officer • Contract Management Officer 	<p>Project Management</p> <ul style="list-style-type: none"> • Responsible in managing subprojects; and • Responsible for day-to-day implementation, monitoring and reporting. <p>Procurement of Works/Goods Contracts</p> <ul style="list-style-type: none"> • Prepare bidding documents for goods and works and submit through PMU to ADB for approval; • Issue invitation for bids, evaluate bids and submit reports to ADB through PMU for approval and award contracts after approval from ADB; and • Check all clearances including administrative, regulatory and statutory approvals. <p>Supervision and Monitoring of the Construction Works</p> <ul style="list-style-type: none"> • Oversee, coordinate and monitor works (civil, electrical and mechanical) and supply of equipment and materials ensuring sound works supervision and high-quality control and any other technical matters and issue certificates for acceptance; • Measure and record acceptable works, check contractors'/ suppliers' invoices and recommend payments to the contractors; • Manage contracts, prepare variation orders; and submit variation requests to approving authority with due intimation to PMU; • Coordinate preparation of final measurement and 'as built' drawings; and • Monitor implementation. <p>Safeguards Compliance</p> <ul style="list-style-type: none"> • Ensure compliance with safeguard frameworks and plans; • Responsible for updating safeguard documents per detailed engineering design

Project Implementation Organizations	Management Roles and Responsibilities
	<ul style="list-style-type: none"> • Facilitate consultation with stakeholders and disclose program information in consultation with PMU; • Address grievances through the GRM; • Coordinate land acquisition actions, if required; • Ensure implementation of GAP; and • Submit quarterly safeguard monitoring reports to PMU. <p>Accounting and Reporting</p> <ul style="list-style-type: none"> • Open and administer project account; • Prepare monthly, quarterly, mid-term and final progress reports; and • Payments, accounting and reporting to the PMU. <p>Manage Disbursements</p> <ul style="list-style-type: none"> • Retain supporting documents for safekeeping and audit; and • Complete all reporting requirements, including the annual audit report and financial statements. <p>Supervise Contract Management and Supervision Consultants</p> <ul style="list-style-type: none"> • Review and approve all site investigation subcontracts; • Monitor, review, evaluate and approve all outputs of the consultants including the tender documents; • Finalize project components and works packages; and • Review and recommend all consultants' invoices; and • Act as Deputy Program Director.
TWAD (For Coimbatore City Corporation)	<ul style="list-style-type: none"> • Provide technical support to ULB; • Deploy qualified full-time design, construction supervision and safeguards monitoring staff to ensure timely completion of subprojects; • Provide additional technical support from the local TWAD Head Office to the PIU for speedy resolution of implementation related issues such as variations, deviations, time and cost control, among others; • Provide backup technical support for review and finalization of DPRs, bid documents, bidding and award of contracts; and • Review and monitor the subprojects implementation when requested by ULB.
Asian Development Bank	<ul style="list-style-type: none"> • Monitor overall program and subproject performance; • Communicate with TNUIFSL on program implementation; • Attend tripartite review meetings; • Review and approve procurement activities as per agreed procurement plan; • Process withdrawal applications for disbursement; • Disclose program information to the public as per ADB policy; • Approve and monitor safeguards documents and implementation compliance including GAP and CAPP implementation; • Monitor annual audits of program accounts, by private auditing firm or Auditor General of India, as selected by TNUIFSL; • Field review missions; • Facilitate knowledge sharing; • Provide training in program management to PIU staff; and • Support TNUIFSL and DMA through various capacity building activities.

ADB= Asian Development Bank, CAPP= community awareness and participation plan, CMSC= contract management and supervision consultant, DMA= Directorate of Municipal Administration, DPR= detailed project report, GAP= gender action plan, GOTN= Government of Tamil Nadu, GRM= grievance redress mechanism, IEE= initial environmental examination, MAWS= Municipal Administration and Water Supply Department, MFF= multitranché financing facility, PDGF= Project Development Grant Fund, PIU= program implementation unit, PMU= program management unit,

PSGF= Project Sustainability Grant Fund, TNUDF= Tamil Nadu Urban Development Fund, TNUIFSL= Tamil Nadu Urban Infrastructure Financing Services Limited, TWAD= Tamil Nadu Water Supply and Drainage Board, ULB= urban local body.

- ^a Government of Tamil Nadu constituted a state level inter-departmental coordination committee to discuss and resolve inter-departmental issues. This committee constitutes heads or state level heads of various GOTN and Government of India departments. The program shall also be included under the ambit of this committee.
- ^b Where TWAD sets up PIUs the following arrangement applies for safeguards and gender activities: (i) TWAD will appoint an environmental safeguards officer, (ii) DMA will appoint social safeguards and gender monitoring experts, and (iii) ULB will provide a safeguards-gender officer to coordinate monitoring activities.

Source: Asian Development Bank.

B. Key Persons Involved in Implementation

Executing Agency

Municipal Administration and
Water Supply Department,
Government of Tamil Nadu

Mr. Shiv Das Meena
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Telephone: 25670491(O)
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South Asia Urban Development
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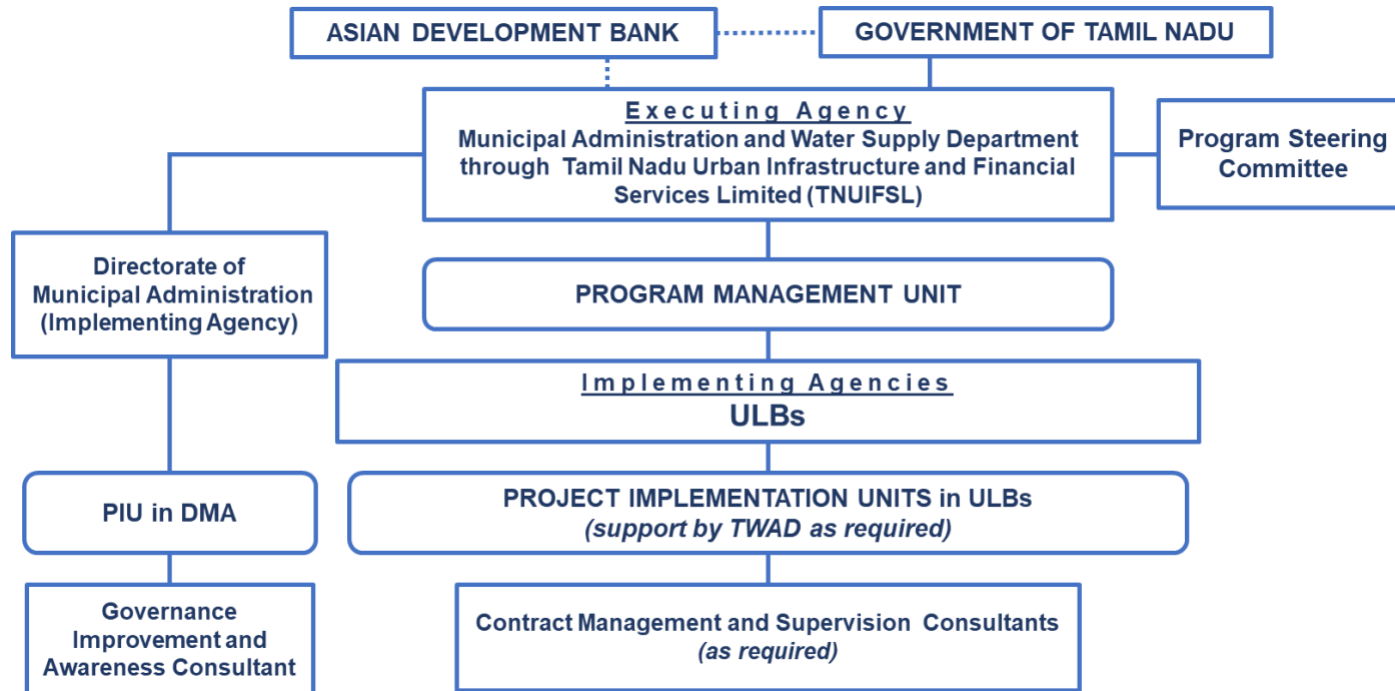
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C. Project Organization Structure

Figure 1: Organization Structure



- - - monitoring role

DMA=Directorate of Municipal Administration, PIU=program implementation unit, TWAD=Tamil Nadu Water Supply and Drainage Board, ULB=urban local body

IV. COSTS AND FINANCING

10. Project 3 is estimated to cost \$193.5 million, and its investment plan is shown in Table 5. The Government of India submitted a periodic financing request for a loan of \$125.0 million from ADB's ordinary capital resources to help finance Project 3. The loan will have a 25-year term, including a grace period of 5 years, 10% annuity repayment method, an annual interest rate determined in accordance with the ADB's Flexible Loan Product, a commitment charge of 0.15% per year, a maturity premium of 0.2% and such other terms and conditions set forth in the draft loan and project agreements.⁴

Table 5: Project 3 Investment Plan
(\$ million)

Item	Amount ^a
A. Base Cost^b	
1. Climate resilient sewage collection and treatment, and drainage systems developed in two cities	120.8
2. Water supply system in one city improved with smart features	43.6
3. Institutional capacity, public awareness, and urban governance strengthened	4.0
Subtotal (A)	168.4
B. Contingencies^c	17.6
C. Financial Charges During Implementation^d	7.5
Total (A+B+C)	193.5

^a In 2022 prices as of 5 March 2022 using the exchange rate of \$1 = ₹76.4.

^b Includes taxes and duties of \$15.9 million to be financed from government resources by cash contribution.

^c Physical contingencies are computed at 5.0% for civil works and equipment. Price contingencies are computed at an average of 1.7%–1.8% on foreign exchange costs and 4.0%–5.0% on local currency costs and include provision for potential exchange rate fluctuation under the assumption of a purchasing power parity exchange rate.

^d Includes interest, commitment, and other charges on all sources of financing.

Source: Asian Development Bank estimates.

Item	Amount ^a
A. Base Cost^b	
1. Climate-resilient sewage collection and treatment, and drainage systems developed	120.8
2. Water supply system in one city improved with smart features	43.6
3. Institutional capacity, public awareness, and urban governance strengthened	4.0
Subtotal (A)	168.4
B. Contingencies^c	17.6
C. Financial Charges During Implementation^d	7.5
Total (A+B+C)	193.5

^a In mid-2022 prices as of 5 March 2022 using the exchange rate of \$1 = ₹76.4.

^b Includes taxes and duties of \$15.9 million to be financed from government resources by cash contribution.

^c Physical contingencies are computed at 5.0% for civil works and equipment. Price contingencies are computed at an average of 1.7%–1.8% on foreign exchange costs and 4.0%–5.0% on local currency costs and includes provision for potential exchange rate fluctuation under the assumption of a purchasing power parity exchange rate.

^d Includes interest, commitment, and other charges on all sources of financing.

Source: Asian Development Bank estimates.

11. The Government of Tamil Nadu will provide \$68.5 million towards the investment costs of Project 3 to finance: (i) taxes and duties, (ii) provisional items, (iii) incremental administrative costs, (iv) financing charges during implementation, (v) part of the works and equipment, and (vi) part of contingencies and will provide the loan proceeds and counterpart funds to the implementing agency as a mix of loan and/or grant. The government has assured that it will meet any financing shortfall to ensure that project outputs are fully achieved. The summary financing plan for the project is in Table 6.

⁴ The maturity-based premium of 0.2% is based on the loan term and the government's repayment period.

Table 6: Project 3 Summary Financing Plan

Source	Amount (\$ million)	Share of Total (%)
Asian Development Bank		
Ordinary capital resources (regular loan)	125.0	64.6
Government of Tamil Nadu	68.5	35.4
Total	193.5	100.0

Source: Asian Development Bank estimates.

12. Climate change features are built into the subproject designs.⁵ Climate mitigation is estimated to cost approximately \$48.51 million and climate adaptation approximately \$50.58 million with relevant ADB financing shares applied.

A. Cost Estimates Preparation and Revisions

13. The cost estimates were prepared based on the detailed project report, where available, and other relevant details of subprojects. The cost estimate model was prepared using Microsoft Excel and is available from the project preparation team and the PMU. The cost estimates will be further revised during the implementation by the PMU.

B. Key Assumptions

14. The following key assumptions underpin the cost estimates and financing plan:

- (i) Exchange rate: ₹76.4 = \$1.00 (as of 5 March 2022); and
- (ii) Price contingencies based on expected cumulative inflation over the implementation period are as follows:

Table 7: Escalation Rates for Price Contingency Calculation

Item	2022	2023	2024	2025	2026	Annual Average
Foreign rate of price inflation	1.7%	3.4%	5.2%	7.0%	8.8%	1.8%
Domestic rate of price inflation	4.8%	9.8%	14.3%	18.3%	22.3%	4.5%

Source: Asian Development Bank estimates.

- (iii) In-kind contributions cannot be easily measured and have not been quantified.

⁵ Climate change measures include: greenhouse gas reduction arising from decommissioning of household septic tanks, water resources conservation, climate resilient stormwater drains.

C. Detailed Cost Estimates by Expenditure Category

Table 8: Detailed Cost Estimates by Expenditure Category

Item	₹ million			\$ million			% of Total Base Cost
	Foreign Exchange	Local Currency	Total Cost	Foreign Exchange	Local Currency	Total Cost	
A. Investment Costs							
1. Civil works and equipment	2,248.0	8,664.4	10,912.4	29.4	113.4	142.8	84.8%
2. Provisional items	318.8	1,228.8	1,547.6	4.2	16.1	20.3	12.0%
3. Consulting services	63.0	242.7	305.7	0.8	3.2	4.0	2.4%
a. GIAC administered by DMA	19.7	75.8	95.5	0.3	1.0	1.3	
b. Project design consultants administered by TNUFISL	35.4	136.5	171.9	0.5	1.8	2.3	
c. PMU support consultants (individual) administered by TNUFISL	7.9	30.3	38.2	0.1	0.4	0.5	
Subtotal (A)	2,629.7	10,135.9	12,765.7	34.4	132.6	167.0	99.2%
B. Recurrent Costs							
1. Incremental administrative costs	-	103.3	103.3	-	1.4	1.4	0.8%
Subtotal (B)	-	103.3	103.3	-	1.4	1.4	0.8%
Total Base Cost	2,629.7	10,239.2	12,868.9	34.4	134.0	168.4	100.0%
C. Contingencies							
1. Physical contingencies	112.4	433.2	545.6	1.5	5.7	7.1	4.2%
2. Price contingencies	164.4	633.5	797.8	2.2	8.3	10.4	6.2%
Subtotal (C)	276.8	1,066.7	1,343.5	3.6	14.0	17.6	10.4%
D. Financing Charges							
1. Interest during implementation	545.1	-	545.1	7.1	-	7.1	4.2%
2. Commitment charges	30.1	-	30.1	0.4	-	0.4	0.2%
Subtotal (D)	575.2	-	575.2	7.5	-	7.5	4.5%
Total Project Cost (A+B+C+D)	3,481.7	11,305.9	14,787.6	45.6	147.9	193.5	114.9%

₹ = Indian Rupee, \$ = United States dollars, DMA = Directorate of Municipal Administration, GIAC = governance improvement and awareness consultants, PMU = program management unit, TNUFISL = Tamil Nadu Urban Infrastructure Financial Services Limited.

Notes: 1. Numbers may not sum precisely because of rounding.

2. The costs of the actual audits of the program are minor and will be borne by the government.

3. Environmental monitoring and implementation of resettlement plan, gender action plan, and public communication costs are absorbed in A3.

Source: Asian Development Bank estimates.

D. Allocation and Withdrawal of Loan Proceeds

Table 9: Allocation and Withdrawal of Loan Proceeds under Project 3

No.	Item	Amount Allocated for ADB Financing (\$)	Category	Basis for Withdrawal from the Loan Account
1	Works and equipment	115,610,000		81.0% of total expenditure claimed
2	Consulting services	3,390,000		84.7% of total expenditure claimed
3	Unallocated amounts	6,000,000		
	Total	125,000,000		

Source: Asian Development Bank estimates.

E. Detailed Cost Estimates by Financier

Table 10: Detailed Cost Estimates by Financier (\$ million)

Item	Total Cost	ADB Loan		Tax	GOTN		
		\$	%		Non-Tax	Total	%
A. Investment Costs							
1. Civil works and equipment	142.8	115.6	81.0%	15.3	11.9	27.2	19.0%
2. Provisional items	20.3	-	0.0%	-	20.3	20.3	100.0%
3. Consulting services	4.0	3.4	84.7%	0.6	-	0.6	15.3%
a. GIAC administered by DMA	1.3	1.1	84.7%	0.2	-	0.2	15.3%
b. Project design consultants administered by TNUFISL	2.3	1.9	84.7%	0.3	-	0.3	15.3%
c. PMU support consultants (individual) administered by TNUFISL	0.5	0.4	84.7%	0.1	-	0.1	15.3%
Subtotal (A)	167.0	119.0	71.2%	15.9	32.1	48.0	28.8%
B. Recurrent Costs							
1. Incremental administrative costs	1.4	-	0.0%	-	1.4	1.4	100.0%
Subtotal (B)	1.4	-	0.0%	-	1.4	1.4	100.0%
Total Base Cost	168.4	119.0	70.7%	15.9	33.5	49.4	29.3%
C. Contingencies							
1. Physical contingencies	7.1	2.8	39.2%	-	4.3	4.3	60.8%
2. Price contingencies	10.4	3.2	30.7%	-	7.2	7.2	69.3%
Subtotal (C)	17.6	6.0	34.1%	-	11.6	11.6	65.9%
D. Financing Charges							
1. Interest during implementation	7.1	-	0.0%	-	7.1	7.1	100.0%
2. Commitment charges	0.4	-	0.0%	-	0.4	0.4	100.0%
Subtotal (D)	7.5	-	0.0%	-	7.5	7.5	100.0%
Total Project Cost (A+B+C+D)	193.5	125.0	64.6%	15.9	52.6	68.5	35.4%

\$ = United States dollars, ADB = Asian Development Bank, DMA = Directorate of Municipal Administration, GIAC = governance improvement and awareness consultants, GOTN = Government of Tamil Nadu, PMU = program management unit, TNUFISL = Tamil Nadu Urban Infrastructure Financial Services Limited.

Notes: 1. Numbers may not sum precisely because of rounding.

2. The costs of the actual audits of the program are minor and will be borne by the government.

3. Environmental monitoring and implementation of resettlement plan, gender action plan, and public communication costs are absorbed in A3.

Source: Asian Development Bank estimates.

F. Detailed Cost Estimates by Outputs and/or Components

Table 11: Detailed Cost Estimates by Outputs (\$ million)

Items	Total Cost	Output 1		Output 2		Output 3	
		\$	%	\$	%	\$	%
A. Investment Costs							
1. Civil works and equipment	142.8	102.1	71.5%	40.7	28.5%	-	0.0%
2. Provisional items	20.3	17.3	85.3%	3.0	14.7%	-	0.0%
3. Consulting services	4.0	-	0.0%	-	0.0%	4.0	100.0%
a. GIAC administered by DMA	1.3	-	0.0%	-	0.0%	1.3	100.0%
b. Project design consultants administered by TNUFISL	2.3	-	0.0%	-	0.0%	2.3	100.0%
c. PMU support consultants (individual) administered by TNUFISL	0.5	-	0.0%	-	0.0%	0.5	100.0%
Subtotal (A)	167.0	119.4	71.5%	43.6	26.1%	4.0	2.4%
B. Recurrent Costs							
1. Incremental administrative costs	1.4	1.4	100.0%	-	0.0%	-	0.0%
Subtotal (B)	1.4	1.4	100.0%	-	0.0%	-	0.0%
Total Base Cost	168.4	120.8	71.7%	43.6	25.9%	4.0	2.4%
C. Contingencies							
1. Physical contingencies	7.1	5.1	71.5%	2.0	28.5%	-	0.0%
2. Price contingencies	10.4	7.5	71.7%	2.7	26.0%	0.2	2.3%
Subtotal (C)	17.6	12.6	71.6%	4.7	27.0%	0.2	1.4%
D. Financing Charges							
1. Interest during implementation	7.1	5.1	71.7%	2.0	28.3%	-	0.0%
2. Commitment charges	0.4	0.3	71.7%	0.1	28.3%	-	0.0%
Subtotal (D)	7.5	5.4	71.7%	2.1	28.3%	-	0.0%
Total Project Cost (A+B+C+D)	193.5	138.8	71.7%	50.5	26.1%	4.2	2.2%

\$ = United States dollars, DMA = Directorate of Municipal Administration, GIAC = governance improvement and awareness consultants, GOTN = Government of Tamil Nadu, PMU = program management unit, TNUFISL = Tamil Nadu Urban Infrastructure Financial Services Limited.

Notes: 1. Numbers may not sum precisely because of rounding.

2. The costs of the actual audits of the program are minor and will be borne by the government.

3. Environmental monitoring and implementation of resettlement plan, gender action plan, and public communication costs are absorbed in A3.

Source: Asian Development Bank estimates.

