

Government of Kerala
Terms of Reference for Hiring of a Project Management Consultant(PMC)
Kerala Solid Waste Management Project (KSWMP)

A. Background

The Project Development Objective (PDO) for the Kerala Solid Waste Management Project (KSWMP) is to strengthen the institutional and service delivery systems for municipal solid waste management (SWM) in Kerala. The project adopts an integrated service delivery value chain approach to address the key institutional, financial, service delivery and infrastructure constraints in the SWM system in Kerala. The proposed KSWMP project will support the 87 municipalities and the project design comprises three components:

1. **Component 1: Institutional development, capacity building and project management.** The component will provide technical assistance and capacity building at state and local level for (a) undertaking SWM institutional and policy reforms; (b) planning, designing and implementing investment sub-projects for climate smart and disaster resilient SWM infrastructure and services improvement; (c) organizational development of participating ULBs for inclusive and sustainable SWM service delivery; and (d) awareness generation, gender inclusion and stakeholder engagement. This component will also provide project management, coordination and monitoring support at state, district and local levels. Lastly, this component will also provide technical support to LSGD, SM and participating ULBs for (i) developing guidelines and systems for COVID-19 related waste management, sanitization and public hygiene practices to be rolled out across all urban areas, and (ii) carrying out social awareness generation, sensitization and training programs for all the key stakeholders and citizens

2. **Component 2: Support to ULBs for SWM.** The component will support the participating ULBs for improving their SWM systems and capacities, mainly on (a) primary collection and transportation systems for solid waste (b) source segregation and treatment for BDW at decentralized level, (c) Rehabilitation of the existing MCFs/RRFs and development of new integrated MRFs, (d) development of BDW management facilities, (e) closure/remediation of existing dumpsites and development of disposal cells as interim disposal facility, (f) public space cleaning, sanitization, waste removal activities as well as cleaning and sanitization of government offices, hospitals, community level waste recycling/processing facilities, (g) protective gears, equipment, masks, chemicals, disinfectants etc. for sanitation and waste management workers, (h) operations and maintenance payments for performance-based contracts and tipping fee for regional disposal and (i) implementation of environment and social risk mitigation actions as per ESMF-TDF-RPF.

3. **Component 3: Development of regional SWM facilities.** This component will finance regional processing and recycling facilities; transfer stations and regional sanitary landfills for municipal solid waste disposal; and closure/remediation of existing waste dumpsites. These down-stream activities aim at completing the value chain and will be managed by Suchitwa Mission (SM) and implemented in compliance with the National SWM Rules 2016 and the guidelines issued by Central Pollution Control Board. In addition, this component will also finance the biomedical waste management facilities and construction and demolition (C&D) waste management facilities. A cluster approach will be adopted for the planning, design and development of regional facilities. For each of the regional landfills, a waste-shed areas (WSA) will be established around the land parcels identified by the government.

The project supports a hybrid approach of decentralized and centralized waste management systems. At the decentralized level, participating ULBs will have a lead role in delivering SWM services including generator level waste segregation and treatment, primary collection and transportation, waste processing and recycling. Owing to the demographic and geographic profile of the state, characterized by closely located medium and small-sized ULBs and peri-urban areas with high population density, the project will also support a regional approach for regional SWM processing and disposal.

Implementation arrangement: SM under LSGD will be the primary implementation agency for the project and will be responsible for the implementation, management, coordination and monitoring of KSWMP at the state level. The Executive Director of SM will act as Project Director (PD) and a dedicated SPMU is being established under him supported by a full-time Deputy PD and a team of core technical staff for carrying out core functions of the project. To monitor and coordinate the activities of ULBs, the SM will set up DPMUs in each of the 14 districts of the state, housed in the District Collector's office. At the local level, all the participating ULBs will be required to constitute a PIU under the Secretary (executive head) of the ULB

B. Objective of the assignment

The objective of the assignment is to provide overall project management and technical support for implementation of Kerala Solid Waste Management Project (KSWMP). The Project Management Consultant (hereinafter called the 'Consultant') will provide a) Project management support b) TA and training support and c) Support for ULB level Investments under Component 2 and d) Support for Regional SWM Infrastructure Investments Subprojects under Component 3, details under each are provided in the Section C below.

The Consultant will be providing support at two levels: a) State Project Management Unit (SPMU) and, b) all 14 District Project Management Units (DPMU) with necessary coordination between SPMU and DPMUs for a majority of activities detailed in the scope of services below. The consultants are expected to deploy their teams at the SPMU in Suchitwa Mission, Trivandrum as well as at all the 14 district offices to support the DPMUs and provide necessary support to SPMU and DPMUs for their various roles and responsibilities necessary for the successful implementation of the KSWMP. The team leader of the consulting team will report directly to the Project Director, KSWMP in Suchitwa Mission, Government of Kerala while the day to day activities, works planning and staff utilization will be coordinated and supervised by the government officials assigned to SPMU and DPMUs.

C. Scope of Services

In pursuance with the above objective (section B above), this section details the scope of services for the Consultant for the envisaged support to SPMU and DPMUs.

Activity 1: Project Management

- a. The Consultant will support the Suchitwa Mission, Government of Kerala, in management of all Project components and sub-components to facilitate the implementation of KSWMP. This will include supporting the respective institutions (SPMU and DPMUs) to (i) prepare and implement annual work plans, procurement plans and budgets for the Project, (ii) verify, evaluate project performance against the results framework and take necessary remedial actions, (iii) undertake project reporting both for purpose of Suchitwa Mission, Government of Kerala and the World Bank, (iv) manage project accounts and audit, (v) manage consultancy contracts, among others.
- b. The overall project management shall comprise of:
 - I. *Financial Management:* The consultants shall provide support to SPMU and DPMUs to ensure that all financial management aspects, including accounting, are satisfactorily implemented by the SPMU and respective ULBs under DPMUs as per the Financial Management Manual for the Project, assist them in developing the form and contents of various reports such as: (i) service standards, (ii) accounting books and records, (iii) Financial and Accounting Reports, (iv) Interim Unaudited Financial Reports (IUF), (v) Budgeting and forecasting systems, (vi) Overall cost table, (vii) Analysis and summaries of various reports to facilitate decision making, and (viii) Satisfactory preparation of the Annual Project Financial Statements in a timely manner. The consultants shall extend support to the internal and external auditors such as Comptroller and Auditor General (CAG), State Performance Audit Officer (SPA) etc. of Government of Kerala and the World Bank with access to all data and reports.
 - II. *Grant Management for ULBs:* The consultants shall provide support to the SPMU and DPMUs to manage the entire grant cycle for Component 2 to ULBs. The key activities include:

- a. Verifying the Annual Triggers (ATs): Assist the DPMUs in reviewing the ATs and ensure compliance before ULBs seek the annual grant allocations. In case of non-compliance by ULBs, assist the DPMUs to determine the amount to be adjusted for the disbursements for the next year.
 - b. Providing grant allocation to ULBs: Support SPMU in reviewing the reports submitted by the Independent Verification Agency (IVA) and the results of AT compliance to determine the final grant (basic and incentive) allocations of the ULBs..
 - c. Preparing annual budget and plans: Undertake annual budgeting and planning for the entire component 2 based on the ATs met and the approved annual development plans prepared by the ULBs, along with assisting SPMU in any official coordinations with the State's Treasury for approvals
 - d. Seeking periodic physical and financial reports: Assist SPMU and DPMUs in reviewing the physical and financial reports received from ULBs on a periodic basis.
 - e. Preparation of utilisation reports: Assist SPMU and DPMU in preparing periodic utilization reports as well as the consolidated reports for submission to the Bank, as per Project Implementation Manual (PIM).
 - f. Assisting SPMU to undertake grant reallocation process: Assist SPMU to undertake grant reallocations, as per the procedures laid out in the PIM.
- III. *Procurement and Contract Management support*: The consultant shall perform the following, but not limited to, activities:
- a. Support SPMUs for hiring technical support consultants (TSCs) required at DPMU level for component 2, additional specialised experts/training institutions for delivery of specialised trainings, IEC/Communications agency, specialized technical consultants for developing engineering design and safeguard documents for regional infrastructure investment subprojects, and other procurements as required for delivery and implementation of various components of KSWMP.
 - b. Develop overall procurement plan in line with KSWMP's PPSD and procurement manual and update the procurement plans, PPSD, annually based on the procurement performance at various levels (ULBs, DPMU and SPMU).
 - c. Provide handholding, coordination and oversight support to ensure adoption of STEP system, and regular updation, at ULB's PIUs, DPMUs and SPMU levels for all the procurements that would be done under the KSWMP. The consultant shall ensure compliance with the approval requirements from DPMUs, SPMU, World Bank for various procurement thresholds and technical and safeguard categorisation of sub-projects in line with PPSD, Procurement Manual and PIM requirements.
 - d. Support SPMU for overall contract management for various procurements related to hiring of consultants, implementation of sub-projects, etc. This would include collation, oversight and management of contractual clauses that are critical for ensuring regular monitoring of procurement performances and benchmarking with procurement requirements established under Procurement Manual and PIM.
- IV. *Monitoring, and Evaluations systems*
- a. The consultants shall support SPMU to develop a SWM sector focused Management Information System (MIS) for Monitoring and Evaluation (M&E) of various activities in line with the PIM requirements as well as for ensuring development of an integrated and holistic M&E tool. The Consultant shall provide support to SPMU in hiring specialised firm/IT vendor for development of specific IT systems/tools and shall ensure its implementation, integration and adaptation for various reporting functions as per PIM requirements. The tentative ones, but not limited to, include:
 - i. Monitoring and evaluation the progress of various project management activities, such as financial management, grant disbursement, procurement and contract management
 - ii. Monitoring and evaluation the progress of sub-activities/sub-projects supported under Activities 2, 3 and 4, detailed below.

- iii. Monitoring and evaluation of safeguardcategory and compliances withKSWMP’s ESMF¹, and grievances associated with sub-projects at the ULB level and State/regional levels.
 - iv. Monitoring and evaluation of baseline, progress, and annual targets for all the project KPIs and results frameworksdetailed in the PIM.
 - b. The consultant shall develop templates/guidance manuals and provide handholding support to ULBs’ PIUs, DPMUs as required for data collection for various M&E tools and operationalising of the M&E systems.
 - c. As part of the management of M&E tools, the consultant shall ensure coordination with other consultants engaged by SPMU/DPMUs for data collection/survey exercises and ensure real timeupdatation of data and updation of the M&E tools to ensure the maximum functionality of such M&E tools.
- V. *Record keeping and reporting:* The Consultant shall
 - a. Ensure that all the necessary records w.r.t the activities detailed in the scope of work are duly maintained in soft and hard copies, with proper backups accessible.
 - b. Based on the M&E systems, prepare detailed monthly, quarterly and completion reports of the program activities and support SPMU in prepratiom of the reports to be submitted to the World Bank.
 - c. For sub-projects supported under component 2 and component 3, ensure back up of various sub-project documents, prepare subproject contract completion report summarizing the construction activities and indicating, among other things, contract changes, claims or disputes, or any other substantive matters having an effect on the cost and progress of the works with accurate and complete "As Built" drawings for the completed works to the SPMU.

Activity 2: Technical Assistance and trainings

a. TA support to the Suchitwa Mission and LSGD towards state level policy initiatives

- I. *Support for Policy and regulatory reforms:* The Consultant shall
 - a. Provide technical support toSPMU in reviewing and developing/revisingpolicy and regulatory documents(including the Kerala Municipality Act (KMA) 1994, Kerala SWM Operational Guidelines 2017, Kerala State Policy on SWM 2018) in line with the latest state level integrated SWM strategy adopted by the GoK.
 - b. Assist SPMU in planning the implementation of policy and regulatory changes and provide handholding and coordination support to SPMU wherever needed.
- II. *Support for COVID-19 related issues:*The Consultant shallassist LSGD/Suchitwa Mission in developing operating guidelines for COVID-19 medical waste management as per World Bank policies, national regulations and necessary Government Orders for public space cleaning, sanitization and hygiene post COVID-19 crisis.
- III. *Develop model organization structure:* The Consultant shall assist LSGD/Suchitwa Mission to
 - a. Develop the ‘model staffing policy’that would be adopted by ULBs though a consultative process with Suchitwa Mission, LSGD and any other relevant stakeholders.
 - b. Support the SPMU to develop necessary Government Orders and notifications for implementation of the model staffing policy and provide handholding and coordination support to SPMU wherever needed.
- IV. *Revisionof the ESMF:* The consultant shall revise the ESMF as per thedetailed scope mentioned in Annex 1. The consultant shall
 - c. Collect, analyse and incorporate the feedback from key stakeholders into TDF-SMF and RPF and update the TDF-SMF and RPF for timely re-disclosure.

¹ ESMF comprises of Part A: Environment Management Framework; Part B: Tribal Development Framework-Social Management Framework; and Part C: Resettlement Policy Framework

- d. Build a gender baseline of female workers in solid waste management in the ULB.
 - e. Revision/preparation of any other relevant state level actions plans.
- V. The Consultant shall support SPMU to develop model formats, guidelines, manuals to complement State's solid waste management strategy as well as standardize various templates that would support KSWMP's interventions. The consultant should conduct an initial assessment of the model formats, guidelines, manuals required in line with the requirement of the PIM and agree with World Bank on the standardization that would be done for efficient sectoral planning, and KSWMP implementation. The tentative ones include, but not limited to,
- a. PPP guidelines as well as Model performance-based contracts/model concession agreements for various ULB level and regional interventions (such as city level C&T performance-based management model contracts, model DBOT agreements or concession agreements for operations and management of waste processing facilities and disposal facilities at the city/regional level).
 - b. Standard templates for the SWM by-laws to align to the principles of the new state level SWM strategy.
 - c. Steps and guidelines for setting up a SWM Department in the ULBs i.e. city level PIUs with dedicated core technical and administrative staff.
 - d. Guidelines/standardized frameworks on sub-project identification, sub-project planning and prioritization, financial and economic costings, cost recovery via user charges, safeguard screening, monitoring, evaluation and management as per ESMF, PPP structuring etc.
 - e. Develop model accounting, budgeting and financial management systems manual for SWM

b. Training and Capacity building activities

- I. *Training Needs Assessment (TNA), and training plan preparation:* The Consultants shall assist SPMU and DPMUs to
 - a. Review the training program included in PIM and ESMF, and conduct TNA consultations with various Government officials in ULBs across each district, identify key gaps and topics in SWM sector, and prepare a District level Training Plan covering the training plan for ULBs falling in the respective districts. The TNA as well as training plan revision shall be an annual exercise. Similarly, the TNA and training plan for State level government institutions associated with SWM sector shall be developed.
 - b. Identify specialized institutions/training service providers in line with the identified training plans, develop training curriculum and deliver trainings at the state level and ULB level as per the training plans.
 - c. The specific activities included in the training plans should be aligned with the various KSWMP interventions, should complement 'on the job trainings' for the ULB level PIUs, DPMUs and SPMU and should extend to potential stakeholders.
- II. *Conduct/facilitate trainings:* The Consultant shall
 - a. Provide all identified project management related trainings, in line with their role across other activities on financial management, procurement, overall environment and social safeguard management, implementation mechanisms, M&E to Government officials at DPMUs and ULBs.
 - b. Provide facilitation, coordination and oversight support to all other technical and specialized trainings across thematic areas, such as specialized trainings for specific social and environment instruments, COVID waste management, dumpsite remediation, landfill design etc., that will be delivered by identified specialized institutions, and Kerala Institute of Local Administration (KILA).
- III. *Training progress and completion reports:* The consultant shall provide overall progress monitoring and reporting support to SPMU. This would include, but not limited to, recording attendance, collecting feedback from all participants, developing training reports for all the trainings undertaken as per the training plan, collating the training progress against the plans for the ULB and State level trainings, and preparing annual progress reports for each DMPU as well as over programme.

