

Chennai City Partnership

Program for Results

**Environmental and Social Systems
Assessment Report
March 2021**

The World Bank, India

List of Abbreviations

AIIB	Asian Infrastructure Investment Bank
AMRUT	Atal Mission for Rejuvenation and Urban Transformation
BMW	Bio-Medical Waste
BOD	Biological Oxygen Demand
C&D	Construction & Debris
CBMWTF	Common Bio-medical Waste Treatment and Disposal Facility
CEEPHO	Central Public Health and Environmental Engineering Organisation
CETP	Common Effluent Treatment Plant
CMA	Chennai Metropolitan Area
CMDA	Chennai Metropolitan Development Authority
CMWSSB	Chennai Metro Water Supply and Sewage Board
COD	Chemical Oxygen Demand
COE	Consent to Establish
COO	Consent to Operate
CPCB	Central Pollution Control Board
CRZ	Coastal Regulation Zone
CSCL	Chennai Smart City Limited
CSNA	Capacity Strengthening Needs Assessment
CUMTA	Chennai Unified Metropolitan Transport Authority
CZMA	Coastal Zone Management Authority
dBA	A-weighted decibels
DoE	Department of Environment
DPR	Detailed Project Report
E & S	Environmental & Social
E(S)IA	Environmental (and Social) Impact Assessment
E(S)MP	Environmental (and Social) Management Plan
EHS	Environmental, Health & Safety
EP	Environment Protection (Act)
ESSA	Environmental and Social Systems Assessment
GCC	Greater Chennai Corporation
GDP	Gross Domestic Product
GL	Ground Level
GoTN	Government of Tamil Nadu
GRM	Grievance Redressal Mechanism
HR	Human Resources
IEC	Information, Education and Communication
ICC	Internal Complaints Committee
JNNRUM	Jawaharlal Nehru National Urban Renewal Mission
KII	Key Informant Interview
LAR	Land Acquisition and Resettlement
MoEFCC	Ministry of Environment, Forests and Climate Change

MTC	Metropolitan Transport Corporation
NGT	National Green Tribunal
NMT	Non-Motorized Transport
NRW	Non-Revenue Water
PAP	Program Action Plan
PDO	Project Development Objective
PforR	Program for Results
PIU	Program Implementation Unit
PMU	Program Management Unit
POM	Program Operations Manual
PPE	Personal Protective Equipment
PSC	Program Steering Committee
RA	Results Area
SC	Scheduled Castes
SEA-SH	Sexual Exploitation and Assault- Sexual Harassment
SEIAA	State Environmental Impact Assessment Authority
SPCB	State Pollution Control Board
ST	Scheduled Tribes
STP	Sewage Treatment Plant
SWD	Storm Water Drainage
SWM	Solid Waste Management
TNIDB	Tamil Nadu Infrastructure Development Board
TNPCB	TN State Pollution Control Board
UG	Underground
UGSS	Underground Sewerage System
ULB	Urban Local Bodies
UPHC	Urban Primary Health Centers
VGF	Viability Gap Funding
WRD	Water Resources Department
WSS	Water Supply and Sewerage

Contents

List of Abbreviations	3
1. SECTION ONE: Executive Summary	7
1.1 Background.....	7
1.2 Program context	7
1.3 Institutional Arrangements	9
1.4 Objectives and Scope of ESSA.....	9
1.5 Stakeholder Consultation	11
1.6 Social and Environmental Impact and Risk Rating	11
1.7 Assessment of Social and Environmental Legal policy framework.....	12
1.8 Assessment of risks under PforR Activities.....	15
1.9 Assessment of Institutional systems and capacities.....	19
1.10 Assessment against Core principles	21
1.11 Gaps and Recommendations.....	26
1.12. PAP Action	29
2. SECTION TWO: Sectoral Environmental and Social Systems Assessment	32
2.1 Water Supply and Sanitation	32
2.1.1 Overview.....	32
2.1.2 Social and Environmental Impact	32
2.1.3 Assessment of Social and Environmental Legal Policy Framework.....	34
2.1.4 Assessment of Risks under PforR activities	38
2.1.5 Assessment of Institutional systems and capacities.....	39
2.1.6 Assessment against Core principles	44
2.1.7 Recommendations.....	45
2.1.8 Stakeholder Engagement.....	47
2.2 Water Resource Development	50
2.2.1 Overview.....	50
2.2.2 Social and Environmental Impact and Risk rating	51
2.2.3 Assessment of Social and Environmental Legal policy Framework.....	52
2.2.4 Assessment of Risks under PforR activities	58
2.2.5 Assessment of Institutional systems and capacities	61
2.2.6 Assessment against Core principles	67
2.2.7 Recommendations.....	72

2.2.8 Stakeholder Engagement.....	74
2.3 Urban Mobility.....	75
2.3.1 Background and Overview.....	75
2.3.2 Social and Environmental Impact.....	76
2.3.3 Policy and Legal Framework.....	79
2.4.4 Assessment of Risks under PforR activities	82
2.4.5 Assessment of Institutional systems and capacities.....	85
2.4.6 Assessment of Program System Consistency with Core Principle of OP 9.00.....	98
2.4.7 Recommendations.....	101
2.4.8 Stakeholder Consultations.....	103
2.4 Municipal Services (Health and SWM)	109
2.4.1 Overview.....	109
2.4.2 Social and Environmental Impact.....	110
2.4.3 Assessment of Social and Environmental Legal policy Framework.....	113
2.4.4 Assessment of Risks under PforR activities	118
2.4.5 Assessment of Institutional systems and capacities.....	120
2.4.7 Assessment against Core principles	131
2.4.8 Recommendations.....	133
2.4.9 Stakeholder Engagement.....	136
3. SECTION THREE: Annexures.....	138
3.1 Legislations and Policies relevant for Social Management	138
3.2 Screening and Exclusion Format for Social Risk Management.....	146
3.3 Details on Stakeholders Consultations	148
3.4 Checklists for Consultations.....	166
3.5 WRD 2015 Report on resettlement of people evacuated due to investment	172

1. SECTION ONE: Executive Summary

1.1 Background

Tamil Nadu is one of India's most urbanized states and an economic powerhouse. In 2011, nearly half (48.4 percent) of Tamil Nadu's population of 72.1 million was already urban. With the rapid urbanization that is underway, share of the urban population is expected to increase to 63 percent by 2030. From 2004 to 2012, the state's GDP grew at an annual average of 9.3 percent – around two percentage points higher than the national average – while per capita income witnessed a compound annual growth of 15.9 percent in the same period.

The Chennai Metropolitan Area (CMA) epitomizes both the economic potential and vulnerabilities of the State's rapid urbanization. The CMA is the fourth-most populous metropolitan area in India and encompasses an area of 1189 sq km. With an estimated population of about 10.9 million people and an estimated GDP of US\$78.6 billion, CMA is also rated as the fourth-largest economy in India. Its diverse economy includes electronic manufacturing, automobiles, and IT/IT-enabled services. The CMA is highly vulnerable to natural disasters, climate change and, as the Covid-19 emergency revealed, to pandemics. It is, for instance, plagued by recurring cycles of floods and droughts. Frequent disaster events—such as the devastating flood in 2015, debilitating drought in 2018 and 2019, Cyclone Gaja in 2018, and the ongoing Covid-19 pandemic (2020)—are inflicting huge economic losses, causing loss of life and livelihoods, and adversely impacting infrastructure and service delivery.

Government of Tamil Nadu is setting up an urban service delivery improvement program for CMA, aligned with Tamil Nadu's Vision 2023 and focused on poverty reduction, good quality service delivery with universal access and environmental conservation. Accordingly, the proposed Government program ('p', the program) is focused on improving the quality and access of core urban services in CMA to enhance the livability, productivity, resilience, and competitiveness of Chennai, as the biggest metropolitan area and economic growth engine of the state. The program adopts a comprehensive approach for service delivery improvement by focusing on three pillars across all the identified services including: (i) strengthening policies and institutions; (ii) improving infrastructure and service delivery; and (iii) expansion of funding and financing mechanisms for capital and operational expenditures. In its first phase, the program will focus on the following: (i) water supply services with an emphasis on integrated urban water resource management and resilience; (ii) urban mobility services; and (iii) municipal services including solid waste management and public health services.

1.2 Program context

The PDO is to strengthen institutions and financing for improving quality and sustainability of selected urban services in the CMA. The PDO level results indicators are as follows: **The proposed PforR will support and strengthen the implementation of the first phase of the government program by focusing on a core set of service delivery improvements across the identified service sectors with US\$1.10 billion financing over a period of 5 years (2021-2026).** As a subset of the Government program, the PforR boundaries are defined as follows:

- a) **Services:** The Program will cover all the identified service sectors under the Government program including: (i) municipal primary health care services; (ii) municipal solid waste management; (iii) urban mobility, with a focus on strengthening bus service delivery, municipal pedestrian infrastructure and women's safety in public spaces; and (iv) water resource management and urban water supply and sewerage.
- b) **Duration:** The Program will be implemented over a period of 5 years (2021-26).
- c) **Financing support:** The total Program budget is proposed as US\$ 1.10 billion, with US\$ 150 million from IBRD, potential co-financing of US\$ 150 million from AIIB, and US\$ 800 million as counterpart funding from GoTN.
- d) **Geographical coverage:** The Program will cover CMA region. Among the ULBs, there is a specific focus on GCC as the largest and economically most important ULB.

Activities supported under proposed P4R

- a) **To strengthen governance and institutions**, it is proposed to support the (i) Revision of the staffing norms and cadre structure of GCC with a specific focus on professional employee grades (Groups A & B), strengthen the recruitment process for GCC to enable recruitment of better quality of professionals, filling the existing vacancies and increasing employment opportunities for women as per the revised staffing norms; (ii) Establish and strengthen the CUMTA as the key coordinating agency for delivery of urban mobility services and adopt a strategic citizen centric vision plan (i.e. the Comprehensive Mobility Plan). The program will also support capacity development of the newly established Gender Lab within the GCC to allow for integrated delivery of activities under the Women's Safety in Public Space program supported by the Nirbhaya Fund; (iii) establish institutional coordination mechanism for water resource planning and management focusing on improved water security (efficiency and sustainability) and reduced vulnerability to the flood and drought cycles plaguing the city with the introduction of data analytics and IT management system for water basin monitoring, cascade reservoir management, optimization and monitoring; and (iv) Adoption of an e-procurement system by GCC and CMWSSB to enhance the transparency and efficiency of procurement.
- b) **For enhancing the quality, efficiency and sustainability of urban services**, support will be provided to (i) Develop, adopt and implement a comprehensive Quality of Care strategy and operational plan by GCC; increasing the universal access to primary health care services in UPHCs, UWHCs; strengthening the disease surveillance systems and developing a comprehensive digital health system in GCC; (ii) long-term integrated planning, management and performance monitoring of SWM services by GCC to ensure that all the performance-based waste management service contracts deliver good quality and socially inclusive services. In addition, expand the capacity and improve the efficiency of the resource recovery facilities for dry waste through improved technologies and integrated system planning for better throughout in selected zones; (iii) GCC to scale-up the planning and implementation of 25km of streets with provision for improved walkability, universally accessible non-motorized transport, and overall pedestrian environment along with safe public spaces, under the Chennai city mega-streets program. Build capacity in a new Gender Lab to strengthen the integrated delivery of activities under the Women's Safety in Public Space program supported by the Nirbhaya Fund; (iv) Implement performance-based contracts for expansion and/or improvement in delivery of bus services in CMA and WSS services in GCC area. Implement public transport service contracts between GoTN and MTC; gross cost contracts (GCCs) between MTC and private sector bus service providers for rolling out 1000 buses; and performance-based contracts for water-supply services improvement in core city area including HH connections that is socially inclusive, metering and NRW reduction. Incentives will be provided to MTC and CMWSSB for rolling out contracts and monitoring the service performance improvements through DLIs; and (v) Implement bulk metering, establishment of a baseline on non-revenue water (NRW), and actions to steadily reduce NRW and/or unaccounted for water. Incentivize steady expansion of metering and use of volumetric tariffs as a crucial step in influencing user behavior and enhancing demand-side management. Create a robust baseline on quality and quantity of service delivery and support CMWSSB in improving both household coverage and quality/reliability of service.
- c) To Improve financial sustainability of urban services, support will be provided to MTC, CMWSSB and GCC to improve their overall financial performance and, especially, the financial sustainability of selected services. Under this, support will be extended to (i) policy reforms to revise the property tax rates in GCC area, and development and implementation of an OSR improvement action plan that includes improvements in its property tax system and fees for services such as SWM and parking; (ii) policy reforms and implementation of a progressive user charge framework for water supply and sewerage services; (iii) reduction of operational inefficiencies and costs, for instance, through adoption of energy efficiency measures; (iv) improve MTC's cost

recovery ratio by increasing own revenues, both through enhancement of non-fare box revenues and adoption of mechanisms for regular tariff increase for bus services, in consultation with stakeholders . In addition, a transparent mechanism will be established to deliver viability gap funding from GoTN to MTC.

1.3 Institutional Arrangements

The Program's institutional framework will rely on a two-tiered government system comprising state level and metropolitan/local level institutions and will be aligned with existing accountability relationships. TNIDB, which is a state-level agency reporting the Finance Department, will be the Program coordination agency. A Program Management Unit (PMU) will be established under TNIDB and the CEO of the agency will serve as the Program Director. TNIDB will be responsible for carrying out Program monitoring, coordination and reporting activities and will coordinate closely with the Independent Verification Agency on achievement of DLIs/DLRs by the sector agencies. To facilitate and support implementation, TNIDB will coordinate with the relevant line departments/agencies, that is, the Departments of Municipal Administration and Water Supply, Urban Development and Housing, PWD, Transport and Health.

At the metropolitan/city level, the key service delivery agencies – CMWSSB, MTC, CUMTA, WRD and GCC would be responsible for implementing the Program activities in their respective sectors and achieving the required results. A dedicated Program Implementation Unit (PIU) will be established in each of sector agencies to ensure that the Program activities are implemented in a timely manner and results are achieved as per the targeted timelines. These agencies will be responsible for complying with the procurement, financial management, environment, and social management

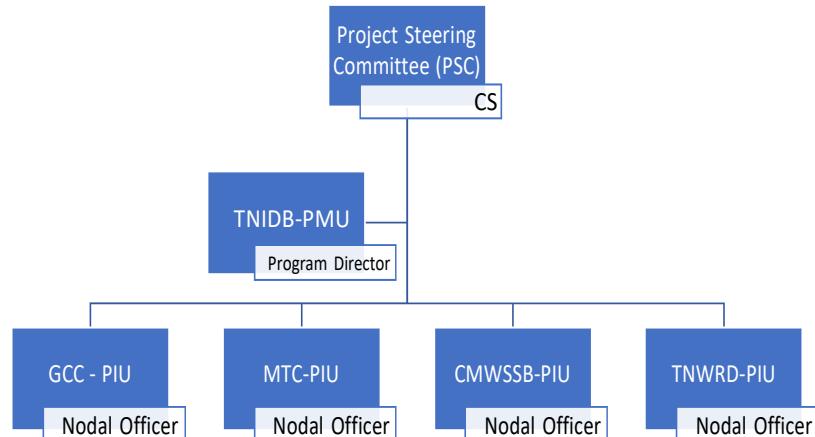


Figure 1: Program Implementation structure

systems, as detailed out in the Program Operations Manual (POM) approved by the Bank. For all the periodic reporting and DLI verification procedures, the sector agencies will report to their respective state line departments and TNIDB as the PMU. A Program Steering Committee (PSC) shall be constituted for strategic oversight, policy direction and monitoring at the state level under the chairmanship of Chief Secretary, with representation of the officials from key state departments and service delivery agencies. The PSC would include Finance Secretary, MA&WS Secretary, Transport Secretary, PWD Secretary, Health Secretary and heads of the key agencies. CEO of TNIDB as the Program Director will serve as the ex-officio member secretary of the PSC. The PSC will meet quarterly or more frequently as necessary, and its role in pushing the critical reform activities would be critical.

1.4 Objectives and Scope of ESSA

The focus of ESSA is to understand the social and environmental risks, benefits, impacts and opportunities of the designed project under four sectors. It covers social and environmental checks and balances that exist in the policy and guidelines; maps the risks and gaps; and suggests the possibilities for implementation strengthening through institutional mechanisms for planning and monitoring, opportunities to enhance resilience, inclusion, access, participation, accountability, and transparency; and reinforcing a robust grievance redressal mechanism.

ESSA Methodology

- a) ESSA was prepared during the Covid-19 pandemic and has been hindered by restrictions imposed by lockdown/s. Therefore, the ESSA team has drawn from other ongoing assessments, secondary literature, virtual meetings and telephonic KIIs. Based on the nature of activities, an extensive list of stakeholders (those with direct impact and those with indirect impact) has been prepared and a roadmap for consultations as well as fieldwork has been prepared to augment to findings of ESSA. Most interventions are heavy on policy and system strengthening, so the ESSA focused on higher order institutional assessment and recommendations for strengthening institutions. For the infrastructure investments, social risks and systems to manage were assessed.
- b) This project is unique because it is spread across multiple sectors, it requires ESSA to be conducted within a span of 2-3 months and that too during the Covid-19 pandemic with restrictions imposed by lockdown. Therefore, the ESSA team has designed a methodology which can ensure optimal use of time and virtual mediums. It included drawing from other ongoing assessments.
- c) Desk review covered analysis of existing policy, operational procedures, institutional capacity, and implementation effectiveness¹ relevant to the activities under the Program- legal and regulatory requirements including those on environmental conservation, pollution control, occupational health and public safety, labor welfare and rights, social inclusion, gender, and citizen engagement. For this existing project documents, aide memoires, ongoing or past projects from Tamil Nadu/ Chennai, assessments conducted by technical agencies, documents and reports received from government counterparts, data, websites and other reports by research institutes, academics, and NGOs.
- d) Sector wise topics and themes on which information was collated through interaction with government officials and others responsible for implementing the government program. This also included sector wise list of stakeholders, a set of key questions to be discussed with them. Based on the interaction with the key stakeholders, a longer list of stakeholders has been prepared. Virtual platforms were used to organize consultations or key informant interviews. All consultations were recorded and documented to capture opinions, anecdotal evidence, capacities, and concerns. Sectors and institutions include:

Table 1

	Thematic areas	Responsible Institutions
A.	Water Supply and Sanitation	Chennai Metro Water Supply and Sanitation Board (CMWSSB)
B.	Water Resources & Resilience	Water Resource Department (WRD)
C.	Urban Mobility and spatial development	
	Bus Service Delivery	Municipal Transport Corporation (MTC) and Transport Department
	Mega-street Program	Greater Chennai Corporation (GCC) implemented by Chennai Smart City Limited
	Gender Lab and Nirbhaya Fund	GCC and Transport Department
	Operationalisation of CUMTA	Chennai Metropolitan Development Authority (CMDA)
D.	Urban Governance, Finance & Services	Greater Chennai Corporation (GCC)

- e) Report Structure: This report is structured in three sections. The Executive Summary is the first section that consolidates the sectoral ESSAs. The sectoral ESSAs are available in section two. The third section contains all the relevant annexures.

¹ Data and reports on complaints received and redressed; reports on citizen surveys and minutes of meetings held by citizen forums etc.

1.5 Stakeholder Consultation

- a. **Stakeholder mapping:** One of the initial tasks during the preparation was compilation of a stakeholder map covering those who will be directly or indirectly get impacted by the program and those who will directly and indirectly impact the program. The sectoral ESSAs in Section two provide the details.
- b. **Stakeholder consultations** with from government officials, Residential Welfare Associations, opinion leaders, non-governmental organizations, civil society organizations, and other relevant stakeholders. (See Section three of the report for details):
 - **Consultations for Preparation (virtual):** Consultations with the seven Institution/Department officials were undertaken as part of the preparation of the ESSA from November 2020 to January 2021. It included team meetings and key informant interviews. Detailed checklists were prepared to guide the same.
 - **Consultation to share draft ESSA (virtual)** and seek feedback: Sector level consultations were held in the month of February 2021 to share the findings, seek clarifications, and agree on the recommendations.
 - The final draft of ESSA report was shared in a virtual city level workshop on 22nd March 2021 to invite final comments and suggestions and finalize the report.
 - **Roadmap for future consultations (face to face):** With limitations on organizing consultations with the direct beneficiaries for qualitative analysis of implementation of government Programs and their outcomes, a road map is detailed out in ESSA and will be included in the Program guideline to complete the consultations within 6 months of ease on travel. Each sectoral ESSA provides a roadmap for future consultations. In view of the current pandemic consultations would be conducted taking into consideration national Covid-19 protocols as well as WHO guidelines.
- c. **Disclosure:** The draft final ESSA will be sent to the list of invitees and disclosed online on the respective implementing agency's websites for the city level stakeholder virtual consultation. It will be updated to include consolidated feedback received via different sources and will be re-disclosed online on respective implementing agency websites and World Bank external website.

1.6 Social and Environmental Impact and Risk Rating

a. Social Impact and Risk rating

The Social Assessment reviewed the social policies, legal framework and capacity of government institutions and systems to deliver quality services to achieve the social development outcomes. Findings indicate that Government has enabling laws and policies to address the effects of the program and associated risks. The challenges are largely in terms of ensuring the operationalization and enforcement of these regulations as well as bridging the gap in Institutional systems and capacity for evidence-based reporting on social development outcomes, thus resulting in **social risk rating as Moderate**.

The risks include (i) construction induced impacts that may lead to temporary loss of livelihood; (ii) inequitable distribution of benefits and exclusion of women and other marginalized groups; (iii) inaccessibility of facilities and services by the differently abled people and old and infirm; (iv) weak consultations and stakeholder engagement; (v) weak systems for effective and accessible grievance redressal mechanisms and addressing the feedback received from the stakeholders; (vi) lack of systems for monitoring enforcement of labor welfare laws and occupational health and safety measures; (vii) weak processes to address SEA-SH (Sexual exploitation and abuse – Sexual harassment) at workplace; and (viii) overall weak monitoring and evaluation for management of social risks.

The assessment shows that there are following social benefits, risks and opportunities under the program:

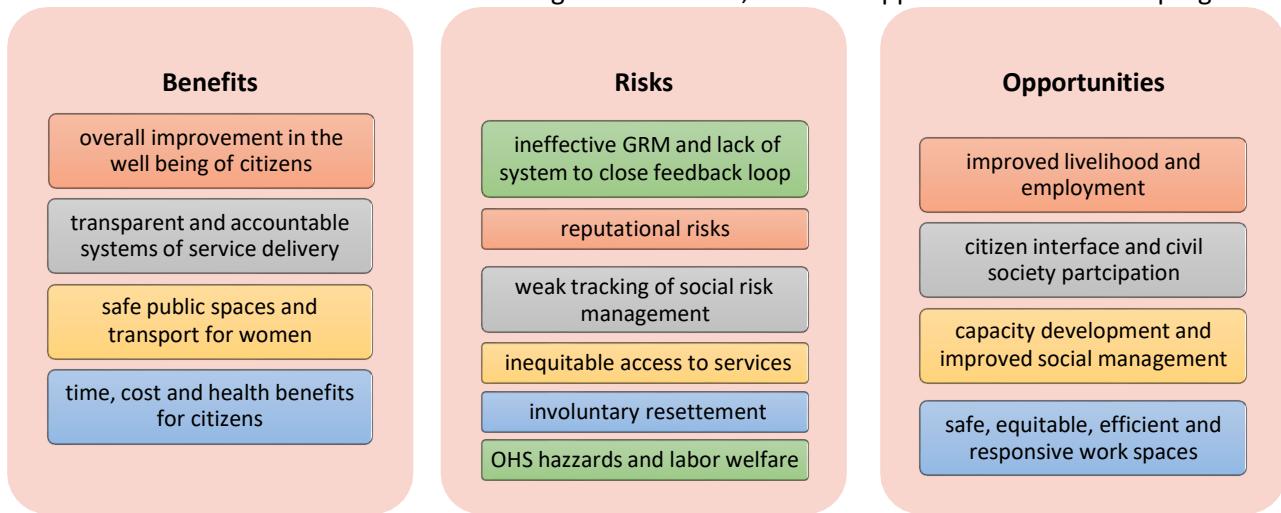


Figure 2: Social Benefits, Risks and opportunities

It is recommended to exclude certain activities which exacerbate risks and are outside the ambit of PforR support provided in **Exclusion Checklist** in each sectoral ESSAs

b. Environmental Impact and Risk rating

The environmental assessment is based on desk review and virtual consultation with staff of implementing agencies and departments. The assessment focused on borrower's environmental management systems – both regulatory and organisational – (Core Principle 1) and public and worker safety (Core Principle 3). The assessment confirmed consistency with the environmental Core Principles, and the exclusion of activities ineligible for PforR financing. Gaps identified for strengthening environmental management capacity are included in the Program Action Plan. The **environmental risk is rated as Moderate** pertaining to (i) sufficient regulatory systems and organisational capacity to deal with the environmental impacts associated with the Program and, (ii) environmental impacts associated program investment are expected to be localized, temporary and reversible.

1.7 Assessment of Social and Environmental Legal policy framework

- ESSA reviewed the applicability of various relevant acts, legislations and polices to the PforR. This included social, and environmental acts/ laws both at the national and Tamil Nadu state level including legislation on land, citizen engagement, livelihoods, inclusion, gender, GBV and labor. Sector specific policies were also examined to assess social safeguards. **Overall, it may be concluded that the policy and legal framework is conducive and adequate for the required social management processes.**
- The Chennai City Municipal Corporation Act of 1919, 74th Constitutional Amendment Act of 1993 followed by Tamil Nadu District Municipalities (Amendment) Act of 1993 ensure devolution of funds, functions, and functionaries to elected urban local bodies. It creates opportunities for **citizen engagement, participation, representative² and direct democracy³** for improved economic development and social justice. The Right to Information and Social Audit Societies provide avenues for **access to information, accountability, and transparency**. Tamil Nadu has not passed the Rights to

² Through Steering Committees, Ward Committees, NGOs

³ Through Ward Sabhas (ward level meetings)

Services Act. To enhance transparency and address corruption, the Lokayukta Act in Tamil Nadu came into force on November 13, 2018. The Right to Information Act is also being implemented for citizens to secure access to information under the control of public authorities such as GCC, Transport Department and MTC, in order to promote transparency and accountability.

- c. The Constitution of India (Articles 15,16, 46, 275, 330, 332, 335, 340 and 342) along with the Scheduled Castes and the Scheduled Tribes (Prevention of Atrocities) Act, 1989, and Rules, 1995 ensure **protection of the interest of SC and ST population**. The state of Tamil Nadu provides reservation for **Backward Classes, Scheduled Castes Scheduled Tribes, Arunthathiyyars⁴, Backward Class Muslims** in government jobs ensuring positive discrimination and opportunities for the vulnerable communities.
- d. Equal Remuneration Rules of 1976, Tamil Nadu Maternity Benefit Rules of 1967, Tamil Nadu Prohibition of Harassment of Woman Act of 1998, Tamil Nadu State Commission for Women Act of 2008, Gender Sensitization & Sexual Harassment of Women at The Madras High Court - Principal Seat at Chennai and Madurai Bench at Madurai - (Prevention, Prohibition and Redressal) Regulations of 2013 elucidates a **strong legal framework in the state for inclusion of women, gender equity, safety for women in public spaces and offices**. Chennai is one of the eight cities approved by the Union Ministry of Home Affairs as part of its plans to implement Safe City Projects under the Nirbhaya Fund Scheme.
- e. Review covered more than 25 laws related to **labor welfare, safety, rights and entitlements at national level and state level to conclude that they are adequate** to safeguard rights and welfare formal, informal, local, and migrant, male and female workforce.
- f. National Urban policies like JNNRUM, AMRUT, Smart City etc and reforms have created opportunities for **enhanced services, and livability** in urban agglomerations.
- g. The Chennai Metropolitan Water Supply and Sewerage Board (CMWSSB) was formed under "The Chennai Metropolitan Water Supply and Sewerage Act, 1978". As per this Act, CMWSSB stands committed to making a positive contribution to improve the Chennai City environment and to enhance the health and quality of life for the citizens in Chennai City by providing them with adequate supply of safe and good quality water, by collection, treatment, and safe disposal of sewage at a reasonable price, and by providing customer service in prompt and courteous manner. CMWSSB has a Citizen Charter specifying the services, processes, service levels, performance standards, duration for every service, grievance redressal mechanism, escalation of complaints, guidelines for related structures (Water Harvesting Structures, etc.), adoption of right to information, rights and responsibilities of consumers, details of concerned officers, etc. The Board's Objective is to enhance the health and quality of life of Citizens in Greater Chennai City by providing them adequate supply of potable and good quality water and safe disposal of sewage/ wastewater at reasonable price. CMWSSB and WRD are the key agencies for ensuring water efficiency and sustainability.
- h. To strengthen governance and institutions for coordinated response on urban transport, agencies such as Chennai Unified Metropolitan Transport Authority (CUMTA) have been established which is

⁴ Includes the castes, Arunthathiyyar, Chakkiliyan, Madari, Madiga, Pagadai, Thoti and Adi Andhra within the list of 76 Scheduled Castes notified by the President of India under Article 341 of the Constitution of India by the Constitution (Scheduled Castes) Order, 1950 as amended from time to time. In Tamil Nadu, owing to the social and educational backwardness of Arunthathiyyars, sixteen per cent of the appointments or posts reserved for the Scheduled Castes are reserved for the Arunthathiyyars.

governed by the Chennai Unified Metropolitan Transport Authority Act, 2010 and 2018 Rules. National/state policies and guidelines such as the National Urban Transport Policy, Smart City Mission and Chennai's Complete Street Planning Manual have also paved the way for sustainable and inclusive urban transport planning, operations, and service delivery in Chennai.

- i. Land acquisition⁵: i) There is no land acquisition envisaged from private owners. ii) The Screening Criteria for selection of activities will exclude those that have permanent and long-term impact on non-title holders. iii) There is likely to be an impact on street vendors as well as construction induced impacts on non-title holders that may be of temporary nature. Tamil Nadu Protection of Livelihood and Regulation of Street Vending Act 2014 and corresponding Rules and Scheme provides legal protection and livelihood restoration measures.
- j. Keeping in mind that PforR will include overall strengthening of HR under GCC and focus on two verticals of health and solid waste management, the laws and policies apart from the ones covered above are: Tamil Nadu Transparency in Tenders (Public Private Partnership Procurement) Rules, 2012⁶; National Urban Sanitation Policy (NUSP), 2008; Swachh Bharat Mission Urban (SBM), 2014, Solid Waste Management Rules, 2016⁷; Tamil Nadu Municipal Public Health Service Regulations, 1970 (and Discipline and Appeal Regulations, 1973); National Urban Health Mission; Prohibition of Employment of Manual Scavengers and their Rehabilitation Act, 2013 (Central Act 25 of 2013).
- k. With regard to environment, the following relevant legal and regulatory frameworks were assessed: (i) Environment (Protection) Act of 1986 and associated Rules, (ii) Air (Prevention and Control of Pollution) Act 1981 and associated Rules, (iii) Water (Prevention and Control of Pollution) Act 1974 and associated Rules, (iv) Noise Pollution (Regulation and Control) Rules 2000, (v) Solid Waste Management Rules, 2016 and GCC's Bye-laws for Solid Waste Management 2019, (vi) Bio-medical Waste Management Rules, 2016, (vii) Other Waste Management Rules; (viii) National Green Tribunal (NGT) Orders. All the regulatory procedures are clear, streamlined and well established. There are no gaps in the regulatory systems that need to be addressed under this Program. Gaps were observed in enforcing legal and regulatory frameworks.

⁵The Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement Act, 2013 and 2017 Rules provide for rights to fair compensation in case of land is required from private entities.

⁶Tamil Nadu Transparency in Tenders Act, 1998; Tamil Nadu Transparency in Tenders Rules, 2000

⁷ Under Section 349 of the Chennai City Municipal Corporation Act, 1919 (Tamil Nadu Act IV of 1919)

1.8 Assessment of risks under PforR Activities

Table 2

1	Water Supply and Sanitation	CUMULATIVE RISK: MODERATE		
	Activity	Positive Impact	Risk Assessment	Risk Rating
1.1	Water supply delivery contracts for Zones X and XII covering 1.85 lakh households. Likely activities include demonstration pilot, infrastructure improvements, house service connections and fixing water meters, and appointment of Service Management Contractor	<p>Social: Improved water supply, health improvement, reduction in water-related diseases, time savings, income improvements, equity in distribution of water, improved tariff collection, reduction in non-revenue water, improved sewer network, reduction in flies, insects, rodents, smell, water contamination and accidents with improved O&M</p> <p>Environment: Improved water use efficiency; avoidance of temporary septic tank disposal approaches, which have the potential for groundwater contamination</p>	<p>Social: Construction induced temporary impact on non-title holders; weak welfare measures for labour and occupational health and safety; inequity in service levels to low-income areas due to poor last mile connectivity; poor stakeholder engagement; Weak GRM; potential hazards related to manual scavenging</p> <p>Environment: The following environmental effects: (i) storage, transport and disposal of construction wastes, (ii) worker safety and pedestrian safety, (iii) dust, noise and air pollution; (iv) disruption of traffic, water leakages during laying of the water supply pipelines, and (iv) health impacts to workers and community, including Covid-19 pandemic.</p>	Moderate
1.2	Sewer Network in unserved areas within 5 new added areas within GCC. Likely activities include laying sewer lines and providing sewer connections to households			Moderate
2. Water Resources & Resilience		CUMULATIVE RISK: MODERATE		
1	Strengthening Water Resources Planning and Management – Systems Development			
1.1	Development of integrated information command & control centre	<p>Social: Improved evidence-based decision making to prevent water shocks to water users; better management of water resources; equity in water sharing and water conservation efforts</p>	<p>No negative social or environmental risk</p>	Low
1.2	Investment in hydro-met and gauging services	<p>Environment: Improving service delivery by strengthening governance and institutions, improving water security and use efficiency</p>		Low
1.3	Water accounting / auditing across TN and GCC			Low
1.4	Establish reservoir management system			Low
2	Investments in Resilient Watersheds			
2.1	Rehabilitation, upgrading and modernization of <i>selected reservoirs and tanks systems</i> with their related supply channels	<p>Social: Augmentation of available surface and ground water resources will help address drought and minimize negative impacts during floods;</p>	<p>Social: construction induced impacts on non-title holders that may be of temporary nature; weak compliance of labour laws, OHS standards; weak systems for stakeholder</p>	Moderate

2.2	Development of recharge well structures	Environment: Augmentation of available surface and ground water resources will improve water security particularly during the dry period.	engagement, participatory planning; exclusion of the vulnerable; increasing grievances Environment: Construction-related EHS impacts; reservoirs and tanks may also pose some issues; WRD's environmental management systems are adequate to manage these impacts, including NGT orders, if any	Moderate
2.3	Desilting of drainage channels			Moderate
3	Capacity Strengthening			
3.1	Strengthen capacities of WRD Staff... and other stakeholders based on Capacity Strengthening Needs Analysis (CSNA) during preparation phase	Social and Environment: Enhanced capacities lead to better understanding of issues, roles and responsibilities of key stakeholders in the conservation and participatory management of water resources	Social: Exclusion of vulnerable groups including women Environment: No negative environmental impacts / risks	Low
C. Urban Mobility and Spatial Development		CUMULATIVE RISK: MODERATE		
	Activity	Positive Impact	Risk Assessment	Risk Rating
1	Chennai Unified Metropolitan Transport Authority (CUMTA)			
1.1	CUMTA establishment and operations	Social: Improvement in coordination and management Environment: Environmental capacity will be used to plan, design, coordinate, support implementation, monitor, supervise environmental management for sustainable and efficient transportation; reduced air and noise pollution, use of fuel for transportation	Social: Inadequate institutional capacity to manage social risks Environment: No negative environmental impacts / risks	Low
2	Launch of a Holistic Program for Women's Safety in Chennai			
2.1	Setting up of Gender Lab / Third party evaluation	Social: Improved efficiency and transparency in implementation of safe city projects; data-driven initiatives for planning gender inclusive transport service; other initiatives on women's safety.	Social: Inadequate subject matter expertise in planning, M&E; lack of clear strategy in managing and monitoring projects; inadequate consultations to address gender gaps; insufficient coordination among implementing departments; deficient, incomplete data for evaluation.	Moderate
2.2	Evaluation and guide implementation of safe city projects under Nirbhaya fund scheme	Environment: No environmental benefits	Environment: No negative environmental impacts / risks	Low
3	City Bus System			
3.1	Service improvement from 3,700 buses to 4,700 buses including fleet augmentation	Social: Enhanced volume and quality of bus service; transparent, accountable, and sustainable system of bus service delivery;	Social: Weak enforcement of legal framework on safety and security of commuters, welfare, health and safety of workers of private operators; inadequate GRM for contracted workers	Moderate

3.2	Service improvement through PTSC between GoTN and MTC to sustain existing fleet through efficiency improvements and transparent long-term Viability Gap Funding (VGF) mechanism to compensate the gap in revenue recovery.	concessionary fares / targeted subsidy for EWS are under consideration ⁸ . Environment: Improved efficiency and better service levels will bring about a reduction in overall fuel use.	under GCC; lack of clear communication on perceived risks associated with privatization of services; inadequate communication re institutional changes; opposition and reputational risk; inadequate focus on KPIs re user satisfaction, accessibility, women safety, road safety Environment: Limited O&M EHS impacts; review and strengthening required for MTC's environmental management systems including regulatory compliance and adoption of good practices	Low
4. <i>Mega Street Program</i>				
4.1	Development of pedestrian friendly streets that also carry multi-utility networks which covers six quick win interventions spanning nearly 25 kms of arterial and sub-arterial roads/ streets in Chennai for which Inception and Concept design reports have been prepared ⁹ .	Social: Improved services for commuters due to better urban mobility, spaces, walking and cycling, safe space for women and universal access. Environment: Improved livability and associated environmental and safety benefits such as (i) fast and safe connectivity (ii) Decongestion of traffic (iii) Savings in fuel, travel time and cost of road users (iv) Reduction in road accidents, (v) Reduction in air and noise pollution due to regulated flow of vehicles.	Social: Inadequate consultation with critical stakeholders in design and implementation; lack of safe and accessible facilities for aged, differently abled, children, women etc.; weak systems and plans to manage temporary disruption of services during construction, loss of livelihood of encroachers and squatters; weak system to monitor compliance of labour laws and SEA-SH risk. Environment: Limited construction-related EHS impacts that GCC's Special Projects Limited has the expertise to address with support from Chennai Smart Cities, through pre-investment studies, stakeholder consultations, EHS provisions in bid / contract documents and M&E.	Moderate
D. Municipal Services				
	CUMULATIVE RISK: MODERATE¹⁰			
	Activity	Positive Impact	Risk Assessment	Risk Rating
1.	HR / Staffing			
1.1	Onboarding of HR firms and agencies	Social: Opportunities for new HR firms and agencies; New job openings	Social: Risk of exclusion of women Environment: No negative environmental impacts / risks	Nil
1.2	Recruitment of staff ¹¹			Low

⁸Concessionary fares are currently being provided to students, differently abled and senior citizens.

⁹The consultants are expected to develop a vision for the area of the allocated package, develop detailed street designs for the identified primary corridors employing a holistic approach, incorporating utility, mobility and livability elements, identify secondary streets and other public space projects within the allocated package in order to form a street network along with detailed designs for the same, propose a phasing plan for implementation, including 5km of primary streets in each package as quick wins and bidding assistance for selection of contractors for implementation of works.

¹⁰Though most activities and sub activities indicate low risk, the cumulative risk is moderate as a summation of several low risk.

¹¹There are 8 cadres/service rules that govern the staff at GCC as follows - General (administration, accounts and legal positions), Revenue, Engineering, Electrical, Public Health, District Family

		Environment: No environmental benefits as this is a staffing-related activity.		
2.	Public Health Services			Low
2.1	Recruitment of staff	Social: New job openings; extended opening hours of health centres; improved availability, outreach, convenience and scope and quality of services.	Social: Risk of exclusion of women; risk of exposure to Covid-19; worker dissatisfaction due to lack of internal GRMs including SEA-SH and labor laws; ineffective and inaccessible GRMs including SEA-SH grievances	Low
2.2	Increased duration of clinics			Moderate
2.3	Improved health services	Environment: Better environmental performance through training on BMW management for new staff, streamlining of BMW management in UPHCs and UCHCs	Environment: There are no direct environmental impacts but BMW management in the UPHCs and UCHCs are contextual risks that will be dealt with through capacity-building initiatives.	Moderate
3.	Solid Waste Management Services			Moderate
3.1	Development of Service Management and Performance Monitoring system	Social: Increased efficiency and performance; improved SWM and quality of life; sensitization of private enterprises towards social responsibilities; competent staff, improved services, availability of information, citizen engagement	Social: Loss of jobs for daily wage workers due to outsourcing of SWM services; absence of internal GRMs including for SEA-SH and labor laws; weak communication, outreach and citizen engagement; ineffective systems for implementation of reward and penalties; host community unwilling to accept increase in waste; poor experience capitalization before upscaling; poor social management expertise, poor implementation and reporting of social processes	Moderate
3.2	Support long-term integrated SWM planning			Moderate
3.3	Enhancing capacity of existing Material recovery and recycling infrastructure ¹²	Environment: Increased SWM efficiency and performance will reduce negative environmental effects; upstream interventions will reduce waste to be transported, treated and disposed in the dumpyard; environmental benefits will accrue in the SWM cycle.	Environment: Upstream interventions may have impacts such as chemical use, waste disposal and worker safety, which can be addressed through operational controls.	Moderate
3.4	Capacity Building, DPR, Training, IEC.			Moderate

Welfare Bureau, Information Technology and Conservancy services. The rules, regulations and processes for employees for each of these cadres are guided under by different rules/byelaws which have been notified in different ranging from 1970 to 2009. Current Group A and B cadres have a vacancy levels of 23% out of a total of 1873 staff positions. Hence this sub-program focuses on mainly Group A and B cadre of GCC as follows: (ii) Improve quality of Group A & B cadres through improved recruitment modalities including through state level Tamil Nadu Public Service Commission (TNPSC); (iii) Reduce vacancy levels in Group A and B cadres from about 23% currently to less than 5% by end of the program; and (iv) Revised staffing norms / positions at GCC to address the skill gaps within Group A and B cadres such as in emerging areas of GIS mapping, IT, SWM, etc.

¹² Dry waste on downstream treatment and disposal capacity already there

1.9 Assessment of Institutional systems and capacities

a. Institutional capacities for Social Risk Management

CMWSSB- A professional organization with all government employees. It has a comprehensive Citizens charter and socially inclusive policies like subsidies in connections and tariffs for economically vulnerable. CMWSSB requires dedicated Social Specialists to develop a strong social management profile including implementation of Citizen charter, GRM and reporting on social inclusion, gender and land management.

WRD- WRD has adequate institutional resources – staff, budgets, awareness and competence – to manage the technical issues related with the PforR. It however lacks capabilities (skilled resources, budgets, mandate, guidelines, etc.) for management of social risks related to the schemes and programs that the department is mandated to plan and implement. The department currently has a functional GRM. However, grievances received through the GRM are addressed and closed through departmental actions and the complainant's feedback regarding her / his / their complaints are neither sought nor recorded. Overall, social development capacities and reporting need strengthening to manage the risks under the program.

Gender Lab - GL will rely on existing grievance redressal system of GCC. GL structure in its current form, has delineated a robust monitoring system at the operations and program level. However, it does not include recruitment of a communication specialist, which is critical for policy influence work. Another challenge is the lack of standardized approach in managing projects, as there are currently no guidelines/notifications outlining the implementing agencies and committees' responsibilities and processes for carrying out their functions.

CUMTA- For inclusive planning, CUMTA rules provide for co-opting additional members from registered associations representing public transportation, passengers, cyclists, pedestrians, and similar groups. Further, a consultancy firm has been brought on board to garner citizens feedback in the Comprehensive Mobility Plan. The grievance redressal system for CUMTA is yet to be developed. As CUMTA is not yet operational, an immediate staffing plan has been proposed by CMDA, which needs to include hiring of social specialist.

MTC- MTC has a robust grievance redressal system for both the commuters and its permanent employees. But the mechanism does not extend to contracted workers. PR Wing of MTC currently manages public relations and media outreach. MTC does not have any dedicated specialist for (a) designing and executing participatory approach (b) undertaking safety and accessibility audits of MTC's assets and (c) conducting trainings for staff on citizen engagement, gender mainstreaming, social inclusion and labour compliance.

Special Projects Department, GCC (Mega-street Program)- The Department is being supported by the social, environmental and communications experts under CSCL. GCC has a robust grievance redressal system. The Design Consultants for all 6 packages have assessed social impacts and conducted stakeholder consultations during the preparation of the DPR. Assistance from Revenue Department, GCC will be sought to relocate the street-vendors. However, Department and CSCL does not have standardized mechanism/system to monitor compliance of labour laws during the construction phase.

GCC (Municipal Services)- GCC has a robust GRM with dedicated team to respond, manage, report and monitor for SWM services. It also has mechanisms for seeking citizen feedback and service ratings. There are NGOs and citizen interface activities. There are provisions to reach the vulnerable communities for services. However, the challenge is a systematic planning, implementation and

reporting of activities under social management. Documentary evidence is missing to review the performance. What is required is a team of dedicated specialists, investment in capacities, ensuring social management outputs and outcomes are tracked in the MIS and GCC is closing the feedback loop.

b. Institutional capacities for Environmental Management

Environmental management capacity exists in each of the implementing agencies and its importance is recognized in the proposed new agency, CUMTA. The assessment revealed a few gaps that are relevant to the Bank's Program. These gaps are summarized by agency here.

- **CMWSSB / Water Supply and Sanitation:** There is no coordinating cell within CMWSSB on environmental management. Having such a unit will strengthen CMWSSB to establish and maintain institutionalize planning, designing, implementing ana making operational environmental management across all their WSS investments.
- **WRD / Water Resource and Resilience:** Documentation of environmental systems and procedures do not exist. Though the staffs have the information required to execute environmental due diligence, there is no documentation on how the environmental due diligence has been conducted. WED system can be strengthen by building their capacity in documenting environmental works.
- **MTC / Urban Mobility:** MTC is carrying out its environmental management activities. But there is no mechanism for continual improvement. A regular system of environmental audits will help to identify gaps in environmental performance and come-up with recommendation for improving it.
- **GCC / Municipal Services – Public Health:** GCC is carrying out its responsibility pertaining to BMW. There are gaps in liquid BMW management. Performance audits should offer areas of improvement to strengthen the environmental systems.
- **GCC / Municipal Services – Solid Waste Management:** GCC will be entering into upstream dry waste recycling as a new initiative. The plans do not yet specify how environmental concerns will be addressed. The implementation arrangements should necessarily include building environmental management capacity.

1.10 Assessment against Core principles

The social national legal and regulatory framework are adequate for effective management of social risks and equitable distribution of benefits supported by the program. Likewise, the environmental regulatory systems and the internal institutional systems of the different agencies in each of the sectors were assessed. These systems – in conjunction and/or individually - ensure that the activities included in the PforR are consistent with the core principles. The following table provides a brief description of the basis for assessing the consistency to each of the core principles.

Table 3

Core Principle #1: Program E&S management systems are designed to (a) promote E&S sustainability in the Program design; (b) avoid, minimize, or mitigate adverse impacts; and (c) promote informed decision-making relating to a Program's E&S effects.			
Urban Mobility (MTC, CUMTA, GCC)	Drinking Water and Sanitation (CMWSSB)	Urban Municipal Services (GCC)	Water Resources (WRD)
SOCIAL ASSESSMENT: National and State Policies in place to address the risks			
<p>CUMTA is yet to be operationalized and is currently understaffed.¹³ For intermediary phase, CMDA¹⁴ must bring in personnel for communications / stakeholder engagement and M&E. A dedicated social specialist is required for social risks management.</p> <p>Gender Lab is not yet established. The proposed structure provides adequate staff, which will be augmented by hiring consulting firms.¹⁵ A Voluntary Advisory Committee (VAC) will be set up to provide advisory support. A PMC is managing contractual performance of the existing 13 safe-city projects under Nirbhaya Fund¹⁶.</p> <p>MTC has a PR wing, responsible for media communications, public outreach, and grievance redressal. Existing systems need to be strengthened on grievance resolution and labour standards compliance.¹⁷ MTC will need to hire consultancy</p>	<p>CMWSSB has a Department of Personnel and Administration which is responsible for coordinating social development functions for which project-specific consultants are mobilized. There are no dedicated resources to support systems, plans, procedures to ensure sustainability of social development outcomes. A Social Management System and corresponding Plan is required.</p> <p>Appointment of Service Management Contractor: The contractor will have to demonstrate existence of social management systems and will have to comply with social management systems of CMWSSB.</p>	<p>Social Management systems need to be strengthened. This includes consolidation of available processes and procedures; operational guidelines, specialized staff, systematize role of NGOs, strengthen overall capacities and reporting on social inclusion, gender mainstreaming, citizen engagement. GRM on SWM is robust and effective while the GRM on health and internal GCC is yet to be assessed.</p>	<p>WRD has the legal and regulatory authority to commit resources and implement actions necessary for the effective management of E&S risks. Currently WRD does not have any social specialists amongst its staff. WRD can augment capacities by hiring qualified consulting services for social risk and impact assessment, preparation of mitigation plans and monitoring the same. They can put in place adaptive management processes to respond to unanticipated E&S management issues that might arise. Currently, there are no proactive mechanisms for disseminating information on E&S</p>

¹³ For operationalization of CUMTA, Deloitte was hired by the World Bank to undertake a technical review and propose operations guidelines for CUMTA.

¹⁴ CMDA, which is responsible for providing technical support, has proposed a plan for hiring and deputation of skeleton staff under CUMTA on an immediate basis.

¹⁵ The Gender lab will include- 5 full-time staff and one intern- specializing on gender, policy, non-motorized transport, public transportation and financial evaluation.

¹⁶ These do not include projects proposed by the Bank

¹⁷ This is applicable for both permanent and contractual workers (MTC and operators under GCC). As principal employer, MTC is liable for non-compliance of statutory obligations regarding wages, occupational health and safety (OHS) and benefits of all employees deployed on their premises - whether direct or indirect. Therefore, MTC must extend its system of tracking complaints

<p>service for designing and executing participatory approach, undertaking safety and accessibility audits, and conducting gender sensitization trainings.¹⁸</p> <p>Special Projects Department does not have any social specialists. CSCL has a team of social, environmental and communication specialists, which will support the department to manage social risks.</p>			<p>effects to people or communities that are potentially affected. The existing GRM needs strengthening for accessibility, tracking and reporting.</p>
<p>ENVIRONMENTAL ASSESSMENT: GoTN's regulatory systems (Air Act, Water Act and EP Act), being implemented by TNPCB are functional.</p>			
<p>The implementation performance is being enhanced under the Program by strengthening the internal institutional systems in the respective implementing agencies, i.e. CUMTA (Planning & coordination authority), GCC (mega streets) and MTC (bus service improvement). Within MTC, the internal institutional systems should conduct and streamline periodic performance reviews to ensure environmental risks are adequately managed.</p>	<p>CMWSSB's institutional systems include conducting ESIA/ESMP, integrating EHS provisions in contract documents, supervising implementation and ensuring regulatory compliance throughout the project period. It is expected that EHS impacts of the program will be addressed by the existing system. Documented procedures for environmental management and strengthening environmental provisions in contract documents should be in place to manage the environmental risks.</p>	<p>Health Services: The implementation performance is being enhanced by strengthening internal institutional systems through capacity building of UPHCs and UCHCs. Application of procedures for BMW management and infection control will be documented within the UPHCs and UCHCs to SWM Services: Issues in Implementation and enforcement of the policy framework need to be addressed. The Bank's Program will (a) strengthen management systems, and (b) undertake upstream dry waste recycling investments that have limited environmental impacts, which will be mitigated through appropriate management. environmental screening for the new interventions are required to avoid negative environmental impacts.</p>	<p>WRD's institutional systems include a dedicated Environment Cell Circle, which will support the execution team of engineers on integrating environmental issues, ensuring procedural compliance and monitoring / reporting. Documented procedures for environmental management and strengthening DPRs with potential NGT requirements and EHS good practices should lead to designs that address environmental risks.</p>
<p>Core Principle #2: Program E&S management systems are designed to avoid, minimize, or mitigate adverse impacts on natural habitats and physical cultural resources resulting from the Program. Program activities that involve the significant conversion or degradation of critical natural habitats or critical physical cultural heritage are not eligible for PforR financing.</p>			

and escalation to cover contracted firms. This will allow MTC to monitor contracted firms' adherence to norms and standards. Further, in cases of repeated non-compliance, it will provide aggrieved indirect workers with a channel of communication that does not involve their supervisors.

¹⁸ MTC will hire services of consultants to implement the following projects (existing projects under Nirbhaya Fund and additional projects proposed by the Bank) under the Gender Lab: Setting up of Command and Control Centre (CCC); Installation of CCTV in buses; Improving security features in bus shelters in vulnerable areas; Assessment on transportation barriers (including physical infra) and extent of harassment in public spaces & public transport and their impact on women - Surveys and Audits; Collation of gender-disaggregated data to understand travel patterns to improve operations; among others.

ENVIRONMENTAL ASSESSMENT: None of the Program activities are in geographical locations which involve critical natural habitats or critical physical cultural heritage areas. There will be no conversion or degradation of critical natural habitats.			
On physical cultural resources, activities under mega streets will have to deal with roadside places of worship. As GCC focuses on these cultural resources as one of the street enhancements, the environmental systems will be in place to address impacts on cultural heritages. Consultation with local community and stakeholder institutions such as ASI-Chennai Office will be done.	Areas where sewerage network is to be established, which are in the vicinity of the coast, require procedural clearance under the Coastal Regulation Zone (CRZ) notification. As these added areas are fully inhabited, they are not eco-sensitive and do not have any natural habitats. In case construction reveals chance finds, guidelines are in place to address them in line with the legal framework.	Health Services: There are no investments under this program, no UPHCs and UCHCs, or GCC's healthcare facilities that have any bearing on natural habitats and physical cultural resources. SWM Services: GCC typically avoids conversion of wetlands for dump yards and ensures no impacts on the physical cultural resources.	There are investments proposed in and around water bodies, but these are not natural habitats, e.g. state wetlands or located in coastal regulation zones (CRZ) that will require procedural clearance and performance standards. In case the construction reveals chance finds, there will be guidelines in place address them in line with the legal framework.
Core Principle #3: Program E&S management systems are designed to protect public and worker safety against the potential risks associated with (a) the construction and/or operation of facilities or other operational practices under the Program; (b) exposure to toxic chemicals, hazardous wastes, and otherwise dangerous materials under the Program; and (c) reconstruction or rehabilitation of infrastructure located in areas prone to natural hazards.			
SOCIAL ASSESSMENT: National and State Policies in place to address the risks			
The legal framework has robust provisions for employee and labour welfare including occupational health and safety, social security and dispute resolution. CMDA will provide administrative support to CUMTA for ensuring compliance with relevant laws. Necessary provisions have been included in contracts with contractors, consultants and vendors. Implementing agencies do not have in-house capacity to monitor compliance. For projects under Nirbhaya Fund and mega-street program, labour laws' compliances will be monitored by GCC with support of PMC. MTC's grievance resolution system only caters to permanent staff, and not contract workers. CUMTA, MTC and GCC need to ensure strict enforcement of provisions related to child and forced labour.	Bidding documents include legal provisions on public and worker safety. CEEPHO has developed manuals for safety to be implemented at worksite. A Safety (Public and Worker) Manual needs to be developed. Systems for monitoring compliance and reporting on worker welfare need to be set up. The Service Management Contractor will have internal worker and public safety procedures in place with manuals. He should also have resources to comply with the Safety Manual.	Employment safety, public and worker safety within GCC is regulated under the state laws. However, systems for tracking and reporting are yet to be assessed. External firms engaged are bound by Key Performance Indicators which are tracked for financial clearances. These include social indicators and are monitored by independent monitoring firms. The effectiveness and exhaustiveness of KPIs to cover social risks yet to be assessed.	Public and worker safety are an integral part of WRD's procedures and practices- proposed activities are in compliance with applicable laws related to workers health and safety through design, construction, operations and maintenance of the Program. Necessary provisions will be included in contracts for works awarded under this PforR and will be monitored by WRD with the support of the supervision / project management consultants. The borrower's legal and regulatory framework has robust provisions for prohibition of child and forced labor. In case of silt removal, the silt will be tested to determine whether it is classified as hazardous waste or not and appropriate measures will be undertaken accordingly.
ENVIRONMENTAL ASSESSMENT: The nature of activities is such that there is no exposure to toxic chemicals, hazardous wastes and dangerous materials in any of these Program activities. The infrastructure is located in inhabited areas that are not particularly prone to natural hazards.			

<p>Public and worker safety are an integral part of the planning and design of urban transport solutions e.g. pedestrian safety under the mega streets activity. Implementation arrangements are in place to manage the environmental impacts during construction, both from a worker and a public perspective. MTC has a Safety and Training Division that addresses public safety through building capacity of drivers and preventive and corrective actions in accident management systems.</p>	<p>There will be provisions for public and worker safety as part of the bid / contract documents and are monitored by CMWSSB with the support of the PMC. Due diligence of the bid documents prior to bidding will be done to ensure that the provisions are in line with ESSA Guidance. The infrastructure is underground and unlikely to be impacted due to natural hazards. Use of Information and Education Campaign (IEC) that focus on worker and community safety will result in better management of environmental risks.</p>	<p>Health Services: Public and worker safety are part of the management and practices adopted in healthcare facilities. Public safety can be enhanced by institutionalizing practices adopted during the Covid-19 pandemic. SWM Services: There are minor public and worker safety concerns in the upstream resource recovery interventions. GCC has management systems in place and plans to have a protocol prior to starting resource recovery interventions.</p>	<p>There will be provisions for public and worker safety as part of the bid / contract documents and are monitored by WRD.</p>
----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	--------------------------------------------------------------------------------------------------------------------------------

Core Principle #4: Program E&S systems manage land acquisition and loss of access to natural resources in a way that avoids or minimizes displacement and assists affected people in improving, or at the minimum restoring, their livelihoods and living standards.

SOCIAL ASSESSMENT: National and State Policies in place to address the risks			
<p>The proposed investments in mega-street program do not envisage any land acquisition¹⁹. The design consultants for six quick-win investments will undertake social risks screening to identify and propose measures to mitigate any adverse impacts on non-titleholders (squatters and encroachers) under the program. The Special Projects Department will seek assistance of the Revenue Department, GCC to plan for temporary and/or permanent loss of livelihood of squatters (street-vendors, etc.) and encroachers, as per applicable laws²⁰.</p>	<p>The GoTN / GCC provides the required land (mostly government land) at no cost for the projects taken up by CMWSSB²¹. The Service Management Contractor will not procure any land for the project and will limit activities to the land given by the CMWSSB for project purposes.</p>	<p><i>Not Applicable</i></p>	<p><i>Not Applicable</i></p>

¹⁹ Not applicable for other components of the program i.e. operationalization of CUMTA, Gender Lab, and bus service delivery by MTC.

²⁰ (i) Tamil Nadu Street Vendors (Protection of Livelihood and Regulation of Street Vending), Rules, 2015 and (ii) Tamil Nadu Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement Rules, 2017

²¹ Detailed information on the procedures followed for transfer of land and management of impacts during construction phase on the people not available

Core Principle #5: Program E&S systems give due consideration to the cultural appropriateness of, and equitable access to, Program benefits, giving special attention to the rights and interests of Indigenous Peoples/Sub-Saharan African Historically Underserved Traditional Local Communities (hereafter referred to, interchangeably, as Tribals, Tribal Groups or Tribal Populations), and to the needs or concerns of vulnerable groups.

SOCIAL ASSESSMENT: National and State Policies in place to address the risks			
There are no disproportionate adverse impacts or distributional inequities on vulnerable groups. Mega-street program incorporated mobility, utility and livability in design. Preliminary designs of six packages encompass safe space and universal access to meet the needs of vulnerable groups. ²² Initial consultations included a representative cross-section of groups affected by the Program. ²³ MTC has concessionary bus fares for students, differently abled and senior citizens, women-only bus services, and installation of electric hydraulic wheelchair lift mechanism, audio alert systems, buzzer with switch and stick-holding rings in select buses to enable access to differently abled, pregnant women and senior citizens. Initiatives such as installation of surveillance cameras in buses and setting up of command control centre, will be undertaken through Nirbhaya Fund. The program is also supporting the implementation of safe-city projects under Nirbhaya.	Tariff policy includes provisions for subsidizing the poor and vulnerable for equitable access to benefits. Appointment of Service Management Contractor: The contractor shall follow and comply with the policies of the CMWSSB.	Disaggregated information not available for concrete analysis. It is recommended to develop and adopt agency procedures and responsibility for managing risks associated with land acquisition and involuntary resettlement. Assessment of negative impact on SHG workers who are not absorbed once SWM services are outsourced, needs to be undertaken.	The E&S screening of proposed investments (and activities under each investment) does not reveal any disproportionate adverse impacts or distributional inequities on Tribal populations or other vulnerable groups. If required, WRD is willing to adopt special measures to promote equitable access to PforR Program benefits for Tribal populations and other vulnerable groups under the ambit of state and national laws & regulations and Bank's requirements.
Core Principle #6: Program E&S systems avoid exacerbating social conflict, especially in fragile states, post-conflict areas, or areas subject to territorial disputes (Not Applicable)			

²² These include women, differently abled, senior citizens and the economically weaker sections. As per the 2018 Household Survey in Chennai analyzed by the Bank, women walk more than men- mostly as children, the gap increases vastly as adult (37% of all female trips are walking, compared to 26% out of all male trips). Only 5% of all women respondents own a vehicle, compared to 44% of men.

²³ Conducted virtually due to Covid-19 pandemic. Face-to- face consultations have been recommended by the Bank to cover other groups such as rickshaw drivers and pedestrians from economically weaker sections, who could not participate in the online consultations.