G. Detailed Cost Estimates by Year

Table 12: Detailed Cost Estimates by Year (\$ million)

Item	Total	2022	2023	2024	2025	2026
A. Investment Costs						
1. Civil works and equipment	142.8	22.7	33.6	33.6	32.3	20.5
2. Provisional items	20.3	3.2	4.7	4.7	4.6	3.0
3. Consulting services	4.0	0.6	0.9	0.9	0.9	0.8
a. GIAC administered by DMA	1.3	0.2	0.3	0.3	0.3	0.3
b. Project design consultants administered by TNUFISL	2.3	0.3	0.5	0.5	0.5	0.5
c. PMU support consultants (individual) administered by TNUFISL	0.5	0.1	0.1	0.1	0.1	0.1
Subtotal (A)	167.0	26.5	39.2	39.2	37.8	24.4
B. Recurrent Costs						
1. Incremental administrative costs	1.4	0.2	0.3	0.3	0.3	0.2
Subtotal (B)	1.4	0.2	0.3	0.3	0.3	0.2
Total Base Cost	168.4	26.7	39.5	39.5	38.1	24.5
C. Contingencies						
1. Physical contingencies	7.1	1.1	1.7	1.7	1.6	1.0
2. Price contingencies	10.4	0.6	1.8	2.5	3.1	2.5
Subtotal (C)	17.6	1.8	3.4	4.2	4.7	3.5
D. Financing Charges						
1. Interest during implementation	7.1	0.2	0.4	1.5	2.2	2.8
2. Commitment charges	0.4	0.2	0.1	0.1	0.1	0.1
Subtotal (D)	7.5	0.4	0.5	1.6	2.3	2.8
Total Project Cost (A+B+C+D)	193.5	28.9	43.4	45.3	45.0	30.8

DMA = Directorate of Municipal Administration, GIAC = governance improvement and awareness consultants, GOTN = Government of Tamil Nadu, PMU = program management unit, TNUFISL = Tamil Nadu Urban Infrastructure Financial Services Limited.

Notes: 1. Numbers may not sum precisely because of rounding.

2. The costs of the actual audits of the program are minor and will be borne by the government.

3. Environmental monitoring and implementation of resettlement plan, gender action plan, and public communication costs are absorbed in A3.

Source: Asian Development Bank estimates.

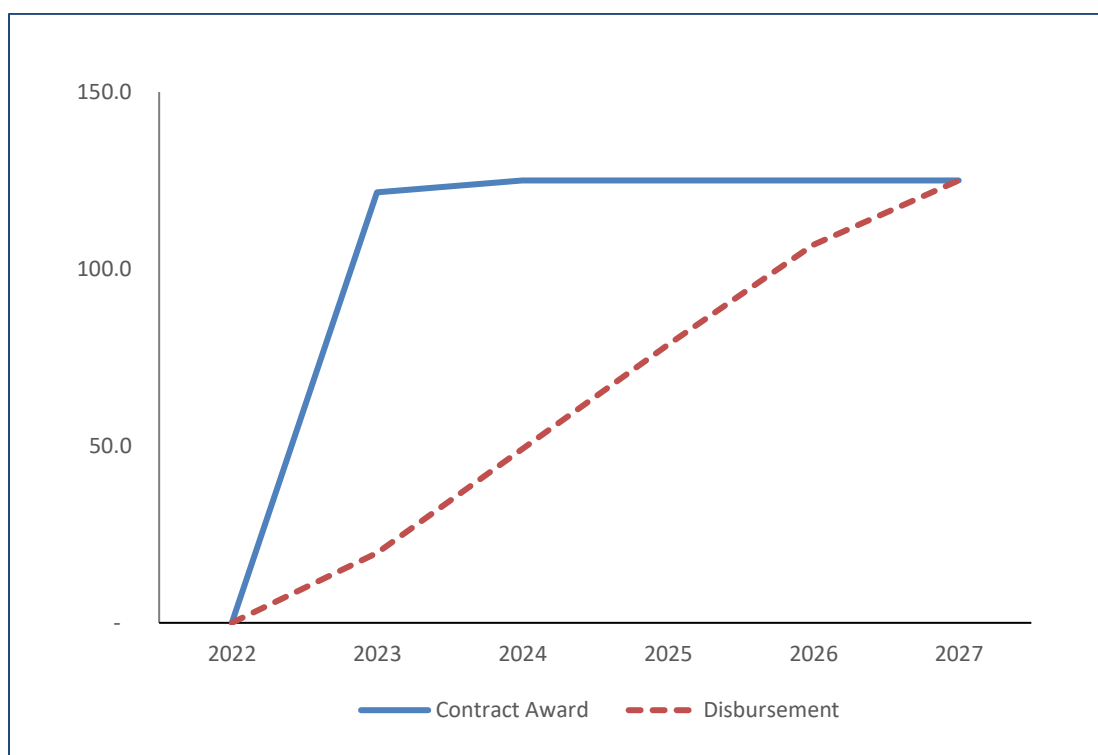
H. Contract and Disbursement S-Curve

15. Projected contract awards and disbursements of the ADB loan are given in Table 13 and Figure 2.

Table 13: Projected Contract Awards and Disbursements
(\$ million)

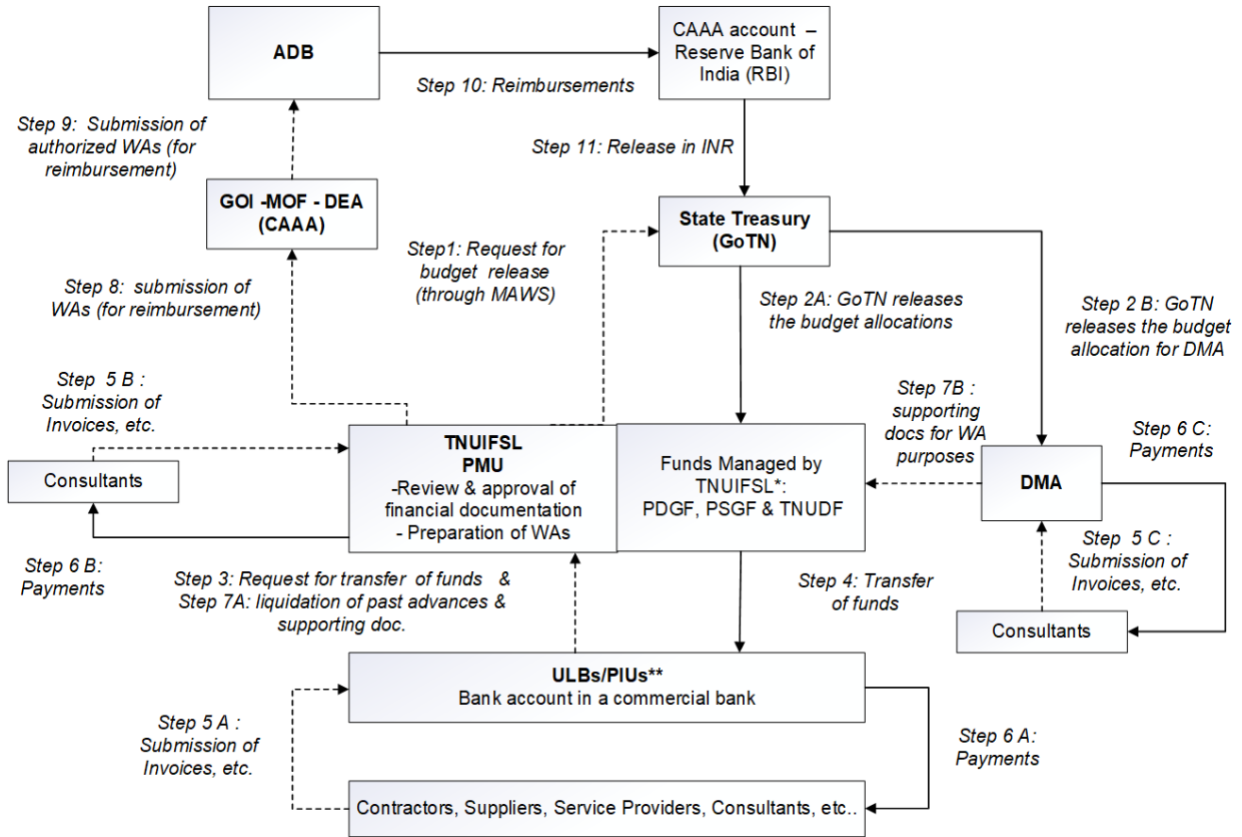
Year	Contract Awards					Disbursements				
	Q1	Q2	Q3	Q4	Total	Q1	Q2	Q3	Q4	Total
2022	-	-	107.3	14.3	121.6	-	-	12.5	7.3	19.8
2023	3.4	-	-	-	3.4	7.3	7.4	7.3	7.4	29.4
2024	-	-	-	-	-	7.3	7.4	7.3	7.4	29.4
2025	-	-	-	-	-	7.3	7.1	7.2	6.6	28.2
2026	-	-	-	-	-	6.7	3.6	5.5	2.4	18.2
Total	3.4	-	107.3	14.3	125.0	28.6	25.5	39.8	31.1	125.0

Figure 2: Contract Award and Disbursement S-Curve



I. Fund Flow Diagram

Figure 3: Fund Flow Diagram



ADB=Asian Development Bank, CAAA=Controller of Aid Accounts and Audit, DEA=Department of Economic Affairs, DMA=Directorate of Municipal Administration, EA=Executing Agency, Doc=Documents, GOI=Government of India, GOTN=Government of Tamil Nadu, IA=Implementing Agency, PMU=Program Management Unit, PIU=Program Implementation Unit, PSGF=Project Sustainability Grant Fund, PDGF=Project Development Grant Fund, TNUDF=Tamil Nadu Urban Development Fund, TNUIFSL=Tamil Nadu Urban Infrastructure Financial Services Limited, ULB=Urban Local Body, WA=Withdrawal Application.

Source: Asian Development Bank.

* TNUIFSL, as the fund manager, will transfer funds to the project ULBs in the form of: (i) loans from the Tamil Nadu Urban Development Fund (TNUDF), and (ii) capital grants from the Project Sustainability Grant Fund (PSGF). The Project Development Grant Fund (PDGF) will be used to finance technical assistance for ULBs.

**All payments will be made by ULBs based on the recommendation of the PIU.

V. FINANCIAL MANAGEMENT

A. Financial Management Assessment

16. The financial management assessment was conducted between November 2021 and March 2022 in accordance with ADB's Guidelines: Technical Guidance Note on Financial Management Assessment (2015). The financial management assessment considered the financial management capacity of the relevant executing and implementing agencies, namely the TNUIFSL, Coimbatore City Municipal Corporation, Madurai City Municipal Corporation, Thoothukudi City Municipal Corporation as well as the DMA. Project 3 is the final tranche under the program. Project 3 will follow the financial management arrangements already established under the program.

17. The financial management assessment found that TNUIFSL, DMA and the project ULBs have an established track record in implementing multilateral development bank assisted projects and that the respective agencies have adequate financial management capacity to: (i) record the required financial transactions, (ii) provide reliable annual financial statements and audit reports in a timely manner, and (iii) safeguard the financial assets.

18. Project 3 will follow the financial management arrangements already established under the program. The assessed pre-mitigation financial management risk is *Moderate* mainly because of the following: (i) decentralized flow of funds with several implementing agencies incurring expenditures, (ii) the accounts staff positions in the Thoothukudi City Municipal Corporation PIU are still vacant and the existing Thoothukudi City Municipal Corporation accounts staff lacks experience in implementing ADB assisted projects, and (iii) as part of the ongoing projects, the audited project financial statements (APFS) and audited entity financial statements have been submitted to ADB with some delays.

19. These risks will be mitigated by the following: (i) assigning an accounts officer to the Thoothukudi City Municipal Corporation PIU, (ii) providing continuous training in ADB's financial management requirements and disbursement procedures, (iii) approving project financial management manual by inception mission, (iv) including comprehensive financial information in the quarterly project progress reports to be submitted to ADB; and (v) monitoring closely the submission of APFS and audited entity financial statements to ensure the reports are submitted within the agreed deadlines. Moreover, the project financial statements and sub project financial statements will be audited annually by an auditor acceptable to ADB, following auditing standards acceptable to ADB. The detailed financial management risks and mitigations measures are provided in Table 14 below.

Table 14: Consolidated Financial Management Inherent and Control Risk Assessment

Risk Type	Risk Assessment	Proposed Mitigation Measures
A. Inherent Risk		
1. Country Specific Risks (India)	<p>Moderate</p> <ul style="list-style-type: none"> The financial standards and capacity in Government of India's public and private sector are sound. India has a strong accounting profession although most levels of the government still use a cash basis of accounting. 	<ul style="list-style-type: none"> Not applicable.

Risk Type	Risk Assessment	Proposed Mitigation Measures
2. Entity Specific Risks (TNUISL (EA))	<p style="text-align: center;">Moderate</p> <ul style="list-style-type: none"> TNUIFSL has an established track record in implementing externally financed projects including projects assisted JICA, KfW, and the world bank. TNUIFSL is also implementing project 1 and 2 under the ADB assisted TNUFIP. 	<ul style="list-style-type: none"> Not applicable.
3. Project-Specific Risks	<p style="text-align: center;">Moderate</p> <ul style="list-style-type: none"> Complex institutional set up with several entities incurring expenditures. 	<ul style="list-style-type: none"> The FM arrangements already established under Project 1 and 2 will apply also to project 3.
Overall Inherent Risk	MODERATE	
B. Control Risk		
1. Executing/ Implementing Entity	<p style="text-align: center;">Moderate</p> <ul style="list-style-type: none"> The EA, DMA and most Project ULBs have experience in implementing externally funded projects including the ADB assisted project 1 and 2 under TNUFIP and the PMU and PIUs are already in place. The exception is TCMC which has no previous experience in implementing ADB assisted projects and the PIU is still in the process of being established, which may cause some delays in implementation. 	<ul style="list-style-type: none"> The EA, DMA/PIU and project ULBs will make use of the established FM practices as part of other externally financed projects including ADB financed projects 1 and 2. GOTN, the EA and TCMC to ensure the TCMC PIU is established in a timely manner. The PMU to closely monitor the performance and coordinate the necessary Financial Management activities of the PIUs/IAs.
2. Flow of Funds	<p style="text-align: center;">Moderate</p> <ul style="list-style-type: none"> The fund flow is complex and includes transferring funds to 4 different PIUs. However, the fund flow mechanism is well established and is working well under project 1 and 2. 	<ul style="list-style-type: none"> GOTN and TNUISL (EA) will allocate project funds using the established mechanisms The PMU/EA will prepare all WAs to be submitted to ADB (through CAAA). All expenditures will be claimed from ADB through the reimbursement method.
3. Staffing	<p style="text-align: center;">Substantial</p> <ul style="list-style-type: none"> The PMU and the DMA, CCMC and MCMC PIUs have adequate accounts staff in place but to date no accounts staff has been assigned to the TCMC PIU. The TCMC accounts staff have no previous experience in implementing ADB assisted projects. 	<ul style="list-style-type: none"> TCMC to assign/deputize an accounts officer to the PIU by loan effectiveness. Regular training and capacity building support to be provided to all project FM staff with regards to: i) project FM arrangements and the respective duties and responsibilities, ii) ADB's FM requirements and disbursement systems and procedures, as well as ADB financial reporting and audit requirements.

Risk Type	Risk Assessment	Proposed Mitigation Measures
4. Accounting Policies & Procedures	<p style="text-align: center;">Moderate</p> <ul style="list-style-type: none"> • Accounting Policies and procedures are well documented all levels. In addition, supplementary FM arrangements have been established as part of project 1 and 2 under ADB assisted TNUFIP, including Audit ToRs and PFS templates. • The project ULBs may need training in complying with the Tamil Nadu Municipal Accounting Manual 	<ul style="list-style-type: none"> • The TNUIFSL/PMU, DMA/PIU and each Project ULB/PIU to ensure the accounting arrangements agreed under the ADB assisted program are followed. • The TNUIFSL/PMU and the project ULB/PIU to update their chart of accounts to allow them to: i) maintain separate books for project 3 and ii) produce harmonized financial reports. (This is currently being done as part of project 1 and 2) • Each Project ULB to ensure compliance with the Tamil Nadu Municipal Accounting Manual and undertake periodic trainings, as required. • The TNUIFSL/PMU to prepare project FM manual indicating the FM related roles and responsibilities, accounting framework and standards, chart of accounts and financial reporting and audit requirements to be approved by ADB and each IA.
5. Internal Audit	<p style="text-align: center;">Moderate</p> <ul style="list-style-type: none"> • The internal audit of TNUIFSL is conducted by an external firm on a quarterly basis. • The Project ULBs do not have an internal audit function in place but the LFAD conducts concurrent audits. 	<ul style="list-style-type: none"> • TNUIFSL and each of the implementing agencies to include Project 3 in the scope of their respective annual internal audit plans by March of preceding fiscal year. • The project ULBs to include the project 3 in the concurrent audit conducted by LFAD.
6. External Audit (entity level)	<p style="text-align: center;">Moderate</p> <ul style="list-style-type: none"> • The Statutory audits of TNUIFSL are conducted in a timely manner but occasional delays in submission of AEFS to ADB has been noted. 	<ul style="list-style-type: none"> • The AEFS is to be submitted to ADB within one month after approval; The timely submission of AEFS will be monitored by ADB.
7. External Audit (project level)	<p style="text-align: center;">Moderate</p> <ul style="list-style-type: none"> • Several separate entities will be incurring expenditures and need to be audited separately, which may lead to fragmented information and delays in submission of individual APFS reports. Some delays in submission of APFS has been noted under ongoing Project 1 and 2, and some subproject APFS were not signed by the respective agencies. 	<ul style="list-style-type: none"> • The PFS of each agency will be audited separately by an independent auditor in accordance with the audit TORs agreed between ADB, DEA and CAG. • The PMU to review the quality of each APFS/ subproject APFS to ensure they have duly signed by each agency and conform to good standards. • The PMU to compile all APFS and submit to ADB within 6 months after the end of the fiscal year.

Risk Type	Risk Assessment	Proposed Mitigation Measures
8. Reporting and Monitoring	<p style="text-align: center;">Moderate</p> <ul style="list-style-type: none"> The decentralized reporting arrangements with several implementing entities may cause the financial information to be fragmented and/or prepared with delays. There is scope for improving the quality of the consolidated project financial statements prepared by the TNUIFSL/PMU by including a statement of budgeted vs actuals. 	<ul style="list-style-type: none"> The PFS templates agreed between CAG, DEA and ADB will be used by TNUIFSL, DMA/PIU and Project ULB/PIUs. TNUIFSL/PMU to include a statement of budgeted vs actuals in the consolidated project financial statements. The DMA/PIU and Project ULB/PIUs will submit quarterly financial information to TNUIFSL in an agreed format and TNUIFSL will include consolidated financial information in the quarterly progress reports in a format agreed with ADB.
9. Information Systems	<p style="text-align: center;">Moderate</p> <ul style="list-style-type: none"> The TNUIFSL and each Project ULB have in place computerized accounting software and systems: EA (TALLY) and IAs (UTIS), with the exception of CCMC which is still using Tally. 	<ul style="list-style-type: none"> CCMC to operationalize UTIS and undertake training in the use of the software. The TNUIFSL/PMU, DMA/PIU and each Project ULB/PIU will record all project transaction in their existing computerized accounting systems. TNUIFSL/PMU to make use of ADB LFIS to undertake reconciliations of their books of accounts and financial reports and ADB disbursement records.
Overall Control FM Risk	MODERATE	
Overall project FM risk	MODERATE	

ADB= Asian Development Bank, AEFS= audited entity financial statement, APFS= audited project financial statements, CAAA= Controller of Aid Accounts and Audit, CAG= Comptroller and Auditor General, CCMC= Coimbatore City Municipal Corporation, DEA= Department of Economic Affairs, DMA= Directorate of Municipal Administration, EA=executing agency, FM= financial management, FY= Financial Year, GOI= Government of India, GOTN= Government of Tamil Nadu, IA= implementing agency, LFAD= Local Fund Audit Department, LFIS= loan financial information services, MCMC= Madurai City Municipal Corporation, PFS= project financial statement, PIU= program implementation unit, PMU= program management unit, TCMC= Thoothukudi City Municipal Corporation, TNUIFSL= Tamil Nadu Urban Flagship Investment Program, TNUIFSL= Tamil Nadu Urban Infrastructure Financial Services Limited, TOR= terms of reference, ULB= urban local body, UTIS= Urban Tree Information System.

20. ADB and TNUIFSL and each of the implementing agencies/Project ULBs have agreed to implement an action plan as key measures to address the deficiencies. The financial management action plan is provided in the Table 15 below.

Table 15: Financial Management Action Plan

Risk Area	Agreed Action	Responsibility	Target date
Staffing	Assign Deputize an accounts officer to the PIU.	TCMC	By Loan effectiveness

Risk Area	Agreed Action	Responsibility	Target date
Financial management capacity building	Undertake training in ADB's procedures and systems (LFIS, CPD etc.) including the use of SOE.	ADB, TNUIFSL/PMU, DMA/PIU and each Project ULB/PIU	By project inception and thereafter annually
Accounting	Undertake Training in the accounting procedures outlined in the Tamil Nadu Municipal Accounting Manual TNMAM. Approve project FM manual indicating the FM related roles and responsibilities, accounting framework and standards, chart of accounts and financial reporting and audit requirements.	Each Project ULB TNUIFSL, DMA/PIU, each project ULB/PIU, and ADB	Annually and as required. By project inception Mission
Document retention	Collect supporting documentation (or copies of such documentation) from the ULB/PIUs and file the documentation in the PMU to facilitate the preparation of withdrawal applications, ADB inspection missions and external and internal audits.	TNUIFSL/ PMU	Continuous- From loan effectiveness until completion.
Internal audit	Include Project 3 in the scope of its annual internal audit plan. Include project 3 in the annual concurrent audit plan conducted by LFAD.	TNUIFSL Each Project ULB/PIU	Annually - by March of the preceding fiscal year.
Financial reporting – Project Level	Include consolidated financial information, in a format acceptable to ADB, in the quarterly progress reports ⁶ submitted to ADB. Prepare project financial statements in accordance with the templates included in the audit ToRs agreed between ADB and CAG and DEA. The project financial statements are to be duly signed by the respective agency.	TNUIFSL/ PMU with input from DMA/PIU each Project ULB /PIU TNUIFSL, DMA/PIU and each Project ULB /PIU	Within 45 days after each quarter. Within 2 months after the end of each fiscal year
External audit – Entity Level	Ensure the audit of TNUIFSL entity financial statements are completed within the statutory requirements and submit the AEFS to ADB.	TNUIFSL	Annually within one month after approval.
External audit – Project Level	Engage a CAG empaneled Chartered Accountant firm to audit each of the project financial statements separately in accordance with the audit ToRs agreed between ADB and CAG and DEA. Coordinate with CAG to ensure the DMA implemented component is included in the CAG audit plan and the subproject financial statements are audited within the required time frame.	TNUIFSL/ PMU and each project ULB/PIU DMA/PIU	Within 1 quarter after loan effectiveness Annually

⁶ The reports to be agreed during implementation, will include: (i) Project's financial progress, (ii) disbursement progress by financing source, (iii) financial vs physical progress report, (iv) list of signed contracts, (v) reconciliation of project book of accounts and ADB disbursement data as per LFIS as well as (vi) follow-up on status of the (a) Financial Management Action plan, (b) compliance with financial loan covenants, (c) past external and internal audit observations related to the project as well as (d) agreed actions from review missions.