- c. **IEC, communications and Public Outreach:** The consultants shall provide
 - I. Handholding support to SPMU in engaging/procuring an IEC/Communications agency for implementing a state level SWM focussed 'IEC/Communications strategy'.
 - II. Oversight, monitoring, and quality control support for the implementation of the IEC/Communications strategy and responsibilities of Public Information Cell and make periodic assessment of the progress, gaps, if any, and impacts and recommend the measure for improvement of the same.
 - III. Handholding support to SPMU to ensure 'public dissemination/disclosure' of the sub-project documents, as required, and to update and maintain the SPMU's website, ensuring regular and easy access for information in the public domain.
 - IV. Support the SPMU and DPMUs in following up on any issues/ feed back arising from the implementation of the IEC/Communications strategy

Activity 3: ULB level Investments under Component 2:

The consultants will be required to provide project management, coordination, technical due diligence and quality assurance, and M&E support to SPMU and DPMUs for supervising the activities being planned and implemented by ULBs under component 2.

- a. **5-year SWM planning:** Provide necessary support to SPMU/DPMUs to:
 - I. Undertake technical review and quality assurance of SWM Plans (including financial sustainability plans and ESIA) prepared by the ULBs as per PIM. Ensure that the 5 - year SWM plans (SWMPs) are developed in line with the revised state level SWM strategy, standard technical guidelines given in the PIM, ESMF) and any related state/national SWM regulatory framework etc.; address the respective city's long term solid waste management service delivery and infrastructure needs and provides an indicative list of priority infrastructure investments for each city.
 - II. Collate all the necessary information from the approved SWMPs as well as other city level baseline surveys and update/revise all the relevant programme plans/MIS tools prepared as part of Overall Project Management.
- b. **Investment sub-project preparation:**
 - I. *Technical review of the feasibility reports/DPRs:* The consultants shall assist DPMUs in reviewing, verifying and ensuring the technical quality of various documents (FRs/DPRs) in line with the technical review requirements mentioned in the PIM. The technical review shall include, but not limited to,
 - a. Detailed technical review of the sub-project's designs
 - b. Detailed review of the various technological and operational solutions as well as the recommended option proposed at the feasibility/DPR preparation stages, including advice on additional/alternate efficient and more resilient technological and operational solutions that could be used in order to make the sub-projects technically, operationally, economically, environmentally and socially more effective.
 - c. Other critical technical review aspects, as required under the requirements mentioned in PIM, shall cover validation and gap filling of the disaster resilience, material & equipment specification, project cost, O&M, financial sustainability, project structuring, procurement modality, user charge frameworks etc.
 - II. *Field Visits:* As part of the technical support to DPMUs, the consultants shall conduct field visits whenever needed for, but not limited to,
 - a. Due diligence of the project site to validate the data collected as part of FR/DPRs,
 - b. Review and validation of the design data, and outputs of other engineering/ technical surveys/studies as part of FR/DPRs,
 - c. Validation of the proposed technical design solutions in accordance with the site conditions.

- d. Review and validation of various clearance needed for the project implementation
- III. *Environmental and social safeguards*: The consultant shall assist the DPMUs in reviewing, verifying and ensuring the quality of various sub-project specific safeguards instruments², as well as inclusion of safeguard related progress aspects in all deliverables such as audit reports, QPRs and other reports submitted to DPMUs for approvals. The safeguard related review shall include, but not limited to,
 - a. Compliance of the sub-project specific safeguard instruments with ESMF requirements
 - b. Review and verify that the sub-project design incorporates the recommendations and mitigation measures provided in sub-project specific safeguard instruments and are reflected in the budget/costings
 - c. Review and verify the monitoring system established for measuring the effectiveness with which the sub-project specific safeguard instruments are implemented and recommend necessary corrective actions that need to be taken.
 - d. Confirm that ULBs include sub-project specific safeguard instruments appropriately in bidding documents on time.
 - e. Verify consultations and timely disclosure of final sub-project specific safeguard instruments and their translated versions by ULBs in subproject locations and in a form accessible to the public.
 - f. PMC shall provide coordination and facilitation support to DPMUs/SPMU for any sub-project specific environmental, land related and other regulatory clearances from Govt of Kerala.
- IV. *Review and finalisation of Bid documents and support during bid evaluation/negotiations*: The Consultants shall support DPMU
 - a. Review the bid documents prepared by ULBs (with the support of TSCs) to ensure that the bid documents follow the project procurement manual and that appropriate performance indicators are included in the Bid documents.
 - b. Ensure that the various schedules in the bid documents, including technical specifications, construction schedules, O&M schedules, cleared ESMPs following ESMF requirements, are in line with the construction and operational requirements of the project.
 - c. Prepare tendering guidelines and templates for bid evaluation that would be followed by ULBs for carrying out the bid process management.
- V. *Coordination for approvals from SPMU and the World Bank*: The consultants shall
 - a. Assist DPMUs with submitting the technical documents, safeguard documents, draft bid documents for approvals, as required under the PIM and assist SPMU in providing necessary technical clearances. The consultant is expected to ensure independent reviews within their team at both levels – DPMUs and SPMU, to avoid any conflict of interest.
 - b. Further, for any clearances/ No objection certificates required from World Bank for any of the sub-project related documents, the consultant is expected to support SPMUs for providing necessary justifications and supporting documents for seeking clearances.
 - c. Collate all the necessary information from the approved sub-projects and update/revise all the relevant programme plans as well as monitoring tools prepared as part of Overall Project Management.
- c. **Quality control review and monitoring during sub-project implementation³**:
 - I. The consultant shall assist DPMUs and SPMU in quality control review, monitoring and reporting of various sub-project implementation activities progress, supporting SPMU and DPMUs in any discussions to solve

²Sub-project specific safeguard instruments include Environmental and Social Impact Assessments (ESIAs), Environmental and Social Management Plan (ESMPs), Gender Action Plans (GAPs), Gender Based Violence (GBV) plans, Stakeholder engagement plans (SEPs), Labour Management Plans (LMPs), Construction specific ESIAs/ESMPs (C-ESIA/C-ESMPs), Tribal Development Plans-Social Management Plans (TDP-SMPs) and Resettlement Action Plans (RAPs), depending on ESMF's requirements

³Construction supervision will be undertaken by the respective ULBs with the support of their respective technical support consultants. PMC's role is limited to quality control review and due diligence support to SPMU and DPMUs.

implementation level issue and clearing any project related documentations such as material variations, invoices etc. as per the requirements of the PIM.