1.11 Gaps and Recommendations

a. Social Management

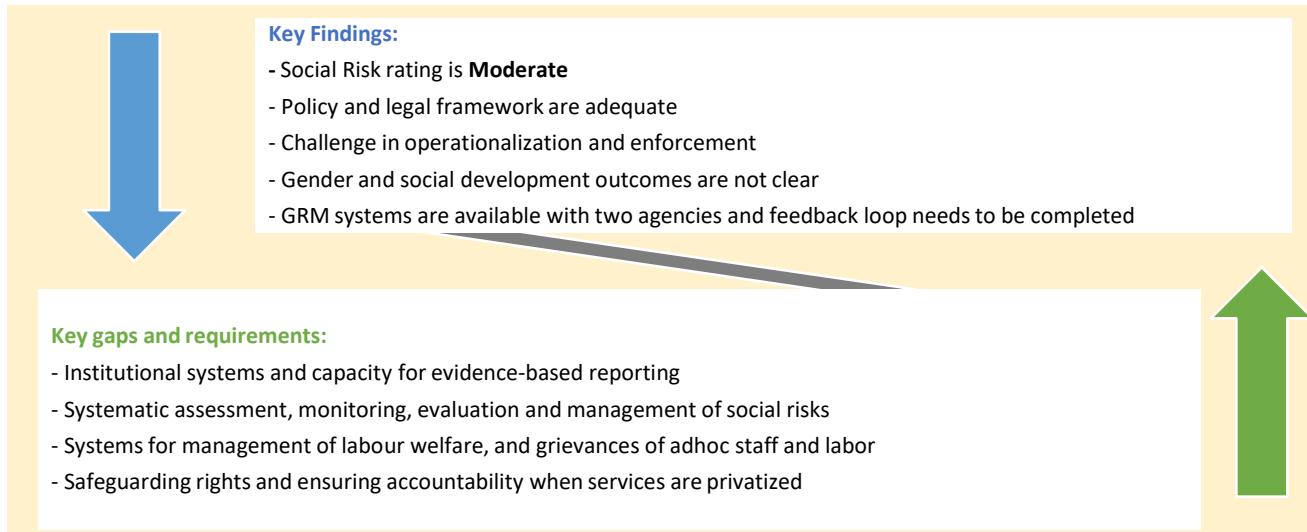


Figure 3: Findings, Gaps and requirements for Social management

The overall findings, gaps and requirements are summarized in the figure above. The narrative below details the same:

- **Seek Citizen feedback and GRM to benchmark services:** One of the pillars for this program is establishing the vision, governance, and institutions necessary for citizen-responsive service delivery. This requires systems and capacities for citizen interface with stakeholders and a responsive and accessible grievance redressal mechanism for resolving the complaints within a stipulated time. The program will support strengthening of systems for consumer satisfaction, social audits and grievance redressal to close the loop for citizen feedback. Some Institutions have robust grievance redressal system with real time reporting while others require strengthening and improvement. In all agencies, it is recommended that the GRM protocol includes complainant's satisfaction as a precondition for closure. To strengthen service delivery, annual satisfaction surveys, social audits and regular citizen interface through social behavior change communication is also recommended.
- **Ensure Gender Mainstreaming:**
 - According to 2019 National Crime Record Bureau (NCRB) data, Chennai has recorded fewer cases of crimes against women viz-a-vis other metro regions. However, there has been a slight increase in the number of cases between 2017 (642) and 2019 (729). A study conducted by AWARE in Chennai found that more than 50 % of women interviewed had faced some form of harassment while traveling on public transport. The response indicated that 44.5 % women faced verbal harassment from co-passengers, while a large share of respondents faced physical harassment – 83.7%; and non-verbal (visual) harassment – 50.8%. Chennai is one of the eight cities selected for the nation-wide safe-city program under the Nirbhaya Fund. Thirteen initiatives, focusing on safety and security concerns of women in transport and public space, were recently proposed by the GoTN under the program. Under the PforR, the Bank will support the capacity development of the newly established Gender Lab for an integrated approach in implementing the safe-city program in Chennai and adopting additional initiatives focusing on assessment of current scenario, policy strengthening, evidence-based improvement in transport services/infrastructures, capacity and awareness building and robust

monitoring.

- Women's access to opportunities can be achieved by improving safety in public spaces and public transport. The program would therefore strengthen the result-focus of women safety in urban mobility, through effective planning and coordination, leveraging on a new Gender Lab and active impact monitoring for results.
- The 2011 Census data indicates that the workforce participation rate (WPR) of women (31.8%) in Tamil Nadu is significantly lower as compared to men (59.3%). The lower female WPR does emphasize on the need for a safe and equitable working environment for women, particularly in areas where they are relegated to a lower position of power and authority. While Tamil Nadu has enacted various statutory provisions for protection and upliftment of women in the workforce, much needs to be done to ensure their implementation. The program will support a periodic review of working conditions, systems of recognitions and remuneration for women employees at all levels, including workplace policies and procedures for addressing sexual harassment and discrimination.
- Tamil Nadu State and Subordinate Service Rules, 2010 stipulates that out of the total vacancies for recruitment in public services, 30% minimum vacancies should be filled up only by women. Posts where rule of reservation for ST/SC applies, 30% of vacancies will be set apart for women candidates. For instance, if total vacancies are 100, and the schedule caste reservation is 10%, then 10 vacancies would be for persons belonging to scheduled caste category. Out of these 10 vacancies, 30% would go again to women.
- All sectors employ women, but it is important to understand the nature of contracts and terms of employment. It often reinforces stereotypes relegating women to roles and positions that are lower in hierarchy and often unskilled or low paying skills. Review of the working conditions, systems of recognitions and levels of remuneration for women workers at all levels. In addition, it can create new opportunities in arenas where women get limited opportunities (drivers, managers etc).
- Finally, an independent review of ICC and other staff support mechanisms within institutions and the contracted firms to map its accessibility, effectiveness, and role on achieving long-term results on women safety, security and opportunities.
- The ESSA recommends (i) implementation of state service rules to increase women participation in workforce development, and (ii) establishment and effective functioning of Internal Complaints Committees to ensure safe and sensitive workspace. (iii) It further emphasizes on adoption of: (a) tools for seeking citizen feedback (gender disaggregated) and (b) women safety audit to track safe mobility of women in MTC assets- to improve planning and implementation for enhanced safety.
- The indicators for measuring gender outcomes will include: (i) % reduction in women's perceptions of lack of safety in buses and public spaces; (ii) % of women employees and labor hired (grade wise disaggregated data on GCC); (iii) Internal Complaints Committees of all Implementing Agencies submitting Annual Reports.

- **Facilitate Social Inclusion:** A key pillar of improved service delivery is the outreach to the most vulnerable. The institutions must ensure a mapping of stakeholders with a focus on specific concerns of the vulnerable, challenges they face in accessing benefits; available or required subsidies. It is recommended that disaggregated data on beneficiaries (women, differently abled, Below Poverty Line, scheduled caste, tribe, minorities, and other backward classes) is periodically tracked with respect to access to services. Infrastructure and service delivery must also integrate universal design principles to facilitate access to differently abled, senior citizens, women, and other vulnerable groups.
- **Adopt Labor welfare measures:** All agencies have a mix of permanent and temporary staff- some hired and managed directly while some through contracted agencies. Improvement in services for transport, health, solid waste etc foresee recruitment of workforce while some activities would engage construction workers. While labour law requirements are embedded in the contracting structure for hiring staff, contractors, and

workers, it is recommended to have systems to monitor compliances (by each implementing agency²⁴) including for and performance-based contracts.

- **Manage Land Acquisition and Resettlement (LAR):** The Screening Criteria for selection of activities will exclude those that involve land acquisition from private owners²⁵; permanent and long-term impact on non-title holders. For Mega Street related impact on street vendors, there are adequate legal safeguards²⁶. It is recommended that GCC (Mega Street) adopts monitoring system for tracking management of implementation of Tamil Nadu Street Vendors Rules 2015. The investments in water supply and sewerage may lead to construction induced impacts on non-title holders that may be of temporary nature. It is recommended to minimize and reduce the duration of the temporary impact and ensure that mitigation measures are implemented under contract management.
- **Develop a customized and comprehensive Capacity Development** portfolio which is based on a training need assessment of all the key stakeholders. The training plan, trainers, and content to be developed or adapted such that it addresses the specific needs of the trainees and program requirements. The POM will provide a suggestive Capacity development strategy and calendar as well as indicators for tracking, reporting, and archiving.
- **Exclusion for Social Management:** It is also recommended to exclude certain activities which exacerbate social risks and are outside the ambit of PforR support. Each Sectoral ESSA provides an Exclusion Checklist to map high risk activities related to land acquisition; labor influx; loss of livelihood; negative impact on indigenous people and vulnerable, cultural heritage, community health and safety; eviction of informal settlers, permanent restrictions on access to resources and any activity not consistent with the Legal/ Regulatory Framework and not consistent with the agreed project description.

b. Environmental Management

- **Ensuring exclusion of financing non-PforR activities:** As earlier mentioned, the identified investment activities are consistent with the Bank's ESSA Guidance. To ensure that any possible changes or modifications in the investments during the Program period will also consistent, Program-level or sector-level guidelines needs to be issued and adherence to the same be ensured.
- **Environmental systems:** Inputs to the PAP: The assessment revealed certain gaps against which capacity building will be required. This is included in the following table by sector and by agency.
- **Exclusion for Environmental Management:**

The Bank's Program was reviewed to ensure that the activities do not include those not eligible for PforR financing. The following table describes the main points of the verification that was conducted.

Table 4

PforR financing eligibility	Verification notes
No limited or significant conversion or degradation of critical natural habitats or critical cultural heritage sites;	None of the identified investments – in municipal services, urban mobility, WSS and WRM sectors - are in the vicinity of any natural habitats or cultural heritage sites.
No air, water, or soil contamination leading to significant adverse impacts on the health or safety of individuals, communities, or ecosystems;	The identified investments – in water supply pipelines, sewerage network, water body rehabilitation to build resilience, street infrastructure and upfront solid waste recycling – do not have

²⁴As principal employer, each implementing agency is liable for non-compliance of statutory obligations regarding wages, occupational health and safety (OHS) and benefits of all employees deployed on their premises - whether direct or indirect.

²⁵The Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement Act, 2013 and 2017 Rules provide for rights to fair compensation in case of land is required from private entities.

²⁶Tamil Nadu has Protection of Livelihood and Regulation of Street Vending Act 2014 and corresponding Rules and Scheme. This provides legal protection and livelihood restoration measures

	significant EHS impacts. Impacts are limited, localized, reversible and moderate in nature.
No workplace conditions that expose workers to significant risks to health and personal safety;	The investments are such that they will not lead to workplace conditions that are prone to significant worker health and safety risks.
No adverse environmental impacts covering large geographical areas, including transboundary impacts, or global impacts such as greenhouse gas (GHG) emissions;	There are no such large-scale impacts. All are limited, localized, reversible and low-to-moderate in nature.
No significant cumulative, induced, or indirect impacts;	Even though the investments are within a particular geography - Chennai, these are minor in nature and cause limited environmental impacts and can be managed through appropriate mitigation. Therefore, their contribution to cumulative or induced impacts is not significant.

1.12. PAP Action

a. Social PAP Action and recommendations for each sector and agency:

The assessment shows that most agencies are well equipped with IT based monitoring systems but do not track performance on social management. The system for data collection and monitoring on social management across all institutions are fragmented and, in some cases, non-existent. **The Program Action Plan (PAP) is Strengthen institutional capacities and reporting on social risk management**²⁷.

Table 5

Sector	Agency	Description	Timeline
All Sectors	All four	<p>Strengthen institutional capacities and reporting on social risk management.</p> <p>Social management staff designated for the program</p> <p>Training calendar implemented</p> <p>Monitoring & reporting systems in place</p>	Within one year of project effectiveness
Water Supply & Sanitation	Chennai Metro Water Supply and Sewerage Board (CMWSSB)	<p>Prepare and Review Detailed Project Reports (DPRs) in line with the requirements of exclusion screening criteria</p> <p>Develop, Implement Social Audit tools and disclose reports tracking the vulnerable accessing services and benefits</p> <p>Strengthen GRM system to redress 80% of Grievances within 30 days of registration and close them after complainant's satisfaction.</p>	<p>On-going</p> <p>TOR: Q2 Y1; Onboarding Social Audit agency: Q4 Y2; Social Audit reports: every year starting Y2</p> <p>Every six months starting Q3 Y1</p>
Water Resource and Resilience	Water Resources Department (WRD)	<p>Prepare and Review Detailed Project Reports (DPRs) in line with the requirements of exclusion screening criteria</p> <p>Strengthen GRM system to redress 80% of Grievances within 30 days of registration and close them after complainant's satisfaction.</p>	<p>On-going</p> <p>Every six months starting Q3 Y1</p>
Urban Mobility	Metropolitan Transport	Conduct Audit of MTC's assets for accessibility in compliance with the Persons with Disabilities Act, 1995 and Tamil Nadu Rules, 2018	On purchase of the buses

²⁷ The national state legal and regulatory framework are adequate for effective management of social risks and equitable distribution of benefits supported by the program.

	Corporation (MTC)	Adopt Women Safety Audit to track safe mobility of women in bus routes, bus stops and terminals to improve planning and implementation for enhanced safety.	Once in two years starting Y2
		Strengthen GRM system to redress 80% of Grievances within 30 days of registration and close them after complainant's satisfaction.	Every six months starting Q3 Y1
		Develop tools for seeking citizen feedback (<i>including woman users' perception of bus services to be safe and accessible</i>), Disclose mid-term and end term citizen feedback Report	TOR: Q2 Y1; Onboarding agency: Q3 Y2; Report available on website starting Y2.
	Mega Street	Adopt procedures to comply with <i>Tamil Nadu Street Vendors (Protection of Livelihood and Regulation of Street Vending) Rules, 2015</i>	Q3 Y1
	Gender Lab (GCC)	Plan, implement and document stakeholder consultations.	Engagement and Consultation plan prepared by Q3Y1 and tracked every quarter from Q4Y1 onwards
Municipal Services – Public Health	Greater Chennai Corporation (GCC)	Plan, implement and document stakeholder consultations	Engagement and Consultation plan prepared by Q3Y1 and tracked every quarter from Q4Y1 onwards
		Develop tools for seeking citizen feedback, disclose mid-term and end term citizen feedback Report (tracking the vulnerable accessing services and benefits)	TOR: Q2 Y1; Onboarding agency: Q3 Y2; Report available on GCC website starting Y2.
		Strengthen GRM system to redress 80% of Grievances within 30 days of registration and close them after complainant's satisfaction.	GRM system adopts complainant satisfaction as a closure benchmark Q3 Y1 onwards based on which GRM reports available from Q4 Y1
		Implement state service rules on women employment for both temporary and permanent to increase women participation in workforce (<i>vacancy reduction in Group A & B cadres and overall increase in women's employment</i>)	Annual progress starting Y1

b. Environmental PAP Action and recommendations for each sector and agency:

Table 6

Sector	Agency	Description	Timeline
Water Supply & Sanitation	Chennai Metro Water Supply and Sewerage Board (CMWSSB)	Establish and maintain documented procedures for environmental management	End of Year 1
		Review and strengthen all the contract provisions (in the proposed performance-based contracts) pertaining to Environmental and Health and Safety (EHS) for proposed civil works under the water supply distribution network and sewerage network	Prior to contracting / bidding whenever undertaken
		Review and use Information and Education Campaign (IEC) with a focus on worker and community safety	End of Year 1 and subsequently
Water Resource and Resilience	Water Resources	Establish and maintain documented environmental systems and procedures (for the entire project cycle including monitoring) for the Environmental Cell	End of Year 1

	Department (WRD)	Review Detailed Project Reports (DPRs) in line with the requirements with National Green Tribunal (NGT) orders passed on other water bodies, if any, and include EHS good practices in the bidding documents	Prior to contracting / bidding whenever undertaken
Urban Mobility	Metropolitan Transport Corporation (MTC)	Conduct a performance review of the various MTC Divisions / Sections (Depots used for maintenance and disposal) that have environmental functions to determine areas for improvement, if any.	End of Year 1
Municipal Services – Public Health	Greater Chennai Corporation (GCC)	Develop and establish the use of documented procedures for UPHCs and UCHCs on BWM management and infection control	End of Year 1
Municipal Services – Solid Waste Management	Greater Chennai Corporation (GCC)	Conduct a preliminary environmental review / assessment for the dry waste resource recycling interventions at the time of design / planning, and proper management measures (incl. safety protocol) should be included as part of the construction and implementation phase.	End of Year 1
All sectors	All implementing agencies	Monitor and record progress reports of EHS performance	Half-yearly starting from the end of Year 1

2. SECTION TWO: Sectoral Environmental and Social Systems Assessment

2.1 Water Supply and Sanitation

2.1.1 Overview

a. The Chennai Metropolitan Water Supply and Sewerage Board (CMWSSB) was formed under the Chennai Metropolitan Water Supply and Sewerage Act, 1978. The Chennai Water Supply started about 106 years ago during the British Raj in the year of 1914. CMWSSB stands committed to making a positive contribution to improve the Chennai City environment and to enhance the health and quality of life for the citizens in Chennai City by providing them with adequate supply of safe and good quality water, by collection, treatment and safe disposal of sewage at a reasonable price, and by providing customer service in prompt and courteous manner. This would be achieved through several measures such as:

- providing reliable and equitable water supplies in compliance with statutory standards.
- collecting wastewater, treating and returning it to the environment, or arranging its re-use having regard to impact and in compliance with statutory standards.
- using assets more efficiently to deliver the best possible service.
- providing timely information to stakeholders and communicating with customers.
- developing long term strategies and actions.
- achieving sustainable financial self-sufficiency.
- maximizing employee potential.
- monitoring performance.

b. Program for Results support under the Chennai City Partnership Project is aimed to support the overall water supply and sanitation improvements to core areas of Chennai city through a) Demonstration pilots for improved service Delivery, b) Infrastructure improvements such as replacement of old pipes, fixing new pipes, service reservoir (s) (if required), etc., c) Providing House Service connections and fixing water meters and d) Appointment of a Service Management Contractor, and Sanitation through i) Laying sewer lines and associated infrastructure as required by design, and ii) Providing sewer connections to households. In addition, support will be offered to CMWSSB to pivot towards a stronger focus on sustainable and improved service delivery.

c. With respect to the project result areas (RA), the implications for CMWSSB are enlisted below:

- RA 1: Strengthening governance and institutions for integrated and resilient service delivery
 - enhance the service delivery capability and orientation of key service delivery agencies.
- RA 2: Enhancing the quality, efficiency, and sustainability of urban services
 - Increase in use of performance-based contracting by CMWSSB (as % of total service delivered)
 - Improvement in service delivery performance index of CMWSSB
 - increase in digitalization of the service delivery chain, including use of e-governance, e-tendering, electronic billing and payments, and remote operation and monitoring systems in CMWSSB.
- RA 3: Improving financial sustainability of urban services
 - CMWSSB to steadily improve its score/performance on a Financial Sustainability Index through improvements in tariffs and recovery of O & M costs, reduction of non-revenue water, improved energy efficiency and increase use of wastewater

2.1.2 Social and Environmental Impact

a. Social Impact

The program is likely to have positive impacts because of increase in number of households having access to water supply and sanitation services. In addition, improved water supply and sewerage connections are likely to result in improved health and time savings for citizens at large. CMWSSB has already started to implement Water Supply Scheme (WSS) and Under-Ground Sewerage Scheme (UGSS) in newly added 42 ULBs in phase wise manner²⁸. Providing total sanitation to all and to achieve the pre-set service level Benchmarks of 100% on Water Supply and Sewage Services include efficient treatment of water, distribution network, last mile connectivity, complete sewage network, efficient collection of sewage, efficient treatment of sewage, reuse and recycling of sewage, efficient customer complaint redressal, cost effective management and efficient collection of charges, etc. Presently, the CMWSSB covers about 59% of the households with House Service Connections providing about 87 lpcd of water. About 5% of these connections are metered. About 97% of the supplied water meets water quality requirements. The cost recovery is about 53% and efficiency is collection of water charges is 58%. The aim is to have 100% coverage with 135 lpcd of water by 2025. Coverage of sewerage network services and individual connections (including old dilapidated network) is 55%. Efficiency of sewage collection is 70% and adequacy of sewage treatment capacity is 100%. The aim is to have 100% coverage of sewer network, efficiency in collection and treatment capacity by 2025.

The Table below summarizes the benefits, risks, gaps and opportunities:

Table 7

Benefits	Risks	Gaps	Opportunities
<ul style="list-style-type: none"> • Improved water supply • Improved Sanitation • Improved health • time savings • income enhancements • reduction in water related diseases • equity in distribution to the connected • improved tariff collection • reduction of non-revenue water • improved operational efficiency 	<ul style="list-style-type: none"> • Land and/ or livelihoods loss if encumbrance free land is not available • lack of stakeholder engagement during construction • temporary income/ livelihoods disruptions during construction period • labour issues with management contractors during operations • inequity in service levels to low income areas • Citizen apathy in the absence of engagement and poor GRM • Reputational risks if contract management is poor • Ineffective ICC for handling cases of sexual harassment • Weak Monitoring and Reporting 	<ul style="list-style-type: none"> • Overall reporting and monitoring mechanisms • Social Management capacities and systems for monitoring and reporting • Tracking grievances and completing the feedback loop • Roles of elected representatives and civil society in citizen interface 	<ul style="list-style-type: none"> • Opportunities for 24/7 water supply and better sanitation services • Opportunities for income enhancements to Slum Dwellers and Informal Workers • Reduced drudgery for women in collecting water; improved school attendance of girls • Opportunities for Women participation in the program • Opportunities for WASH training and IEC campaigns • Opportunities for updating the GRM to include grievances in all modes

The screening reports for the Water and Sewerage projects (conducted by the consultants) indicate that there are no land related impacts, except for temporary inconveniences during construction. The Consolidated Report provides activity-wise positive and negative impacts expected and the corresponding risk rating. The cumulative risk rating for this sector is Moderate provided institutional capacities are strengthened to manage and report on existing and expected social risks.

²⁸ During 2009, Chennai City boundaries have been expanded by including 42 adjacent Urban Local Bodies (ULBs) which include 9 Municipalities, 8 Town Panchayats and 25 Village Panchayats. Currently the Chennai city limit is extended to 426 Sq. km. from the original area of 174 Sq. km. Chennai Metropolitan Water Supply and Sewerage Board (CMWSSB) is the statutory body to provide basic infrastructure facilities such as Water supply and Sewerage to the residents of Chennai city including newly added 42 ULBs which are now part of Chennai city and Chennai Metropolitan area as well.

b. Environmental Impact

The WSS will finance activities that include: (i) service improvement, non-revenue water reduction and metering by establishing 6,600 **connections** in Zone X and XIII of the core city; (ii) new underground sewer line network in 5 areas, namely, *Kottivakkam, Palavakkam Neelankarai, Injambakkam and Okkiyum-Thuraipakkam*. This includes a new sewer line network with household connections. The sewer collected from household will be disposed in the already existing Sewerage Treatment Plant (STP); (iii) connection of 60-70,000 new water meters; and (iv) improved metering in commercial areas.

Environmental risks and impacts associated with these activities include (i) storage, transport and disposal of construction wastes, (ii) worker safety and pedestrian safety, (iii) dust, noise and air pollution; (iv) disruption of traffic, water or sewage leakages during laying of the WSS pipelines, and (iv) health impacts to workers and community, including Covid-19 pandemic. All the activities will be implemented in urban areas and there will be no impacts expected on biodiversity and other sensitive ecosystems. Water is from the usual sources supplying the other parts of the city, and will not adversely affect or impact any particular natural ecosystems. Further the quantity of additional water supply is a small proportion of what the city's existing offtake from its sources. There is adequate capacity of the sewage treatment plants to receive the additional sewage from this additional sewerage network. Overall, impacts associated with the WSS program are considered to be not significant, localized to the construction zones and are temporary as these are limited to the construction period. These can easily be addressed through appropriate mitigation measures during construction. Managing these risks will require the adoption of proper controls by CMWSSB during the planning, design, construction and operational stages. There are no institutional capacity risks either as the responsible agency – CMWSSB – is well-established and recognized for its technical, implementation and operational strengths. There are no reputational and political risks as these interventions are recognised as necessary for the city.

Water is scarce in Chennai and has no perennial water source. The city has been highly vulnerable to extreme weather and erratic rainfall, including periodic droughts and floods. Current water demand outstrips the available supply. The proposed WSS activities will have **positive environmental and public health benefits through**: (i) improving water use efficiency and effectiveness by introducing a metering system; and (ii) introducing a better sewerage management system that will bring environmental benefits through the avoidance of temporary septic tank disposal approaches that are often not well managed and with the potential for groundwater contamination. The **screening reports** for the Water and Sewerage projects (conducted by the consultants) indicate that there are no land related impacts, except for temporary inconveniences during construction. The Consolidated Report provides activity-wise positive and negative impacts expected and the corresponding risk rating. The cumulative risk rating for this sector is Moderate provided institutional capacities are strengthened to manage and report on existing and expected Environmental risks.

2.1.3 Assessment of Social and Environmental Legal Policy Framework

a. Social Policy and Legal Framework

The Chennai Metropolitan Water Supply and Sewerage Board (CMWSSB) was formed under "The Chennai Metropolitan Water Supply and Sewerage Act, 1978". As per this Act, CMWSSB stands committed to making a positive contribution to improve the Chennai City environment and to enhance the health and quality of life for the citizens in Chennai City by providing them with adequate supply of safe and good quality water, by collection, treatment and safe disposal of sewage at a reasonable price, and by providing customer service in prompt and courteous manner.

CMWSSB has a Citizen Charter specifying the services, processes, service levels, performance standards, duration for every services, grievance redressal mechanism, escalation of complaints, guidelines for related structures

(Water Harvesting Structures, etc.), adoption of right to information, rights and responsibilities of consumers, details of concerned officers, etc. The Board's Objective is to enhance the health and quality of life of Citizens in Greater Chennai City by providing them adequate supply of potable and good quality water and safe disposal of sewage/ waste water at reasonable price. The PorR for Water Supply and Sanitation will focus on the inclusion of hitherto unserved areas and last mile connectivity and in general service delivery improvements. Under this assumption, the following laws and policies become relevant apart from the ones covered above under the Annexure 1.

Table 8

S. No	Name of law/policy	Overview of key provisions	Applicability to P4R
1	The Chennai Metropolitan Water Supply and Sewerage Act, 1978	The provisions of water supply and sanitation services by CMWSSB are governed by this act.	The Functioning of CMWSSB and the key polies are guided by this.
2	Citizen Charter of CMWSSB	Towards this charter, the consumer oriented CMWSSB will be guided by the following: ➤ Feedback from consumers ➤ Delivering excellence in products and services ➤ Doing business with ethics and integrity ➤ Continuous endeavour to improve quality of service	Fully applicable to the P4R Program and there is a possibility that this may be upwardly revised.
3	Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement Act 2013	Emphasizes social assessment and resettlement planning even prior to issuance of the preliminary notification and proposes to provide arrangement of R&R benefits along with the compensation package. Some of the highlights are as follows: <ul style="list-style-type: none">• Offers compensations upto 4 times the market value in rural areas and 2 times the market value in urban areas.• No displacement or dispossession until full payment of compensation and RR benefits are made and alternative sites for the resettlement and rehabilitation have been prepared.• Bill requires the consent of no less than 70 percent and 80 percent respectively (in both cases) of those whose land is sought to be acquired in case of PPP or private projects.• To safeguard food security and to prevent arbitrary acquisition, the Bill directs States to impose limits on the area under agricultural cultivation that can be acquired.• In case land remains unutilized after acquisition, the new Bill empowers states to return the land either to the owner or to the State Land Bank.• No income tax shall be levied, and no stamp duty shall be charged on any amount that accrues to an individual as a result of the provisions of the new law.• Specifies some additional provisions for SC and STs.	Applicable if land is acquired for project facilities and/or if someone is displaced and/or livelihoods are affected. When the Act 2013 is applicable, the TN 2017 Rules are to follow.
4	The Tamil Nadu Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement Rules, 2017		
5	Street Vendors (Protection of Livelihood and	This Act aims to regulate street vendors in public areas and protect their rights. It provides for a periodic survey of all street vendors under the jurisdiction of the Town Vending	Some of the activities under the Water Supply and Sanitation

	Regulation of Street Vending) Act, 2014	Committee (in each zone or ward of the local authority) and registration and issuance of a Certificate of Vending to them.	component, such as laying of pipelines, may have temporary or permanent impact on street vendors.
6	Tamil Nadu Street Vendors (Protection of Livelihood and Regulation of Street Vending) Rules, 2015	These Rules have been made by the GoTN in exercise of the powers conferred by the 2014 Street Vendors Act. It provides for constitution of the Town Vending Committee, Grievance Redressal and Dispute Resolution Committees.	
7	Tamil Nadu Land Encroachment Act, 1905	This Act deals with unauthorized occupation of Government land in Tamil Nadu and provides for liability of those unauthorizedly occupying land and manner of eviction.	Some of the activities under the Water Supply and Sanitation component, such as laying of pipelines, may encounter squatters and encroachers.
8	National Urban Sanitation Policy (NUSP) 2008	The policy on integrated city-wide sanitation covers institutional strengthening, awareness generation, behavioural changes, pro-poor approaches and cost effective technologies under city sanitation plans that should lead to open defecation free cities, as well as sanitary and safe disposal of all human and liquid wastes.	Promote community led improvement in overall sanitation and cleanliness in urban areas.
9.	Prohibition of Employment of Manual Scavengers and their Rehabilitation Act, 2013 (Central Act 25 of 2013)	No person, local authority, or any agency to engage or employ, either directly or indirectly, any person for hazardous cleaning of a sewer or a septic tank.	GCC has a Manual Scavenger List prepared through a self-declaration form to provide assistance.

Presently CMWSSB uses large number of outsourcing contracts for the Operation and Maintenance. These outsourcing contracts involve hiring of labor. When labour is hired, the key issue is to monitor labour welfare aspects and compliance with labour laws. There is an opportunity to turn these labour contracts into performance based contracts. In order to comply with labor laws, as the principal employer, the CMWSSB needs to monitor these contracts for compliance with labour laws.

b. Environmental policy and legal framework

The national and state environmental policy and legal framework to address environmental risks and impacts of water supply activities are well developed. A brief description of policy and legal framework associated with WSS PfoR interventions are provided in the table below:

Table 9

No.	Title and brief description	Relevance to the Program and Responsible Organisation
1	Environment (Protection) Act of 1986: The Act is an umbrella legislation that provides a framework for Central and State Authorities established under previous laws. It	Standards that are specifically applicable to air, water, noise and soil components to all the civil works related to the WSS infrastructure development.

No.	Title and brief description	Relevance to the Program and Responsible Organisation
	provides a single focus for the protection of the environment and sought to plug several loopholes	Organisation: TN State Department of Environment and State Pollution Control Board
2	<u>Air (Prevention and Control of Pollution) Act 1981:</u> This Act provides for the prevention, control and abatement of air pollution. It is to control emissions of any air pollutant into the atmosphere when it exceeds the standards set under the Act and associated rules	Under the Act, the contractor is required to obtain the Consent to Establish and Consent to Operate for the ready mix concrete plant (s) from which the concrete for construction is used. Organisation: TN State Pollution Control Board
3	<u>Water (Prevention and Control of Pollution) Act 1974</u> This is to control water pollution by controlling emission & water pollutants and the maintaining or restoring of wholesomeness of water, through establishment and empowerment of Boards at the national and state levels. Ensuring adherence to water quality and effluent standards is the main purpose.	Under the Act, the contractor is required to obtain the Consent to Establish and Consent to Operate for all civil works. Further, there should be no dumping the construction waste / debris into nearby water bodies like streams. Organisation: TN State Pollution Control Board
4	<u>Noise Pollution (Regulation and Control) Rules 2000</u> According to the provisions of the rules notified under this act, a person might make a complaint to the designated 'Authority' in the event that the actual noise levels exceed the ambient noise standards by 10dB(A) or more as compared to the prescribed standards. The designated authority will take action against the violator in accordance with the provisions of these rules or other law in force.	Under the Rules, the Contractors need to adhere to these rules in the context of all civil works. Organisation: TN State Pollution Control Board
5	<u>Various Waste Management Rules 2016:</u> There are four pertinent Waste Management Rules: (i) Hazardous and Other Wastes (Management and Trans-boundary Movement) Rules, 2016; (ii) Construction and Demolition Waste Management Rules 2016, (iii) Solid Waste Management Rules 2016 and (iv) Plastic Waste Management Rules 2016.	There are guidelines for generation, storage, transport and disposal of C&D waste, hazardous waste, plastic waste and municipal solid waste. For all civil works, the contractor will have to obtain authorizations for all the different types of wastes as required, and will dispose scrap/ waste only to authorized places/ sites. Organisation: TN State Pollution Control Board.
6	<u>Indian Forest Act 1927, Forest Conservation Act 1980 and Forest Rights Act 2006</u> Under this Act, administrative approval must be obtained from the Forest Department to clear designated forestland. According to this although the land is under the control of state government, due to its protected status, approval from the Government for using the land may be required.	The use of forestland for non-forestry purposes, replenishing the loss of forest cover by compensatory afforestation on degraded forestland and non-forest land, and permission for tree felling may be required in the context of civil works pertaining to infrastructure development. Though the likelihood of forest land is low, the appropriate forest clearance will be obtained without fail. Organisation: State Forest Department.
7	<u>National Green Tribunal (NGT) Orders</u> The National Green Tribunal has been established under the National Green Tribunal Act 2010 for effective and expeditious disposal of cases relating to environmental protection and conservation of forests and other natural resources including enforcement of any legal right relating to environment and giving relief and compensation for damages to persons and property and for matters connected therewith or incidental thereto.	The NGT's orders in environmental matters provide the directions to various Government agencies and these have to necessarily be adhered to. In the case of this Program, it is required to determine whether there are any NGT orders in the jurisdictions where civil works are being undertaken. If that's the case, then the required approvals will have to be obtained from the authorized agencies.

No.	Title and brief description	Relevance to the Program and Responsible Organisation
8	<p><u>The Ancient Monuments and Archaeological Sites and Remains Act, 1958, and the Rules, 1959</u></p> <p>The Act and Rules protect the archaeological sites, and no person shall undertake any construction within the protected or regulated area except in accordance with the permission granted.</p>	<p>Wherever the civil works for infrastructure development are carried out in the vicinity of cultural properties, the provisions of the Act and Rules are applicable.</p> <p>Organisation: Archaeological Survey of India, Chennai Circle</p>
9	<p><u>Coastal Regulation Zone Notification, 2019</u></p> <p>This notification under Environment (Protection) Act, 1986 supplements the law on site clearance by declaring certain zones as CRZ and regulates activities in these zones. The CRZ Notification, 2019 clearly lists out the areas that fall within the categories of I, II, III and IV of CRZ-I and the permissible and non-permissible activities in each zone.</p>	<p>Wherever the civil works are in CRZ areas, permissions are required. As WSS infrastructure is permitted in these areas, there is only a procedural requirement that needs to be met.</p> <p>Organisation: TN Coastal Zone Management Authority</p>

2.1.4 Assessment of Risks under PforR activities

Table 10

	Activity	Positive Social Impact	Social Risk Assessment	Social Risk Rating
1.1	<p>Water supply delivery contracts for Zone X and XII covering 1.85 Lakh Households.</p> <p>Likely activities as given below is yet to be confirmed.</p> <ul style="list-style-type: none"> • Demonstration pilots for improved service Delivery • Infrastructure improvements such as replacement of old pipes, fixing new pipes, service reservoir (s) (if required), etc. • Providing House Service connections and fixing water meters • Appointment of a Service Management Contractor 	<p>Improved water supply, health improvements, reduction in water related diseases, time savings, income improvements, equity in distribution to the connected, improved tariff collection, reduction non-revenue water, etc.</p>	<p>Land and/ or livelihoods loss if encumbrance free land is not available (for any new pipelines, reservoirs, etc.); Construction induced impacts like temporary loss of income/ livelihood, weak welfare measures for labour and occupational health and safety; Inequity in service levels to low income areas (quantity, quality, pressure, etc.) as there is poor last mile connectivity for the unconnected.</p> <p>Lack of stakeholder engagement leading to increase in grievances</p> <p>Weak systems on accessible and effective Grievance management</p>	Moderate
			<p>Environmental Risk</p> <p>Introducing a metering system and laying out water supply pipelines will improve water use efficiency;</p>	<p>Environmental Benefit</p> <p>The following environmental effects: (i) storage, transport and disposal of construction wastes, (ii) worker safety and pedestrian safety, (iii) dust, noise and air pollution; (iv) disruption of traffic, water leakages during laying of the water supply pipelines, and (iv) health impacts to workers and community, including Covid-19 pandemic.</p>
	Activity	Positive Social Impact	Social Risk Assessment	Social Risk Rating

1.2	<p>Sewer Network in unserved areas within 5 new added areas (Area XIV and XV) within GCC</p> <p>Likely activities as given below is yet to be confirmed.</p> <ul style="list-style-type: none"> • Laying sewer lines and associated infrastructure as required by design • Providing sewer connections to households 	<p>Improved sewer network; health improvements; Reduction in water related diseases, reduced nuisance of flies and insects, rodents, etc. reduced smell; reduced water contamination, etc. reduced accidents with improved operation and maintenance</p>	<p>Land and/or livelihoods loss if encumbrance free land is not available (for new sewers, pumping stations, etc.); Construction induced impacts like temporary loss of income / livelihood disruptions, weak welfare measures for labour and occupational health and safety; Potential manual scavenging leading to occupational health hazard and death. Lack of stakeholder engagement leading to increase in grievances</p>	Moderate
		Environmental Risk	Environmental Benefit	Environmental risk rating
		<p>Introducing a better sewerage management system that will bring environmental benefits through the avoidance of temporary septic tank disposal approaches that are often not well managed and with the potential for groundwater contamination.</p>	<p>The following environmental effects: (i) storage, transport and disposal of construction wastes, (ii) worker safety and pedestrian safety, (iii) dust, noise and air pollution; (iv) disruption of traffic, sewage leakages during laying of the sewerage pipelines, and (iv) health impacts to workers and community, including Covid-19 pandemic.</p>	Moderate

2.1.5 Assessment of Institutional systems and capacities

a. Organisational Role and Structure

Broadly, the functions of the CMWSSB include Operating and maintaining the water supply and sewerage services in the Chennai Metropolitan Area to the best advantage of the inhabitants of that Area. It is expected to ensure public health, safety and convenience of the public. The consulting and collaborating with the Chennai Metropolitan Development Authority in regard to planning and undertaking development activities connected with the water supply and sewerage systems for the Chennai Metropolitan Area and extend full assistance to and co-operate with the local authority in relation to matters connected with water supply systems or water works or sewerage works, or road works or similar works. Finally, CMWSSB is to be guided by such instructions on questions of policy involving public interest as may be given to it by the Government and in case of any difference of opinion as to whether a question is or is not a question of policy involving public interest, the decision of the Government thereon shall be final.

The administration is under a Board of Directors headed by the Secretary to Government, Municipal Administration and Water Supply Department as its Chairman. The Managing Director is the Chief Executive Authority to the Board and oversees the day-to-day administration of the Board and exercises supervision and

control over the employees of the Board. The Managing Director is assisted by the following three Heads of Departments (Finance, Executive and Engineering Director). The following figure explains the organogram:

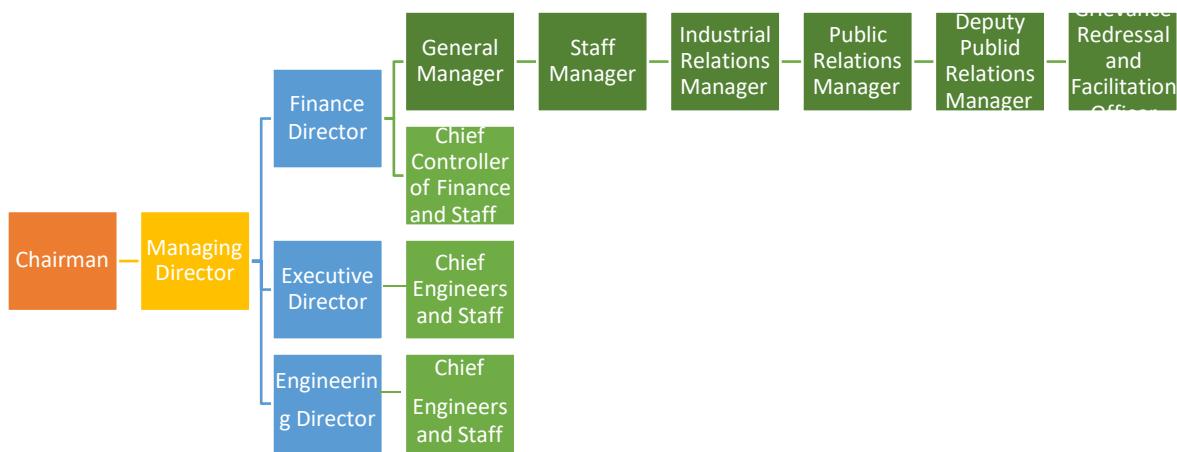


Figure 4

Secretary Cum General Manager is the head of Department for Personnel and Administration Department. A District Revenue Officer is holding this post. The P&A Department is responsible for the following functions: Recruiting of Personnel, Disciplinary proceedings, Employees Records, Manpower Development, Industrial Relations, Public Relations, Office Services, Maintenance of Records. The Secretary-Cum General Manager is assisted by the Staff Manager, Industrial Relations Manager, Public Relations Manager, Deputy Public Relations Manager and Grievance Redressal and Facilitation Officer. The General Manager is the Vigilance Officer and Secretary to the Board.

b. Institutional Systems and Practices for Social Management

Table 11

Theme	Systems and Practices
Land Procurement	As per CMWSSB, it would get the land sanctioned from the Government of Tamil Nadu/ Chennai Corporation/ Revenue Department/ Other Departments at free of cost. It would generally opt for encumbrance free government lands for all its facilities. There is a Tahasildar in the CMWSSB to assist in the land procurement. Data pertaining to land management and temporary disruptions is unavailable
Citizen Engagement	As per CMWSSB, it conducts IEC and SBCC campaigns for creating awareness on WASH. The Field staff of CMWSSB engage people representatives and RWAs for information dissemination and feedback.
Citizen Charter	CMWSSB has a Citizen Charter specifying the services, processes, service levels, performance standards, duration for every services, grievance redressal mechanism, escalation of complaints, guidelines for related structures (Water Harvesting Structures, etc.), adoption of right to information, rights and responsibilities of consumers, details of concerned officers, etc. The Board's Objective is to enhance the health and quality of life of Citizens in Greater Chennai City by providing them adequate supply of potable and good quality water and safe disposal of sewage/ waste water at reasonable price. Towards this end, the consumer oriented CMWSSB will be guided by the following: <ul style="list-style-type: none"> Feedback from consumers Delivering excellence in products and services Doing business with ethics and integrity Continuous endeavor to improve quality of service
GRM	<ul style="list-style-type: none"> CMWSSB has 24 Hours Complaint Cell for Registration and Redressal of Complaints (45674567). As part of improving customer services CMWSSB welcomes comments, suggestions, enquiries and inputs. On receipt of a complaint, CMWSSB will investigate it report back to the complainant and

	<p>do all they can do to solve the problem and address the issue as efficiently and effectively as possible.</p> <ul style="list-style-type: none"> • If a consumer has to service problem with water or sewage, he/she can at any time make a complaint in person or over phone round the clock to the Complaint Cell operating from the Metrowater Head Office on the telephone Nos. 45674567. He/she also has a choice of making the complaint at any of our 200 Depot Offices or 15 Area Offices. Your complaint will be duly recorded and a number assigned immediately. If the consumer chooses to go in person, an acknowledgement will be handed over to him/her. He/ she also can make the complaint through internet at https://chennaimetrowater.tn.gov.in with OLC No. for acknowledgement. • If the consumer telephones, they try to assess the problem and offer appropriate solutions. Wherever that is not possible they will attempt to rectify the complaint in accordance with the time frame specified in the Citizen Charter. If he/she is not satisfied with the solution provided, he/she can contact the Chief Engineer (O&M)/ Executive Director/Managing Director (Chief Engineer (O&M): 28453002, Executive Director: 28454000, Managing Director: 28459000). • A phone based app for GRM is in place at CMWSSB.
GRM monitoring	<ul style="list-style-type: none"> • Complaints received in Head office are communicated to the concerned Area/Depot Offices immediately over wireless/telephone. In addition to this, the complaint forms in duplicate are prepared for the complaints received and sent to the Depot offices concerned through Area Office. • The Depot Office will get an acknowledgement from the complaint after resolution of the same and send the original complaint form to Head office through Area Office by retaining the duplicate copy in the Depot office. • The Head Office will send reply cards to ten complainants daily chosen randomly for independent feedback. <p>A similar procedure of preparing duplicate complaint form is followed in respect of the complaints received at the Area Offices also. The original complaint forms with the signature of the complainant are sent to the Area Office. The duplicate copies are retained in Depot Offices. The complaint forms in triplicate are prepared for the complaints received at Depot Offices. The original is issued to the complainant as acknowledgements for receipt of the complaint. One copy is retained at Depot Office and the other to be sent to Area Office with the signature of the complainant after it has been resolved.</p>
Vigilance	Complaints about corruption are handled by the Directorate of Vigilance and Anti-Corruption, Chennai. Complaints are received by letter, phone (22310989 / 22321090 / 22321085) and web (www.dvac.tn.gov.in)
Social Inclusion	<ul style="list-style-type: none"> • CMWSSB follows the reservation quotas for all permanent staff recruitment. Please add the staff break up in terms of male female and reserved categories. • As a service provider, CMWSSB caters to the vulnerable groups • CMWSSB has tariff policy with targeted subsidies to EWS. • Manual Scavengers Register was prepared as a part of the national exercise.
Gender	<ul style="list-style-type: none"> • As per CMWSSB there are female employs across all cadres as per government norms. • As per CMWSSB, the GRM addresses against Sexual Harassment related complaints as well. • As a service provider, women groups/ SHG engagement in the service provision is yet to be received.
Labor and Staff Management	<ul style="list-style-type: none"> • Staff: There are 87 Categories of staff available in Staff Establishment and 19 Categories of Staff are available in Labour Establishment. The Staff strength of the Board is 3607 (908 Staff and 2699 Labour). There are regulations and procedures in place for administration and management of the staff of the CMWSSB. CMWSSB believes and consider employees as its most important assets and accords high priority to their welfare. CMWSSB also realises the hazardous environment in which many of its employees particularly labour establishment employees work. All the employees both under Staff and Labour Establishment category are permanent employees and there are no temporary/daily wages employees. Several employee welfare measures are in place such as a) Terminal Benefits, b) Allowances and Provisions, c) Long Term Advances for House Building Advance, Conveyance Advance, Computer Advance, Marriage Advance, Education Advance, Festival Advance, etc. d) Medical Concessions, e) Health Camps, f) Safety Measures, etc.

	<ul style="list-style-type: none"> Contract Labour employed by Contractors: Both the Water and Sanitation tender documents contain an Environmental Management Plan (EMP). This chapter includes labour related legislation including insurance, wages, equal remuneration, child labour, maternity benefits, trade unions, migrant labour, etc. There is a need to update this section with new legislation. The EMP contains social impacts such as a) Socio-economic losses due to access to houses, businesses and livelihoods, b) Occupational health and safety issues, c) Community health and safety issues, d) Workers camps and worksites issues, e) Construction disturbances, nuisances, public and worker safety, etc. Health and Safety: CMWSSB has brochure both in Tamil and English on Safety & Preventive Measures and Digest of various Labour Laws which gives guidelines at a glance on Safety Measures for adoption while executing the work was issued to the locations and circulated to the Supervisory Officers for reference and adoption. The copies also circulated to the contractors for adoption. The tender documents have section on Specifications providing a list of relevant specifications, which has a clause saying "If no standard is indicated, the relevant Indian Standard, if any, shall apply," and refers to Bureau of Indian Standards for such standards.
Institutional Capacities to manage Social Risks under the project	<ul style="list-style-type: none"> CMWSSB has no Social Management Unit or Specialists with expertise on Land, Labour, Social development, Gender, Communication, Inclusion, rights, and welfare. Presently the Department of Personnel and Administration performs these tasks. These activities are managed by consultants appointed for the purpose for specific projects. CMWSSB has a policy of equity in service levels and covers all sections in the areas where services are provided. A strategy for reaching out to low income areas/ slums on an equal footing is required All the CMWSSB staff (and labour) are permanent government employees. There are no temporary staff. The details of ICC are yet to be collected. The contract documents does have sections on labour including listing of labour laws. In addition, availability of Complaint Cell and ICC in contracted Agencies not known. Systems for tracking of labor law compliance of contractors and complaint management not available CMWSSB has an SOP for Covid-19. Health Department carries out regular check-ups tests of it staff and workers and provides support to Covid positive. All staff and labour are provided sanitizers, gloves, shoes, masks CMWSSB has targeted tariff subsidy policy for poor that is in use. GRM details by type, redress, satisfaction/ feedback from consumers for the last few years are yet to come. The details of grievances and redress are not available in public domain. The ICC details and complaints are not in the public domain CMWSSB has experience of implementing project funded by Multilateral Development Banks (MDB) and other agencies. CMWSSB has the experience of commissioning consultants for assignments such as Project Management Consultants, etc. and managing them for these MDB assisted projects. However, there is a need for a Social Development Specialist, a Gender Specialist and a Communication Specialist at the CMWSSB

c. Institutional Systems and Practices for Environmental Management

- CMWSSB does not have a centralized Environment Cell or Division to coordinate environmental management activities at an institutional level. All activities pertaining to environmental management are carried out by decentralized teams, who are assigned with specific infrastructure projects within their geographical areas of jurisdictions, e.g. North, North-East, Central, South and South-West . And the examples of the infrastructure projects include construction of desalination plants, pumping stations and reservoir, water distribution networks, sewerage networks and sewage treatment plants. These teams include Chief Engineers, Superintending Engineers, Executive Engineers and their supporting consultants. The team determines what environmental issues need to be covered, and these are addressed as relevant to the specific infrastructure projects.
- Procedures:** The assessment of CMWSSB's institutional capacity was done to determine whether their procedures and practices meets (i) the requirements of the national and state policy and legal framework

and (ii) follow their own sector policy legal framework and standards:

- On the policy and legal framework, CMWSSB was found to be fully aware and the requirements are integrated in the planning, design, construction and operation of their activities pertaining to the Bank's Program. As these requirements are largely relevant during the pre-construction and construction stage, CMWSSB includes these in (i) the terms of reference of the preparation consultants, (ii) the bid / contract documents that are used to procure the contractors; and (iii) the terms of reference of the project management or supervision consultants who support in overseeing their adherence during the construction stage. The systems and procedures for their inclusion, implementation and monitoring relevant to the policy and legal framework is in place at the project / investment level, and not at an institutional level. These are not documented but the procedure is followed based on how similar infrastructure projects were previously done. The regulatory agencies that CMWSSB engages with are the TN State Pollution Control Board, TN Coastal Zone Management Authority and TN Forest Department. To cite an example, if there is a sewerage network to be laid in a Coastal Regulation Zone (CRZ) area, CMWSSB ensures that the permission is obtained from the TN Coastal Zone Management Authority as per their requirements.
- In terms of internal environmental standards, CMWSSB has included additional requirements, which appear to have become their practice due to the various projects that they have done using financial support from multilateral institutions such as the World Bank and Asian Development Bank, and bilateral institutions such as the Japan International Cooperation Agency (JICA).

- **Practices** This assessment revealed that the implementation resources (staff, budget, awareness and competence) is sufficient for infrastructure projects in Zone X and XIII and sewerage network in the added areas, as the proposed arrangements are in line with projects funded by development institutions. This includes pre-investment EIA & EMP studies, environmental management provisions in the bid / contract documents, and monitoring & supervision during implementation. With regard to their track record, no particular lapses of CMWSSB were found in adhering to the environmental requirements. It was assessed that the environmental management systems are capable of dealing with the risks and impacts associated with these WSS sector interventions.
- In terms of enhancing capacity for infrastructure development, i.e. improving water supply systems in the core city (Zone X and XIII) and sewerage network in the 5 added areas, CMWSSB proposes to have their decentralized teams supported by design consultants and project management consultants. In their consulting contracts, there is provision of environmental consultants to coordinate activities pertaining to policy and legal compliance, and also to ensure that EHS are properly implemented during construction. The construction contracts are proposed to be performance-based contracts, and these are under preparation. Prior to the finalizing of the bid / contract documents to procure the construction contractor, it will be required to do a due diligence to ensure that the EHS provisions are consistent with the Bank's requirements. This can be explicitly done by the design or the project management consultants. Further, discussions during the assessment revealed that there is a need for a centralized unit to coordinate all environmental activities within CMWSSB.
- **Regulatory Systems:** For the Bank's Program, it is the state-level regulatory institutions that are responsible for the policy and legal framework mentioned earlier. These include the State Pollution Control Board, the TN Forest Department, the TN Coastal Zone Management Authority. All these institutions are well-established. They have regulatory procedures, which are clear, streamlined and widely available. In terms of adhering to the procedural requirements, there are no gaps in the borrower systems that need to be addressed. However, in terms of enforcement, these regulatory institutions do not have the required manpower to ensure effectiveness.
- For the Bank's Program, improving the institutional systems within CMWSSB will lead to achieving the required standards of environmental performance that is consistent with the Bank's ESSA guidance.

2.1.6 Assessment against Core principles

Table 12

Core Principle	Social Assessment	Environmental Assessment
Core Principle #1: E & S management systems	Currently CMWSSB manages Social Development issues through Department of Personnel and Administration of CMWSSB and consultants appointed for projects. There are no dedicated Social Management resources in terms of systems, plans, procedures and personnel. This requires a Social Management Systems and corresponding Plans detailing procedures and indicators for tracking and review.	For the Bank's Program, on the policy and legal framework, it is GoTN's regulatory systems that are applicable. These systems are consistent with Bank principles and are functioning well. The procedural requirements are well-streamlined but there are gaps in enforcement of these regulations. These are systemic issues in regulatory governance. But the environmental performance levels can be strengthened by tightening CMWSSB's internal systems. On CMWSSB's systems for this Program, these are broadly consistent with the Bank principles as these are what is generally adopted for meeting the multilateral and bilateral requirements. There are sufficient to address the construction-related EHS impacts. However, it will be required to do a due diligence of the bid / contract documents prior to the bidding. This is to re-confirm that the specific EHS provisions are in line with the ESSA Guidance. Documented procedures for environmental management, and strengthening environmental provisions in contract documents should be in place to manage the environmental risks.
Core Principle #2: Natural habitat and cultural resources	NA	In the Bank's Program, there are certain added areas - where sewerage network is to be established - that require procedural clearance under the Coastal Regulation Zone (CRZ) notification. These added areas are in the immediate vicinity of the coast. However, it is purely a procedural requirement as laying the sewerage network is permitted under the notification. As these added areas are inhabited and are not eco-sensitive and do not have any natural habitats. Further, there are no Program activities in critical natural habitats or critical physical cultural heritage areas. In case the construction reveals chance finds, there will be a guideline in place address them in line with the legal framework. There will be no significant conversion or degradation of critical natural habitats or physical cultural heritage.
Core Principle #3: Public and worker safety	The CMWSSB has public and worker safety mentioned in the bidding documents. Further CMWSSB follows the CEEPHO and other manuals for safety. There is a need for CMWSSB developing a Safety (Public and Worker) Manual for the organisation.	As a part of CMWSSB's procedures and practices, public and worker safety are an integral part. There will be provisions for public and worker safety as part of the bid/ contract documents. The provisions will be made part of agreements with contractors and are monitored by CMWSSB with the support of the supervision/ project management consultants. In order to address the public and worker safety, it will be required to do a due diligence of the bid/ contract documents prior to the bidding. This is to ensure that the contract provisions are in line with the ESSA Guidance. The nature of activities under the Bank's Program is that there is no exposure to

		<p>toxic chemicals, hazardous wastes and dangerous materials. The infrastructure are inhabited areas that are not particularly prone to natural hazards. Further, the WSS infrastructure is underground and hence unlikely to be impacted due to natural hazards.</p> <p>Use of Information and Education Campaign (IEC) that focus on worker and community safety will result in better management of these risks.</p>
Core Principle #4: Land acquisition	As per CMWSSB land is not acquired for any of its projects. The GoTN/ GCC provides the required land (mostly government land) to CMWSSB at no cost. CMWSSB categorically states that no private land is used for its projects. As per CMWSSB under the proposed interventions no Land acquisition is expected.	NA
Core Principle #5: Indigenous peoples and vulnerable groups including women	CMWSSB has a policy of subsidizing the water connection charges to the EWS (Economically Weaker Sections). CMWSSB has telescopic tariff policy that subsidizes the EWS. As per CMWSSB, the tribal population in Chennai are mainstreamed.	NA
Core Principle #6: Social conflict, especially in fragile states, post-conflict areas, or areas subject to territorial disputes.	NA	NA

2.1.7 Recommendations

- The following table includes the list of activities to be undertaken by CMWSSB towards social systems strengthening.

Table 13

Citizen Engagement	Gender Mainstreaming	Labor Compliance	Social Inclusion	Land management
Track the performance of Citizen Charter and effectiveness and accessibility of GRM system <i>Indicators:</i>	Adopt standard operating procedures for safety of women (labour and staff) at workplace	Adopt system for tracking and reporting on labor laws compliance and occupational and health standards and	Conduct Annual Social Audit to track the vulnerable accessing benefits included in social	The Screening Criteria for selection of activities will exclude those that have permanent and long-term impact on

<ul style="list-style-type: none"> Gender Disaggregated data on provision of services as per Citizen Charter 80% of Grievances redressed within 30 days of registration 	<p><i>Indicators: Formation of ICC and submit Annual Report</i></p>	<p>measures for group insurance of contract staff.</p> <p><i>Indicators:</i></p> <ul style="list-style-type: none"> CMWSSB adopts labor law compliance monitoring tools Number of complaints registered by Internal Compliant Committee (ICC) 	<p>inclusion policies of CMWSSB and GoTN.</p> <p><i>Indicators: Annual Social Audit disclosed with disaggregated data on vulnerable accessing services.</i></p>	<p>non-title holders</p> <p><i>Indicators: Land Management Procedures and DPRs disclosed</i></p>
Every six months starting Q3 Y1	Every Quarter starting Q3 Y1	Tool adoption: Q3 Y1 Internal GRM tracking: Every Quarter starting Q4 Y1	TOR: Q2 Y1; Onboarding Social Audit agency: Q4 Y2; Social Audit reports: every year starting Y2	Q3 Y1

The above requires the CMWSSB to a) to hire Social Development Specialist, Gender Specialist and Communication Specialist b) develop respective manuals and procedures c) strengthen capacity of the social management staff, c) update/ improve the existing M&E systems to robust evidence-based M&E systems for tackling all social development aspects including work plans, indicators, reporting formats, tools for data collection and data management, d) comply with the regulatory framework (in particular for labour and gender aspects) and e) conduct annual audits/ independent surveys for social performance tracking. These to be detailed in the Project Implementation Manual in detail with clear scope and actions to be taken during the project cycle.

b. **Environmental PAP:** The following table includes the list of activities to be undertaken by CMWSSB towards environmental systems strengthening:

Table 14

No.	Description	Timeline	Indicator for completion
E1	Establish and maintain documented procedures for environmental management	End of Year 1	Documented systems and procedure developed and streamlined
E2	Review and strengthen all the contract provisions (in the proposed performance-based contracts) pertaining to Environmental and Health and Safety (EHS) for proposed civil works under the water supply distribution network and sewerage network	Prior to contracting/bidding whenever planned	Standard CMWSSB bid/ contract documents include strengthened EHS provisions
E3	Review and use Information and Education Campaign (IEC) with a focus on worker and community safety	End of Year 1	Evidence of IEC material developed and used

On environmental aspects, EHS impacts during construction are the main issue. These include (i) storage, transport and disposal of construction wastes, (ii) worker safety and pedestrian safety, (iii) dust, noise and air pollution; (iv) disruption of traffic, water or sewage leakages during laying of the WSS pipelines, and (iv) health impacts to workers and community, including Covid-19 pandemic. Therefore, the Bank's implementation support should focus on CMWSSB's bid/ contract documents and how EHS issues are included in them. Further, awareness/

training of the contractor and sub-contractor staff on EHS, and also establishing systems for information and education campaigns (IEC) relevant for the community pertaining to the construction of WSS infrastructure.