Risk Area	Agreed Action	Responsibility	Target date
	Review the quality of each APFS/ subproject APFS to ensure they have been duly signed by each agency and conform to good standards; Compile all the APFS including management letters and submit to ADB;	TNUIFSL/ PMU	Within six months after the end of the fiscal year
Information systems	Record all transactions under project 3 in a computerized accounting software (e.g., Tally and/or UTIS).	TNUIFSL/ PMU, DMA/ PIU and each Project ULB /PIU	Continuous- From loan effectiveness until completion
Information systems	Conduct periodic reconciliation with ADB disbursement records found in Loan Financial Information system project accounts & financial statements to ensure ADB disbursements are correctly captured.	TNUIFSL/PMU	Annually
Information systems	Operationalize UTIS.	CCMC	By end of 2022/23
	Obtain training in the use of UTIS	All Project ULB	Annually
Disbursement	Consider introducing the SOE procedure for projects 1, 2 and 3	TNUIFSL & ADB	Upon loan effectiveness

ADB= Asian Development Bank, AEFS,= audited entity financial statements, APFS= audited project financial statements, CAG= Comptroller and Auditor General, CCMC= Coimbatore City Municipal Corporation, CPD= client portal for disbursement, DEA=Department of Economic Affairs, DMA= Directorate of Municipal Administration, FM= financial management, FY= Financial Year, GOI= Government of India, GOTN= Government of Tamil Nadu, LFIS= loan financial information services, LFAD= Local Fund Audit Department, PIU= program implementation unit, PMU= program management unit, SOE= statement of expenditure, TCMC= Thoothukudi City Municipal Corporation, TNMAM= Tamil Nadu Municipal Accounting Manual, TNUFIP= Tamil Nadu Urban Flagship Investment Program, TNUIFSL= Tamil Nadu Urban Infrastructure Financial Services Limited, ULB= urban local body, UTIS= Urban Tree Information System.

B. Disbursement

1. Disbursement Arrangements for ADB

21. The ADB loan proceeds will be disbursed in accordance with the ADB's Loan Disbursement Handbook (2017, as amended from time to time), and detailed arrangements agreed upon between the Government of India and the ADB. The TNUIFSL/PMU will be responsible for: (i) preparing annual contract awards and disbursement projections, (ii) requesting budgetary allocations for counterpart funds, (iii) collecting supporting documents, and (iv) preparing and sending withdrawal applications to the ADB through the Treasury, Ministry of Finance. Online training for project staff on disbursement policies and procedures is available. Project staff are encouraged to avail of this training to help ensure efficient disbursement and fiduciary control.

22. **Statement of expenditure (SOE) procedure.**⁷ The statement of expenditure procedure will not be adopted for reimbursement of eligible expenditures per individual payment. Reimbursement and liquidation of individual payments should be supported by full documentation when submitting the withdrawal application to ADB.

⁷ SOE forms are available in Appendix 7B and 7D of ADB's *Loan Disbursement Handbook* (2017, as amended from time to time).

23. Before the submission of the first withdrawal application, the borrower should submit to ADB sufficient evidence of the authority of the person(s) who will sign the withdrawal applications on behalf of the government, together with the authenticated specimen signatures of each authorized person. The minimum value per withdrawal application is set in accordance with ADB's Loan Disbursement Handbook (2017, as amended from time to time). Individual payments below this amount should be paid by the GOTN and/or TNUIFSL/PMU and subsequently claimed to the ADB through reimbursement.

2. Disbursement Arrangements for Counterpart Fund

24. Counterpart funds will be provided by MAWS from its annual budgets, which in turn will be based on the amounts provided for the investment program in the budget of GOTN. The funds will be transferred to the EA/IAs either directly or through the Funds managed by TNUIFSL: that is, the Project Sustainability Grant Fund (PSGF), the Project Development Grant Fund (PDGF), and the Tamil Nadu Urban Development Fund (TNUDF). Subsequently, TNUIFSL will disburse the funds to the project ULBs in the form of loans and grants from the respective fund, in accordance with term and conditions agreed with GoTN. The project ULBs will incur project expenditures and upon submission of the necessary supporting documentation to TNUIFSL, the TNUIFSL/PMU will prepare withdrawal applications requesting ADB for a reimbursement of the eligible share. The TNUIFSL/PMU will also be responsible for (i) preparing disbursement projections, (ii) requesting budgetary allocations for counterpart funds, and (iii) collecting supporting documents. Taxes and duties will be borne by the counterpart by way of cash contribution.

C. Accounting and Financial Reporting

25. The TNUIFSL, DMA, and each Project ULB will maintain, or cause to be maintained, separate books and records by funding source for all expenditures incurred on the project following relevant standards provided in the loan agreements. For their respective components, the TNUIFSL and each Project ULB and DMA will prepare the project financial statements in accordance with the accounting laws and regulations of the Government of India cash basis of accounting which are consistent with international accounting principles and practices acceptable to ADB. Project accounts will follow generally accepted accounting principles followed in the government and the accounting standards followed by the government and GOTN. Each project's financial statements will adhere to the generally accepted accounting principles followed in India, and the cash basis accounting standards. The template financial statements provided in the standardized terms of reference for audit of ADB assisted projects, agreed with the Comptroller and Audit General, the Department of Economic Affairs, and ADB can be referred to as a guide for preparing financial statements. Financial statements for individual tranches/projects under the ADB assisted MFF will not be consolidated.

26. **Quarterly financial reporting.** In order to provide timely information on the project's financial progress and the status of financial management to ADB, the TNUIFSL/PMU will include consolidated financial information, in a format agreed with ADB in the quarterly progress reports to be submitted to ADB within 45 days after the end of the quarter. The template for the financial information is included in quarterly progress report.

D. Auditing and Public Disclosure

27. The TNUIFSL, the Project ULBs and DMA will cause the detailed project financial statements to be audited in accordance with the government's audit regulations, as supplemented by the terms of reference agreed between the ADB, the Department of Economic Affairs, and the Comptroller and Audit General India in September 2013, by a firm of chartered accountants acceptable to the ADB or by Comptroller and Audit General in the case of DMA. Each Project ULB/PIU and DMA/PIU will submit their respective APFS, Audit Opinions and management letter to the TNUIFSL/PMU in a timely manner. The TNUIFSL/PMU will compile all the APFS (including audit opinions) and management letters and submit the complete package in English language to ADB no later than 6 months after the end of the fiscal year.

28. As part of the compilation, the TNUIFSL/PMU will make sure the financial information presented DMA and in each implementing agencies/PIU's APFS reconcile with the relevant information in the PMU's APFS and ADB's LFIS disbursement records. In this regard, a separate reconciliation statement, in a format acceptable to ADB, may be attached to the compiled APFS submitted to ADB. Any discrepancies will be promptly followed up by the TNUIFSL/PMU, so the matter can be solved in a timely manner.

29. Each audit report for the project financial statements will include a management letter and auditor's opinions, which cover: (i) whether the project financial statements present an accurate and fair view or are presented fairly, in all material respects, in accordance with the applicable financial reporting standards; and (ii) whether the proceeds of the loan were used only for the purpose(s) of the project.

30. The audited entity's financial statements of the TNUIFSL, supported by the audited financial statements of the Funds managed by TNUIFSL (Project Development Grant Fund, Project Sustainability Grant Fund and Tamil Nadu Urban Development Fund) together with the auditor's report and management letter, will be submitted in English to ADB within a month after their approval by the relevant authority. The entity level audit of TNUIFSL shall be done by firms of chartered accountants for TNUIFSL.

31. Compliance with financial reporting and auditing requirements will be monitored by review missions and during normal program supervision, and followed up regularly with all concerned, including the external auditor. Accordingly, the submission of the following audit reports, listed in the table below will be monitored by ADB.

Table 16: Schedule of Submission of Audit Reports

Entity	Audit report	Date
TNUIFSL & PIUs	APFS will be supported by the Project ULB and DMA level Audited Sup-project financial statements	6 months after the end of the fiscal year - 30 September each year
TNUIFSL	AEFS of TNUIFSL and AFS of each PDGF, PSGF & TNUDF	1 month after approval by the relevant authority

AEFS= audited entity financial statements, AFS= audited financial statements, APFS= audited project financial statements, DMA= Directorate of Municipal Administration, PIU= Project implementation unit, PSGF= Project Sustainability Grant Fund, PDGF= Project Development Grant Fund, TNUDF= Tamil Nadu Urban Development Fund, TNUIFSL= Tamil Nadu Urban Infrastructure Financial Services Limited, ULB=Urban Local Body.

32. The government, the TNUIFSL, DMA and the Project ULBs have been made aware of the ADB's approach to delayed submission, and the requirements for satisfactory and acceptable

quality of the audited project financial statements.⁸ The 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. The 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.

33. Public disclosure of the audited project financial statements, including the auditor's opinion on the project financial statements, will be guided by the ADB's Access to Information Policy 2018.⁹ After the review, ADB will disclose the audited project financial statements and the opinion of the auditors on the project financial statements no later than 14 days of ADB's confirmation of their acceptability by posting them on the ADB's website. The management letter, additional auditor's opinions, and audited entity financial statements will not be disclosed.¹⁰

34. **Closing of the ADB loan account.** In order ensure a timely closure of the ADB loan account and to comply with ADBs requirements, TNUIFSL will through its PMU ensure that the following measures are undertaken:

- (i) All ADB financed expenditures are incurred before or by the loan closing date;
- (ii) All withdrawal applications including liquidations of the advance account are submitted to ADB preferably by the loan closing date but in no case later the end of the winding up period; that is, within four months after the end of the loan closing date;
- (iii) The final project financial statements are prepared in a timely manner. The final project financial statements are to include a reconciliation of the project account and the ADB disbursement records for the fiscal year and cumulatively from inception. Any differences must be disclosed and explained;
- (iv) All past external audit observations (if any) have been duly addressed;
- (v) The final project financial statements are audited by independent auditors as agreed with ADB and the APFS and the management letter is submitted to ADB as soon as possible after the loan closing date. The Final APFS must include all expenditures incurred up to the loan closing date as well as up to the final withdrawal application; and
- (vi) All projects financial records are filed in an orderly manner, backed up electronically and stored in a secure location for a for at least 1 year following receipt by ADB of the final audited project financial statements or 2 years after the loan closing date, whichever is later.

⁸ ADB's approach and procedures regarding delayed submission of audited project financial statements:

- (i) When audited project financial statements are not received by the due date, ADB will write to the executing agency advising that (a) the audit documents are overdue; and (b) if they are not received within the next 6 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.
- (ii) When audited project financial statements are not 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 (a) inform the executing agency of ADB's actions; and (b) advise that the loan may be suspended if the audit documents are not received within the next 6 months.
- (iii) When audited project financial statements are not received within 12 months after the due date, ADB may suspend the loan.

⁹ ADB. 2018. Access to Information Policy.

¹⁰ This type of information would generally fall under Access to Information Policy exceptions to disclosure. ADB. 2018. *Access to Information Policy*.

VI. PROCUREMENT AND CONSULTING SERVICES

A. Advance Contracting and Retroactive Financing

35. All advance contracting and retroactive financing will be undertaken in conformity with ADB Procurement Guidelines (2015, as amended from time to time) and ADB's Guidelines on the Use of Consultants (2013, as amended from time to time). The issuance of invitations to bid under advance contracting and retroactive financing will be subject to ADB approval. The borrower, TNUIFSL have been advised that approval of advance contracting and retroactive financing does not commit ADB to finance the project.

36. **Advance contracting.** Advance contracting for the project will be approved by ADB upon request from the executing agency and will include engagement of project design consultants and the procurement of civil works packages for Coimbatore, Madurai, and Thoothukudi.

37. **Retroactive financing.** Subject to ADB's approval, retroactive financing will be for eligible expenditures up to the equivalent of 20% of the total ADB loan, incurred before loan effectiveness, but not more than 12 months before the signing of the loan agreement. For Project 3, the maximum loan amount is \$125 million, and the maximum amount of retroactive financing is, therefore, \$25 million.

B. Procurement of Goods, Works, and Consulting Services

38. All procurement of goods and works will be undertaken in accordance with ADB's Procurement Guidelines (2015, as amended from time to time). The project enhances value for money building on experience from the ongoing two tranches. Sewage treatment plant will be procured through design, build and operate while sewerage network and water distribution packages adopted employer's design-based construction contract with extended operation service period given that urban local bodies are best placed to identify the local needs and ensure linkages with the existing systems. These procurement modalities will enable the private sector participation in service delivery and capacity development of the public sector and ensure economic efficiency through evaluation of lifecycle cost for the design, build and operate contract and operation service cost for the works contracts with extended operation services.

39. International competitive bidding procedures will be used for civil works contracts estimated to cost \$40 million or more, and supply contracts valued at \$10 million or higher. The national competitive bidding procedures will be used for civil works contracts estimated to cost less than \$40 million, and supply contracts valued at less than \$10 million. Shopping may be used for contracts for procurement of works and equipment worth less than \$100,000.

40. Before the start of any procurement, ADB and the government will review the public procurement laws of the central and state governments to ensure consistency with ADB's Procurement Guidelines (2015, as amended from time to time).

41. All consultants will be recruited according to ADB's Guidelines on the Use of Consultants (2013, as amended from time to time).¹¹

¹¹ Checklists for actions required to contract consultants by method available in e-Handbook on Project Implementation at: <http://www.adb.org/documents/handbooks/project-implementation/>

42. There will be one CMSC for each implementing agency except for Coimbatore, who will continue to be assisted by TWAD. For Madurai, the CMSC recruited under Project 2 will continue to handle Project 3. For Thoothukudi, the scope of the CMSC recruited for ongoing stormwater drainage works in other part of the city will be extended with government funds to cover Project 3. The GIAC recruited under Project 1 to support DMA in implementation of incentivized reforms, capacity building information education and communication, gender action plan (GAP) and resettlement plan and awareness campaign activities for the program shall also continue to support Project 3.

43. The project design consultants will be recruited to assist the PMU to carry out design and preparation of detailed project reports for future investments in cities in Tamil Nadu State based on demands from ULBs. Indicative person months are 4 person-months of international experts and 221 person-months of national experts.

44. The consultants will be engaged using the quality- and cost-based selection (QCBS) method with a standard quality: cost ratio of 90:10. Individual consultants will be recruited using individual consultant selection, if required.

C. Procurement Plan

45. Before the start of any procurement, ADB and the government will review the procurement procedures of the relevant agencies (executing agency, PMU, and PIU) to ensure consistency with ADB's Procurement Guidelines (2015, as amended from time to time), and audit and disbursement procedures of the relevant agencies (Finance Department, Audit Office, executing agency, PMU, PIU) to ensure consistency with ADB's disbursement procedures. An 18-month procurement plan indicating threshold and review procedures, goods, works, and consulting service contract packages and national competitive bidding guidelines is given in Appendix 3.

D. Consultant's Terms of Reference

46. The terms of reference for the project design consultant is available in Appendix 4.

VII. SAFEGUARDS

47. The PMU will ensure all the requirements prescribed in Schedules 4 and 5 of the framework financing agreement, and the following agreed safeguard frameworks are complied with during the processing and implementation of the program:

- (i) Environmental assessment and review framework (EARF),
- (ii) Resettlement framework, and
- (iii) Indigenous peoples planning framework.

48. Subprojects with significant safeguard impacts (Category A) will not be included in the MFF as per Schedule 4 of the framework financing agreement.

49. **Prohibited investment 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 at Appendix 5 of the Safeguard Policy Statement (2009).

A. Environmental Safeguards

50. The ADB SPS, 2009 requires that adverse impacts of projects on the environment and people are avoided, and where not possible, should be minimized, mitigated, and/or compensated. ADB financed projects must comply with its SPS, 2009 and also with the borrower country's environmental laws, including the international laws/conventions to which the country is a signatory. The environment safeguard requirements are to ensure the environmental soundness and sustainability of projects and support the integration of environmental considerations into the project decision-making process.

51. **Environmental categorization.** TNUFIP Project 3 is classified as category B for environmental safeguards as per the ADB SPS 2009 as the proposed subprojects are unlikely to cause any significant adverse environmental impacts, and potential impacts are likely to be short-term, site-specific and can be minimized and/or mitigated to acceptable levels. Subprojects projected to have potentially significant irreversible, diverse or unprecedented environmental impacts (Category A) will not be considered for implementation under the project. An EARF developed for MFF in 2018 in accordance with ADB SPS 2009 and applicable Government of India laws and regulations is applicable to Project 3 and shall govern preparation and implementation of environmental safeguards in the Project.¹² All future new and amended subprojects will be prepared and implemented in compliance with the EARF.

52. **Environmental assessment and management plans.** Implementing agencies prepared initial environmental examinations (IEE) reports, and corresponding environmental management plans (EMPs), for all the three proposed subprojects: (i) Madurai water supply, (ii) Coimbatore sewerage, (iii) and Thoothukudi drainage. Madurai and Coimbatore subprojects will complement the ongoing works under Tranche 2 and expand services. IEEs confirm no significant adverse impacts that are irreversible, diverse, or unprecedented, and potential impacts are mostly short-term, localized, site specific and are mainly due to construction. These can be mitigated or minimized to acceptable levels with good construction practices and mitigation measures as defined in the EMPs. The long-term impacts due to project design or location are not significant, and planning principles and design considerations as necessary are incorporated. No issues related to water source or water abstraction identified in Madurai. Coimbatore subproject includes adequate treatment facilities designed and located to avoid any impacts. Thoothukudi subproject provides tertiary roadside drains in a part of town to collect and transport excess runoff to existing main/outfall drains. This will prevent water logging, and no adverse impacts anticipated. Subproject sites are in urban and peri-urban areas, where there are no forests, protected or other sensitive areas. In Madurai, the places of archeological/religious importance are outside project area. Stakeholder consultations were conducted and will continue during implementation.

53. IEEs have been disclosed on ADB and Project websites. The IEEs including EMPs will form part of the bid and contract documents. The EMPs of each IEE outline specific mitigation measures, environmental monitoring requirements and related institutional arrangements, including budget requirements for implementation. Subprojects do not require environment, forest or coastal zone clearances. Proposed sewage treatment plants in Coimbatore will require mandatory consent of Tamil Nadu Pollution Control Board is to construct and then to operate. Implementing agencies will ensure that contractor complies with regulatory requirements, and obtains licenses, permits etc., as necessary for construction. Environmental grievances will be handled through project grievance redress mechanism (GRM). Contractors are required to submit

¹² The EARF was approved in 2018. There are no recent notified government environmental regulations thus updating is not required.

site specific EMPs, prior to commencement of the works, and implement. All draft IEEs will be updated during detailed engineering design or design verification and cleared by ADB, and disclosed, prior to start of construction activities. TNUIFSL will ensure ULBs disclose relevant information in the IEEs and monitoring report in a clear, timely, and appropriately in a language and form understandable to stakeholders and project communities. TNUIFSL will submit environmental monitoring reports to ADB, semiannually during construction and annually during operation, for clearance until ADB issues a project completion report. ADB will disclose the IEEs and environmental monitoring reports in ADB website in compliance with SPS 2009 and Access to Information Policy 2018.

54. **Environmental audit.** For subprojects involving facilities and/or business activities that already exist or are under construction, an environmental audit, including an on-site assessment to identify past or present concerns related to impacts on the environment, will be undertaken. The objective of this environmental audit is to determine whether actions were in accordance with ADB's safeguard principles and requirements for borrowers/clients, and to identify and plan appropriate measures to address outstanding compliance issues. Where non-compliance is identified, a corrective action plan agreed by ADB, executing agency and implementing agencies will be prepared. The plan will define the necessary remedial actions, the budget for such actions, and the timeframe for resolution of non-compliance. The environmental audit report (including the corrective action plan, if any) will be made available to the public in accordance with the information disclosure requirements of ADB SPS and Access to Information Policy 2018. If a subproject involves an upgrade or expansion of existing facilities that has potential impacts on the environment, the requirements for environmental assessments and planning specified in the EARF will apply in addition to compliance audit.

55. **Occupational Health and Safety.** Executing and implementing agencies shall ensure that workers are provided with a safe and healthy working environment, considering risks inherent to the sector and specific classes of hazards in the project work areas, including physical, chemical, biological, and radiological hazards. PIUs shall ensure to take steps to prevent accidents, injury, and disease arising from, associated with, or occurring during the course of work by (i) identifying and minimizing, so far as reasonably practicable, the causes of potential hazards to workers; (ii) providing preventive and protective measures, including modification, substitution, or elimination of hazardous conditions or substances; (iii) providing appropriate equipment to minimize risks and requiring and enforcing its use; (iv) training workers and providing them with appropriate incentives to use and comply with health and safety procedures and protective equipment; (v) documenting and reporting occupational accidents, diseases, and incidents; and (vi) having emergency prevention, preparedness, and response arrangements in place. PIUs shall also adhere to necessary protocols in response to emerging infectious diseases such as the corona virus disease (COVID-19) consistent with the guidelines of relevant government healthcare agencies and the World Health Organization. PIUs shall also be prepared to deal safely with potential encounter of asbestos or asbestos containing material at the work sites following ADB's "Good Practice Guidance for the Management and Control of Asbestos Protecting Workplaces and Communities from Asbestos Exposure Risks" published in March 2022.