Activity 4: Regional SWM Infrastructure Investments Subprojects under Component 3

- a. **Investment subproject planning and preparation:** The Consultant shall be responsible for supporting SPMU in carrying out the following activities:
- I. *Overall planning and identification of regional sub-projects:* This shall include detailed cluster planning, land identification as per the land siting criteria specified in the PIM and shortlisting of potential clusters along with waste quantum, potential land details with preliminary costings of such cluster-based projects. This shall also include initial screening of such regional projects for feasibility preparations.
 - II. *Feasibility preparation:* This shall include detailed technical feasibility for each of the regional projects based on the technical requirements mentioned in the PIM. The feasibility preparation shall include, but not limited to details of the waste generation quantum in the clusters, scope and coverage/waste shed area details, upstream value chain planning and estimation based on technical guidance mentioned in the PIM, surveys and investigations, proposed technological solutions, locational due diligence of the sites, including details of ownership and any required ownership transfers, based on the templates mentioned in the PIM, initial environmental and social screening based on the templates mentioned in the PIM, detailed cost assessment for infrastructure creation, equipment, operations and maintenance costs over the proposed sub-project periods, financial sustainability and cost recovery plans, proposed inter ULB arrangement, financial burden and sharing among the participating ULBs, key performance indicators for the stakeholders (private operator, participating ULBs, SPMU, etc.), conduct stakeholder consultations for each of the sub-projects as per the requirements mentioned in the PIM and ensure readiness assessment against the checklist mentioned in the PIM and ensure coordination between ULBs, SPMU for meeting the requirements for the sub-projects' readiness for bidding.
 - III. *Safeguard instruments:*
 - a. Hiring technical consultants for preparation of subproject specific safeguards instruments documents. This shall include handholding SPMU through the complete scope planning and final selection process of such consultants.
 - b. Assist the SPMUs in reviewing, verifying and ensuring the quality of various sub-project specific safeguards instruments⁴, and inclusion of safeguard related progress aspects in all deliverables such as audit reports, QPRs and other reports submitted to SPMUs for approvals. The safeguard related review shall include, but not limited to,
 - i. Compliance of the sub-project specific safeguard instruments with ESMF requirements
 - ii. Review and verify that the sub-project design incorporates the recommendations and mitigation measures provided in sub-project specific safeguard instruments and are reflected in the budget/costings
 - iii. Monitoring the implementation of ESMPs, including all the relevant sub-project specific sub-plans, as per the ESMF and recommend necessary corrective actions that need to be taken
 - iv. Confirm that SPMU include sub-project specific safeguard instruments including labour influx tool and labour laws appropriately in bidding documents on time.
 - v. Ensure consultations and timely disclosure of final project specific safeguard instruments and their translated versions by ULBs/Suchitwa Mission in subproject locations and in a form accessible to the public.

⁴Sub-project specific safeguard instruments include Environmental and Social Impact Assessments (ESIAs), Environmental and Social Management Plan (ESMPs), Gender Action Plans (GAPs), Gender Based Violence (GBV) plans, Stakeholder engagement plans (SEPs), Labour Management Plans (LMPs), Construction specific ESIAs/ESMPs (C-ESIA/C-ESMPs), Tribal Development Plans-Social Management Plans (TDP-SMPs) and Resettlement Action Plans (RAPs), depending on ESMF's requirements

- vi. Participate in site level / district/state level conferences, discussions and other meetings associated with safeguard compliance and provide necessary inputs as required.
 - vii. Support SPMU in coordination with Revenue Department and other relevant stakeholders as required for Land procurement and RAP preparation. Similarly, PMC shall provide coordination and facilitation support to SPMU for any sub-project specific environmental and other regulatory clearances from Govt of Kerala.
 - viii. Support SPMU in obtaining clearances from the World Bank for sub-project specific safeguard instruments, including any revised/updated ones based on final sub-project implementation/design requirements.
- IV. *Bid process management*: The consultant shall support SPMU in the activities including, but not limited to, following,
- a. Prepare the draft bid documents for the sub-projects. The bid documents shall contain all the necessary technical schedules and safeguard details such as technical specifications, construction schedules, incorporating applicable ESHS (Employee Safety and Health Standards), O&M schedules, cleared ESMPs following ESMF requirements, as per the construction and operational requirements of the project, and should meet the requirements of bid documents checklist mentioned in PIM.
 - b. For prior review procurement packages, seeking ‘No objection’ from the World Bank at various stages of procurement process and contract management as per the requirements of World Bank Procurement Regulations.
 - c. Bid process management i.e. issue of RfPs/bid documents, market sounding, holding pre-bid conferences, bid evaluation, bidder selection, etc, ensuring that the procurement activities are in line with the Procurement Regulations for IPF Borrowers for Procurement in Investment Project Financing - Goods, Works, Non-Consulting Services and Consulting Services,” dated July 2016 revised November 2017 and August 2018 (“Procurement Regulations”) and other provisions as applicable.

b. Investment subproject implementation:

- I. *Quality assurance of DPRs*: The consultant shall provide technical due diligence and quality assurance support to SPMU for review, verification, improvement of the DPRs that would be prepared by the private operators selected in line with the DPR review requirements mentioned in the PIM.
- II. *Subproject specific Safeguard instrument revisions and implementation*: The consultant shall
 - a. Coordinate with technical consultants involved for preparation of sub-project specific safeguard instrument) for any revisions based on DPRs.
 - b. Ensure integration of the designs proposed in the DPR with the requirements of the sub-project specific safeguard instruments.
 - c. Oversee the implementation of the sub-project specific safeguard instruments, including handholding SPMU in addressing any issues during implementation.
- III. *Construction supervision*: The consultant shall
 - a. Review the quality of works, compliance with the technical specifications, compliance with the agreed social and environmental safeguards by visit to the project sites and ensure that the construction activities as well as audits/inspections/ material testing are in line with QA/QC guidelines mentioned in the PIM.
 - b. Assist SPMU in establishing a system to expeditiously proof check all the structural and processes designed by the contractors and regularly monitor the physical and financial progress of each sub-project.
 - c. Assist SPMU in conducting detailed assessments for any variations as per the guidelines mentioned in the PIM.
 - d. Assist SPMU in assessing the reasons for any delay in implementation and recommend ways to accelerate the project implementation
- IV. *Construction completion*: The consultant shall

- a. Assist SPMU in verifying the construction completion for the sub-project, construction site restoration, construction waste management in line with the requirements mentioned in the PIM.
 - b. Assist SPMU during operational demonstration done by private operators as per the requirements mentioned in PIM, scrutinize any modification proposals proposed by private operator and advise SPMU for necessary clearances of the same. The Consultant shall provide independent verification reports for critical construction components such as Structural Soundness Reports, mechanical and electrical functioning etc. as per the requirements mentioned in the PIM.
- c. **Post-construction operations:** The consultant shall
- I. Monitor the quality of O&M and performance indicators for each of the sub-projects post implementation as per the requirements of DBOT agreements, assess the gaps and shall make recommendations for improvements as part of the quarterly reports; support SPMUs in any discussions to solve implementation level issue
 - II. Ensuring adoption of performance based O&M monitoring system for the sub-project and assist SPMU in selection of Independent Engineers⁵ for the O&M phase/post culmination of the KSWMP tenure and transition of the monitoring systems to SPMU.