2.1.8 Stakeholder Engagement

a. Social Assessment

- **Stakeholder mapping:** Stakeholders were identified keeping in mind service providers, service users and institutional systems be assessed in terms of effectiveness in outreach, inclusion, worker, and consumer satisfaction. Interaction with the identified stakeholders was expected to help understand existing systems of management especially information dissemination, service benchmarking, HR management, GRM (internal and external), contracting, sub-contracting and its management. The list of identified stakeholders is given below:

Table 15

<ul style="list-style-type: none"> ▪ General Users ▪ Served citizens <p>a. Authorized HH connection users</p> <p>b. Unauthorized HH connection users</p> <p>c. Standpost users/ Public Hand pump users</p> <p>d. Connected to Sewerage <ul style="list-style-type: none"> ▪ Unserved citizens </p>	<ul style="list-style-type: none"> ▪ Income groups <ul style="list-style-type: none"> a. upper income b. middle income c. low income d. slum dwellers <ul style="list-style-type: none"> ▪ Women ▪ SC/ST ▪ Vulnerables 	<ul style="list-style-type: none"> ▪ Industry and Commercial ▪ Political Representatives <p>a. Corporators</p> <p>b. Local MLAs and MP <ul style="list-style-type: none"> ▪ Local NGOs ▪ Resident Associations and CBOs ▪ Bureaucracy </p> <p>a. CMWSSB Staff</p> <p>b. GCC Staff</p> <p>c. Other Departments Staff <ul style="list-style-type: none"> ▪ Private Water Operators ▪ Septage Tank Cleaners ▪ Others Affected by Sub-Projects </p>
-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

- **Stakeholder Consultations:**

- The ESSA was conducted during challenging time of Covid-19 Pandemic which imposed several restrictions due to lockdown and social distancing. Therefore, the consultations were limited to the key stakeholders- client and implementing agency and a few other stakeholders like Contracted Firms and NGOs. In addition, since most interventions were heavy on policy and system strengthening, ESSA has been strategized at a higher order with a focus on institutional assessment. Detailed checklists were shared with all the identified stakeholders and were administered over telephone or WebEx to understand the project risks and gaps as well as institutional strengths and opportunities. See Annex for List of Consultations and KIIs conducted through virtual mediums. The Annex also includes checklists used for the consultations. ESSA team also reviewed or participated in ongoing assessments for other projects as well as client meeting with the WB technical teams to assess the institutional systems and capacities. In order to plug the gaps of limited consultations facilitated from October to December 2020, the ESSA team has proposed a second phase for larger, deeper and face to face interactions including site visits in March 2021.
- Key feedback received during the sector level consultation are as below:
 - Participants want the water and sewerage project to be taken up at the earliest. Presently they heavily rely on the private parties for these services and spend a lot of time and efforts in getting these services.
 - Participants request reinstatements of roads immediately after the works are completed
 - Some areas have unequal distribution due to old pipes and pipeline levels

- Contamination of water due to water pipelines crossing with sewerage pipes
- Contamination of stored water by humans and animals as well.
- In some areas the locals are opposing the location of sewage pumping stations in their localities. The participants say that these issues need to be solved through citizen engagement.
- The participants want regular interactions with CMWSSB in an organised manner.
- Presently a sector level consultation involving CMWSSB, Institutions involved in Water and Sanitation issues, NGOs working on Water and Sanitation issues in Chennai, Resident Welfare Associations in the target area, Women Organisations in the target area, end users of CMWSSB services and the vulnerable and unserved in the target area, is proposed.
- Roadmap for Consultations proposed post Lockdown

Table 16

	Stakeholders	Issues to be covered	Medium	Timelines
1.	Consumers/ Citizens (different socio-economic status, gender, location, connection category) (Slums to be included) Sample to be Purposive, Stratified and Random to include all classes and categories	<ul style="list-style-type: none"> • Access to services • Service levels • Complaint redressal • Tariff related • SBCC Related • WASH related • Satisfaction levels • Perceptions and Suggestions 	FGDs KII	April 2021
2.	Peoples Representatives (including elected) (by social status and gender)	<ul style="list-style-type: none"> • Role and functioning of Ward Committees • Interaction with Residential Welfare Associations • Service levels • Complaint redressal • Tariff related • SBCC Related • WASH related • Challenges 	KII	May 2021
3.	Staff of CMWSSB (by Social Status and Gender)	<ul style="list-style-type: none"> • Welfare measures • Facilities • Staff grievances • Internal Complaints Committee • Compliance with laws 	KII	June 2021
4.	NGOs/ CBOs Operating in the Zones	<ul style="list-style-type: none"> • Role • Service levels • Complaint redressal • Tariff related • SBCC Related • WASH related • Challenges • Suggestions 	KII	April-June 2021
5.	Existing Contractors' workers/ Informal Workers	<ul style="list-style-type: none"> • Code of conduct • Compliance with laws • Migrants and Women Labour • Facilities • Remuneration • Access to safety and security 	KII FGDs	April-June 2021

	• Provisions as per labour laws		
--	---------------------------------	--	--

b. Environmental Assessment: Findings from consultations

- During the conduct of the ESSA, selected consultations were done (Annex includes the list of meetings held virtually). The following are the key findings that emerged during the consultations: The environmental risks and impacts include the following: (1) air/ dust and noise pollution due to construction activities; (2) storage and disposal of construction scrap, e.g. old pipes, to the authorized recycling agency; (3) excavation work and worker/ community safety issues; (5) use of PPEs in general and those required due to Covid-19 during construction and (6) pollution from the ready-mix concrete plants and their legal compliances. All of these can be managed with proper management measures, which should form a part of the EMP and included in the bid/ contract documents. These should be implemented by the contractor with oversight from the project management/ supervision consultants.
- There is no centralized system within CMWSSB to address environmental issues arising out of WSS investments. In other words, there is no environmental cell or division or department. Environmental issues are managed in a decentralized manner as part of the engineering teams for the respective projects, which are undertaken as per their geographical area of jurisdiction. It was discussed to establish a centralized unit to coordinate environmental management for CMWSSB as a whole.
- Though there are procedures and practices to incorporate environmental considerations in WSS infrastructure projects, these are not documented as a management systems within CMWSSB. Discussions revealed that having such a documented systems and procedures that will be coordinated by a centralized environmental cell will be useful in streamlining environmental activities.
- In the context of WSS infrastructure projects, consultations are most important just prior to the commencement of the construction works. In that context, CMWSSB has proposed to carry out the following consultations at that time: (1) Prior to start of construction, information dissemination sessions at various places and solicit the help of the local community, leaders/ prominent for the project work; (2) Focus group meetings to be conducted to discuss and plan construction work (mainly pipeline work) with local communities to reduce disturbance and other impacts and also regarding the project grievance redress mechanism; (3) A constant communication will be established with the affected communities to redress the environmental issues likely to surface during construction phase; and (4) At the work sites, public information boards will also be provided to disseminate project related information.
- As part of planning, CMWSSB had already carried out some consultations. These were used to understand the views of stakeholders. In the case of the water supply distribution lines in Zone X and XIII, the preparation consultants had just initiated the reconnaissance. The consultants have an Environment team to carry out the necessary tasks to prepare the EIA report. This includes consultations and these are expected to be completed over the next few months. The preparation consultants' ToR explicitly requires the preparation of the EIA, and integration of environmental requirements in the bid/ contract documents. The stakeholder feedback will be considered before finalizing the water supply distribution network in Zone X and XIII. The nature of the investment is such that the zone, ward and community feedback would have to be necessarily considered.
- In the case of the sewerage network in the 5 added areas, community consultations were done in selected locations in 2017. The main points emerging from these consultations are included in the following table:

Table 17

No.	Added area	Stakeholder feedback
1	Kottivakkam	Complete UGSS as early as possible During the rainy seasons storm water entering Ground floor, please look in to it. We are in need of the UGSS please complete at the earliest.

		<p>It is good move by the Government to provide UGSS, please ensure our area Coronet garden in Kottivakkam is included in the scheme.</p> <p>Please inform when the project starts and completes, Please ensure minimum inconvenience, while construction and no change in road level.</p>
2	Palavakkam	<p>Project should be planned for longer period, should start and finished in time, should not affect the transportation, water supply and sewerage system.</p> <p>Changes in the proposal may please be informed, regular check-ups of network at regular interval, consider water table while design.</p> <p>Please complete the project as early as possible.</p> <p>Please provide gradient as per GL, consider Ground water while design.</p> <p>Thank u for organising this meeting and communicate us regarding project, we will with the department for all necessary assistance.</p> <p>There is no objection for the proposal please do it.</p> <p>Complete UGSS and SWD project together.</p>
3	Neelankarai	<p>Project will be boon to the area if it is completed as per the schedule.</p> <p>It is a very fruitful discussion and complete the project at the earliest.</p> <p>Involve welfare associations so that local issues can be addressed in the DPR stage itself.</p> <p>Please see that no streets are left.</p>
4	Injambakkam	<p>Complete the project soon.</p> <p>Ensure all places are covered</p> <p>Ensure no public are disturb during project implementation</p> <p>We will support this scheme and complete this project as soon as possible.</p>

The above feedback gives an idea of the community response towards the forthcoming sewerage network investment. There is clearly an urgent need expressed to complete the underground sewerage network at the earliest. The only environmental issue that emerged was the high groundwater table, which is the case as these are in the coastal area. This has been considered and suitably incorporated in the planning and design of the sewerage network in those areas. It was confirmed that there is a standard technical practice, which will be adopted in such high groundwater table areas.

2.2 Water Resource Development

2.2.1 Overview

The Water Resources Department (WRD) of the Public Works Department (PWD), Government of Tamil Nadu (GoTN) has proposed an ambitious program to address interrelated challenges such as critical short fall in water supply, urban flooding, ground water exportation, drought proofing and eco-restoration of polluted water bodies under the **“Comprehensive Flood Mitigation and Conservation Project for Greater Chennai and its Peri-urban areas in Kancheepuram, Chengalpattu & Tiruvallur Districts of Tamil Nadu”** project. WRD’s proposal under the Chennai City Partnership PforR, aims at supporting the following critical components of the larger GoTN program.

- a. development of an integrated information command and control centre;
- b. investments in hydrological data monitoring and management, including hydromet stations, Supervisory control and data acquisition (SCADA), satellite-based performance monitoring;
- c. undertake water accounting/auditing in Chennai Metropolitan Area (CMA);
- d. establish a reservoir operation system including software system and adequate institutional arrangements;
- e. investments in resilient watersheds including reprofiling of drainage channels, groundwater recharge, rejuvenation of reservoirs, lake restoration, and water quality improvements;
- f. comprehensive water resources assessment and investment options analysis for urban floods and

- droughts risk mitigation in Chennai;
- g. basin-level hydrological modelling for integrated water resource management and preparation of basin level water management strategies; and
- h. Strengthen capacities of WRD staff and other stakeholders.

2.2.2 Social and Environmental Impact and Risk rating

a. Social Assessment

The program is likely to have positive impacts such as promotion of water conservation efforts, better water management, equity in water sharing, reduced floods, improved groundwater levels, improved management capacity and improved decision making. However, there are also risks such as exclusion of women and vulnerable communities from program benefits and access to water resources, temporary impacts induced by construction, possible involuntary resettlement, non-compliance of labour laws, health safety impacts on communities and weak stakeholder engagement. The cumulative social risk rating is Moderate.

b. Environmental Assessment

- **Impact:** The proposed activities will have positive impacts through; (i)improving service delivery by strengthening governance and institutions (ii) improving water security and use efficiency; and (iii) reducing vulnerability to floods and droughts in selected areas. However, there will be negative environmental impacts pertaining to investments in resilient watersheds is being proposed (Refer (v) above in the list of activities). These will be in the following river basins or sub-basins – Adayar, Coovum, Kosasthalaiyar, Kovalam and Lower Palar. In these, a list of water bodies – along with pictures of a sample few - has been short-listed (17 nos.) for inclusion under the Program (Refer Annex). An index map is provided in the following page. The investment activities will be limited to construction / repair or check dams, barrage, reprofiling of links / channels between water bodies, de-silting only to heighten the embankment marginally (by 3-5 feet) and also stabilize the same, and establishing pumping works as required in individual investments. While these are aimed at increasing the storage capacity of the water bodies and/or linking water bodies for better management, these will have direct construction-related EHS impacts. There will be construction-related EHS impacts that will affect the immediate surroundings of the water bodies which are in a peri-urban setting. There are no forest areas or cultural properties in the immediate neighbourhood of the water bodies. This has been confirmed in the Detailed Project Report prepared by WRD and discussions revealed that this was also a criteria for choosing the water bodies selected for the Program.
- **Risks:** No wetlands designated as important wetland is included in the list of water bodies selected for the intervention. It was noted that there are no cultural heritage of significance in the vicinity of these water bodies. As these are relatively low-value investments in repair, rehabilitation and maintenance, the impacts can be managed with appropriate management measures in the detailed designs, bid / contract documents and construction supervision. As the construction-related EHS impacts are minor and reversible, there are no major risks emerging from these impacts. As management measures will be in place, there will be limited risks. Apart from impact-related risks, there are possibly contextual, reputational risks by virtue of association in rehabilitating the water bodies. This may be more important in this context. Water bodies and its management are a focus of community attention. Filing of applications to the National Green Tribunal (NGT) is becoming more common. They complain about the GoTN's agencies and the need to strengthen their management of water bodies through an integrated, coordinated approach. The complaints include dumping of untreated or partially treated sewage, effluents from industries or common CETP, improper / illegal disposal of solid waste and construction & demolition waste, run-offs from nearby agricultural fields, open defecation in the immediate vicinity of

water bodies, growth of weeds and hyacinths, need for desilting and conditions of the bunds / embankments. Discussions with the WRD team revealed that the water bodies chosen under the Program do not have an NGT cases. However, the planning and designing of these investments should take into account community concerns that are collected through proper consultations. Community concerns are suitably integrated with the execution of the investment activities. Managing these risks will require the adoption of proper controls by WRD during the planning, design, construction and operational stages.

- **Gaps:** There are no institutional capacity and complexity risks either as the responsible agency – WRD – is well established and recognized for its technical, implementation and operational strengths. There are no political risks as these interventions are recognised as necessary for a water-starved city.
- **Benefits:** Being a water scarce city, improved water management is of particular importance and will bring tangible benefits to the city of Chennai. Without a perennial water source, the city is highly vulnerable to extreme weather and erratic rainfall, including periodic droughts and floods. During the summer, water demand exceeds the available supply. During the north-east monsoons (Oct-Dec), the availability much exceeds the requirement. When the precipitation levels are high, the city's reservoirs – decentralized and localized – do not have enough capacity to retain the water. The excess water drains into the Bay of Bengal. Therefore, improving water resource management (WRM) constantly becomes critically important for the city. Under the Program, the institutional development activities will bring positive environmental impacts in an overall sense, and benefits the city's population and its ecosystems in a tangible way. Collectively, the resilient investments will help in augmenting the water supply, recharging the ground water, contribute towards drought and flood management – both locally and in terms of managing the city's reservoirs. Further, discussions with the WRD revealed that the bird life in the water bodies improve after their rehabilitation. This will be a positive, unintended positive benefit arising from these investments. In an overall sense, the Program will have a net positive environmental impacts which will bring positive environmental benefits. Improvements in water security and resilience will contribute to arrest the deteriorating groundwater levels, on which the city partially depends.

2.2.3 Assessment of Social and Environmental Legal policy Framework

a. Social Policy and Legal Framework

The Chennai City Municipal Corporation Act of 1919, 74th Constitutional Amendment Act of 1993 followed by Tamil Nadu District Municipalities (Amendment) Act of 1993 ensure devolution of funds, functions, and functionaries to elected urban local bodies. It creates opportunities for **citizen engagement, participation, representative²⁹ and direct democracy³⁰** for improved economic development and social justice. The Right to Information and Social Audit Societies provide avenues for **access to information, accountability, and transparency**. National Urban policies like JNNRUM, AMRUT, Smart City etc and reforms create opportunities for **enhanced services, and liveability** in urban agglomerations. The Constitution of India (Articles 15,16, 46, 275, 330, 332, 335, 340 and 342) along with the Scheduled Castes and the Scheduled Tribes (Prevention of Atrocities) Act, 1989, and Rules, 1995 ensure **protection of the interest of SC and ST population**. The state of Tamil Nadu provides reservation for **Backward Classes, Scheduled Castes Scheduled Tribes, Arunthathiya³¹**, **Backward Class Muslims** in government jobs ensuring positive discrimination and opportunities for the vulnerable communities. Equal Remuneration Rules of 1976, Tamil Nadu Maternity Benefit Rules of 1967, Tamil Nadu Prohibition of Harassment of Woman Act of 1998, Tamil Nadu State Commission for Women Act of 2008, Gender

²⁹Through Steering Committees, Ward Committees, NGOs

³⁰Through Ward Sabhas (ward level meetings)

³¹ Includes the castes, Arunthathiya, Chakkiliyan, Madari, Madiga, Pagadai, Thoti and Adi Andhra within the list of 76 Scheduled Castes notified by the President of India under Article 341 of the Constitution of India by the Constitution (Scheduled Castes) Order, 1950 as amended from time to time. In Tamil Nadu, owing to the social and educational backwardness of Arunthathiya, sixteen per cent of the appointments or posts reserved for the Scheduled Castes are reserved for the Arunthathiya.

Sensitisation & Sexual Harassment of Women at The Madras High Court - Principal Seat at Chennai and Madurai Bench at Madurai - (Prevention, Prohibition and Redressal) Regulations of 2013 elucidates a **strong legal framework in the state for inclusion of women, gender equity, safety for women in public spaces and offices**. Social Assessment also reviewed more than 25 laws related to **labor welfare, safety, rights and entitlements at national level and state level to conclude that they are adequate** to safeguard formal, informal, local, migrant, male and female workforce under the project. (For further details, please see Table 2 and Annex 1 of this document on Legislations and Policies relevant for management of social risks for the WRD sector under Chennai City Partnership Project).

Finally, while the Water Resources Sector does not envisage land acquisition or resettlement related to the activities under this PforR, a couple of laws enforced by the Public Works Department (PWD) related to removal of encroachments from tanks and water bodies in particular and eviction of encroachers from Government Property (which, through definition includes tanks, lakes, rivers, standing or flowing water, etc.) are in contravention to Core Principle #4 of ESSA for PforR³². On the other hand, the State of Tamil Nadu and city of Chennai have robust laws to ensure that there is no involuntary resettlement and rights to fair compensation in case of land acquisition safeguarded. If activities related to this PforR include land acquisition or resettlement, then the World Bank's policies related to land acquisition and involuntary resettlement must prevail over the sector specific and generic State laws related to eviction of encroachers with punitive penal provisions. The consolidated summary and Annex one provides an exhaustive list of common laws and policies relevant to the program. Given the focus of the Water Resources & Resilience investments in activities through this PforR, the following laws and policies become relevant:

Table 18

Sr. No.	Name of Law / Policy	Overview of the Law / Policy
1.	Tamil Nadu Municipal Laws and The Chennai Metropolitan Area Groundwater Regulations (Amendment) Act, 2014	Procedures, and restrictions w.r.t. permits to sink wells ³³ by a person or her / his representative in any area of a third grade municipality, town panchayat or municipality for any purpose
2.	The Tamil Nadu Protection of Tanks and Eviction of Encroachment Act, 2007 (TN Act No. 8 of 2007) And The Tamil Nadu Protection of Tanks and Eviction of Encroachment Rules, 2007 ³⁴	The Assistant Director of Survey and Land Records Department will appoint a Survey Officer to carry out surveys of tanks in the State to demarcate tank boundaries. An officer of the PWD having control over the tank shall extend all assistance and support to the Survey Officer. The Survey Officer will carry out the survey of the tanks by traversing along the tank and the boundaries be demarcated, based on the original records of the tanks available with the Revenue Department in every taluk and district and simultaneously identifying the areas encroached upon and areas alienated by the Government, in public interest, within the demarcated boundaries, and proper charts and registers be-prepared' setting forth these details. The charts and registers so prepared will be duly authorized by the concerned Tahsildar and handed over to the officer of the PWD having control over such tank(s).

³² Core Principle #4 requires program E&S systems to manage land acquisition and loss of access to natural resources in a way that avoids or minimizes displacement and assists affected people in improving, or at the minimum restoring, their livelihoods and living standards. The principle requires that program activities for which the borrower's land acquisition and resettlement (LAR) processes have significant gaps with this principle, or for which the borrower lacks sufficient capacity to manage LAR impacts in a manner consistent with this principle, should not be considered eligible for PforR Financing regardless of the number of people affected, unless supplemental arrangements are agreed with the Program authorities and endorsed by the Bank.

³³ "Well" means well sunk for search or extraction of groundwater and includes – open well, dug well, bore well, dug-cum-bore well, tube well, filter point, collection or infiltration gallery. Does not include a well sunk by the State Government or Central Government for carrying out scientific investigations, exploration, development or management work for the survey and assessment of groundwater resources.

³⁴The penalties and provisions under this Act are in direct contravention to Core Principle #4 of ESSA for PforR Financing.

		<p>Within one month from the date of handing over the chart and register, the officer of the PWD having control over the tank shall publish a notice in the prescribed format together with the map of the tank in the notice boards of the offices of the Village Administrative Officer, Village Panchayat Office and Water Resources Organisation concerned.</p> <p>If any person has encroached upon any land of the tank, the concerned officer of the PWD shall prepare a notice in the format prescribed in the Act and call upon the person concerned to remove the encroachment.</p> <p>Such notice(s) shall be served by delivering a copy either to the encroacher or to a member of his family at his usual place of abode, or to his authorized agent, or by affixing a copy thereof in some conspicuous part of his last known residence or in any part of the area encroached upon or in any of the offices of the Village Chavadi, Village Panchayat, District Collector, Revenue Divisional Officer, Tahsildar, Village Administrative Officer, Panchayat Unions and in the Section, Sub-Division and Divisions concerned of the Water Resources Organisation of the Public Works Department as the officer deems fit and proper.</p> <p>If the encroacher has not removed the encroachment within the period specified in the notice, the officer shall inform the area Station House officer of Police Department, in writing to provide adequate Police personnel, as may be necessary and shall remove the encroachment or obstructions or any building or any crop or any product raised on the land or anything deposited and forfeit them and take possession of the land as specified in the relevant sections and sub-sections of the Act.</p> <p>The officer shall also impose the cost of eviction against such person, by preferring a complaint against such person with the competent Judicial Magistrate for recovery.</p> <p>Punishment to encroachers upon conviction includes imprisonment for a term which may extend to 3 months or with fine of Rupees five thousand or both</p>
3.	Tamil Nadu Groundwater (Development and Management Act), 2003	Protection of groundwater resources to provide safeguards against hazards of its over exploitation and to ensure its planned development and proper management in the State of Tamil Nadu
4.	<p>Tamil Nadu Farmers Management of Irrigation Systems Act 2000</p> <p>And</p> <p>Tamil Nadu Farmers Management of Irrigation Systems Rules, 2002</p>	<p>The Act:</p> <ul style="list-style-type: none"> Provides for Farmer's participation in management of irrigation systems and matters connected with, or incidental to management of irrigation systems by farmers. Guides involvement of farmers and building a sense of ownership amongst farmers to promote and secure distribution of water among its users, efficient and economic utilization of water to optimize agricultural production, adequate management and maintenance of irrigation systems Delineates roles of farmers organisations in scientific development, management and maintenance of irrigation systems (including irrigation infrastructure) for effective and reliable supply and distribution of water. <p>The Rules:</p> <ul style="list-style-type: none"> Operationalizes provisions of the act.
5.	Tamil Nadu Panchayat's Act, 1994 (excerpts related to water resources management, water supply and sanitation)	<p>Within limits of available funds, Panchayats are mandated to, amongst others,</p> <ul style="list-style-type: none"> Sinking and repairing of wells, excavation, repairs and maintenance of ponds or tanks, construction and maintenance of water works for supply of water for washing and bathing purposes Construction of drains and disposal of drainage water and sullage not including sewage Filling of disused wells, insanitary ponds, ditches, pits or hollows and other improvements in the sanitary conditions of the panchayat village(s) Protection and maintenance of any irrigation works and regulation of distribution of water from any irrigation works to fields dependent on water from irrigation infrastructure Minor irrigation, water management, watershed development and drinking water (Schedule IV of the Act)
6.	Tamil Nadu State Water Policy, 1994	<p>Goals and Objectives:</p> <ul style="list-style-type: none"> Establish a Management Information System (MIS) for Water Resources Ensure preservation and stabilization of existing water resources Plan for augmentation of utilizable water resources Promote research and training facilities for water resources management

		<ul style="list-style-type: none"> - Establish allocation priorities for water use by different sectors with provision of drinking water being the highest priority - Maximize multi-purpose benefits of surface water, land and other resources - Provide adequate water to domestic users - Maximize hydro-power generation within the constraints imposed by water users - Provide adequate water to industry - Preserve and enhance economic fisheries - Maintain water quality to established standards - Promote equity and social justice among users of water from irrigation and domestic water supplies - Plan for economic and financial sustainability based on the principle that those who benefit the most from project and programs should pay for the same. - Provide flood protection and drainage - Promote user's participation in all aspects of water planning and management - Provide mechanisms for resolution of conflicts between users within and between intra-state river basins <p>Water Resources Control and Review Council (WRCRC) mandated to monitor implementation of the policy Institute of Water Studies (IWS) to function as the technical secretariat to WRCRC</p>
7.	Chennai Metropolitan Area Groundwater (Regulation) Act, 1987	Regulation and control extraction, use or transport of ground water in certain areas in the State of Tamil Nadu (Chennai City and District of Chengalpattu)
8.	Chennai Metropolitan Water Supply and Sewerage Act, 1978	Act to provide for the constitution of the Chennai Metropolitan Water Supply and Sewerage Board for exclusively attending to the growing needs of and for planned development and appropriate regulation of water supply and sewerage services in the Chennai Metropolitan Area with particular reference to the protection of health and all matters connected with and incidental to protection of public health
9.	Tamil Nadu District Municipalities Act, 1920 (Chapter VII – Water Supply, Lighting and Drainage)	Management (including construction) and maintenance of all public water courses, springs, public reservoirs, tanks, cisterns, fountains, wells, stand pipes, and other assets added over course of time defined within the ambit of "water works" that come within the defined boundaries of Municipal Corporations are vested with Municipal Councils in the State.
10.	Chennai City Municipal Corporations Act, 1919 (Chapter X related to Rainwater Harvesting in buildings owned and / or occupied by Government, Statutory Bodies, Companies and Institutions – including buildings controlled by the Government)	Every building owned and / or occupied by Government, Statutory Bodies, Companies and Institutions – including buildings controlled by the Government – must have rainwater harvesting structures provided for by the owner / occupier in a manner and within time and provided from time to time
11	The Tamil Nadu Land Encroachment Act, 1905	<p>The Tamil Nadu Land Encroachment Act, 1905 was enacted to provide measures for checking unauthorized occupation of land which are property of the Government.</p> <p>The Government, vide G.O.(Ms) No.2898, Revenue Department, Dated 03.12.1969 ordered that the Assistant Engineers (presently Assistant Executive Engineers) of the Public Works Department alone are authorized to take eviction proceedings in respect of encroachments on Public Works Department poramboke lands Channels and Tanks etc.</p> <p>To evolve an exercise / Mechanism for eviction of encroachment under the said Act, appropriate orders have been issued fixing the responsibilities from the level of Assistant Engineer to the Executive Engineer, in respect of the water bodies of the Water Resources Department (G.O. Ms. No. 540, Revenue [LD6(2)] Department, Dated 04.12.2014 and G.O. Ms. No. 148, Revenue [LD6(2)] Department, Dated 24.03.2016).</p>
12.	The Tamil Nadu Land Encroachment Act, 1905	Specifies that all public roads, streets, lanes, paths, bridges, dikes and fences on or besides the same, sea bed, harbors, creeks, rivers, streams, nalas, lakes, tanks, backwaters, all standing

	<p>(TN Act No. 003 of 1905) and Amendments 26 of 1965, 20 of 1975, 1 of 1996³⁵</p>	<p>and flowing water, if not surveyed and declared as private property shall be the property of the Government.</p> <p>Any person who unauthorisedly occupies such Government Property shall be liable to pay a penalty assessed by a competent authority.</p> <p>Failure to pay the penalty can be punished by imprisonment, or a fine, or both</p>
--	-----------------------------------------------------------------------------------------------	------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

b. Environmental Policy and Legal Framework

The national environmental policy and legal framework is well developed. While the Program will be under the broader ambit of this framework, there are laws and regulations that have a direct bearing on the institutional development initiatives and the proposed investment interventions. All the activities will be consistent to the water sector policies such as the National Water Policy 1987 and State Water Policy 1994 along with the subsequent amendments. These are not covered here and only the environmental sector policies are included. Also, the Rules such as Compendium of Rules and regulations (Part I, Rules for Water regulation) 1984 are also not covered. A brief description of those directly relevant to the Program is provided in the following table.

Table 19

No.	Title and brief description	Relevance to the Sector
1	<p><u>Environment (Protection) Act of 1986:</u> The Act is an umbrella legislation that provides a framework for Central and State Authorities established under previous laws. It provides a single focus for the protection of the environment and sought to plug several loopholes</p>	<p>Standards that are specifically applicable to air, water, noise and soil components to all the civil works related to the WRM resilient investments.</p> <p>Organisation: TN State Department of Environment and State Pollution Control Board</p>
2	<p><u>Air (Prevention and Control of Pollution) Act 1981:</u> This Act provides for the prevention, control and abatement of air pollution. It is to control emissions of any air pollutant into the atmosphere when it exceeds the standards set under the Act and associated rules</p>	<p>Under the Act, the contractor is required to obtain the Consent to Establish and Consent to Operate for the ready mix concrete plant (s) from which the concrete for construction is used for all the civil works related to the WRM resilient investments</p> <p>Organisation: TN State Pollution Control Board</p>
3	<p><u>Water (Prevention and Control of Pollution) Act 1974</u></p> <p>This is to control water pollution by controlling emission & water pollutants and the maintaining or restoring of wholesomeness of water, through establishment and empowerment of Boards at the national and state levels. Ensuring adherence to water quality and effluent standards is the main purpose.</p>	<p>Under the Act, the contractor is required to obtain the Consent to Establish and Consent to Operate for all civil works related to the WRM resilient investments. Further, there should be no dumping the construction waste / debris into nearby water bodies that store or convey water.</p> <p>Organisation: TN State Pollution Control Board</p>
4	<p><u>Noise Pollution (Regulation and Control) Rules 2000</u></p> <p>According to the provisions of the rules notified under this act, a person might make a complaint to the designated 'Authority' in the event that the actual noise levels exceed the ambient noise standards by 10dB(A) or more as compared to the prescribed standards. The designated authority will take action against the violator in accordance with the provisions of these rules or other law in force.</p>	<p>Under the Rules, the Contractors need to adhere to these rules in the context of all the civil works related to the WRM resilient investments.</p> <p>Organisation: TN State Pollution Control Board</p>
5	<p><u>Various Waste Management Rules 2016:</u></p> <p>There are four Waste Management Rules that are pertinent: (i) Hazardous and Other Wastes (Management and Trans-boundary Movement) Rules, 2016; (ii) Construction and Demolition Waste Management Rules</p>	<p>There are guidelines for generation, storage, transport and disposal of C&D waste, hazardous waste, plastic waste and municipal solid waste. For all civil works related to the WRM resilient investments, the contractor will have to obtain</p>

³⁵The provisions of this Act and its amendments are, like the provisions of the Tamil Nadu Protection of Tanks and Eviction of Encroachment Act, 2007 (TN Act No. 8 of 2007), to Core Principle #4 of ESSA for PforR Financing

No.	Title and brief description	Relevance to the Sector
	2016, (iii) Solid Waste Management Rules 2016 and (iv) Plastic Waste Management Rules 2016.	authorizations for all the different types of wastes as required, and will dispose scrap / waste only to authorized agencies. Organisation: TN State Pollution Control Board.
6	Wetland (Conservation and Management) Rules 2010 These ensure better conservation and management and to prevent degradation of existing wetlands in India. Under these Rules, GoTN will have to declare wetlands for protection, identify those that are to be notified, develop plans including list of permissible activities, develop an integrated master plan and ensure that these are adhered to.	The Program will have to ensure that its institutional development and resilient investments are in line with the requirements, if any, under these Rules. Organisation: TN State Department of Environment
7	<u>Indian Forest Act 1927, Forest Conservation Act 1980 and Forest Rights Act 2006</u> Under this Act, administrative approval must be obtained from the Forest Department to clear designated forestland. According to this, although the land is under the control of state government, due to its protected status, approval from the Government for using the land may be required.	The use of forestland for non-forestry purposes, replenishing the loss of forest cover by compensatory afforestation on degraded forestland and non-forest land, and permission for tree felling may be required in the context of civil works pertaining to WRM resilient investments. Though the likelihood of forest land is low, the appropriate forest clearance will be obtained without fail. Organisation: State Forest Department.
9	<u>Tamil Nadu Ground Water (Development and Management) Act, 2003</u> The Act regulates the development and management of the ground water resources of the State.	The Program interventions shall be consistent the groundwater resources management in the city. Organisation: Competent authorities, CMWSSB and Institute of Water Studies
10	<u>National Green Tribunal (NGT) Orders</u> The National Green Tribunal has been established under the National Green Tribunal Act 2010 for effective and expeditious disposal of cases relating to environmental protection and conservation of forests and other natural resources including enforcement of any legal right relating to environment and giving relief and compensation for damages to persons and property and for matters connected therewith or incidental thereto. NGT's dedicated jurisdiction in environmental matters is to provide speedy environmental justice and help reduce the burden of litigation in the higher courts. Apart from New Delhi, the NGT has its tribunal in 4 places and Chennai is one of them.	NGT receives applications on environmental matters relevant to Chennai, considers them and issues orders to the GoTN. The GoTN instructs its various agencies to comply with the stipulations in the order. SWM is an environmental matter that is included in the NGT offers, and GCC is called upon to take the required action. GoTN is required to report its action taken periodically to the NGT. Organisation: GoTN and WRD
11	<u>The Ancient Monuments and Archaeological Sites and Remains Act, 1958, and the Rules, 1959</u> The Act and Rules protect the archaeological sites, and no person shall undertake any construction within the protected or regulated area except in accordance with the permission granted.	Wherever the civil works for infrastructure development are carried out in the vicinity of cultural properties, the provisions of the Act and Rules are applicable. Organisation: Archaeological Survey of India, Chennai Circle
12	<u>Coastal Regulation Zone Notification, 2019</u> This notification under Environment (Protection) Act, 1986 supplements the law on site clearance by declaring certain zones as CRZ and regulates activities in these zones. The CRZ Notification, 2019 clearly lists out the	Wherever the civil works related to the WRM resilient investments are in CRZ areas, permissions are required. As WRM infrastructure is permitted in these areas, there is only a procedural requirement

No.	Title and brief description	Relevance to the Sector
	areas that fall within the categories of I, II, III and IV of CRZ-I and the permissible and non- permissible activities in each zone.	that needs to be met. None of the proposed investments presently chosen fall in CRZ areas. Organisation: TN Coastal Zone Management Authority

Further, CPCB has published “Indicative Guidelines for Restoration of Water Bodies June 2019” that provides information and guidance. Though not regulation, this will be useful to ensure that the restoration is done in an environmentally responsible manner.

2.2.4 Assessment of Risks under PforR activities

Table 20

1	Strengthening Water Resources Planning and Management – Systems Development			
	Activity	Positive Social Impact	Social risk	Social Risk Rating
1.1	Development of an integrated information command & control centre.	Improved evidence-based decision making to prevent water shocks to water users and lead to better management of water resources	NA	Low
		Positive Environmental Impact	Environmental Risk	Environmental Risk Rating
		Improving service delivery by strengthening governance and institutions and improving water security and use efficiency.	No negative environmental impacts / risks and hence not applicable	None
1.2	Investment in hydro-met and gauging services	Positive Social Impact	Social risk	Social Risk Rating
		Social -Same as above	NA	Low
		Positive Environmental Impact	Environmental Risk	Environmental Risk Rating
		Improving water security and use efficiency.	No negative environmental impacts / risks and hence not applicable	
1.3	Water accounting / auditing across TN in general and GCC in particular	Positive Social Impact	Social risk	Social Risk Rating
		Will promote equity in water sharing and water conservation efforts	NA	Low
		Positive Environmental Impact	Environmental Risk	Environmental Risk Rating
		Improving water security and use efficiency.	No negative environmental impacts / risks and hence not applicable	None
1.4	Establish reservoir management system (software development and	Positive Social Impact	Social risk	Social Risk Rating
		Same as above	NA	Low
		Positive Environmental Impact	Environmental Risk	Environmental Risk Rating

	institutional arrangements)	Improving service delivery by strengthening governance and institutions and improving water security and use efficiency.	No negative environmental impacts / risks and hence not applicable	None
2	Investments in Resilient Watersheds			
2.1	Rehabilitation, upgrading and modernization of <i>selected reservoirs and tanks systems</i> with their <i>related supply channels</i> for flood protection. This activity will upgrade tank bunds to the latest standards as well as water works, waterway, outlet and weirs. Tanks and reservoirs will help reduce peak flows and mitigate floods.	Positive Social Impact	Social risk	Social Risk Rating
		Augmentation of available surface and ground water resources and play a key role in addressing drought Minimising negative impacts on lives and livelihoods of people during floods.	construction induced impacts on non-title holders that may be of temporary nature; weak compliance of labour laws, OHS standards; weak systems for stakeholder engagement, participatory planning; exclusion of the vulnerable; increasing grievances. Potential impacts on tangible and / or intangible cultural heritage that might be associated with some reservoirs and tank systems Weak systems for stakeholder engagement and participatory planning leading to exclusion of the vulnerable and increasing grievances	Moderate ³⁶
		Positive Environmental Impact	Environmental Risk	Environmental Risk Rating
		Augmentation of available surface and ground water resources will improve water security particularly during the dry period.	Construction-related EHS impacts that will affect the immediate surroundings of the selected reservoirs and tanks, which are in a peri-urban setting. No impacts on forest areas or cultural properties in the immediate neighbourhood. WRD's environmental management systems adequate to manage these impacts. As reservoirs and tanks are a focus of community attention and therefore NGT, there could be issues during the Program period. Over the past few years, WRD has the	Moderate

³⁶ Based on detailed discussions with WRD officials and information provided by the department on how it has handled issues related to involuntary resettlement in the past, the risk rating of this component was changed from "substantial" to "moderate". In cases where involuntary resettlement of PAPs were necessary (for e.g. in the Integrated Cooum River Eco-Restoration Project (ICRERP) – please see Annex 5), the R&R planning and implementation was outsourced to the Tamil Nadu Slum Clearance Board (TNSCB). TNSCB carried out the R&R activities as per the provisions of the RFCTLARR Act, 2013. It must be noted that the World Bank has an ongoing engagement with the TNSCB under the Tamil Nadu Housing and Habitat Development Project (P168590) under which the Bank is supporting the strengthening of capacities of TNSCB staff to manage R&R projects as per national laws and international standards. Going forward, it is recommended that a thorough social risk screening of every investment proposed under this component be done using the format provided in Annex 4 of this document be carried out to assess inclusion or exclusion of the investment from the P4R. This risk screening should be used to complement other technical, legal and financial risk assessments that may be undertaken for the concerned investments. Any intervention that has a "high" or "substantial" social risk, as assessed, must be excluded from the PforR.

			capacity / expertise to deal with NGT orders if any.	
2.2	Development of recharge well structures. Several options will be explored to ensure these structures have minimal impact as it was the case under the TN IAMP project. Specifically, roadsides and open spaces will be explored.	Positive Social Impact	Social risk	Social Risk Rating
		Recharge well structures will augment overall quantity groundwater resources leading to reduction of water shocks in drought years	Construction induced impacts - weak compliance of Labour laws and occupational health and safety standards; safety and security of community due to labour influx Potential impacts on tangible and / or intangible cultural heritage that might be associated with some recharge well structures Weak systems for stakeholder engagement and participatory planning	Moderate
		Positive Environmental Impact	Environmental Risk	Environmental Risk Rating
2.3	Desilting of drainage channels to improve their conveyance capacity.	Positive Social Impact	Social risk	Social Risk Rating
		Improved conveyance capacities of drainage channels will augment overall quantity of surface and groundwater resources.	Involuntary resettlement of possible encroachers/ squatters; loss of livelihood; Construction induced impacts - weak compliance of Labour laws and occupational health and safety standards; safety and security of community due to labour influx. Weak systems for stakeholder engagement for participatory planning and implementation and management of augmented water flow.	Moderate ³⁷
		Positive Environmental Impact	Environmental Risk	Environmental Risk Rating
3	<i>Capacity Strengthening</i>	Improved conveyance capacities of drainage channels will augment overall quantity of surface water resources. This will improve water security particularly during the dry period.	Limited construction-related EHS impacts that can be addressed through WRD's environmental management systems such as including EHS provisions in the contract documents.	Moderate
3.1	Strengthen capacities of WRD	Positive Social Impact	Social risk	Social Risk Rating

³⁷ Same as footnote 3

Staff, farmers and other stakeholders based on Capacity Strengthening Needs Analysis (CSNA) that will be undertaken during preparation phase	Enhanced capacities of key stakeholders lead to better understanding of issues and roles and responsibilities of key stakeholders in the conservation and participatory management of the state's water resources	Exclusion of vulnerable groups including women Training modules and pedagogy tailored to one type of audience only leading to further exclusions	Low
	Positive Environmental Impact	Environmental Risk	Environmental Risk Rating
	Enhanced capacities of key stakeholders lead to better understanding of issues and roles and responsibilities of key stakeholders in conserving the state's water resources	No negative environmental impacts / risks and hence not applicable	None

2.2.5 Assessment of Institutional systems and capacities

a. Overview:

WRD is a part of the Public Works Department (PWD), Government of Chennai. The PWD is one of the oldest government departments in the state. It was founded in the year 1800 when the British ruled over the Madras Presidency and became a government body in the year 1858. It is part of the Ministry of Public Works Department in the Government of Tamil Nadu and is entrusted with the construction and maintenance of buildings for most of the government departments, public undertakings, and the construction of bridges, roads, and infrastructure in the state. The PWD has two major departments – the WRD and Buildings Department - each headed by an official of the rank of Engineer in Chief. The WRD's main function is the efficient management, utilization and distribution of the scarce water resources in the state. WRD is well-established as a technically and operationally competent organisation. This was also recently recognized as Tamil Nadu bagged the national award on water management for being the best among states in the year 2019. Awarded the GOL, this recognizes the work done by the WRD in the construction of check dams and anicuts, the stabilisation of command area and conversion over 200,000 ha through micro-irrigation.

b. Functions and responsibilities

All the major water resources in the state of Tamil Nadu - *viz.*, rivers, reservoirs, tanks, etc. - are under the management and control of the WRD. The department is responsible for – (a) creation of new water resources, *viz.*, reservoirs, tanks, ponds, etc.; (b) construction, rehabilitation and maintenance of dams, anicuts, check dams, canals and channels; (c) construction of artificial ground water recharge structures and (d) schemes for inter-linking of rivers within the State also.

In addition to the above, the department is entrusted with:

- Formulation and implementation of the Major, Medium and Minor Irrigation Schemes
- Upkeep of all the Dams of the State.
- Operation and maintenance of irrigation systems to ensure effective management of the available surface and ground water potential.
- Regulation of water for irrigation and drinking water needs and flood control.
- Implementation of erosion control measures *viz.*, construction of Groynes, Rubble Mound Sea walls, etc. and
- Construction of sea water intrusion preventive structures in the coastal areas.

Major schemes / projects that are currently being implemented by the WRD³⁸ are:

- Kudimaramath Scheme
- Supply of Vandal removed from the water bodies to the public, potters and farmers free of cost
- Implementation of the Athikadavu - Avinashi Scheme
- Construction of Barrage across Kollidam River in Adhanur Kumaramangalam Villages in Cuddalore and Nagapattinam Districts
- Inter-linking of Thamiraparani-Karumeniyar-Nambyiar rivers
- Implementation of the Krishna Water Supply Project
- Desilting of Dams and Water Bodies
- Creation of new irrigation infrastructure and rehabilitation of existing systems with State Funds and NABARD assistance
- Implementation of Externally Aided Projects (EAPs)
 - i. World Bank assisted Dam Rehabilitation and Improvement Project (DRIP).
 - ii. Asian Development Bank (ADB) assisted Climate Change Adaptation Program in Cauvery Delta.
 - iii. World Bank assisted Tamil Nadu Irrigated Agriculture. Modernization Project (TNIAMP).
 - iv. World Bank Assisted National Hydrology Project (NHP).
- Implementation of Centrally Sponsored and Shared (CSS) Schemes.
 - i. National Agriculture Development Program (NADP).
 - ii. Repair, Renovation and Restoration (RRR) of water bodies directly linked to agriculture.
- Inter-linking of rivers within the State.

c. **Organogram and roles:** The institutional structure of the WRD is presented in figure below:

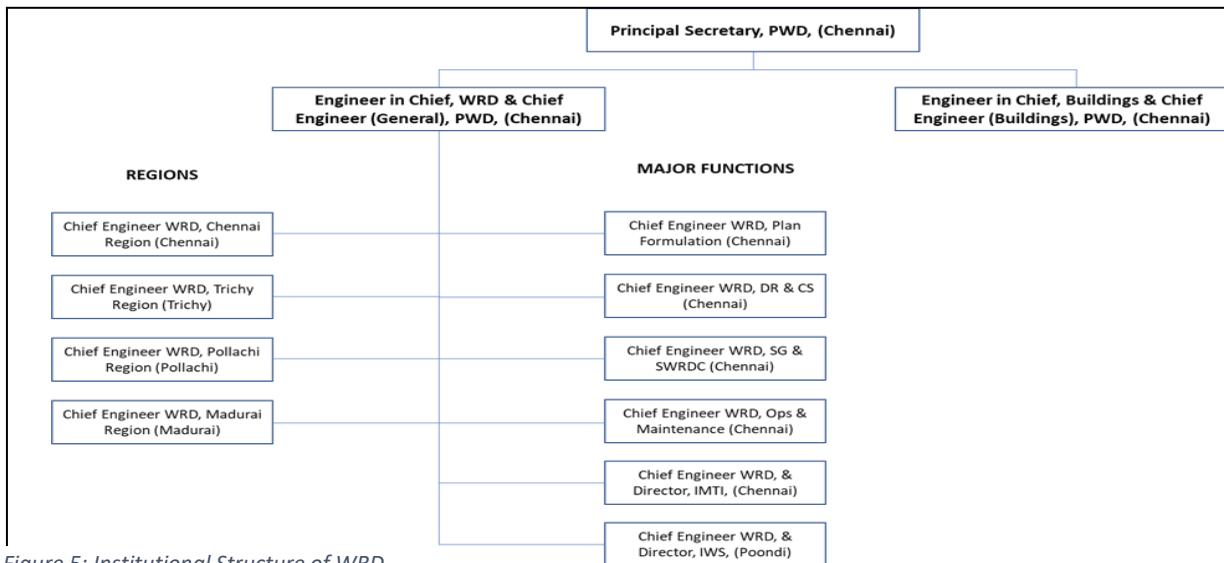


Figure 5: Institutional Structure of WRD

The Principal Secretary (PS), PWD is the overall head of the department. Two Engineers in Chief, one each for the WRD and the Buildings Department, report to the PS, PWD. The WRD is administratively sub-divided as per **regions** and **major functions**. Each of the regions and major functions are headed by officers of the rank of Chief Engineer as shown in the figure above. Each Chief Engineer³⁹ is supported by Superintending Engineers, Executive Engineers, Assistant Engineers, Junior Engineers and supporting consultants. Superintending Engineers and their

³⁸ Please refer to https://cms.tn.gov.in/sites/default/files/documents/pwd_irrigation_e_pn_2017_18.pdf for more details about the functions of the WRD and the schemes under implementation by the WRD.

³⁹ Please refer to Annex 2 of this document for the roles and responsibilities of each Chief Engineer of the WRD.

Executive Engineers are responsible for the assets and the investments that are within their respective geographical jurisdictions. In July 2009, the WRD also established an Environment Cell Circle to support the respective regional and / or functional teams of the WRD on matters related to environmental risk management. The ECC is based in Trichy and has 3 Divisions, one of which is in Chennai. The Chennai Division has two sub-divisions, each of which is headed by an officer of the rank of Assistant Executive Engineer. Each sub-division is further sub-divided into 3 sections respectively. Each section is staffed by 2 Assistant Engineers. In all, the Chennai Division of the ECC, which will primarily be responsible for managing the Environmental and social aspects of this PforR, has 25 staff of which 14 are technically qualified engineers. The ECC does not have any social specialist on its staff. However, given WRD's past association with World Bank funded projects, the WRD has the capability and the experience of bringing on board social specialists as consultants if and as required.

d. Assessment of WRD's Institutional Capacity for Managing Social Risks

The Department's main function currently is efficient management, utilization and distribution of the scarce water resources in the state. WRD is well established as a technically and operationally competent organisation. This was also recently recognized as Tamil Nadu was given the national award on water management for being the best among states in the year 2019. Awarded by GoI, this recognized the work done by the WRD in the construction of check dams and anicuts, the stabilisation of command area and conversion over 200,000 ha through micro-irrigation. That WRD has adequate institutional resources – staff, budgets, awareness and competence – to manage the technical issues related with the program. The detailed analysis of WRD's institutional structure, consultations with the WRD staff as a part of the ESSA study and exhaustive reviews of the Detailed Project Report (DPR) for the program and other secondary literature accessed and reviewed as a part of this study indicate the following:

- Having implemented EAPs in the past, the officials of the department are aware of the E&S requirements of multilateral agencies like the World Bank and ADB. Currently however, the department does not have the institutional capacity (resources – both financial and human, management systems, processes and protocols, M&E, etc.) to systematically assess, understand, mitigate social risks related to the discharge of its mandate.
- To promote participatory irrigation management systems, the government enacted the Tamil Nadu Farmers' Management of Irrigation Systems Act, 2000 (Tamil Nadu Act 7/2001) which was brought into force with effect from 01.10.2002. As per the Act, the following Farmers' Organisations are constituted; a) "Water Users' Association"(WUA) at the Primary level consisting of all the water users, b) "Distributory Committee" at Secondary level and c) "Project Committee" at the Project level. Limited information is available on the effectiveness of WUAs in planning and implementation of efficient management of water.
 - Citizen Engagement – given the nature of WRD's operations, it's key stakeholders are primarily other departments / agencies of GoTN – viz. CMSSWB, GCC, etc. It's interface with citizens is not as frequent or as extensive as other citizen facing service delivery departments of GoTN. Citizen's engagement in WRD is primarily through a grievance redress system that has been adapted from the World Bank supported TNIAAMP project and built upon by the department. The details are as follows: WRD's GRM system is developed to address social, environmental and project related grievances. For every six months, report is prepared at all levels and sent to the Secretary. Accordingly, written complaints are submitted to GRC. Open House at the Block and District levels are organised to address the complaints. In case grievances are not resolved then a time line is prepared by the GRC for the complaint is to be addressed within 4 weeks .
 - The GRC receives all grievances/complaints and enters them in the Grievance Register;
 - The GRC works out a timeframe to redress grievances/complaints if such grievances/complaints are not redressed during the first meeting;
 - The GRC acknowledges receipt of all grievances/complaints through registered post within 7 days of receipt;

- The GRC will consider and redress grievances/complaints through public and transparent process in which all those who have lodged their grievances and complaints in order to facilitate transparency and accountability;
- The GRC will communicate its decisions/redress in writing to the complainants within 4 weeks depending on the nature of complaints and Complaints Grievance register is being maintained with the following particulars: a) Serial Number; (b) Case Number; (c) Name of the Grieved/Complainant; (d) Name of Father/Husband; (e) Gender (f) Age; (g) Full Address; (h) Brief details of grievance/complaint; (i) List of documents, if any, attached; (j) Details of previous grievance/complaint, if any; (k) Date of receipt of grievance/complaint and (l) Date of acknowledgement of grievance/complaint
- Agreements - when closing the complaint, agreement should be made with the complainant on remedy, and both parties sign to their approval of the case being closed and outcome accepted. Copies are kept in both hard copy and electronic (please see documentation of Grievance process) by both parties
- GRM Reporting Module: Grievances received and redressed are reported as per the following format:

S.No	District	Name of the Sub Basin	Name of Complainant/date	Nature of Complaint	How it has been solved/addressed/date

Figure 6

- Apart from the above, WRD also received complaints directed to the department from GoTN's Amma Call Centre, a common a single window IT enabled facility of GoTN that acts as an intermediary between citizens (who can lodge their complaints by calling a toll free number – 1100) and government to enable expeditious disposal of grievances. The grievance redressal process for complaints received vide the Amma Call Centre follows the protocols set up by a special cell formed within the Chief Minister's office.
- Social Inclusion, Gender and Labor management: During the course of this assessment not much information was collected so assessment could not be completed
- Program wise risks and WRD's capacity to handle them:

Table 21

	Social Risks	Institutional Capacity to manage risks
1	Land and/ or livelihoods loss if encumbrance free land is not available. Temporary income/ livelihoods disruptions during construction period	WRD has no Social Management Unit or Specialists with expertise on Land, Labour, Social development, Gender, Communication, Inclusion, rights, and welfare. Presently the Environmental Cell performs these tasks. These activities are managed by consultants appointed for the purpose for specific projects. Data pertaining to land management and temporary disruptions is unavailable.
2	Lack of stakeholder engagement during construction	WRD has no specialised expertise in stakeholder engagement and consultations. These activities are managed by consultants appointed for the purpose. Data related to stakeholder engagement is unavailable.

3	Inequity in service levels to low income Groups	WRD has a policy of equity in service levels and covers all sections in the areas where services are provided. A strategy for reaching out to low income groups and vulnerable populations on an equal footing is required.
4	Labour issues with management contractors during operations. Labour related risks (including SH and GBV) within WRD and Contracted agencies. Compliance of Labor Laws by contractors.	All the WRD staff are permanent government employees. There are no temporary staff. There is an ICC formed. The contract documents does have sections on labour including listing of labour laws. In addition, availability of Complaint Cell and ICC in contracted Agencies not known. Systems for tracking of labor law compliance of contractors and complaint management is not available.
5	Citizen apathy in the absence of engagement and poor GRM Risk of complaints related to Sexual Harassment Ineffective ICC for handling cases of sexual harassment	WRD has complaint redressal cell. The details of grievances and redress are not available in public domain. The ICC details are not in the public domain. Environment -
6	Increased risk of Covid for the staff with number of personnel and duration of work increasing.	WRD has an SOP for Covid-19. Health Department carries out regular check-ups tests of its staff and workers and provides support to Covid positive. All staff and labour are provided sanitizers, gloves, shoes, masks.
7	Overall social risk of poor monitoring and reporting on social management	Presently systems for monitoring and reporting social risks and social development outcomes are not integrated into WRD's M&E system; except for when consultants are appointed for these purposes for specific projects.

e. Assessment of WRD's Institutional Capacity for Managing Environmental Risks

- WRD's institutional capacity was assessed to determine whether its procedures and practices meet the requirements of the national and state policy and legal framework and these are sufficient to manage the identified adverse impacts and risks under this Program.
- Water Resources Department (WRD) is one of the oldest in the state. The Department's main function currently is efficient management, utilization and distribution of the scarce water resources in the state. WRD is well established as a technically and operationally competent organisation. This was also recently recognized as Tamil Nadu was given the national award on water management for being the best among states in the year 2019. Awarded by GoI, this recognized the work done by the WRD in the construction of check dams and anicuts, the stabilisation of command area and conversion over 200,000 ha through micro-irrigation.
- WRD's technical team is headed by a Chief Engineer who is supported by Superintending Engineers, Executive Engineers and a team of junior engineers. their supporting consultants. Superintending Engineers and their Executive Engineers are responsible for the assets and the investments that are within their respective geographical jurisdiction. The environmental aspects are identified and addressed by the respective decentralized team of engineers assigned to plan, design and implement the activities, whether institutional development or investments. The responsibility lies entirely with the concerned Superintending Engineers and their Executive Engineers.
- WRD has internal environmental capacity in the Environment Cell Circle, which was established in July 2009. Based in the city of Trichy, the Circle has three Divisions and one of which is in Chennai. It is this Chennai Division that will support this Program. The Chennai division has 2 sub-divisions comprising of 2 Assistant Executive Engineers (2 and there are 3 sections in each sub-division with 2 Assistant Engineers in each (a total

of 6). The support of this Environment Cell Circle is solicited by the decentralized teams assigned with infrastructure investment responsibilities. For the Program, the Chennai Division of the Circle will be involved as required.

- The systems and procedures for their inclusion, implementation and monitoring relevant to the is in place at the project / investment level and support from the Environment Cell Circle will be sought as required. These are not documented but the procedure is followed based on how similar infrastructure investments were previously done. The regulatory agencies that WRD engages with the TN State Pollution Control Board, TN Coastal Zone Management Authority and TN Forest Department as required. WRD is also engaged in follow-up actions related to NGT cases as required in relation to other water bodies. The procedures and practices are in place.
- Beyond legal compliance requirements, WRD's environmental activities include conducting Environmental Impact Analysis studies, carrying out environmental awareness / training program for farmers, self-help groups (SHG) and students, collecting and testing water and soil samples, motivating local bodies for solid waste management and sewage treatment through demonstration, organising exposure field visits, participating in environmental fairs / exhibition, preparing environmental atlas, and engaging with various consulting studies as per specific requirements. Having undertaken a number of multi-lateral projects with the World Bank and Asian Development Bank, WRD and its Environment Cell Circle has the capacity to coordinate as per specific requirements that go beyond compliance requirements.
- Discussions revealed that the implementation capacity - staffing, awareness and competence - is sufficient. The arrangements for interagency coordination, particularly related to legal compliance, is also sufficient. There are also no particular lapses pertaining to their past performance in WRD's adherence to procedures. In all, their management systems will be able to deal with the risks associated with the minor, reversible environmental impacts in the Bank's Program of WRM including the resilient infrastructure investments. WRD has the capacity to engage, coordinate, integrate and supervise with the investment preparation to include appropriate EHS considerations. Prior to the finalizing of the bid / contract documents to procure the construction contractor, it will be required to do a due diligence to ensure that the EHS provisions are consistent with the Bank's ESSA Guidance requirements. This can be explicitly done by the design or the project management consultants, and is recommended in this ESSA's Program Action Plan.
- It is the state-level regulatory institutions that are responsible for the policy and legal framework mentioned earlier. These include the State Pollution Control Board, the TN Forest Department and the TN Coastal Zone Management Authority. All these institutions are well established. They have regulatory procedures, which are clear, streamlined and widely available in terms of adhering to the procedural requirements, there are no gaps in the borrower systems that need to be addressed.
- Program wise risks and WRD's capacity to handle them:

Table 22

	Environmental Risks	Institutional Capacity to manage risks
1	Physical environmental impacts during construction have a risk potential (Moderate)	WRD has an Environmental Cell with the required expertise. Further, WRD has implemented a number of projects funded by multilateral agencies, particularly the World Bank. The awareness and competence within the decentralized engineering teams is sufficient to address these risks.
2	Possible NGT-related issues due to community concerns related to the water bodies under the Program (Moderate)	WRD is dealing with such issues in other water bodies in Chennai. Those selected are not likely to have similar issues as these have been considered at the time of selection. However, if such issues emerge, WRD has the past experience and capacity to deal with them in a responsible manner.

2.2.6 Assessment against Core principles

Core Principle #1: Program E&S management systems are designed to (a) promote E&S sustainability in the Program design; (b) avoid, minimize, or mitigate adverse impacts; and (c) promote informed decision-making relating to a Program's E&S effects.

Table 23

Key planning elements	Bank's Assessment
1. Operate within an adequate legal and regulatory framework to guide E&S impact assessments, mitigation, management and monitoring at the PforR level.	<ul style="list-style-type: none"> (a) The national legal and regulatory framework governing the PforR (Please see Chapter 3 and Annex 1 for more details) are adequate to guide the E&S impact assessment, mitigation and management of the PforR. (b) WRD, the main agency responsible for implementing the program, has the legal and regulatory authority to commit resources and implement actions necessary for the effective management of E&S risks and impacts (c) No legal and / or regulatory changes are required for the proposed PforR operation to proceed (d) While WRD has an Environment Cell that is adequately staffed and resourced to manage environmental risks and impacts of the program, WRD does not have the required expertise to manage social risks and impacts. However, WRD has the experience of working on other multilateral development agency financed projects requiring project specific E&S risk and impact management capabilities and can engage consultants / independent experts to ensure objective and independent assessment of E&S risks and impacts
Incorporate recognized elements of good practice in E&S assessment and management, including:	
(i) Early screening of potential impacts.	<ul style="list-style-type: none"> (a) E&S risk and impact screening of the investments proposed under the PforR operation was not undertaken during the preparation of the DPR. (b) However, with guidance from the Bank WRD subsequently undertook a comprehensive assessment of E&S risks and impacts of the proposed investments. (c) The screening was comprehensive and included the full range of E&S risks and issues. (d) Under the prevailing Covid-19 conditions, the screening procedures could not include stakeholders' involvement in identification of priority E&S risks and impacts. However, as reported by WRD, the district administration had, through its Grievance Day Meetings, informed stakeholders about the purpose of the project and the project had received support from the stakeholders. (e) The screening was sufficient in scope and scale, and was conducted at a time when it could influence Program design, and focused specifically on the E&S implications of the PforR operation
(ii) Consideration of strategic, technical, and site alternatives (including the "no action" alternative).	<ul style="list-style-type: none"> (a) Satellite imagery of sites (co-ordinates of which were highlighted in the DPR) where WRD intends to focus its investments under the PforR were referred to extensively to identify potential social risks and impacts. (b) Site selection alternatives, including the "do nothing" alternative were not considered by the WRD
(iii) Explicit assessment of potential induced, cumulative, and transboundary impacts.	<ul style="list-style-type: none"> (a) The E&S screening of the activities proposed for investments under the PforR operation included an explicit assessment of potential induced, cumulative and transboundary impacts of the investments. (b) The assessment revealed that there were no potential induced, cumulative and / or transboundary impacts

(iv) Identification of measures to mitigate adverse E&S risks and impacts that cannot be otherwise avoided or minimized.	<ul style="list-style-type: none"> (a) The E&S risk and impact screening of the activities proposed for investments under the PforR operation indicates that the proposed investments have low environmental risks and impacts. The social risks and impacts are moderate. (b) In the course of implementing the program, WRD will develop protocols and procedures for mitigating adverse social impacts if and as such impacts arise and seek Bank's approval before commencing work on investments that require such impact mitigation measures.
(v) Clear articulation of institutional responsibilities and resources to support implementation of plans	<ul style="list-style-type: none"> (a) WRD has an Environment Cell that is responsible to develop and implement environmental risk / impact management plans (b) The Environment Cell is adequately resourced with staff and budgets (c) Currently WRD does not have any social specialists amongst its staff. As a result, WRD's capacities to develop, implement and monitor social risk and impact mitigation plans are limited (d) Application of procedures for environmental management, and strengthening DPRs with potential NGT requirements and EHS good practices should lead to designs that address environmental risks. (e) However, WRD can augment its capacities by hiring qualified consulting services for social risk and impact assessment, preparation of mitigation plans and monitoring the same. (f) WRD can put in place adaptive management processes to respond to unanticipated E&S management issues that might arise.
(vi) Responsiveness and accountability through stakeholder consultation, timely dissemination of the PforR information, and responsive GRMs.	<ul style="list-style-type: none"> (a) Field staff of WRD regularly interact with cross section of stakeholders in their respective jurisdictions (b) Stakeholders' views, concerns, suggestions are sought – though not through any systematic processes – and incorporated into project design (c) Currently, there are no proactive mechanisms for disseminating information on E&S effects to people or communities that are potentially affected (d) External monitoring of implementation or other forms of oversight are only used for donor funded projects implemented by WRD. Such mechanisms are not used in all projects and / or schemes that are implemented by WRD. (e) WRD has an established Grievance Redressal Mechanism that was developed for Bank supported TNIWARM project. However, the mechanism requires to be further strengthened to ensure that it is accessible and effective in terms of tracking and reporting on the complaints till the complainant is able to provide feedback on the satisfaction with the grievance redress.