56. **Community Health and Safety.** Executing and implementing agencies shall ensure to identify and assess the risks to, and potential impacts on, the safety of affected communities during the design, construction, operation, and decommissioning of the project, and will establish preventive measures and plans to address them in a manner commensurate with the identified risks and impacts.

57. **Implementation arrangements.** MAWS acting through TNUIFSL will be the executing agency. PMU is established in TNUIFSL for overall management, planning, implementing, monitoring, reporting, and coordinating the TNUFIP. Project ULBs will be the implementing agencies will establish PIUs for implementation of projects on a day-to-day basis. The PIUs will be supported by a CMSC. For the institutional capacity, public awareness, and urban governance component, GIAC is appointed. In Coimbatore, TWAD Board will assume the role of CMSC and will establish a PIU in Coimbatore for the project.

58. **Environmental safeguards implementation.** Environmental and Social Safeguards (ESS) managers, reporting to Vice President-Project Wing in PMU, will have overall responsibility of safeguard compliance with EARF and ADB SPS 2009. The PMU will (i) review and monitor environmental safeguards compliance, including statutory requirements, under the program, (ii) guide PIUs in safeguards compliance as and when necessary, and (iii) prepare and submit environmental monitoring reports to ADB, semiannually during construction and annually during operation, until a project completion report is issued by ADB. In each PIU, a Safeguards Officer will be deputed to coordinate safeguard tasks. PIU, supported by CMSC, will be responsible: (i) to prepare, implement, monitor and report on all environmental safeguards tasks per the provisions of IEE, EMP, and EARF; (ii) implement GRM effectively; and (iii) to obtain all required clearances, permissions, consents etc., timely and comply with any stipulated conditions. The CMSC will: (i) update the draft IEEs based on the detailed design; (ii) assist in supervision and monitoring EMP implementation, compliance and corrective actions, if any; (iii) prepare IEEs, including EMPs, for new or amended subprojects to comply with national law and/or ADB procedures; (iv) ensure all subprojects meet safeguard requirements as agreed in the loan covenant and in line with EARF; (v) review Contractor's monthly EMP reports, and submit quarterly monitoring report; and (vi) review and finalize all reports in consultation with the PIU. Necessary budgetary resources are included in the program. Contractor will appoint an Environment, Health and Safety supervisor. Contractor will (i) provide necessary information, details etc., to update IEE and EMP; (ii) prepare SEMP including Health and Safety Plans; (iii) implement all mitigations and monitoring measures, including health and safety, as per SEMP; (iv) obtain and comply with statutory requirements; (v) take timely actions and assist in grievance redress; and (vi) submit monthly EMP implementation reports.

59. **Training and capacity building.** The PMU ESS Managers will undergo training through programs periodically conducted by the ADB for executing agency and implementing agencies on safeguards. PMU ESS Managers, with the support of external trainers as required, will conduct safeguard orientation and training programs to PMU, Implementing agencies, and PIUs. At PIU level, CMSC Environmental Specialist will conduct training programs on EMP implementation, including occupational health and safety, and monitoring. A training and capacity building program is included in the EARF.

60. Table 17 below provides a summary of environmental safeguards compliance requirements that will be followed during project implementation.

Table 17: Summary of Environmental Safeguard Compliance Requirements

Project Stage	Compliance Requirements
Prior to loan effectiveness	ESS Managers of PMU, TNUIFSL trained in ADB SPS 2009.
Project preparation (preliminary and detailed design)	Prepare subprojects conforming to subproject environment selection guidelines: (i) Subproject conforms to the exclusion criteria provided in the EARF, and (ii) Subproject conforms to the selection guidelines provided in EARF. Subproject is categorized as per the EARF provisions.

Project Stage	Compliance Requirements
	<p>Category A subprojects not considered for funding under TNUFIP.</p> <p>All the regulatory clearances and approval requirements of the subprojects are identified.</p> <p>IEEs, including EMPs, prepared for the Category B subprojects.</p> <p>Conduct audit of existing and/or associated facilities.</p> <p>Meaningful consultations with stakeholders and affected people are conducted, and information disclosed.</p>
Bidding process	<p>IEEs, including EMP, (prepared based on detailed designs for works contracts and based on preliminary design for design-build type contracts) and are approved by ADB prior to bid invitation.</p> <p>The IEE, including EMP, is included in the bid documents.</p> <p>IEE and EMP provisions and compliance requirements as per EARF are explained to bidders in the pre-bid meetings.</p> <p>All the regulatory clearances and approvals are in place for the subproject prior to the award of the contract.</p> <p>For design-build type bids/contracts, contractor scope includes update of IEE as per the detailed designs and implementation of updated EMP.</p>
Construction	<p>The GRM is established prior to the start of construction.</p> <p>[For design-build type contracts] Update IEE, including EMP with detailed design of subproject, and submit to ADB no works can commence until updated IEE is cleared and disclosed by ADB.</p> <p>[For works type contract] Confirm to ADB of no changes in project that require IEE update OR if there are changes, update the IEE including EMP; no works can commence until ADB clears and discloses the updated IEE</p> <p>Organize workshops/training on EMP implementation to contractors and supervising staff.</p> <p>Contractor complies with all pre-construction procedures including preparation of the construction health and safety plan, traffic management plan and the establishment of labor camps as per the EMP provisions etc.</p> <p>The EMPs are implemented by contractors during construction.</p> <p>Update IEE and EMP if there is any change in project (location, alignment, design, construction methodology etc.,) and/or if any unanticipated impacts noticed during implementation.</p> <p>Implementation and monitoring by the PIU with the support of the CMSC.</p> <p>In event of non-compliance, identify necessary corrective actions, and reflect them in a corrective action plan. PIUs will ensure contractors will implement these corrective actions and ESS Managers of PMU follow up on these actions to ensure their effectiveness.</p> <p>Address any grievances brought about through the GRM in a timely manner as per the IEEs.</p> <p>Conduct continuous public consultation and awareness.</p> <p>Semi-annual EMRs are submitted to the ADB in the format given in EARF.</p> <p>All the sites are cleaned up and restored as required prior to issuance of work completion certification to the contractor.</p>
Operation	<p>All the operational stage regulatory clearances and approvals, as required, are in place prior to start of operation.</p> <p>Implement operational stage EMP, and submit environmental monitoring reports to ADB annually until PCR is issued by ADB.</p>

ADB=Asian Development Bank, CMSC=contract management and supervision consultant, EARF=environmental assessment review framework, EMP=environmental management plan, EMR=environmental monitoring report, ESS=environmental and social safeguards, GRM=grievance redress mechanism, IEE=initial environmental examination, PCR= project completion report, PIU=program implementation unit, PMU=program management unit, SPS=Safeguard Policy Statement, TNUFIP=Tamil Nadu Urban Flagship Investment Program, TNUIFSL= Tamil Nadu Urban Infrastructure Financial Services Limited.

B. Social Safeguards

61. **Categorization.** Project 3 of the MFF is classified as Category B for involuntary resettlement and Category C for Indigenous Peoples impacts.

62. The Resettlement Framework prepared for the MFF in 2018 is applicable for Project 3. Three draft resettlement plans were prepared for subprojects under Project 3, to minimize land acquisition and resettlement impacts by prioritizing rehabilitation and optimization work within existing facilities' premises while the new construction (like pump stations, lift stations, stormwater drains etc.) is proposed on vacant government lands. The resettlement plans were prepared for sewerage subproject in Coimbatore (4 added area), and water supply distribution subproject in Madurai and stormwater drains subproject in Thoothukudi. Temporary impacts to mobile vendors and shops along roads with linear works will be avoided through careful EMP implementation and those that cannot be avoided will be compensated in line with the agreed Resettlement Framework. Soak pits built on road-side government land along proposed stormwater drain alignment will be dismantled and compensation for these structures will be made prior to the impact. Adequate notice and assistance will be given to affected persons facing loss of soak pits to make alternate arrangements during construction. Resettlement plans also include status of enter upon permissions for subproject sites that belong to other government agencies (other than corporation lands). The draft resettlement plans will be finalized during detailed engineering design prior to the award of civil works contracts. Consultations with potential temporary and permanent affected persons were conducted and documented in the resettlement plans. The budget for identified impacts is included in the overall project budget and the borrower is committed to provide timely budget prior to commencement of civil works. Resettlement plans will be disclosed on ADB's website. TNUIFSL to ensure ULBs disclose resettlement plans in a language and form understandable to stakeholders and project communities. There are no Indigenous Peoples as defined by SPS in any of the areas of Tranche 3.

63. **Program Management Unit.** The ESS managers in the PMU, TNUIFSL (executing agency) will have overall responsibility of safeguard compliance under the program. The ESS Managers report to Vice President, Projects Wing. The PMU will: (i) review and monitor compliance of safeguard frameworks under the program, (ii) guide PIUs in safeguards compliance as and when necessary, and (iii) prepare and submit semi-annual monitoring reports to ADB.

64. **Program Implementation Unit.** PIUs will be established in each of the participating ULBs. The PIUs will be responsible for implementation of the resettlement plans. At PIU level, a ULB deputed PIU Safeguards Officer will coordinate safeguard tasks to coordinate, oversee the implementation of safeguard tasks, and grievance redress and reporting. Necessary budgetary resources are included in the program. PIU Safeguards Officer will be responsible for: (i) conducting briefing to contractors on safeguards requirements including GRM; (ii) implementing and monitoring safeguards compliance activities, public relations activities, gender mainstreaming activities, and community participation activities; (iii) coordinating with district administration for land acquisition and resettlement and rehabilitation aspects and addressing any problems and/or delays; (iv) monitoring physical and financial progress on land acquisition and resettlement and rehabilitation activities; and (v) organizing monthly meetings to review the progress on resettlement and rehabilitation. The CMSC Social and Resettlement Safeguards Assistant will support the PIU Safeguards Officer. The Social and Resettlement Safeguards Assistant: will (i) update the existing resettlement plans based on the detailed design; (ii) assist in the implementation and monitoring of ongoing subprojects and resettlement plan; (iii) prepare resettlement plan and/or IPPs for new subprojects, where required, to comply with national law

and/or ADB procedures; (iv) ensure all subprojects meet safeguard requirements as agreed in the loan covenant and in line with the safeguards frameworks; and (v) review and finalize all reports in consultation with the PIU.

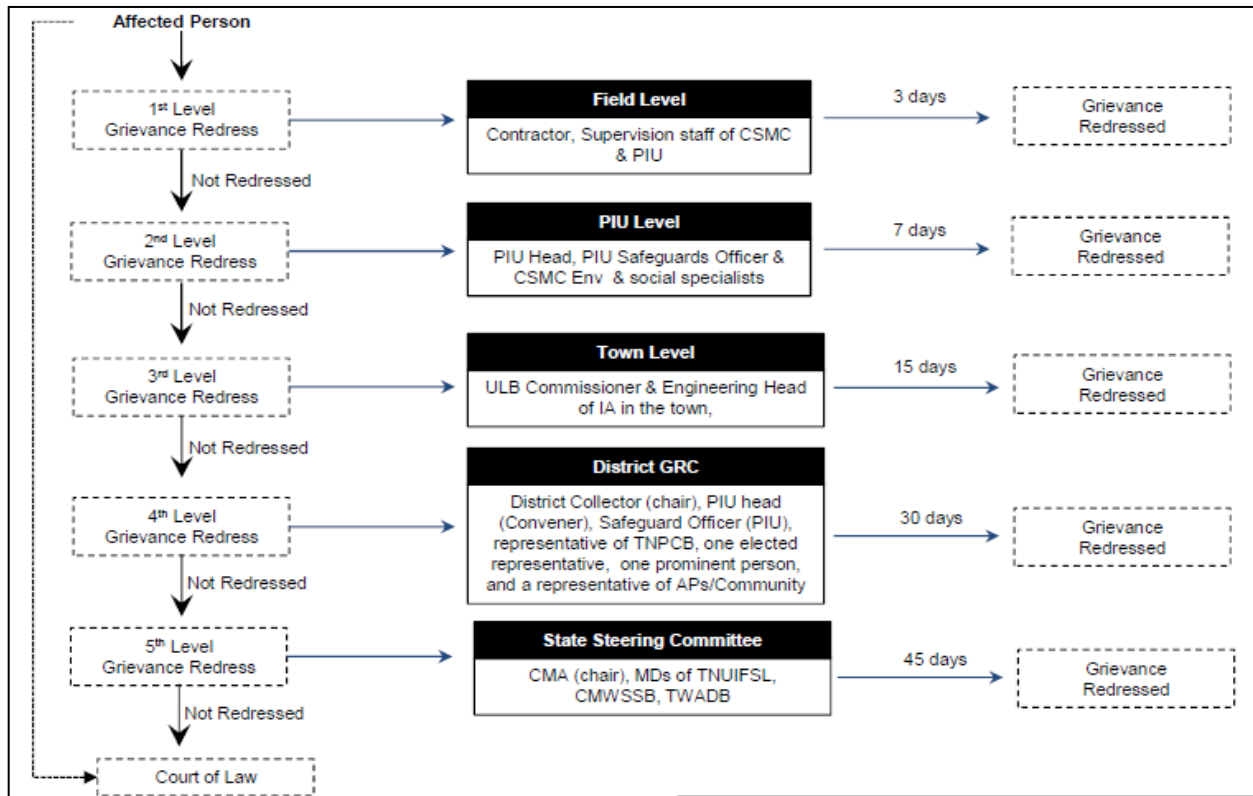
65. **Capacity-Building.** Training and capacity building will be required for compliance in relation to ADB policies, transfer of duties and candidates training of new/additional staff and officers of the program that will be involved in project preparation and implementation of this Project. There is a GIAC attached to the CMA. The GIAC Social Safeguards Specialist will be responsible for training officials of PIUs, contractors' representatives and other staff on aspects such as resettlement planning and implementation, social protection, and gender, including the specific recording, reporting, and disclosure requirements. The GIAC Social Safeguards Specialist will provide a training and capacity building program on resettlement management for the PIU staff and CMSCs on issues concerning: (i) principles and procedures of land acquisition, (ii) public consultation and participation, (iii) entitlements and compensation disbursement mechanisms, (iv) grievance redressal, and (v) monitoring of resettlement operation. Specific modules customized for the available skill set will be devised after assessing the capabilities of the target participants and the requirements of the project. Costs of trainings will be borne by project's capacity building program under CMA consultants budget. It will mainly include three training modules on: (i) introduction and sensitization to social/ resettlement issues, (ii) resettlement plan implementation, and (iii) experiences and best practices sharing.

66. **Grievance Redress Mechanism.** A common GRM will be in place for social, environmental, or any other grievances related to the project. The multi-tier GRM for the project is proposed, each tier having time-bound schedules and with responsible persons identified to address grievances and seek appropriate persons' advice at each stage, as required. In case of grievances that are immediate and urgent in the perception of the complainant, the contractor, and supervision personnel from PIU the CMSC on-site will provide the most easily accessible or first level of contact for quick resolution of grievances. Contact phone numbers, email, and names of the concerned PIU Assistant Safeguards Officer, contractors, will be posted at all construction sites at visible locations.

- (i) **1st level grievance.** The contractor and CMSC supervision personnel and PIU supervision personnel can immediately resolve issues on-site in consultation with each other and will be required to do so within 3 days of receipt of a complaint/grievance.
- (ii) **2nd level grievance.** All grievances that cannot be redressed within 3 days at field/ward level will be brought to the notice of Social Safeguards Officer (SSO) of PIU. PIU will resolve the grievance within 7 days of receipt of compliance/grievance in discussion with the CMSC and the contractor. The PIU SSO will be supported by the CMSC Social Safeguards Specialist at this stage.
- (iii) **3rd level grievance.** All the grievances that are not addressed by PIU within 7 days of receipt will be brought to the notice of the Town Level Committee, of which ULB Commissioner will be the Chairperson, and will be assisted by the concerned city level engineers. The Town Level Committee will meet twice a month and determine the merit of each grievance brought to the committee. The PIU SSO will be responsible to see through the process of redressal of each grievance. The Town Level Committee will resolve the grievance within 15 days of receiving the complaint.
- (iv) **4th level grievance.** All grievances that are not addressed by the Town Level Committee within 15 days, and which require the District Collector's intervention, will be escalated to the district level Grievance Redress Committee (GRC), chaired by the District Collector

- (v) The district level GRC will have the District Collector as chair, PIU head as Convener, and Safeguard Officers of the PIU, representative of Tamil Nadu Pollution Control Board, one elected representative, one prominent person/member of the community, and a representative of affected persons/community as members. At least one member of the GRC will be a woman. The GRC will resolve the grievance within 30 days of registration.
- (vi) **5th level grievance.** Any grievance that remains unresolved by the GRC will be escalated to the state level steering committee.

Figure 4: Grievance Redress Process



APs=Affected Persons, CMA=Commissionerate of Municipal Administration, CMWSSB=Chennai Metro Water Supply and Sewerage Board, CMSC=construction management and supervision consultant, IA=implementing agency, MD=managing director, PIU =program implementation unit, PMU=program management unit, TNUIFSL=Tamil Nadu Urban Infrastructure Financial Services Ltd., TWADB=Tamil Nadu Water Supply and Drainage Board.

67. The project GRM notwithstanding, an aggrieved person will have access to the country's legal system at any stage and accessing the country's legal system can run parallel to accessing the GRM and is not dependent on the negative outcome of the GRM. In case of grievance related to land acquisition, resettlement and rehabilitation, the affected persons will have to approach a legal body/court specially proposed under LARR, 2013; Land Acquisition, Rehabilitation and Resettlement Authority. In the event that the established GRM is not in a position to resolve the issue, the affected person also can use the ADB Accountability Mechanism through directly contacting (in writing) the Complaint Receiving Officer at ADB headquarters or the ADB India Resident Mission. The complaint can be submitted in any of the official languages of ADB's DMCs. The ADB Accountability Mechanism information will be included in the project information disclosure leaflet to be distributed to the affected communities, as part of the project GRM.

VIII. GENDER AND SOCIAL DIMENSIONS

68. The project is classified as effective gender mainstreaming (EGM). The proposed project extends the initiatives of projects 1 and 2 for improved infrastructure and service delivery to the poor in the project cities through provision of (i) new sewage collection pipelines commissioned and connected to 67,545 households in Coimbatore, including 100% of poor households; (ii) metered water supply connections provided to 163,958 households in Madurai, including 100% of poor households; and (iii) 36 km of new tertiary stormwater drains constructed with GESI responsive features. The implementation of gender activities in projects 1 and 2 were impacted by the pandemic and non-conduct of ULB elections in project towns. The implementation of gender activities has gained traction in the last 6 months with an increase in women's participation training (41% in ULB staff training; 57% in sanitary and sewer workers training) and awareness campaigns (70% women's participation). Notably, 11 out of 13 positions in PDMC have been filled, of which 8 positions are filled by women (61% against the target of 10%). The ULBs/ CMSCs are maintaining and updating sex-disaggregated data for the Project performance monitoring system. This will be further integrated into the Urban Data and Governance Improvement Cell, which is being established in DMA. The present project seeks to build opportunities for women through (i) representation of women in decision making at all levels for project planning and management; (ii) awareness generation amongst teachers, students, and women's groups on water conservation and hygiene; and (iii) capacity building of ULB staff for gender mainstreaming in urban governance, sexual harassment policies, implementation of gender action plan, and monitoring and reporting of gender quality results.

69. Status of the implementation of the GAP (appendixes 5 and 6) and the community awareness and participation plan (CAPP) (Appendix 7) will be discussed at each ADB review mission. The GAP monitoring matrix with updated data on progress will be included with quarterly progress reports and the same shall be submitted by DMA.

IX. PERFORMANCE MONITORING, EVALUATION, REPORTING, AND COMMUNICATION

A. Project Design and Monitoring Framework

Table 18: Design and Monitoring Framework

Impact(s) the Project is Aligned with			
(i) Universal access to basic water and sanitation services achieved (Vision Tamil Nadu 2023) ^a (ii) "World-class" cities and industrial corridors across the state developed (Vision Tamil Nadu 2023) ^a (iii) Water security and reduced vulnerability to climate change in urban areas achieved (Tamil Nadu Sustainable Water Security Mission, State Action Plan on Climate Change) ^b			
Results Chain	Performance Indicators	Data Sources and Reporting Mechanisms	Risks and Critical Assumptions
Outcome Livability and climate resilience in selected cities in priority industrial corridors enhanced ^c	By 2027 a. Collection and treatment of sewage in project coverage areas of one city (Coimbatore) increased to 100% of households (2021 baseline: sewage collected from 0% of households in	a–d. Program quarterly progress reports.	R: Water shortages due to extreme drought beyond projections undermine performance of water supply and sewerage facilities.