D. Reports, Deliverables, Payment, Tenure and Reporting

a. Reports and Deliverables

- I. **Inception Report:** At the Inception stage, based on the scope of work detailed above, the Consultants will work with the SPMU to develop a state level plan, as part of the Inception report, that will identify/detail out the key deliverables associated with Activity 1,2, 3 and 4 that will be delivered/implemented as part of the overall programme management, TA/training support, support for city-level investment and support for state-level investments. The inception report shall also include the
 - a. Phasing/timeline of various deliverables across activities detailed above,
 - b. A detailed work program for each of the activities, including, but not limited to:
 - 1. Mapping of the deliverables linked to activity 1,2,3 across the timelines of progress reports (monthly/quarterly/yearly)
 - 2. Mapping of deliverables for each sub-project under activity 4 across the planning, preparation and implementation timeline of identified sub-projects.
 - c. Consultants' team structures and their deployment phasing for delivery of envisaged scope of work under each activity.
 - d. Timeline: The Inception Report needs to be submitted within six months from the start of the assignment.
- II. **Monthly reports (MR):** The draft MR will be submitted within a week from the end of the month, except for the initial 6 months, for which the report is submitted. The MR shall inter alia include work progress on all components, tasks undertaken, achievement against the planned work plan provided in inception report, details of the consultations, staff deployment, identifying the issues encountered, and indicating the corrective actions taken or proposed.
- III. **Quarterly Reports (QR):** The draft QR will be submitted within two weeks from the end of the quarter, except for the initial 6 months, for which the report is submitted. The QR shall inter alia include work progress, team mobilization, tasks undertaken, results achieved, meetings held and persons met, achievement against the planned work plan provided in inception report, planning of activities for next quarter, updated works schedule and staff mobilization plan, details of the consultations, staff deployment, identifying the problems encountered, and indicating the corrective action taken or

⁵Independent engineers will provide all necessary sub-project specific detailed QA/QC testing and the role shall be defined for each DBOT concession agreement.

proposed. The quarterly reports shall also include documents for various sub-activities and sub-projects with draft/final/approved status across each.

- IV. **Annual Reports (AR):** The annual reports will be submitted within week from the end of fiscal year for which the report is submitted. The AR shall inter alia include work progress, team mobilization, tasks undertaken, results achieved, meetings held and persons met, planning of activities for next quarter, updated works schedule and staff mobilization plan, status of M&E indicators, difficulties encountered, forecast of assistance required for each component/activity of the assignment from the client.
- V. **Final Report:** The completion report of the consultants providing the details of overall work progress and final documentations.
- VI. **Deliverables for Activity 4: Sub-project specific documentation**
 - a. The consultant shall prepare the implementation schedule of various deliverables specified in the Section C, as part of the inception report, agree with SM and align the payment schedule with the agreed timeline of deliverables.
 - b. The consultant shall submit the final deliverables specified to Client post incorporation of Client's and World Bank's comments on the draft documents for payment.
 - c. The consultants shall complete the review and due diligence of the sub-project specific technical documents and submit the draft and final versions (based on comments from the Client) DPRs/Sub-project specific safeguard instruments (and other documents as required) as per the schedule specified in the Inception Report. The Consultant shall ensure that these documents contain all the necessary surveys, investigations, technical assessments, social-environmental assessments, financial assessments, detailed designs/drawings, as required for the sub-projects and as per the activities detailed in the ToRs of the technical consultants.
 - d. Indicative size and nature of regional sub-projects under Activity 4 are provided in the table below. The number of such sub-project may vary.

Nature of sub-project	Tentative scale & numbers
Regional municipal waste processing, recycling and/or resource recovery	Small to medium scale (~100 TPD)
Large dumpsite rehabilitation and disposal cells for interim period (5-10 years) along with secondary transportation	Landfills, 60 to 100 TPD disposal capacity each, (5-6 projects) Remediation, 30,000 tonnes per site, 5-6 nos
Landfills for long term (15-20 years) including regional transfer stations and secondary transportation	Landfills, 150 to 200 TPD disposal capacity (3-4 projects)
Dumpsite rehabilitation	Remediation, 30,000 tonnes per site; 5-6 nos
Regional processing and disposal facilities for construction and demolition waste including C&T	Medium scale USD 2-3 Mn; 3 to 6 nos
Regional processing and disposal facilities for biomedical waste including C&T	Medium scale USD 1-3 Mn, 3 to 6 nos
Total KSWMP's allocation for component 3 supported regional sub-project investments	USD 110 Mn

b. Report Format

- I. The consultants shall prepare all reports in English and complete digital files in a format and manner acceptable to the Client and the World Bank. Consultants to ensure that the technical documents (DPRs/FRs) and safeguard instruments are translated in Malayalam language.
- II. All the reports will need to be reviewed and approved by the Project Director of the SM, and no-objection will be sought from the World Bank before being finalized for payments. Consultants will be required to make a power point presentation for all its deliverables.

- III. All the reports required by the TOR shall provide a clear presentation and include a table of contents and an executive summary. The main body of the text shall be organized in sections and concentrating on the finding and recommendations and their justification. Supporting data and analysis shall be contained in the Annex which will be referenced as appropriate in the body of the text. All paragraphs in the executive summary, the text, and the Annex, shall be numbered to facilitate communication across the contents of reports.
 - IV. The reports shall be illustrated (as appropriate) with drawings, sketches, tables, graphs, and maps to aid comprehension and assimilation of their contents.
 - V. The consultants will need to submit a draft template of all the deliverables as part of the inception report which will be reviewed by the Client and the World Bank for adequacy and shall incorporate all the suggestions and submit the deliverables accordingly.
 - VI. In case of poor/non-performance of services, the Consultants may be requested to make changes in the key staff positions deployed by them at that moment.
- c. **Period of Performance:** The Consultant will support the client for a total period of 6 years. The consultant's performance will be evaluated at mid-term after completion of 3 years and decision will be taken to continue for another 3 years subject to satisfactory performance as assessed by SPMU.
- d. **Reporting structure**
- I. The consultants will report to the Project Director at SPMU, Suchitwa Mission, for this assignment and will work closely with the SPMU staff, DPMU staffs and core task team members from the World Bank.
 - II. The entire assignment shall be carried out under the overall guidance of the SPMU, Suchitwa Mission. At all steps, the consultant will be required to closely engage and seek inputs from the client, Bank team and other consultants hired by the client/World Bank.
 - III. The SPMU and DPMUs will assist the consultant to arrange and organize all the required meetings for data collection, stakeholder consultations in coordination with PIUs or any other meetings required for the successful completion of the assignment. The SPMU's/DPMUs'/Bank's task team may join some of the consultation meetings.