Core Principle #2: Program E&S management systems are designed to avoid, minimize, or mitigate adverse impacts on natural habitats and physical cultural resources resulting from the Program. Program activities that involve the significant conversion or degradation of critical natural habitats or critical physical cultural heritage are not eligible for PforR financing

Table 24

Key planning elements	Bank's Assessment
1. Identify, and screen for adverse effects on potentially important biodiversity and cultural resource	In the Bank's Program, there are investments proposed in and around water bodies. These could be natural habitats, e.g. state wetlands or located in coastal regulation zones (CRZ) that will require procedural clearance and performance standards. Apart from legal requirements, WRD's systems will be able to address any adverse impacts, if any. WRD will also be in a position to address additional special requirements as required with the support of its Environment Cell Circle. None of the proposed resilient investments have any

areas and provide adequate measures to avoid, minimize, or mitigate adverse effects.	ecosensitive considerations. There will be no significant conversion or degradation of critical natural habitats or physical cultural heritage. In case the construction reveals chance finds, there will be a guideline in place address them in line with the legal framework.
--------------------------------------------------------------------------------------	----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

Core Principle #3: Program E&S management systems are designed to protect public and worker safety against the potential risks associated with (a) the construction and/or operation of facilities or other operational practices under the Program; (b) exposure to toxic chemicals, hazardous wastes, and otherwise dangerous materials under the Program; and (c) reconstruction or rehabilitation of infrastructure located in areas prone to natural hazards.

Table 25

Key planning elements	Bank's Assessment
1. Promote adequate community, individual, and worker health, safety, and security through the safe design, construction, operation, and maintenance of Program activities; or, in carrying out activities that may be dependent on existing infrastructure, incorporate safety measures, inspections, or remedial works as appropriate.	(A) Public and worker safety are an integral part of WRD's procedures and practices (B) WRD will ensure that all activities proposed under the PforR operation are in compliance with state and national laws related to workers health and safety through the design, construction, operations and maintenance of the Program. (C) Necessary provisions will be included in contracts for works awarded to contractors under this PforR and will be monitored by WRD with the support of the supervision / project management consultants
2. Promote measures to address child and forced labor	(D) The borrower's legal and regulatory framework has robust provisions w.r.t. prohibition of child labor and forced labor. In addition, WRD has prior experience of implementing Bank funded projects and is familiar with the Bank's policies and standards related to child labor and forced labor and is committed to complying with both the country's legal provisions as well as the Bank's requirements.
3. Promote the use of recognized good practice in the production, management, storage, transport, and disposal of hazardous materials generated under the PforR.	This is not likely to be applicable as there is no handling of hazardous materials. However, in case of silt removal, the testing of silt to determine whether it is classified as hazardous waste will be undertaken. Appropriate measures will be undertaken if found to be hazardous waste.
4. Promote the use of integrated pest management practices to manage orreduce the adverse impacts of pests ordisease vectors.	Not applicable.
5. Provide training for workers involved in the production, procurement, storage, transport, use, and disposal of hazardous chemicals in accordance with the relevant international guidelines and conventions.	Not applicable.
6. Include adequate measures to avoid, minimize, or mitigate community, individual, and worker risks when the PforR activities are located in areas prone to natural hazards such as floods, hurricanes, earthquakes, or other severe	Not applicable as program activities are not located in areas prone to natural hazards or affected by extreme climate events.

weather or affected by climate events.	
----------------------------------------	--

As a part of WRD's procedures and practices, public and worker safety are an integral part. There will be provisions for public and worker safety as part of the bid / contract documents. The provisions will be made part of agreements with contractors and are monitored by WRD themselves and with the support of the supervision / project management consultants as required. In order to address the public and worker safety, it will be required to do a due diligence of the bid / contract documents prior to the bidding. This is to ensure that the contract provisions are in line with the ESSA Guidance. The nature of activities under the Bank's Program is such that there is no exposure to toxic chemicals, hazardous wastes and dangerous materials. The infrastructure are located in inhabited areas that are not particularly prone to natural hazards.

Core Principle #4: Program E&S systems manage land acquisition and loss of access to natural resources in a way that avoids or minimizes displacement and assists affected people in improving, or at the minimum restoring, their livelihoods and living standards.

Table 26

Key planning elements	Bank's Assessment
1. Avoid or minimize land acquisition and related adverse impacts.	(A) The proposed investments in water resilience do not envisage any land acquisition or related adverse impacts (please see Annex 3 for E&S screening of the proposed investments)
2. Identify and address economic or social impacts caused by land acquisition or loss of access to natural resources, including those affecting people who may lack full legal rights to resources they use or occupy.	(B) Preliminary screening of proposed investments do not reveal any adverse social or economic impacts or loss of access to natural resources (including those affecting people who may lack full legal rights to resources they use or occupy) (C) However, before commencement of work on each investment proposed under the PforR operation, WRD will undertake a rapid E&S impact assessment wherever necessity arises and prepare mitigation plans that will need to be approved by the Bank
3. Provide compensation sufficient to purchase / replace assets of equivalent value and to meet any necessary transitional expenses, paid before taking land or restricting access.	(D) The two operative acts enforced by WRD –(i) The Tamil Nadu Protection of Tanks and Eviction of Encroachment Act, 2007 (made operational by the Tamil Nadu Protection of Tanks and Eviction of Encroachment Rules, 2007) and (ii) The Tamil Nadu Land Encroachment Act, 1905 and Amendments - 26 of 1965, 20 of 1975, 1 of 1996 – are in contravention to World Bank Policy on Program-for-Results Financing and the Bank Directive on Program-for-Results Financing. The said state legislations allow for eviction of encroachers without any payment of compensation for losses suffered. On the contrary, encroachers can be removed by force, made to pay for the cost of eviction and can attract a fine, or imprisonment or both. (E) In order for the proposed investments to be considered under the PforR, vide the Legal Agreement, WRD would need to commit to follow the World Bank's Environmental and Social Standard (ESS) related to Land Acquisition, Restrictions on Land Use and Involuntary Resettlement (ESS 5) as well as the Government of India's RCFTLARR Act 2013 and the Tamil Nadu Tamil Nadu Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement Rules, 2017 for instances where land acquisition, restrictions on land use and / or involuntary resettlement might become inevitable.
4. Provide supplemental livelihood improvement or restoration measures if taking of land causes loss of income-	Same as Point (E) above.

generating opportunity (e.g., loss of crop production or employment).	
5. Restore or replace public infrastructure and community services that may be adversely affected by the Program.	(F) WRD recognizes the need to restore or replace public infrastructure and community services that may be adversely affected by the program. (G) Contracts issued to contractors engaged to undertake the works proposed under the PforR will include provisions for restoration / replacement of public infrastructure and community services that may be adversely affected by the program and penal provisions for failure to meet these commitments
6. Include measures in order for land acquisition and related activities to be planned and implemented with appropriate disclosure of information, consultation, and informed participation of those affected.	Same as Point (E) above.

Core Principle #5: Program E&S systems give due consideration to the cultural appropriateness of, and equitable access to, Program benefits, giving special attention to the rights and interests of Indigenous Peoples/Sub-Saharan African Historically Underserved Traditional Local Communities (hereafter referred to, interchangeably, as Tribals, Tribal Groups or Tribal Populations), and to the needs or concerns of vulnerable groups.

Table 27

Key planning elements	Bank's Assessment
1. Undertake meaningful consultations if the Indigenous Peoples/Sub-Saharan African Historically Underserved Traditional Local Communities are potentially affected (positively or negatively), to determine whether there is broad community support for the PforR activities.	(A) The proposed project activities are to be implemented in urban / peri-urban areas around the city of Chennai in Tamil Nadu. Chennai is the 4 th largest metropolitan city in India. The total tribal population in the city is a small percentage of the total population of the city. Moreover, the language, traditions, culture, ownership of property rights of these populations is not distinctly different from the majority population in Chennai.
2. Ensure that Indigenous Peoples/Sub-Saharan African Historically Underserved Traditional Local Communities can participate in devising opportunities to benefit from exploitation of customary resources and indigenous knowledge, the latter (indigenous knowledge) to include the consent of Indigenous Peoples/Sub-Saharan African Historically Underserved Traditional Local Communities.	(B) WRD and the district administration have held consultations with stakeholders (some of which may have included tribal populations) about the proposed activities under the PforR operation. There was, as reported, broad based support from all stakeholders for the activities proposed. The environmental and social benefits of the activities are significantly higher than the risks and impacts which are localized and can be managed with appropriate mitigation measures.
3. Give attention to groups vulnerable to hardship or discrimination, including, as relevant, the poor, the disabled, the elderly, women and children, ethnic	(C) The E&S screening of investments (and activities under each investment) proposed under the ESSA does not reveal any disproportionate adverse impacts or distributional inequities on Tribal populations or other vulnerable groups.

minorities or other marginalized groups; and, if necessary, take special measures to promote equitable access to PforR benefits.	(D) If required, WRD is willing to adopt special measures to promote equitable access to PforR benefits for Tribal populations and other vulnerable groups under the ambit of state and national laws & regulations as well as Bank's requirements related to these concerns.
----------------------------------------------------------------------------------------------------------------------------------	-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

Core Principle #6: Program E&S systems avoid exacerbating social conflict, especially in fragile states, post-conflict areas, or areas subject to territorial disputes.

Table 28

Key planning elements	Bank's Assessment
1. Consider conflict risks, including distributional equity and cultural sensitivities.	<p>(A) The program is not being implemented in areas of recognized fragility or in post conflict zones</p> <p>(B) Given the information available, it does not seem likely that the program would contribute to underlying tensions or civil strife by reinforcing prejudices, inequities or grievances</p> <p>(C) As per state laws, all public water bodies in the state are owned by or in the control of the Government. WRD has jurisdictional control over all such "public" water bodies. Consequently, support to the program will not prejudice one party's claims in land or territorial disputes</p> <p>(D) The screening of the projects did take into account the risk of exacerbating social conflict and it was found that there was no risk of project activities exacerbating social conflict</p> <p>(E) WRD and the GOTN are open to having discussions with the Bank and stakeholders on potentially sensitive issues</p>

2.2.7 Recommendations

a. Social Recommendations are outlined below:

Table 29

Sr. No.	Description	Timeline	Indicator
S1	Develop and adopt an action plan to strengthen WRD's institutional capacity for improved social risk management ⁴⁰	<p>By end of Year 1 (to develop and adopt the action plan)</p> <p>By end of Year From Year 3 (continuous)</p>	<ul style="list-style-type: none"> - Action Plan Developed - Government Order on implementing Action Plan issued - Required manpower in place - Budgets for salaries of staff and operations of Social Management Cell allocated in departmental budget - All project feasibility studies, DPRs, contracts include assessments of social risks and necessary measures to be taken by concerned stakeholders (WRD / Contractors / others) to mitigate social risks.
S2	<p>Strengthen Stakeholder Engagement^(a)</p> <ul style="list-style-type: none"> - Develop SOPs for stakeholder engagement in planning, 	Year 1 Continuous	<p>SOPs developed</p> <p>By end of Year 3 SOPs implemented across all WRD's schemes and projects (Means of Verification: Quarterly, Annual Project Reports)</p>

⁴⁰This would include, *inter alia*, (i) assessment of gaps between availability and requirements of competent, qualified, experienced, social development specialists and actions to address the gaps; (ii) development of systems to identify, assess, mitigate, monitor, supervise and report on social risks across the project cycle; (iii) estimation of the budgetary requirement to institutionalise proper social risk management systems within the department, (iv) roadmap for adoption of tools / processes / mechanisms to ensure WRD's compliance with labor laws, tracking of program benefits to poor and vulnerable stakeholders, etc. and (v) training and capacity building needs assessment (of all WRD staff on social issues) and a plan to address capacity gaps

	implementation and O&M of WRD's schemes and projects - SOPs used for all programs and schemes of WRD		
S3	Strengthen WRD GRM ^(b) - Designate an officer not below the rank of Chief Engineer to oversee functioning of WRD's GRM - Ensure that the GRM functions effectively	Within 6 months Continuous	Office Order Starting from XX% in Year 1, at least 95% of all complaints received resolved to satisfaction of complainant by Year 5
S4	Gender Mainstreaming ^(c) - Form an Internal Complaints Committee (ICC) to oversee and address sexual exploitation, abuse and harassment of women - Develop and adopt SOPs for ensuring safety of women (labor and staff) at the workplace	Within 6 months Within 1 Year (implementation continuous)	Office Order to constitute ICC with composition, mandate and operating rules issued Quarterly reports on women's safety in WRD

Note: ^(a), ^(b) and ^(c) are related to World Bank's corporate requirements on citizen's engagement and gender mainstreaming. Every World Bank supported program need to ensure that these corporate requirements are addressed appropriately. The implementation support would include:

- Technical advice and guidance to WRD to plan and implement actions indicated in Table 3
- Review and inputs on plans / SOPs / tools / mechanisms developed by WRD to strengthen social risk management
- Monitoring and supervision support for effective implementation of plans / SOPs / tools / mechanisms

b. Environmental Recommendations and PAP Actions

On environmental aspects, there are two main concerns that require implementation support: (1) EHS impacts: The Bank's implementation support should focus on WRD's bid / contract documents and how EHS issues are included in them. Further, awareness / training of the contractor and sub-contractor staff on EHS, and also establishing systems for information and education campaigns (IEC) relevant for the community pertaining to the construction of resilient investments infrastructure; and (2) NGT-related issues: None of the proposed resilient investments are under the purview of any NGT orders presently. Nevertheless, the Bank's implementation support should focus on the generic nature and type of requirements arising from NGT orders pertaining to other bodies. These should be proactively addressed in the design, construction and implementation under the Bank's Program. As these are community concerns, special attention should be given to ensure that investment-level systems are adequate to manage the stakeholder expectations.

Table 30

No.	Description	Timeline	Indicator for completion
E1	Establish and maintain documented environmental systems and procedures (for the entire project cycle including monitoring) for the Environmental Cell	End of Year 1	Documented systems and procedure developed and streamlined
E2	Review Detailed Project Reports (DPRs) in line with the requirements with National Green Tribunal (NGT) orders passed on other water bodies, if any, and include EHS good practices in the bidding documents	Prior to contracting / bidding whenever planned	Evidence of review of DPRs vis-à-vis the requirements of similar NGT orders

2.2.8 Stakeholder Engagement

a. **Stakeholder mapping:** The stakeholders were identified on the basis of their ability to impact and / or influence the works planned under the PforR as well as on the basis of who could be impacted on account of activities that would be carried out under the PforR. Keeping these two considerations in mind, WRD's key stakeholders in the context of this PforR are:

Table 31

Internal	External
WRD staff responsible for project planning, design, implementation, supervision and support 1. Principal Secretary, PWD 2. Engineer-in-Chief, WRO, PWD 3. Chief Engineers, WRO of the 4 Regions (Chennai, Coimbatore, Tiruchy, Madurai) 4. Chief Engineer, WRO, PWD, Plan Formulation, Chennai 5. Chief Engineer, WRO, PWD, State Ground and Surface Water Resources Data Centre, Chennai 6. Chief Engineer, WRO, PWD, Design Research and Construction Support, Chennai 7. Chief Engineer, WRO, PWD, Operation and Maintenance, Chennai 8. Chief Engineer & Director, WRO, Institute for Water Studies, Chennai 9. Members of the Institute of Water Studies, Chennai 10. Chairperson and Member Secretary of the Water Resources Control and Review Council	11. Representatives from other GOTN Departments / Agencies that are dependent on outcomes of works planned and implemented by WRD or whose works are critical for WRD to discharge its mandate (for e.g. Greater Chennai Corporation, CMWSSB, TNSCB, CRRT, Department of Environment, etc.) 12. Members of Water Users Associations, if any, in Chennai 13. Members of Farmers Associations / Farmers Water Users Associations 14. Members of NGOs and Civil Society Organisations working on water and watershed management in Chennai and other areas of Tamil Nadu (for e.g. Environmentalist Foundation of India, Chittapakam Rising, David Manohar (Activist), etc.); 15. Tamil Nadu Watershed Development Agency (under Department of Agriculture, GOTN) 16. Researchers from the Water Resources Institute, Bangalore who have worked on hydro-basin mapping of India's and TN's water resources and related studies 17. Faculty / Researchers from IIT Madras working on water resources management in Tamil Nadu 18. Elected representatives 19. Contractors working with WRD

b. **Consultations organised during the preparation of ESSA:** Stakeholder consultations had to be done under constraints due to the Covid-19 pandemic. There were sector consultations, which was followed by a state / city level consultation workshop. All consultations were virtual, limited and focused largely on stakeholders who were involved with the Bank Program's planning, design, construction and operation. Further, the consultations held earlier by WRD earlier during the conceptual stage of the planning and designs were used to supplement these limited consultations during the ESSA itself. These consultations were done in the months of October through December 2020. The ESSA team has proposed a second phase for larger, deeper and face to face interactions

including site visits in March 2021. The feedback obtained from these consultations were considered in the Program design as well as in finalizing the ESSA.

c. Roadmap for Consultations proposed after Lockdown:

Table 32

	Stakeholders	Issues to be covered	Method/ Medium	Timelines
1.	External	<ul style="list-style-type: none"> • Need for proposed investments • Issues and challenges (if any) that may arise on account of proposed investments • Stakeholders' suggestions on citizen feedback, complaint redressal, community / stakeholders participation • Support required from the stakeholder group • Improved labor management 	KII (face to face)	March 2021
2.	Internal stakeholders	<ul style="list-style-type: none"> • Need to integrate social risk screening as part of due diligence before taking up any investment • Integrating social risk assessment with other risk assessments • Discussions on developing a roadmap for stakeholder engagement through the project cycle • Discussions on improving GRM systems and Internal Complaints Committee • Access to opportunities 	Meeting / Workshop	March 2021

2.3 Urban Mobility

2.3.1 Background and Overview

The 2019 study conducted for development of the Chennai Comprehensive Mobility Plan by CMDA revealed that buses and non-motorized transport modes (NMT) accounted for 50 per cent of all trips—walking (25.10%), cycling (2.9%), and bus (22.60%)—in Chennai. Of this, lower income group, particularly women's reliance on these modes are much higher.⁴¹ However, there has been a steady increase in use of personal motorized vehicle, especially two wheelers (29.60%), resulting in decline in use of buses and non-motorized transport.⁴² Poor quality and unavailability of bus services, concerns over women safety in public space⁴³ and limited NMT facilities are some of the key challenges contributing to this trend. The transition from motorized to non-motorized can lead to far-reaching reductions in social, health and environmental risks related to air and noise pollution exposures,

⁴¹ As per the 2018 Household Survey datasets analysed by the Bank, women walk more than men- mostly as children, the gap increases vastly as adult (37% of all female trips are walking, compared to 26% out of all male trips). Only 5% of all women respondents own a vehicle, compared to 44% of men.

⁴² The study cites a significant decrease in the percentage of trips by bus is observed from HHI survey- 22.6% in 2018 when compared 26% in 2008 (CTTS-2008).

⁴³ A study conducted by AWARE in Chennai found that more than 50% of women interviewed had faced some form of harassment while traveling on public transport. The response indicated that 44.5% women faced verbal harassment (sexual comments, noises, catcalling), while a large share of respondents faced physical (deliberate touching, leaning/rubbing, cornering, groping, or pinching) – 83.7%; and visual harassment (sexual looks or gestures) – 50.8%.

congestion and road fatalities⁴⁴, that falls disproportionately on disadvantaged groups who already have limited access to social and economic opportunities.⁴⁵

The challenge for Chennai is to deliver seamless and safe citizen-centric mobility services with a special emphasis on ensuring integration across modes and improving the quantity and quality of bus services, pedestrian and cycling infrastructure. The PforR will support:

- Implementation of safe-city projects under Nirbhaya Fund⁴⁶ by GCC, Transport Department and MTC including the establishment of a Gender Lab.
- Six quick win interventions under Mega-street program⁴⁷ for early implementation which cover nearly 25 kms. The six quick-win interventions under Mega-street Program include activities in: Package 1- Anna Nagar, Package 2- Thondiarpet - George Town – Thiruvattiyur, Package 3- Nungambakkam, Package 4- Mylapore, Package 5- Velachery, and Package 6- Adyar.
- Operationalisation of CUMTA as a unified coordination and regulatory agency for urban mobility, with human and budgetary resources, as well as technical and financial capacity, with oversight on a growing share of urban mobility resources and support its leading role in finalizing the new Comprehensive Mobility Plan (CMP) for the city through consultation.⁴⁸
- Establishment of a Public Transport Service Contract (PTSC) between GoTN and MTC to sustain existing fleet through efficiency improvements and transparent long-term Viability Gap Funding (VGF) mechanism to compensate the gap in revenue recovery.
- Service improvement from 3,700 buses to 4,700 buses including fleet augmentation through Gross Cost Contracting (GCC) of new services where buses are owned by private operators who get paid based on the volume and quality of service.

2.3.2 Social and Environmental Impact

a. Social Impacts

- **CUMTA:** The PforR would support strengthening of CUMTA to achieve greater user-centric impact and broad-based achievement of sustainable and resilience goals for the metropolitan area. Operationalisation of CUMTA will result in the appointment of new staff (permanent, contracted and on deputation), therefore risks of exclusion of qualified individuals and discrimination in appointments, trainings, promotions, rewards and recognition needs to be safeguarded. To achieve user-centric impact, stakeholder engagement is another critical aspect that needs to be integrated into this component. Limited public participation and inadequate representation in the CUMTA authority, absence of information and communication from the organisation may lead to adverse consequence to its reputation and operations. The system for grievance management (internal and external) also needs to be institutionalised.
- **Gender Lab:** Projects under Nirbhaya Fund will result in improvement in data-driven initiatives for

⁴⁴ The study revealed that two wheelers and pedestrians account to 85% of the accident victims calling for the need for improvement in road conditions and raising safety concerns

⁴⁵ World Health Organisation. (2012). Health in the green economy: health co-benefits of climate change mitigation - transport sector. World Health Organisation.

⁴⁶ The Ministry of Home Affairs (through a Steering Committee) had identified 8 Indian cities to initiate projects for safety of women in public spaces (Safe City Project) under Nirbhaya Fund in November 2017. Having identified Chennai as one of the 8 cities, the GoTN has approved 13 projects under the Fund which are at various stages of preparation.

⁴⁷ The Mega-street program covers the development of pedestrian friendly streets that also carry multi-utility networks which covers approx. 110 kms of arterial and sub-arterial roads/ streets in Chennai.

⁴⁸ The CMP has been prepared by Chennai Metro Rail Limited but sufficient consultations needs to be undertaken and to fill those gaps, an agency will be brought on board to undertake stakeholder consultations and finalize the plan.

planning gender inclusive transport services. With inclusion of other initiatives on women's safety, the program aims for an integrated and holistic approach. The challenges perceived in implementing the program is the lack of structured system for coordination with all line departments, contracted firms and independent organisations. While Apex and Steering Committees have been formed for this purpose, their roles are not formally defined. The proposal for setting up of Gender Lab and Voluntary Advisory Committee (VAC) is likely to address the coordination gap to some extent, albeit in the absence of clear guidelines on operational processes applicable for the committees, Lab and the implementing agencies, the coordination may not be effective. Another risk foreseen is the sustainability of the projects beyond five years, if adequate resources and capacity within the implementing agencies to maintain it are not allocated. Further, development of public policies, manuals and guidelines on women safety requires public consultations for collecting empirical information on users' needs, identifying non-evident policy alternatives and above all, for building ownership and accruing consensus. While M&E framework will be developed for the program, the lack of performance benchmarks to monitor achievements of project outputs and overall program outcome is another challenge.

- **Bus Service Improvement:** Establishing a Public Transport Service Contract (PTSC) for Transport Department and MTC will lead to more transparency, efficiency and consistent funding support through Viability Gap Funding (VGF). The PTSC will define key performance targets to be met for VGF, which in-turn will improve MTC's service delivery and efficiency to access the funding. As a part of service improvement, the Program will also support the augmentation of MTC fleet by 1,000 buses through Gross Cost Contracting (GCC), starting with 500 in 2022. Service improvement and fleet augmentation is expected to result in enhanced volume, efficiency and quality of bus service for all citizens. However, reputational risks related to poor contract management including concerns by employees over contracting out of supplemental bus services, tracking compliance of operators under GCC, and limited institutional focus on KPI related to customer satisfaction among others, are some of the key challenges foreseen. Weak (or mis-) communication, outreach and citizen engagement and absence of social management professionals in MTC can further risk poor response/participation of citizens, including dissent among MTC employees amidst the new approach.
- **Mega-street program:** The program will result in development of pedestrian friendly streets that also carry multi-utility networks which covers approx. 110 kms of arterial and sub-arterial roads/ streets in Chennai. Under the PforR, six quick-win packages are being prepared for early implementation, which cover nearly 25 kms out of the 110 Kms. Challenges in implementation of the program are mostly related to institutional capacity to manage social risks, particularly during the construction phase with regard to citizen engagement, social inclusion, labour standards compliance and most importantly, involuntary resettlement and rehabilitation. The program may have an adverse impact on non-titleholders (encroachers and squatters), but will not result in any private land acquisition, as it will use existing right-of-way or state-owned/municipality owned land.

The figure below summarises the benefits, risks, gaps and opportunities:

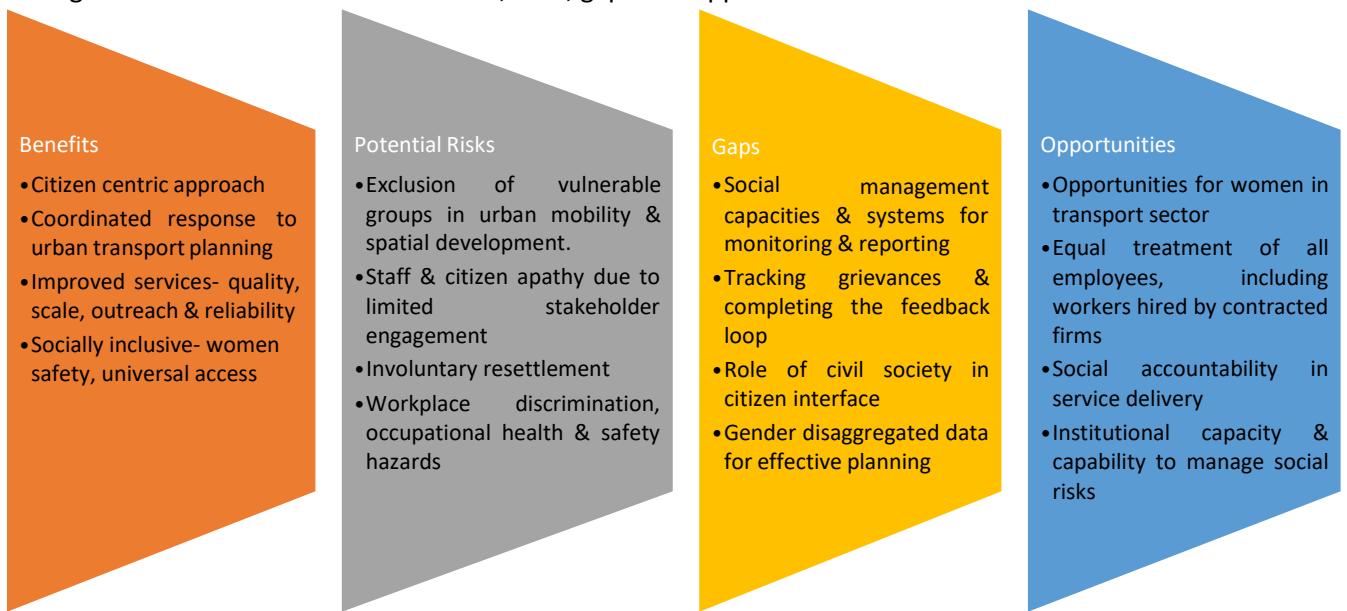


Figure 7: Urban Mobility related social benefits, risks, gaps and opportunities

b. Environmental Impacts

The Bank's Program pertaining to urban mobility will have some environmental impacts. Under the mega streets interventions, there will be impacts due to limited scope of civil works. This includes (i) dust, noise and air pollution; (ii) storage, transport and disposal of construction wastes, (iii) worker and pedestrian safeties, (iv) disruption of traffic during the construction or movement of vehicles carrying construction material, and (v) health impacts to workers and community, including Covid-19 pandemic. In the MTC bus operation, there are operation and maintenance impacts relevant to bus maintenance and scrap disposal. This includes (i) noise and air pollution during vehicle testing; (ii) generation, storage and disposal of oily wastes; (iii) discharge of waste water and (iv) used oil storage and disposal. Further, MTC has prevailing systems on driver training, vehicle safety and pedestrian safety, and no adverse impacts are foreseen due to the PforR. And, the activities under the Nirbhaya Fund and the Gender Lab do not have environmental impacts. With regards to risks, there are no contextual risk factors as the interventions are not in eco-sensitive areas and there are no concerns on their sustainability. There are no reputational and political realities that will result in environmental risks. There are no reputational and political realities that will result in environmental risks.

Benefits: One of the overall aims of the urban mobility interventions is to bring about better environmental benefits.

- **CUMTA:** Like its developed country counterparts, CUMTA has the potential to contribute substantively to the sustainable transportation within the city. These include better integration of various transport solutions that will improve efficiency and effectiveness. This may lead to less air and noise pollution, and reduced use of fuel for transportation.
- **Mega streets:** While there will be minor, reversible negative environmental impacts during the construction of the mega streets, the proposed enhancements will contribute towards efficient transportation. These include (i) fast and safe connectivity for the neighbourhood, (ii) decongestion of traffic, (iii) savings in fuel, travel time and total transportation cost of road users, (iv) reduction in road accidents and (v) reduction in air and noise pollution due to regulated flow of vehicles
- **Bus service:** The introduction of new buses and new contracting arrangements for expanding the fleet will result in improved efficiency. Apart from better service levels, this will bring about a reduction in overall fuel

use. Though energy efficiency and / or alternative fuel use is not a particular focus in the Program design, the new buses will bring reduction in the emission of Green House Gases.

2.3.3 Policy and Legal Framework

a. Legal Framework for Social Safeguards

The Chennai City Municipal Corporation, Act, 1919 provides the Greater Chennai Corporation (GCC) with the responsibilities pertaining to improvement and maintenance of roads within its jurisdiction. To strengthen governance for coordinated response on urban transport, the Chennai Unified Metropolitan Transport Authority (CUMTA) Act, 2010 and 2019 Rules was enacted to establish CUMTA. National/state policies and guidelines such as the National Urban Transport Policy, Smart City Mission, Chennai Non-Motorised Transport Policy and Chennai's Complete Street Planning Manual have also paved the way for sustainable and inclusive urban transport planning, operations and service delivery in Chennai.

While the program will have physical infrastructure development, it does not envisage land acquisition. Tamil Nadu, however, has robust laws to ensure that there is no involuntary resettlement [Street Vendors (Protection of Livelihood and Regulation of Street Vending) Act, 2014] and safeguards the rights to fair compensation in case of land acquisition [Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement Act, 2013 and 2017 Rules].

Chennai is one of the eight cities approved by the Union Ministry of Home Affairs as part of its plans to implement Safe City Projects under the Nirbhaya Fund Scheme. Enactment of state laws and rules such as Equal Remuneration Rules of 1976, Tamil Nadu Maternity Benefit Rules of 1967 and Tamil Nadu Prohibition of Harassment of Woman Act of 1998, among others (See Annex 3.1) further articulates the state's commitment to addressing women's safety, gender equity and inclusion.

The Right to Information Act is also being implemented in order to promote transparency and accountability in public institutions such as GCC, Transport Department and MTC. To safeguard all workforce under the program, 25 national and state laws and rules related to labour welfare, safety and industrial relations relevant to the program were reviewed. For further details, see Annex 3.1 on Legislations and Policies relevant for Social Management under Chennai City Partnership Project. **Some of the national and state laws, guidelines and policies specific to urban mobility are:**

Table 33

Name of Act	Summary	Applicability to PforR
Governance		
Chennai City Municipal Corporation Act, 1919	This Act provides for Municipal Corporation of Chennai and setting up of councils, standing committees of the councils, wards committee and commissioner. This Act provides the basic statutory authority for the administration now.	GCC is one of the implementing partners for this program.
The Tamil Nadu Town and Country Planning Act, 1971	This Act provides for planning the development and use of rural and urban land in Tamil Nadu. It establishes the Town and Country Planning Authorities and the Chennai Metropolitan Development Authority (CMDA).	The CMDA is one of the implementing partners of the program.
The Chennai Unified Metropolitan Transport Authority Act, 2010	This Act provides for establishment of Chennai Unified Metropolitan Transport Authority (CUMTA) for the purposes of proper co-ordination and streamlining the activities among the many agencies involved in	PforR supports establishment and operationalization of CUMTA.

	planning, operating and managing transportation system in Chennai.	
Tamil Nadu Motor Vehicles Rules, 1989	A Government Order amending the Tamil Nadu Motor Vehicles Rules, 1989 for hiring of stage carriage to enable STU to run any private vehicle taken on hire on payment of fixed hire charges by obtaining a permit for such vehicle issued (Refer G.O(Ms). No. 261, dated July 29, 2020.	Under the program, MTC will procure services of private operators through gross cost contracts for new fleets.
Land Management		
The Tamil Nadu Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement Rules, 2017	The 2017 Rules operationalize the Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement Act 2013 in Tamil Nadu	In the PforR, it has to be ensured that no activities involving land acquisition are part of the program.
Livelihood related Impact		
Street Vendors (Protection of Livelihood and Regulation of Street Vending) Act, 2014	It provides for a periodic survey of all street vendors under the jurisdiction of the Town Vending Committee (in each zone or ward of the local authority), registration and issuance of a Certificate of Vending to them.	Mega Street Program may have temporary or permanent impact on street vendors. The Act and Rules aims to regulate street vendors in public areas and protect their rights.
Tamil Nadu Street Vendors (Protection of Livelihood and Regulation of Street Vending) Rules, 2015	These Rules operationalise the 2014 Street Vendors Act. It provides for constitution of the Town Vending Committee, Grievance Redressal and Dispute Resolution Committees.	
Tamil Nadu Land Encroachment Act, 1905	This Act deals with unauthorized occupation of Government land in Tamil Nadu and provides for liability of those unauthorizedly occupying land and manner of eviction.	Mega-street program involve civil works on government land, where there is a possibility of encroachment.
Inclusive Planning		
Complete Streets Planning Manual 2020	The Manual includes a long-term masterplan for a Complete Streets network with proposed phasing and estimated investment. The masterplan includes planning for efficient mobility, universal accessibility and women safety.	This Manual would have to be adhered to in the planning and implementation of the Mega Streets component of the program.
National Urban Transport Policy	The objective of this policy is to ensure safe, affordable, quick, comfortable, reliable and sustainable access for the growing number of city residents to jobs, education, recreation and such other needs within our cities.	Manual on Complete Streets applicable for this program are aligned with this policy.
Persons with Disabilities (Equal Opportunities, Protection of Rights and Full Participation) Act, 1995 and Tamil Nadu Rules, 2018	Sections 44, 45 and 46 of the Act categorically provides for non-discrimination in transport, non-discrimination on the road and non-discrimination in built environment respectively.	NMT infrastructure planning and service improvements of MTC will be required to adhere to universal design principles.
Women Safety		
Tamil Nadu Prohibition of Harassment of Woman Act, 1998	The Act provides duty of crew in public service vehicles to report where any eve-teasing is committed in a public service vehicle.	Relevant and applicable to MTC staff and private bus operators
Nirbhaya Fund Scheme	Fund is utilized for projects specifically designed to improve safety and security of women. It is a non-	The PforR will focus on projects shortlisted under Nirbhaya

	lapsable corpus fund administered by the Department of Economic Affairs, Ministry of Finance.	Funds to be implemented by GCC, MTC and Transport Department.
Employee Welfare		
Motor Transport Workers Act and Tamil Nadu Rules, 1965	Registered MTUs are mandated to provide amenities such as canteen, restrooms, toilets, uniforms and medical facilities. It also regulates working hours, leaves, compensation and wages entitled to workers employed in registered MTUs.	Relevant and applicable to MTC staff, private bus operators and other stakeholders working on bus service delivery.

Overall, it may be concluded that the policy and legal framework is conducive and adequate for the required social management processes.

b. Legal Framework for Environmental Safeguards

The national environmental policy and legal framework is well developed. A very brief description of the different important elements of the framework that are directly relevant to the Program is provided in the following table

Table 34

Name of Act	Summary	Applicability to PforR
Environment (Protection) Act of 1986	The Act is an umbrella legislation that provides a framework for Central and State Authorities established under previous laws. It provides a single focus for the protection of the environment and sought to plug several loopholes.	Standards that are specifically applicable to air, water, noise and soil. Organisation: TN State Department of Environment and State Pollution Control Board
Air (Prevention and Control of Pollution) Act 1981	This Act provides for the prevention, control and abatement of air pollution. It is to control emissions of any air pollutant into the atmosphere when it exceeds the standards set under the Act and associated rules	Any release of air pollutants due to the Program Activities. Organisation: TN State Pollution Control Board
Water (Prevention and Control of Pollution) Act 1974	This is to control water pollution by controlling emission & water pollutants and the maintaining or restoring of wholesomeness of water, through establishment and empowerment of Boards at the national and state levels. Ensuring adherence to water quality and effluent standards is the main purpose.	Any release of water pollutants due to the Program activities. Any release liquid wastes, e.g. waste water discharges from the MTC bus depot maintenance facilities and MTC disposal section require consents to establish and operate under this Act. Organisation: TN State Pollution Control Board
Noise Pollution (Regulation and Control) Rules 2000	According to the provisions of the rules notified under this act, a person might make a complaint to the designated 'Authority' in the event that the actual noise levels exceed the ambient noise standards by 10dB(A) or more as compared to the prescribed standards. The designated authority will take action against the violator in accordance with the provisions of these rules or other law in force.	Under the Rules, any generation of noise due to the Program activities. Organisation: TN State Pollution Control Board
Various Waste Management Rules 2016:	There are four Waste Management Rules that are pertinent: (i) Hazardous and Other Wastes (Management and Trans-boundary Movement) Rules, 2016; (ii) Construction and Demolition Waste Management Rules 2016, (iii) Solid Waste Management Rules 2016 and (iv) Plastic Waste Management Rules 2016.	There are guidelines for generation, storage, transport and disposal of C&D waste, hazardous waste, plastic waste and municipal solid waste. For all civil works, the contractor will have to obtain authorizations for all the different types of wastes as required and will dispose scrap / waste only to authorized agencies.

	Organisation: TN State Pollution Control Board.
--	-------------------------------------------------

Source: Acts, Rules and Regulation from Central and State Government

2.4.4 Assessment of Risks under PforR activities

a. **Social risk rating:** While the social risk rating for other activities under this sector is moderate to low, the risk rating for the mega-street program is substantial due to potential livelihood related impacts on squatters and encroachers in the quick win corridors. These can be mitigated with appropriate management measures

Table 35

	Activity	Positive Social Impact	Adverse Social Impact	Social Risk Rating
1	CUMTA			
1.1	CUMTA establishment and operations	Improvement in coordination and management functions of the urban agency in an environment of fragmented responsibility is likely to have a positive impact.	Inadequate institutional capacity to manage social risks. The CUMTA is currently unstaffed and yet to be operationalized.	Low
2	Launch of a Holistic Program for Women's Safety in Chennai			
2.1	Setting up of Gender Lab	Monitoring and evaluation will result in effectiveness and efficiency of safe-city initiatives selected under Nirbhaya Fund Scheme.	Inadequate subject matter expertise in planning, monitoring and evaluating the program. Insufficient guidance and lack of clear strategies in managing and monitoring the projects (<i>particularly for VAC, Apex and Steering Committees</i>). Inadequate consultative process in policymaking to address and correct current gender gaps.	Moderate
2.2	Evaluation and guide implementation of safe city projects under Nirbhaya fund scheme (GCC, GCP, Transport and Welfare)	Improvement in data-driven initiatives for planning a gender inclusive transport service. An integrated and holistic approach with inclusion of other initiatives on women's safety.	Insufficient coordination with implementing departments and system integrators (consultants, contractors, vendors) resulting in delayed implementation of projects. Gender Lab working with deficient and incomplete data for evaluation.	Low
3	Expansion of Bus Services			
3.1	Service improvement from 3,700 buses to 4,700 buses including fleet augmentation through Gross Cost Contracts	Service improvement and fleet augmentation is expected to result in enhanced volume and quality of bus service for citizens (through universal access, reliability, Covid-19 safe measures, efficient information system, etc.	Weak enforcement of legal framework on safety and security of commuters, including welfare, health and safety of workers of private operators. Inadequate grievance resolution mechanism for contracted workers under Gross Cost Contracts. Concerns by existing MTC employees over contracting out of supplemental bus services.	Moderate
3.2	Service improvement through PTSC	This is expected to result in transparent, accountable, and sustainable system of bus service delivery.	Inadequate information and communication on institutional changes and policies that may contribute to opposition and lead to reputational risk.	Low

		<p>Concessionary fares/ targeted subsidy for EWS are being considered and, if implemented, would also be expected to have a positive social impact.</p> <p>[Concessionary fares are currently being provided to students, differently abled and senior citizens.]</p>	<p>Inadequate institutional focus on KPIs related to user satisfaction, accessibility, women safety and road safety, among others.</p>	
4.	Mega Street Program			
4.1	Development of pedestrian friendly streets that also carry multi-utility networks of nearly 25 kms of arterial and sub-arterial roads/streets in Chennai.	<p>This is expected to result in improved services for commuters due to better urban mobility, spaces, walking and cycling, safe space for women and universal access.</p>	<p>Inadequate consultation in design and implementation to consider the interests of all critical stakeholders, lack of safe and accessible facilities for aged, differently abled, children, women etc. Weak plans for minimizing and mitigating temporary disruption of services during construction since some sections are arterial roads.</p> <p>Weak systems to monitor compliance of labour laws and management of SEA/SH</p> <p>Weak systems and capacity to plan for temporary and/or permanent loss of livelihood of squatters (street-vendors, etc) and encroachers on roadsides.</p>	Moderate

b. Environmental Risk Rating (Moderate)

	Activity	Environmental benefits	Risk Assessment	Risk Rating
1	<i>Chennai Unified Metropolitan Transport Authority (CUMTA)</i>			
1.1	CUMTA establishment and operations	Establishment will include environmental capacity that will be used to plan, design, coordinate, support implementation, monitor and supervise environmental management initiatives that contribute substantively to the sustainable land transportation within the city. These include better integration of various transport solutions that will improve efficiency and effectiveness. This will lead to less air and noise pollution impacts, and reduced use of fuel for transportation.	No negative environmental impacts / risks and hence not applicable	None
2	<i>Launch of a Holistic Program for Women's Safety in Chennai</i>			
2.1	Setting up of Gender Lab / Third party evaluation (3 years)	No environmental benefits	No negative environmental impacts / risks and hence not applicable	None
2.2	Evaluation and guide implementation of safe city projects under Nirbhaya fund scheme (GCC, GCP, Transport and Welfare)	No environmental benefits	No negative environmental impacts / risks and hence not applicable	None
3	<i>City Bus System</i>			
3.1	Service improvement from 3,700 buses to 4,700 buses including fleet augmentation through GCC	Improved efficiency and better service levels, this will bring about a reduction in overall fuel use.	Limited operation and maintenance EHS impacts. MTC's environmental management systems include regulatory compliance and adoption of good practices. Review and strengthening the systems has been planned.	Moderate
3.2	Service improvement through PTSC between GoTN and MTC	No environmental benefits as this is a financing-related activity.	No negative environmental impacts / risks and hence not applicable	None
4.	<i>Mega Street Program</i>			

4.1	Development of pedestrian friendly streets that also carry multi-utility networks of nearly 25 kms of arterial and sub-arterial roads/ streets in Chennai.	The proposed enhancements will contribute towards livability and associated environmental and safety benefits such as (i) fast and safe connectivity for the neighbourhood, (ii) Decongestion of traffic, (iii) Savings in fuel, travel time and total transportation cost of road users, (iv) Reduction in road accidents and (v) Reduction in air and noise pollution due to regulated flow of vehicles.	Limited construction-related EHS impacts that GCC's Special Projects with support from Chennai Smart Cities Limited has the expertise to address through pre-investment studies (ESIA and ESMP), substantive pre-investment and during-investment stakeholder consultations, EHS	Moderate
-----	------------------------------------------------------------------------------------------------------------------------------------------------------------	------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	----------

2.4.5 Assessment of Institutional systems and capacities

a. Institutional Structure and Roles

The institutional assessment and systems analysis is undertaken to manage the risks and enhance opportunities and benefits that will form part of the ESSA. For this, it is important to understand the institutional mechanism, roles and responsibilities explained below which is based on the documents and information provided so far.

- **Gender Lab:** There are broadly three tiers of responsibilities identified under this component of the program. This includes (1) high level monitoring of the safe city projects, (2) management, supervision and technical support to the relevant departments and lastly, (3) implementation of selected projects by the relevant departments through the system integrators (SI- vendor/contractors/service providers). The role of the relevant agencies under this program has been enumerated below:

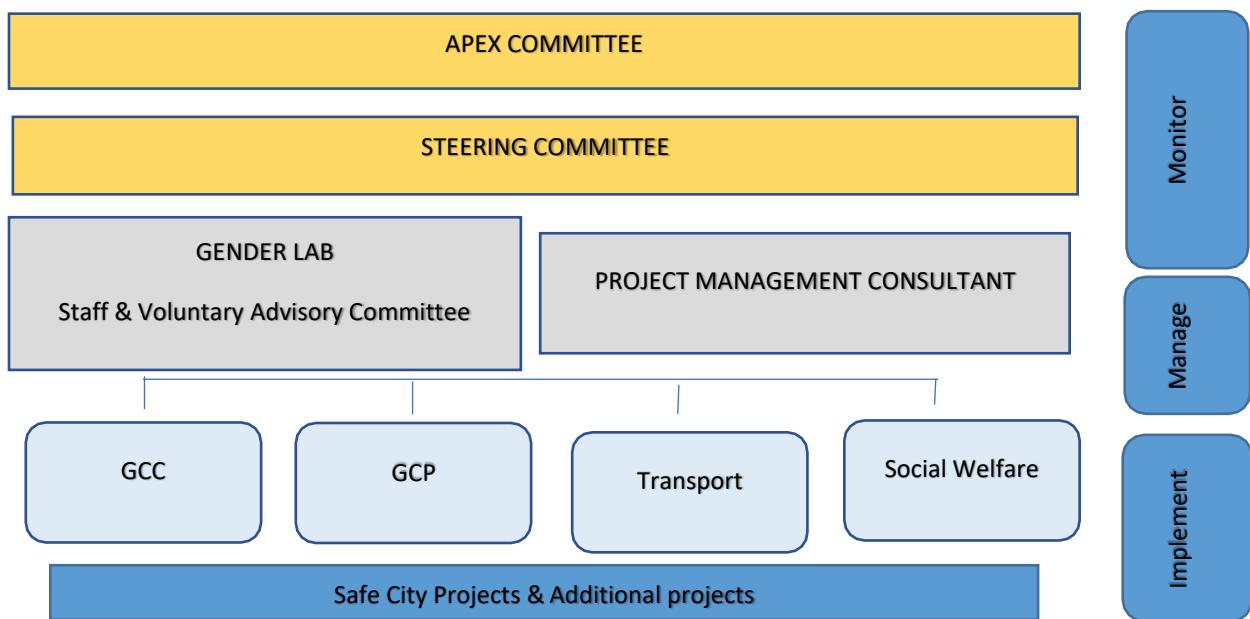


Figure 8

- **For Monitoring, a government APEX committee (In place):** As per the G.O issued in 2018⁴⁹, a state level/high-level Apex Committee has been constituted for monitoring the shortlisted safe-city projects. The Committee is chaired by the Chief Secretary, GoTN, and the members comprise of: Principal Secretary, Municipal Administration and Water Department (convener); Chairman and Managing Director, Tamil Nadu Urban Finance and Infrastructure Development Corporation; Additional Chief Secretary, Home Department; Additional Chief Secretary, Transport Department; Principal Secretary, Social Welfare and Nutritious Meal Programme Department, Commissioner, GCC and Commissioner, GCP. The committee is mainly responsible for making final decisions on the projects, especially related to financial aspects and reassigning projects and responsibilities as may be required. The first meeting by the committee was convened on 27th February 2019. **Steering Committee (In place):** The Steering Committee is chaired by the Principal Secretary, Municipal Administration and Water Department. The members include: Transport Commissioner, Transport Department; Chairman and Managing Director, Tamil Nadu Urban Finance and Infrastructure Development Corporation; Additional Commissioner of Police; Director, Social Welfare and Nutritious Meal Programme Department and Commissioner, GCC (convener). The role of the Steering Committee is to deliberate on the functionality and technical aspects of the projects along with the PMC, take the abstract and present it to the APEX Committee for its final decision. Based on the decision of the Steering Committee in 2018, 13 projects under the Safe City Project were submitted to the State-Level Apex Committee for its final approval. Till date, four steering committee meetings have been held, last one being in September 2020. Most of the steering committee members are the implementors of the 13 projects.
- **For Management and Supervision, Gender Lab has the following provisions:** Based on the GoTN's sanction on formation of Gender Lab (GL) in October 2020, a concept note on proposed structure of the Lab was submitted to the Transport Department, which is still awaiting approval. As per the note, the Lab will be placed at the GCC and involve active cooperation with the Transport Department and Municipal Transport Corporation. The Lab will comprise of full-time staff supported by the Voluntary Advisory Committee and Project Management Consultant.
 - **Full-time staff (5-7) and interns-** 5 full-time staff and interns will be appointed in the following fields- Gender specialist (1); Policy specialist – (1); Non-Motorized Transport (NMT) specialist – (1); Public transportation specialist – (1); Financial specialist (1) and Interns – (2). The Gender Lab would guide the implementing agencies during project roll-out; prepare necessary development, implementation and evaluation frameworks and guidance materials; draft relevant policies; undertake monitoring and accordingly report progress of the projects within the established evaluation framework and recommend course correction. It would engage with and leverage the Voluntary Advisory Committee (VAC) to oversee the development and carrying out of tasks. They will also carry out mandatory statutory, social and progress evaluation to ensure the program is creating the impact it set out to, by meeting the result indicators at every stage. While the Gender Lab will have responsibility over these tasks, it is expected that it will appoint consulting firms or individual consultants for specific time-consuming inputs (like external monitoring, draft reporting, detailed formulation of projects).
 - **Voluntary Advisory Committee-** Voluntary Advisory Committee (VAC) would comprise of senior experts from different organisations, and they will provide advisory support to the Gender Lab along with the PMC hired by the state government. The shortlisted organisations are expected to nominate members from their organisation with expertise in one or more of the following fields- gender, non-motorized transport, public transport, technology, communications and public engagement, gender-specific laws and policies, mental health and monitoring and evaluation. The

⁴⁹ G.O. (2D) No. 86 Dated: 20.11.2018

APEX committee will shortlist 5-7 members from the nominations received to ensure a well-represented VAC. It may add more members as needed overtime. The committee will convene a monthly meeting (first year) & quarterly meetings from second year onwards. Their role would be to provide advisory support to the Gender Lab and PMC in identifying initiatives to form a holistic program on women safety; making recommendations to strengthen existing key policies or develop new policies; in knowledge-sharing and providing capacity building trainings to government officials.

- **Project Management Consultant (PMC):** Deloitte has been hired as the PMC. They are currently placed under GCC. Their role entails preparation of a roadmap to achieve targeted project outcomes by all implementing departments; collating a baseline based on key safety indices and preparing DPRs for 13 identified projects under Nirbhaya Fund. It extends to providing support in bid process management and once the system integrators (SI- Vendor/contractors/service providers) are on board, preparing project planning and PMC services report; reviewing the project designs submitted by the SI; assessing implementation and completion of the projects (quality assurance); and facilitating training and capacity building initiatives by the SIs to enable effective use of the systems. Their role is limited to 13 projects identified under the Nirbhaya Fund; however, it may be extended to cover additional projects proposed by the World Bank.
- As there are no environmental impacts related to these activities, the structure is not relevant for managing environmental risks.
- **For Project Implementation,** the 13 projects shortlisted under Nirbhaya Funds will be sanctioned, executed and on completion, maintained by the four government departments, i.e. Greater Chennai Corporation (GCC), Greater Chennai Police (GCP), Social Welfare Department and Metropolitan Transport Corporation (MTC)/Transport Department through the system integrators (SI- vendor/contractors/service providers). Out of the total 13 projects approved, eight are under various stages of implementation by GCC and MTC. Additional projects identified by the World Bank will be within the aegis of GCC, MTC and Transport Department. 50 After its formation, the Gender Lab in consultation with the VAC will suggest more projects based on the assessment findings.
- The PforR will focus on projects undertaken by the GCC, MTC and the Transport Department.

- **Chennai Unified Metropolitan Transport Authority:** The Chennai Unified Metropolitan Transport Authority (CUMTA) has been established under the CUMTA Act that was passed in 2010. As per the requirements of the CUMTA Act, 2010 an Authority (Governing Board) headed by the Transport Minister is constituted with members from different departments.51 Subsequently, the Rules for CUMTA were issued in January 2019. In

⁵⁰ A suggested list of projects is given below (The final list will be arrived upon by the Gender Lab): A1- Assess the transportation barriers (including physical infra) and extent of harassment in public spaces & public transport and their impact on women - Surveys and Audits; A2-Produce gender-disaggregated data to understand travel patterns to improve operations ; A3-Develop a Theory of Change based on the analysis; P1-Based on assessment findings, suggest recommendations for various policies to enable access to education and employment opportunities; P2-Devise plan to ensure stricter enforcement of penalties/punishments for sexual harassment in public spaces; P3- Develop policy and plan to engage bystanders in avoiding harassment in public spaces; P4-Create policy to link all autos, share-autos and taxis registered in Chennai to a GPS system and a central control room.; Train Govt officials involved in planning, transport and education; Create behavioral change awareness campaign and implement it - mass media, localised advocacy events for community stake-holders including by-standers; I1-Analyse Video and data analytics - big data at the Chennai Control Centre; I2-Track data of IPT vehicles along with panic button (CAPEX by vehicle owners) and integrate into the multi-modal tracking app of GoTN (1 lac autos and 60k share autos) - (needs further discussion with GoTN); I3-Integrating a program to plug-in in apps to let women mark unsafe places - open architecture; I4-Improving security features in bus shelters in vulnerable areas; 1-M&E framework

⁵¹ Finance Department, Housing and Urban Development Department, Highways Department, Home Department, Municipal Administration and Water Supply Department, Greater Chennai Police, Chennai City Municipal Corporation, Chennai Metropolitan Development Authority, Southern Railway, Metropolitan Transport Corporation (Chennai) Limited, Chennai Metro Rail Limited, and eminent traffic and transportation expert nominated by the Government.

September 2020, the governance of CUMTA was enhanced through an amendment to the Act that placed the Tamil Nadu Chief Minister as Chairman of CUMTA, and the Housing and Urban Development Minister a vice-Chairman. A Secretariat for CUMTA is in the process of being established to support its operations, including the finalization of the Comprehensive Mobility Plan.

- As on date, the Board has been constituted but no meetings have been conducted so far. The Board may co-opt not more than three additional members from registered associations in accordance with such procedures, terms and conditions prescribed under the Rules. The Board is an independent decision-making body with representation from relevant city and state level transport agencies. Its main function is to oversee, coordinate, promote, and monitor implementation of various traffic and transportation measures including promoting public mass passenger transport systems and regulating their operations besides implementation of certain traffic and transportation infrastructure, of special nature, in the Chennai Metropolitan Planning Area. CUMTA's role also includes adopting and updating of the Comprehensive Mobility Plan; and subsequently monitor, co-ordinate and evaluate the implementation of the plan. The list of functions of CUMTA are provided under Section 10 of the CUMTA Act.
- Currently, technical support is provided by the Chennai Metropolitan Development Authority (CMDA)⁵² driving all the operations activity. The Chief Urban Planner (Transport), CMDA is the nominated Member-Secretary of CUMTA (as well as the Chief Executive Officer). CMDA will appoint such number of officers and employees as it considers necessary for efficient performance of the CUMTA's functions. For its immediate operations, the CMDA has proposed taking on technical experts and bringing on board environmental, urban and transport planners for CUMTA which can be hired from open market. While officials from other departments such as Corporation, Highways, MTC and CMRL can be brought on deputation for administrative, recruitment and accounting activities within CUMTA.
- For setting up a fully functional CUMTA, the World Bank has commissioned a study on Operationalization of Chennai Unified Metropolitan Transport Authority (CUMTA), which is led by Deloitte. The objective of this assignment is to review the current governance framework in Chennai and propose an evolving institutional structure for CUMTA. The study outputs are operations document for CUMTA broadly categorized in three main segments: Operationalization of CUMTA, Operationalization of Functions and Administrative Procedures. The structure of the Operations Document is being customized for CUMTA based on the notified Act, Rules, and amendments suggested by the Consultant.
- As per the Act, the Rules and its subsequent amendment, there is no requirement per se for establishing social and environmental management expertise within CUMTA. Under the study, social and environmental management is one of the areas identified for consideration and is a part of the Terms of Reference for the review. It is to be noted that the review will be done keeping the functioning of similar organisations in London, Paris and Singapore. All of these organisations have Environmental Divisions and coordinate activities that lead to adoption of sustainable practices in city transportation.

● **Bus Service Delivery- MTC Service Expansion:** Metropolitan Transport Corporation (MTC) is responsible for the overall implementation of service delivery improvements in bus transport. Under the program, a

⁵² CMDA housed under Housing and Urban Development Department

consultant will be engaged by GoTN for preparing a long-term vision and 5-year business plan which would define the bus service improvement and norm-based performance efficiency targets for MTC. Based on the business plan, GoTN will issue a Government Order (GO) that will act as a Public Transport Service Contract (PTSC) defining the service obligations of MTC and the Key Performance Indicators (KPIs) to be met to track the progress in meeting these service obligations. The PTSC will also outline the Viability Gap Funding (VGF) commitment from GoTN to MTC upon meeting the KPIs. At present, the current set of KPIs mostly capture operations and financial performance of MTC. Under the PforR, some of the KPIs which might be considered include peak hour and daily occupancy ratio, road safety, crew efficiency, user satisfaction, universal accessibility and safety of women. The proposed Business Plan will also define KPIs which cover user-perception of the bus system.⁵³ MTC is deploying an Intelligent Transport Systems (ITS) for vehicle tracking, passenger information and ticketing. Data from the ITS will further strengthen MTC's capacity for tracking KPIs, including those covering user-perception. The following key staff from MTC will be responsible for the execution of PTSC⁵⁴ and GCC for service improvement:

Table 36

Activities	Staff responsible
Defining service obligations	Transport department
Developing Business Plan and VGF estimates	MTC Managing Director, Chief Financial Officer, Deputy Manager-Technical and Deputy Manager-Commercial, MIS Department [Consultant being hired by MTC for developing the Plan]
Efficiency improvements within MTC to meet the KPI targets under PTSC	DM-Technical and DM-Commercial to develop roadmap for implementation and targets at the depot and route level. Achievement of these targets to be monitored and reported by Depot Managers with support from their staff (drivers, conductors and maintenance staff)
Performance monitoring for KPIs	Internal performance management in MTC is carried out by the MIS department which directly reports to the Managing Director, MTC.
Implementing GCC under MTC	MTC has a stores and procurement department under DM-Technical which is in-charge of all goods and services. They'll be in-charge of the tendering and contracting of GCC services. Additional consultancies for execution maybe considered on need-basis.

- Mega-Street Program:** The mega-street program will be implemented by the Special Projects Department under Greater Chennai Corporation (GCC) with the support of Chennai Smart City Limited (CSCL) for technical guidance. The decision-making authority pertaining to approval of project designs under the mega-street program will be with the Commissioner, GCC (also the Chairman, CSCL). The Special Projects Department is led by the Superintending Engineer/ HoD and staffed by Executive Engineers (2), Assistant Executive Engineers (4), and Assistant Engineers (6) of respective zones who shall vet the project design and undertake day-to-day supervision of the program at the ground level. In addition to the engineering wing of GCC, CSCL has a team of experts including a Project Management Consultant, CSCL which will support the Department during the implementation of the Program. CSCL also has two full-time staff overseeing social and environmental management- i.e. Social & Environmental Specialist and Communication Specialist. However, Special Projects Department, GCC does not have a dedicated staff for social and environmental management.

⁵³ Source- RfP for development of Business Plan for MTC.

⁵⁴ Key components of PTSC include: Rights and Obligations of parties; Infrastructure and CAPEX needs; Quantity of services; Quality of services; MTC/ GCC operations; VGF payments in lieu of KPIs; Tariff setting; Use and ownership of assets; Performance monitoring for KPIs; Contract management; Roles and tasks of parties

Organogram of Greater Chennai Corporation (GCC)/Chennai Smart City Limited (CSCL)

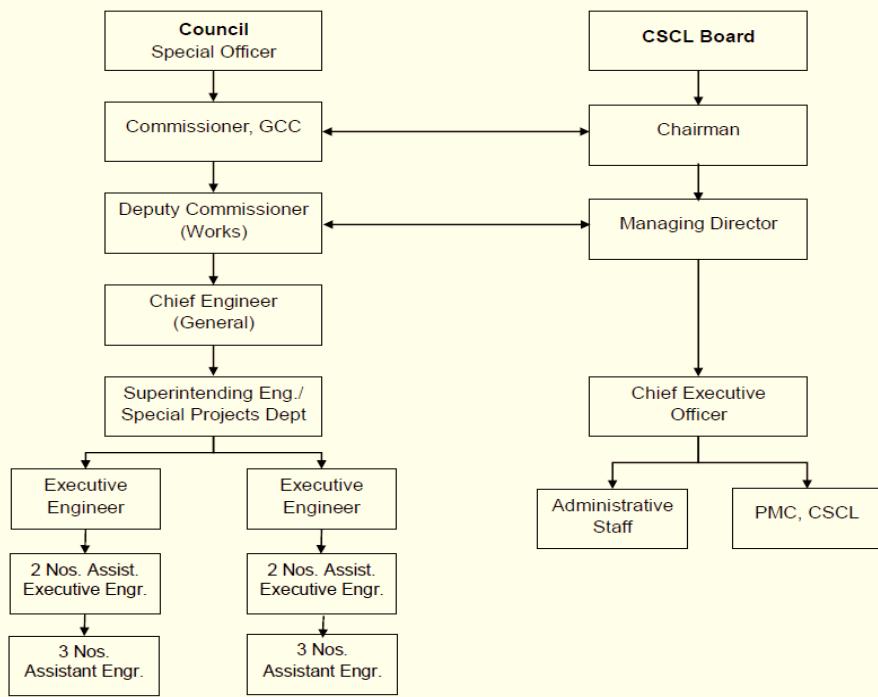


Figure 9

form a street network along with detailed designs for the same, propose a phasing plan for implementation and provide bidding assistance for selection of contractors for implementation of works. The consultants will also carry out a social assessment to identify social risks and impacts during the DPR preparation of the six quick-win interventions.