Results Chain	Performance Indicators	Data Sources and Reporting Mechanisms	Risks and Critical Assumptions
	<p>coverage areas) (OP 3.3, OP 4.1)</p> <p>b. 600 ha. of flood-prone areas covered by new drainage systems adapted to climate change and flood risk reduced in one city (Thoothukudi) (2021 baseline: 0) (OP 3.2; OP 4.3)</p> <p>c. Frequency and duration of water supply improved to 24 hours/day for 100% of households in coverage areas in one city (Madurai) (2021 baseline: water provided on average 1-2 hours/day, once in 1-2 days, 94% piped water coverage) (OP 4.1)</p> <p>d. Nonrevenue water in coverage areas in one city (Madurai) reduced to 20% (2021 baseline: 30%) (OP 4.2)</p>		<p>R: No regular revisions of water and sewerage tariffs and insufficient revenue base will constrain the sustainability of services.</p>
<p>Outputs</p> <p>1. Climate resilient sewage collection and treatment, and drainage systems developed in two cities (Coimbatore and Thoothukudi)</p>	<p>By June 2026</p> <p>1a. Two new STPs with total capacity of 34.92 MLD added in Coimbatore (2021 baseline: 0) (OP 3.3.1, OP 3.3.2, OP 4.1.2)</p> <p>1b. 529 km of new sewage collection pipelines commissioned and connected to 67,545 households in Coimbatore, including 100% of the poor^d households in the coverage area (2021 baseline: 0) (OP 2.1.4; OP 4.1.2)</p> <p>1c. 14 sewage pump and lift stations with combined capacity of 348 kW added in Coimbatore (2021 baseline: 0) (OP 3.1.3; OP 4.1.2)</p>	<p>1a–e. Periodic ULB records and project quarterly progress reports</p>	<p>R: Extreme monsoons and sudden price surges of materials beyond projections result in cost overruns and delays in civil works completion.</p>

Results Chain	Performance Indicators	Data Sources and Reporting Mechanisms	Risks and Critical Assumptions
<p>2. Water supply system in one city (Madurai) improved with smart features</p> <p>3. Institutional capacity, public awareness, and urban governance strengthened</p>	<p>1d. 36 km of new tertiary stormwater drains constructed with GESI-responsive^e climate-resilient designs in Thoothukudi (2021 baseline: 0) (OP 2.5.2; OP 3.2.1; OP 4.3.1)</p> <p>1e. Two all-female SHGs^f trained (one each in Madurai and Coimbatore) and 80% of trained members reported improved knowledge on benefits of household connection to sewage collection system, sanitation, health and hygiene, water conservation and in areas of leadership^g (2021 baseline: 0) (OP 2.3.1)</p> <p>2a. A total of 813 km of new water distribution pipelines commissioned within 115 new district metered areas and metered connections provided to 163,958 households in Madurai (100% households, including poor^d households in coverage area) (2021 baseline: 0) (OP 2.1.4; OP 4.1.2)</p> <p>2b. 15 inline booster pumps with capacity of 70 kW installed in Madurai (2021 baseline: 0) (OP 4.1.2)</p> <p>3a. By 2026, 200 students, teachers, and administrators (at least 50% women); and at least 50% of members of three women groups reported improved awareness of water conservation and hygiene in Coimbatore, Thoothukudi, and Madurai (2021 baseline: 0) (OP 3.2.2)</p>	<p>2a–b. Periodic ULB records and project quarterly progress reports</p> <p>3a–d. Periodic ULB records and project quarterly progress reports</p>	

Results Chain	Performance Indicators	Data Sources and Reporting Mechanisms	Risks and Critical Assumptions
	<p>3b. By 2026, new database on urban management for Thoothukudi established at the urban data and governance improvement cell in DMA, with sex-disaggregated data (2021 baseline: 0)^h (OP 4.2.1)</p> <p>3c. By 2026, improved knowledge on approaches to integrating gender in urban governanceⁱ, implementing gender action plans, and monitoring and reporting on gender equality results, reported by 60 ULB staff in Coimbatore, Madurai and Thoothukudi (including at least 30 women staff) (2021 baseline: 0) (OP 2.3.2)</p> <p>3d. By 2025, systematic plans for financially sustainable O&M prepared/updated by 3 ULBs (Coimbatore, Madurai and Thoothukudi) (2021 baseline: 0)</p>		
<p>Key Activities with Milestones</p> <p>1. Climate-resilient sewage collection and treatment, and drainage systems developed in two cities</p> <p>1.1 Award all sewerage contracts by December 2022, complete all civil works by June 2026, and conduct user satisfaction surveys by June 2026.</p> <p>1.2 Award drainage contract by June 2023, complete all civil works by June 2026, and conduct user satisfaction surveys by June 2026.</p> <p>2. Water supply system in one city improved with smart features</p> <p>2.1 Award water supply contract by December 2022, complete all civil works by June 2026, and conduct user satisfaction surveys by June 2026.</p> <p>3. Institutional capacity, public awareness, and urban governance strengthened</p> <p>3.1 Conduct pre-training surveys by January 2023 and post-training surveys by June 2023 to measure increased awareness and knowledge of water conservation and hygiene from awareness activities.</p> <p>Project Management Activities</p> <p>Establishment of PIU in Coimbatore by TWAD</p>			
<p>Inputs</p> <p>ADB: \$125.0 million (regular ordinary capital resources loan)</p> <p>Government: \$68.5 million</p>			

ADB = Asian Development Bank, DMA = Directorate of Municipal Administration, GESI = gender equality and social inclusion, km = kilometer, kW = kilowatts, MLD = million liters per day, O&M = operations and maintenance, OP = operational priority, PIU = program implementation unit, R = risk, SHG = self-help group, STP = sewage treatment plant, TWAD = Tamil Nadu Water Supply and Drainage Board, ULB = urban local body.

- ^a Government of Tamil Nadu. 2012. *Vision Tamil Nadu 2023: Strategic Plan for Infrastructure Development in Tamil Nadu*. Chennai.
- ^b Government of Tamil Nadu. 2015. *Tamil Nadu Sustainable Water Security Mission*. Chennai; and Government of Tamil Nadu. 2014. *State Action Plan on Climate Change: Towards Balanced Growth and Resilience*. Chennai.
- ^c Project target cities are Coimbatore, Madurai, and Thoothukudi.
- ^d “Poor” is defined as those households classified by the state as below the poverty line (BPL).
- ^e GESI-responsive: (i) Barricades with night-glowing signages; (ii) streetlights along drains; (iii) fencing along open drain sections; (iv) in line with the Tamil Nadu State New Policy for Women 2021 (Draft) install safety alarm devices, tools, and panic buttons which will act as deterrents and inform the nearby police stations when women in a public place are harmed and act as emergency response support system.
- ^f SHG is a group of more than five members joined for setting up a group enterprise for self-employment and for availing loans for the purpose. [National Urban Livelihood Mission Guidelines](#).
- ^g Areas of leadership include developing capacities for mentoring and awareness generation at community level for imparting knowledge.
- ^h Output indicator 3b for Thoothukudi is aligned with the multi-tranche financing facility design and monitoring framework with implementation support from the governance improvement and awareness consultants engaged under Project 1. The other Project 3 cities (Coimbatore and Madurai) are covered under the same indicators in the design and monitoring framework of projects 1 and 2.
- ⁱ Integration of gender through the involvement of female SHGs in urban service delivery; and collection, assessment, and integration of sex-disaggregated data for urban development planning.

Contribution to Strategy 2030 Operational Priorities

Expected values and methodological details for all OP indicators to which this operation will contribute results are detailed in Contribution to Strategy 2030 Operational Priorities (Appendix 5 of the periodic financing request report).

Source: Asian Development Bank.

B. Monitoring

70. Project performance monitoring. The PMU will establish a project performance management system using targets, indicators, assumptions, and risks in the investment program design and monitoring framework (DMF). An expanded DMF will be developed that can serve as a monitoring and evaluation framework considering the important monitoring parameters in addition to those included in the DMF. The baseline data corresponding to indicators and targets set out in the DMF and the monitoring and evaluation framework could be generated through primary data, collected while preparing the detailed project reports and further through the data collected by the CMSCs. Such baseline data, disaggregated by income levels, sex, caste, and ethnicity, should be established within 12 months of loan effectiveness. After establishing the baseline, the PMU will prepare annual, mid-term and end of investment program monitoring reports using the same indicators and submit the reports to ADB.

71. Compliance monitoring. The CMSC and GIAC will support the PMU/ PIU in monitoring performance based on the DMF, monitoring and evaluation framework and the project performance management system for the investment program. The PMU/ PIU, with support from CMSC and GIAC, will prepare a quarterly progress report, which among other items will include compliance of implementation with: (i) assurances, covenants, conditions; (ii) safeguards; (iii) GAP; (iv) CAPP; and (v) reforms.

72. Safeguards monitoring. The status of implementation of environmental safeguards documents (IEE, EMPs, and EARF), and social safeguards documents (resettlement plan and resettlement framework) will be discussed at ADB review missions apart from being integrated into quarterly progress reports. The PMU/ PIU will also submit to ADB separate environmental safeguard semi-annual monitoring reports (ESMRs) and social safeguards semi-annual monitoring reports (SSMR) in the standard templates advised by the ADB within 30 days from the

end of each reporting period. During the operation phase, PMU/PIU will submit environmental monitoring reports, annually, to ADB until a project completion report is issued by ADB.

73. **Gender and social dimensions monitoring.** Status of the implementation of the GAP and the CAPP will be discussed at each ADB review mission. The GAP monitoring matrix (Appendix 6) with updated data on progress will be included with quarterly progress reports.

C. Evaluation

74. The government and ADB will jointly review the investment program at least twice a year. The review will cover: (i) the performance of the PMU, PIU, consultants and contractors; (ii) physical progress of projects and effectiveness of safeguards, CAPP and the action plan; (iii) inclusion of women and vulnerable groups, including the poor, in investment program planning and implementation; (iv) achievement of DMF indicators; (v) compliance with loan assurances; and (vi) assessment of investment program sustainability in technical and financial terms. In addition to the regular loan reviews, the GOTN and the ADB will undertake a comprehensive mid-term review in the third year of investment program implementation to identify problems and constraints encountered and suggest measures to address them. Specific items to be reviewed will include: (i) appropriateness of scope, design, implementation arrangements, and schedule of activities; (ii) assessment of implementation pace against investment program indicators; (iii) effectiveness of capacity building programs; (iv) compliance with safeguard measures; (v) extent to which the GAP and CAPP are being implemented; (vi) need for additional support for operation and maintenance of the facilities established under the investment program; (vii) lessons learned, good practices, and potential for replication; and (viii) changes recommended.

75. The PMU will submit to the ADB, within 6 months of the completion of the project, a project completion report that will cover the details of implementation (including changes in scope), costs, monitoring and evaluation of activities, problems encountered, actions taken, and other information requested by ADB and implementing agency.¹³

D. Reporting

76. The PMU will provide ADB with (i) quarterly progress reports in a format consistent with ADB's project performance reporting system (an outline is provided in Appendix 8); (ii) consolidated annual reports including (a) progress achieved by output as measured through the indicator's performance targets, (b) key implementation issues and solutions, (c) updated procurement plan, and (d) updated implementation plan for the next 12 months; and (iii) a project completion report within 6 months of physical completion of the project. To ensure that projects will continue to be both viable and sustainable, project accounts and the executing agency audited financial statement together with the associated auditor's report, should be adequately reviewed.

E. Stakeholder Communication Strategy

77. The primary stakeholders of the program include:

- (i) Government agencies and their employees;
- (ii) Beneficiaries: residents in the project area, particularly the poor and vulnerable;
- (iii) Community leaders, public representatives;
- (iv) Community-based organizations, nongovernment organizations, social and

¹³ Project completion report format is available at: <http://www.adb.org/Consulting/consultants-toolkits/PCR-Public-Sector-Landscape.rar>

- cultural groups, ward level citizen forums;
- (v) Committees and sub-committees of the wards;
- (vi) Schools/student groups;
- (vii) Women's groups;
- (viii) Contractors and their workers;
- (ix) Vendor associations and labor union federations;
- (x) Self-help groups; and
- (xi) Special groups formed for socially excluded segments of the population.

78. The investment program has prepared a CAPP, which is included in Appendix 7. The primary purpose of the CAPP is to disseminate information and open lines of communication between the implementation agencies and all stakeholders to facilitate the implementation of the program and the early resolution of any conflict issues that may arise. The CAPP includes the following key activities which will take place throughout the course of program implementation:

- (i) Generate community awareness of the program and its benefits;
- (ii) Provide stakeholders with advance knowledge of the social safeguard frameworks and associated documents and the applicable mitigation measures;
- (iii) Provide stakeholders with advance knowledge of the program's GRM;
- (iv) Share messages regarding good water supply and sanitation practices and operation;
- (v) Educate contractors and workers on key program issues, contractor obligations, on-site safety and ensure smooth interaction with other stakeholders;
- (vi) Share work schedules and progress updates to facilitate program implementation; and
- (vii) Monitor and evaluate the program's progress.

79. An initial baseline survey has been conducted under the project preparatory technical assistance. This will be expanded and updated by the GIAC and will target the collection of information on the socioeconomic profile of the program beneficiaries including current water supply and sanitation access and service levels, together with the current water pricing and willingness to pay. The survey will cover all elements of society including the vulnerable, marginalized and poor.

X. ANTICORRUPTION POLICY

61. ADB reserves the right to investigate, directly or through its agents, any violations of the Anticorruption Policy relating to the project.¹⁴ All contracts financed by ADB shall include provisions specifying the right of ADB to audit and examine the records and accounts of the executing agency and all project contractors, suppliers, consultants, and other service providers. Individuals and/or entities on ADB's anticorruption debarment list are ineligible to participate in ADB-financed activity and may not be awarded any contracts under the project.¹⁵

62. To support these efforts, relevant provisions are included in the Loan Regulations and the bidding documents for the project. The Government of India, state government, TNUIFSL and other implementing agencies are advised of ADB's Anticorruption Policy. Consistent with its commitment to good governance, accountability and transparency, implementation of the Projects under the MFF shall adhere to ADB's Anticorruption Policy.

¹⁴ ADB. [Anticorruption Policy](#).

¹⁵ ADB. [Anticorruption and Integrity](#).

XI. ACCOUNTABILITY MECHANISM

63. 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 an effort in good faith 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.¹⁶

XII. RECORD OF CHANGES TO THE PROJECT ADMINISTRATION MANUAL

64. The first draft of PAM was prepared during fact finding mission in March 2022 and agreed at the loan negotiations on 12 October 2022. All revisions and/or updates during the course of implementation should be retained in this section to provide a chronological history of changes to implemented arrangements recorded in the PAM, including revision to contract awards and disbursement s-curves.

¹⁶ ADB. [Accountability Mechanism](#).

**DRAFT TASKS FOR EXPANDED SCOPE OF
THE GOVERNANCE IMPROVEMENT AND AWARENESS CONSULTANTS (GIAC)
TO SUPPORT ACTIVITIES PLANNED UNDER PROJECT 3**

1. The terms of reference for governance improvement and awareness consultants (GIAC) lists a host of environmental & social safeguards related, gender action plan (GAP) and community awareness and participation plan (CAPP) implementation tasks associated with Tranche 1 and Tranche 2 of the program. Activities relevant to Tranche 3 shall continue to be undertaken by the GIAC. In addition, the following specific tasks shall be included in the expanded scope of work of GIAC for Tranche 3:

A. Expanded Scope of GIAC under Tranche 3 (GAP Implementation)

- Carryout a baseline socioeconomic sample survey to identify and quantify the poor households to be benefitted by the program in all Tranche 3 program towns. Prepare survey methodology including questionnaire for baseline survey- to include at least 250 vulnerable households in the project location of each town.¹⁷
- Collect data on community expectations and aspirations through survey questionnaire and Focus Group Discussions and prepare analytical report including results. Collate and provide data disaggregated based on sex and other relevant exclusion indicators.
- Conduct a baseline user satisfaction sample survey in project ULBs that would help to measure livability in project cities with respect to the population's satisfaction with improved sewage collection, as well as drinking water, and in particular, to ascertain that poor households are in fact benefiting as intended. The survey should also target to collect information to assess whether the desired behavior changes taught through planned awareness campaigns are really achieved.
- Conduct GAP workshops for PMU, PIUs and ULB staff & awareness activities as indicated in the GAP for all relevant stakeholders. Compile results on ULB staff reporting greater awareness on approaches in integrating gender and social inclusion in urban governance, gender action plan implementation, monitoring and reporting on gender equality results.
- Conduct gender and other related trainings to contractors and laborers.
- Assist the PMU and DMA in ensuring participation of women and socially excluded groups (specially slum dwellers) in all relevant committees of user groups that are constituted as part of the project.

B. Expanded Scope of GIAC under Tranche 3 (CAPP Implementation)

- Develop a work plan and activity calendar including monitoring format for CAPP activities. The monitoring format could be in the lines of the GESI monitoring format and submitted along with the QPR. This has to be approved by DMA and ADB.
- Two half-day project orientation workshops in two participating cities under tranche 3 (with equitable representation of female staff and members) with the primary objective of establishing linkage between design and monitoring framework (DMF) impact-outcome-outputs and GESI and project scope. Two orientation/refresher workshop on ADB's SPS,

¹⁷ Employ stratified sampling to ensure data collection from all project covered municipal wards, inclusive of slum localities. Collect information on socioeconomic status, gender, service gaps, vulnerability, poverty and marginalization, available social capital through specifically designed questionnaire.

Resettlement Framework of the project and GESI. The target audience is primarily multiple project stakeholders, civil society members.

- Orientation program: Information and project benefit sharing including aspects of GESI responsive and climate-resilient designs through group events/meetings in slum, low lying water logged and other areas. Number of such meetings to be decided in consultation with DMA.
- Design and produce about 70,000 leaflets (1 page both sides printed using recycled paper) with basic project features and information about TNUFICL. Device distribution mechanism to reach the end user; in consultation with client.
- Design and produce about 200 color brochures on the scope, objective and benefits and impacts of the project (100 each for 2 cities). This activity will act as a ready reckoner for the entire MFF. Develop the distribution mechanism to reach the end user; in consultation with client. Ensure this product reaches all stakeholders, especially the decision-makers.
- Conduct four awareness / behavior change workshops (especially in poor areas- at least one all-women awareness program) in Coimbatore on the aspects of proper sanitation practices, environmental benefits of the project, process of taking new connections. The pre-workshop and post-workshop questionnaire to be employed for the participants for understanding the knowledge exchange modality.
- Conduct awareness regarding the procedure of sewerage connection, tariff rules, user charges, application procedure etc. Target three camps in Coimbatore with equitable female participation.
- Conduct six awareness / behavior change workshops in Madurai. Out of six, three workshops should be in slum areas on water conservation. At least one all-women awareness program (out of 6).
- GIAC to produce (script, design and produce including devising proper dissemination and screening mechanism) audio-visual case studies on benefits of the water supply subprojects (at least one short film, preferably more than one) with pre and post intervention scenario in households in project areas including poor households especially documenting women, girls and other vulnerable voices on the benefits of the project, water conservation needs and environmental impacts. The visuals and voice over / audio should be cover the water supply works adequately.
- GIAC to produce (script, design and produce including devising proper dissemination and screening mechanism) audio-visual case studies on benefits of the sewerage subprojects (at least one short film, preferably more than one) with pre and post intervention scenario in poor households especially documenting women, girls and other vulnerable voices on the benefits of the project, environmental impacts. The visuals and voice over / audio should be cover the sewerage works adequately.
- Organize an initiative for a 2-minute audio-video making competition/song writing competition' (for 18–24 years old, young community people in both cities, Coimbatore and Madurai). The same to be part of the film made for the project. These films will be made by the young people themselves and GIAC to orient them on project scope, organize adequate site exposure and necessary guidance including editing (if required). Organize screening of the film for motivation and awareness of the larger community.
- Support and organize 2-day workshop on leadership for the two all-female community-based organizations/self-help groups (one each in Coimbatore and Madurai) - preferably residential workshop. The participants' safety aspect in case of residential workshop to be ensured. Ensure that external resources are mobilized adequately especially for the

leadership part.

C. Scope of GIAC under Tranche 3 (Resettlement Plan Implementation and monitoring)

- Support resettlement plan updating for Coimbatore sewerage subproject under tranche 3, including conduct of any surveys and consultations required for Resettlement Plan updating.
- Support resettlement plan implementation; assist affected persons to receive compensation and benefits; conduct meaningful community consultations during RP implementation.
- Support monitoring and reporting of the implementation of resettlement plan/s prepared for Coimbatore under Tranche 3
- Preparation of semi-annual social monitoring reports for onward submission to PMU and ADB, in prescribed and approved format. Report promptly about any social safeguard issue/s and design mitigation measures in consultation with client and ADB.
- Support in coordination between project authorities and contractors to resolve any issues and grievances during project implementation.

DRAFT TERMS OF REFERENCE
Construction Management and Supervision Consultancy Services for Implementation of
Stormwater Drainage Project in Thoothukudi, Tamil Nadu

A. Background

1. The Government of Tamil Nadu, one of the most urbanized states in India is committed to improve urban infrastructure and simultaneously addresses institutional strengthening, and targets reforms in urban governance. Therefore, Government of Tamil Nadu has proposed to undertake “Tamil Nadu Urban Flagship Investment Program (TNUFIP)”. The proposed Program will support the Government of Tamil Nadu in improving the infrastructure facilities and implementing reforms in urban sector.

2. The Government of Tamil Nadu has been implementing urban investment projects with funds assistance from the World Bank, Japan International Cooperation Agency (JICA) and KfW. The investments have made improvements in the living standards of the public, yet there is further scope and accordingly, Government of Tamil Nadu has availed a Multitranchise Financing Facility from the Asian Development Bank (ADB) for implementing the TNUFIP.

3. The TNUFIP is supporting both the infrastructure needs and the reform program of the Government of Tamil Nadu for sustainable urban infrastructure development and service delivery. The funds provide financial support to the Government of Tamil Nadu to implement reforms that will unlock the potential of various stakeholders, including municipal bodies, individual households, and private sector investors. The facility supports catalytic investments that enhance productivity and leverage finances from various other sources in the project areas. The projects under TNUFIP bring forth innovations in water supply and wastewater management, stormwater drainage and flood management and reduce water loss in the form of Non-Revenue Water (NRW). The Tranche 1 and 2 are under implementation in different cities of Tamil Nadu. The Tranche 3 loan is under processing now that includes Thoothukkudi stormwater drainage sub project along with other subprojects in Coimbatore and Madurai.