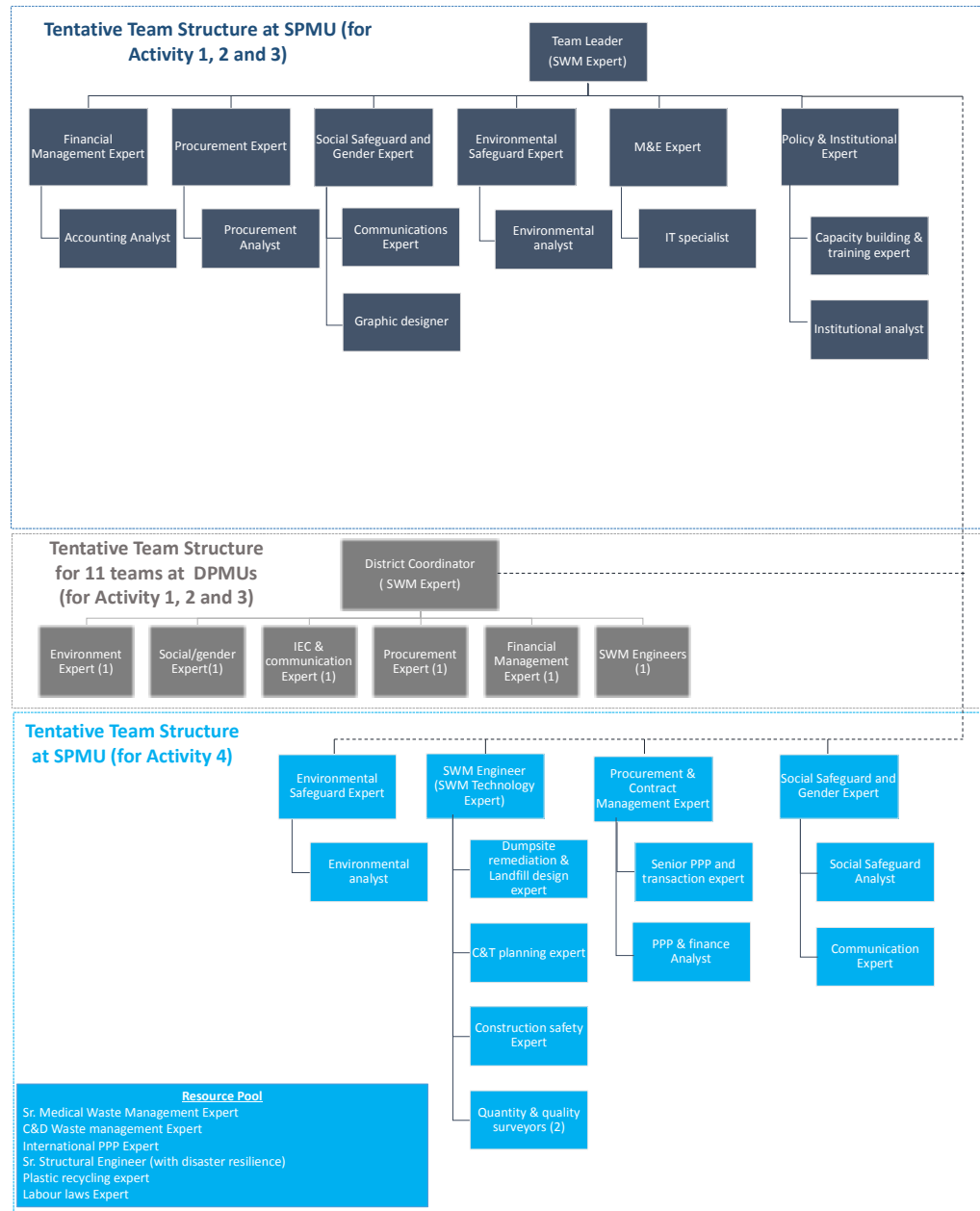
E. Data, local services and facilities to be provided by the client

- a. The client would make available the following to the Consultant:
 - I. Any supporting documents necessary for the completion of the consultant's duties
 - II. Access to all relevant previous studies, reports, documents and contracts related to the Project on request by the consultants.
 - III. Assistance in arranging meetings with the concerned Ministries and Departments of the Government of Kerala, Departments of the State Government, project executing agencies and other authorities as necessary during the course of the consultant's work.
- b. The consultants shall verify the correctness of the data/information provided by the client and satisfy themselves with the accuracy of data/information /material before these are used. Data/information/material provided to the consultants shall remain the property of the originating agency and shall be provided solely for the purpose of the work conducted under this contract. All such borrowed material shall be returned to the client/concerned agency/originating agency upon completion of the assignment. Apart from data/information provided by the client and that which the consultants could procure from other agencies, the consultants shall be responsible to collect any other data/information required for the assignment, through field survey and investigations.
- c. Logistical assistance for the workshops and seminars and identifying/inviting the participants and utility costs, covering electricity and water.

F. List of key positions for the assignment

- a. The figure 1 below summarises the Resources requirement estimated for delivery of the assignment. The mapping of DPMUs for PMC's teams is provided in Annex 2.
- b. The firm is expected to provide the required technical, infrastructure, administrative, accounting, environmental, and social Safeguards specialists, engineering, management support, field & survey staff and other support staff/ analysts to achieve the planned outputs.
- c. The firm is encouraged to propose a staffing and mobilization plan that best suits the needs of the project.
- d. The firm shall propose the requested team which covers the necessary areas of expertise, including team leader, with a mix of international and local (including Kerala) experts to ensure that the team is well-versed with local context and linguistic requirements for the assignment. The firm will be required to supplement with adequate support staff to ensure quality and timely output.
- e. It is to be noted that the deployment of staff by the firm will be strictly monitored by the client and replacement of key team members will not be allowed under any circumstances. However, the firm may, with proper justification, request the client and the World Bank in writing for a replacement of a key personnel with an alternative whose credentials are either at par or more than the existing team member. It is to be further noted that the client or the World Bank are in no obligation to allow for replacement of the proposed team member.

Figure 1 Proposed Team Structure



Total Man-months for Activity 1,2, 3			920	920	920	920	920	920
Total Man-months for Activity 4			126	138	138	138	138	138
Total man-months			1046	1058	1058	1058	1058	1058

G. Key Resources experience and qualification requirements for SPMU

1. Team leader (SWM Expert)

- i. Master's degree in Civil Engineering with experience in urban infrastructure and strong background in municipal solid waste management is required.
- ii. A minimum of 18 years of project management experience in urban infrastructure projects is required. At least 5 year of experience of working as a Team Leader in similar assignments focusing on solid waste management and other service delivery functions of ULBs.
- iii. Regional experience of working in Kerala will also be preferred.
- iv. Has demonstrated capabilities to lead multidisciplinary teams and to work with a range of different stakeholders.
- v. Has in-depth knowledge of prevailing national and state level SWM policies, regulations and strategies.
- vi. Experience of developing/reviewing/finalizing technical designs, feasibility reports and detailed project reports (DPRs) for urban sanitation infrastructure projects is required.
- vii. Experience of working in projects funded by multilateral development agencies such as the World Bank, ADB, among others is required.
- viii. Must have skills in communicating with authorities and other stakeholders.
- ix. Has demonstrated capabilities in report writing.
- x. Experience of handling similar projects at the local government level India or other South Asian Regions is required.

2. Financial Management Expert

- i. Master's degree in business studies/business administration with specialization in finance/accounts, or a relevant professional qualification such as a CA, CPA, CIMA is required.
- ii. A minimum of 15 years of experience in financial management with an in-depth financial knowledge of local governments – intergovernmental fiscal transfers, budgeting and planning mechanisms, fund flow management, revenue management, accounting, auditing, reporting and expenditure management is required.
- iii. Sectoral experience in solid waste management and working with local governments in India or other South Asian countries in the past will be preferred.
- iv. Has demonstrated experience working in multi-disciplinary teams with municipalities or other government agencies.
- v. Has experience of working in projects funded by multilateral development agencies such as the World Bank, ADB, among others Experience handling similar projects at the local government level.
- vi. Has a good understanding of public financial management and international best practices in accounting and auditing at the local government level.
- vii. Skills in communicating with authorities and other stakeholders is required.

3. Procurement Expert

- i. Master's degree in civil engineering or related engineering/management discipline is required.
- ii. A minimum of 15 years work experience in procurement and contract management of public works related to infrastructure and investments, preferably at ULB level, is required. Sectoral experience in solid waste management and working with local governments in India or other South Asian countries in the past will be preferred.
- iii. Has in depth knowledge and understanding of technical, commercial and legal aspects of procurement in development projects, financed by the government and its development partners.
- iv. Preferably well-acquainted with the World Bank's Procurement Regulations for IPF Borrowers, July 2016 (Revised November 2017 and August 2018) and STEP requirements. Working knowledge of any GePNIC based e-procurement system is desired.