To manage environmental risks, design consultants are required to have environmental expertise. The contractor engaged to undertake the construction activities will also have environmental responsibility assigned to one of their engineers. The PMC will also have an environmental expertise to manage the environmental impacts during construction. Overall, the implementation arrangements for the mega street activities will include enough environmental capacity to address the issues that could arise.

b. Institutional Systems and Practices for Social Management

• Stakeholder/Citizen Engagement

- **Gender Lab:** One of the responsibilities of the GL is to develop communication plans. Additionally, the proposed VAC will include a member organisation specialising in communications and public engagement.
- **CUMTA:** Consulting firm will be hired for finalization of Comprehensive Mobility Plan (CMP) through stakeholder consultations. Based on the outcome of stakeholders and public consultations, the consultant will revise the CMP recommendations. The consultants will also recommend a citizen engagement strategy which can be adopted during the implementation of CMP.⁵⁵ At the institutional level, staff on immediate basis will be deputed from different departments⁵⁶ in order to ensure coordination with

⁵⁵ RfP of Consultancy for finalization of CMP through Stakeholder Consultation.

⁵⁶ Greater Chennai Corporation (GCC), Chennai Metropolitan Development Authority (CMDA), Metropolitan Transport Corporation (MTC), Chennai Metro Rail Limited (CMRL), Highways Department, Finance Department / Accounts Department, Secretariat

Implementation of the mega-street program will be done in coordination with the Department of Storm Water Drainage, GCC and line departments like the Chennai Metropolitan Water Supply and Sewerage Board (CMWSSB), Tamil Nadu Generation and Distribution Corporation Limited (TANGEDCO), Chennai Metro Rail (CMRL), Bharat Sanchar Nigam Limited (BSNL) and other utility agencies.

Six Design Consultants have been hired for the quick-win packages. The consultants are expected to develop detailed street designs for their allocated packages employing a holistic approach incorporating utility, mobility and liveability elements. They have to identify secondary streets and other public space projects within the allocated package in order to

CUMTA and the line departments.

- **MTC- Bus Service Delivery-** MTC has a public relations (PR) wing which is responsible for all communications, including planning and development of public outreach strategies. The PR wing organises Consumer Council Meetings at MTC headquarter on a quarterly basis.⁵⁷ The Consumer Council comprise of 16 registered consumer associations from across the city representing diverse social groups (women, senior citizens, lower income groups, etc.). At the branch level, user committee meetings are organised on a quarterly basis with the concerned Branch Managers. Five divisional level committees were constituted in 2012 comprising 5 members, representing consumer associations of that area. In January 2020, MTC conducted a User Satisfaction Survey in collaboration with ITDP. Based on the findings, MTC had proposed new bus routes and setting up of bus-stops; and increased the frequency of buses in some areas. MTC have formed multi-stakeholder committees for decision-making in critical matters, such as revision of ticketing fare. In 2018, GoTN ordered for revision of bus fares with minimum starting fare of Rs. 5/- based on the price indexing method devised by a high-level committee.⁵⁸ Accordingly, an expert committee and empowered committee were constituted for developing a price indexing method applicable in all STUs.⁵⁹ Based on the recommendations of the committee, government issued a revised G.O. with a reduced fare starting from Rs. 4 with effect from 29/1/2018.
- **Mega-Street Program-** The design consultants for six quick-win packages have organised stakeholder consultations on draft concept designs with the support of CSCL and Corporation zones. CSCL revealed that during the implementation of the pedestrian plaza project, a critical gap found was the need for a structured process for engaging with the community. Accordingly, GCC and CSCL had contracted a communications support vendor for a period of two years (contract end date- October 2020).⁶⁰ A new RFP has been prepared, which will include the need for development of an integrated communication strategy for the mega-street program. The RfP revealed that the communication strategy for the mega-street program will entail extensive use of social media to reach out to the public.

- **Social Inclusion**

- **Gender Lab-** A part of this program entails developing the capacity of the implementing agencies, namely GCC, MTC and Transport Department to integrate and manage gender inclusive transport services. At an institutional level, the social profile of the Gender Lab cannot be assessed, as it's not yet functional.⁶¹
- **CUMTA-** Comprehensive Mobility Plan (CMP), which will be monitored, coordinated and implemented by the CUMTA, incorporates principles of social inclusion (meeting the needs of students, senior citizens, people from financially weaker sections, women – especially pregnant women and differently abled) in its long-term vision and plan for Chennai. At an institutional level, the social profile of the CUMTA cannot be assessed, as it's not yet functional.
- **MTC-** MTC provides concessionary bus fare/ monthly passes to the following social groups: Differently abled (40% concession), senior citizens (free pass), freedom fighters and scholars (free pass), school students(free pass), and students of government college (free pass) and private educational institutions

⁵⁷ Last two meetings were held on February 21, 2020 and October 23, 2019. Subsequently, no meetings could be organised due to the Covid-19 pandemic.

⁵⁸ GO No. 34 dated 19/1/2018

⁵⁹ G.O 68 dated 13/2/2018- The Expert Committee consisted of (1) Managing Director, State Express Transport Corporation Tamil Nadu Ltd, (2) Financial Advisor and Chief Accounts Officer, Tamil Nadu State Corporation (Madurai) Ltd., and (3) Joint Director/Additional Director, Finance (BPE) Department. The Empowered Committee comprised (1) Additional Chief Secretary to the Govt, Home Department, (2) Additional Chief Secretary to the Govt, Transport Department, (3) Additional Chief Secretary to the Govt, Finance Department, (4) Three Managing Directors of State Transport Undertakings and (5) Two Financial Advisors and Chief Account Officers.

⁶⁰ The vendor's tasks entailed designing/ developing, maintaining and transfer of web portal including city-wide branding, content creation, content management, content moderation & channel management for all the channels of citizen engagement

⁶¹ GCC where the Lab will be setup, follows the reservation quotas for all permanent staff recruitment.

(50% concession).⁶² To enable access to differently abled, MTC is currently operating 10 buses with electric hydraulic wheelchair lift mechanism and audio alert systems in 75 buses for visually impaired persons. In addition, buzzer with switch and stick holding rings have been installed in 400 and 410 buses, respectively. MTC is also plying 200 special buses for women passengers in and around the city, twice a day between the time of 7 am – 9 pm. The current staff strength of MTC is 21,904, out of which 406 are female employees working as driver-1; conductors- 37; technical staff- 52; menial workers- 24; technical supervisors-3; admin staff- 281; and officers- 8.

- **Mega-Street Program-** The mandate of the mega-street program is to develop an inclusive non-motorized transport infrastructure which caters to safe mobility for pedestrians and universal access. The conceptual designs for some of the quick-win packages submitted by the consultants reflect design elements such as kerb ramps, raised table-top crossings, tactile paving, accessible signage including street lightings, that meet these requirements to a large extent.⁶³

- **Grievance Redressal System**

- **Gender Lab-** As GL will be placed at GCC, grievance redressal system for GCC will be applicable for the GL.
- **CUMTA-** Grievance redressal system is yet to be developed for CUMTA.
- **MTC Bus Service Delivery-** MTC has a Customer Care Cell which was formed in 2013. It has three modes of filing complaints- phone, email and by post. The customer care number (no. 9445030516) is operational round the clock (24 hours). The phone no. is displayed in all MTC buses for making complaints/suggestions to MTC. In the last one year, 1,139 complaints (through phone- 730, email- 375 and letter- 34) were received and redressed by the customer care cell. In addition, passengers may also send their complaints/suggestions through email or by letter to the Public Relations wing. A separate customer care email id (customercare.mtc@tn.gov.in) has been allotted for this purpose. After the complaints are redressed, feedback from complainants are sought. In the last one year, 1,139 complaints (through phone- 730, email- 375 and letter- 34) were received and redressed by the customer care cell. MTC has been maintaining a database of all complaints, capturing the following information- complaint no., date/time of complaint, name and contact details of complainant, details of complaint, bus no., location of incident, date/time of resolution and action taken. An Internal Complaints Committee has also been constituted at MTC to address grievances related to sexual harassment at the workplace. At present, the committee comprises of three women officers from MTC.
- **Mega-street program-** The grievance redressal system for GCC will be applicable for mega-street program, as it will be implemented by the GCC. GCC has a multiple intake channel for registering grievances which includes App, website and telephone. GCC had launched Namma Chennai App for grievance redressal in 2018. In 2020, 11 complaints have been reported to the Special Projects Department through the App. GCC website⁶⁴ has an online public grievance redressal system, wherein complaints are resolved within a span of 7 days. The online system generates a complaint no. and the status of complaint can either be checked online or through the Toll-free Helpline no. 1913. Direct complaints can be addressed by RDC and Zonal officer and the concerned AE, at the zonal and ward level, respectively.

- **Employee and Labour Management**

- **Gender Lab-** The HR vertical of GCC will be responsible for management of staff and procedures for hiring, firing, rewards and promotions. The RfP for System Integrators for shortlisted projects specifies the need

⁶² Nearly 3,04,035 free passes have been issued to all school students (1st- 12th standard) and government college students per year. Nearly 5,12,193 concession passes (50% concession) have been issued to private college students per year. An average of 1,74,311 passes have been issued for senior citizens per year. There is no expected target fixed by MTC for issuing the passes.

⁶³ Speed tables and various other traffic calming measures are also introduced in order to safeguard pedestrians and cyclists from heavy traffic and accidents.

⁶⁴ www.chennaicorporation.gov.in

to comply with labour laws.

- **CUMTA-** There is no employee and labour management system in place under CUMTA, as it's not yet operational.
- **MTC Bus Service Delivery-** MTC has approximately 45 trade unions for bus drivers and conductors, of which 3 unions are most active. Media reports and KII's revealed that delay in payment of salaries has been one of the main concerns leading to strikes. Collective bargaining through trade unions have helped in protecting the interest of workers and dispute resolution. Additionally, MTC also conforms to the Motor Transport Workers Act and Tamil Nadu Rules which safeguards the staff on key aspects like wages, working conditions, health etc.
- As per the requirements of Industrial Disputes Act, MTC has formed a Grievance Redressal Committee for employees consisting of Senior Deputy Manager- HRD and two high ranking MTC officials. The Committee convenes between 3.00 pm- 5.00 pm in the second week (Thursday) or every week (Saturday) of the month, to address any grievances of employees. As per the Circular dated 27th May 2015, the committee must submit a weekly compliance report to the Chairman's office.
- **Mega-street Program-** Bid documents and contracts mandates adherence to labour welfare laws. However, there are no standardised mechanism/system in place to monitor labour laws compliance during the construction phase.

- **Land and Livelihood related Impacts**

- Not relevant for **Gender Lab, CUMTA and Bus Service Delivery.**
- **Mega-Street Program-** A better understanding of land and livelihood related impacts will emerge in the quick win interventions, as and when the design consultants finalize the specific streets and provide markings on road which would help identify if any specific patta/title-holders, encroachers, squatters, street-vendors are affected. To determine the type and level of impacts, social impact assessment (SIA) for all packages will be carried out by design consultants in December, 2020. Special Projects Department, GCC will seek assistance of Revenue Department, GCC to plan for temporary and/or permanent loss of livelihood of squatters (street-vendors, etc.) and encroachers on roadsides. The data on registered vendors in the quick-win corridors have been captured by the Revenue Department of GCC, as a member of the Vendor Management Committee. Eviction and relocation of street-vendors (if any) in the quick-win corridors will be addressed by the Committee as per the Tamil Nadu Street Vendors (Protection of Livelihood and Regulation of Street Vending) Rules, 2015.

c. Institutional Systems and Practices relevant for Environmental Management

- **Gender Lab-** As there are no environmental impacts, the systems and procedures do not exist, and are also not required
- **CUMTA-** There are no procedures and practices in place as CUMTA is yet to become functional. Following the diagnostic assessment review, the GoTN will have to consider the need, relevance and importance of the Environment Division. Once accepted, operational guidelines for this Environmental Division will be developed. These will be along the lines of the procedures in similar city transportation authorities in London, Paris and Singapore. Their procedures and practices balance sound transport practices with sustainable environmental programmes. They go beyond complying with environmental regulations and take proactive steps in terms of planning, designing, constructing, implementing and operating environmental management practices. These are done through having environmental management systems & procedures that ensure integration of environmental considerations in strategic and tactical decision-making.
- **MTC Bus Service Delivery-** The following sections - (i) Technical Section for Maintenance and Bus Fitness, (ii) Disposal Section for disposal of retired buses and scrap, (iii) Labour & Welfare Section for compliance particularly to TNPCB requirements and (iv) Safety & Training Section for road safety and accident

management - have their respective procedures and practices, which have been operational for several years. Given the ongoing Covid-19 pandemic situation, it was not possible to review these procedures and practices as that would require multiple interactions with the different sections. Further, it would also require site / field visits to determine whether these are being effectively implemented. Discussions have revealed that systems are in place and are mostly driven by the regulatory requirements. This can be built upon if there are gaps / deficiencies. Based on discussions, it was gathered that there have been no major performance lapses on the part of the MTC on environmental issues in the above-mentioned Sections within MTC.

- **Mega-Street Program-** Effective implementation of the the procedures and practices were evidenced in the first pilot mega streets project, which GCC and CSCL have jointly implemented successfully. The presentations on the pilot and associated reports of the first pilot demonstrate a high-level of environmental performance. CSCL has an environmental officer, who coordinates all activities with GCC's Special Projects Division, various design and monitoring consultants and the contractors. Discussions revealed that these procedures and practices for the mega streets program will be improved with the experience garnered from the first pilot and progressively strengthened. However, these are procedures are not yet documented in the form of an environmental systems manual. Discussions indicated that it was planned to develop the same and also make it accessible in electronic form. Overall, the plans and design behind the mega streets program has environmental sustainability thinking and principles embedded. Therefore, in terms of managing environmental risks, GCC- Mega Streets is well-equipped.
- **Environmental Regulatory System**
 - For the Bank's Program, it is the state-level regulatory institutions that are responsible for the policy and legal framework mentioned earlier. These include the State Pollution Control Board, which is responsible for the Environmental Protection Act, Air Act, Water Act and various Waste Management Rules. The different agencies – CUMTA, GCC for mega streets and Metropolitan Transport Corporation (MTC) for expanding bus service delivery will need to seek consents, authorizations and demonstrate compliance with the TNPCB. These regulatory procedures are well-established and streamlined in the state and adhered by the different the city government agencies including those involved in this Program.
 - Of these agencies, GCC and its contractors have demonstrated compliance vis-à-vis the pilot mega streets. MTC obtains consents and authorization for the vehicle maintenance / fitness centres located within selected bus depots periodically. There are also periodic visits of the TNPCB officials to verify MTC's compliance once the authorization and consents are given.

For the Bank's Program, the strengthening of the institutional systems of the respective agencies, i.e. GCC, MTC and CUMTA can be effectively used to achieve the required standards of environmental performance that is consistent with the Bank's ESSA guidance.

d. Institutional Capacities to Manage Social Risks

Table 37

Sub-activities	Potential Risks	Capacity to Manage Risks
Gender Lab		
Setting up of Gender Lab	<ol style="list-style-type: none"> 1. Working in an isolated manner 2. Limited coordination with implementing agencies, particularly MTC and Transport Department. 3. Weak communication approaches in policy influence work 	<ol style="list-style-type: none"> 1. The GL will report to GCC and the Steering Committee ensuring that the overall Nirbhaya program results are duly reported, and guidance sought based on progress. Under the proposed GL structure, Voluntary Advisory Committee comprising of representatives from expert organisations will be setup to bring in benefits of knowledge and expertise to the Lab. 2. The proposed GL will be housed with the GCC. The GL structure although specifies the need for interaction with MTC and Transport Department, it does not outline the process/mechanism for inter-departmental collaboration at the operations level (for day-to-day activities). 3. The GL structure in its current form, does not include recruitment of a communication specialist. The GL needs to engage a communication specialist and develop tools for planning, packaging, targeting and monitoring communication efforts. Doing so will help the GL make their interventions more accessible, applicable and timely for policy discussions.
Monitoring of shortlisted safety city projects under Nirbhaya Fund	<ol style="list-style-type: none"> 1. Lack of standardized approach in managing the projects. 2. Insufficient capacity for planning, preparation and monitoring/ supervising all projects (with different requirements). 	<ol style="list-style-type: none"> 1. High level Apex and Steering Committees had been constituted for financial appraisal and selection of the projects under Nirbhaya Fund. Their role on monitoring the implementation of projects is not formalized in written form. Further, role pertaining to monitoring/ supervision by PMC may partly overlap with Gender Lab.⁶⁵ There are currently no notifications/ operating guidelines outlining the agencies and committees' responsibilities and processes for carrying out their functions. 2. PMC has been hired for safe-city projects under Nirbhaya Fund. PMC has brought on board an external consultant to provide technical support and expertise on gender, training and capacity building. However, the TOR of PMC is limited to 13 projects under Nirbhaya Fund and does not cover the additional projects proposed by the Bank. <p>The proposed GL structure envisages development of a monitoring and evaluation framework:</p> <ul style="list-style-type: none"> • At the operations level, GL structure document states that it will bring in a specialised M&E consulting firm. • At the program level, one of the additional projects proposed by the Bank includes development of Theory of Change and Monitoring Framework to improve all transport operations in terms of women safety.
Operationalisation of CUMTA		
Operationalisation of CUMTA	<ol style="list-style-type: none"> 1. Limited inter-departmental coordination which will impact the functioning of CUMTA. 	<ol style="list-style-type: none"> 1. The CUMTA Act prescribes representation of all relevant departments in the CUMTA Board. Further, for immediate operationalisation, CMDA has <u>proposed</u> deputation of staff from the following departments: Greater Chennai Corporation (GCC), Chennai Metropolitan Development Authority (CMDA), Metropolitan Transport Corporation (MTC), Chennai Metro Rail Limited (CMRL), Highways Department, Finance Department / Accounts Department, Secretariat.

⁶⁵ The PMC's role is focused on contract management, while Gender Lab has a broader technical mandate.

	<ol style="list-style-type: none"> 2. Lack of participation of citizens/users in the planning and decision-making process. 3. Inadequate institutional capacity to manage social risks within CUMTA. 	<ol style="list-style-type: none"> 2. As per the CUMTA rules, three additional members can be co-opted from registered associations representing public transportation, passengers, cyclists, pedestrians, and similar groups. This has not been done yet. 3. At present, the CUMTA Secretariat is not staffed and yet to become fully functional. However, CMDA has proposed deputation (6 nos.) and contracting (5 nos.) of staff <u>on immediate basis</u>. Immediate staffing plan does not include hiring of social specialist.
Finalisation of the Comprehensive Mobility Plan	<ol style="list-style-type: none"> 1. Lack of citizens feedback in the development and finalisation of Comprehensive Mobility Plan 	<ol style="list-style-type: none"> 1. RfP for consultancy on finalization of Comprehensive Mobility Plan (CMP) through stakeholder consultation has been floated. Based on the outcome of stakeholders and public consultations, the consultant shall revise the CMP recommendations. However, CUMTA will require a Communication Specialist in the long run to integrate participatory approach during CMP implementation.
Mega-Street Program		
Six quick-win packages	<ol style="list-style-type: none"> 1. Inadequate capacity for social management within the Department. 2. Non-compliance of labour standards during construction phase 3. Weak plans for temporary disruption of services during construction since some sections are arterial roads. 4. Inadequate capacity to manage adverse land or livelihood related impacts in selected packages. 5. Inadequate system for effective inter-agency coordination 	<ol style="list-style-type: none"> 1. The Department is being supported by the social, environmental and communications experts under CSCL. 2. The Department and CSCL does not have standardised mechanism/system to monitor labour laws compliance during the construction phase. 3. To avoid delays and public inconvenience, the mega-street program will be implemented in a phased manner. Design consultants are expected to propose a phasing plan which specifies the order in which streets will be taken up for redesign, with 5 km of primary streets as quick wins. 4. The Design Consultants will undertake social impact assessment to assess the level of impacts related to non-titleholders (encroachers, squatters including authorised vendors). Assistance from Revenue Department under GCC will be sought for collection of information on vendors at the selected corridors and providing support to affected vendors, as per the requirements of the Tamil Nadu Street Vendors Rule, 2015. There will not be any land acquisition as the building line for the packages are defined within the consultants' scope of work. 5. Coordination meetings are convened by the Principal Secretary, Commissioner of GCC with the heads of department of utility services on a regular basis. However, there are no specific systems in place for mega-street program to ensure coordination with Department of Storm Water Drainage, GCC and line departments like the Chennai Metropolitan Water Supply and Sewerage Board (CMWSSB), Tamil Nadu Generation and Distribution Corporation Limited (TANGEDCO), Chennai Metro Rail (CMRL), Bharat Sanchar Nigam Limited (BSNL) and other utility agencies.
Bus Service Delivery		
Improving MTC fleet through GCC	<ol style="list-style-type: none"> 1. Weak enforcement of legal framework on welfare, health and safety of contracted workers, including employees of private operators. 2. Inadequate grievance resolution system for 	<ol style="list-style-type: none"> 1. At present, MTC does not have a system to effectively monitor labour standards compliance by the operators hired to deliver bus services. 2. MTC has a robust GRM system for both the commuters and its employees. However, key informant interviews with officials revealed that the grievance resolution process available for MTC employees do not apply to contracted workers. 3. The PR Wing of MTC currently manages public relations and media outreach. While, MTC has an effective citizens feedback system, it may not have enough capacity to establish a strong two-way

	contracted workers under GCC. 3. Inadequate information and communication on institutional changes resulting in reprisal from trade unions/ employees of MTC.	communication between the authorities and the employees. This can be concluded from ongoing and other longstanding protests of MTC trade unions, as reported by the media. ⁶⁶
Efficiency improvement for MTC's in-house services through PTSC	1. Limited capacity to achieve performance targets set for proposed KPIs on user satisfaction, accessibility and women safety.	1. MTC does not have any specialists amongst its staff for (a) designing and executing participatory approach in transport planning and operations; (b) undertaking safety and accessibility audits in public transport fleet and facilities and (c) conducting gender sensitization trainings for staff. However, MTC will augment its capacities by hiring qualified consulting services to carry out some of these initiatives proposed under Nirbhaya Fund. ⁶⁷

e. Institutional Capacities to Manage Environmental Risks

Table 38

Sub-activities	Potential Risks	Capacity to Manage Risks
Gender Lab (not applicable)		
Operationalisation of CUMTA		
Operationalisation of CUMTA	Limited inter-departmental coordination which will impact the functioning of CUMTA and result in sub-optimal environmental outcomes (Moderate)	The CUMTA Secretariat is not staffed and yet to become fully functional. By its very nature, the integration is intended to bring positive environmental benefits to the city. However, it is important that CUMTA Secretariat has environmental capacity to coordinate and enhance the environmental benefits. As staffing plans are under process, it is required to ensure that environmental capacity is properly provisioned in its institutional set-up. As the Act itself does not make an explicit mention about environmental aspects, this should be an important consideration.
Finalisation of the Comprehensive Mobility Plan	Lack of environmental considerations in the development and finalisation of Comprehensive Mobility Plan (Low)	The intention of the Comprehensive Mobility Plan (CMP) is to encourage greater integration of various transport options. Given the consultation and participation of community and stakeholders in preparing the CMP, the environmental issues is bound to be put forward. By its very nature and going by what has been achieved in other cities, the CMP is bound to result in better environmental performance of the city's transport sector.
Mega-Street Program		

⁶⁶ <https://timesofindia.indiatimes.com/city/chennai/no-work-full-pay-union-accuses-mtc-of-favouring-aiadmk-men/articleshow/79317989.cms>;
<https://www.dtnext.in/News/City/2019/02/22045649/1107774/Labour-Dept-to-hold-talks-with-transport-unions.vpf>

⁶⁷ MTC will hire services of consultants to implement the following projects (existing projects under Nirbhaya Fund and additional projects proposed by the Bank) under the Gender Lab: Setting up of Command and Control Centre (CCC); Installation of CCTV in buses; Improving security features in bus shelters in vulnerable areas; Assessment on transportation barriers (including physical infra) and extent of harassment in public spaces & public transport and their impact on women - Surveys and Audits; Collation of gender-disaggregated data to understand travel patterns to improve operations; among others.

Six quick-win packages	Inadequate capacity for environmental management within the GCC Special Projects Department. (Low) Non-compliance of environmental standards and performance during construction phase (Low)	The GCC Special Projects Department will be responsible for the implementation and they will be supported by CSCL, which has a full-time environmental staff. This arrangement will be sufficient. EIAs / EMPs have been considered during the planning and design stage. As the conceptual planning has environmental sustainability embedded in it, the environmental performance will be effective. It is planned to integrate the EMPs with the bid / contract documents. There will be constant monitoring being done by GCC Special Projects, CSCL and Project Management Consultants on environmental management as well. Lapses, if any, will be brought to the notice by community through the grievance mechanism and will be addressed for effective implementation.
Bus Service Delivery		
Improving MTC fleet	Environmental risks in the maintenance management at the bus depots and during disposal of the old fleet and associated scrap (Low) Road safety and accident management (Moderate)	MTC's bus depots and their Disposal section have obtained the required consents from the TNPCB and are periodically audited. Their Labour & Welfare section manages compliance to TNPCB requirements on an ongoing basis. Discussions and documentation revealed that they are adopting sound environmental practices. No major lapses in their performance have been reported. Safety and training wing are regularly monitoring the accidents (fatal, major, minor, grievous and simple injuries) on an ongoing basis. There are training centres in different parts of the city periodically undertaking training for drivers and crews to reduce accidents. There is a punitive system of disciplinary action and associated training for those involved in accidents. There are induction training courses and refresher courses that are regularly conducted.

2.4.6 Assessment of Program System Consistency with Core Principle of OP 9.00

Core Principle #1: Program E&S management systems

The national legal and regulatory framework governing the PforR (Please see Chapter 3 for more details) are adequate to guide the social impact assessment, mitigation and management of the PforR. MTC, CUMTA and GCC (Special Projects Department) responsible for implementing the program, has the legal and regulatory authority to commit resources and implement actions necessary for the effective management of social risks and impacts. Hence, no legal and / or regulatory changes are required for the proposed PforR operation to proceed.

For the Bank's Program, on the environmental policy and legal framework, it is GoTN's regulatory systems being implemented by TNPCB that are applicable. These systems are consistent with Bank principles and are functioning well. The procedural requirements are well-streamlined but there are gaps in enforcement of these regulations. These are systemic issues in regulatory governance, which are beyond the purview of this Program. But the implementation performance can be improved by tightening internal institutional systems in the respective implementing agencies, i.e. CUMTA (Planning & coordination authority), GCC (mega streets), and MTC (bus service improvement). The regulatory systems and institutional systems internal to these implementing agencies are consistent with the Bank principles in terms of promoting environmental sustainability, addressing adverse impacts and enabling informed decision-making with regard to specific environmental impacts. Within MTC, the internal institutional systems should conduct and streamline periodic performance reviews to ensure environmental risks are adequately managed.

CUMTA is yet to be operationalized and mobilize the required staff.⁶⁸ CMDA, responsible for providing technical support, has proposed a plan for hiring and deputation of skeleton staff under CUMTA on an immediate basis. A part of this proposal will include recruitment of an environmental expert. For immediate and intermediary phase, CMDA must also bring in staff or experts on communications/stakeholder engagement and M&E. A dedicated social specialist needs to be

⁶⁸ For operationalisation of CUMTA, Deloitte was hired by the World Bank to undertake a technical review and propose operations guidelines for CUMTA.

brought in for social risks management in implementation of urban transport and traffic infrastructure and measures proposed under the Comprehensive Mobility Plan.

Gender Lab is yet to be established. However, assessment of the proposed structure reveals that Gender Lab will have adequate staff and capacity in terms of skills, qualifications, and number of personnel—to ensure effective administration, planning, design, implementation, and monitoring functions.⁶⁹ The Lab will augment its in-house capacity by hiring qualified consulting firms for services such as external evaluation and development of projects. A Voluntary Advisory Committee (VAC) will also be setup with representatives from NGOs, academia, and research organisations to provide advisory support to the Gender Lab. At present, a Project Management Consultant (PMC) has been hired to manage contractual performance of the existing 13 safe-city projects under Nirbhaya Fund. These, however, do not include the additional projects proposed by the Bank.

MTC has a Public Relations (PR) wing which is responsible for all media communications and public outreach, including grievance redressal. The assessment revealed the need for strengthening existing systems on employee/ labour management, particularly on grievance resolution and labour standards compliance—applicable for both permanent and contracted workers (MTC and operators under GCC).⁷⁰ Further, MTC does not have any specialists amongst its staff for (a) designing and executing participatory approach in transport planning and operations; (b) undertaking safety and accessibility audits in public transport fleet and facilities and (c) conducting gender sensitization trainings for staff. However, MTC will augment its capacities by hiring qualified consulting services to carry out some of these initiatives.⁷¹

Special Projects Department, responsible for implementation of **mega-street program** does not have any social specialists amongst its staff. However, CSCL has a team of experts (social, environmental and communication specialists) which will support the department to manage social risks and impacts under the program.

Core Principle #2: Natural habitat and cultural resources

In the Bank's Program, all the activities are in geographic locations that will not have any bearing on natural habitats. There will be no conversion or degradation of critical natural habitats due to any of the activities. The Program's environmental systems would not be required to address natural habitat issues. On physical cultural resources, the activities pertaining to mega streets will have to deal with roadside places of worship. As GCC focuses on these cultural resources as one of the street enhancement approaches, the environmental systems are in place to deal with these cultural property issues. As the systems also require consultation with the local community and stakeholder institutions such as ASI-Chennai Office, these are consistent with this core principle.

Core Principle #3: Public and worker safety

Tamil Nadu's legal and regulatory framework has robust provisions with respect to employee and labour welfare including occupational health and safety, social security and dispute resolution. CMDA will provide administrative support to CUMTA, ensuring compliance to the laws governing employee welfare, health and safety.

Necessary provisions have been included in contracts for works awarded to contractors, consultants and vendors under this PforR. However, the implementing agencies do not have in-house capacity to monitor their compliance. For shortlisted projects under Nirbhaya Fund and mega-street program, labour standards compliances will be monitored by the GCC with the support of the PMC, responsible for contract management.

⁶⁹ The Gender lab will include- 5 full-time staff and one intern- specializing on gender, policy, non-motorised transport, public transportation and financial evaluation.

⁷⁰As principal employer, MTC is liable for non-compliance of statutory obligations regarding wages, occupational health and safety (OHS) and benefits of all employees deployed on their premises - whether direct or indirect. Therefore, MTC must extend its system of tracking complaints and escalation to cover contracted firms. This will allow MTC to monitor contracted firms' adherence to norms and standards. Further, in cases of repeated non-compliance, it will provide aggrieved indirect workers with a channel of communication that does not involve their supervisors.

⁷¹ MTC will hire services of consultants to implement the following projects (existing projects under Nirbhaya Fund and additional projects proposed by the Bank) under the Gender Lab: Setting up of Command and Control Centre (CCC); Installation of CCTV in buses; Improving security features in bus shelters in vulnerable areas; Assessment on transportation barriers (including physical infra) and extent of harassment in public spaces & public transport and their impact on women - Surveys and Audits; Collation of gender-disaggregated data to understand travel patterns to improve operations; among others.

Similarly, MTC does not have sufficient capacity to monitor compliance related to workers' welfare, health and safety standards applicable for staff of private operators, hired through gross cost contracts. Moreover, MTC's grievance resolution system caters to permanent staff, but it does not extend to contracted workers. The borrower's legal and regulatory framework has sufficient provisions relating to prohibition of child labor and forced lab or. CUMTA, MTC and GCC must ensure strict enforcement of these provisions under the program.

Public and worker safety are an integral part of any urban transport solution. In the planning and designing of the Program activities, these are taken into consideration. For instance, the mega streets have pedestrian safety as one of its primary focus areas. And, there are implementation arrangements to manage the environmental impacts during construction, both from a worker and a public perspective. Also, MTC has a Safety and Training Division that addresses public safety through building capacity of their drivers and through preventive and corrective actions in their accident management systems. The nature of activities under the Bank's Program is such that there is no exposure to toxic chemicals, hazardous wastes and dangerous materials in any of these Program activities. The infrastructure is located in populated areas that are not uniquely prone to natural hazards. No particular impacts due to extreme events are envisaged.

Core Principle #4: Land acquisition

The proposed investments in mega-street program does not envisage any land acquisition. However, the design consultants for six quick-win investments will undertake social risks screening to identify and propose measures to mitigate any adverse impacts on non-titleholders (squatters and encroachers) under the program. The Special Projects Department will seek assistance of the Revenue Department, GCC to plan for temporary and/or permanent loss of livelihood of squatters (street-vendors, etc.) and encroachers, as per applicable laws – (i) Tamil Nadu Street Vendors (Protection of Livelihood and Regulation of Street Vending), Rules, 2015 (ii) Tamil Nadu Tamil Nadu Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement Rules, 2017 and (iii) The Tamil Nadu Land Encroachment Act, 1905 and Amendments - 26 of 1965, 20 of 1975, 1 of 1996.

Not applicable for other components of the program i.e. operationalization of CUMTA, Gender Lab, and bus service delivery by MTC.

Core Principle #5: Indigenous peoples and vulnerable groups including women

The E&S screening of investments proposed under the ESSA does not reveal any disproportionate adverse impacts or distributional inequities on Tribal populations or other vulnerable groups. In line with this principle, the implementing agencies have taken special measures to promote equitable access to PforR benefits:

- The mega-street program focuses on improved services for all users, incorporating various aspects of mobility, utility and liveability in its design. The preliminary designs of all six packages under the PforR encompass safe space and universal access to meet the needs of vulnerable groups such as women, differently abled, senior citizens and the economically weaker section.⁷² Considering the limitation of Covid-19 pandemic, some of the initial online consultations organised by the design consultants included a representative cross-section of groups affected by the Program.⁷³
- In recent years, MTC has taken special measures to promote equitable access for vulnerable groups. These include: (a) concessionary bus fares for various social groups including students, differently abled and senior citizens (b) women-only bus services plying across the city; and (c) installation of electric hydraulic wheelchair lift mechanism, audio alert systems, buzzer with switch and stick-holding rings in select buses to enable access to differently abled, pregnant women and senior citizens. Additional initiatives such as installation of surveillance cameras in buses and setting up of command control centre, will be undertaken through Nirbhaya Fund.
- The program is also supporting the implementation of safe-city projects under Nirbhaya Fund and has proposed additional initiatives to ensure a holistic approach on addressing women's safety in public spaces and transport. The program will promote participatory approach and understanding of local conditions for socially inclusive transport planning.

Core Principle #6: Social conflict, especially in fragile states, post-conflict areas, or areas subject to territorial disputes

Not Applicable

⁷² As per the 2018 Household Survey in Chennai analysed by the Bank, women walk more than men- mostly as children, the gap increases vastly as adult (37% of all female trips are walking, compared to 26% out of all male trips). Only 5% of all women respondents own a vehicle, compared to 44% of men.

⁷³ Face-to- face consultations have been recommended by the Bank to cover other groups such as rickshaw drivers and pedestrians from economically weaker sections, who could not participate in the online consultations.

2.4.7 Recommendations

a. Recommendations for Social Management:

- The PIUs to have experts to address social risks and maximize opportunities arising from sector specific investments under the Program. The experts required are:
 - Gender Lab- In addition to the M&E specialists mentioned in the GL concept note, a communication specialist needs to be hired to implement communication approaches for policy influence work on women safety.
 - CUMTA- CMDA needs to depute or hire a social management expert and communication expert to review, facilitate and support in implementation of the CMP to address social risks related to exclusion, accessibility, safety, labour welfare, stakeholder engagement, grievance management and monitoring. To implement the proposed action plan, CMDA must also hire a consulting firm to design, implement and analyse the user surveys for upisation of the CMP.
 - MTC- MTC needs to hire a social management expert to address social risks. Consulting firms can be brought on board to undertake periodic women safety and access audits of MTC assets.
 - Mega-Street- The Department needs to hire or depute a Land Acquisition and R&R expert to manage land and livelihood related impacts of mega-street program.
- Preparation of capacity development plan and budget allocation is needed to carry out training needs assessment, develop training plan and calendar, prepare modules, and deliver trainings on citizen engagement, gender mainstreaming, social inclusion, labour compliance and land management for staff and key stakeholders. Develop inhouse expertise and mobilise external resources to organise on-line and face to face capacity development activities like training workshops, webinars, e-learning, exposure visits, follow up support through peer learning and guided mentoring.
- PIUs to develop systems for tracking, reporting, and reviewing social management action, processes, and results. This will enable preparation of evidence-based reports to support informed decision making and enhance positive outcomes as well as mitigate risks.



Figure 10

- The matrix below elaborates the specific recommended actions for each of the agencies, the indicators against which the actions will be tracked and timelines. Citizen engagement (and GRM) and Gender (and GBV) are corporate requirements and to ensure overall social management these requirements must be complimented. The Program Guidelines will provide the specific processes, activities, reporting lines, verification, and timelines for each.

The Social Outputs and Outcomes to be tracked during program implementation, are given in the matrix below:

Table 39

Citizen Engagement	Gender Mainstreaming	Social Inclusion
Core Principle # 1	Core Principle # 5	Core Principle # 5
<p>Stakeholder consultations, citizen feedback tools, effective and accessible GRM system.</p> <p><i>Indicators:</i></p> <ul style="list-style-type: none"> • <i>GCC and MTC redress 80% of Grievances within 30 days of registration and close them after complainant's satisfaction.</i> • <i>MTC disclose mid-term and end-term citizen feedback Report</i> • <i>No. of stakeholder consultations facilitated by Gender Lab (GCC)</i> 	<p>MTC adopts Women Safety Audit (once in two years) to track safe mobility of women in bus routes, bus stops and terminals to improve planning and implementation for enhanced safety.</p> <p><i>Indicator: No. of interventions implemented from action plan following the Safety Audit.</i></p> <p>Gender Lab (GCC) and Mega-Street Program (GCC) adopts gender responsive interventions and design principles, respectively- for a holistic approach on women safety in transport and public space.</p> <p><i>Indicators: % of women users perceive public transport services and NMT infrastructure to be safe and accessible.</i></p> <p><i>No. of sexual harassment cases reported/referred</i></p>	<p>Conduct Audit of MTC's assets for accessibility in compliance with the Persons with Disabilities Act, 1995 and Tamil Nadu Rules, 2018 from 2021 onwards.</p> <p><i>Indicator: No. of interventions implemented from action plan following the Audit on accessibility</i></p>

- **Additional Considerations:**

- Labor Management especially with contracted staff and workers: Operationalization of CUMTA and service improvement through augmentation of bus fleet (through GCC) will result in creation of employment opportunities. Similarly, development of NMT infrastructure will have implications on construction workers' welfare and safety. Therefore, it is imperative to ensure that acceptable standards and conditions of work for all employees, including temporary/ contract workers are in place. While basic labour law requirements are embedded in the contracting structure for hiring staff, contractors and workers, there are no systems in place to monitor their compliances. The threat of Covid-19 infections during construction works will pose additional risks for health and safety of workers. Therefore, it is recommended that a labour management system is adopted to ensure compliance with all applicable laws on labour welfare and occupational health and safety (OHS) standards - with focus on, documentation/ reporting on compliance. It is recommended that MTC hire a consultant/ firm to develop appropriate protocol(s) on labour management and subsequently, provide trainings to staff, workers and contracted bus operators on the protocol. GCC can consider adopting an ICT enabled tool for real-time monitoring of labour law compliances and subsequently, provide trainings to staff, PMC and contractors on use of the ICT tool.
- Management of Land Acquisition and Resettlement (LAR): Activities requiring the acquisition of land will be excluded from the Program. However, development of NMT infrastructure are likely to have adverse impact on non-titleholders such as street-vendors, squatters and encroachers. Further, some sections of the packages may result in disruption of services during the construction phase. These sections must be carefully managed with regard to the negative impacts that the works could generate. It is recommended that GCC adopts an M&E system for tracking management of land required and compliance of the Tamil Nadu Street Vendors (Protection of Livelihood and Regulation of Street Vending) Rules, 2015.

b. Recommendations for Environment

- CUMTA needs to develop policies and procedures to promote sustainable urban mobility in Chennai. Performance of MTC on environmental management can be improved after a thorough gap analysis.
- ESSA Inputs to the Program Action Plan- The following table includes the list of activities to be undertaken by the implementing agencies towards environmental systems strengthening:

Table 40

No.	Description	Timeline	Indicator for completion
E1	MTC: Conduct a performance review of the various MTC Divisions / Sections (Depots used for maintenance and disposal) that have environmental functions to determine areas for improvement, if any.	End of Year 1	Performance review report and follow-up to the findings.

- Inputs to the Implementation Support Plan: On environmental aspects, building capacity within the staff of the MTC will be the main focus. Therefore, the Bank's implementation support should focus on the third-party performance audits and their follow-up to address the gaps identified in these audits.

2.4.8 Stakeholder Consultations

a. Stakeholder Mapping

A systematic mapping of relevant stakeholders was undertaken for the urban mobility sectoral program mostly covering government departments/institutions, staff of implementing agencies, contracted firms/ independent agencies including direct beneficiaries. The discussions with stakeholders were held to gauge their understanding of the program and its expected E&S effects. The consultations helped to assess the implementing agencies' experience and capacity to manage existing institutional systems especially information dissemination, benchmarking, employee and labour management, GRM (internal and external), and management of land and livelihood related impacts. The team also noted their concerns and recommendations related to the social sustainability of the program. The list of identified stakeholders is given below:

Table 41

Activities	Agency	Stakeholders
Operation alization of CUMTA	Chennai Urban Metropolitan Transport Authority (CUMTA)	<p>Proposed staff of CUMTA/ CMDA staff providing technical support Responsible for social management such as HR management, citizen engagement, GRM, monitoring of social indicators, training and capacity building, and expertise in land access resettlement</p> <p>Government Departments/Agencies</p> <ul style="list-style-type: none"> • Transport Department • Chennai Metropolitan Development Authority (CMDA) • Greater Chennai Corporation (GCC) • Traffic Police • Metropolitan Transport Corporation (MTC) • Chennai Metropolitan Rail Ltd (CMRL) • National Highways of India (NHAI) • Highways and Minor Ports Department of Tamil Nadu (HMPD) • Southern Railways • Tamil Nadu Urban Infrastructure and Financial Services • Tamil Nadu Pollution control Board • Road Transport Authority (RTO)

		<ul style="list-style-type: none"> • Tamil Nadu Public Works Department (PWD) • Chennai Smart City Limited <p>Contracted firms and independent agencies</p> <ul style="list-style-type: none"> • Deloitte- Consultant • ITDP <p>Citizens/users of public transport</p> <p>NGOs, Research organisations and Welfare associations</p>
<i>Gender Lab and Nirbhaya Fund</i>	Greater Chennai Corporation (GCC) Transport Department/ Metropolitan Transport Corporation (MTC)	<p>Proposed staff of Gender Lab</p> <p>Responsible for HR management, citizen engagement, multi-departmental coordination, GRM, monitoring of social indicators, training and capacity building.</p> <p>Working Groups or Committees</p> <ul style="list-style-type: none"> • Nirbhaya Apex Committee • Steering Committee • I/NGOs identified to be a part of the Voluntary Advisory Committee and other organisations working on urban mobility⁷⁴ <p>Other Government Departments/Agencies</p> <ul style="list-style-type: none"> • Greater Chennai Police (GCP) • Social Welfare Department • State Commission for Women (SCW) • State Committee for Protection of Child Rights (SCPCR) • State-run institutions such as Sakhi- One Stop Crisis Centres <p>Contracted firms and agencies</p> <ul style="list-style-type: none"> • Deloitte-PMC • Firms contracted for safe city projects under Nirbhaya Fund <p>Users of public transport facilities, particularly women, children and other marginalised groups</p> <p>Relevant NGOs, research organisations, academia and welfare associations</p>
<i>City Bus System</i>	Metropolitan Transport Corporation (MTC)	<p>Administrative Staff of Implementing Agencies:</p> <ol style="list-style-type: none"> • Responsible for HR management • Responsible for KPI management • Responsible for GRM • Responsible for Contract Management <p>Line Departments/Agencies</p> <ul style="list-style-type: none"> • Transport Department • Greater Chennai Corporation (GCC) • Housing and Urban Development Department (HUD) • CUMTA • Chennai Smart City Limited (CSCL) • Chennai Metro Rail (CMRL) and Suburban Rail • Chennai Metropolitan Development Authority (CMDA) • Traffic Police, Home Department • Highways & Minor Ports Department (HMPD)/ TNRDC <p>Working Groups or Committees</p> <ul style="list-style-type: none"> • Consumer Council • Core team for EBL constituted by the Transport Department • GRC <p>Contracted Firms/ Independent Agencies</p> <ul style="list-style-type: none"> • Bus Operators

⁷⁴ ITDP, WRI, Jagori, Safetipin, TISS, Blue Ribbon Movement, UITP, ICRW, Urban Catalysts, UN Women India, UNICEF India, PCVC, AWARE, Friends of Public Transport, etc.

		<ul style="list-style-type: none"> • Consultant for development of Business Plan • Institute for Transportation and Development Policy (ITDP) <p>Users of bus transport- particularly women, children and other marginalised groups NGOs, Research organisations and Welfare associations (including consumer associations and transport trade unions)</p>
Mega Street Program	Greater Chennai Corporation (GCC) Chennai Smart Cities Limited	<p>Staff of Implementing Agencies Responsible for HR management, citizen engagement, land and livelihood related impacts, GRM and monitoring of the program.</p> <p>Line Departments/Agencies</p> <ul style="list-style-type: none"> • Storm Water Drainage Department, GCC • Chennai Metropolitan Water Supply and Sewerage Board (CMWSSB) • Tamil Nadu Generation and Distribution Corporation Limited (TANGEDCO) • Chennai Metro Rail (CMRL) • Bharat Sanchar Nigam Limited (BSNL) • Highways & Minor Ports Department (HMPD) • Tamil Nadu Road Development Company (TNRDC) <p>Independent Agencies/Consultants</p> <ul style="list-style-type: none"> • Design/DPR consultants • Contractors <p>Users, particularly women, children and other marginalised groups comprising pedestrians, residents, shop keepers, hawkers etc. NGOs, Research organisations and Welfare associations Employees/workers of Contractors hired for the six packages:</p> <ul style="list-style-type: none"> • Permanent • Temporary • Sub-contracted

b. Consultations during the conduct of ESSA: Due to the Covid-19 pandemic, consultations to a large extent were held online/ remotely with key stakeholders namely implementing agencies, contracted firms, NGOs and associations benefiting from the program. Tools for consultations included: Key Informant Interviews (KII) and workshops. The Bank also relied on ongoing consultations organised by contracted firms of implementing agencies for technical studies, etc. Further, the Bank reviewed or participated in ongoing assessments for other sectoral program, as well as client meeting with the WB technical teams to assess the institutional systems and capacities.

- **Social:** The Bank ensured that adequate notification and lead time were provided to all participants for the consultation meetings. Detailed questionnaires were sent to the participants in advance via email, thereby providing them with ample opportunity to express their views or concerns. The key findings and recommendations resulting from these meetings are recorded and properly documented by the Bank. See Annex for List of Consultations and KIIs conducted through virtual mediums. The Annex also includes questionnaires used for the consultations. As most interventions, such as operationalisation of CUMTA, Gender Lab and service expansion of MTC, were heavy on policy and system strengthening, ESSA has been strategized at a higher order with a focus on institutional assessment. As most of the activities are in the preparation stage, the ESSA team has proposed a second phase for larger, deeper and face to face interactions including site visits in March 2021.
- **Environmental:** During the conduct of the ESSA, selected consultations were done (Annex includes the list of meetings held virtually). The following are the key findings that emerged during the consultations:
 - CUMTA: The Act, Rules and Amendment does not explicitly address environmental issues. However, the GoTN is considering having an Environmental Division to conduct all the environmental activities

in the land transport planning, and also coordinate with the other transport agencies. CUMTA intends to draw from the best practices of similar agencies in London, Paris and Singapore.

- GCC (Mega Streets): The planning and design of the mega streets includes environmental considerations such as avoiding tree-cutting and enhancing cultural properties. Extensive consultations are held with the community using the streets and their feedback is used in the Program design. Only one of the proposed mega street projects will require a CRZ clearance as it is adjoining the coast. Being a permitted activity under the notification, it is only a procedural requirement.
- MTC (Bus service): There are well-established practices for environmental management in the respective Divisions / Sections of the MTC. It is decentralized and functional. There is potential for strengthening systems for improving the environmental performance

c. Roadmap for Consultations proposed post Lockdown

Table 42

CUMTA				
	Stakeholders	Issues to be covered	Method/ Medium	Timelines
1.	Staff of CUMTA (permanent, contractual, male/ female employees) and/or CMDA responsible for providing technical support to CUMTA	<ul style="list-style-type: none"> • HR related: Staff grievance, Internal Complaints Committee, Access to opportunities • Service benchmark monitoring • Inter-departmental coordination 	Survey (on-line)	After appointment/ deputation of staff
2.	Contracted Firm for finalization of CMP	<ul style="list-style-type: none"> • Stakeholders feedback on CMP • Citizen-centric approach in implementation of CMP 	KII (face to face)	After award of contract
3.	Citizens (different socio-economic, gender, location, cohorts)	<ul style="list-style-type: none"> • Access to give feedback and register complaint • Service satisfaction • Complaint redressal satisfaction • Suggestions 	Community score cards, FGDs	June 2021 till completion of the program
4.	Line departments and state agencies	<ul style="list-style-type: none"> • Role • Inter-departmental coordination • Inclusive planning and decision-making process 	FGDs (face to face)	June 2021
Expansion of MTC				
1.	Staff of MTC (permanent, contract, male/ female employees)	<ul style="list-style-type: none"> • HR related: Staff grievance, Internal Complaints Committee, Access to opportunities, Communication and PR strategy • In-house capacity to meet KPI targets on user satisfaction, affordability, reliability, convenience, grievance redressal, EHS, universal access, gender inclusion, road safety and security of women. • Route planning and scheduling to meet the travel demands of all users (particularly EWS). 	Survey (on-line)	June 2021

		<ul style="list-style-type: none"> Capacity to integrate and monitor labour standard compliances by bus operators under GCC- contract management 		
2.	Consulting Firm for developing of Business Plan	<ul style="list-style-type: none"> Development of Business Plan and long-term vision plan KPIs to be defined by the Business Plan to measure social performance 	KII (face to face)	After award of contract
3.	Citizens (different socio-economic, gender, location, cohorts), NGOs, welfare associations	<ul style="list-style-type: none"> Access to give feedback and register complaint Service satisfaction Complaint redressal satisfaction Universal access (to meet the needs of differently abled, senior citizens, women, children, and other users) Women safety and security Fare revisions, if any Route planning and scheduling to meet the travel demands of all users Suggestions 	Ward level meetings (score cards) (face to face)	June 2021- till completion of the program
4.	Government departments/agencies/Working Groups or Committees	<ul style="list-style-type: none"> Role Inter-agency coordination for improved service delivery Consultative process in development of MTC's Business Plan and Vision Plan. 	FGDs (face to face)	June 2021
5.	Workers of contracted firms by MTC, including contracted Bus Operators	<ul style="list-style-type: none"> Role Recognition Remuneration Access to labour welfare measures, health and safety standards Access to give feedback and register complaint 	FGDs (face to face)	After award of contract

Gender Lab

1.	Staff of Gender Lab (permanent, contractual, male/ female employees)	<ul style="list-style-type: none"> Transpose HR related issues- staff grievance, Internal Complaints Committee, Access to opportunities, internal monitoring and reporting from the GCC. In-house capacity on monitoring & evaluation, training & capacity building, communication & knowledge management of projects and relevant consultancies required. Inter-departmental coordination to manage existing and proposed projects 	Survey	After appointment of staff
2.	PMC and System integrators (SI-Vendor/contractors/service providers)	<ul style="list-style-type: none"> Capacity to manage and supervise projects Gaps and challenges in implementation of projects Suggestions, timelines and extensions, if any 	KII (face to face)	After award of contract
3.	Specialised NGOs, Academia, Research Institutes	<ul style="list-style-type: none"> Institutional structure of Gender Lab and its functioning 	Roundtable discussion	June, 2021

		<ul style="list-style-type: none"> Formation and role of Voluntary Advisory Committee Coordinated approach for implementation of projects Gender gaps in urban mobility (knowledge sharing on available data, studies, initiatives and best practices) Recommendations 		
4.	Citizens, CSOs, NGOs, academia, research institutes and state-run agencies	<ul style="list-style-type: none"> Proposed/draft policies, SOPs, guidelines prepared by Gender Lab and other outputs (i.e. projects under Nirbhaya Fund and initiatives proposed by the Bank) for feedback, validation, applicability and dissemination. <p><i>(Safety audits, surveys and awareness creation have been included as additional projects under the program)</i></p>	Ward level meetings (face to face)	Once draft outputs are ready
5.	Line departments and state agencies	<ul style="list-style-type: none"> Inter-departmental coordination Capacity for operations and maintenance of the projects (post-installation) Institutionalizing gender inclusion (staffing, budgeting, trainings, “no tolerance” policies for gender discrimination and sexual harassment, effective grievance redressal mechanism) 	FGDs (face to face)	June 2021
Mega-Street Program				
1.	Staff of GCC and CSCL (permanent, contractual, male/ female employees)	<ul style="list-style-type: none"> HR related to: Staff grievance, Internal Complaints Committee, Access to opportunities Capacity related to: <ul style="list-style-type: none"> Management of adverse risks related to land and livelihood impacts Monitor labour law compliance during construction phase Inter-departmental coordination Monitor performance to meet the program outcome Citizen engagement including GRM 	Survey (online)	March 2021
2.	Design Consultants	<ul style="list-style-type: none"> Planning and designing to ensure <ul style="list-style-type: none"> Minimal impacts on squatters and encroachers including vendors within existing RoW (no land acquisition) Minimal disruption of services during construction Integrating users’ perceptions on women security and road safety Adoption of universal design principles Statutory requirements pertaining to labour welfare and prevention of GBV reflected in bid documents 	KIIs (face to face/ online)	January 2021

3.	Citizens (different socio-economic, gender, location, cohorts), NGOs, welfare associations, academia	<ul style="list-style-type: none"> Inclusive planning and design of six quick-win packages to meet the needs of all social groups Access to give feedback and register complaints during construction phase 	Ward level meetings (score cards) (face to face)	March 2021
4.	Line departments and state agencies	<ul style="list-style-type: none"> Role Inter-agency coordination 	FGDs (face to face)	March 2021
5.	Workers of Contractors/ Sub-contractors	<ul style="list-style-type: none"> Occupational health and safety and working conditions Safety and security of women employees Remuneration Redressal of complaints 	FGDs (face to face)	After award of contract

d. State-level consultations on draft ESSA

- The Policy for PforR financing requires that the Bank consults with key stakeholders on the draft ESSA Report, including any proposed measures to strengthen Program risk management capacity that have been identified before or at appraisal. Towards this end, the Bank team organised a state-level consultation on February 11, 2021 through Cisco Webex (virtual).
- The consultation was organised to achieve the following goals:
 - Provide meaningful opportunities to engage Program stakeholders with information about the scope, timing, expected effects, and proposed management measures of the Program;
 - Seek inputs, feedback, and/or confirmation from stakeholders on the factual basis and assumptions used to prepare the ESSA Report, for example, in relation to the application of laws and regulations in practice;
 - Provide an opportunity for stakeholders to seek clarifications about the basis for any judgments made by the Bank team about the adequacy or acceptability of any aspect of the Program's E&S effects or proposed management actions; and
 - Offer an opportunity for stakeholders to suggest alternative management measures.
- The participants for the consultation comprised of representatives from relevant government departments, consultancy firms engaged in the program, NGOs representing women's groups (working on GBV, women's mobility), disability groups, customer forums and other interest groups. The list of participants and minutes of the meeting are detailed in Annex 2C and D. The participants felt that recommendations, albeit comprehensive, are required to meet the requirements of relevant laws and regulations in place, in order to reach the desired social development outcome.

2.4 Municipal Services (Health and SWM)

2.4.1 Overview

Established in the year 1680, the (erstwhile Madras) Chennai Corporation is the oldest Corporations in India and second oldest corporation in the world. The CMA is the fourth-most populous metropolitan area in India and encompasses an area of 1189 sq km. With an estimated population of about 10.9 million people and an estimated GDP of US\$78.6 billion, CMA is also rated as the fourth-largest economy in India. Program for Results support under the Chennai City Partnership Project is aimed to support the overall institutional and financial strengthening of GCC through better HR capacity, improved revenue generation and enhanced financial autonomy for improved service delivery systems. This is relevant given the dropping HDI rank of Chennai owing to poor services, safety, poverty and poor transparency and accountability. The program result areas include: Strengthening Institutional

capacity in Group A & B cadres of GCC; Improving Financial Sustainability of GCC; Enhancing resource recovery / recycling of dry waste (20-year Master Plan for SWM Waste minimization and recycling policies, Integrated SWM service performance management system, Enhancing capacity of Resource Recovery Centres (RRC) / Material Recovery Centres (MRFs) for dry waste in selected zones); and Strengthening GCC's health system through improved access to services and quality of care

2.4.2 Social and Environmental Impact

a. Social Impact: The program is likely to have positive impacts because of increase in number of staff and service providers in GCC as well as specifically for Health and SWM. In addition, improved systems for appointment, management, rewards, service tracking etc are likely to improve efficiency thereby services for citizens at large. There are risks like of exclusion of qualified people from vulnerable sections (Women) in appointments, trainings, promotions, rewards, and recognition in the absence of safeguards. The increase in collection fee could negatively impact the economically vulnerable sections in the absence of subsidies. Weak communication strategy can risk achieving the expected cooperation and behaviour change for adoption of improved practices. The role of elected bodies and civil society organisations, citizen forums, welfare associations are crucial to avoid risks of citizen apathy- poor response, participation, collaboration etc. With increased outsourcing, the performance indicator requires rewards and penalties on complaint redressal, labor welfare, safety and security of women staff and transparency. As per the plan of outsourcing for SWM services, private agencies are mandated to hire staff on direct payroll. While Agency agreements recommend absorbing existing workforce, there are risks of loss of jobs for the (NULM⁷⁵) SHG members currently working as sanitation (or conservancy) daily wage workers (though not in sites proposed under the current "program"). In addition, minimising waste and recycling plastic waste may create a demand for more labor at segregation centres. While the existing informal workforce could be co-opted, there is a risk of them losing their livelihood in case they are not hired. Encumbrance free land is required for new recovery facility centres, however, there is no intervention requiring land acquisition. Risk of ineffective and inaccessible grievance redressal mechanisms (staff and citizens) and weak compliance of labour laws are risks foreseen. Finally, the pilots need to be designed and implemented in a manner that both positive and negative

lessons are learnt before upscaling.



Figure 11

The assessment shows that there are significant gaps in overall reporting and monitoring and particularly on social management. While there are systems of grievance redressal, there are gaps in tracking and competing the feedback loop. Finally, the defunct ward committees and diminished role of elected representatives

⁷⁵ Self Help Groups formed and supported under National Urban Livelihood Mission

(due to the pandemic) risks citizen apathy in the initiatives by GCC. The figure summarizes the social benefits, risks, gaps and opportunities.

b. Environmental Impact

- **Public Health Services:** The activities that will be supported under this program includes: (i) staffing costs; and (ii) operating costs for urban Primary Health Centres (UPHCs) and urban community health centres (UCHCs); and (iii) Capex costs for an increase in PHCs from 140 to 164. These activities aims at improving coverage and quality of health services. It will not support any infrastructure development, and will only support GCC's expenditure of staff costs and the operating expenses to the tune of US\$ 14 million and US\$ 20.7 million respectively. These will be across the 140 urban primary health centres (UPHCs) and the 19 urban community health centres (UCHCs). As all these health centres deal with bio-medical waste (BMW) management and infection control issues, these are the environmental impacts with which the Program will be associated. Though the Program funding will not contribute towards increasing bio-medical wastes or result in any other environmental impacts, the interventions are relevant to supporting and strengthening how these are addressed in these health centres.

- **Risks**

- In the UPHCs, these include the disposal of needles, syringes, injection wastes, laboratory samples and wastes arising from the treating non-communicable diseases such as blood pressure and diabetes. Due to Covid-19 pandemic, the use of Personal Protective Equipment (PPE) has increased substantially. The periodic disposal of PPEs – particularly face masks and gloves - both at the UPHCs and UCHCs also contribute additionally to the bio-medical waste. In the UCHCs, apart from these bio-medical solid waste streams, there are also placenta waste arising from deliveries. These bio-medical liquid wastes are disinfected through chlorination and disposed to the underground sewerage network. The current practice of handling bio-medical waste the UPHCs & UCHCs is in line with the Bio-Medical Waste (BMW) Management Rules 2016. The Rules to govern BMW have been in place for more than 20 years now, and the practices are streamlined across the health sector.
 - As per the Rules, bio-medical waste means any waste, which is generated during diagnosis, treatment or immunization of human beings or animals or research activities pertaining thereto or in the production or testing of biological or in health camps. The bio-medical waste generator and the operator of the common bio-medical waste treatment and disposal facility (CBMWTF) shall be responsible for safe handling and disposal of the solid BMW. The TN Department of Health and GCC for the Chennai area under its purview shall ensure the implementation of the Rules in all Government health care facilities. TNPCB shall issue authorization to the health care facilities and CBMWTF. It shall monitor the compliance of various provisions of the Rules. TNPCB has so far authorized 6,261 Private and Government hospitals⁷⁶ in the State under the Rules. All these hospitals – including the UPHCs and UCHCs - have made agreement with the CBMWTF for the collection, transport, treatment and scientific disposal of the solid BMW. The CBMWTF consists of autoclave, shredder, incinerator and secured land fill facilities. In Chennai, there are two CBMWTF are under operation and the BMW is sent to either of these two based on the location within the city. With regard to liquid BMW, the Rules specify treatment and disposal practices to be adopted prior to their release into the municipal sewers.
 - Further, in both UPHCs and UCHCs, there are standard practices adopted for patient safety, visitor safety, health worker safety and maintaining health care facilities. Lapses in these practices, e.g. improper disposal of cotton waste by outpatients, have the potential to result

⁷⁶ 2019 figure.

in challenges in BMW management within the UPHCs and UCHCs, and the possible entry of solid BMW into the municipal solid waste stream. While the practices associated with treatment and disposal of liquid BMW is also in place, this is an identified area where capacity strengthening is required.