4. The impact of the TNUFIP Project 3 is (i) universal access to basic water and sanitation services achieved; (ii) “world-class” cities and industrial corridors across the state developed; and (iii) water security, reduced vulnerability to climate change in urban areas achieved^[1]. Project 3 will have the following outcome: livability and climate resilience in selected cities in priority industrial corridors enhanced around. The ADB loan amount is USD 125 million. The Tamil Nadu Urban Infrastructure Financial Services Limited (TNUIFSL) will implement TNUFIP through a Project Management Unit (PMU).

5. Thoothukkudi an important port city in Tamil Nadu, is situated in the south-eastern part of the state of Tamil Nadu. The city faces floods due to rains during the North East Monsoon period. The city Corporation has prepared a masterplan for providing urban drainage infrastructure and adopted a phased approach availing funds from the Union and State governments as well as international financial institutions. Phase 1 to 3 are in various stages of implementation and are targeting Macro drainage infrastructure mainly Phase 4 targets providing tertiary drainage links along streets. The sub project under TNUFIP aims to provide about 20 km of tertiary stormwater drains in identified and prioritised flood prone areas. The cost of the sub project is about INR 45 crores.

B. Objective of the Assignment

6. On behalf of Thoothukkudi City Corporation (hereinafter “the Client”), TNUIFSL shall recruit a competent and professional Contract Management and Supervision Consulting firm (“the Consultant”). The said Consulting firm on behalf of TNUIFSL shall work with Thoothukkudi. All

day-to-day reporting of the Consultant shall be to Thoothukkudi Corporation. The objective of the assignment is to assist and support the Corporation in contract management and construction supervision of works covered under the proposed stormwater drainage sub project taken up under TNUFIP.

C. Scope of Services, Tasks (Components) and Expected Deliverables

7. **Scope of Services:** The Consultants' services will be used for carrying out contract and construction management including supervision of works and overall responsibility to deliver the outputs will rest with the Consulting firm through the Team Leader. The Consultant shall ensure timely delivery of the documents and completion of various works assigned, establish coordination among all stakeholders and within the team members of the Consultant, scheduling mobilization/demobilization of team members and to interact with the client on regular basis.

8. The scope of services inter-alia intended to be provided by the Consultant under this Terms of Reference (TOR) shall include but not limited to the following:

- i. Setting out of sites for various components involved in the project including field verification of lines and levels.
- ii. Carrying out its duties as Engineer/ Engineer's Representative within the context of provisions of Works and Supply Contracts.
- iii. Support and assist the Corporation in contract administration and compliance with contractual conditions.
- iv. Field level supervision and monitoring of progress of works and preparation of progress reports.
- v. Review of designs, drawings, technical specifications and estimation. Ensure compliance with standard Engineering practice by the Contractors.
- vi. Develop Quality Assurance System & Quality Control Plan and prepare quality compliance reports.
- vii. Map all the utilities above and below ground that are falling within the alignment and assist in shifting of the same as required.
- viii. Co-ordinate with all the stakeholders to achieve timely completion of contractual obligations on the part of Contractors and the Client.
- ix. Assist in compliance with regulatory clearances. Assist in obtaining various permits, for the implementation of the project. Preparing Traffic Management Plan for project implementation.
- x. Assist in monitoring progress of work including financial progress, preparing status reports.
- xi. Develop and promote usage of advanced tools for project scheduling and monitoring
- xii. Developing and setting up of MIS system.
- xiii. Advise and supervise on safety and security of the labourers, supervising and monitoring officials and public during project implementation.
- xiv. Ensure compliance of ADB safeguard requirements and prepare various documents related to safeguards implementation and monitoring.
- xv. Prepare and submit progress reports capturing Physical, Financial progress, Environmental, Social Safeguards and Gender Action Plan (GAP) compliance, critical issues, etc., at regular intervals.
- xvi. Assist Client in forecasting the progress of works and finalization of periodic targets for the expenditure and disbursement.
- xvii. Obtain as-built drawings from the contractors and submit the same to the client after verification in the field and certification for its correctness.
- xviii. Prepare and submit work completion report including as built drawings.
- xix. Assist the client in settling contractual disputes.

- xx. Assist and support the client in processing and dealing with contract variations.
- xxi. Advise the client on best practices and innovative approaches in construction, develop site specific construction methodology and supervise such works
- xxii. Taking into account the details of the entire project including the plants & equipment furnished by the manufacturers, suppliers & contractors, prepare an Operation and Maintenance Manual for the entire sub project.
- xxiii. Prepare an asset management plan and asset register for all the assets created under the project.

9. **Detailed Task and Expected Deliverables:** The scope of Consultant under various activities will include but not necessarily be limited to the following:

- a. **Construction Supervision and contract management:** The Consultant shall assist and be responsible to carry out the tasks appended hereunder. The Tasks appended hereunder are neither limited nor conclusive; the consultant shall be obliged to support the Thoothukkudi Corporation in performing their tasks and responsibilities.
 - i. Review construction contracts/ documents and conduct site visit of all ongoing contracts and identify a) potential initial activities to be complied with by the Construction contractors, and b) the obligations of the Client, if any. Bring to the attention of the Client any potential contractual issue and construction Problem that warrants their early attention;
 - ii. The Consultant shall maintain sufficient site-based staff, with clear allocation of duties, to supervise day-to-day construction activities;
 - iii. Review the Contractor's construction methodology, work proposal and working drawings to the extent required by respective contract. Submit comment on requirement of modifications, if any, and recommend for approval as appropriate;
 - iv. Proof checking of the Contractors' drawings, designs and recommend to the client for approval of contractors' design and drawings for execution as required;
 - v. Examine, check, comment and recommend for necessary action on the Contractor's proposals, plans, detail designs, drawings, request for change, if any. Monitor and report on physical progress of the works and financial disbursements, environmental and social compliance reports;
 - vi. Ensure required instructions received and complied with the requirements of the contract;
 - vii. Be responsible for management and supervision of Construction contracts under the current Law of the Employer's country;
 - viii. Check the adequacy and quality of Contractor's input in terms of material, equipment & machinery, workers and safety requirement prior to commencement of the works and time-to-time during construction activity;
 - ix. Facilitate in setting out the works and ensure its correctness during the implementation;
 - x. Checking the line level, layout of the construction to ensure conformity with the contract, proposal for approval of any changes in the plans that may be deemed necessary duly indicating the effects due to the change on contract and preparation of variation orders accordingly;
 - xi. Inspect and supervise the day-to-day operations and activities of the contractors to ensure that the works follow the approved drawings and specifications of relevant construction contracts;
 - xii. Monitor the contractor's compliance with safety requirements during and prior to the commencement of construction activity. Assist in preparation of Accident report in the event of unfortunate occurrence of any accident on the site;

- xiii. Monitor and report the engagement of child labour by the contractor, if any. Ensure the compliance by the contractor of the Labour protection clause in the Contract or required by the regulatory authority including all relevant statutory provisions on labour- equal pay for equal work, health, safety, welfare, sanitation and working conditions;
- xiv. Ensure the compliance by the contractor of the Environmental Monitoring/ Environmental Management Plan (EMP), Health and safety Plan and COVID-19 Management Plan in the Contract or required by the regulatory authority;
- xv. Ensure the compliance by the contractor of the ADB's safeguard policy and the requirements;
- xvi. Ensure that the Labour Camps are complying with regulations and take steps to conduct frequent health camps, HIV awareness, etc. in the labour camps. Ensure the facilities are provided separately for women in the labour camps;
- xvii. Maintain at site or at project office, all duplicates of the Contracts, technical drawings, catalogues and drawings, and specifications, survey notes, quality control documents and any other documents, as necessary;
- xviii. Ensure that the contractor is setting up all labs, testing facilities as per contract conditions and the equipment are calibrated;
- xix. Assist the Client and the Contractor to develop alternative methods to overcome unexpected obstacles which may affect the execution of the works;
- xx. Assist the Client in identification and documentation of underground utilities and removal designs, as required;
- xxi. Cooperate, facilitate and report on all removal/ relocation of on-site activities pertaining to ground or underground utilities;
- xxii. Review the aspect of Traffic management in the Contractor's programs and, ensure and facilitate its compliance by the contractors during the execution of construction activity and removal/ relocation of utilities;
- xxiii. Examine and ensure the completion drawings/ as built drawings prepared and submitted by the Contractor (hard & soft copies), submit recommendations in the event of change or correction is required therein prior to acceptance by the Client;
- xxiv. Ensure maintenance of documentations on the Quality control and Quality assurance, test reports, log books etc by the Contractors in an acceptable manner;
- xxv. Check internal quality management system of the contractors- documentation, quality management method, quality control reporting, quality control staffing. Submit its recommendation any change if warranted/ deemed necessary. Periodically audit contractor's compliance with quality control/ quality assurance requirements and submit report to the Client;
- xxvi. In case of any new items or modifications of works, prepare specifications, carry out rate analysis (with supporting documents) for justifying / negotiating the rates quoted by the contractors and furnish these to the client for their approval. Check to ensure that type and frequency of test requirements for material on site and in laboratory comply with technical specifications as required in the contract. Test equipment to be used or installed prior to its incorporation in the works;
- xxvii. Carry out, witness and supervise testing of materials and equipment's to be incorporated in the works at site, laboratory, at source of materials and equipment or any other location. Check testing results to ensure compliance with the provisions of the contract;
- xxviii. Ensure contracts are progressing in time and for any deviation initiate imposing of fine, liquidated damages etc.;
- xxix. Ensure that the all the required insurances are available and up to date with the contractor;

- xxx. Ensure that no additional claims (both for quantity as well as additional scope) shall be admitted without the prior written approval of the client;
- xxxi. Store all records and documents related to quality assurance/ quality control at safe custody and make available when required;
- xxxii. In case of such of those works where measurements are hidden after completion as in the case of foundations, reinforcements in RCC structures, etc., measurements & check measurements are to be carried out immediately after each activity is completed;
- xxxiii. To check the laboratory and field tests carried out by the contractors and to develop a mechanism in consultation with the client in carrying out independent tests, if necessary, other than the regular testing done;
- xxxiv. To order special tests of materials and/or, completed works, and/or order removal and substitution of improper materials and/or works as required;
- xxxv. Maintain daily notes/ site order book/diary of execution progress for each construction activity on site as well as notes of arising potential problem on site that may affect the execution progress or require change or variation;
- xxxvi. Attend periodic meetings with Client and the contractors to discuss, approve the execution progress, remaining progress, difficulties, and any potential problem anticipated that may affect on execution, progress, propose constructive solutions/ remedies to overcome problem and difficulties for smooth operations of execution progress;
- xxxvii. Attend, facilitate constructively and report all feedback/ complaints of community related to execution of works;
- xxxviii. Recording measurements of works executed at site from beginning to completion of project; sector experts will ensure that work are carried out as per the approved design/ drawings & specification and shall supervise pre-construction, construction activities and commissioning tests at works;
- xxxix. certification that quality is confirming to all relevant specifications and drawings;
- xl. Measurement and certification of the works completed and for certifying and recommending payments to the contractors;
- xli. Approve and/or issue working drawings including variations thereof, in this connection, give instructions to the contractor; Verify and get corrected the "as-built" drawings supplied by the contractor and certify the same;
- xliv. To assist the Client in taking over of completed works from the contractors in particular by preparing list of defects to be corrected by the contractor;
- xliv. To prepare specific engineering reports when required, which shall include an analysis of the problems encountered and proposed solutions;
- xliv. To identify and agree with the contractors on measures necessary to remedy unsatisfactory performance in order to remain within the cost and time period of the contract;
- xliv. The Consultants shall carry out their assignment according to the Schedule of the Contractor, including late working hours, weekends and holidays, overtime, etc., when approved by the Client.

b. Project Management and Monitoring:

- i. Identify all necessary approvals and permissions etc. those would be required during the implementation of the Contracts in accordance with the Government regulations and provisions of the Contracts;
- ii. Planning and managing the project, and assisting the Client on the project management, including risk management, cost control, scheduling, monitoring, auditing, reporting, and compliance monitoring for the project required under both the government and ADB rules and guidelines;

- iii. Prepare and submit detailed work program, including all pertinent activities and critical paths, responsibility and function of each team member, co-ordination mechanism and procedures between the Consultant, contractor and the Employer; reporting system and the procedure etc. to ensure orderly and uninterrupted progress of the works. The mechanism and procedures set by the Consultant shall be subject to the approval by the Client;
- iv. Plan and assist the Client in obtaining, in a timely manner, the required clearances, permits, approvals, sanctions or any other information from relevant competent authorities so that the project activities are not unduly delayed;
- v. Flag the critical issues encountered during project implementation including social impacts;
- vi. Establish document control and proper filing system for project offices, including official correspondence, drawings, site instructions, variation orders and site records. Establish channel and mode of communications;
- vii. Develop program management and tracking system, using commonly available Computer software to schedule and monitor all aspects of construction activities;
- viii. Review, comment, and recommend for the Client's approval of the Construction contractor's proposed implementation schedule and programs, including time over-run aspect and cost over-run, if any. Monitor the schedule and proactively instruct the Contractors to take corrective action to complete the works in time;
- ix. To prepare as necessary detailed recommendations to the Client for contract variations and addenda to ensure the best possible technical results, achieved with the available funds. To issue variation orders, fix rates for unpriced works, all after obtaining prior approval of the Client, and to make recommendations to the Client;
- x. To control and appraise the progress of the works, to order suspension of works and to authorize, with the Client's approval, extensions of the period of completion of works;
- xi. Assist, co-operate, facilitate and submit recommendations on the Traffic management during the removal/ relocation of underground utilities and during the execution of construction works;
- xii. Review and recommend on the Contractor's claim for progress payments;
- xiii. Assist in resolution of contractual issues including review, evaluation and confirmation of contract Variation Orders;
- xiv. Review and examine the Contractor's request for variation orders, extra items, new rates, time extension etc. and submit recommendations for approval, if appropriate;
- xv. Assist in constructively and submit recommendations in resolving any potential difficulty or dispute that may arise between the Contractors and the Client;
- xvi. Examine, evaluate and submit recommendations on any claims for additional time or payment submitted by the contractors. Assist the Client in certification of partial, substantial and final completion of the works in accordance with the provisions of the Contracts, including stage certification and final acceptance test;
- xvii. Assist on liaison with local authorities and state/ central government agencies, liaison with Asian Development Bank. Assist in reporting to these agencies by the Client;
- xviii. Assist the Client as may be necessary in meeting its obligations under the Loan agreement/ Project Agreement and assist in reporting;
- xix. Prepare essential works, documents including quick report on progress, quality, disbursement or any other relevant matter as may be required by the Client or the ADB;
- xx. Planning, scheduling and monitoring of the projects using MS project office software or similar software;
- xxi. Assist the Client in conducting regular meetings with all stakeholders, Corporations, contractors, and other government entities, etc, to discuss progress and issues related to implementation, and prepare minutes for recording and circulation;

- xxii. Establish all necessary records and the procedures of maintaining/ updating such records for each package and for the entire project;
- xxiii. Develop and implement procedure for timely payments to the contractors and monitor for compliance;
- xxiv. Assist the Client in ensuring compliance with all loan covenants during project implementation;
- xxv. Inspect the works at appropriate intervals during defect liability period and issue Defects Liability Certificates after the rectification, by the Contractor, of possible defects. Ensure that the contractor attends to all kinds of construction defect brought to his notice during defects liability period;
- xxvi. Monitor implementation of mitigation measures and compliance with the Governance Risk Assessment and Management Plan for the project, and update the Plan as per requirement.

c. Social, Environmental, Archaeological, Occupational Health and Safety aspects:

- i. Review the Resettlement Framework already prepared for the project and Identify any further resettlement requirements/including social impacts identified during project implementation and costs that may be required and provide all information required in relation to right-of-way access as well as the relocation of existing utilities, if required, and other obstructions at the proposed work sites, including vendor stalls;
- ii. Support in establishing grievance redress mechanism (GRM) acceptable to ADB under the project;
- iii. Monitor implementation of the Community Participation and GAP;
- iv. Review the Initial Environmental Examination report already prepared and assist the client in obtaining all necessary permissions and complying with statutory requirements as required prior to construction, such as permissions from Railway, National Highway, Department of Archaeology, Department of Forests and National Parks, coastal regulation zone (CRZ) clearance and tree-cutting etc;
- v. Monitor the implementation of the EMP during construction and pre/post construction phases;
- vi. In compliance with the EMP, develop a strategy to overcome the difficulties of construction/ traffic management in narrow streets and also prepare detailed plans for detour of traffic during excavation for pipe laying. Propose and implement mechanism for coordination among all stakeholders such as traffic police, roads department, user committees, etc, for smooth construction execution;
- vii. Ensure adequate special measures for working near buildings and structures of cultural significance and in heritage zones involving close coordination with the Department of Archaeology etc. If required;
- viii. Lead design of surveys and investigations required for the protection of archaeological sites and heritage areas, if any, and prepare Archaeological Impact Assessments, or other agreed upon document to be approved by the Department of Archaeology (DOA) for the sections that are classified as archaeologically sensitive;
- ix. As part of the EMP, prepare a project focused Occupational Health and Safety Plan (OHS) to be adopted by the Client and the Contractor;
- x. Provide awareness training on OHS, environmental impacts and mitigation measures, social and gender aspects to the Client and the contractors including contractors' workers.

d. Other Important activities:

- i. Identify need of training to the Client's personnel;

- ii. Conduct formal and on-job training to the Client's personnel in construction management and supervision activities and maintain sex disaggregated data on participants;
- iii. Establish Project performance monitoring system (PPMS) as per the Design and Monitoring Framework (DMF); updating the PPMS on quarterly basis in accordance with ADB guidelines and loan covenant and carry out all necessary benchmark survey, and subsequent monitoring and evaluation surveys as required;
- iv. Preparing initial base line PPMS report and update the status on quarterly basis. Update the DMF and project outputs/ outcomes etc. on regular basis in ADB format by doing the necessary surveys and collecting data in field;
- v. Provide additional services to those specified above, if so required by the Client;
- vi. Preparation of reports or additional contract documents for consideration of proposals for carrying out additional work.
- vii. Any other specialist services by the Consultant or other specifications as may be agreed upon.

D. Team Composition & Qualification Requirements

Team Composition

Sl. No.	Position
1.	Team Leader cum Construction Management Expert
2.	Drainage Expert
3.	Structural Engineering Expert
4.	Electrical / Mechanical Engineering Expert
5.	Support Engineers - Construction Supervision & others
6.	Environmental Safeguard Assistant
7.	Social cum Resettlement Safeguard Assistant
8.	Gender and community development/participation assistant

10. **Expected Qualification Requirements and Tasks assigned:** The Consultant is expected to propose experts adequately qualified and experienced to undertake efficiently the task/ responsibility assigned to them. The tasks/ responsibility assigned and detailed educational qualification and experience requirement for the respective expert are as mentioned below.

Team Leader cum Construction Management Expert: Team leader will be responsible for overall project management and administration, appraisal of subproject as required, advice on procurement and bid process management, construction supervision, quality control and monitoring, contract management, establishment of Construction Management and Project Performance Monitoring and Reporting System, Training advice on Institutional matters, assist in resolving contractual issue, preparation of Progress and other Reports as required. Leader cum Construction Manager shall preferably i) be Graduate Civil Engineer and Post graduate in environmental / public health engineering or management (full time, from accredited institutes) ii) have 20 years of working experience in similar works and 15 years of experience in construction management of drainage/waste water projects and iii) experience in the similar capacity and sound knowledge of FIDIC contract conditions, Contract management shall be an added advantage.

Drainage Expert: Drainage Expert will be responsible for implementation of stormwater drainage network, Pumping/ Lift Stations, oversee contract management and performance monitoring, ensuring the quality and progress during construction activities and implementation stage, assist in preparation of Project Completion Report. Drainage Expert shall preferably i) Graduate Civil Engineer with post graduate degree in Environmental

Engineering / Public Health Engineering ii) have 15 years' experience in urban Sewerage and Drainage projects, and iii) experience in similar capacity and sound knowledge of FIDIC contract conditions, Contract management, Construction Supervision of drainage system. Experience in externally funded projects shall have added advantage.

Structural Engineering Expert: Structural Engineering Expert shall be responsible for review and approval of structural designs/ drawings/ details submitted by various contractors. Assist in monitoring and ensure quality assurance and control. Structural Engineering Expert shall preferably (i) be Graduate Civil / Structural Engineering and Post graduate degree in Structural Engineering, (ii) have 15 years' experience in Structural designs and 10 years' experience in review and design of Structural engineering elements urban Sewerage and Drainage projects, and (iii) Construction Supervision, design and implementation of municipal drainage system and experience in use of latest Design softwares shall be preferred. Experience in externally funded projects shall have added advantage.

Electrical/ Mechanical Engineering Expert: Electrical / Mechanical Engineering Expert shall be responsible for review and approval of designs/ drawings/ details submitted by various contractors, ensure quality assurance and quality control. Assist in resolving technical and contractual issues. Electrical/Mechanical Engineering Expert shall preferably i) be Post graduate Electrical / Mechanical Engineering, ii) have 15 years' experience in Electro-mechanical designs and 10 years' experience in review and design of Electro-mechanical engineering elements related to sewage and drainage system under urban Sewerage and Drainage projects, and iii) Construction Supervision, design and implementation of municipal drains shall be preferred. Experience in externally funded projects shall have added advantage.