- v. Specialized knowledge of and significant experience in substantive areas/aspects of procurement will be preferred.
- vi. Has in depth knowledge of procurement practices - use of internationally accepted contract documents for works, goods and services, sound understanding of principles underlying good procurement practices and international agencies' procurement guidelines; understanding of WB/Government's procurement Act and regulations; analytical capability in identifying and resolving procurement issues.
- vii. Has experience handling similar projects at the local government level.
- viii. Has experience of working in large development projects funded by multilateral agencies such as the World Bank, ADB, among others.
- ix. Fluency in English is required and fluency in Malayalam will be preferred.
- x. Excellent IT / computer skills including MS Office (Word, Excel, Power point etc) are required

4. Social Safeguards and Gender Expert

- i. Master's degree in Social Sciences preferably Social Work / Sociology /Economics/ or any another related field is required.
- ii. A minimum of 12 years work experience in social sector projects is required; must have extensive knowledge and experience of working on Environmental and Social Management Framework (ESMF) in accordance with World Bank safeguards policies and requirements.
- iii. Must have worked in at least one project financed by the World Bank or by another international finance institution.
- iv. He/she is conversant with assessment of the social safeguards including the issues to be addressed and well informed about the present regional legislative and institutional challenges that may be faced while implementing the safeguards action plan.
- v. Regional language speaking, reading and writing skills will be preferred.

5. Labour law expert.

- i. Graduate in Law.
- ii. Minimum 8 years of experience in Labour welfare and allied laws and worked on Industrial laws.
- iii. Must have worked in at least one project financed by the World Bank or by another international finance institution.

6. Environment Expert

- i. Bachelor's degree in civil engineering with master's degree in environmental engineering is required.
- ii. A minimum of 12 years of experience of working in environmental management, with experience of preparing IEE/EIA reports, implementing environmental management plans (EMP), and managing / safeguarding site works is required.
- iii. Should be familiar with EHS, National/State legislation, Bank Safeguard policies/WBG EHS standards, with proven experience in working with a multi-stakeholder community. Relevant experience to urban sustainable development is also preferred.
- iv. Has experience with large multilateral funded projects such as WB, ADB, among others.
- v. Has skills in communicating with authorities and other stakeholders.
- vi. Regional language speaking, reading and writing skills will be preferred.

7. Senior PPP and transaction Expert

- i. Master's degree in business studies/business administration with specialization in finance/accounts, or a relevant professional qualification such as a CA, CPA, CIMA is required.
- ii. A minimum of 12 years of experience in Public-Private Partnership (PPP) related projects, with an in-depth knowledge of prevailing PPP guidelines in India, drafting guidelines and frameworks for local governments to help them undertake service delivery improvements, developing related bid documents and undertaking overall transaction management of the projects.

- iii. Has experience of working with and knowledge of private sector operators in SWM - national and international.
- iv. Sectoral experience in solid waste management and working with local governments in India or other South Asian countries in the past will be preferred.
- v. Has experience of working in development projects funded by multilateral agencies such as WB, ADB, among others.
- vi. Has a good understanding of international best practices in PPP at the local government level.
- vii. Has skills in communicating with authorities and other stakeholders.

8. SWM Engineer (SWM Technology Expert)

- i. Master's degree in Civil Engineering with experience in urban infrastructure and strong background in municipal solid waste management is required.
- ii. A minimum of 15 years of experience in advising and providing technical support to the local governments in planning and designing SWM projects is required; experience must include planning and designing SWM processing, treatment, recycling, disposal facilities and an in-depth knowledge of various technological solutions and technical specifications for equipment.
- iii. Prior experience of working with related technologies such as biomining, bioremediation will be preferred.
- iv. Experience of working directly with the local government departments and supporting them on project design and implementation aspects for urban infrastructure projects is required.
- v. Experience of reviewing technical designs, feasibility reports and detailed project reports (DPRs) for urban sanitation infrastructure projects is required.
- vi. Has in-depth knowledge of the national and state level technical design guidelines, service level benchmarks and codes/standards that need to be complied with, while designing and implementing the municipal infrastructure project.
- vii. Regional experience of working in Kerala will also be preferred.
- viii. Has extensive experience of working in development projects funded by multilateral agencies such as World Bank, ADB, among others.
- ix. Has skills in communicating with authorities and other stakeholders
- x. Experience handling similar projects at the local government level in India or other South Asian Regions will be preferred.

9. Monitoring and Evaluation (M&E) Expert

- i. Master's degree in economics/statistics or equivalent is required.
- ii. A minimum of 12 years of experience in M&E of infrastructure projects is required. Experience of working with state and local government agencies in India and other South Asian countries will be preferred
- iii. Experience in participatory M&E system in multilateral projects is highly preferred.
- iv. Possesses strong quantitative skills and proven ability to carry out surveys/analysis of large datasets is required.
- v. Has experience of handling similar projects at the local government level.
- vi. Ability to work in an interdisciplinary team is required
- viii. Has demonstrated capabilities in report writing.
- ix. Regional language speaking, reading and writing skills will be preferred

10. Policy and Institutional Expert

- i. Bachelor's degree in civil engineering with a master's degree in urban planning, urban management, urban ecological planning, urban environmental management, construction management, or related discipline.
- ii. A minimum of 10 years of experience in urban infrastructure projects and policy making including SWM policies at state and local government level is required. Prior experience of working as a policy

expert in similar assignments focusing on solid waste management and other service delivery functions of ULBs is mandatory.

- iii. Prior experience of working in decentralized (city level SWM facilities) and centralized (state/regional level SWM facilities) SWM investment projects will be preferred
- iv. Regional experience of working in Kerala will also be preferred.
- v. Regional language speaking, reading and writing skills will be preferred
- vi. Has demonstrated capabilities to lead multidisciplinary teams and to work with a range of different stakeholders.
- vii. Was directly involved / has experience of working in development projects funded by multilateral agencies such as the World Bank, ADB, among others.
- viii. Possesses skills in communicating with authorities and other stakeholders
- ix. Has demonstrated capabilities in report writing.
- x. Has experience of handling similar projects at the local government level.

11. Accounting Analyst

- i. Master's degree in business studies/business administration with specialization in finance/accounts.
- ii. A minimum of 7 years of experience in financial management with an in-depth financial knowledge of local governments.
- iii. Sectoral experience in SWM and working with local governments in India or other South Asian countries in the past will be preferred.
- iv. Demonstrated experience working in multi-disciplinary teams with municipalities or other government agencies.
- v. Fluency in reading and speaking in Malayalam is preferred.
- vi. Experience of working in large multilateral funded projects such as WB, ADB, among others will be preferred.
- vii. Experience of handling similar projects at the local government level.
- viii. Good understanding of public financial management and international best practices in accounting and auditing at the local government level.
- ix. Skills in communicating with authorities and other stakeholders.
- x. Excellent IT / computer skills including accounting software and MS Office (Word, Excel, Power point etc) are required.