- As BMW management and infection control are being addressed by the GCC, the environmental impacts are minor. Further, there are no major risks emerging from these impacts. Lapses in BMW management practices in the health care facilities may result in minor risks, which can be addressed through tighter management controls. Due to the physical environmental impacts, those pertaining to liquid BMW can cause risks if these are released to the underground sewerage network without proper disinfection. Related to solid BMW, there is an overall system in place in Chennai and in TN, which is functional and ensuring that BMW does not enter the municipal solid waste.
- There are no contextual risk factors as the interventions are not in eco-sensitive areas and there are no concerns on their sustainability. There are no institutional capacity and complexity risks either as the responsible agency – GCC – is well established. They have been recognized to be dealing with BMW management and infection control in their health care facilities for a number of years now. There are no reputational and political risks as improving the operational performance are necessary as the demand for health care services increase.
- **Benefits:** Through the Program, there is an opportunity for capacity strengthening of BMW management in the UPHCs and UCHCs. Proper management brings about positive environmental impacts, which in turn will bring positive public health benefits. This ESSA's Program Action Plan suggests capacity building initiatives that can be undertaken during the Program period. When implementing these, this will contribute towards improving the prevailing practice of BMW management as well as infection control. At the level of the UPHCs and UCHCs, there are practices which are linked closely with stakeholder behaviour, whether they are health care workers or patients or visitors.

- **Solid Waste management:** The Program activities are aimed at strengthening solid waste management (SWM) systems in Chennai through supporting institutional development and initiatives towards reducing waste generation. The activities include: (i) management & performance monitoring (IT-enabled); (ii) SWM Master Plan and investment plan; (iii) First Year Action Plan for O&M financial sustainability and expenditure; (iv) other capacity building, training, DPRs & IEC management; and (v) selected investments for Material Recovery and Recycling. These activities are being proposed in Chennai to support the Government program, which will respond to the national-level National Green Tribunal (NGT) order to improve SWM across the country. It is nationally recognised that there is a non-compliance to the SWM Rules 2016 and NGT requires all state Governments to report periodically about their actions in this regard.⁷⁷ SWM is the responsibility of the GCC and is the principal implementing agency for the SWM Rules 2016 in Chennai city. Further, GCC will have to report to the state Government about the actions taken in Chennai to meet the NGT orders. There are environmental impacts at the upstream, onstream and downstream of the SWM cycle. The focus of the Bank's Program is on strengthening the institutional arrangements and policy frameworks as a whole, and on upstream interventions, i.e. in augmenting approaches presently adopted in the material recovery facilities (MRFs) and resource recovery centres (RRCs). The overall capacity strengthening will be done in a comprehensive, evaluative and participative manner with the involvement of community and relevant stakeholder. Therefore, these do not bring risks due to the indirect environmental impacts. The upstream

⁷⁷ NGT Order related to Complaint No. 606/2018, Compliance of Municipal Solid Waste Management Rules, 2016 and other environmental issues, 02.07.2020 [Latest NGT order]

interventions have minor, reversible impacts that can be addressed through proper management controls. These include air and noise pollution, and wastewater and solid residue disposal during the operation of upstream interventions. Overall, there are no major risks arising from the Bank's Program

- **Risks:** There are no contextual risk factors as the interventions are not in ecosensitive areas and there are no concerns on their sustainability. There are no institutional capacity and complexity risks either as the responsible agency – GCC – is well-established. As mentioned, they have the responsibility and are dealing with the SWM activities for a number of years now. There are no political risks as improving the systems and operational performance are necessary as the demand and challenge for SWM services increase with the growing population and expanding city. There may be reputational risks. There are a number of challenges, problems and complaints related SWM in the city. And this is the very reason for the Program, which is to support GCC's efforts to streamline, strengthen and improve its performance. However, being associated with the SWM sector, there may be problems that could potentially link the Bank even without its explicit involvement in activities wherein GCC is in non-compliance or not effective.
- **Benefits:** Most of the activities aimed at strengthening institutional capacities, enhancing financial sustainability, and supporting upstream waste minimization / resource efficiency. The improved management and the reduced waste quantity will bring positive environmental impacts such as (1) timely collection through better IT-based monitoring will result in better city upkeep, (2) reduced waste collection, treatment and disposal in the poorly managed, expanding dump yards due to the upstream interventions, and (3) usable recycled products and markets through new upstream recycling. Broadly, strengthening institutional capacities and enhancing financial sustainability will bring indirect positive environmental impacts, whereas upstream waste minimization / resource recycling will bring direct positive environmental impacts.

2.4.3 Assessment of Social and Environmental Legal policy Framework

a. Legal Framework for Social Safeguards

The Chennai City Municipal Corporation Act of 1919, 74th Constitutional Amendment Act of 1993 followed by Tamil Nadu District Municipalities (Amendment) Act of 1993 ensure devolution of funds, functions, and functionaries to elected urban local bodies. It creates opportunities for **citizen engagement, participation, representative⁷⁸ and direct democracy⁷⁹** for improved economic development and social justice. The Right to Information and Social Audit Societies provide avenues for **access to information, accountability, and transparency**. Tamil Nadu has not passed the Rights to Services Act. To enhance transparency and address corruption, the Lokayukta Act in Tamil Nadu came into force on November 13, 2018.

The Constitution of India (Articles 15,16, 46, 275, 330, 332, 335, 340 and 342) along with the Scheduled Castes and the Scheduled Tribes (Prevention of Atrocities) Act, 1989, and Rules, 1995 ensure **protection of the interest of SC and ST population**. The state of Tamil Nadu provides reservation for **Backward Classes, Scheduled Castes Scheduled Tribes, Arunthathiya⁸⁰, Backward Class Muslims** in government jobs ensuring positive discrimination and opportunities for the vulnerable communities. Equal Remuneration Rules of 1976, Tamil Nadu Maternity Benefit Rules of 1967, Tamil Nadu Prohibition of Harassment of Woman Act of 1998, Tamil Nadu State Commission for Women Act of 2008, Gender Sensitisation & Sexual Harassment of Women at The Madras High Court - Principal

⁷⁸ Through Steering Committees, Ward Committees, NGOs

⁷⁹ Through Ward Sabhas (ward level meetings)

⁸⁰ Includes the castes, Arunthathiya, Chakkiliyan, Madari, Madiga, Pagadai, Thoti and Adi Andhra within the list of 76 Scheduled Castes notified by the President of India under Article 341 of the Constitution of India by the Constitution (Scheduled Castes) Order, 1950 as amended from time to time. In Tamil Nadu, owing to the social and educational backwardness of Arunthathiya, sixteen per cent of the appointments or posts reserved for the Scheduled Castes are reserved for the Arunthathiya.

Seat at Chennai and Madurai Bench at Madurai - (Prevention, Prohibition and Redressal) Regulations of 2013 elucidates a **strong legal framework in the state for inclusion of women, gender equity, safety for women in public spaces and offices**. Review covered more than 25 laws related to **labor welfare, safety, rights and entitlements at national level and state level to conclude that they are adequate** to safeguard rights and welfare formal, informal, local, and migrant, male and female workforce. Finally, the sector of Municipal Services does not envisage land acquisition or resettlement, in any case, Tamil Nadu and city of Chennai has robust laws to ensure that there is no involuntary resettlement and rights to fair compensation in case of land acquisition is safeguarded. National Urban policies like JNNRUM, AMRUT, Smart City etc and reforms have created opportunities for **enhanced services, and liveability** in urban agglomerations. For further details, see the Annexure on Legislations and Policies relevant for Social Management under Chennai City Partnership Project.

Keeping in mind that PforR will include overall strengthening of HR under GCC and focus on two verticals of health and solid waste management, the following laws and policies are more relevant apart from the ones covered above.

Table 43

S. No	Name of law/policy	Overview of key provisions	Applicability to PforR
1.	Tamil Nadu Transparency in Tenders (Public Private Partnership Procurement) Rules, 2012 ⁸¹	Legislative framework to deal with Public-Private-Partnership projects - Tamil Nadu is the first State to have such a legislative framework	Under the PPP law of the state, GCC has a PPP Act and PPP Rules (not just SWM, but they are general rules)- with key service benchmarks/performance indicators for monitoring performance of firms hired
2.	National Urban Sanitation Policy (NUSP) 2008	The policy on integrated city-wide sanitation covers institutional strengthening, awareness generation, behavioural changes, pro-poor approaches and utilisation of cost-effective technologies under city sanitation plans, that should lead to open defecation free cities, as well as sanitary and safe disposal of all solid and liquid wastes.	There are examples from NULM that can be extended to PforR in terms of promoting community led improvement in overall sanitation and cleanliness in urban areas.
3.	Swachh Bharat Mission Urban (SBM) 2014	In continuity to the above, SBM-U was aimed at making urban India free from open defecation and achieving 100% scientific management of municipal solid waste in 4,041 statutory towns in the country and eliminate open defecation.	In October 2017, Chennai was declared ODF there are speculations and newspaper reports on cases of open defecations, gaps in availability of community toilets in the city of Chennai.

⁸¹ Tamil Nadu Transparency in Tenders Act, 1998; Tamil Nadu Transparency in Tenders Rules, 2000

4.	Solid Waste Management Rules, 2016 ⁸²	Applies to the domestic, institutional, commercial and any other non-residential solid waste generators, situated in the Corporation area, and the public who throw the solid waste in to storm water drain, underground sewerage system, water bodies within the limits of Corporation of Chennai. <i>It provisions for Citizen Resource Base; User Charges; Citizen Information services; Slum Adoption Program; Cleanliness drives</i>	Recognizes (issue Identity cards) waste pickers unorganised sanitation workers waste collectors; establish a system for integration of these authorized waste-pickers and waste collectors; facilitate formation of SHG, roles for CBOs, NGOs, VSOs, Ward Councillors, Citizens organisations, Government bodies, Corporates etc.
5.	Tamil Nadu Municipal Public Health Service Regulations, 1970 (and Discipline and Appeal Regulations, 1973)	Regulates Municipal service on Public Health and governs Staff under the Municipalities.	Procedures for appointment (including reservations) and management of Categories of Class I,II,III,IV ⁸³ and V of staff
6.	National Urban Health Mission	NUHM focusses on needs of urban population for primary health care services and out of pocket expenses for treatment by strengthening the existing health care service delivery system, targeting the people living in slums and converging with various schemes relating to wider determinants of health like drinking water, sanitation, school education, etc. NUHM would cover all State capitals, district headquarters and cities/towns with a population of more than 50000	Though this is not a part of PforR, lessons can be learnt on how NUHM focusses on poor, slum dwellers and other marginalized groups like rickshaw pullers, street vendors, railway and bus station coolies, homeless people, street children, construction site workers; how partnerships with community and local bodies, NGOs, and other stakeholders have been sought
7.	Prohibition of Employment of Manual Scavengers and their Rehabilitation Act, 2013 (Central Act 25 of 2013),	No person, local authority, or any agency to engage or employ, either directly or indirectly, any person for hazardous cleaning of a sewer or a septic tank.	Though under PforR doesn't cover.....GCC has a Manual Scavenger List prepared through a self-declaration form to provide one-time cash assistance.

Overall, it may be concluded that the policy and legal framework is conducive and adequate for the required social management processes.

b. Environmental policy and legal framework

- **Legal Framework for Environmental safeguards under Public Health Services:** The national environmental policy and legal framework related to BMW is well developed. As the Program's activities are only related to supporting the staffing costs and operating expenditures, the framework is applicable

⁸² Under Section 349 of the Chennai City Municipal Corporation Act, 1919 (Tamil Nadu Act IV of 1919)

⁸³ Chennai Corporation Health, Malaria and Family Welfare Subordinate Services byelaws, 2009 regulates posts in the Class-III and Class-IV Services of the Corporation of Chennai- appointment including reservations

to the constituents receiving the support. By themselves, the Program activities do not attract any environmental impacts. A very brief description of the different important elements of the framework that are relevant to the Program is provided in this section.

Table 44

No.	Title and brief description	Relevance to the Program
1	<u>Environmental (Protection) Act of 1986:</u> The Act is an umbrella legislation that provides a framework for Central and State Authorities established under previous laws. It provides a single focus for the protection of the environment and sought to plug several loopholes	Standards that are specifically applicable to air, water, noise and soil. Organisation: TN State Department of Environment and State Pollution Control Board
2	<u>Bio-medical Waste Management Rules, 2016</u> These Rules contains schedules that outline requirements pertaining to categorization and management; standards for treatment and disposal of bio-medical waste; prescribed authority and duties; and label of containers, bags and transportation of bio-medical waste. The provisions under the rules provide for both solid and liquid medical wastes. Liquid waste should be treated with 1% hypochlorite solution before discharge into sewers. Hospitals not connected to municipal waste water treatment plants should install compact on-site sewage treatments (i.e. primary and secondary treatment, disinfection) to ensure that wastewater discharges meet applicable thresholds	All management of bio-medical waste is as per these rules. All UPHCs and UCHCs have to obtain authorizations as per these Rules. Organisation: TN State Pollution Control Board
3	<u>Air (Prevention and Control of Pollution) Act 1981:</u> This Act provides for the prevention, control and abatement of air pollution. It is to control emissions of any air pollutant into the atmosphere when it exceeds the standards set under the Act and associated rules	Any release of air pollutants due to the functioning of the health care facilities will be governed by these provisions. Organisation: TN State Pollution Control Board
4	<u>Water (Prevention and Control of Pollution) Act 1974</u> This is to control water pollution by controlling emission & water pollutants and the maintaining or restoring of wholesomeness of water, through establishment and empowerment of Boards at the national and state levels. Ensuring adherence to water quality and effluent standards is the main purpose.	Any release of water pollutants due to the functioning of the health care facilities will be governed by these provisions. As the UCHCs release bio-medical liquid wastes, these require consents to operate under this Act. Organisation: TN State Pollution Control Board
5	<u>Various Waste Management Rules 2016:</u> There are four Waste Management Rules that are pertinent: (i) Hazardous and Other Wastes (Management and Trans-boundary Movement) Rules, 2016; (ii) Construction and Demolition Waste Management Rules 2016, (iii) Solid Waste Management Rules 2016 and (iv) Plastic Waste Management Rules 2016.	There are guidelines for generation, storage, transport and disposal of C&D waste, hazardous waste, plastic waste and municipal solid waste. For all civil works, the contractor will have to obtain authorizations for all the different types of wastes as required, and will dispose scrap / waste only to authorized agencies. Organisation: TN State Pollution Control Board.

- **Legal Framework for Environmental safeguards under Solid Waste Management:** The national and state environmental policy and legal framework is well developed. The national Government / MoEFCC have made the SWM Rules, 2016 to regulate the management of solid waste in the country. This has been done in exercise of the powers conferred under sections 3, 6 and 25 of the Environment (Protection) Act, 1986 (Central Act 29 of 1986). The SWM Rules 2016 applies to every municipal authority – such as the GCC - which shall, within their territorial area be responsible for the implementation of the provisions of these

rules, and for any infrastructure development for collection, storage, segregation, transportation, processing and disposal of municipal solid wastes. And, at the state level, through the office of the Chief Secretary, it is expected to report the state's performance on SWM as per the NGT order. Further, the regulations related to authorizations of treatment and disposal facilities under the SWM Rules is done by the TNPCB. At the city level, in the context of solid waste, the policy and legal framework is also well developed with the GCC having developed the SWM Bye-laws 2019. A very brief description of the different important elements of the framework that are directly relevant to the Program is provided in the following table.

Table 45

No.	Title and brief description	Relevance to the Program
1	<u>Environment (Protection) Act of 1986</u> : The Act is an umbrella legislation that provides a framework for Central and State Authorities established under previous laws. It provides a single focus for the protection of the environment and sought to plug several loopholes	Standards that are specifically applicable to air, water, noise and soil. Organisation: TN State Department of Environment and TNPCB
2	<u>Solid Waste Management Rules, 2016</u> and <u>GCC's Bye-laws for Solid Waste Management, 2019</u> These Rules apply to every municipal authority which shall, within their territorial area be responsible for the implementation of the provisions of these rules, and for any infrastructure development for collection, storage, segregation, transportation, processing and disposal of municipal solid wastes. GCC's Bye-laws – SWM Bye-laws 2019 - are in line with these Rules and are relevant in the Chennai city jurisdiction.	All management of SWM in the city is as per these Rules and Bye-laws. Organisation: GCC and TNPCB
3	<u>Air (Prevention and Control of Pollution) Act 1981</u> : This Act provides for the prevention, control and abatement of air pollution. It is to control emissions of any air pollutant into the atmosphere when it exceeds the standards set under the Act and associated rules	Any release of air pollutants due to the functioning of the proposed resource recycling interventions will be governed by these provisions. Organisation: TNPCB
4	<u>Water (Prevention and Control of Pollution) Act 1974</u> This is to control water pollution by controlling emission & water pollutants and the maintaining or restoring of wholesomeness of water, through establishment and empowerment of Boards at the national and state levels. Ensuring adherence to water quality and effluent standards is the main purpose.	Any release of water pollutants due to the functioning of the proposed resource recycling interventions will be governed by these provisions. Organisation: TNPCB
5	<u>Noise Pollution (Regulation and Control) Rules 2000</u> According to the provisions of the rules notified under this act, a person might make a complaint to the designated 'Authority' in the event that the actual noise levels exceed the ambient noise standards by 10dB(A) or more as compared to the prescribed standards. The designated authority will take action against the violator in accordance with the provisions of these rules or other law in force.	Under the Rules, any generation of noise due to the functioning of the proposed resource recycling interventions will be governed by these provisions. Organisation: TNPCB
6	<u>Other Waste Management Rules</u> : There are four Waste Management Rules that are pertinent: (i) Hazardous and Other Wastes (Management and Trans-boundary Movement) Rules, 2016; (ii) Construction and Demolition Waste Management Rules 2016, (iii) Bio-medical	There are guidelines for generation, storage, transport and disposal of C&D waste, hazardous waste, plastic waste and bio-medical solid waste. For all civil works, the contractor will have to obtain authorizations for all the different types of

No.	Title and brief description	Relevance to the Program
	Waste Management Rules 2018 and (iv) Plastic Waste Management Rules 2016.	wastes as required, and will dispose scrap / waste only to authorized agencies. Organisation: TNPCB
7	<u>National Green Tribunal (NGT) Orders</u> Established under the National Green Tribunal (NGT) Act 2010, NGT for effective and expeditious disposal of cases relating to environmental protection and conservation of forests and other natural resources including enforcement of any legal right relating to environment and giving relief and compensation for damages to persons and property and for matters connected therewith or incidental thereto. NGT's dedicated jurisdiction in environmental matters is to provide speedy environmental justice and help reduce the burden of litigation in the higher courts. Apart from New Delhi, the NGT has its tribunal in 4 places and Chennai is one of them.	NGT receives applications on environmental matters relevant to Chennai, considers them and issues orders to the GoTN. The GoTN instructs its various agencies to comply with the stipulations in the order. SWM is an environmental matter that is included in the NGT offers, and GCC is called upon to take the required action. GoTN is required to report its action taken periodically to the NGT. Organisation: GoTN and GCC

2.4.4 Assessment of Risks under PforR activities

a. Social Risk Rating

Table 46

	Activity	Positive Social Impact	Adverse Social Impact	Risk Rating
1.	HR / Staffing			Moderate
1.1	Onboarding of HR firms and agencies	Opportunities for new HR firms and agencies		Nil
1.2	Recruitment of staff ⁸⁴	New job openings	In the absence of positive discrimination, risk of exclusion of Women	Low
2.	Public Health Services			Low
2.1	Recruitment of staff	New job openings	In the absence of positive discrimination, risk of exclusion of Women	Low
2.2	Increased duration of clinics		Increased exposure and risk of Covid Risk; Worker dissatisfaction in the absence of internal grievance redressal mechanisms including complaints related to Sexual Exploitation and Harassment and labor law compliance	Moderate
2.3	Improved health services	Extended opening hours of health centres, new systems of management and more staff will improve availability, outreach, convenience (suitability of time) and broaden scope of services.		Moderate
3.	Solid Waste Management Services			Moderate

⁸⁴ There are 8 cadres/service rules that govern the staff at GCC as follows - General (administration, accounts and legal positions), Revenue, Engineering, Electrical, Public Health, District Family Welfare Bureau, Information Technology and Conservancy services. The rules, regulations and processes for employees for each of these cadres are guided under by different rules/byelaws which have been notified in different ranging from 1970 to 2009. Current Group A and B cadres have a vacancy levels of 23% out of a total of 1873 staff positions. Hence this sub-program focuses on mainly Group A and B cadre of GCC as follows: (ii) Improve quality of Group A & B cadres through improved recruitment modalities including through state level Tamil Nadu Public Service Commission (TNPSC); (iii) Reduce vacancy levels in Group A and B cadres from about 23% currently to less than 5% by end of the program; and (iv) Revised staffing norms / positions at GCC to address the skill gaps within Group A and B cadres such as in emerging areas of GIS mapping, IT, SWM, etc.

a.	Development of Service Management and Performance Monitoring system	Increased efficiency and performance will improve people's satisfaction and SWM for the city	Worker dissatisfaction in the absence of internal grievance redressal mechanisms including complaints related to Sexual Exploitation and Harassment and labor law compliance. Loss of jobs for daily wage sanitation workers when SWM services are outsourced to private firms (though not in sites proposed under the current "program")	Moderate
b.	Support long-term integrated SWM planning	Improved SWM and quality of life in the city	Weak communication, outreach and citizen engagement can risk poor response, participation of citizens and representation of their concerns and priorities in the plans	Moderate
c.	Enhancing capacity of existing Material recovery and recycling infrastructure (dry waste on downstream treatment and disposal capacity already there)	Sensitization of private enterprises towards social responsibilities	Ineffective systems for implementation of reward and penalties; Host community unwilling to accept increase in waste; Poor experience capitalization before upscaling	Low
d.	Capacity Building, DPR, Training, IEC.	Competent staff, improved services, availability of information, citizen engagement	Poor social management expertise can make the activities top down, ineffective citizen engagement, social processes poorly implemented and reported.	Moderate

b. Environmental Risk Rating

Table 47

Activity		Environmental benefits		Environmental risks		Risk Rating
1.	HR/Staffing					None
1.1	Onboarding of HR firms and agencies	No environmental benefits as this is a staffing-related activity.		No negative environmental impacts / risks and hence not applicable		None
1.2	Recruitment of staff	No environmental benefits as this is a staffing-related activity.		No negative environmental impacts / risks and hence not applicable		None
2.	Public Health Services					Moderate
2.1	Recruitment of staff	Better environmental performance through better		No negative environmental impacts / risks and hence not applicable		None

		training on BMW management for the new staff		
2.2	Increased duration of clinics	No environmental benefits as this is an administration-related activity.	No negative environmental impacts / risks and hence not applicable	None
2.3	Improved health services	Better environmental performance through better streamlining of BMW management in UPHCs and UCHCs.	There are no direct environmental impacts due to the Program activities but BMW management in the UPHCs and UCHCs are contextual risks that will have to be dealt with through capacity-building initiatives.	Moderate
3.	Solid Waste Management Services			Moderate
3.1	Development of Service Management and Performance Monitoring system	Increased SWM efficiency and performance will reduce negative environmental effects that will be beneficial.	No environmental impacts / risks and hence not applicable	None
3.2	Support long-term integrated SWM planning	Increased SWM performance through long-term and integrated approaches will reduce negative environmental effects that will be beneficial.	No direct environmental impacts / risks and hence not applicable	None
3.3	Enhancing capacity of existing Material recovery and recycling infrastructure	Upstream interventions will reduce the waste that have to be transported, treated and disposed in the dumpyard. Environmental benefits will accrue in the SWM cycle.	The upstream interventions may have impacts such as chemical use, waste disposal and worker safety. Being minor, these can be addressed through proper operational controls and hence reduced risks.	Moderate
3.4	Capacity Building, DPR, Training, IEC.	Increased SWM efficiency and performance through capacity building and training will reduce negative environmental effects that will be beneficial over the SWM cycle as a whole.	No direct environmental impacts / risks and hence not applicable	None

2.4.5 Assessment of Institutional systems and capacities

Formed in 1639, Madras is one of the oldest civic bodies in the world, has systems that date way back and have evolved over generations. GCC caters to an area of 426 square kilometers and 8.5 million people spread across 2.12 million households. The city is classified into three regions: North Chennai, Central Chennai and South Chennai. It is further divided into 15 zones, consisting of 200 wards. The newly annexed areas were divided into 93 wards, and the remaining 107 wards were created out of the original 155 within the old city limits. Out of the 200 wards, 26 were reserved for scheduled castes and scheduled tribes and 58 were reserved for women. Under the 74th Amendment, there are Working groups and Committees for different verticals which have policy level to

operational and more of procedure-oriented issues as their mandate. However, with the pandemic both the electoral body and the committees have not been functional. Interactions and consultation with Resident Welfare Associations have also been put on hold. Broadly, GCC has a four-tiered governance structure starting with Wards, then Units, then Zones and then Region. At the Regional office the head is the Mayor and there are permanent Office bearers- -Commissioners, Joint commissioners and Executives.

a. Institutional Assessment for Social management

• Human Resource Management

Administratively, the city is headed by the Commissioner with a team of Joint Commissioners, Deputy Commissioners, Regional Deputy Commissioners and Assistant Commissioner. The Administrative Chart for HR is given in the figure. There are 8 cadres/service rules that govern the staff at GCC as follows - General (administration, accounts, and legal positions), Revenue, Engineering, Electrical, Public Health, District Family Welfare Bureau, Information Technology and Conservancy services. The rules, regulations, and processes for employees for each of these cadres are guided under by different rules/byelaws which have been notified in different ranging from 1970 to 2009. Current Group A and B cadres have a vacancy levels of 23% out of a total of 1873 staff positions. Hence the activity focuses on mainly Group A and B cadre of GCC. Preliminary assessment shows that the positive impact will be opportunities for new HR firms and agencies; new job openings; improved efficiency, accountability, and work environment with introduction of new systems. However, in the absence of positive discrimination⁸⁵, risk of exclusion (of Women) in appointments, trainings, promotions, rewards, and recognition. There are also risks of Sexual harassment within GCC and Contracted agencies.

• Public Health

The Health Sector vision of 2023 envisages Tamil Nadu to become number one State in India in terms of social indicators and raise the standard of health delivery to international standard by ensuring universal access to health facility. GCC provides comprehensive Primary Health Care to its citizens through its Health and Family Welfare departments with a network of 140 Urban Primary Health Centres⁸⁶, 16 Urban community Health centres, 3 maternity hospital and field personnel for managing public health activities. The area of Greater Chennai Corporation was expanded from 176 sqkm to 426 sqkm in the year 2011 with a population about 82 lakhs. As the population and the area have increased, the health care delivery system needs to be augmented⁸⁷ to meet the demand of services. The current services include Primary Health Care (Out-patient services, Non communicable diseases care, Maternal Health and delivery care services, Child Health, Family Welfare, Laboratory services,

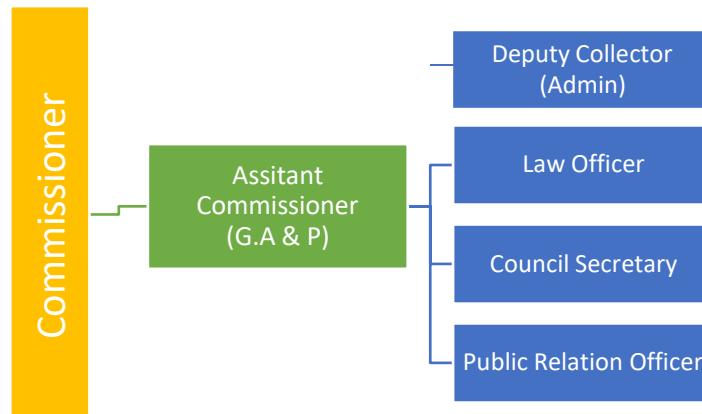


Figure 12: GCC Organogram

⁸⁵ Tamil Nadu is recognized in India as the first state to have adopted affirmative action, currently it has the highest reservation (69 percent) in government jobs and higher education. This includes reservation for Backward Class- 26.5%, Backward class Muslim- 3.5%, Most Backward Class and Denotified communities- 20%, and Scheduled Caste- 15%, Scheduled Caste (Arunthathiars)- 3%, Scheduled Tribes – one percent.

⁸⁶ Under GCC with some financing from NUHM

⁸⁷ This includes increasing number of staff, improving efficiency of existing staff, improve existing facilities, improve modalities like polyclinics, PPP arrangements.

Specialist services, Hemo-dialysis ERunits); Communicable Diseases Hospital; National Tuberculosis Elimination Program; Chennai District Blindness Control program; Wellness programs.



Figure 13: GCC Organogram for health vertical

Health Family welfare departments. For each UPHC, there are seven designations making a staff count of eleven⁹⁰. All the staff work single shift in i.e 8.00 am to 3.00 pm. To offer the same services in the evening shift, each UPHC requires to double the number of staff in the UPHC except ANMs/UHNs. With an expected requirement of 20 health professionals per UPHC, a recruitment of 700 staff is envisaged under the program.

With an overall expected increase staff and evening working hours, the social benefits include new job openings and improved efficiency⁹¹, and increased accountability with introduction of new systems. In terms of health services, it is expected to improve availability, convenience and larger scope. However, there are social risks like exclusion of women in the absence of positive discrimination⁹² in appointments, trainings, promotions, rewards, and recognition. There are risks of staff complaints and issue of Sexual Harassment within GCC in case the internal system of complaint management and ICC are not robust and sensitive. Also, increased risk of exposure for staff towards contracting Covid. Though under the quality-of-care sub-component of the health Program, it is

⁸⁸ With a focus on slums and urban poor, the NUHMs core strategies include decentralized planning, flexibility to develop city-specific models, strengthen the urban health system, capacity-building, development of partnership with community-based organisation, Non-Governmental organisation, charitable organisation and other stakeholders, development of information and technology and E-governance system for effective monitoring and evaluation implementation of health scheme and intersectional convergence with other schemes such as Jawaharlal Nehru Urban Renewal Mission (JnURM), Rajiv Awas Yojana (RAY) etc., under NUHM there are 134 Urban Primary Health Care Centres for small urban towns.

⁸⁹ Copy of HR Policy of GCC still awaited by the ESSA team

⁹⁰ Two Medical Officer, one Pharmacist, one Lab Technician, one ANM per 10,000 people, two Staff Nurse – RCH, two Staff Nurse – NCD and two Multi-purpose Hospital Worker

⁹¹ The Urban Community Health Centres provide primarily maternal and child health care services. It is planned to have all the services which the Sub District Hospital provides. They include General Medicine, General Surgery, Accidents and emergency services including poisoning and Trauma Care, General Orthopaedic services, Ophthalmology, Dental care, Services for lifestyle disorders, Diagnostic services, Psychiatry and Geriatric Services, Physical Medicine and Rehabilitation services, Dermatology & Venerology including RTI/STI. This means 27 additional medical and 92 additional para-medical staff in each centre. It is envisaged to have two centres per zone- 30 centres so a projection of 3000 plus more staff. This expansion will not be a part of the PforR but will remain in the government program. PforR will, however, support quality accreditation of UCHCs.

⁹² Tamil Nadu is recognized in India as the first state to have adopted affirmative action, currently it has the highest reservation (69 percent) in government jobs and higher education. This includes reservation for Backward Class- 26.5%, Backward class Muslim- 3.5%, Most Backward Class and Denotified communities- 20%, and Scheduled Caste- 15%, Scheduled Caste (Arunthanthiyars)- 3%, Scheduled Tribes – one percent.

envisioned that citizen satisfaction will be measured, and citizen experience will be assessed likely in the latter years of the Program. This is essential because absence of systems for citizen feedback can risk not being able to timely addressal of gaps and bottlenecks. Similarly, ineffective, and inaccessible grievance redressal mechanisms can also exacerbate citizen dissatisfaction. As of now, GCC verified that there is no audit of health services which can tell us about performance and gaps or about citizen satisfaction.

- **Solid Waste Management**

Improper handling/ management of Municipal Solid Waste (MSWs) can produce adverse health effects through biological, chemical, physical, mechanical or psychological means. More than 10,000 conservancy⁹³ (sanitation) workers of the Chennai Corporation handle nearly 4000 tonnes of MSWs. With increasing volumes, inadequate resources and the entry of select hazardous waste streams into the municipal wastes (due to inadequacies in the

hazardous waste management sector) these workers are exposed to a multitude of environmental and occupational hazards. (Kandasamy, Akolkar, Manoharan and Paranj, 2013). Impairment of health of rag pickers and conservancy employees of Chennai Municipal Corporation or anywhere else is not totally unexpected, because MSW contain high concentrations of bacteria, virus, fungal spores and endotoxin which are harmful for human health⁹⁴ (Poulsen et al. 1995, Krajewski et al. 2001). This gets exacerbated when muster roll is not properly maintained. The sanitation workers face occupational risk but in the absence of registration they fail to secure remedies and benefits. **Chennai has had sanitation worker strikes to demand better protection towards health and occupational safety and job security.**⁹⁵

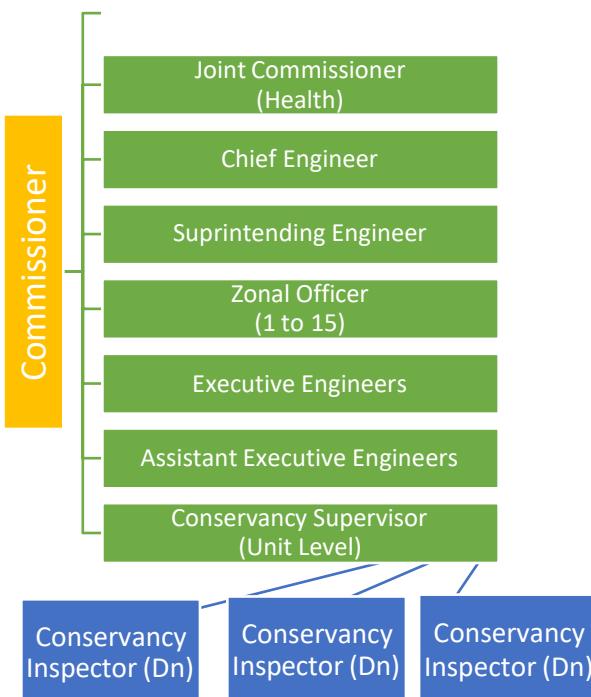


Figure 14: GCC organogram for SWM vertical

implementation of SWM Rules, 2016; Implementation of SWM Mega proposals/Projects; Preparation and implementation of Byelaws of Solid Waste, Plastic Waste and C&D Waste Management; Coordinating with other departments such as TNPCB, CMWSSB, TNEB. The Unit caters to a population of 8.5 million (2.12 million HH) across- 15 Zones and 200 Wards in the 426 sq. km area of CMC. The waste generation is approximately 5100 metric tons per day and to manage that, GCC has its own staff and contracted. The SWM Unit headed by the Joint Commissioner, followed by Chief Engineers, Superintending Engineers who report on overall management of the vertical. There are Zonal Officers and Executive Engineers for Coordination and superior checking of the

⁹³ Term used for sanitation workers

94 Comparative risk assessment studies have identified solid waste management as a high-ranking environmental health risk together with air and water quality concerns.

⁹⁵ Response from GCC on the Chennai sanitary worker strikes in 2017, 2020 and 2021 awaited

(<https://www.timesnownews.com/videos/times-now/india/chennai-corporation-asks-700-sanitary-workers-to-quit-their-jobs/86335>;

<https://timesofindia.indiatimes.com/city/chennai/chennai-corporation-sanitary-workers-call-off-protest-seeking-pay-hike/articleshow/78009791.cms>; <https://www.youtube.com/watch?v=Vq6fErnN3Ik>)

conservancy activities in the zones and solve bottlenecks as daily basis. Below them are Assistant Executive Engineer (SWM) for monitoring the works of Conservancy Inspector and Conservancy Supervisors, checking the achievement of the daily targets; inspecting the waste processing units and consolidating the daily reports and submitting to Executive Engineers and Zonal officers. There are: 48 Conservancy Supervisors; 72 Conservancy Inspectors; 297 Conservancy Mistri; 19498 laborers; GCC currently has about 23,923 sanction staff posts that is classified in four categories (Group A to D) with currently around 30% vacancy levels

b. Institutional Systems and Practices for Social Management

- **Information dissemination and awareness:** The 74th Constitutional Amendment, Health and SWM Policies clearly mandate citizen engagement for planning, implementation as well as monitoring of services. Officials, elected representatives, hired firms, local NGOs and Community leaders are involved in awareness generation, information dissemination, citizen interface, cleanliness campaigns, health drives, mobile health services, door to door campaigns, mass sanitation drive.
- GCC regards **Behaviour change** is the core element of waste management. It is envisioned that once a system of collection and processing is streamlined from the technical point of view, the focus will be on community engagement, behaviour change and citizen collaboration. The responsibility of ensuring this will be given to the Service providers and linked to Key Performance Indicators.
- **Vigilance:** Complaints about corruption are handled by the Directorate of Vigilance and Anti-Corruption, Chennai. Complaints are received by letter, phone (22310989 / 22321090 / 22321085) and web (www.dvac.tn.gov.in)
- **Grievance redressal:** GCC has a four-way complaint receipt system and generated a unique ticket for each complaint. There is a backend system of responsibility matrix for response, alert, escalation and redressal managed. There is a deputed Senior Systems Manager who maintains the GRM. The screenshot shows the available systems:
 - **Toll free number: 1913**
 - GCC Head office for **physical complaints**
 - Mobile Application: **Namma Chennai** launched in 2018 as well as **Swach Bharat App**
 - Online **compliant** on the following link:
<https://erp.chennaicorporation.gov.in/pgr/citizen/BeforeReg.do>
- **Social Inclusion:** GCC follows the reservation quotas for all permanent staff recruitment⁹⁶. As a service provider, GCC (SWM team and PH team) caters to the vulnerable groups for its Health and SWM services. The UPHCs reaches to the population of low-income groups and slum dwellers⁹⁷ in the city.
- **Gender:** Data on number of women employed by GCC, their roles, positions, opportunities for growth not available. Regarding the complaints against Sexual Harrasment, GCC has an ICC Headed by the Chief Medical Officer. Further information on ICC not available. As a service provider, disaggregated data on outreach to women is not available.
- **Labor Management:** Overall GCC has the following category of staff: permanent, contracted, and daily wage workers. The systems for management of staff to be assessed (data not available during the ESSA)
- **Role of SHGs:** GCC has engaged nearly 10,000 daily wage sanitation workers through SHGs which are formed or supported under NULM⁹⁸. So far GCC has outsourced 60 percent of its SWM services and plans to expand this to 100 percent which is likely to have an impact on the current employees particularly daily wage sanitation workers. The private agencies are mandated to hire all workers directly so sub-contracting through SHGs is not an option. However, the agencies are recommended⁹⁹ to absorb the existing

⁹⁶ Disaggregated data on the staff (male female and reserved categories) awaited.

⁹⁷ Socio economic profile and disaggregated data of the service users that UPHC not available.

⁹⁸ Self Help Groups formed and supported under National Urban Livelihood Mission

⁹⁹ In the clause 21.2 of Concessionaire agreement, it is mentioned: "The Concessionaire may absorb the manpower of the existing

workforce. As mentioned earlier, GCC has 15 Zones out of which 11 Zones are privatized. In the privatized 11 Zones, the total number of sanitation workers (engaged through SHGs) is 5750. In Zones 14 & 15 the Agency has already commenced the work and they have recruited nearly 70% of the SHG workers already working in these two Zones. In Zone 11 & 12 the recruitment is under progress- percentage of absorption of SHG workers not available

- **Engagement with Private Firms:** In GCC, 11 out of 15 zones are privatized (completed or in process). Contracted Firms for SWM: 7 out of 15 zones have been handed over to Private Firms for collection and transportation. For another 4 zones, DPR has been received and contracts are likely to be awarded soon. Only 4 zones are likely to remain with Chennai corporation to be directly serviced as of now. But these remaining 4 zones are also proposed to be placed under service providers. Firms are hired based on RFPs with key performance indicators (KPIs). KPIs show that complaint redressal, information dissemination and employee health and safety are a criterion for marking performance, penalty, payment calculations and evaluation. It also shows that there is a mandate to maintain MIS on labour.

Urbaser Sumeet: private firm hired by GCC for SWM

*Engaged for an eight-year period awarded in December 2019 to work in 7 zones, covering 92 wards which accounts for nearly 60 percent of Greater Chennai Municipal Corporation Area. The firm carried out its own assessment- studied the history of Chennai Sanitation workers, working conditions, housing, and waste generation patterns etc. It designed uniforms to make work easy – shifted from saree to trouser shorts, added shoes, gloves, masks, head gears and monsoon raincoats, ensured that the bins have better capacity and lighter weight etc. After coming on board, the Firm has carried out mass education and awareness generation campaign like road show, Mass cleaning, local skits on management and segregation to reach out to public at large and focus on youth and school children. The firm has fully mechanised and electronic systems for tracking waste management- 3000 Battery operating vehicles with GPS and RFID tracks are operational and contain panels to advertise how to segregate waste. The firm has hired more than 10,000 workers 94 percent are blue-collar workers- drivers, manual sweepers (90 percent women) and helpers. Only 2 percent of the drivers are women while 90 percent of manual sweepers are women. No sub-contracting is allowed. Urbaser has an IEC team, Environment team, MIS team – live stream IT office, Call centre 24*7. In addition, on job monitoring and support provided to all workers. There is an internal committee to handle issues related to women (headed by legal experts). There is a Talent management team to ensure rewards, promotions, training etc. The salaries are paid directly (bank transfer) and Attendance is taken through biometrics. An Independent Engineering Firm (INFRA from Bangalore) monitors Urbaser on KPIs.*

c. Institutional Capacities to Manage Social Risks

Table 48

	Social Risk	Institutional Capacity to manage risks
1.	Overall social risk management and reporting on social management	GCC has no Social Management Unit or Specialists with expertise on Social development- community engagement, gender, communication, labor law compliance and MIS.
2.	Risk of exclusion (of Women) in appointments, trainings, promotions, rewards, and recognition.	There is no data available on opportunities and benefits for women in appointment, promotions, rewards, and recognitions
3.	Labour related risks (including SEH) within GCC and Contracted agencies and overall Weak compliance of Labor Laws	GCC staff can access the online and physical complain system. In addition, there is an ICC for cases of sexual harassment. There are no reports to track the effectiveness, accessibility of these systems particularly for staff or contracted workers at the lower hierarchy. In addition, availability of internal GRM and ICC in contracted Agencies not known.

Concessionaire/agency for performing its operation to the extent possible.

		Systems for tracking of labor law compliance and complaint management is not available.
4.	Risk of citizen dissatisfaction from existing citizen grievance redressal mechanisms	GCC has a four-way integrated functional complaint system (physical, online, App based and telephonic)- detail assessment in the next section.
5.	Risk of daily wage workers (SHG members) losing their employment due to outsourcing of SWM services.	The private agencies are mandated to hire all workers directly so subcontracting through SHGs is not an option. However, the agencies are recommended ¹⁰⁰ to absorb the existing workforce. In the privatized 11 Zones, the total number of sanitation workers (engaged through SHGs) is 5750. In Zones 14 & 15 the Agency has already commenced the work and they have recruited 70% of the SHG workers already working in these two Zones. Impact on the remaining 30 percent and rate of absorption in zone 11 & 12 to be assessed. In the light of protests witnessed in Chennai in 2017, 2020 and 2021, this risk needs to be further assessed.
6.	Increased risk of Covid for the staff and contract staff	Health Department carries out regular check-up's and tests of its staff and workers and provides support to Covid positive. SWM staff and workers have been provided sanitizers, gloves, shoes, masks but its disciplined use is poor.
7.	Weak communication to disseminate information to ensure behaviour change to adopt improved practices	GCC conducts IEC and BCC campaigns and organises ward level meetings and citizen interface but there are no reports on outreach and impact.
8.	Weak capacities of elected leaders, poor functioning of local committees and ineffective citizen interface can risk low participation of citizens and public apathy	GCC lacks a strong strategy and system for citizen engagement, community mobilisation, regular feedback on service satisfaction. The system of feedback informing GCC to identify bottlenecks and improve services received online as well as assessment of complaints. This is something that can be addressed through the new quality of care strategy that GCC will develop in Year one and implement thereafter.
9.	Risk of increased collection fee to negatively impact the economically vulnerable sections.	Information on fee subsidies for the economically vulnerable not available
10.	Poor experience capitalization before upscaling the pilots	Absence of reporting and documenting systems for processes and results.
11.	Inadequate KPIs and weak monitoring of KPIs for SWM firms hired	Independent evaluation agency is hired to monitor that KPIs but no information and reports available. Review of KPIs to address other social risks is required.
12.	Assessment of the GRM system of GCC	GCC has a robust four-way integrated functional complaint system (physical, online, App based and telephonic) for GRM. <ul style="list-style-type: none"> The complaints are categorized into 10 types: General, Public Health, Garbage related, Stagnant water, Building permission plan, parks and playgrounds, tax and license, streetlight, road and footpath. Depending upon the complaints received in the above categories, there are right now 94 sub-categories¹⁰¹ under which complaints are recorded and tracked

¹⁰⁰ In the clause 21.2 of Concessionaire agreement it is mentioned: "The Concessionaire may absorb the man power of the existing Concessionaire/agency for performing its operation to the extent possible.

¹⁰¹ Some examples are: Unauthorised / Illegal Construction, Overflowing of Garbage Bins, Absenteeism of Sweepers, Cleaning of Water table, Broken Bin, Spilling of Garbage from Lorry, Removal of fallen trees, Unauthorised tree cutting, Mosquito Menace, Public Health/Dengue/Malaria/Gastro-enteritis, Slaughter House related complaints, Complaints regarding Public Toilets, Electric Shock due to street light, Issue of Voter ID

Obstruction of water flow, Covering of Manholes of SWD, Complaints regarding Bridges/Flyovers/Subways, Complaints regarding Schools, Parking Issue etc.

		<ul style="list-style-type: none"> Each category is designated to a Department with a Designated Officer mandated to respond in pre-given timelines for alerts, escalation and redressal (details below)
--	--	-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

d. Assessment of the GRM system

Table 49

Dept.	No. of Days	Redressal Official	Escalation Levels			Reopen Levels	
			Level 1	Level 2	Level 3	Level 1	Level 2
15 Zones and each Zone has 20-25 Divisions. The system is also used by 23 Depts in Chennai.	Ranges from 1 to 7 days	Zonal Officers and Department Heads (HoDs)	The complaint goes to the first officer responsible under the Responsibility Matrix. For instance, the Officer responsible for SWM complaints is the Conservancy Inspector in	This refers to the Supervisor. The complaint is escalated to the Supervisor when it is closed but there are discrepancies, so it is opened again.	This is the highest level of authority in the Zone or Dept. (IAS Officer) who generally plays an overall monitoring role or specific redressal role when the complaint reopened second time.	The first time a complaint can be reopened is when the complainant is not satisfied. It directly goes to Level 2 of Escalation.	The second time a complaint is reopened can be either by the same complainant or when Quality Control is carried out and the complainant report dissatisfaction from redressal. It directly goes to Level 3 of Escalation

- As the system cuts across 15 Zones of GCC and 23 Department in the Chennai City, there are **2000 Officials** who are designated users in the system with their line of operation for response, redressal and closure. The **first response** for each complaint is a complaint ID which is sent to the complainant through which he/she can track the status online as well as on the App. The SMS alerts are also sent. There are three levels of escalation (Supervisor, HoD and Senior most Officer- IAS). Each complaint is tracked in clusters:

Table 50

I. ON-GOING		
REGISTERED	PROCESSING	FORWARDED
Each complaint has a unique Registration number which is generated as the complaint is filed.	This is the status that the Officer can put in the system for complaints that are likely to take or may take more than the stipulated time. Along with the status, the Officer are bound to provide justification for the delay or time taken.	The first officer In charge may assess the complaint to be beyond his/her reach so he/she may forward it to another Officer/Department and it will shift to the other User.
II. CLOSED		
CLOSED	COMPLETED	FINAL CLOSURE

Complaints resolved and closed by the Responsible Officer closes (Till 2010, this was the only system for closing complaints based on the discretion of the officer.)	Complaints resolved, vetted by the Supervisor, and then closed. (In 2010 an additional layer of approval was added before closing the complaint)	After 2015, a third layer was added in response to the Commissioner's Orders. This meant that even after the Officers closed the complaint, and Supervisor approved, it could still be re-opened. It goes directly to the Zonal officer or Supervisory officer. And even after that if the complainant is not satisfied, it goes to the IAS officer. But once the IAS Officer resolves/closes it, the complaint ID cannot be reopened.
III. OTHERS		
REJECTED	REOPENED	WITHDRAWN
Some complaints received are not in the ambit of GCC's mandate. Those are rejected and the complainant is duly informed of the alternative agencies which may be able to address the complaint.	If the citizen is not satisfied with the resolution, he or she can re-open the complaint but only twice. After that if they are still not satisfied, they have to file a fresh complaint.	The option to withdraw a complaint is only available for the Complainant-sometimes the issue is resolved, or the complainant re-consider and withdraw the complaint.

- **Reporting:**

- Each Department prepares status report (monthly and annual) which is then consolidated centrally.
- The report includes type of complaint, sub-type of complaint, location, responsibility, status, time taken to resolve.
- The monsoon months or during disasters, GCC receives high volume of complaints but the system updating is slower due to staff directed towards emergency response
- **The current report shows that on an average GCC receives 15000 complaints per month. The current rate of resolution is more than 95 percent.**

Table 51

Total Redressal for the period of 01/01/2020 to 17-NOV-2020	No.of Complaints received for the period of 01/01/2020 to 20/11/2020	No.of Complaints Completed for the period of 01/01/2020 to 20/11/2020	Total Completed for the period of 01/01/2020 to 17-NOV-2020	Percentage of resolution
112692	112874	112500	111719	99%
No.Of Complaints Pending as on 31-DEC-2019	Pending Complaints as on 20/11/2020	No.of Complaints reopened for the period of 01/01/2020 to 20/11/2020	No.of Complaints received for the period of 18-NOV-2020 to 20/11/2020	No.of Complaints Completed which are received in the period of 18-NOV-2020 to 20/11/2020
1416	1800	10	1608	781

- **Gaps/follow up:**

- The complainant satisfaction is not a precondition to close the complaint- it is the discretion of the Officer/Supervisor
- The data on profile of the complainant to be tracked to see how accessible and inclusive the system is for vulnerable population and areas
- Referrals for GBV complaints as well as similar reporting mechanisms for internal complaints within GCC especially for the contracted and last mile workers to be reviewed.

e. Environmental Assessment of Institutional capacities

• Environmental Management Capacities for Public Health Services

- **Institutional Structure:** The responsibility of BMW management within the GCC Health Care facilities is with the City Medical Officer, who has an Additional City Medical Officer and a Junior City Medical Officer reporting to the position. And, the City Medical Officer reports to the Joint Commissioner (Health), who reports to the Commissioner of the GCC. The City Medical Officer is responsible to ensure adherence to the BMW management and infection control across all of GCC's health care facilities. And, at the level of the health care facility (UPHCs and UCHCs), the implementation responsibility is assigned to particular staff, who reports to the medical officer, who is the Head having the overall responsibility for the respective health care facilities. The particular staff is given an additional responsibility and is from one of the existing positions, i.e. pharmacist, lab technician, ANM, staff nurse-RCH, staff nurse-NCD and multi-purpose hospital worker. All the heads report to the City Medical Officer.
- **Procedures and practices:** The health care facilities – UPHCs and UCHCs – generate solid BMW that have to be stored and kept ready for collection by an authorized agency. As solid BMW management is closely connected with infection control, the practices have to be seen in conjunction. And, in the UCHCs, treatment and disposal of liquid BMW is also required to be undertaken. The assessment of GCC's institutional capacity was examined to determine whether their procedures and practices meet (i) the requirements of the policy and legal framework and (ii) include infection control / management using GCC's own internal standards:
 - On the policy and legal framework, GCC was found to be fully aware of the requirements of the BMW management rules and these are being implemented in both the UPHCs and UCHCs. While these practices are streamlined, discussions revealed that there is scope for improving performance. Constant awareness and training to build implementation capacity is required in order to improve behavioural practices that will lead to better solid BMW management. In UCHCs, the concern is about the liquid BMW as these can be disposed to the underground sewerage network without treatment (disinfection). Discussions with the TNPCB revealed that disinfection practices prior to disposal of liquid BMW is a cause for concern. Further, none of these practices are not explicitly documented as GCC-internal procedures as these are same as the legal requirements of the BMW Rules.
 - In terms of internal standards, GCC has patient safety, visitor safety, health worker safety and health care facility maintenance standards, which are being implemented in the various UPHCs and UCHCs. Here again, like in BMW rules, discussions revealed that there is scope for improving performance through strengthening implementation capacity in the UCHCs and UPHCs. There is no formal documentation of these practices formally in a manual.
 - Based on discussions, it was gathered that there have been no major performance lapses on the part of the UPHCs and UCHCs on environmental issues. Issues of basic hygiene – disposing liquid BMW without treatment (disinfection), inadvertent disposal of BMW with the municipal solid waste, general upkeep / maintenance of the assets, availability of drinking water and cleanliness of toilets, are issues that need to be addressed. The lack of awareness, commitment to effective

implementation, shortage of staff, absence of structured management systems and resources for maintaining assets are possible reasons for these lapses. However, these are periodically addressed and do not result in significant environmental risks.

- **Regulatory Systems:** For the Bank's Program, it is the state-level regulatory institutions that are responsible for the policy and legal framework mentioned earlier. These include the TN State Pollution Control Board (TNPCB), which is responsible for the BMW Rules. The GCC's health care facilities – UPHCs and UCHCs – have to adhere to the provisions pertaining to segregation, storage and handing-over the solid BMW to the authorized agency. Discussions revealed that the practices are well established and there are no non-compliances raised by the TNPCB with regard to complying with the authorization (BMW Rules) and consents (Water Act). These regulatory procedures are clear, streamlined and well established. There are no gaps in the borrower systems that need to be addressed. The periodic visits of the TNPCB officials to the UPHCs and UCHCs also revealed no non-compliance. However, in terms of enforcement, the TNPCB do not have the required manpower to increase periodicity of monitoring required to ensure effectiveness. This is the problem with the Indian regulatory framework in general, and the state regulatory framework as well.

For the Bank's Program, the tightening of GCC's institutional systems can be effectively used to achieve the required standards of environmental performance that is consistent with the Bank's ESSA guidance.

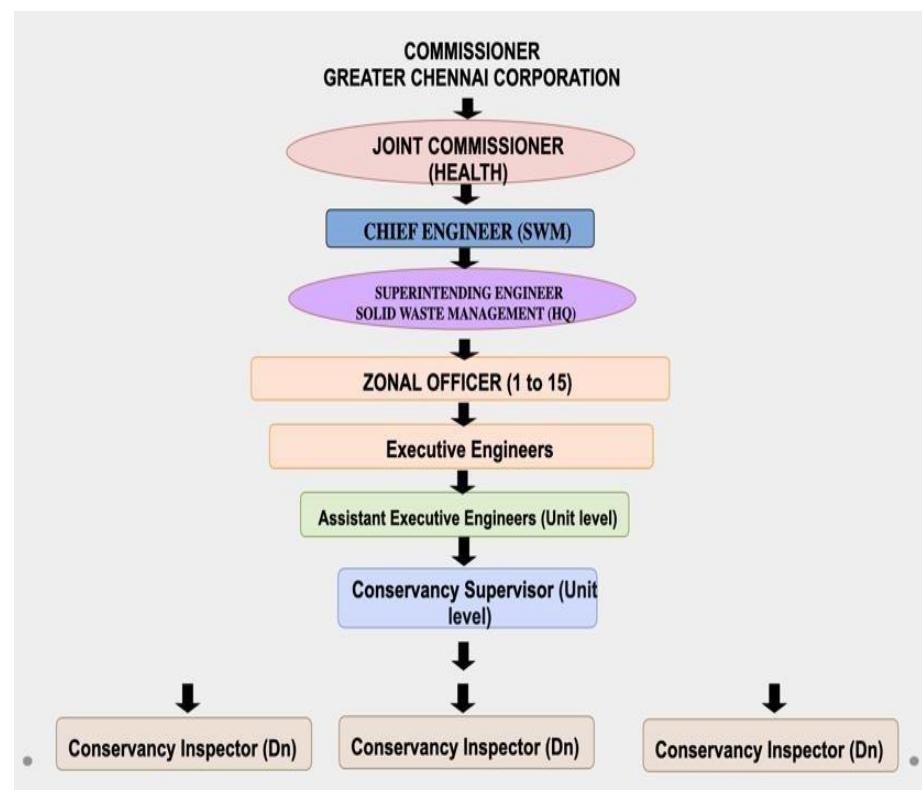


Figure 15

• Environmental Management Capacities for Solid Waste Management

- **Institutional Structure:** GCC mandated to implement the SWM Bye-laws 2019, which is in line with the SWM Rules, 2016. The responsibility within the GCC SWM Department is with the Joint Commissioner (Health), who is supported with a full-fledged team as indicated in the following figure. At the level of the zones, there are a team of executive engineers, assistant executive engineers and conservancy staff, who manage the day-to-day responsibilities.
- Recognizing that the staff capacity to manage all the activities of SWM is constrained, GCC has moved to a Public Private Partnership / concessionaire model for collection and transportation of the city's solid waste. As part of the initiatives, GCC plans to outsource the collection and transportation of solid waste

for 8 zones under two different packages each under a separate concessionaire (Package-1 in the North Zone consists of Zones 1, 2, 3 and 7 while Package-2 in the South Zone consists of Zones 11, 12, 14 and 15). Presently, there is one concessionaire already in place and the second concessionaire is in the process of being procured. There will also be an independent engineer to oversee the concessionaire and support GCC in ensuring the effective SWM management in the city. For the remaining zones that are not covered under Package-1 and Package-2, the GCC's own staff will continue to manage all aspects of SWM. That is the present plan.

- **Procedures and practices:** GCC has full responsibility for implementing the SWM 2016 Rules in the city. To streamline procedures and practices, GCC has established the SWM Bye-laws 2019. This is under the Municipal Corporation Act of 1919 and Rule 15 of the SWM 2016 Rules. These Bye-laws outline procedures and practices that will be followed by the GCC. As these bye-laws are relatively new, the provisions are progressively being implemented by the GCC. The basic procedures and practices to collect, transport, treat and dispose the solid waste are in place. Given that GCC is responsible for an increasing population and an expanding city, the SWM is a challenge which requires constant focus / attention and strengthening of systems. Considering the city's vastness, there are implementation lapses that GCC addresses through its complaint procedures that are also established. Further, there are periodic review meetings and instructions received from the Chief Secretary, GoTN, to adhere to actions required to adhere with the NGT Orders (No. 606/2018 and others) related to SWM. Corrective and preventive action are taken in response to the complaints or instructions on a case-to-case basis. Clearly, there is a need for strengthening the institutional systems and policy framework to address the challenge of city's SWM. This is the rationale for the Bank's Program. It is also recognized that significant further strengthening is required in order to make the city's SWM more effective.
- Resource recycling intervention proposed under the Bank's Program is new to GCC. It is an extension of the GCC's Material Recovery Facilities (MRFs)/ Resource Recovery Centres (RRCs), that are currently operational. These facilities are presently only collecting, baling, storing and sending them to existing authorized recycling facilities. There is no recovery presently being done in these facilities. There are no procedures and practices in place for promoting resource interventions as yet. When introduced, the particular resource recycling initiatives should be reviewed on a case-by-case basis and proper environmental systems have to be established in order to avoid or minimize negative impacts. Similarly, a safety protocol – particularly for resource recycling interventions – should be developed, adopted and implemented. This will have to be done across all the MRFs / RRCs where such upstream resource recovery interventions are being introduced. There is a capacity gap which will have to be addressed during Program implementation.