Support Engineers - Construction Supervision: Support Engineers - Construction Supervision shall assist in Construction supervision, Quality assurance and quality control, conduct various surveys, tests, investigations and data collection, Contract administration, Project management, recording of measurement and billing, Preparation of reports and ensure compliance with Safeguard requirements. Support Engineers - Construction Supervision shall preferably be Graduate in Civil Engineering and have 5 years of relevant experience in implementation and Construction supervision of urban infrastructure projects, Drainage and Sewerage project.

Environmental Safeguard Personnel: Environmental Expert will be Responsible for overall management and implementation of Environmental safeguard policies of ADB and Government of Tamil Nadu. Preparation and implementation of Environmental Safeguard Action Plan, Environmental Impact Assessment Report, Initial Environmental Examination Report, Support in identification, appraisal and preparing of Sub-projects for subsequent tranches. Capacity building and on-job training. Environmental Expert shall preferably i) be Graduate in Civil Engineering with Post graduate degree in Environmental Engineering/ Science, ii) have 15 years of experience in carrying out EIA/ IEE/ EMP for urban infrastructure projects, and iii) sound knowledge of ADB procedures and policies, Design and Construction Supervision of urban Drainage and Sewerage project shall be preferred. Experience in externally funded projects shall have added advantage.

Social cum Resettlement Safeguard Personnel: Social cum Resettlement Expert will be Responsible for overall management and implementation of Resettlement and Social safeguard policies of ADB and Government of Tamil Nadu, and the gender action plan activities as per the Guidelines for Gender Mainstreaming Categories of ADB Projects (2021). Preparation and implementation of Social/ Resettlement/ Gender Safeguard documents and Report, Support in identification, appraisal and preparing of Sub-projects for subsequent tranches. Capacity building and on-job training. Social cum Resettlement

Expert shall preferably i) be Post graduate degree in Social science (Sociology/Social Work/Economics/Development Studies), ii) have 15 years of experience in carrying out Resettlement/ Social/ Gender safeguard policies for urban infrastructure projects, and iii) sound knowledge of ADB procedures and policies, Design and Construction Supervision of urban drainage and sewerage project shall be preferred. Experience in externally funded projects shall have added advantage.

Gender and Community Development Assistant: Gender and community development/participation assistant will be responsible for developing the workplan, timelines, monitoring and data collation modalities to ensure smooth implementation and monitoring of the GESI and Community participation plan. The candidate shall be Graduate in Social Science/gender studies or relevant subject and have 5 years of domain experience within the relevant sector.

Support and Administrative Staff: The Consultant shall be required to deploy adequate support staff in the cadre of site supervisors for ensuring minimum level of supervision at all the sites and required number of administrative staff in the cadre of Manager, Clerk, Accountant, CAD Operator etc. for smooth operation of office function.

E. Reporting Requirements and Time Schedule for Deliverables

11. **Reporting Requirements:** During the performance of the Services, the Consultant shall prepare required reports for submission to the Client in electronic form and/ or hard copies as per Client's instructions and in English language. The report format shall be consistent with ADB's project performance reporting system (PPMS) and to be proposed by the Consultant in its preliminary report. The reporting formats shall be amended as required from time-to-time in consultation with the Client. As a minimum, the Consultant shall submit following reports at periods stated in Table 3 hereunder.

Reporting Requirements

Reports	Number of Copies	Time Schedule
Preliminary Report	5	Within a period of 15 days from the date of issuance of Notice to Proceed.
Monthly Progress Reports	5	Every month within 5 days of the commencement of next calendar month.
Quarterly Progress Reports	5	Every quarter within 10 days of commencement of next quarter.
Annual Progress Report	5	Every year within 15 days of commencement of next year. For the purpose of Annual Progress Report the year shall mean and refer either to Calendar year or other suitable period as the Client may decide in consultation with the Consultant.
Reports of surveys and studies individually for each study	5	As and when required
Operations manual and As-built drawings	5	Within 10 days of completion of works for each of the packages and for the overall completion of the project.
Completion Report	5	Within 10 days of completion of works for each of the packages and for the overall completion of the project.
Any other reports	As required	As and when required by the Client.

12. Since the services consist of the supervision of civil works, the following action will require prior approval by the Client: Taking any action under a civil works contract designating the

Consultant as “Engineer”, for which action, pursuant to such civil works contract, the written approval of the Client as “Employer” is required.

F. Consultant’s Payment

13. The consultant’s payment for remuneration shall be based on approved rates / time sheets. The out of pocket expenses shall be on a lump sum basis as per the agreed rates for each category. The payment will be done on monthly basis. Timely execution of the project is critical and therefore the client shall impose suitable penalties on delays of works attributable to the consultant at such rates as that of liquidated damages provided under the construction contract. If there is a bonus provision in the construction contract for early completion, the same will be applicable at the same rate for the consultant as well.

G. Client’s Input and Counterpart Personnel

- a. **Services, facilities and property to be made available to the Consultant by the Client:** Office accommodation with power and water supply facility for office at Thoothukkudi Corporation. The internal requirements in the office, such as furniture, consumables, office equipment, softwares, refreshments, telephones / communication expenses, office upkeeping, others etc, should be arranged by the consultants at their own cost.
- b. **Professional and support counterpart personnel may be assigned by the Client to the Consultant’s team:** Client may provide the counterpart staff for supervision of works in field as available with the client; it will be discussed during contract negotiations and agreed. Quantities in the contract will be adjusted accordingly.

H. Inputs, project data and reports to facilitate preparation of the Proposals:

14. The Consultant shall have access to the following inputs, project data and reports available with Client to facilitate preparation of the Proposals:
- a. Data, reports, maps etc as available with the Client;
 - b. DPR as available with the Client.

^[1] Government of Tamil Nadu. 2012. *Vision Tamil Nadu 2023: Strategic Plan for Infrastructure Development in Tamil Nadu*. Chennai; Chennai; Government of Tamil Nadu. 2015. *Tamil Nadu Sustainable Water Security Mission*. Chennai; and Government of Tamil Nadu. 2014. *State Action Plan on Climate Change: Towards Balanced Growth and Resilience*. Chennai.

PROCUREMENT PLAN

Basic Data

Project Name: Tamil Nadu Urban Flagship Investment Project Tranche 3			
Project Number: 49107-010		Approval Number:	
Country: India		Executing Agency: Municipal Administration and Water Supply Dep't, Tamil Nadu Urban Infrastructure Financial Services Ltd.	
Project Procurement Risk: Moderate		Implementing Agency: Commissionerate of Municipal Administration, India, Tamil Nadu Water Supply and Drainage Board	
Project Financing Amount: US\$ 193,500,000 ADB Financing: US\$ 125,000,000 Cofinancing (ADB Administered): Non-ADB Financing: US\$ 68,500,000		Project Closing Date: 30 June 2026	
Date of First Procurement Plan: 1 March 2022		Date of this Procurement Plan: 1 March 2022	
Advance Contracting: Yes	Related to COVID-19 response efforts: No	Use of e-procurement (e-GP): No	

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

1. Procurement and Consulting Methods and Thresholds

Except as the Asian Development Bank (ADB) may otherwise agree, the following process thresholds shall apply to procurement of goods and works.

Procurement of Goods and Works		
Method	Threshold	Comments
International Competitive Bidding for Works	US\$ 40,000,000 and Above	Prior review
National Competitive Bidding for Works	Between US\$ 100,000 and US\$ 39,999,999	Prior review

Consulting Services	
Method	Comments
Quality- and Cost-Based Selection for Consulting Firm	Prior review. 90:10 Ratio. Advance action for recruitment will be encouraged, based on full technical proposal.
Individual Consultant Selection for Individual Consultant	Prior review

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

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 Number	General Description	Estimated Value	Procurement Method	Review (Prior/Post)	Bidding Procedure	Advertisement Date (quarter/year)	Comments
TCMC/IS WD/1	Construction of stormwater drain from Athiparasakthi Nagar to Dhanasekar Nagar (O3) in Thoothukudi Corporation under Package 1	3,010,000.00	NCB	Prior	1S2E	Q4 / 2022	Prequalification of Bidders: N Domestic Preference Applicable: N Advance Contracting: Y Bidding Document: Small Works Covid-19 Response? No
TCMC/IS WD/2	Construction of stormwater drain from Bharathi Nagar to Chinnakannupuram (O4, O8, O11, O12) in Thoothukudi Corporation under Package 2	2,290,000.00	NCB	Prior	1S2E	Q4 / 2022	Prequalification of Bidders: N Domestic Preference Applicable: N Advance Contracting: Y Bidding Document: Small Works Covid-19 Response? No
TCMC/IS WD/3	Construction of Stormwater drain From DhanaSekar Nagar to Meelavittan Main Road (O5, O9, O10, O17) in Thoothukudi Corporation under Package 3	2,780,000.00	NCB	Prior	1S2E	Q4 / 2022	Prequalification of Bidders: N Domestic Preference Applicable: N Advance Contracting: Y Bidding Document: Small Works Covid-19 Response? No
TCMC/IS WD/4	Construction of Stormwater drain from Ponsubbiah Nagar to Loorthammal Puram area (O18, O19) in Thoothukudi Corporation under Package 4	2,080,000.00	NCB	Prior	1S2E	Q4 / 2022	Prequalification of Bidders: N Domestic Preference Applicable: N Advance Contracting: Y Bidding Document: Small

							Works Covid-19 Response? No
TNUIFP/C BE/04	Providing underground sewage scheme in added areas of Coimbatore City Zone 5 with 5 year operation services	36,300,000.00	NCB	Prior	1S2E	Q1 / 2022	Prequalification of Bidders: N Domestic Preference Applicable: N Advance Contracting: Y Bidding Document: Large Works Covid-19 Response? No Comments: SBD Works (Large) customized with additional scope of operating services for 5 years; Costs include operation service to be borne by the borrower beyond project period.
TNUIFP/C BE/05	Providing underground sewage scheme in added areas of Coimbatore City Zone 7 with 5 year operation services	52,930,000.00	ICB	Prior	1S2E	Q1 / 2022	Prequalification of Bidders: N Domestic Preference Applicable: N Advance Contracting: Y Bidding Document: Large Works Covid-19 Response? No Comments: SBD Works (Large) customized with additional scope of operating services for 5 years; Costs include operation service to be borne by the borrower beyond project period.
TNUIFP/C BE/06	Constructing 15.43MLD sewer treatment plant at Chockampudur and	8,550,000.00	NCB	Prior	1S2E	Q2 / 2022	Prequalification of Bidders: N

	19.49MLD STP at Kavundampalayam on DBO basis						Domestic Preference Applicable: N Advance Contracting: Y Bidding Document: Others Covid-19 Response? No Comments: DBO package; Costs include operation service to be borne by the borrower beyond project period.
TNUIFP/M DU/05	Providing waters supply distribution network in Madurai City with 5-year operation services	46,030,000.00	ICB	Prior	1S2E	Q1 / 2022	Prequalification of Bidders: N Domestic Preference Applicable: N Advance Contracting: Y Bidding Document: Large Works Covid-19 Response? No Comments: SBD Works (Large) customized with additional scope of operating services for 5 years; Costs include operation service to be borne by the borrower beyond project period.

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

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	Comments
ICS	Individual Consultants (multiple positions) for quality monitoring and other support as required time to time	500,000.00	ICS	Prior	Q2 / 2023		Assignment: National Expertise: Quality

							monitoring and other support required Advance Contracting: N Covid-19 Response? No
PDC-VII	Preparation of DPR for improvement to sewerage system in the old city area of Greater Chennai Corporation	650,000.00	QCBS	Prior	Q2 / 2022	STP	Assignment: National Quality-Cost Ratio: 90:10 Advance Contracting: Y Covid-19 Response? No
PDC-VIII	Preparation of DPR for Eco-restoration of Kosasthalaiyar River from Karanodai Bridge to Ennore Creek	550,000.00	QCBS	Prior	Q4 / 2022	STP	Assignment: National Quality-Cost Ratio: 90:10 Advance Contracting: Y Covid-19 Response? No Comments: STP will be used for this package.
PDC-IX	Preparation of DPR for Operationalizing a Real Time Flood Forecasting and Spatial Decision Support System for Kodayar Basin in Kanyakumari District.	650,000.00	QCBS	Prior	Q4 / 2022	STP	Assignment: National Quality-Cost Ratio: 90:10 Advance Contracting: Y Covid-19 Response? No
PDC-X	Project design for future investment	400,000.00	QCBS	Prior	Q3 / 2022	STP	Assignment: International Quality-Cost Ratio: 90:10 Advance Contracting: Y Covid-19 Response? No Comments: STP will be used for this package.

**DRAFT OUTLINE TERMS OF REFERENCE
Project Design Consultant (PDC)**

A. Background

1. The Tamil Nadu Urban Flagship Investment Program (program) is a \$500 million financial assistance as a multi-tranche financing facility (MFF) from ADB to support Tamil Nadu Government achieve the objectives of urban development as envisaged in the Vision Tamil Nadu 2023 and national urban flagship programs. The Tamil Nadu Urban Infrastructure Financial Services Limited (TNUIFSL) under the Municipal Administration and Water Supply Department (MAWS) is the state-level executing agency of the program. The program will primarily focus on water supply, sewerage and drainage subprojects in strategic cities and aims to achieve three outputs: (i) Climate-resilient sewage collection and treatment, and drainage systems developed in project cities; (ii) Water supply systems in project cities improved with smart features; (iii) Climate resilient studies such as real-time flood forecasting in project cities and/or coastal river basins; and (iv) Institutional capacity, public awareness, and urban governance in project cities strengthened.
2. The program intends to recruit a consulting firm as project design consultants (PDC) for carrying out design and preparation of detailed project reports that support future investments in coastal river basins that are vulnerable to impacts of climate change and selected cities in Tamil Nadu.

B. Objectives

3. The objectives of service will include, but not restricted to, preparation of investment ready projects for water supply, sewerage and flood management and climate resilience studies in selected cities, towns and areas (with population more than 100,000).

C. Broad Scope of Services

4. The scope of services shall include, but not limited to:
 - (i) Primary and secondary data collection and assessment;
 - (ii) Review and updating of existing plans and proposals;
 - (iii) Rehabilitation and expansion of sewerage network including separation of sanitary sewers from drains, and property connections;
 - (iv) Modernization and expansion of wastewater treatment plants;
 - (v) Use of wastewater as a resource including recycling of wastewater, and energy generation through sludge digestion and gasification;
 - (vi) Automation and instrumentation of system;
 - (vii) Septage management and decentralized wastewater treatment systems in suitable areas;
 - (viii) Network modelling;
 - (ix) GIS based property & utility mapping;
 - (x) Studies on real time flood forecasting;
 - (xi) Asset condition assessments;
 - (xii) Topographical and geotechnical surveys;
 - (xiii) Preparing Energy Optimization Reports;
 - (xiv) Developing geographic information system (GIS);

- (xv) Conducting a command-area wide nonrevenue water study;
- (xvi) Preparing environmental and social safeguard reports;
- (xvii) Proposing measures to mainstream gender equality and social inclusion;
- (xviii) Assessing climate impacts and designing climate adaptation measures;
- (xix) Assessing greenhouse emission and designing climate mitigation components;
- (xx) Assessing lifecycle cost of the proposed project;
- (xxi) Preliminary and detailed designs as appropriate;
- (xxii) Developing a supervisory control and data acquisition (SCADA) system for the treatment plants, transmission/trunk mains and distribution/collection system;
- (xxiii) Preparing detailed project reports (DPRs)/ feasibility study reports;
- (xxiv) Undertaking an organization review;
- (xxv) Economic and financial analysis;
- (xxvi) Preparing recommendations and reports for ensuring environment and social safeguard compliance, includes IEE & resettlement plans;
- (xxvii) Procurement plan and contract packages with bid documents having embedded O&M contract;
- (xxviii) Training and capacity building.

Note: Items to be added or removed to adjust to specific assignments

5. Duration of consultancy services assignment will be 12 months.

D. Detailed Scope of Services

Assignment specific scope and tasks to be defined.

E. Indicative Team Composition and Qualifications

Position	Requirements	Person-months
International Consultants		
Wastewater Reuse Specialist	Degree in engineering and PG in environmental engineering with approx. 15 years' experience.	2
Drainage Specialist	Degree in engineering and PG in environmental engineering with approx. 15 years' experience.	2
<i>Total international consultant</i>		<i>4</i>
National Consultants		
Water Supply Expert	Degree in Civil with approx. 15 years' relevant experience specific experience in water systems design.	10
Nonrevenue Water (NRW) Expert	Degree/PG with approx. 15 years' experience with experience in design of NRW reduction program, leak detection etc.	10
Sewerage and Drainage Expert	Degree in Civil with approx. 15 years' relevant experience specific experience in sewerage and drainage design including treatment plants	10
Water Supply/Sewerage/ Drainage Engineer	Degree in Civil with approx. 10 years' relevant experience.	30
Water Treatment Processing Expert	Degree or equivalent in civil/chemical engineering with approx. 15 years' experience in design and planning of water treatment plants for continuous water supply services.	10

Position	Requirements	Person-months
Climate Change Expert	Degree or its equivalent in water resources engineering, hydrology, civil engineering, environmental science with approx. 10 years' experience in climate change adaptation, mitigation and nature based solution.	10
Hydrological Modeler	Master's degree in Hydrology / Hydraulics / Water Resources with minimum 15 years' experience in hydrological modelling and real-time flood forecasting	12
Web-GIS Developer	Master's degree in computer applications or bachelor's degree in Computer science engineering / Remote sensing with approx. 5 years' experience in dynamic models and developing web-GIS interactive tools, database design.	7
Hydraulic Engineer	Degree in Civil/Mechanical with approx. 15 years' relevant experience.	10
Structural Engineer	Degree / Masters in Structures with approx. 10 years' relevant experience.	10
Mechanical Engineer	Degree in Mechanical Engineering with approx. 10 years' relevant experience.	8
Electrical Engineer	Degree in Electrical Engineering with approx. 10 years' relevant experience.	8
Environmental Specialist	Degree in Environmental Engineering with approx. 10 years' relevant experience in environmental impact assessment of urban infrastructure project.	10
Urban Planner	Master's degree in Urban Planning with approx. 15 years' experience in Master/ Infrastructure Planning.	6
Social Safeguards Specialist	Master's degree in Social Science with approx. 10 years' experience in resettlement planning.	10
Survey Engineer	Degree in Civil with approx. 10 years' relevant experience or Diploma with approx. 15 years' relevant experience.	10
Contract Specialist	Degree in Civil Engineering with 15 years' relevant experience in contract design and management.	10
Quantity Surveyor	Degree / Diploma with approx. 10 years' relevant experience	10
AutoCAD Draftsman	Degree / Diploma with approx. 10 years relevant experience	10
Support Staff		20
<i>Total national consultant (5 Packages)</i>		<i>221</i>

Note: The positions and inputs are indicative, and they will be finalized at the time of preparation of project specific Terms of Reference.

F. Reports & Deliverables

List assignment specific deliverables with timeline.

G. Payment

Define type of payment and milestones specific to the assignment.

H. Counterpart Support/Facilities

Indicate facilities or support to be provided by the Client specific to the assignment.

GENDER ACTION PLAN

Activities	Indicators and Targets	Responsibility	Time
Output 1. Climate resilient sewage collection and treatment, and drainage system developed in two cities (Coimbatore and Thoothukudi)			
1.1 Provide sewage connection to poor households	1. 529 km of new sewage collection pipelines commissioned and connected to 67,545 households, including 100% of the poor ^a in the coverage area (Coimbatore) identified through ULB records and connection applications. (2021 baseline: 0).	GIAC with ULBs	Years 1–3
1.2 Provide new tertiary stormwater drains	2. 36 km of new tertiary stormwater drains constructed with GESI-responsive ^b and climate-resilient designs in Thoothukudi (2021 baseline: 0).	GIAC with ULBs	Years 1–3
1.3 Awareness and Capacity building initiatives for communities	3. Six awareness programs conducted for communities living around stormwater drains on pollution, waste disposal, health and hygiene, and gender-based violence and safety. (Target: At least one all-women awareness program and one in slum area).	GIAC with ULBs	Years 2–4
	4. Two all-female SHGs ^c trained (one each in Coimbatore and Madurai).		
	5. At least 80% of trained SHG members reporting improved knowledge of benefits from household connection to sewage collection system, sanitation, health and hygiene, and water conservation, and of areas of leadership ^d (2021 baseline: 0).		
	6. A pre- and post-training assessment questionnaire designed and administered for the SHG members to evaluate the effectiveness of the training and document results.		
	7. At least 50 stormwater drainage workers in Thoothukudi trained (including 15 number of women workers) trained on skills pertaining to mechanized equipment and safety gear (one training per year for 3 years), and 80% reported improved knowledge.		
Output 2. Water supply systems in one city (Madurai) improved with smart features			
2.1 Provide water supply to poor households	8. A total of 813 km of new water distribution pipelines commissioned within 115 new district metered areas and metered connections provided to 163,958 households in Madurai (100% households including poor in coverage area) (2021 baseline: 0).	GIAC with ULBs	Year 4
Output 3. Institutional capacity, public awareness, and urban governance strengthened			
3.1 Organize campaigns for water conservation and hygiene	9. 200 students, teachers, and administrators (at least 50% women); and at least 50% of members of two women groups reported improved awareness of water conservation and hygiene in Coimbatore, Thoothukudi and Madurai.	GIAC	Year 2 onwards

Activities	Indicators and Targets	Responsibility	Time
	10. Awareness programs conducted in 60 municipal or government schools (20 each in Coimbatore, Madurai and Thoothukudi) to reach 500 students including 250 girls, of which ensuring the participation of at least 50 adolescent girls (20%) on WASH, menstrual hygiene and COVID-19 appropriate behavior.		
3.2 Train complaints committee for the prevention of sexual harassment of women in the workplace, constituted under the Sexual Harassment of Women at Workplace (Prevention, Prohibition, and Redressal) Act, 2013	11. One training for an internal complaints committee and staff in the ULB level in each city (3 trainings in total) on provisions for the prevention, mitigation, prohibition, and redress of sexual harassment, exploitation, and abuse.	DMA with ADB	Year 2 onwards
3.3 Establish a project performance management system to collect sex-disaggregated data from ULBs	12. New database on urban management for Thoothukudi established at the urban data and governance improvement cell in DMA, with sex-disaggregated data (2021 baseline: 0).	CMSC in partnership with GIAC, PIUs. PMU and ULBs	Years 2-4
3.4 Train ULB staff on gender related aspects of project management	13. ULB staff in Coimbatore, Madurai and Thoothukudi report improved knowledge on approaches to integrating gender in urban governance ^e , implementing gender action plans, and monitoring and reporting on gender equality results (60 ULB staff including at least 30 women staff) (2021 baseline: 0).	DMA with ADB	Year 1 onwards

ADB = Asian Development Bank, CMSC = contract management and supervision consultant, COVID-19 = corona virus disease, DMA = Directorate of Municipal Administration, GESI = gender equality and social inclusion, GIAC = governance improvement and awareness consultants, km = kilometer, OP = operational priority, PIU = program implementation unit, PMU = program management unit, SHG = self-help group, TNUIFSL = Tamil Nadu Urban Infrastructure Financing Services Limited, ULB = urban local body, WASH = water, sanitation, and hygiene.

^a "Poor" is defined as those households classified by the state as below the poverty line (BPL).

^b GESI-responsive: (i) Barricades with night-glowing signages; (ii) streetlights along drains; (iii) fencing along open drain sections; and (iv) In line with the per Tamil Nadu State New Policy for Women 2021 (Draft) install safety alarm devices, tools, and panic buttons which will act as deterrents and inform the nearby police stations when women in a public place are harmed and act as emergency response support system.

^c As per the [National Urban Livelihood Mission guidelines](#), self-help group is a group of more than five members joined for setting up a group enterprise for self-employment and for availing loans for the purpose.

^d Areas of leadership include developing capacities for mentoring and awareness generation at community level for imparting knowledge.

^e Integration of gender through the involvement of female SHGs in urban service delivery; and collection, assessment and integration of sex-disaggregated data for urban development planning.

GENDER ACTION PLAN MONITORING FORMAT

Date Prepared:

Project Title:

Country:

Project No.:

Loan No.:

Approval and Timeline/Duration of the Project:

Gender Category:

Mission Leader:

Name of Gender Specialist/ Gender Focal Point:

Quarter Covered by Update:

Activities	Indicators and Targets	Progress to Date		Issues and Challenges (Please include reasons why an activity was not fully implemented, or if targets fall short, or reasons for delay, etc.)
		Progress for the Quarter (This should include information on progress for the current quarter-- 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.)	
Output 1. Climate resilient sewage collection and treatment, and drainage system developed in two cities (Coimbatore and Thoothukudi)				
1.1 Provide sewage connection to poor households	1. 529 km of new sewage collection pipelines commissioned and connected to 67,545 households, including 100% of the poor ^a in the coverage area (Coimbatore) identified through ULB records and connection applications. (2021 baseline: 0).			
1.2 Provide new tertiary stormwater drains	2. 36 km of new tertiary stormwater drains constructed with GESI-responsive ^b and climate-resilient designs in Thoothukudi (2021 baseline: 0).			

1.3 Awareness and Capacity building initiatives for communities	3. Six awareness programs conducted for communities living around stormwater drains on pollution, waste disposal, health and hygiene, and gender based violence and safety. (Target: At least one all-women awareness program and one in slum area).			
	4. Two all-female SHGs ^c trained (one each in Coimbatore and Madurai).			
	5. At least 80% of trained committee members reporting improved knowledge of benefits from household connection to sewage collection system, sanitation, health and hygiene; and water conservation, and of areas of leadership ^d (2021 baseline: 0).			
	6. A pre- and post-training assessment questionnaire designed and administered for the SHG members to evaluate the effectiveness of the training and document and share the same.			
	7. At least 50 stormwater drainage workers in Thoothukudi trained (including 15 number of women workers) trained on skills pertaining to mechanized equipment and safety gear (one training per year for 3 years), and 80% reported improved knowledge.			
Output 2. Water supply systems in one city (Madurai) improved with smart features				
2.1 Provide water supply to poor households	8. A total of 813 km of new water distribution pipelines commissioned within 115 new district metered areas and metered connections provided to 163958 households in Madurai (100% households			

	including poor in coverage area) (2021 baseline: 0).			
Output 3. Institutional capacity, public awareness, and urban governance strengthened				
3.1 Organize campaigns for water conservation and hygiene	9. 200 students, teachers, and administrators (at least 50% women); and at least 50% of members of two women groups reported improved awareness of water conservation and hygiene in Coimbatore, Thoothukudi and Madurai (OP 3.2.2).			
	10. Awareness programs conducted in 60 municipal or government schools (20 each in Coimbatore, Madurai and Thoothukudi) to reach 500 students including 250 girls, of which ensuring the participation of at least 50 adolescent girls (20%) on WASH, menstrual hygiene and COVID-19 appropriate behavior.			
3.2 Train complaints committee for the prevention of sexual harassment of women in the workplace, constituted under the Sexual Harassment of Women at Workplace (Prevention, Prohibition, and Redressal) Act, 2013	11. One training for an internal complaints committee and staff in the ULB level in each city (3 trainings in total) on provisions for the prevention, mitigation, prohibition, and redress of sexual harassment, exploitation, and abuse.			
3.3 Establish a project performance	12. New database on urban management for Thoothukudi established at the urban data and			

management system to collect sex-disaggregated data from ULBs	governance improvement cell in DMA, with sex-disaggregated data where applicable (2021 baseline: 0).			
3.4 Train ULB staff on gender related aspects of project management	13.ULB staff in Coimbatore, Madurai and Thoothukudi report improved knowledge on approaches to integrating gender in urban governance ^e , implementing gender action plans, and monitoring and reporting on gender equality results (60 ULB staff including at least 30 women staff) (2021 baseline: 0).			

ADB = Asian Development Bank, CMSC = contract management and supervision consultant, COVID-19 = corona virus disease, DMA = Directorate of Municipal Administration, GAP = gender action plan, GESI = gender equality and social inclusion, GIAC = governance improvement and awareness consultants, km = kilometer, OP = operational priority, PIU = program implementation unit, PMU = program management unit, SHG = self-help group, TNUIFSL = Tamil Nadu Urban Infrastructure Financing Services Limited, ULB = urban local body, WASH = water, sanitation, and hygiene.

^a "Poor" is defined as those households classified by the state as below the poverty line (BPL).

^b GESI-responsive: (i) Barricades with night-glowing signages; (ii) streetlights along drains; (iii) fencing along open drain sections; (iv) In line with the per Tamil Nadu State New Policy for Women 2021 (Draft) install safety alarm devices, tools, and panic buttons which will act as deterrents and inform the nearby police stations when women in a public place are harmed may be devised and act as emergency response support system.

^c As per the [National Urban Livelihood Mission guidelines](#), an SHG is a group of more than five members joined for setting up a group enterprise for self-employment and for availing loans for the purpose.

^d Areas of leadership include developing capacities for mentoring and awareness generation at community level for imparting knowledge.

^e Integration of gender through the involvement of female SHGs in urban service delivery; and collection, assessment and integration of sex-disaggregated data for urban development planning.

COMMUNITY AWARENESS AND PARTICIPATION PLAN

Activity	Target Stakeholders	Objectives and Methodology	Time Frame	Expected Outcome
Planning and subproject identification stage / Pre-construction phase				
CAPP planning and activity calendar and monitoring format	PMU/PIU/Engineering Consultants	1. Work plan and activity calendar including monitoring format for CAPP activities prepared by the governance improvement and awareness consultants MOV: Work plan and activity calendar finalized	Year 1 after finalization of the detailed project report	CAPP implementation and monitoring calendar developed, reviewed, and approved by the executing agency
Orientation workshops - Project information and orientation on ADB policies	PMU and PIU, project Steering Committee members, Counsellors, project consultants, contractors, and ULB committee members of Madurai, Coimbatore and Thoothukudi	2. Half-day project orientation workshops (with equitable representation of female staff and members) - Half-day workshop in 3 cities MOV: 3 Brief reports containing including agenda, attendance sheet, sex-disaggregated data of participants. 3. Orientation/Refresher workshop on ADB's SPS, Resettlement Framework of the project and GESI. - Half-day workshop in 3 cities MOV: 3 Brief reports containing including agenda, attendance sheet, sex-disaggregated data of participants (the 3 brief reports to be made part of semi-annual safeguards monitoring reports).	Year 1 after finalization of the detailed project report and before the start of construction	The linkage between DMF impact-outcome-outputs and GESI and project scope will be clear for all stakeholders. Information regarding the safeguard provisions, project impacts and mitigation measures as proposed will be uniformly disseminated to all stakeholders including the client and consultants.
Project scope and benefits	Community members and their representatives, self-help groups, students, and community-based organizations. Primary target being the women, youth and other vulnerable groups in slums and low lying areas.	4. Orientation program: Information and project benefit sharing including aspects of with GESI responsive ^a and climate-resilient designs through group events/meetings in slum, low lying water logged and other areas. Number of events: TBD in consultation with client preferably at least one in each big slums within project coverage area/critical areas with water logging issues and water drinking water scarcity, areas without/poor ^b sewerage infrastructure MOV: Event reported through MPR and QPR, CAPP monitoring report, project PPMS/Monitoring tool	Years 1 and 2 - just before start of civil works	Community members, community groups, women's groups, and students will become aware of the project scope and project benefits critical to their respective areas.

Activity	Target Stakeholders	Objectives and Methodology	Time Frame	Expected Outcome
Construction Phase – Output 1. Climate resilient sewage collection and treatment, and drainage system developed in two cities (Coimbatore and Thoothukudi)				
Project orientation workshop for contractors	Contractors and workers and other consultants and Client	<p>5. Training/workshop: Four workshops in two cities (two in each city) for all contractors on the overall project scope, embedded design features including social and environment safeguard aspects, GESI requirements and aspects (contractors apprised of the need to encourage female workforce participation in construction and to present labor data in muster rolls in a sex- disaggregated manner); safe construction practices and COVID-19 protocols.</p> <p>6. Onsite workshops: Two workshops in each construction site for the ground workers on COVID-19 protocols; HIV/AIDS, health and safety issues including basic environment safeguard features.</p> <p>MOV: Events reported through MPR and QPR, CAPP monitoring report, project PPMS/Monitoring tool</p>	<p>Years 1–4, upon contractor mobilization</p> <p>100% of contractors and 100% of worksites</p>	Contractors sensitized, as key stakeholders, to community issues and contract requirements related to social and gender issues. Workers made aware of their rights and of other issues: health, hygiene, social security, and special provisions for women workers.
Leaflets	All beneficiaries in two cities	<p>7. About 70,000 Leaflets (1 page both side printed using recycled paper) with basic project features and information about TNUFICL distributed in the targeted households (67,500 households).</p> <p>MOV: 70,000 leaflets distributed by consultants/contractor with sample distribution photographs and reported in respective MPRs/ CAPP monitoring report</p>	Years 2-4	Dissemination of project scope and objective in a uniform and official format
Awareness and capacity building workshops/trainings	Community members	<p>8. Six awareness workshops (especially in poor areas- at least one all-women awareness program) on the aspects of proper sanitation practices, environmental benefits of the project, process of taking new connections.</p> <p>9. Three capacity building trainings for community members of Thoothukudi, on: early warning system during floods, steps for safe evacuation process for women and children, location of relief shelters, government health centers, ambulance facility, access to safe drinking water and food etc. Additionally, the trainings shall emphasize on the measures adopted for women safety, and awareness on menstrual hygiene especially in crowded flood shelters during emergency.</p> <p>MOV: Event reported through MPR and QPR, CAPP monitoring report, project PPMS/Monitoring tool</p>	Years 2-4	Enhanced community awareness on the aspects of proper sanitation practices, environmental benefits of the project, process of taking new connections

Activity	Target Stakeholders	Objectives and Methodology	Time Frame	Expected Outcome
Sewerage connection camps	Potential consumers in partnership with local councillors	10. To create awareness regarding the procedure of sewerage connection, tariff rules, user charges, application procedure Three camps in Coimbatore with equitable female participation MOV: Report on community participation, camp proceedings and number of new applications received. Data on participation will be maintained in a sex disaggregated manner	Year 3 to 4	Increased awareness and demand for new sewerage connections
Case study (audio-visual)	All beneficiaries and stakeholders	11. Audio-visual case studies (at least one short film) with pre and post intervention scenario in households in project areas including poor households especially documenting women, girls and other vulnerable voices on the benefits of the project, environmental impacts. For Thoothukudi, visuals of inundation before project and visuals of improved situation, post-project will be included. MOV: Production of audio-visual films	Years 1-4	Project benefits and success documented/showcased
Awareness workshops	Community members	12. Six awareness programs/ behavior change workshops conducted for communities living around stormwater drains on pollution, waste disposal, health and hygiene and safety (at least one all-women awareness program and one in slum area). MOV: Event reported through MPR and QPR, CAPP monitoring report, project PPMS/Monitoring tool	Years 2-4	Enhanced community awareness on pollution, waste disposal, health and hygiene and safety
Workshop	Women community members	13. Two-day workshop on leadership for the two all-female self-help groups (one each in Coimbatore and Thootukudi) - preferably in venue with adequate conference/workshop facilities. MOV: Event reported through MPR and QPR, CAPP monitoring report, project PPMS/Monitoring tool/ TPRM briefing sheets		Women community leaders developed/leadership skills imparted
Construction Phase – Output 2: Water supply systems in one city (Madurai) improved with smart features				
Project orientation workshop for contractors	Contractors and workers and other consultants and Client	14. Training/workshop: Two workshops in Madurai for all contractors on the overall project scope, embedded design features including safeguard aspects, GESI aspects (contractors apprised of the need to encourage female workforce participation in construction and to present sex-disaggregated labor data in muster rolls); safe construction practices and COVID-19 protocols.	Years 1–4, upon contractor mobilization 100% of contractors	Contractors sensitized, as key stakeholders, to community issues and contract requirements related to social and gender issues. Workers made

Activity	Target Stakeholders	Objectives and Methodology	Time Frame	Expected Outcome
		15. Onsite workshops: Two workshops in each construction site for the ground workers on COVID-19 protocols; HIV/AIDS, health and safety issues including basic environment safeguard features. MOV: Events reported through MPR and QPR, CAPP monitoring report, project PPMS/Monitoring tool	and 100% of worksites	aware of their rights and of other issues: health, hygiene, social security, and special provisions for women workers.
Case study (audio-visual)	Beneficiaries and stakeholders in Madurai	16. Audio-visual case studies (at least one short film) with pre and post intervention scenario in poor households especially documenting women, girls and other vulnerable voices on the benefits of the project, environmental impacts. MOV: Production of case-study films with proper editing	Years 1-4	Project benefits and success documented/showcased
Educational films	Students	17. Film shows on water conservation (in local language/with subtitles/ discussion after shows) arranged in government schools (number of schools to be decided in consultation with PIU). Same activity replicated in at least 4 private schools. MOV: Number of schools and students' participation reported through MPR and QPR, CAPP monitoring report, project PPMS/Monitoring tool	Years 2-4	Enhanced awareness of students
Competitions	School and college students (young community members)	18. A two minute audio-video making competition/song writing competition (for 18-24 old young community people). The same to be part of the film made for the project. MOV: Number of such films/songs	Years 2-4	Enhanced awareness and engagement of students and local youth in project activity
Awareness workshops	Community members	19. Six awareness / behavior change workshops conducted (Out of 6, 3 in slum areas) on water conservation. At least one all-women awareness program (out of 6). MOV: Event reported through MPR and QPR, CAPP monitoring report, project PPMS/Monitoring tool	Years 2-4	Improved awareness of the community
Brochure	All beneficiaries and stakeholders in 3 participating cities	20. 300 color brochure on the scope, objective and benefits of the project (100 each for 3 cities). MOV: Printing of 300 brochures	Years 1-4	Project benefits and success documented/showcased

ADB= Asian Development Bank, CAPP= community awareness and participation plan, COVID-19=corona virus disease, DMF= design and monitoring framework, HIV/AIDS= human immunodeficiency virus and acquired immunodeficiency syndrome, MOV= means of verification, PIU= program implementation unit, PPMS= project performance monitoring system, PMU= program management unit, QPR= quarterly progress report, TBD= to be decided, TNUIFSL = Tamil Nadu Urban Infrastructure and Financial Services Limited, ULB = urban local body.

^a GESI responsive: (i) Barricades with night glowing signages; (ii) streetlights along drains; (iii) fencing along open drain sections; (iv) In line with the per Tamil Nadu State New Policy for Women 2021 (Draft) install safety alarm devices /tools / panic buttons which shall act as deterrents and inform the nearby police stations when women in a public place are harmed may be devised and act as Emergency Response Support System (ERSS).

^b "Poor" is defined as those households classified by the state as below the poverty line (BPL).

EXECUTING AGENCY'S PROGRESS REPORT CONTENTS

A. Introduction and Basic Data

- (i) loan number, project title, borrower, executing agency(ies), implementing agency(ies);
- (ii) total estimated project cost and financing plan;
- (iii) status of project financing including availability of counterpart funds and cofinancing;
- (iv) dates of approval, signing, and effectiveness of ADB loan;
- (v) original and revised (if applicable) ADB loan closing date and elapsed loan period based on original and revised (if applicable) loan closing dates; and
- (vi) date of last ADB review mission.

B. Utilization of Funds

- (i) cumulative contract awards financed by the ADB loan, cofinancing, and counterpart funds (commitment of funds to date), and comparison with time-bound projections (targets);
- (ii) cumulative disbursements from the ADB loan, cofinancing, and counterpart funds (expenditure to date), and comparison with time-bound projections (targets); and
- (iii) re-estimated costs to completion, need for reallocation within ADB loan categories, and whether an overall project cost overrun is likely.

C. Project Purpose and Implementation Progress

- (i) status of project scope and implementation arrangements compared with those in the periodic financing request report (RFRR), and whether major changes have occurred or will need to be made;
- (ii) an assessment of the likelihood that the project outcome and outputs will be achieved in part or in full, and whether remedial measures are required based on the current project scope and implementation arrangements;
- (iii) an assessment of changes to the key risks that affect achievement of the outcome and outputs, and quantifiable implementation targets;
- (iv) other project developments, including monitoring and reporting on gender, safeguards (environment, resettlement and indigenous peoples), and social safeguards requirements that might adversely affect the project's viability or accomplishment of project outcome;
- (v) assessment of project implementation arrangements such as establishing, staffing, and funding of the project management office or project implementation units;
- (vi) information relating to the executing agency's internal operations that impacts on implementation arrangements or project progress;
- (vii) assessment of the progress of each implementation activity, such as,
 - (a) recruitment of consultants and their performance;
 - (b) procurement of goods and works (from preparation of detailed designs and bidding documents to contract awards);
 - (c) the performance of suppliers, manufacturers, and contractors for goods and works contracts; and
 - (d) comparison with the original implementation schedule—quantifiable and monitorable target, (include charts such as bar or milestone to illustrate progress and actual versus planned expenditure, S-curve graph showing the relationship

between physical and financial performance, and actual progress in comparison with the original schedules and budgets).

D. Compliance with Covenants

- (i) the borrower's compliance with policy loan covenants such as sector reform initiatives, executing agency reforms, and the reasons for any noncompliance or delay in compliance;
- (ii) the borrower's and executing agency's compliance with financial loan covenants including the executing agency's financial management, and the provision of audited project accounts or audited agency financial statements; and
- (iii) the borrower's and executing agency's compliance with project-specific loan covenants associated with implementation, safeguards (environment, resettlement, and Indigenous Peoples), social and gender dimensions, financial sustainability (preparation and monitoring of project ULB revenue improvement and cost reduction plans) and other requirements specified in the loan agreement.

E. Major Project Issues and Problems

Summarize the major problems and issues affecting or likely to affect implementation progress, compliance with covenants, and achievement of project outputs and outcome, including the findings of any project procurement-related review that may have been undertaken. Recommend actions to overcome these problems and issues (e.g., changes in scope, changes in implementation arrangements, and reallocation of loan proceeds).

F. Financial Management

In this section, include the following information:

- (i) Summary of the financial management arrangements in the project including: a) any problems in the existing financial management arrangements and/or flow of funds and b) any significant changes occurred during the reporting period (e.g. financial management staff turnover, implementation of new financial systems, emerging financial management related risks etc.);
- (ii) Summary of the status of each agreed action in the financial management action plan outlined in the PAM. Attach a detailed log as per Annex 1; and
- (iii) Summarize the status of past internal or external audit observations (if any). Attach a detailed log as per Annex 2.

Annexes: Attach the following annexes to the report when submitting it to ADB:

Annex 1: Status of financial management action plan (complied/ongoing)

Annex 2: Status of past external/internal audit observations (resolved/ pending);

Annex 1: Status of Financial Management Action Plan

Key Risk	Risk Mitigating Activity	Timeline	Responsible Entity	Current status (implemented/Pending)	Remarks (including an action plan in case of noncompliance)

Annex 2: Status of External/Internal Audit Observations – Cumulative from Inception to End of Reporting Period

Responsible Entity:	External/internal Audit Recommendation	Date of the Recommendation	Planned Actions to Address the Recommendation	Responsibility	Current Status of the Planned Action (pending /resolved)	Remarks