2.4.7 Assessment against Core principles

Table 52

Social Assessment	Environmental Assessment
Core Principle #1: E & S management systems Social Management systems need to be strengthened: This includes consolidation of available processes and procedures; operational guidelines, specialised staff, systematize role of NGOs, strengthen overall capacities and reporting on social inclusion, gender mainstreaming, citizen engagement. GRM on SWM is	<u>Public Health:</u> For the Bank's Program, on the policy and legal framework, it is GoTN's regulatory systems being implemented by TNPCB that are applicable. These systems are consistent with Bank principles and are functioning well. The procedural requirements are well-streamlined but there are gaps in enforcement of these regulations. These are systemic issues in regulatory governance, which are beyond the purview of this Program. But the gaps in enforcement can be addressed before and during implementation by tightening GCC's internal institutional systems. On GCC's internal institutional systems, these are consistent with the Bank principles and are functioning well from a procedural point of view. In terms of performance, discussions revealed that the solid BMW management is properly streamlined,

<p>robust and effective while on Health and internal GCC is yet to be assessed.</p>	<p>whereas the bio-medical liquid waste management is a possible concern as disinfection practices are not always adhered prior to disposal to the underground sewerage system. Documented procedures for BMW management and infection control within the UPHCs and UCHCs should ensure no risks emerge.</p> <p><u>SWM:</u> The Bank's Program will be supporting the implementation of the policy and framework, SWM Rules 2016, relevant to the city. As required by these Rules, GCC is required to bring out the SWM bye-laws, which were released in June 2018. Driven by a regulatory requirement, these bye-laws form the institutional standard that GCC adopts for SWM in Chennai. While the basic systems are in place, there are implementation and enforcement issues that have to be addressed. Discussions revealed that the SWM is streamlined at the basic level but requires to be constantly enhanced and expanded. The Bank's Program will (a) strengthen the management systems, (b) avoid, minimize, or mitigate adverse impacts; and (c) promote informed decision-making. Further, as per the SWM Rules 2016, GCC is required to furnish information to the TNPCB on a half-yearly basis. And, due to the requirement of various NGT Orders, GCC takes corrective and preventive action as advised by the GoTN or its agencies such as the TNPCB. Undertaking preliminary environmental reviews for the new interventions are required to ensure proper management measures.</p>
Core Principle #2: Natural habitat and cultural resources	
NA	<p><u>Public Health:</u> In the Bank's Program, all the UPHCs and UCHCs are not in geographic locations that have any bearing on natural habitats and physical cultural resources. There will be no conversion or degradation of critical natural habitats. There are no investments under this Program and the functioning of GCC's health care facilities will not lead to any impacts on either natural habitats or cultural resources. The core principle is not applicable to this sector.</p> <p><u>SWM:</u> In the Bank's Program, the strengthening of institutional capacities and policy frameworks will pertain to geographic locations that have no bearing on natural habitats and physical cultural resources. No conversion or degradation of critical natural habitats due to the city's SWM is envisaged. In fact, the avoidance of conversion of wetlands for dump yards and ensuring no impacts on the physical cultural resources are the norm / practice in the functioning of the GCC. Given the focus on protecting the wetlands and the drains, GCC is tightly regulating illegal dumping of solid waste in these water bodies. This has been necessitated and vigilance strengthened after the 2015 flood experience in the city. This was also confirmed during the stakeholder consultations. These will be core / intrinsic to the Bank's Program as well.</p>
Core Principle #3: Public and worker safety	
<p>Employment safety, public and worker safety within GCC is regulated under the state laws. However, systems for tracking and reporting are yet to be assessed. The external firms engaged are bound by Key Performance Indicators which are tracked for financial clearances. These include social indicators and are monitored by independent monitoring firms. But the effectiveness and exhaustiveness of KPIs to cover social risks yet to be assessed.</p>	<p><u>Public Health:</u> Public (patient and visitor) and worker (health care worker) safety are an integral part. The prevailing BMW management and infection control practices adopted in the health care facilities address these issues. While the basic systems are in place, discussions have revealed that their performance can be strengthened. This will result in enhanced public and worker safety. The nature of activities under the Bank's Program is such that there is no exposure to toxic chemicals, hazardous wastes and dangerous materials given that the health care facilities provide services that are basic. Adherence to usual medical practices will suffice. The infrastructure is located in populated areas that are not uniquely prone to natural hazards. No particular impacts due to extreme events are envisaged.</p> <p><u>SWM:</u> There are minor public and worker safety concerns only in the upstream resource recovery interventions as the others are in the institutional capacity and policy domains. There will be no safety concerns in waste minimization as the approach will be to avoid. In relation to managing the household collection and</p>

	storage of non-biodegradable waste, GCC has already basic management systems in place. However, GCC has yet to embark on promoting resource recovery interventions, which may use chemicals and generate waste that must be properly managed. These may entail decentralized safety precautions at the unit level. A protocol needs to be developed and adopted to ensure that this core principle is adhered. There will be no specific concern in relation to being prone to natural hazards.
Core Principle #4: Land acquisition	
Under the current vertical no Land acquisition is expected	NA
Core Principle #5: Indigenous peoples and vulnerable groups including women	
Disaggregated information not available for concrete analysis. It is recommended to develop and adopt agency procedures and responsibility for managing risks associated with land acquisition and involuntary resettlement. Negative impact on SHG workers who are not absorbed once SWM services are outsourced needs to be undertaken.	NA
Core Principle #6: Social conflict, especially in fragile states, post-conflict areas, or areas subject to territorial disputes	
NA	NA

2.4.8 Recommendations

a. Gaps and recommendations for Social Management

- Despite being well equipped with IT based monitoring systems, GCC does not track performance on social management so to strengthen capacity on Social management, the first task is to hire experts like Social Development Specialist, Communication and mobilizations Specialist, Gender and Livelihood Specialist. Then develop a training calendar and ensure timely training, orientation and review. And finally, develop a Robust M&E system to track performance on Social management
- **Institutionalize Citizen Engagement to input monitoring and service benchmarks:** One of the pillars for this program is establishing the vision, governance, and institutions necessary for citizen-responsive service delivery. GCC has a robust grievance redressal system but the protocol does not include complainant's satisfaction as a precondition for closure. This can be reviewed, and complainant's satisfaction can be added as a precondition to close the complaint. In addition, GCC needs to strengthen its overall citizen engagement portfolio- have experts on board (staff, specialists, NGOs); design a strong communication campaign, strengthen ward committees, develop capacities of ward councilors, engage with citizen leaders and social influencers to ensure citizens are informed and on-board, conduct annual citizen surveys, and track citizen interface.
- **Labor Management especially with presence of contracted staff and wage workers:** All agencies have a mix of permanent and temporary staff- some hired and managed directly while some through contracted agencies. Improvement in services for transport, health, solid waste etc foresee recruitment while some activities have implications on construction workers' welfare and safety. The systems for management of rights, welfare and grievances of all category of staff and labor need to be reviewed. Therefore, it is imperative to ensure that acceptable standards and conditions of work for all employees, including temporary/ contract workers are in place. While basic labor law requirements are embedded in the

contracting structure for hiring staff, contractors and workers, there are no systems in place to monitor their compliances. In addition, the sanitation workers who are members of SHGs risk losing their jobs when GCC outsources. GCC is maintaining the percentage of daily wage (SHG member) sanitation workers not getting absorbed/hired by private agencies and it is recommended that an assessment of the impact is undertaken in 2021.

- **Addressing gender through improved safety and security for women within institutions and public spaces and labor force participation**
 - While sectors like health and SWM employ larger proportion of women, it is important to understand the nature of contracts and terms of employment. It often reinforces stereotypes relegating women to roles and positions that are lower in hierarchy and often unskilled or low paying skills. The program can review the working conditions, systems of recognitions and levels of remuneration for women workers at all levels. This should include the SWM daily wage workers (SHG members) especially in the light of outsourcing when many of them are not likely to be absorbed by the contracted Agencies
 - In addition, it can create new opportunities in arenas where women get limited opportunities (drivers, managers etc)
 - An independent review of ICC and other staff support mechanisms within GCC and the contracted firms to map its accessibility, effectiveness, and role on achieving long-term results on women safety, security and opportunities.
- **It is also recommended to exclude certain activities which exacerbate social risks and outside the ambit of PforR. Annex provides a checklist for excluding high risk activities.**

b. Actions to improve social management:

- PIUs to hire experts Social Development and management to address social risks and maximize opportunities arising from sector specific investments under the Program. This includes Social management Specialist, Gender and Labor Management, Communication and citizen engagement. Their role would also include monitoring, developing of workplans, SoPs and training calendars, and integrating social indicators in the MIS.
- **Prepare a capacity development plan and allocate budgets** to carry out training needs assessment, develop training plan and calendar, prepare modules, and deliver trainings on citizen engagement, gender mainstreaming, social inclusion, labor compliance and land management for staff and key stakeholders. Develop inhouse expertise and mobilise external resources to organise on-line and face to face capacity development activities like training workshops, webinars, e-learning, exposure visits, follow up support through peer learning and guided mentoring.
- **Tracking and reporting of social outputs and outcomes:** The SMC will develop systems for tracking, reporting, and reviewing social management action, processes, and results. This will enable preparation of evidence-based reports to support informed decision making and enhance positive outcomes as well as mitigate risks.

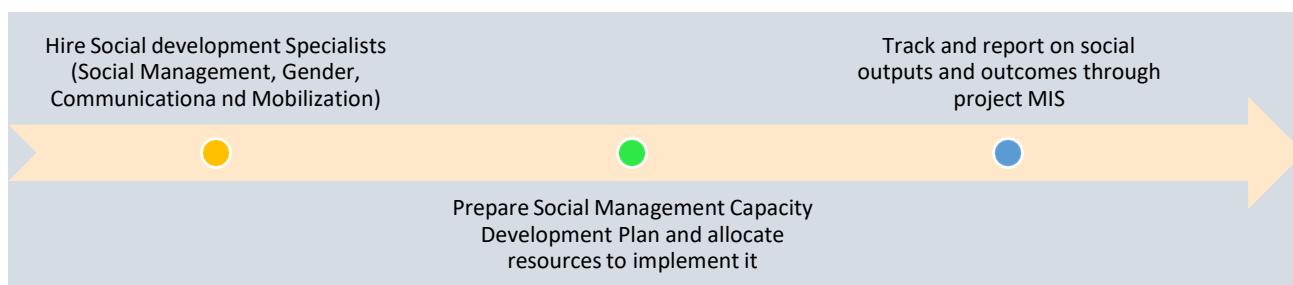


Figure 16

- The PAP matrix elaborates the specific recommended actions for each of the agencies, the indicators against

which the actions will be tracked and timelines. Citizen engagement (and GRM) and Gender (and GBV) are corporate requirements and to ensure overall social management these requirements must be complimented. The Program Guidelines will provide the specific processes, activities, reporting lines, verification, and timelines for each.

c. Social Indicators to be tracked through the project

Table 53

Results Indicators under Chennai Partnership	Indicators for GCC (Health and SWM)
GCC tracks improvement in Service Delivery performance	<i>Disaggregated data by sex and vulnerable groups- women headed household, schedule caste, tribe, below poverty line, disabled persons, religious minority</i>
Citizen Feedback for improved accountability for service delivery institutions	<ul style="list-style-type: none"> <i>Data collected through surveys; protocols established for disseminating findings</i> <i>Annual/mid-term & end term User Satisfaction Survey Report (SWM) disclosed</i>
At least 30 percent women employed.	<ul style="list-style-type: none"> <i>% of women staff hired as part of vacancy reduction in Group A & B cadres</i> <i>% of increase of women employment</i>
Strengthen system for monitoring and reporting on labor laws	<ul style="list-style-type: none"> <i>Adoption of labor law compliance monitoring tools</i> <i>Provide annual report of Internal Complaints Committee</i>
Accessible and effective grievance management for citizens	<i>Redress 80% of Grievances within 30 days of registration and close them after complainant's satisfaction</i>

e. Environmental PAP

- Public Health Services:** The following table includes the list of activities to be undertaken by GCC's Public Health Department towards environmental systems strengthening:

Table 55

No.	Description	Timeline	Indicator for completion
E1	Develop and establish the use of documented procedures for UPHCs and UCHCs on BMW management and infection control	End of Year 1	Documented procedures developed and their use streamlined

- Solid Waste Management:** The Bank's Program is aimed at improving strengthening of policy, institutional and management systems for SWM and this is integral part of environmental systems strengthening. There is no separate list of activities to be undertaken under the ESSA's Program Action Plan. However, the proposed activities on promoting resource recycling is new to GCC, there are a couple of capacity building initiatives that needs to be done to ensure consistency with the core principles. Further, as stakeholder consultations are integral to the institutional development initiatives, it is important to strengthen and streamline the systems in this regard.

Table 56

No.	Description	Timeline	Indicator for completion
E1	Conduct a preliminary environmental review / assessment for the dry waste resource recycling interventions at the time of design / planning, and proper management measures (incl. safety protocol) should be included as part of the construction and implementation phase.	End of Year 1	Review report and integration of environmental considerations in the feasibility reports and plans

f. ESSA Inputs to the Implementation Support Plan for Environment

- **Public Health Services:** On environmental aspects, building capacity within the staff of the UPHCs and UCHCs will be focus. Therefore, the Bank's implementation support should focus on the third-party performance audits and their follow-up to close the gaps that are identified as audit findings.
- **Solid Waste Management:** As the Bank's Program focuses on strengthening of policy, institutional and management systems for SWM, there is no separate implementation support that will be required. As waste minimization / resource recycling initiatives are relatively new to GCC, the Bank's implementation support should focus on this sub-component to facilitate the streamlining of these activities in terms of technical assistance and advisory services.

2.4.9 Stakeholder Engagement

a. Stakeholder Mapping: Stakeholders were identified keeping in mind service providers, service users and institutional systems be assessed in terms of effectiveness in outreach, inclusion, worker, and consumer satisfaction. Interaction with the identified stakeholders was expected to help understand existing systems of management especially information dissemination, service benchmarking, HR management, GRM (internal and external), contracting, sub-contracting and its management. The list of identified stakeholders is: 1. Greater Chennai Corporation (GCC): Administrative Staff (Responsible for HR management; Responsible for KPI management; Responsible for GRM) and Elected representatives 2. Contracted Firms/Agencies: Human Resources, Health Services, SWM Services 3. Health Workers: Permanent Staff, Temporary contracted, Informal 4. SWM workers: Permanent Staff, Temporary contracted, Informal 5. Working groups or committees created under the health and SWM sub-sectors: President, Women member, Representative from vulnerable communities 6. Citizens/users of public services (different socio-economic, gender, location, cohorts) 7. NGOs, Research organisations and Welfare associations 8. Representatives from State Ministry of Environment

b. Consultations during ESSA: The ESSA was conducted during challenging time of Covid-19 Pandemic which imposed several restrictions due to lockdown and social distancing. Therefore, the consultations were limited to the key stakeholders- client and implementing agency and a few other stakeholders like Contracted Firms and NGOs. In addition, since most interventions were heavy on policy and system strengthening, ESSA has been strategized at a higher order with a focus on institutional assessment. Detailed checklists were shared with all the identified stakeholders and were administer over telephone or WebEx to understand the project risks and gaps as well as institutional strengths and opportunities. See Annex for List of Consultations and KIIs conducted through virtual mediums. The Annex also includes checklists used for the consultations. ESSA team also reviewed or participated in ongoing assessments for other projects as well as client meeting with the WB technical teams to assess the institutional systems and capacities. In order to plug the gaps of limited consultations facilitated from October to December 2020, the ESSA team has proposed a second phase for larger, deeper and face to face interactions including site visits in 2021.

c. Roadmap for Consultations proposed post Lockdown

Table 57

	Stakeholders	Issues to be covered	Method/ Medium	Timelines
1.	Elected Representatives (male, female, reserved, open seat)	<ul style="list-style-type: none"> • Role and functioning of Ward Committees • Interaction with Residential Welfare Associations • Citizen feedback and complaint redressal • Challenges 	KII (face to face)	Mid- 2021
2.	Staff of GCC (permanent, contractual, male, female, reserved and open seat)	<ul style="list-style-type: none"> • Staff grievance • Internal Complaints Committee • Access to opportunities 	Survey (on-line)	May 2021
3.	Independent Agencies	<ul style="list-style-type: none"> • Service Benchmark Monitoring • Media Campaigns for BCC 	KII (face to face)	May 2021
4.	NGOs	<ul style="list-style-type: none"> • Role • Impact and results • Challenges • Suggestions 	Opinion Survey (on-line)	Mid- 2021
5.	Citizens (different socio-economic, gender, location, cohorts)	<ul style="list-style-type: none"> • Access to services • Access to give feedback and register complaint • Service satisfaction • Complaint redressal satisfaction • Fee related • Suggestions 	Ward level meetings (score cards) (face to face)	Mid-2021
6.	SHGs (NULM) – daily wage (sanitation/conservancy) workers	<ul style="list-style-type: none"> • Role • Recognition • Remuneration • Access to safety and security • Impact on those absorbed by private agencies • Impact on those not absorbed by private agencies 	FGDs (face to face)	Mid-2021
7.	Unorganised Workers	<ul style="list-style-type: none"> • Role • Recognition • Remuneration • Access to safety and security 	FGDs (face to face)	Mid-2021

3. SECTION THREE: Annexures

3.1 Legislations and Policies relevant for Social Management

I. Land management			
S. No	National and State Laws for Social management	Overview of key provisions	Applicability to PforR
1.	Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement Act 2013	<p>Emphasizes social assessment and resettlement planning even prior to issuance of the preliminary notification and proposes to provide arrangement of R&R benefits along with the compensation package. Some of the highlights are as follows:</p> <ul style="list-style-type: none"> Offers compensations upto 4 times the market value in rural areas and 2 times the market value in urban areas. No displacement or dispossession until full payment of compensation and RR benefits are made and alternative sites for the resettlement and rehabilitation have been prepared. Bill requires the consent of no less than 70 percent and 80 percent respectively (in both cases) of those whose land is sought to be acquired in case of PPP or private projects. To safeguard food security and to prevent arbitrary acquisition, the Bill directs States to impose limits on the area under agricultural cultivation that can be acquired. In case land remains unutilized after acquisition, the new Bill empowers states to return the land either to the owner or to the State Land Bank. No income tax shall be levied, and no stamp duty shall be charged on any amount that accrues to an individual as a result of the provisions of the new law. Specifies some additional provisions for SC and STs. 	Applicable if land is acquired for project facilities and/or if someone is displaced and/or livelihoods are affected.
2.	Tamil Nadu Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement Rules, 2017 ¹⁰²	<p>This Act deals with unauthorized occupation of Government land in Tamil Nadu and provides for liability of those unauthorizedly occupying land and manner of eviction.</p>	When the Act 2013 is applicable, the TN 2017 Rules are to follow.
3.	Tamil Nadu Land Encroachment Act, 1905	<p>This Act requires that no street vendor shall be evicted or relocated till a survey is conducted and a Certificate of vending is issued by Town Vending Committee formed under Section 22 of the Act. According to Section 18 of the Act, the local authority may, on the recommendations of the Town Vending Committee, declare a zone or part of it to be a no-vending zone for any public purpose and relocate the street vendors vending in that area. No street vendor shall be relocated or evicted by the local authority from the place specified in the certificate of vending unless he has been given thirty days' notice. However, every street vendor, who possesses a certificate of vending, shall, in</p>	Some of the activities under the urban mobility component involve works on government land, where there is a possibility of encroachment.
	The Street Vendors (Protection of Livelihood and Regulation of Street Vending) Act, 2014		When vendors are affected during project operations this act will be applicable.

¹⁰²Land Acquisition (Tamil Nadu Amendment) Act, 1953; Land Acquisition (Tamil Nadu Amendment) Act, 1961; Land Acquisition (Tamil Nadu Amendment) Act, 1980; Land Acquisition (Tamil Nadu Amendment) Act, 1996; Land Acquisition (Tamil Nadu Amendment) Act, 1999

		case of his relocation under section 18, be entitled for new site or area, as the case may be, for carrying out his vending activities as may be determined by the local authority, in consultation with the Town Vending Committee.	
--	--	--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	--

There are some additional laws like Land Improvement Loans (Tamil Nadu Amendment) Act, 1964; the Tamil Nadu Acquisition of Land for Industrial Purposes Act, 1997; the Tamil Nadu Acquisition of Land for Harijan Welfare Schemes Act, 1978 which are not applicable to the PforR.

II. Citizen Engagement			
S.No	National and State Laws for Social management	Overview of key provisions	Applicability to PforR
1.	Chennai City Municipal Corporation Act, 1919 ¹⁰³	Constitution and Government of the Corporation, Municipal Authorities, Council, formation and role of Councillors, Mayor, Ward Committees, Steering Committees, electoral rules and procedures, Contracting, Finance, Taxation, Budgets	Includes opportunities for citizens to participate, procedures for Public Health, Safety and Convenience (Scavenging, Street cleaning, disease prevention etc.)
2.	74 th Constitutional Amendment Act, 1993	Entrusted the Urban Local Bodies (ULBs) to prepare plans for economic development and social justice and their implementation under relevant schedules (Article 243 G and 243 W of the Constitution of India). Every ULB in India is having its own legislation for governance, planning development and assessment and taxation. The ULBs are committed to updating and modernizing their Municipal Acts and the rules framed under the Acts to best serve the citizens.	After adopting the 74th CAA in 1994, Tamil Nadu reclassified transitional village areas as ULBs and brought them under the jurisdiction of the municipal administration department; and streamlined income and population-based criteria for classifying ULBs. Elections to local bodies were held under an independent State Election Commission in the year 1996.
3.	Tamil Nadu District Municipalities (Amendment) Act, 1993	Setting up Appointments Committee for selecting candidates for government posts to follow the rule of reservation prescribed in the Service Rules in force	The vacant positions that will be created and filled under the project will be as per government rules and hence existing affirmative actions under the said regulation will apply.
4.	The Chennai City Municipal Corporation Appointments Committee (Method of Selection) Rules, 1998	Provides a practical regime of right to information for citizens to secure access to information under the control of Public Authorities.	All project activities and agencies have appointed Public Information Officers and Citizens Charter.
5.	Right to Information Act, 2005	contains statutory laws and provisions to ensure time-bound delivery of public services to citizens of India. It also defines the statutory mechanism to punish delinquent public officers if they fail to deliver the requested service within a stipulated time	Tamil Nadu has not passed the RTS Act
6.	Right to Service Act 2010		

¹⁰³ Schedule XI includes 18 Powers, authority and responsibilities of the municipal corporation, standing committees: (1) Planning for economic and social development. (2) Roads and bridges. (3) Water supply for domestic, industrial and commercial purposes. (4) Public health, sanitation, conservancy and solid waste management. (5) Urban forestry, protection of the environment and promotion of ecological aspects. (6) Safeguarding the interests of weaker section of society, including the handicapped and mentally retarded. (7) Slum improvement and upgradation. (8) Urban poverty alleviation. (9) Provision of urban amenities and facilities such as parks, gardens, playgrounds. (10) Promotion of cultural, educational and aesthetic aspects. (11) Burials and burial grounds; cremations, cremation grounds and electric crematoriums. (12) Cattle pouds; prevention of cruelty to animals. (13) Vital statistics including registration of births and deaths. (14) Public amenities including street lighting, parking lots, bus stops and public conveniences. (15) Regulation of slaughter houses and tanneries (16) Urban planning including town planning. (17) Regulation of land use and construction of buildings. [(18) Fire Services.]

III. Social Inclusion			
S. No	National and State Laws for Social management	Overview of key provisions	Applicability to PforR
1.	The Constitution of India (Articles 15,16 and 46, 275, 330, 332, 335 340 and 342)	The Indian Constitution prohibits any discrimination based on religion, race, caste, sex, and place of birth, refers to the equality of opportunity in matters of public employment, directs the state to promote with special care the educational and economic interests of the weaker sections of the people, particularly of the Scheduled Castes and the Scheduled Tribes and also directs the state to protect them from social injustice and all forms of exploitation.	Relevant to the overall Program to ensure no discrimination and exploitation and safeguarding the vulnerable
2.	The Scheduled Castes and the Scheduled Tribes (Prevention of Atrocities) Act, 1989, and Rules, 1995	Safeguards Scheduled Castes and Scheduled Tribes against wrongful occupation or cultivation of any land or premises or residence or enjoyment of rights and services accessed/owned/allotted/notified for them	Relevant to the overall Program to ensure that SC and ST are not harmed or negatively impacted.
3.	The Tamil Nadu Backward Classes, Scheduled Castes and Scheduled Tribes (Reservation of Seats in Educational Institutions and of Appointments or Posts in the Services under the State) Act, 1993	Following percentage of reservation in Government, Legislature of the State, Local authority, Corporation or company owned or controlled by the Government: Backward Classes ¹⁰⁴ : 30%; Most Backward Classes and Denotified Communities: 20%; Scheduled Castes: 18%; Scheduled Tribes: 1%	The vacant positions that will be created and filled under the project will be as per government rules and hence existing affirmative actions under the said regulation will apply.
4.	Tamil Nadu <i>Arunthathiyars</i> Act, 2009	16% sixteen per cent of the appointments or posts reserved for the Scheduled Castes shall be offered to <i>Arunthathiyars</i> , if available, in appointments or posts in the services under the State.	The vacant positions that will be created and filled under the project will be as per government rules and hence existing affirmative actions under the said regulation will apply.
5.	The Prohibition of Employment as Manual Scavengers and their Rehabilitation Act, 2013	This Act deals with prohibition of employment as manual scavengers and rehabilitation of manual scavengers and their families. This act protects the weaker sections, and, particularly, the Scheduled Castes and the Scheduled Tribes from social injustice and all forms of exploitation; and from the dehumanising practice of manual scavenging and a highly iniquitous caste system	Applicable during the operation and maintenance of sewerage systems.
6.	The Tamil Nadu Backward Class Muslims (Reservation of Seats in Educational Institutions including Private Educational Institutions and of Appointments or Posts in the Services under the State) Act, 2007	Reservation three and one-half per cent of the appointments or posts within the thirty per cent reservation for Backward Classes as provided in the 1994 Act	The vacant positions that will be created and filled under the project will be as per government rules and hence existing affirmative actions under the said regulation will apply.
6.	Others	Tamil Nadu Rights of Persons with Disabilities Rules, 2018 Tamil Nadu State Minorities Commission Act, 2010	To ensure that the project safeguards and does no harm to the disabled and minorities

¹⁰⁴ This covers 143 Backwards Classes, 41 Most Backward Classes, 68 Denotified Communities

IV. Gender ¹⁰⁵			
S. No	National and State Laws for Social management	Overview of key provisions	Applicability to PforR
1.	The Sexual Harassment of Women at Workplace (Prevention, Prohibition and Redressal) Act, 2013	An act that aims at providing a sense of security at the workplace that improves women's participation in work and results in their economic empowerment. It requires an employer to set up an "Internal Complaints Committee" (ICC) and the Government to set up a 'Local Complaints Committee' (LCC) at the district level to investigate complaints regarding sexual harassment at workplace and for inquiring into the complaint in a time bound manner. The ICC need to set up by every organisation and its branches with more than 10 employees.	Relevant and applicable to all government institutions and management agencies/firms under the program.
2.	Gender Sensitisation & Sexual Harassment of Women at The Madras High Court - Principal Seat at Chennai and Madurai Bench at Madurai - (Prevention, Prohibition and Redressal) Regulations, 2013		
3.	Tamil Nadu Prohibition of Harassment of Woman Act, 1998	The Act provides duty of crew in public service vehicles to report where any eve-teasing is committed in a public service vehicle.	Relevant and applicable to institutions/firms such as MTC, private bus operators working specifically on bus service delivery.
4.	Tamil Nadu State Commission for Women Act, 2008	The Act sets up the Tamil Nadu State Commission of Women and lays down functions of the Commission which includes investigation and examination of all matters related to women safety and compliances of policies/laws pertaining to women welfare.	Women safety and inclusion is an important component of the program. The program also envisages setting up of a Gender Lab, functioning with the support of non-state and state actors including TNSCW.
5.	National Policy for the Empowerment of Women 2001	Adopted in 2001, Policy states that all forms of violence against women, physical and mental, whether at domestic or societal levels, including those arising from customs, traditions or accepted practices shall be dealt with effectively with a view to eliminate its incidence	Institutions and mechanisms/schemes for assistance will be created and strengthened for prevention of such violence, including sexual harassment at work-place and customs like dowry; for the rehabilitation of the victims of violence and for taking effective action against the perpetrators of such violence
6.	Draft National Policy for Women in 2016	Policy to further the mission of equal rights and opportunities for women in family, community, workplace, and governance	
7.	Maternity Benefit Act, 1961	To regulate employers to provide paid maternity leave and offer on-site day care services	Relevant and applicable to all government institutions and management agencies/firms under the program.

¹⁰⁵ India has signed and ratified Convention on Elimination of Discrimination against Women (CEDAW). Since then, the National policy for Women and other policies and amendments on acts has been reflecting the principles highlighted in the related international conventions (<http://treaties.un.org/>).

The Dowry Prohibition Act, 1961; The Immoral Traffic (Prevention) Act in 1956; The Protection of Women from Domestic Violence Act, 2005; The Protection of Children from Sexual Offences Act, 2012; Indecent Representation of Women (Prohibition) Act-1986, Commission of Sati (Prevention) Act-1987 are some other Gender Specific Laws in India.

V. Labour Rights and Welfare ¹⁰⁶			
S. No	National and State Laws for Social management	Overview of key provisions	Applicability to PforR
1.	<p>Building and other Construction Workers (Regulation of Employment and Conditions of Service) Act 1996 Building and Other Construction Workers' Welfare Cess Act, 1996</p> <p>Tamil Nadu Building and Other Construction Workers (Regulation of Employment and Conditions of Service) Rules 2006</p>	<p>To regulate the employment and conditions of service of building and other construction workers and to provide for their safety, health, and welfare measure and for other matter connected therewith or incidental.</p> <p>To constitute Welfare Boards in every State to provide and monitor social security schemes and welfare measures for the benefit of building and other construction workers</p>	Relevant and applicable to some activities under the program such as Mega Street Program and Bus Service Delivery (development of BPL) which entail investments in physical infrastructure.
2.	<p>Child Labor (Prohibition and Regulation) Act, 1986</p> <p>Tamil Nadu Child Labour (Prohibition and Regulation) Rules, 1994</p>	To protect the interest of children below the age of 14 so they are not employed in certain occupations. And to regulate the conditions of work of children in certain other employments.	Relevant and applicable to all government institutions and management agencies/firms in order to prohibit exploitation of children, particularly in the transport sector.
3.	<p>Contract labor (Regulation and Abolition) Act, 1970</p> <p>Tamil Nadu Contract Labor (Regulation and Abolition) Rules, 1970</p>	<p>To regulate the employment of contract labor in certain establishments and to provide for its abolition in certain circumstances.</p> <p><i>[The Government has fixed the time-limit for grant of registration certificate within 30 days and reduced the limit for issue of license from 60 days to 30 days under Contract Labour (Regulation and Abolition) Act, 1970, vide its order dated 02.11.2016.]</i></p>	Relevant and applicable to all government institutions and management agencies/firms under the program.
4.	<p>Equal Remuneration Act, 1976</p> <p>Equal Remuneration Rules, 1976</p>	To provide for the payment of equal remuneration to men and women workers and for the prevention of discrimination, on the ground of sex, against women in the matter of employment.	Relevant and applicable to all government institutions and management agencies/firms under the program.
5.	<p>Payment of Wages Act, 1936 and Payment of Wages (Tamil Nadu Amendment) Act, 1957</p> <p>Tamil Nadu Payment of Wages Rules, 1937</p>	Ensures payment of regular wages to certain classes of workers.	Relevant and applicable to all government institutions and management agencies/firms under the program.

¹⁰⁶ India has ratified the following ILO conventions to safeguard labor rights and welfare. These are the Forced Labor Convention, 1930 (No. 29), Abolition of Forced Labor Convention, 1957 (No. 105), Equal Remuneration Convention, 1951 (No. 100), Discrimination (Employment and Occupation) Convention, 1958 (No. 111), Minimum Age Convention, 1973 (No. 138) and Worst Forms of Child Labor Convention, 1999 (No. 182).

6.	The Minimum Wages Act, 1948	Lays down the minimum wages that must be paid to skilled and unskilled labors	Relevant and applicable to all government institutions and management agencies/firms under the program.
	Tamil Nadu Minimum Wages Rules, 1953		
7.	Workmen's Compensation Act, 1923	To compensate the spouse or the dependent son or daughter of a workman if he or she suffers any injury at workplace.	Relevant and applicable to all government institutions and management agencies/firms under the program.
	Tamil Nadu Workmen's Compensation Rules, 1924		
8.	Maternity Benefit Act, 1961	To regulate employers to provide paid maternity leave and offer on-site day care services	Relevant and applicable to all government institutions and management agencies/firms under the program.
	Tamil Nadu Maternity Benefit Rules, 1967		
9.	Payment of Bonus Act, 1965	To regulate employers to provide bonus	Relevant and applicable to all government institutions and management agencies/firms under the program.
	Payment of Bonus Rules, 1975		
10.	Payment of Gratuity Act, 1972	To regulate employers to provide gratuity	Relevant and applicable to all government institutions and management agencies/firms under the program.
	Tamil Nadu Payment of Gratuity Rules, 1973		
11.	Personal Injuries (Compensation Insurance) Act, 1963	Makes employers liable to pay compensation to workers sustaining personal injuries and to provide insurance for employers against such liability	Relevant and applicable to all government institutions and management agencies/firms under the program.
12.	Industrial Disputes Act 1947 [including the Industrial Disputes Tamil Nadu (Amendment) Act, 1963 and Industrial Disputes (Tamil Nadu Amendment) Act, 1982]	To settle industrial disputes	The Act mandates setting up of grievance redressal authorities in establishments such as GCC, MTC and Transport Department for settling of any disputes.
	Tamil Nadu Industrial Tribunal Rules, 1958		
13.	Motor Transport Workers Act, 1961 2008 Amendments in the Motor Transport Workers Act	To regulate motor transport workers as a Whole- their conditions of employment work and wages.	Applicable to every motor transport undertaking such as MTC employing motor transport workers.
	Tamil Nadu Motor Transport Workers Rules, 1965 (Amendment to the Rules in 2013)		
14.	Industrial Employment (Standing Orders) Act, 1946	To define the conditions of employment and to make the conditions known to workmen employed by them.	Relevant and applicable to all government institutions under the program.
	Tamil Nadu Industrial Employment (Standing Orders) Rules, 1947		
15.	Inter-State Migrant Workmen (Regulation of Employment and Conditions of Service) Act, 1979	To regulate the work of inter-state migrant workers and providing for their conditions of work- applies to	Relevant and applicable to some activities under the program such as Mega Street Program and Bus Service

	Tamil Nadu Inter-State Migrant Workmen (Regulation of Employment & Conditions of Service) Rules, 1983	establishment and labor contractors who employ five or more inter-state migrant workers	Delivery (development of BPL) which entail investments in physical infrastructure.
16.	Trade Unions Act, 1926	An Act to provide for the registration of Trade Unions and in certain respects to define the law relating to registered Trade Unions <i>[Government has fixed the time-limit of 45 days for registration of Trade Union under the Trade Unions Act, 1926, vide its Order dated 02.05.2017.]</i>	Trade Unions has a strong presence and significant role to play in public sector undertakings such as GCC and MTC.
	Tamil Nadu Trade Unions Regulations, 1927		
17.	The Sexual Harassment of Women at Workplace (Prevention, Prohibition, and Redressal) Act 2013	This law protects workers (particularly women) from sexual harassment. Provides guidelines to form internal committees against sexual harassment.	Relevant and applicable to all government institutions and management agencies/firms under the program.
18.	Bonded Labor System (Abolition) Act, 1976	To regulate forms of forced labor	Relevant and applicable to some activities under the program such as Mega Street Program and Bus Service Delivery (development of BPL) which entail investments in physical infrastructure.
	Specific State Laws and Policies	Explanation	Relevance
19.	The Tamil Nadu Industrial Establishments (National and Festival Holidays) Act, 1958	The Act provides for grant of national and festival holidays to persons employed in industrial establishments.	Relevant and applicable to all government institutions and management agencies/firms under the program.
20.	The Tamil Nadu Payment of Subsistence Allowance Act, 1981	The Act provides for the payment of subsistence allowance during the period of suspension.	Relevant and applicable to all government institutions and management agencies/firms under the program.
21.	Tamil Nadu Labour Welfare Fund Act, 1972	To provide for the constitution of a fund for promoting the welfare of labor and for certain other matters connected herewith in the State.	Relevant and applicable to all government institutions and management agencies/firms under the program.
22.	Tamil Nadu Manual Workers (Regulation of Employment and Conditions of Work) Act, 1982 Tamil Nadu Manual Workers (Regulation of Employment and Conditions of Work) Rules, 1986	It regulates the employment of manual workers employed in certain employments and the conditions of their work and security of their employments.	Relevant and applicable to all government institutions and management agencies/firms under the program.
23.	Tamil Nadu Manual Workers (Construction Workers) Welfare Scheme, 1994		
24.	Tamil Nadu Manual Workers Social / Security and Welfare Scheme, 2006		
25.	Tamil Nadu Street Vending and Shops and Establishments Worker's Welfare Scheme, 2010		

Some of the other national urban policies relevant to the current project include:

- **Jawaharlal Nehru National Urban Renewal Mission (JNNURM)** was a city-modernisation scheme for development in the context of urban conglomerates launched by the Government of India under Ministry of Urban Development in 2005. It was divided into two broad parts namely (i) the Sub Mission on Urban Infrastructure and Governance and (UIG) (ii) the Sub-Mission on Basic Services to the Urban Poor (BSUP) covering initially 63 mission cities. The non-Mission cities and towns were covered under the scheme Urban Infrastructure Development Scheme for Small and Medium

Towns (UIDSSMT) and Integrated Housing and Slum Development Programme (IHSDP). On completion of the program, Tamil Nadu achieved a score of 99.64% in reform completion and ranked second in the country. The State Government implemented all reforms except setting up of district planning committees. Chennai was unable to recover 100% of O&M charges

- **Smart Cities Mission** is an urban renewal and retrofitting program by the Ministry of Housing and Urban Affairs, Government of India launched in 2015 to develop 100 cities all over the country making them citizen friendly and sustainable. Each city has to start a public -sector company with the shareholding of state government, central government, city council and the private sector. This company is responsible of for raising the money from the debt and equity market along with utilising the grant and aid provided by the state and central governments. Chennai Smart City Mission houses 16 Mobility, 10 Energy, 10 Water, 12 Technology and 10 Environment projects. Out of the 111 cities ranked, Chennai stood 14th in the overall ranking (<https://cscl.co.in/liveability-index/where-do-we-stand>)
- **Atal Mission for Rejuvenation and Urban Transformation (AMRUT)** programme was launched in 2015 by the Ministry of Housing and Urban Affairs, Government of India mainly to provide universal coverage of basic services and civic amenities as well as to reduce pollution in cities. It is divided into eight components: water supply, sewerage, septage, storm water drainage, urban transport, green spaces and parks, administrative reforms, and capacity building. The purpose of AMRUT is to address the paucity of urban basic services and capacity gaps in cities and towns which directly impact the quality of life of the residents. Tamil Nadu stood 4th nationally with a score of 94.05%. The shortfall was in the area of achieving at least 90% collection efficiency in municipal taxes and fees.
- **Digital India Mission 2006** is targeted to strengthen e-governance¹⁰⁷, ICT Infrastructure and foster Public Private Partnerships to enhance the delivery of Government services to citizens. By 2019, the state government of Tamil Nadu decided to implement the e-office application developed by NIC with immediate effect for processing all files electronically in all government departments/PSUs/boards/agencies under its control.
- There is provision in rural areas primarily for MGNREGA for setting up '**Social Audit** Society of Tamil Nadu', an independent Organisation to facilitate conduct of Social Audit by Village Panchayat Grama Sabhas was established under Tamil Nadu Societies' Registration Act, 1975 by the order of Government of Tamil Nadu. This can be piloted and upscaled for urban areas.
- **Professionalization of municipal cadre:** In 1970, the Tamil Nadu adopted a series of rules for various municipal services, which provincialized many cadres of municipal staff, bringing them within a statutory framework for recruitments, grades and salaries, and regulating transfers and promotions. These rules included the Tamil Nadu Municipal Town Planning Rules, 1970; the Tamil Nadu Municipal Medical Service Rules, the Tamil Nadu Municipal Engineering Service Rules, 1970; the Tamil Nadu Municipal General Service Rules, 1970; and the Tamil Nadu Municipal Educational Service Rules, 1970. At present, Tamil Nadu has a cadre of municipal officers for key roles such as chief officers of ULBs, engineering, finance, town planning and public health. Senior positions are recruited by the state governments which increases the attractiveness of these job positions to potential applicants. The positions are transferable across the state which ensures good practices are replicated across ULBs. Transfer of staff from small to large towns also provides opportunities for career progression. However, the average vacancy is 18.8% in key positions.

¹⁰⁷ The national level e-governance programme called National e-Governance Plan (NeGP) was initiated in 2006.

3.2 Screening and Exclusion Format for Social Risk Management

Name of Project/ Activity (Description with all components):

Location/ Locations (of all components):

Implementing Agency(ies):

1. Land Requirement

Details (for each survey number)	Unit	Quantity	Classification/ Category/ Details	Present Uses and Users	Claims/ Disputes
Government Land					
Private Land					
Forest Land					
Title Holders					
Non-titleholders (Encroachers)					
Non-titleholders (Squatters)					
People losing livelihoods/ access due to loss of Govt. Lands to Project					

2. Common Property Resources Affected: (Please give each type by number and location)

Type	Unit	Quantity
	Number	

3. Other

Question	Yes	No	Details
Tribal Related			
Are there any tribals in the land where the project facilities are proposed?			Please collect the details of the tribals
Are these tribals consulted during the preparation of Project?			If NO, please give reasons
Are these tribals part of the beneficiaries?			If NO, please give reasons
Labour			

Is labour required for implementing this Project?		If YES, please give a) approximate number of labour and b) duration of their requirement.
Can the labour requirement be met with local labour?		If No, please give details from where the labour will be brought.
Cultural Heritage		
Please give details of the cultural heritage of the project area?		Give full details
Will the proposed activities disturb/ adversely impact the cultural heritage of the project area?		If YES, please give the details.
Please list the vulnerable/ disadvantaged groups in the project area.		Please five full details
Have they been consulted in preparation of the project?		If No, please give reasons as to why they are not consulted.
Will they be part of the beneficiaries under the Project?		If No, please give reasons
Community Health and Safety		
Will the proposed activities affect the community health and safety?		If YES, please give details.

4. Exclusion Screening

S No	Activities listed below will NOT be eligible for support under the proposed project	Confirm if the activity is Eligible/ Ineligible (Give details)
1.	Activities that are not consistent with the Legal/ Regulatory Framework of the country	
2.	Activity that involves acquisition of land resulting in loss of land/ livelihoods/ access	
3.	Activities which require eviction of informal settlers/ users of land.	
4.	Activities which put permanent restrictions on access/ usage of resources.	
5.	Any activity that involves child labour (persons under 14 years of age in any activity and persons above 14 years and under 18 years of age in hazardous activities).	
6.	Activities that would adversely affect places of cultural significance and protected historical/archaeological assets (both natural and human-made).	
7.	Any activity that is not consistent with the project description at time of project negotiations, unless subsequently agreed to with the WB along with the appropriate level of social safeguards management.	
8.	Activities listed under exclusion lists of WB, WHO and other such UN Organisations.	

Screening checklists filled by: Name: _____ Designation: _____ Date: _____	Screening checklists verified by: Name: _____ Designation: _____ Date: _____
--------------------------------------------------------------------------------------------	----------------------------------------------------------------------------------------------

3.3 Details on Stakeholders Consultations

a. Dates of consultations

1. Water Supply and Sanitation				
Date	Medium	Topic	Participants	
15 th Oct 2020	Cisco WebEx	Assessment	SE, PD and Others	
20 th Oct 2020	Telecon	Assessment	Mr. Siddappa Swamy Team Leader, TCE	
20 th Oct 2020	Telecon	Assessment	Mr. Alok Desai Engineer SAI Systra	
21 st Oct 2020 and on several days subsequently	Telecon	Assessment	Mrs. Manimekalai, SE, PD, CMWSSB Mr. Srungaravelan, EE, PD, CMWSSB Engineer, Mr. Ram Kumar, SAI Systra	
Mr. Jaikar Jesudos, Superintending Engineer, CMWSSB, Projects (VI), secon6cmwssb@gmail.com Mr. Alok Desai, SAI Consulting Engineers Pvt. Limited – A SYSTRA Group Company, Preparation consultants for the sewerage network of 5 added areas. Mr. Siddappaswamy, Tata Consulting Engineers, Preparation consultants for the Zone X and XIII water supply network. Mr. Alok, Tata Consulting Engineers, Environmental Specialist, Preparation consultants for the Zone X and XIII water supply network. Mr. Nagesh, Tata Consulting Engineers, Assistant General Manager, Incharge of Zone X and XIII for the Water Supply network. Superintending Engineer (Planning & Design), CMWSSB, sepdcmwssb@gmail.com Deputy Hydrologist, CMWSSB, submani1963@gmail.com Superintending Engineer (Co-ordination), CMWSSB, cmwssbho@gmail.com				
27 Jan 2021	Consultation – UGSS	Sharing ESSA findings	See list of participants in the next section	
04 Feb 2021	Consultation - WS	Sharing ESSA findings	See list of participants in the next section	
2. Water Resources				
Persons consulted for preparation Mr. Jaikar Jesudos, Superintending Engineer, CMWSSB, Projects (VI), secon6cmwssb@gmail.com Mr. Alok Desai, SAI Consulting Engineers Pvt. Limited – A SYSTRA Group Company, Preparation consultants for the sewerage network of 5 added areas. Mr. Siddappaswamy, Tata Consulting Engineers, Preparation consultants for the Zone X and XIII water supply network. Mr. Alok, Tata Consulting Engineers, Environmental Specialist, Preparation consultants for the Zone X and XIII water supply network. Mr. Nagesh, Tata Consulting Engineers, Assistant General Manager, Incharge of Zone X and XIII for the Water Supply network. Superintending Engineer (Planning & Design), CMWSSB, sepdcmwssb@gmail.com Deputy Hydrologist, CMWSSB, submani1963@gmail.com Superintending Engineer (Co-ordination), CMWSSB, cmwssbho@gmail.com				
3. Urban Services (GCC)				
Date	Medium/ Platform	Name	Designation	Organisation

14 th Oct 2020	Cisco WebEx	Mr. Madhusudhan Reddy	Joint Commissioner, Health	Greater Chennai Corporation
		Ms. Vijula	Zonal Officer	
		Mr. Veerappan	Superintendent Engineer	
21 st Oct and 23 rd Nov 2020	Telecon	Ms. Krishna Kumari	EDP, Senior Systems Incharge, GRM	Greater Chennai Corporation
27 th Oct 2020	Cisco WebEx	Dr. Jagadeesan	Chief Health Officer, GCC	Greater Chennai Corporation
		Dr. Hemlatha	Chief Medical Officer, GCC	
<p><i>Summary of discussion: The CHO shared that the unit caters primarily to the slum population and Chenaai is a city with a mix of super rich to extremely poor having a diverse range of Medical care, other programs, schemes, and services. The Health unit offers women-based services, so it recruits women staff. The staff and workers include are permanent staff and contracting services, consultants, specialists-TB control society, NUHM- directly contracted. Mostly lower category of staff are outsourced sanctioned by GCC. All government quotas are followed. The unit follows compliance of relevant labor laws as part of government department- no discrimination, staff benefits, PF etc are all included in contracts. There is a Medical screening of all workers every six months. All networks are used for any pandemic. GRM is always open to all. CMO is the head of ICC- team and committee to investigate which meets every month or as per urgency. For Covid protection PPE kits, masks are being provided to all workers. Adequate safeguards and safety will be taken care of for all the staff when we open in evening. NGOs we have in NUHM and NTP under the PPP model. Many NGOs were taken on board for Covid. Dialasis centres run by NGOs.</i></p>				
7 th Nov 2020	Microsoft Teams	Mr. Mahmood	Chief Executive Officer	Urbaser
		Mr. Mahendra	Chief Finance Officer	Sumeet
9 th Dec 2020	Telecon	Mr. Sundarajan	Manager	Crisil

4. URBAN MOBILITY				
Date	Medium/ Platform	Name	Designation	Organisation
19 th Oct	Cisco Webex	Mr. D P Yadav Mr. Ganesan	Principal Secretary Transport, IAS Managing Director	Transport Department MTC
Key Points discussed:				
<ul style="list-style-type: none"> Users dependency on bus services- affordability and frequency is important for vulnerable groups- resulting in better access and increased mobility. Compliance of regulatory framework- Unlike other states, the Tamil Nadu transport department only looks at operationalization of the buses and not at the regulatory aspect. At present, the Department does not maintain any annual reports on compliances. No impact on employment of current staff. There will only be replacement of old buses which will not have any adverse impact on existing bus drivers and conductors. Incentivization to vulnerable groups- Currently, free bus passes for students from government and private schools and senior citizen are provided which is reimbursed by the Tamil Nadu MTC. GRM- MTC has a complaints cell. They also have a separate mobile no., mail ID and landline for receiving complaints. Information on no. of complaints on a daily basis was shared. 				

- Types of workforce- MTC mostly has direct employees. Some of the technical maintenance and cleaners under MTC are contract workers. MTC provided a breakdown of workers employed (direct, indirect and contractual) to the Bank.
- Gender- MTC and Transport department had organised a focused group discussion before the lockdown where they tried to understand the challenges women are facing in accessing public transport. Both the transport department and MTC have an Internal Complaints Committee in place for Sexual Harassment at the Workplace. WB is supporting in conceptualising the Gender Lab, which has been included as a part of this program. The interventions envisaged in this activity will be carried out based on evaluation. The Gender Lab is getting institutionalised to ensure availability of evidence-based data. The initial funding for establishment of the lab will be from the Nirbhaya Fund and separate allocation for women safety by the TN government. Multi-agency funding will be considered to carry out the activities envisaged for Gender Lab. A Voluntary Advisory Committee (VAC) will be formed which will consist of apex institutions working on gender.

22 nd Oct	Cisco Webex	Siva Subramaniam		ITDP
----------------------	-------------	------------------	--	------

Key Points discussed:

- ITDP is a part of the stakeholders for Chennai Partnership- the thought process came in 2011. A feasibility study for BRT was done by ITDP and consultants were brought in for DPR for BRT. The EBL corridor identified for Chennai Partnership was identified (old Madras road- Mahaballipuram). Eventually the government thought of doing a BPL in terms of financial feasibility.
- In Chennai, the bus ridership is dropping down drastically faster than other cities-the bus is not attractive, aspirations are changing; more disposable income available. Both demand and supply side (bus fleet is declining- population is increasing; more economic activities with commensurate supply increase) to be met. The program will support MTC in overall transformation of buses. This would include:
- Annual budgetary allocation- to move away from this regime- which is why Viability Gap Funding has been proposed. 5-year Business Plan will be developed and every year it will be approved. Augmentation of staff may happen with increase in fleet- They will be taken on a contract basis- since operation of buses will be outsourced. This will include maintenance of buses as well. Universal accessibility and gender aspect will be covered under the Business Plan.
- Labour issues- Contract workers and employees have a strong trade union. Since bus services will be outsourced, labour compliance requirements will be imbedded in the contract agreements.
- ITDP has developed toolkits and supported the MTC in conducting a study on women mobility in public transport.

16 th Oct	Cisco Webex	Raj Cherubal B Venkatesh Babu	CEO, Chennai Smart Cities Limited SE, GCC	GCC, CSCL
----------------------	-------------	----------------------------------	----------------------------------------------	-----------

Key Points discussed:

- Institutional Structure- Government will decide on the institutional arrangements- They have already conceptualised a structure which will be sent to the Bank, once approved by the GCC. From a decision point of view, there will be a nodal group at the secretary level. Smart cities mission is a part of GCC. GCC in effect is the nodal implementing agency.
- Contracting Modalities for Civil Work- The entire mega-street may have multiple packages (by distance or Km) for which one contractor will be brought in and the contractor may hire specialised contractors (sub-contractors) to deal with water and electricity (shifting of utilities). Electricity department will be given supervisory charge. But the actual work will be done by the contractors and his sub-contractors. In parallel there will be a PMC to supervise and monitor work. The client contemplated whether a similar agency to monitor (third-party) the contractors for other pieces- social and environmental management, is needed.
- Stakeholder Engagement- After the plaza project, a critical gap found was the need for a robust communication strategy- RFP with the corporation zones for a communication strategy has been floated and will be shared with the Bank. Some of the documents pertaining to plaza project was sent to Lata and Avaneesh (WB). A structured process for engaging with the community needs to be in place. Inclusive design- Gender and differently

	abled- universal design principles have been considered under the RFP and the inception reports of quick wins may throw more light on this. For street vendors- the Act of 2014 will be complied with. Tamil Nadu is already in the process of implementing the Act including enumeration. Bank will require further details on this.
• Compliance of labour laws- Another area which requires attention was ensuring compliance of labour laws. A typical contract document includes provisions of labour laws that need to be complied with, however systems are not in place to ensure that laws are being implemented on the ground. At present, worksite conditions are being implemented by the contractors, but no specific standards of monitoring are in place. The program will be used to set new standards- example- the concept of PMC (or TSSC) maybe brought in to monitor. Third-party consultant for documenting labour law compliances or use of software tools for real-time monitoring can also be considered.	

22 nd Oct	Cisco Webex	A Krishna Kumar Sumit Mishra	Member Secretary, CUMTA Team Leader, Deloitte	CUMTA, Deloitte, Consultancy Firm for development of Operations Document
----------------------	-------------	---------------------------------	--------------------------------------------------	-----------------------------------------------------------------------------------

Key Points discussed:

- CUMTA Act enacted in 2010 and notification issued in 2019. It is on paper and very limited meetings have been held so far. Need to review the Act and rules and review other existing UMTA in India and globally, to understand how CUMTA can be strengthened. Shared mobility was not envisaged in 2010. So, the Act has to be reviewed in that context. Social and Environmental issues will be considered and incorporated in the CUMTA Act
- The CUMTA will be the coordinating agencies. There are 8-9 institutions working on urban transport and in silos which is resulting in multiplicity of authorities. All aspects of coordination will rest with CUMTA. When funds start getting diverted from CUMTA, agencies are expected to listen to CUMTA.
- CMP has been finalized by Chennai Metro but there weren't enough consultations undertaken and to fill those gaps- the CUMTA has to finalize the CMP so that all the projects implemented in Chennai area are listed in the CMP. The ToR for CMP mandates collecting of mobility pattern in the base year including creating and modeling the future demand and from that analysis- mobility patterns are determined, and the CMP will be finalized. The stakeholder should be consulted so that they own the document - consulting the agencies and people, NGOs etc. within the city. It needs to be done by an independent agency which is why the development of implementation of the CMP is under CUMTA. ToR is already issued, and the government will contract the agency soon.
- The indicators have been identified- to ensure that sufficient capacity is there among the agencies that have been brought on board. The idea is to collect information on social and environmental practices that have been or will be developed. They are trying to embed good practices in E&S into the function of CUMTA.

- CUMTA is still evolving- the entire structure (technical, fiduciary etc.) is still not in place. Command and Control Systems, Helplines will be included in the Operations Manual. Currently there are Board members from different departments- the Secretariat support is provided by CMD driving all the operations activity. All the board members have to meet on a quarterly basis, as per the Act. Board has been created. To kick off the work, they need to have skeletal staff. They will be taking on technical experts. Environmental, urban and transport planner will be hired from open market. Officials from Corporation, Highways, MTC and CMRL will be brought on deputation. As a part of operations document, Deloitte will be proposing different divisions including social and environmental division for CUMTA.
- GRM and HR strategy- Government may consider adopting the existing HR policy of CMDA or CUMTA to frame their own policy – this will be provided as part of the Operations Document.

11 th Nov	Cisco Webex	Singaravelu Manickam Jambulingam	General Manager, HR Manager, HR	MTC
----------------------	-------------	-------------------------------------	------------------------------------	-----

Key Points discussed:

- Citizen Engagement- No specific tools for mapping user satisfaction. MTC has a customer care cell. Consumer Forum Meetings are conducted every quarter; Consumer forums are registered associations by the government. Registered association are invited from all over the city/User committee meeting wherein associations from across the Chennai city are represented. User Satisfaction Survey in collaboration with ITDP was organised in January 2020. Outcome of these meetings- New routes were proposed, increased the frequency of buses and setting up of bus-stops. Grievance report by associations are used for redressal and rectification, and in the next meeting they will come back with their next set of demands/queries.
- Social Inclusion- Operating low floor buses with wheelchair accessible mechanism and passenger information system for visually disabled persons; exclusive spaces in buses for differently abled, senior citizens and pregnant women. Will ensure that new fleets procured will incorporate all of these facilities. No accessibility audits conducted so far. No in-house capacity to undertake this task.
- Women Safety- No safety audits undertaken - No database on safety of women travelers (based on feedback and complaints received, etc.) maintained by MTC. No in-house capacity to undertake this task. Tender floated under Nirbhaya scheme for procurement of surveillance cameras, etc. There are currently 200 buses specifically for women passengers- plying in the morning and evening.
- Labour Law Compliance- Tenders with contracting firms have these provisions- ensuring contractors are paying minimum wages but no formal mechanisms are there to monitor compliances.
- Internal Grievance Redressal Mechanism- Grievance resolution process available for MTC employees, but not contracted employees. A monthly grievance redressal meeting is organised. Branch manager addresses the grievance, and in the corporate office, deputy manager HR handles complaints. ICC has been formed with three female members as per the G.O. A circular on ICC has been affixed in office (corporate, branch offices). Capacity building of staff on sexual harassment at the workplace have not been conducted.
- Following the formation of Committee for fare revision, public members were not consulted with. MTC does not have a specialist for communications and awareness building- but PR specialist in place. Standing Operating Procedures were issued for Covid-19 response for staff.

20 th Oct	Cisco Webex	Keerthi Sureshbabu Christy Leema Rose Mary E	Environment and Social Specialist & Communication Specialist	CSCL
----------------------	-------------	-------------------------------------------------	--------------------------------------------------------------	------

Key Points discussed:

- Capacity for Social management- EE, AEE, AE of respective zones of GCC for social management with the ward concerned person. Chennai Smart City Limited has 2 dedicated staffs- social and environment
- Data on street vendors has been captured by revenue department of GCC under vendor management committee.
- The consultation with stakeholders will be carried out after approval of draft DPR. Stakeholder engagement will be participatory method.

- Women safety- Smart poles have been established in city as part of both integrated command control centre under smart city mission and under safe city project (Nirbhaya Fund). Better street lighting has been considered to prevent crime and antisocial elements in dark spot to safeguard women and children. App based monitoring is done remotely on a real time basis. Kavalan SOS App has been developed for women safety.
- GRM- Namma Chennai App. GCC website has grievance redressal which will be solved in 72 hr. Grievance can be addressed by RDC and Zonal officer. At ward level the concern AE receives grievance redressal in person by written complaints
- Labour Law Compliance- Bidding documents will have labour laws included.
- Land management- The building line is defined in the scope for the consultants and restricted within the ROW. Street vendors shall be addressed as per the street vendors act. If any loss occurs during execution, the damages will be attended immediately by the concern contractors.
- Diversion of route wherever possible, signages, proper barricading, safety measures for public movement and phasing of construction work are a few measures considered for managing temporary disruption of services.

18 th Nov	Zoom	Consultation with design Consultant and Stakeholders (residents, representatives from disability groups, Welfare Association, University students, cyclist, etc.)- from Package 6- Adyar	(See below for details)	GCC, CSCL, Design Consultant
18 th Nov	Microsoft Team	Consultation with design consultant and stakeholders (residents, representatives from Welfare Association, Teacher, cyclist)- for Package 3- Nungambakkam	(See below for details)	GCC, CSCL, Design Consultant-

Participants from Adyar - Package 6

Names	Designation	Concerns and Suggestions by the Participants
Felix John	Cyclist	
L. Elango,	Professor, Dept of Geology, Anna University	
Ranee Vedamuthu,	Professor and Dean, SAP, Anna University, Chennai	
Achuthan	Institute for transportation and development policy	
Sudha Ramamoorthy	Disability Rights Alliance	
Pavithra Sriram	Adyar -Urban Planner, Design Co: Lab – Cyclist	
Smitha Sadasivan	Disability Rights Alliance	
Radha Ramesh.	Vidya Sagar, organisation working with people with multiple disabilities	
Hariharan.	Student at School of Architecture and Planning, Anna University, Chennai	<ul style="list-style-type: none"> • Crossing the road is a basic challenge. Signal and overhead bridge is there, but no one follows traffic rules or uses the overhead bridge. There is a court and most of that area is used for parking and occupied by hawkers. • Is there a possibility to restrict heavy traffic movement when you develop the road? Many students from Anna University coming in every day which is a road safety concern. • Whether there is enough space (RoW) in the intersections. • The pedestrian walk must be accessible to wheelchair users. • There is fast moving traffic, particularly in Gandhi Pantakam road resulting in a lot of accidents. With students from Anna University it is a major concern. Earlier there were speed-breakers, but that hasn't deterred speeding of vehicles

A.Mageswari.	Student from School of Architecture and Planning ,Anna University, Chennai	<ul style="list-style-type: none"> Important pickup points for taxi and auto, therefore parking for paratransit should be integrated into the design Environment friendly pavement blocks/materials need to be used for pedestrian pavement. Height of the pedestrian path is a challenge for wheelchair users; width for the pedestrian should be encumbrance free. Footpath width should be 1.8m clear width in addition to 1m utility zone and 0.5m frontage zone. So absolute minimum for a sidewalk in urban street is 3.3 mts as per Indian and global standards. There is not enough lighting in some of the areas- if there is any plan to regulate it and make it a lot safer for women. Survey needs to be done on existing services in the neighborhood to understand the gaps and basic amenities required.
Aparna Sankar.	L&T Construction	
Prashanth Raju	Safdie Architects. Resident of Srinagar colony	
Mehadeeba Vijayakumar	Student from School of Architecture and Planning ,Anna University, Chennai	
Poonam Natarajan	Vidya Sagar	
Malavika	Student from School of Architecture and Planning ,Anna University, Chennai	
Smitha Sadasivan	Accessibilty & Inclusion Consultant & resident of Kottur.	
Rahul K.	Student from School of Architecture and Planning ,Anna University, Chennai	
Advocate Ummulkhair	Resident of Kotturpuram	
A V Venugopal	Resident of Kasturibai Nagar, Adyar	

Nungambakkam - Package 3

Name of the Stakeholder	Designation	Concerns and Suggestions by Participants
Shailee Gupta	Resident	
George Representative	Architect Rajan Dental Clinic Anesthetist, Apollo Hospitals	<ul style="list-style-type: none"> It should be pedestrian friendly. There are a lot obstructions in the roads currently. Another thing that needs to be addressed is the overhead wires, especially was a challenge during the cyclone two years ago. Can it be designed to ensure that maintenance of wires, pipelines etc. can be done without opening the roads. The design should not overhaul and change the character of the city. There are enough guidelines and feeder roads are sufficient to manage any challenges during the construction period. Overhead wires are a big challenge in this area. Some amount of training is needed to maintain the area after the project is completed.
Sruthi Shankar Performer representative	Music Academy	<ul style="list-style-type: none"> Just having the main road is one objective but development of side roads is really important- to walk along the side paths is a challenge because of obstructions such as parking on the kerbs, etc. These things are to be considered during the design, planning and implementation stage. Space under the Flyover has a lot of potential for displaying local art and culture, but it shouldn't be at the cost of emulating other cities. The roads need to be developed in a balanced manner, without losing the culturally distinct character of this city. We should develop it specifically to meet the needs of the people- for instance there is lack of walking space. Challenges mostly foreseen in terms of traffic during the construction period. There are a lot of auto-stands along these stretches of road- hence dedicated space for parking is required.
Nazneen Mogrelia	Professor, Womens Christian College	

		<ul style="list-style-type: none"> Chennai is one of the highest in terms of household ownership of bicycles and ridership which varies across the genres such commuting, leisure and exercise. We need the city to adapt to this mode of transfer and is therefore critical aspect to be considered under this project. This is one of the active roads for bicycle use. A proper transition is necessary to make people understand the usage of the lanes. Safety of students is something that should be looked at as well. Proper grievance system and enforcement is needed as well. In many cities such as Chandigarh, cycling tracks have not been successful. We must therefore sensitize people to understand the need of this project in order to sustain the momentum of this project. Community engagement must happen continuously. A strong feedback mechanism is required. Livelihood cyclists- their feedback should be considered based on surveys and consultations. The road is prone to waterlogging and parking is a big problem as well. Installation of garbage cans at the entrance and waterlogging is a big problem. Bright lights installed on the road can be a safety hazard.
--	--	---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

List of persons interviewed (Urban Mobility - Environment)

1. Mrs. Keerthi Suresh Babu, Environmental officer, Chennai Smart City Limited, GCC. (Mega streets)
2. Mr. Manickam, Executive Engineer, MTC (Bus Service Delivery)
3. Mr. Sumit Mishra, Director, Consulting, Deloitte Touche Tohmatsu India LLP (CUMTA)
4. Mr. Laxmivaradan, Project Management Consultants, Nirbhaya Fund Projects, Deloitte Touche Tohmatsu India LLP
5. Meetings with MTC Sections / Divisions
6. NGO / Stakeholder meetings

b. List of Government Officials who participated in ESSA Consultation/s

S. No	Name	Designation	Department/ Agency	Contact Information
WSS				
1	Zone XV	Zonal Officer	GCC	aczone15@chennaicorporation.gov.in
2	Zone XIV	Zonal Officer	GCC	aczone14@chennaicorporation.gov.in
3	Zone XV	Executive Engineer	TNEB	eeomitic@tneb.net.org
4	Zone XIV & XV	Chief General Manager	TNRDC	office@tnrdc.com
5	Sholinganallur	Tahsildar	District Administration	tahsildarsnallur@gmail.com
6	Sholinganallur	District Environmental Engineer	TNPCB	tnpcbmmnagar@gmail.com
7	Araniyar	Executive Engineer	PWD	earaniyar@ yahoo.in
8	Sholinganallur	Divisional Engineer	BSNL	agmnwotbm@bsnl.com
9	Chennai	Chief Engineer	State Highways	cengr.ceprijh@tn.gov.in

10	Arunkumar Das	Executive Engineer, Zone X	CMWSSB	
11	Desalination	Superintending Engineer	CMWSSB	desalperur400mld@gmail.com
12	Planning	Superintending Engineer	CMWSSB	sepdcmwssb@gmail.com
13	Metrowater	Superintending Engineer	CMWSSB	secon6cmwssb@gmail.com
14	Metrowater	Chief Engineer	CMWSSB	metrowaterjai@gmail.com
15	Desalination Wing	Superintending Engineer	CMWSSB	sedesalwing@gmail.com
Urban Mobility				
16	Mr. C Samayamoorthi	Principal Secretary	Transport, GoTN	transec@tn.gov.in
17	Mr. G Prakash	Commissioner	GCC	
18	A Krishnakumar	Member Secretary	CUMTA	akehs2001@yahoo.co.in
19	Mr. K. Elangovan	MD	MTC	md.mtc@tn.gov.in
20	Mr. Manickam	AM-Projects	MTC	mtc.chn@gmail.com
21	Mr. D. Ravikumar	Sr Planner	CMDA	
22	Mr. Meghanath Reddy	DC (works)	GCC	
23	Mr. Raj Cherubal	CEO	CSCL	ceo@cscl.co.in
24	Mr. B. V. Babu	Superintending Engineer	GCC (Special Projects)	sespecialprojects@gmail.com
25	Mr. K. B. Vijayakumar	Superintending Engineer	GCC (BRR)	
26	Mrs. R Vijayalakshmi	Superintending Engineer	GCC (Electrical)	
27	Mr. Balamurali	Divisional Engineer	Safe City Project	sespecialprojects@gmail.com
28	Mr. J.Jayakanth	Executive Engineer	GCC	
29	Mr. B. Vijay Aravind	Executive Engineer	GCC	
30	Mr. Velmurugan	Assistant Executive Engineer	GCC	
31	Mr. Logeshwaran G	Assistant Executive Engineer	GCC	
32	Mrs. Roseline Gnanamani	Assistant Executive Engineer	GCC	
33	Mrs. Manjula	Assistant Executive Engineer	GCC	
34	Mrs. Aarthi	Assistant Engineer	GCC	
35	Mrs. Veda Bhavani	Assistant Engineer	GCC	
36	Mrs. Christy	Public Engagement & Participation Officer	CSCL	christycscl@gmail.com
37	Mrs. Keerthi S	Environmental & Social Officer	CSCL	keerthicscl@gmail.com
Municipal Services (Health and SWM)				
38	Ms. Divyadarshini	Joint Commissioner	GCC	dchealth@chennaicorporation.gov.in
39	Ms. Vijula	Zonal Officer	GCC	vijulajohn@gmail.com

				solidwastecorp4@gmail.com
40	Ms. Jaysheela	Human Resources	GCC	acgap@chennaicorporation.gov.in
41	Mr. Veerappan	Superintendent Engineer	GCC	solidwastecorp4@gmail.com
42	Ms. Krishna Kumari	EDP, Senior Systems Incharge, GRM	GCC	krishnakumarimv@gmail.com
43	Dr. Jagadeesan	City Health Officer	GCC	jagadeesan.gcc@gmail.com
44	Dr. Hemlatha,	City Medical Officer	GCC	ho@chennaicorporation.gov.in
45		Director	Department of Environment & Forests	tn doe@tn.nic.in
46	Mr. Sandeep Saxena	ACS, GoTN	Department of Environment & Forests	tn doe@tn.nic.in
47	Mrs. Sarasawani	Joint Chief Environmental Engineer	TN Pollution Control Board	tnpcb-chn@gov.in
48	Dr. Meenatchi		Tamil Nadu Health System Reform Program (TNHSRP)	tnhsptwo@gmail.com
49	Mrs. Chitra Rajesh	Environmental Officer		chitra@tnuifsl.com chitra.tnuifsl@gmail.com

e. List of Civil Society representatives who participated in ESSA Consultation/s

S. No	Name	Name of the Organisation	Contact Information
WSS			
1	Jayashree Venkatesan	Earth Care Trust	jvencatesan@gmail.com
2	President	Ranga Reddy Garden Residents Welfare Association	ramkarunanithi@gmail.com
3	Sri Lakshmi	Kazura Garden Association	ksrilakshmi@rediffmail.com
4	President	Sangam Colony Residents Welfare Association	tvela.hcl@gmail.com
5	Hari Bhaskar	Jaishankar Nagar Welfare Association	baasrig@gmail.com
6	Ranganathan	VGP Layout	Renganathan.pappu@yahoo.com
7	Swaminathan	Federation of OMR Associations	santhanam@gmail.com , saminathan.s@thehindu.co.in
8	Balasubramanian	RK Nagar RWA	

9	Anuradha	RK Nagar RWA	
10	Devasena	Zone 13 RWA	
11	Ranganayakulu	Velacheri RWA	
12	Balaji	Velacheri RWA	
13	Suresh	Kotur RWA	
Urban Mobility			
14	Mr. Achuthan	ITDP	achuthan@itdp.org
15	Mr. Siva	ITDP	sivasubramaniam@itdp.org
16	Mr. Santosh	ITDP	
17	Mr. Daniel Robinson	C40	fmrock@gmail.com
18	Mr. Balchand Parayath	City Connect	
19	Ms. Sumana Narayanan		
20	Ms. Swarna Rajgopalan	Prajnya	swr.prajnya@gmail.com
21	Mr. Felix John	Bicycle Mayor	
22	Ms. Kalpana Vishwanathan	Safetipin	viswanath.kalpana@gmail.com
23	Ms. Sonali Vyas	Safetipin	sonali.vyas@safetipin.com
24	Smrithi Prasad	ITDP	smrithi.prasad@itdp.org
25	Vaishali Singh	ITDP	vaishali.singh@itdp.org
26	Kawin Kumaram		kawin.arch@gmail.com
Municipal Services (SWM and Health)			
27	Dr. Ramya / Dr. Nalini Krishnan	REACH	Ramyardr.reach@gmail.com
28	Mr. Mathew	PaperMan	mathew@paperman.in
29	Mr. Raghu	Hand IN Hand	raghupathy.swm@hihseed.org
30	Ms. Priyadarshini	WasteWin	wastewinn@gmail.com
	Ms. Jayshree	Care Earth Trust	jvencatesan@gmail.com

f. List of Private Firms which participated in ESSA Consultation/s

S. No	Name	Designation	Department/ Agency	Contact Information
WSS				
1	Ramkumar	Engineer	SAI Consulting Pvt. Ltd.	eramkumar@systra.com
2	Srinivasa Rao	Engineer	SMEC	Srinivasarao.S@sme.com
3	R. Kanmani		NJS Engineers	r.kanmani@njsei.com
4	S. Karthikaeswaran		TCE	smkarthikaeswaran@tce.co.in
5	Alok Kumar		TCE	alokk@tce.co.in
6	Siddappaswamy		TCE	siddappaswamys@tce.co.in
7	Rajesh Mishra		SMEC	Rajesh.Mishra@sme.com

8	Parvesh Kumar Reddy		SMEC	Parvesh.Reddy@smecc.com
9	Dharmabalan	Consultant		dharmabalan@bigpond.com
Urban Mobility				
10	Mr. Lakshmi Narasimhan	PMC, Safe City Project	GCC	
11	Mr. Ronak	PMC	CSCL	ronak.asrani@pwc.com
12	Mr. Selvaraj	PMC	CSCL	rajsel123@gmail.com
13	Ms. Yashashwini	PMC	CSCL	
Municipal Services (Health and SWM)				
14	Mr. Mahmood	Chief Executive Officer	Urbaser	smahmood@urbasersumeet.com
15	Mr. Mahendra	Chief Finance Officer	Sumeet	
16	Mr. Anand / Mr. Sundarajan		CRISIL	sundarajan.subramony@crisil.com

g. Minutes of the meetings

Summary of consultations held on Water Supply and Sanitation

- Management of water bodies, i.e. lakes, rivers and streams, is a focus on community attention and complaint applications in the NGT. This has resulted in NGT orders that require periodic review at the highest level of the GoTN. As follow-up to these review meetings, instructions are given to various GoTN agencies, including WRD, on actions to be taken. There is also a reporting to NGT and a review by NGT of the action taken by GoTN and its agencies.
- None of the water bodies chosen under the Program are covered under any NGT orders. Discussions with the WRD team revealed that all the resilient investments are environmentally benign, not in ecosensitive or culturally sensitive areas and activities will be done solely within GoTN's land.
- Discussions also revealed that the environmental impacts are generic, minor and reversible. These include the following: (1) air / dust and noise pollution due to construction activities; (2) storage and disposal of construction scrap, e.g. old pipes, to the authorized recycling agency; (3) excavation work and worker / community safety issues; (4) managing high groundwater tables in certain areas, particularly during the monsoon period; (5) use of PPEs in general and those required due to Covid-19 during construction and (6) pollution from the ready-mix concrete plants and their legal compliances. All of these can be managed with proper management measures, which should form a part of the EMP and included in the bid / contract documents. These should be implemented by the contractor with oversight from the project management / supervision consultants. With that, there will be limited or no risks emerging due to environmental impacts.

Minutes of the State level Stakeholder Consultation- 11th February 2021

Session 1- Introduction to the Chennai Partnership Program

Opening Remarks

Mr. G. Ollivier, Lead Transport Specialist, World Bank

Mr. C. Samayamoorthy, Principal Secretary, Transport, GoTN

Introduction to the urban mobility components under the Program:

- Operationalization of CUMTA - Presentation by Mr. Krishnakumar, Member Secretary, CMDA
- Bus Service Delivery- Presentation by Mr. K. Elangovan, Managing Director, MTC
- Gender Lab - Presentation by Mr. G. Prakash, Commissioner, GCC
- Mega-Street Program - Presentation by Mr. G. Prakash, Commissioner, GCC

Feedback/Queries from the Participants

Mr. Felix John –

- For public transportation – for years we have lacked trip planning. This needs real time data. For now, google maps helps.
- Non-motorized transport (cycling) is not given emphasis. Same problem all over India.
- We are lacking in campaigning, marketing and reaching consumers re public transportation. People use it due to affordability, but we are looking at a shift from two and four wheelers. We need more aggressive ways to reach the public re public transportation and cycles.

Bank's response -

- We observe many cities, including in hot cities like Chennai expanding cycling network. This is likely to be supported by the electric cycle which may be more appropriate for the Chennai climate. The agenda for the CMT and focus on the actual way in which people move around the city becomes clearer, we'll need to see more clearly how two-wheelers are treated in an environment like Chennai (motorised and non-motorized). This is critical to safe transport.

Mr. Samayamoorthy – Till 60s and 70s cycles were the predominant means of transport, but the economic conditions have changed. People want speed and there is greater congestion and narrow paths available for pedestrians. We widen roads as much as possible. People are returning to cycles, but the issue is space for a separate lane due to congestion. Children who are located far away require cycling options so that they aren't dependent on buses. Also, cycles are mostly used by men. Women and girls use it more rarely even in rural areas. We are motivating people to use cycles. In the future we would like to promote ridership in cycles by more persons.

Mr. Somasundaram – in 1975 one could drive over 10 km by cycles. That's not possible today due to congestion and road condition. Also, in some larger universities and in rural areas, cycles continue to be used.

Bank's response – A number of very big changes are coming up – transformed MTC, CUMTA, Gender Lab, CMP. Opportunity to integrate modes of transport like two-wheelers. Transformational moment.

Session 2- Environmental and Social Systems Assessment

Presentations by the Bank team on:

- Brief Introduction to the Environmental and Social System Assessment (ESSA)
- Findings and Recommendations of the Social Assessment
- Findings and Recommendations of the Environmental Assessment

Feedback/Queries from the Participants

Mr. Somasundaram – Street food vendors and MTC buses – in reality so many street vendors are there. Govt has to take steps to take them where open space reservation is available. It would be beneficial for commuters as well as the street vendors along with enforcement authorities for hygiene etc.

Mr. Samayamoorthy – It will be challenging to implement the ESSA to the extent that this is the first time we are implementing something like this. Grievances easy to manage other than those that require approvals from other agencies. Concern on labour law compliance monitoring tools. This is especially relevant where private agencies would be involved.

Mr. Prakash - This is a huge project, we'll need systems and tools so that we don't lose track of issues that come up from any stakeholder. We will have a PMC. Where does documentation related to labour etc. go? These kinds of logistics are an issue in practice, not theory.

Bank's response – We don't want to create additional layers / burdens but want to embed this into existing systems so that the positive impact may have a broader impact than just the program. In principle we are in agreement on actions but only need to work out the details. P4R is part of a partnership. Engagement will proceed beyond the P4R into deeper sectoral interventions.

Minutes of first consultation with GCC for ESSA (14th October 2020)

Stakeholders and Institution:

- i. GCC has a 4 tier system: Ward, unit, Zone and Region
- ii. At the Regional office the head is the Mayor and there are permanent Office bearers- -commissioners, joint commissioners – executives. The detailed administrative structure is already shared with WB.
- iii. SWM at HQ and then administrative units called regional office and zone office. So its different in each place. There are no Health supervisors and workers
- iv. Field activities take place at Ward level, which is headed by an Assistant Engineer (BE/BTech) who is assisted by a Conservancy Inspector (promoted from sanitary worker level – with 10th standard pass certificate). They supervise the sanitary workers. He has vehicles and tools to execute the work. In many zones, this work is done through a service provider. We have given work to a Spanish organisation in 7 out of 15 zones – collection and transportation. For another 4 zones, DPR has been received and contracts are likely to be awarded soon. Only 4 zones will remain with Chennai corporation to be directly serviced. In the zones where work is outsourced, AW and CI remain for supervisory role. There is a clear **RFP** with key benchmarks / performance indicators. Raghu already has the RFP – we can see that.
- v. At this stage, GCC does not have a risk assessment. Three types of stakeholders – GCC, service provider and consumers. All have different incentives and face different risks. Between corporation and service providers we have made many legal arrangements to minimize risks. Escrow account for advance payments. This is one of the major changes which the corporation has done for the first time under the PPP law of the state. We have a **PPP Act** and **PPP Rules** (not just SWM, but they are general rules)- with key service benchmarks/ performance indicators: monitoring/ performance reports
- vi. The remaining 4 zones are also proposed to be put under service providers. However, this will take time, because organisation has employees. Maybe once they retire – over the next 4-5 years the whole city will be under service providers.
- vii. Working groups and Committees – these are under health and SWM sectors. Committee of councillors who take policy decisions on this particular subject matter. These are the committees under the 74th amendment. They discuss operational and more of procedure-oriented

issues. They meet around once in three months although they are mandated to meet once a month. The commissioner has powers of special officer and mayor. When the councillors were there, all major decisions would be put through them and approved.

- viii. Are these working groups connected with ward secretariats. At the zone level there are zonal committees – separate committees. The committees at council level engage in more of capital work in nature and they take policy decisions. There is no ward secretariat. Ward is headed by a Councillor. They bring ground realities to the table for discussion also.
- ix. Each dept has a committee of councillors like LC. They take decisions. Operational but more procedural. Once a month. This is different from ward and zonal committees which manage small works
- x. Councilors interact regularly with Resident Welfare Associations as well, including for the launch of this project. Their opinion is sought on their expectations for SWM. These discussions are not very well documented always. Sir will share one of the **Minutes of Meetings** issued last month in English. Availability and willingness of RWAs to connect with us has to be checked.
- xi. Bank team would also be connected with **key contractors** like the Spanish firm, which is engaged in the collection and transportation.
- xii. GCC has ICC headed by City Medical Officer who is a lady doctor. Other officers are also members. One of the EEs from SWM is also member of committee. Can we be linked up with one of the committee members. Vijula will be linked up with us. She is in-charge of SBM in Chennai
- xiii. Ward Councilors are the elected representatives – now there is no elected council, so we may need to skip this for now. In the next 6-7 months, a consultation can be organised when they resume duty. Assistant Engineer or Junior Engineer is currently head of ward at official level.
- xiv. GCC does not have social specialist, gender specialist, communications specialist? Off late for the last 6 months during covid we have an IEC wing to engage in social media.

Systems of contract management and labor compliance

- i. There are safeguards built in to manage risks of private service providers (from the last 25 years or so). Superintending Engineer can give clarifications regarding labour and contract management. And also the Spanish agency.
- ii. GCC workers: class 4 employees of govt. (permanent), 3000 daily wage workers (SHGs- paid to the group)
- iii. For the direct employees (Class IV employees) there are no issues. There are some daily wage workers and they are paid under a Self-Help group arrangement. We pay the salary to the **SHG** and the SHG by resolution pays the workers. They aren't employees but treated as members of the SHGs. There are currently around 10,000 workers under the SHG. Expected to reduce to 3000 in another few months. This **data** will be required from GCC.

Grievance Redressal Management

- i. Four ways: telephonic, online, paper based and mobile app exists.
- ii. Typical ticket based GRM. Internally it is managed to assigned officers.
- iii. Namma Chennai app (local level) can also be used (you can raise dummy complaint). The Swachhata App (national level) is also used.
- iv. Once complaints come, is there is a unit or office or individual who does a reporting of complaints. This is done at the head office. The type of complaint is categorized in codes (10-12)
- v. **Senior Systems Manager** who maintains the GRM.

vi. ICC to deal with cases of sexual harassment exists and is Headed by city medical officer, CMO.

Other Social Aspects under SWM

- i. Manual Scavenger Register was prepared as part of the national exercise. Ms Vijula can give further details. Chennai does not have any manual scavengers.
- ii. Chennai has a big slum population which is also waste generators. They also have mobile applications. GCC engages with them regularly through its teams. The public health department meets them regularly, educates them on these issues, conducts mass sanitation drive etc. Community leaders are mobilized. Ms. Vijula or Mr. Veerappan (SE) can give further information.
- iii. Big proportion of informal workers in SWM (rag pickers and scrap dealers). Rag pickers are 2-3 types – one who depend on bins for their livelihoods, the other category depends on dumpsites / landfills. They have ID cards and don't want permanent job with GCC. We have recognized them and want them to wear masks, gloves shoes etc. They are being educated on these aspects. The scrap dealers / kabadiwalas / kailangdai in tamil. They collect dry waste and contribute to the waste processing. High value chain contribution to waste processing.
- iv. 2-3 types: depend for their livelihood with bins as the source; make livelihood out of dumpsites (ID cards, formed groups, protective equipment); scrap dealers- our sanitary workers give segregated dry waste to them. It's a very high value chain.
- v. Pilots where there is a well functional and developed management system – One of a kind in collection / transportation based on key performance indicators. In processing we haven't gone for centralized processing. We have fully decentralized processing with separate dry and wet waste. Manifold types – horticulture, plastic, large scale compressed biogas for wet waste and scientific incinerators for disposal of dry waste.
- vi. Behavior change is the core element of waste management. We are going to go into it in a big way. We are approaching it strategically by first streamlining collection and processing. And then full focus will be on behavior change. The responsibility will be on the service provider as a KPI.

Some Social Aspects Public Health

- i. Public health / community health is more about vector borne disease control etc. These things are taken care of at community level. Institution based care is taken at institution level.
- ii. GCC takes care of primary healthcare as per the National health guidelines and meets the required indicators. In addition we have 4 extra maternity homes and one for communicable diseases. All are accessible to the people. 2-3 km reach of everyone – anyone can walk in. Under the project, this will be expanded. At least 200 more PHCs expected in Chennai. Each PHC is attached to urban health nurses who go to the area and promote maternal and child healthcare.
- iii. There is no study or audit on health which can tell us about performance and gaps
- iv. Substantial portion of staff – medical officers, paramedics are all permanent. For the last 5-6 years after National Urban Health Mission, posts sanctioned are under contract – every 11 months contract is renewed – 100 doctors, 300-400 nurses. Contractual agreement between corporation and legal agency is strong mandating compliance with all labour laws.
- v. More information can be sought from the Manpower agencies
- vi. Also contact Dr Jagadeesan – City Health Officer (9444335125), Dr. Hemalatha, City medical officer (9840746192).

- vii. Pandemic pressure - Private healthcare has practically shut down except for big hospitals. Public health system was the major service available. We conducted camps etc to provide primary healthcare. No service has been disrupted. We have got 150 additional doctors for Chennai on request from government temporarily.
- viii. Due to the pandemic, there has been a substantial increase in the quantity of bio-medical waste. The use of PPE has increased substantively. Fortunately, the bio-medical waste management systems are well-streamlined. There were some issues of bio-medical waste mixing with the MSW stream but was not systemic.
- ix. Service delivery and quality improvement – based on outpatient mainly. Extending hours. Mainly additional funding since patients aren't to be charged for.
- x. Here too we have constant engagement with people- teams sent out, visits, mass cleaning, linkage with local leaders etc.

Environmental – Public Health

- i. BMW management and infection control practices are in place in GCC's health care facilities but there is scope for improvement in practice. This can be accomplished through the conduct of a third party environmental performance audit in order to identify gaps / deviations and enabling measures to address them. A system of regular third party and internal environmental performance audits can be institutionalized in order to bring about continually improvement.
- ii. Procedurally, there are no gaps. The GCC's health care facilities are meeting the requirements of the BMW Rules and the Water Act in terms of obtaining authorizations and consents to operate. Though basic, the facilities have also streamlined the BMW collection, storage and handing over of the solid waste to the authorized agency. The only concern is with the practices related to disinfecting the bio-medical liquid waste particularly in the UCHCs, which are handling deliveries and hence generate placenta waste.
- iii. Due to the legal requirement, the BMW management is streamlined but more needs to be done in terms of infection control, i.e. patient safety, visitor safety, health workers safety and strengthening maintenance of facilities. The ongoing Covid-19 pandemic has resulted in bringing about a greater awareness and adherence to enhanced norms. This needs to become the new benchmark. To achieve that, more implementation capacity – awareness through IEC and competence training – needs to be built in order to sustain the new normal levels.
- iv. The GoTN and the TNPCB are at an advanced stage of streamlining a web portal and mobile app to track the movement of bio-medical solid waste in the state. This is expected to be launched and then streamlined by the end of this year. All GCC health care facilities will also have to submit their manifest information on the web portal, and this information will be made publicly available on the TNPCB website.

Environmental - SWM

- i. During the conduct of the ESSA, selected consultations were done (Annex includes the list of meetings held virtually). The following are the key findings that emerged during the consultations:
- ii. There are a number of multiple issues of solid waste dumping in the city in the vicinity of water bodies and in storm water drains. There are periodic complaints made to the GCC, which is responded as required. A lot more needs to be done to increase awareness in the city regarding solid waste dumping and in regulating illegal dumping.
- iii. In procuring the concessionaire for the collection and transportation of solid waste, GCC has taken into account environmental considerations in the feasibility studies and in preparing the bid / contract documents.

- iv. GoTN in general and the GCC in specific have to abide with the NGT orders pertaining to the national-level application (606/2018). As follow-up to the actions to be taken, there are regularly meetings of the Chief Secretaries of each state. GoTN submits progress reports to the NGT and GCC contributes to these reports with information on Chennai. The latest NGT order in this regard is dated July 2020.
- v. NGT orders pertaining to the protection of water bodies including wetlands, lakes / ponds and drains in the city require the interventions of the GCC's SWM department periodically.
- vi. The Bank's Program includes a number of policy and institutional strengthening initiatives. When these are undertaken, it is important to conduct extensive stakeholder and community consultations. At present, GCC does not have the capacity to coordinate and conduct such consultations to solicit, collect and integrate such inputs into its activities. This needs to be developed.

Documents to be shared by the Clients:	Contacts shared by the client
<ul style="list-style-type: none"> i. RFP with key benchmarks / performance indicators ii. Minutes of Meetings issued last month in English iii. Data on staff (permanent, consultant, daily wage) iv. Data on contractors v. List of SHGs, role and contact with one or two vi. Detailed Administrative Structure (Raghu, WB) 	<ul style="list-style-type: none"> vii. Dr. Jagdeessan, City health Officer: 9444335125 viii. Dr. Hemalatha, City Medical Officer: 9840746192 ix. Dr. Lavanya: 9486710299 and 9445036325 x. Dr. Ramya, REACH, NGO in Health Sector: 9840055975 xi. Dr. Nalini Krishnan REACH, NGO in Health Sector: 9962690145 xii. Krishna Kumari, EDP, Senior Systems Incharge, GRM: 9444654652 xiii. Mr. Mahmood, CEO, Urbaser (Spanish Firm) : 9384002001

Contacts to be shared by the client: SHG leaders/representatives and Junior Engineers

State-level consultations on draft ESSA (9th February 2012)

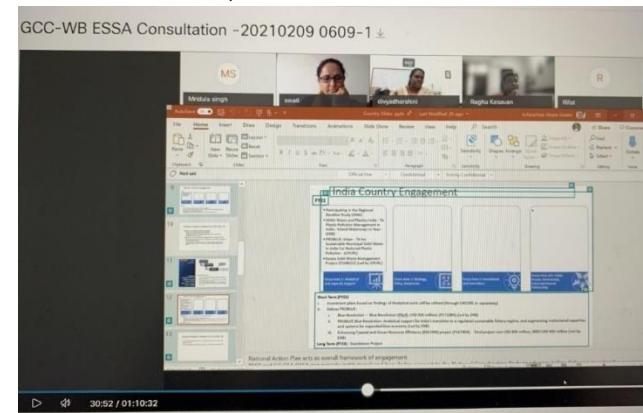
GCC and WB jointly hosted the workshop to a) share the findings of the environmental and social system assessment; b) garner clarification and feedback on institutional capacity and systems; and lastly, c) to reach an agreement on the recommendations proposed in the draft sector ESSA. The Joint Commissioner, Health, Ms. Divyadarshini gave the Opening Remarks. She welcomed the participants from GCC, WB, Government of Tamil Nadu (GoTN), and the Civil society. She shared how GoTN is committed to making Chennai a world-class city—one that is green, liveable for all residents, competitive, and resilient to climate change and other shock. GoTN is commencing a program—Chennai 2030—that brings fresh impetus to transformation of the city and its services and, simultaneously, accelerates Chennai's shift to a growth trajectory that is lower-carbon and more resilient. This will serve as a “lighthouse” thereby informing development approaches for three additional metropolitan clusters (Coimbatore, Trichy and Madurai) as well as other important towns in Tamil Nadu. GCC is looking forward to the partnership with the World Bank in the Phase 1 of Chennai 2030 where the focus will be on improving the delivery of selected, critical metro-level services. It will be implemented over a 5-year period (2021-26) with the objective of improving the quality of and access to core urban services. The program will focus on four selected services—health, sanitation, mobility, water and sewerage—and incentivize key service agencies to achieve tangible improvements in service delivery.

Mr. Raghu Kesavan and Ms. Rifat Hasan from the WB provided the overview of the program emphasizing on program for results; covering four thematic areas namely (a) Urban mobility and spatial development, (b) Water and Resilience and (c) Urban Governance, Finance and Services Municipal Services (Public health care services, solid waste management), HR Capacity (expanded recruitment modality, etc.), Financial

Sustainability (improved own source revenues of GCC) and Cross Cutting- e procurement. Outreach activities and primary level of healthcare-linkages with secondary care and tertiary care facilities. GCC is managing primary and secondary care facilities which the Bank is supporting. Program focusing on improved access and quality of care- redesigning service delivery, governing for quality, transforming HRH and igniting demand for quality. Ms Swati Dogra and Ms. Mridula Singh from the World Bank shared the social assessment explaining the purpose; methodology; social impacts, benefits, risks and challenges; the recommendations, the program actions and indicators to tracked to improve social outcomes. This was followed by a presentation by Mr. Asferachew and Mr. Vaidessh on the environmental assessment.

JC shared that Environment Management Cell has already been established. SWM cell will incorporate the Social Management Specialists, this will strengthn the Social management capacities in the team. Regarding GRM, the App already uses complainant's satisfaction as a precondition for closure- similar efforts will be made for toll free and other GRM systems to ensure completion of the feedback loop. Regarding loss of jobs due to privatization- most of the employees must be given preference which is being embedded in the contract between the Service Providers. Under NULM scheme- preference is given to employees already. There has been bad media publicity without realising that GCC is committed to safeguarding the sanitation workers. While the locations to be supported under PforR will not be outsourced, GCC understood that WB has been raising the issue due to potential reputational risks. In addition, the number of sanitation workers are huge so even if ten percent are not absorbed by the private firms, it accounts to hundreds losing source of income which becomes a social risk. It was discussed that the private firms should document the criteria for selecting or not selecting existing sanitation workers as employees. This transparency will prevent any bad press.

Mr. Mahmood from Urbaser Sumeet also added that they are committed to hiring existing sanitation workers because they also need experienced and trained workers. Finally, the discussion was on strengthening the MIS system- the data management and reporting on GRM is very robust bit in other areas like citizen engagement, citizen feedback, onboarding on NGOs, internal complaint committee, gender mainstreaming, communication, labor management, private firm compliance on social issues.



3.4 Checklists for Consultations

a. Water Supply and Sanitation – Checklist for Social Safeguards

- 1) CMWSSB Act and Bye Laws, CMWSSB policies, vision, mission, rules and procedures.
- 2) Various manuals of CMWSSB – Manuals used by CMWSSB
- 3) Service level bench marks of CMWSSB for water supply and sanitation
- 4) Citizen Charter of CMWSSB
- 5) Institutional structure of CMWSSB – Organogram – Functions of key positions

- 6) Grievance Redress Mechanism at CMWSSB – What is the existing GRM? How does it function? Summary of GR records for last few years - Types of Grievances
- 7) Environmental and Social Policies of CMWSSB – Any previous externally assisted (MDB) projects – Sample documents such as Resettlement Policy Framework, Social Management Framework, Resettlement Action Plan, Social Management Plan, etc. from any externally assisted (MDB) projects of CMWSSB
- 8) Any Social Policies/ Procedures related to Land, Labour, Gender, BPL, SC/ST, etc.
- 9) How does CMWSSB acquire/ procure land for its projects? What are the procedures?
- 10) Tariff polices at CMWSSB – subsidies to poor – any special programs for poor.
- 11) What is CMWSSB policy on vendors? Any records of vendors/ other livelihoods affected by CMWSSB?
- 12) Human resources at CMWSSB - Who handles Social Safeguards and compliance with National and State Social Laws? Any officers who have worked on externally (MDB) aided CMWSSB Projects? Their capacity in social management.
- 13) What are the methods used by CMWSSB to engage key stakeholders (primary users)? Particularly slum dwellers.
- 14) Citizen Engagement at CMWSSB – How Feedback is obtained from key stakeholders? How the feedback is used? – Any Report Cards?
- 15) What are the CBOs/ NGOs/ RWAs the CMWSSB interact with? Their details for interactions.
- 16) Does CMWSSB has any communication strategy? Are there any Communication/ IEC staff with CMWSSB? What are the IEC materials?
- 17) A copy of the Bidding Documents in use by CMWSSB for similar projects
- 18) What are the labour related policies of CMWSSB and compliance with labour laws?
- 19) Any contract labour with CMWSSB? What are service conditions? Female labour? Service conditions? Any labour under 18/14?
- 20) How does CMWSSB deal with temporary disruptions in service?
- 21) What about Tanker supplies by CMWSSB? What are the policies and procedures for tanker supplies? What about private tankers?
- 22) What about private septic tank emptying/ cleaning services? What about manual labour employed in sewer cleaning and clearing clogged sewers?
- 23) Present service levels by zones and population (male, female, SC, ST) - Slum level data and service levels in slums - Data on service levels by areas and in particular for slums - Key performance Indicators for water and wastewater
- 24) Any particular social issues related to the geographical areas the program is targeting.
- 25) What are the Covid-19 SOPs and practices that CMWSSB comply with?
- 26) Any Audit reports on service delivery
- 27) Contacts of experienced Section Officers/ Case Workers at CMWSSB for routine one to one interactions for data/ details.
- 28) What are the specific Water Supply and Sewerage services activities proposed under this program? (activity, geographical area, targeted population, budget, etc.)
- 29) Social Impact Assessment and related reports of the projects proposed by CMWSSB. Details of the consultants conducting these studies with contacts.
- 30) Any other data/ information that is useful in developing ESSA.

b. Water Supply and Sanitation – Checklist for Environment

- 1) Environmental policies and / or commitments, if any?
- 2) CMWSSB Operational Manuals? Systems & Procedures Manual?
- 3) Investment-level EIA and EMP, if available
- 4) Staff resources at CMWSSB - Who handles environmental compliance with national and state laws and city bye-laws? Any officers who have worked on externally (MDB) aided CMWSSB Projects? Their capacity in social management.
- 5) Non-governmental organisations working with CMWSSB in relation to environmental issues pertaining to their infrastructure projects?
- 6) Any NGT issues pertaining to WSS?

7) Bidding / contract documents that includes environmental provisions that have been used and are proposed under this Program?

c. Water Resource– Checklist for Social Safeguards

- 1) WRD policies, vision, mission, rules and procedures; Acts.
- 2) Various manuals of WRD
- 3) Service level bench marks of WRD
- 4) Citizen Charter of WRD
- 5) Institutional structure of WRD– Organogram – Functions of key positions
- 6) Grievance Redress Mechanism at WRD– What is the existing GRM? How does it function? Summary of GR records for last few years - Types of Grievances
- 7) Environmental and Social Policies of WRD – Any previous externally assisted (MDB) projects – Sample documents such as Resettlement Policy Framework, Social Management Framework, Resettlement Action Plan, Social Management Plan, etc. from any externally assisted (MDB) projects of WRD
- 8) Any Social Policies/ Procedures related to Land, Labour, Gender, BPL, SC/ST, etc.
- 9) How does WRD acquire/ procure land for its projects? What are the procedures?
- 10) What is WRD policy on vendors/ squatters/ encroachers? Any records of vendors/ other livelihoods affected by WRD?
- 11) Human resources at WRD - Who handles Social Safeguards and compliance with National and State Social Laws? Any officers who have worked on externally (MDB) aided WRD Projects? Their capacity in social management.
- 12) What are the methods used by WRD to engage key stakeholders (primary users)? Particularly low income groups and vulnerable.
- 13) Citizen Engagement at WRD – How Feedback is obtained from key stakeholders? How the feedback is used? – Any Report Cards?
- 14) What are the CBOs/ NGOs the WRD interact with? Their details for interactions.
- 15) Does WRD has any communication strategy? Are there any Communication/ IEC staff with WRD? What are the IEC materials?
- 16) A copy of the Bidding Documents in use by WRD for similar projects
- 17) What are the labour related policies of WRD and compliance with labour laws?
- 18) Any contract labour with WRD? What are service conditions? Female labour? Service conditions? Any labour under 18/14?
- 19) How does WRD deal with temporary disruptions in service?
- 20) Any particular social issues related to the geographical areas the program is targeting.
- 21) What are the Covid-19 SOPs and practices that WRD comply with?
- 22) Any Audit reports on service delivery
- 23) Contacts of experienced Section Officers/ Case Workers at WRD for routine one to one interactions for data/ details.
- 24) What are the specific WRD activities proposed under this program? (activity, geographical area, targeted population, budget, etc.)
- 25) Social Impact Assessment and related reports of the projects proposed by WRD. Details of the consultants conducting these studies with contacts.
- 26) Any other data/ information that is useful in developing ESSA.

d. Water Resource– Checklist for Environment

e. Urban Mobility– Checklist for Social Safeguards

- 1) Institutional Capacity for Social Management - Does the agency have sufficient in-house capacity to deal with social management? If not, what reliable alternative arrangements are available or have been identified for supplementary support and/ or capacity strengthening in social management? Have

periodic monitoring and reporting, performance evaluation, and audits of system performance been integrated into the planning and implementation of the activity? Pls elaborate.

- 2) Stakeholder engagement- Will the program have an impact on the wellbeing of existing employees and other stakeholders? Please elaborate. What mechanisms will be used to ensure that stakeholders are identified and that their views, concerns, and suggestions are systematically considered? Have consultations with stakeholders been undertaken? Did it include a representative cross-section of groups (including women, poor, differently abled or other groups that might be underrepresented)? Details required.
- 3) Gender and Social Inclusion- How will issues pertaining to safe space for women & children be addressed in the program- particularly on safety from crime, road safety and safety from sexual harassment? How will issues of universal access, particularly of differently abled users, pregnant women and elderly be addressed under the program?
- 4) Grievance Redressal Management- Does the agency have accessible GRMs with established procedures for submission of grievances? Do the established GRMs accept and process grievances relating to E&S management issues? As an institution, how does the agency address gender sensitivity and cases of sexual harassment?
- 5) Labour Welfare Compliances- Are there any HR strategy plan or policies for the agency in place? Does it cover measures such as compliance of laws related to working hours, welfare conditions of services and employment and workplace discrimination? What are the systems of contract and labour management especially for indirect or sub-contracted workers? Will this program have any implications on workers' health and safety? How will this be addressed?
- 6) Land and Livelihood related Impacts- Will this activity have any implications pertaining to loss or damage of public infrastructure/utilities, temporary physical and/or economic disruptions? What mechanisms are in place to address these concerns? How will issues pertaining to temporary disruption of services during construction be addressed?
- 7) Additional details were sought on relevant ToRs, RfPs floated, G.O.s, laws and policies, complaints registered, reports, etc. during the consultations and through emails.

f. Urban Mobility– Checklist for Environment

g. Municipal Services– Checklist for Social Safeguards

HR / Staffing

- 1) What is the current staff strength at GCC Total: Male: Female
- 2) What are the type of staff Hired directly by GCC, Hired through HR/Manpower firms ,Permanent staff, Contractual/temporary/staff, Daily wage
- 3) To understand staffing systems, which policies should we look at?
- 4) Is there a system to cover compliance of laws related to working hours, welfare conditions of services and employment, workplace discrimination?
- 5) To what extent are these requirements embedded in the contracting structure for hiring consultants/contract workers? Is it online? What are the other systems of tracking employees, their contracts, performance etc?
- 6) Is there any system of positive discrimination/quotas? Please explain.
- 7) What are the systems available for the staff to launch complaints? Is the complaint system accessible to all types and category of staff? What are the categories of complaint?
- 8) Is there an Internal Complaint Committee of GCC for cases on sexual harassment? Can you link us with its members? What is your role? How many members? Frequency of meetings? How are staff made aware? What is the preventive/educational role? What is the response/remedial role? What challenges do you face? How can the committee be more effective?
- 9) How much of the staffing requirement will be outsourced (percentage)?
- 10) Any previous projects with World Bank/ADB or UN through which experts were hired or any reports prepared/?

- 11) How is the training portfolio developed? Is there a training officer/manager? Is there a Calendar? Is there any Training Needs Assessment conducted? Is there a system of reporting on trainings? Are there any firms or institutes on board? Is there any repository of curriculum/learning material? What are the challenges?
- 12) What are the capacities of GCC in Social Management (Communication, Social Inclusion, Gender, people's participation, grievance redressal)? Specialists, Consultants, Training

Public Health Services

- 1) What is the population that you cater to?
- 2) Is there any mapping of vulnerabilities that has been done which makes them susceptible to diseases?
- 3) What is the current staff strength? Total, Male, Female
- 4) What are the type of staff Hired directly by GCC, Hired through HR/Manpower firms, Permanent staff, Contractual/temporary/staff, Daily wage
- 5) Is there any system of positive discrimination/quotas? Please explain
- 6) Is there any HR/Manpower firm? Could you share their contact?
- 7) Is there a system to cover compliance of laws related to working hours, welfare conditions of services and employment, workplace discrimination?
- 8) To what extent are these requirements embedded in the contracting structure for hiring consultants/contract workers?
- 9) Do you foresee any loss of jobs with change in systems especially the informal or lower cadre of workers?
- 10) What are the systems available for the staff to launch complaints?
- 11) Is the complaint system accessible to all types and category of staff?
- 12) Is there an Internal Complaint Committee of GCC for cases on sexual harassment¹⁰⁸?
- 13) What would be the protocol for GBV cases from public if the victim/survivor were to approach the UPHC?
- 14) What are the Covid related risks now for staff? What risks do you foresee when staff and timings increase? How do you plan to safeguard?
- 15) What other risks do you foresee when timings increase to evening shifts?
- 16) What is the role of NGOs? How many are on board?

Solid Waste Management

- 1) Which rules and policies that you recommend that we look at apart from PPP, Manual Scavenging Act, Municipality Act, SWM Policy.
- 2) What are the reasons for poor cost recovery? Will increasing the service charge impact the poor?
- 3) What are the subsidies available for the vulnerable?
- 4) What is the current staff strength? Total: Male: Female:
- 5) What are the type of staff Hired directly by GCC, Hired through HR/Manpower firms, Permanent staff, Contractual/temporary/staff, Daily wage
- 6) Is there a system to cover compliance of laws related to working hours, welfare conditions of services and employment, workplace discrimination?
- 7) To what extent are these requirements embedded in the contracting structure for hiring consultants/contract workers?
- 8) Is there any system of positive discrimination/quotas? Please explain
- 9) Is there any HR/Manpower firm? Could you share their contact?
- 10) Do you foresee any loss of jobs with change in systems especially the informal or lower cadre of workers?
- 11) What are the systems available for the staff to launch complaints?
- 12) What is done for the safety and security of the last mile workers?
- 13) Could you share something about the Manual Scavenger registrations?

¹⁰⁸ CMO heads the ICC

- 14) Could you share something about the SHGs involved?
- 15) Is the complaint system accessible to all types and category of staff?
- 16) Is there an Internal Complaint Committee of GCC for cases on sexual harassment? How accessible is it?
- 17) What are the Covid related risks now for staff?
- 18) Please explain the SWM GRM: Ways to lodge a complaint, Categories of complaint, Average Number of complaints received (daily and monthly), Resolution rate, Type of complainants (are they from different socio-economic backgrounds), Major issues of complaint
- 19) Could you share something on Communication and behavior change campaigns organised by GCC for SWM. (physical, door to door, radio, television, social media)

Contracted Firms/NGOs

- 1) How long have you been associated with GCC?
- 2) What is your key role and areas of operation?
- 3) What are the type of staff deployed for your contract with GCC?
- 4) Is there a system to cover compliance of laws related to working hours, welfare conditions of services and employment, workplace discrimination?
- 5) To what extent are these requirements embedded in the contracting structure for hiring consultants/contract workers? Is it online? What are the other systems of tracking employees, their contracts, performance etc?
- 6) Is there any system of positive discrimination/quotas? Please explain.
- 7) What are the systems available for the staff to launch complaints? Is the complaint system accessible to all types and category of staff? What are the categories of complaint?
- 8) Is there an Internal Complaint Committee of GCC for cases on sexual harassment? Can you link us with its members? What is your role? How many members? Frequency of meetings? How are staff made aware? What is the preventive/educational role? What is the response/remedial role? What challenges do you face? How can the committee be more effective?
- 9) How much of the staffing requirement will be outsourced (percentage)?
- 10) Any previous projects with World Bank/ADB or UN through which experts were hired or any reports prepared/?
- 11) What are the capacities of GCC in Social Management (Communication, Social Inclusion, Gender, people's participation, grievance redressal)?
- 12) Your suggestions: assessment of services, inclusion, accessibility, challenges and recommendations

GRM

	Physical System	Online System	Telephonic	App based
Name				
Active since when				
How is it advertised				
Address/Link/number				
Is Complaint ticket issued				
What is the first Response				
What is the redressal time frame				
What is the alert system				
What is the Escalation System				
Do you take Feedback from complainant after resolution				

- 1) Any assessment report of the GRM system

- 2) Responsibility Matrix of GRM (Staff of GCC, Health Sector and SWM sector)
- 3) Annual Report on GRM
- 4) Monthly data (at least six months) on number of complaints, type of complaints, resolved complaints, pending complaints, average time of resolution
- 5) Any presentation the GRM system which shows how the four systems are integrated.
- 6) Any copies of advertisement (offline, online) for us to know how it is popularized.

h. Municipal Services— Checklist for Environment

3.5 WRD 2015 Report on resettlement of people evacuated due to investment

Note on the Resettlement & Rehabilitation (R&R) of Project Affected Families (PAFs) living in the Slum / Encroached Habitations within the Right of Way (RoW) / Boundary of the Cooum River under the Integrated Cooum River Eco-Restoration Project (ICRERP) of Chennai Rivers Restoration Trust (CRRT)

The Government have accorded administrative sanction for the implementation of the Integrated Cooum River Eco-Restoration Project (ICRERP) under the aegis of the Chennai Rivers Restoration Trust (CRRT) vide G.O.(Ms).No.9 Municipal Administration & Water Supply (MA&WS) (MCI) Department, dated: 13.01.2015 for Rs.604.77 Cr.

The Resettlement & Rehabilitation (R&R) of 14257 Project Affected Families (PAFs) along the Cooum River has been fully entrusted with the Tamil Nadu Slum Clearance Board (TNSCB) and a sum of Rs.181.85 Cr. (excluding the notional cost of Rs.1041.75 Cr.) has been earmarked to TNSCB under for the Integrated Cooum River Eco-Restoration Project.

The Resettlement & Rehabilitation (R&R) packages for the families of encroached habitations within the Cooum River boundary as follows: Sl. No	R&R Benefit	Total Cost (Rs. in Cr.)
1.	Shifting allowance at the rate of Rs.5000/- per family	8.02
2.	Subsistence allowance at the rate of Rs.2500/- per month for 1 year (Per PAF) i.e. 14257 families x Rs.30,000/-	48.11
3.	Beneficiary contribution at the rate of 10% of the cost of construction (i.e., Rs.65000/-) per tenement	104.25
4.	EB service connection (Rs.2500/- per family)	4.01
5.	Community Development Programmes	5.50
6.	Impact Assessment Study	0.48

7.	Project Management Group	1.59
8.	Land cost at Auto Nagar scheme (300 Sq. Ft. @Rs.638 per Sq.ft for 458 shops)	9.89
Total Cost (Rs. in Cr.)		181.85

Out of total 14257 Project Affected Families (PAFs) identified within the Cooum River boundary, so far 12302 PAFs from 50 Slum Habitations along the Cooum River have been successfully resettled at 5 TNSCB Scheme areas viz., Gudappakam, Navalur, AIR Land, Athipattu & Perumbakkam. Remaining 1955 families living within the Cooum River boundary will have to be relocated.

The following activities undertaken before the Resettlement of encroached habitations;

- a) Announcement on enumeration of families entitled to get the benefits of resettlement and rehabilitation by the Government.
- b) Bio-metric Enumeration:

Joint Enumeration and Bio-metric survey of families living within the Cooum River boundary has been carried out by the Greater Chennai Corporation, Public Works Department and Tamil Nadu Slum Clearance Board by following the due procedure of obtaining details of families through **FORM-2** (Enumeration of family details with family photo taken in front of the encroached structure and signature of the beneficiary for consent to resettle) and **FORM-2A** (Bio-metric details of the family) with the voluntary participation of the family.

c) Survey of School & College going children:

Details about the school and college going children of families have been collected in the encroached habitations.

d) Information on the Resettlement & Rehabilitation (R&R) benefits:

Families of encroached habitants were taken to resettlement scheme area and oriented about the various benefits under the comprehensive Resettlement & Rehabilitation (R&R) packages after resettlement at the TNSCB scheme.

e) Informed Relocation Drive:

Enumerated families were informed about the date and time of the relocation. The following measures taken during the Relocation of encroached habitations by the Greater Chennai Corporation (Education, Health, Elections Department) along with Public Works Department, Tamil Nadu Slum Clearance Board, Police, Civil Supplies, etc.

- a) The relocated families have been provided free transportation from where they lived to TNSCB tenements and also provided food & water for three days as a part of resettlement.
- b) During shifting special camps were conducted by Education Department to issue transfer certificate for admission in the Schools at resettled sites.
- c) Further Medical camps were conducted during every shifting process.
- d) In the camp, special arrangements were made to transfer Voter's ID and Family card (Ration card) to the resettled place.

Procedures adopted for transfer of govt/department land and a report from any other investments

REPORT ON LAND ACQUISITION POLICY OF TAMILNADU WITH RESPECT TO KANNANKOTTAO THERVOY KANDIGAI RESERVOIR PROJECT

The Land Plan Schedule should be prepared based on the Detailed Project Report and should be submitted to the CLA through Revenue Department. The land requested by the Department needed for Project should be duly demarcated, surveyed , measured and marked after the publication of notice under section 6(1) of survey and Reforms Act 1923.

A notification under section 4(1) of Land Acquisition Act 1894 for the land needed for the Project and Declaration under section 6 of Land Acquisition Act 1894 for the total extent should be approved by Government Order and said Declaration u/s 6 should be published in the locality. Scrutiny of the exact area of land acquisition in 4(1) notification and Declaration under section 6 should be verified. Clearance should be obtained from Tamilnadu Reform and Tamilnadu Urban Lands. Then, the market value should be considered and calculated for the extent and solatium should be awarded and the Interest should be calculated from the date of 4(1) notification and award should be passed.

In Kannankottai Thervoykandigai Reservoir Project the total land extent 1485.16 acres in which 800.65 acres of patta land,629.92 acres of poramboke land and 54.59 acres of Reserve Forest land had been acquired under the Under urgency clause 17(1) of Land Acquisition Act1894. And 4(1) notification was published in 5/2013 and Declaration under section 6 was published in 7/2013. Scrutiny of the exact area of land acquisition in 4(1) notification and Declaration under section 6 was verified and Clearance was obtained from Tamilnadu Reform and Tamilnadu Urban Lands.

Now the market value was taken and the amount was calculated with solatium and interest and proposal was sent to Government for funds under the Land Acquisition Act1894. Before implement of RFCTLARR Act 2013 an interim amount of Rs.90.67 Crores was paid to the pattadhars.

After that court had given direction to calculate the compensation by the newly formed RFCTLARR Act 2013. After that the compensation was calculated under the RFCTLARR Act 2013 and Additional amount of Rs.69.05 Crore was paid and interest of Rs.37.33Crores for the additional compensation amount was also paid.

References

1. Aide Memoire
2. Air (Prevention and Control of Pollution) Act, 1981
3. Atal Mission for Rejuvenation and Urban Transformation
4. Ancient Monuments and Archaeological Sites and Remains Act, 1958
5. Ancient Monuments and Archaeological Sites and Remains Rules, 1959
6. Bangalore Metropolitan Land Transport Authority Act, 2008
7. Bio-medical Waste Management Rules, 2016
8. Bonded Labour System (Abolition) Act, 1976
9. Building and other Construction Workers (Regulation of Employment and Conditions of Service) Act 1996; Building and Other Construction Workers' Welfare Cess Act, 1996; Tamil Nadu Rules, 2006
10. Chennai City Municipal Corporation Act, 1919 (Tamil Nadu Act IV of 1919)
11. The Chennai City Municipal Corporation Appointments Committee (Method of Selection) Rules, 1998
12. Chennai Comprehensive Transportation Study (August 2010)
13. Chennai Corporation Health, Malaria and Family Welfare Subordinate Services bye-laws, 2009
14. Chennai Metropolitan Area Groundwater (Regulation) Act, 1987
15. Chennai Metropolitan Area Groundwater Regulations (Amendment) Act, 2014
16. Chennai Metropolitan Water Supply and Sewerage Act, 1978
17. Chennai Unified Metropolitan Transport Authority Act, 2010
18. Chennai Unified Metropolitan Transport Authority (Amendment) Act, 2020
19. Chennai Unified Metropolitan Transport Authority Rules, 2019
20. Child Labor (Prohibition and Regulation) Act, 1986; Tamil Nadu Rules, 1994
21. Citizen Charter of Chennai Metropolitan Water Supply and Sewerage Board
22. Coastal Regulation Zone Notification, 2019
23. Code on Wages, 2019
24. Complete Streets Planning Manual 2020
25. Comprehensive Traffic and Transportation Study, Chennai (2008)
26. Constitution of India
27. Constitution (Scheduled Castes) Order, 1950
28. Construction and Demolition Waste Management Rules, 2016
29. Contract labor (Regulation and Abolition) Act, 1970 and Tamil Nadu Rules, 1970
30. Delhi Development Act, 1957
31. Digital India Mission 2006
32. Environmental Impact Assessment (EIA) Report for underground sewerage system (April 2020)
33. Environmental Impact Assessment (EIA) Report for T.Nagar Pedestrian Plaza (December 2015)
34. Environment (Protection) Act, 1986
35. Environmental Screening Report for Okkiyum Thoraipakkam (undated)
36. Equal Remuneration Act, 1976 and Rules, 1976

37. Forest Conservation Act, 1980
38. Forest Rights Act, 2006
39. Gender Sensitisation and Sexual Harassment of Women at The Madras High Court, Principal Seat at Chennai and Madurai Bench at Madurai (Prevention, Prohibition and Redressal) Regulations, 2013
40. G.O. (2D) No. 86 Dated: 20.11.2018 (Establishment of high-level Apex Committee for monitoring shortlisted Safe City projects)
41. GO No. 34 dated 19/1/2018 (Revision of bus fares)
42. G.O 68 dated 13/2/2018 (Constitution of Expert Committee and Empowered Committee for developing price indexing method applicable to STUs)
43. Hazardous and Other Wastes (Management and Trans-boundary Movement) Rules, 2016
44. India: TN Health Systems Reform Program, PforR, Environmental and Social Systems Assessment (ESSA), 2019
45. Indian Forest Act, 1927
46. Industrial Disputes Act, 1947, Tamil Nadu Act, 1982, and Tamil Nadu Industrial Tribunal Rules, 1958
47. Inter-State Migrant Workmen (Regulation of Employment and Conditions of Service) Act, 1979 and Tamil Nadu Rules, 1983
48. Jawaharlal Nehru National Urban Renewal Mission
49. Land Acquisition (Tamil Nadu Amendment) Acts, 1953, 1961, 1980, 1996 and 1999
50. Maternity Benefit Act, 1961
51. Mega Streets: Inception Report of design consultants (Packages 1-6)
52. Minimum Wages Act, 1948 and Tamil Nadu Rules, 1953
53. Motor Transport Workers Act, 1961 and Rules, 1965
54. Mysore UMTA Act
55. National Competitive Bidding – Sample of CMWSSB standard documents
56. National Green Tribunal (NGT) Orders
57. National Policy for the Empowerment of Women, 2001
58. National Urban Health Mission Guidelines, 2014
59. National Urban Livelihoods Mission, 2013
60. National Urban Sanitation Policy (NUSP) 2008
61. National Urban Transport Policy, 2006
62. Nirbhaya Fund Guidelines:
 - a. O.M. No. 15(26)-B(D)/2013 – DEA, Ministry of Finance (March 25, 2015)
 - b. O.M. No. 15(26)-B(D)/2013 – Part II, DEA, Ministry of Finance (October 26, 2015)
 - c. O.M. No. 24(35)/PF-II/2012 – DoE (PF-II Div.) Ministry of Finance (August 29, 2014)
 - d. O.M. No. 15(26)-B(D)/2013 – DEA, Ministry of Finance (January 6, 2016)
63. Noise Pollution (Regulation and Control) Rules, 2000
64. Payment of Wages Act, 1936 and Payment of Wages (Tamil Nadu Amendment) Act, 1957 and Tamil Nadu Rules, 1937
65. Payment of Bonus Act, 1965 and Rules, 1975
66. Payment of Gratuity Act, 1972 and Tamil Nadu Rules 1973
67. Persons with Disabilities (Equal Opportunities, Protection of Rights and Full Participation) Act, 1995
68. Plastic Waste Management Rules 2016
69. Policy Note, Irrigation (2017-18), Public Works Department, Water Resources Department, Tamil Nadu
70. Presentation: Way Forward – Tamil Nadu Gender Lab, (World Bank, September 2020)

71. Prohibition of Employment of Manual Scavengers and their Rehabilitation Act, 2013
72. Project Concept Note
73. Proposal for Augmenting Health Care System in GCC, Public Health Department, August 2020
74. Reclaiming Safer Spaces for Women and Girls in Chennai, Survey by AWARE (2017)
75. Requests for Proposals (RfPs) of consultants, vendors and contractors under the program
76. Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement Act, 2013
77. Right to Information Act, 2005
78. Right to Service Act, 2010
79. Street Vendors (Protection of Livelihood and Regulation of Street Vending) Act, 2014
80. Scheduled Castes and the Scheduled Tribes (Prevention of Atrocities) Act, 1989, and Rules, 1995
81. Sexual Harassment of Women at Workplace (Prevention, Prohibition and Redressal) Act, 2013
82. Smart Cities Mission
83. Solid Waste Management Rules, 2016
84. Solid Waste Management Bye-Laws, 2019 (Corporation of Chennai)
85. Swachh Bharat Mission Urban (SBM) Guidelines, 2014
86. Tamil Nadu Arunthathiyyars Act, 2009
87. Tamil Nadu Backward Classes, Scheduled Castes and Scheduled Tribes (Reservation of Seats in Educational Institutions and of Appointments or Posts in the Services under the State) Act, 1993
88. Tamil Nadu Backward Class Muslims (Reservation of Seats in Educational Institutions including Private Educational Institutions and of Appointments or Posts in the Services under the State) Act, 2007
89. Tamil Nadu District Municipalities Act, 1920
90. Tamil Nadu Farmers Management of Irrigation Systems Act, 2000
91. Tamil Nadu Farmers Management of Irrigation Systems Rules, 2002
92. Tamil Nadu Groundwater (Development and Management Act), 2003
93. Tamil Nadu Housing and Habitat Development Project (P168590) – relevant Project Documents
94. Tamil Nadu Land Encroachment Act, 1905
95. Tamil Nadu Motor Vehicles Rules, 1989
96. Tamil Nadu Motor Transport Workers Rules, 1965
97. Tamil Nadu Municipal Public Health Service Regulations, 1970
98. Tamil Nadu Municipal Public Health Service (Discipline and Appeal) Regulations, 1973
99. Tamil Nadu Panchayats Act, 1994
100. Tamil Nadu Prohibition of Harassment of Women Act, 1998
101. Tamil Nadu Protection of Tanks and Eviction of Encroachment Act, 2007
102. Tamil Nadu Protection of Tanks and Eviction of Encroachment Rules, 2007
103. Tamil Nadu Rights of Persons with Disabilities Rules, 2018
104. Tamil Nadu Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement Rules, 2017
105. Tamil Nadu State Minorities Commission Act, 2010
106. Tamil Nadu State Commission for Women Act, 2008

107. Tamil Nadu State Water Policy, 1994
108. Tamil Nadu Street Vendors (Protection of Livelihood and Regulation of Street Vending) Rules, 2015
109. The Tamil Nadu Town and Country Planning Act, 1971
110. Tamil Nadu Transparency in Tenders Act, 1998
111. Tamil Nadu Transparency in Tenders Rules, 2000
112. Terms of Reference (ToR) for consultancy services for improvement of existing distribution system in Chennai Core City, Zone X and XIII, CMWSSB (undated)
113. Trade Unions Act, 1926 and Tamil Regulations, 1927
114. Unified Traffic and Transportation Infrastructure (Planning and Engineering) Centre Regulations, 2008
115. Water (Prevention and Control of Pollution) Act, 1974
116. Website of Greater Chennai Corporation - <https://chennaicorporation.gov.in/gcc/>
117. Website of Chennai Metropolitan Water Supply and Sewerage Board (CMWSSB) - <https://chennaimetrowater.tn.gov.in/>
118. Website of Chennai Smart City Limited - <https://cscl.co.in/>
119. Website of Metropolitan Transport Corporation (Chennai) Limited - <https://mtcbus.tn.gov.in/>
120. Website of Transport Commissionerate and State Transport Authority, Government of Tamil Nadu - <https://tnsta.gov.in/>
121. Website of Social Welfare Department, Government of Tamil Nadu - <https://www.tnsocialwelfare.org/>
122. Wetland (Conservation and Management) Rules, 2010
123. Employees Compensation Act, 1923 and Tamil Nadu Rules, 1924
124. World Health Organization (2012), Health in the Green Economy: Health Co-benefits of Climate Change Mitigation - Transport Sector
125. News reports of MTC trade union protests (<https://timesofindia.indiatimes.com/city/chennai/no-work-full-pay-union-accuses-mtc-of-favouring-aiadmk-men/articleshow/79317989.cms>; <https://www.dtnext.in/News/City/2019/02/22045649/1107774/Labour-Dept-to-hold-talks-with-transport-unions.vpf>)
126. News Reports on sanitation worker strikes in Chennai (<https://www.timesnownews.com/videos/times-now/india/chennai-corporation-asks-700-sanitary-workers-to-quit-their-jobs/86335>; <https://timesofindia.indiatimes.com/city/chennai/chennai-corporation-sanitary-workers-call-off-protest-seeking-pay-hike/articleshow/78009791.cms>; <https://www.youtube.com/watch?v=Vq6fEnnN3Lk>)
127. 74th Constitutional Amendment Act, 1993
128. Other references: Smart City Self-assessment reports on Chennai Municipal Corporation website; GCC's Note on Health Systems Reform prepared by the World Bank ; Development of online system with web portal and mobile app for monitoring and tracking of Bio-medical waste generated in HCFs and collection, transport and disposal of bio-medical waste done by CBMWDF in Tamil Nadu – A Note from TN Pollution Control Board.; Household survey on urban transport conducted in 2018