12. Procurement Analyst

- i. Master's degree in civil engineering or related engineering/management discipline and bachelor's degree in engineering.
- ii. A minimum of 7 years' work experience in procurement and contract management of public works related to infrastructure and investments. Sectoral experience in SWM and working with local governments in India or other South Asian countries in the past will be preferred.
- iii. In depth knowledge and understanding of technical, commercial and legal aspects of procurement in development projects, financed by the government and its development partners.
- iv. Preferably well-acquainted with the World Bank's Procurement Regulations for IPF Borrowers, July 2016 (Revised November 2017 and August 2018) and STEP requirements. Working knowledge of any GePNIC based e-procurement system is desired.
- v. Fluency in reading and speaking in Malayalam is preferred.
- vi. In depth knowledge of procurement practices (use of internationally accepted contract documents for works, goods and services, sound understanding of principles underlying good procurement practices and international agencies' procurement guidelines; understanding of WB/Government's procurement Act and regulations; analytical capability in identifying and resolving procurement issues).
- vii. Experience with large multilateral funded projects such as WB, ADB, among others are highly desired.

viii. Excellent IT / computer skills including MS Office (Word, Excel, Power point etc) are required

13. Social Safeguards Analyst

- i. Master's degree in Social Sciences preferably Social Work / Sociology /Economics/ or any another related field.
- ii. A minimum of 7 years' work experience in social sector projects.
- iii. Must have worked in at least one project financed by the World Bank or by another international finance institution.
- iv. Has knowledge of the World Bank's social safeguards requirements for similar projects.
- x. He/she shall be conversant with assessment of the social safeguards including the issues to be addressed and well informed about the present regional legislative and institutional challenges that may be faced while implementing the safeguards action plan.
- xi. Regional language speaking, reading and writing skills is required

14. Gender Expert

- i. Master's degree in Social Sciences preferably Social Work / Sociology /Economics/ or any another related field.
- ii. A minimum of 8 years' work experience in social sector projects carrying gender analysis, preparing gender action frameworks and plans.
- iii. Must have worked in at least one project financed by the World Bank or by another international finance institution.
- iv. Has knowledge of the World Bank's social and gender specific safeguards requirements for similar projects.
- v. He/she shall be conversant with assessment of the social safeguards including the gender issues to be addressed and well informed about the present regional legislative and institutional challenges that may be faced while implementing the gender action plan.
- vi. Regional language speaking, reading and writing skills is a must.

15. Communications Expert

- i. Master's Degree in Mass Communication, Journalism, Public Relations
- ii. Min. 8 years' experience in communication and media relations.
- iii. Must have worked in at least one project financed by the World Bank or by another international finance institution.
- iv. Has extensive experience of undertaking various awareness generation campaigns for similar projects, carrying out communication needs assessments, developing communication strategies, citizen feedback mechanisms.
- v. He/she shall be conversant with assessment of the social safeguards including the issues to be addressed and well informed about the present regional legislative and institutional challenges that may be faced while implementing the safeguards action plan.
- vi. Regional (Kerala) language speaking, reading and writing skills is a must.

16. Environment Analyst

- i. Bachelor's degree in civil engineering with master's degree in environmental engineering is required.
- ii. A minimum of 7 years of experience of working in environmental management, with experience of preparing IEE/EIA reports, implementing environmental management plans (EMP), and managing / safeguarding site works is required.
- iii. Must have worked in at least one project financed by the World Bank or by another international finance institution.
- iv. Has knowledge of the World Bank's environment safeguards requirements for similar projects.
- v. Should be familiar with EHS, National/State legislation, Bank Safeguard policies/WBG EHS standards.
- vi. Relevant experience to urban sustainable development areas is preferred.

- vii. Experience with large multilateral funded projects such as WB, ADB, among others will be preferred.
- viii. Regional language speaking, reading and writing skills will be preferred.

17. PPP and Finance Analyst

- i. Master's degree in business studies/business administration with specialization in finance/accounts, or a relevant professional qualification such as a CA, CPA, CIMA, etc.
- ii. A minimum of 7 years of experience in Public-Private Partnership (PPP) related projects, with an in-depth knowledge of prevailing PPP guidelines in India.
- iii. Sectoral experience in solid waste management and working with local governments in India or other South Asian countries in the past will be preferred.
- iv. Experience of working in at least one development project funded by multilateral agencies such as WB, ADB, among others.
- v. Understands international best practices in PPP at the local government level.
- vi. Skills in communicating with authorities and other stakeholders.
- vii. Regional language speaking, reading and writing skills will be preferred.

18. Dumpsite remediation and Landfill design Expert

- i. Bachelor's degree in civil engineering with a master's degree in Geotechnical/Geo-Environmental Engineering/Environmental Geotechnology/urban ecological planning, urban environmental management, or related discipline.
- ii. Minimum of 10 years of experience in urban infrastructure projects involving construction/development of disaster resilient sanitary landfills, dumpsite reclamation and remediation, etc.
- iii. Prior experience of working with related technologies such as biomining, bioremediation would be preferred.
- iv. Regional experience of working in Kerala would also be preferred.
- v. Experience or working in projects funded by World Bank, ADB, will be preferred.
- vi. Experience handling similar projects at the local government level.
- vii. Regional language speaking, reading and writing skills will be preferred.

19. Collection and Transportation (C&T) planning Expert

- i. Bachelor's degree in civil/mechanical engineering with a master's degree in urban planning, urban management, urban ecological planning, urban environmental management, construction management, or related discipline.
- ii. Minimum of 10 years of experience in urban infrastructure projects with a focus on collection and transportation, related C&T planning activities, development of service delivery infrastructure in ULBs for biodegradable and non-biodegradable waste collection, transportation, processing and treatment, recycling, collection, etc.
- iii. Regional experience of working in Kerala would also be preferred.
- iv. Experience or working in projects funded by World Bank, ADB, will be preferred.
- v. Experience handling similar projects at the local government level.
- vi. Regional language (Malayalam) speaking, reading and writing skills will be preferred.

20. Construction Safety Expert

- i. Bachelor's degree in civil engineering with a master's degree in construction management or related discipline.
- ii. Minimum of 10 years of experience in urban infrastructure projects and a minimum of 5 year of sectoral experience of working with local governments on similar projects of improving service delivery infrastructure related to solid waste management, construction of processing, recycling and disposal facilities, etc.
- iii. Regional experience of working in Kerala would also be preferred.
- iv. Experience or working in development projects funded by World Bank, ADB, will be preferred.

- v. Experience handling similar projects at the local government level.
- vi. Regional language speaking, reading and writing skills will be preferred.

21. Quantity and quality surveyors

- i. Bachelor's degree in civil engineering and a minimum of 5 years of experience in urban infrastructure projects involving local governments undertaking sectoral sub-projects related to improvement of service delivery systems.
- ii. Regional experience of working in Kerala would also be preferred.
- iii. Experience or working in projects funded by World Bank, ADB, will be preferred.
- iv. Experience handling similar projects at the local government level.
- v. Regional language speaking, reading and writing skills is a must.

22. IT Specialist

- i. M.Sc. (Computer Science/Information Technology) or any other master's degree in a related field
- ii. Minimum 7 years of experience of handling computer networks in government organisations with trouble shooting experience in various hardware/software components.
- iii. Experience of handling software applications and database.
- iv. Experience of working on development projects funded by the World Bank / ADB is preferred.
- v. Knowledge of the planning process and decentralization systems in Kerala is desirable.
- vi. Ability to work effectively with a range of government agencies, development partners (including donors, multilateral agencies and non-government agencies).
- vii. Ability to prioritize and manage time efficiently. Can handle multiple tasks effectively and coordinate a team to meet deadlines;
- viii. Excellent written and oral communication skills in English and Malayalam

23. GIS Expert

- i. Master's degree in geography, GIS, or related field.
- ii. Minimum 10 years of experience in geospatial analysis, mapping of households, geo-tagging is required.
- iii. Regional experience of working on similar projects with government agencies will be preferred.
- iv. Experience of working on similar local government projects on SWM sector will be preferred.
- v. Experience of working on development projects funded by the World Bank / ADB will be preferred.
- vi. Regional language speaking, reading and writing skills is a must.

24. Capacity building and training Expert

- i. **Minimum** of 10 years of experience in conducting capacity building and training activities for urban infrastructure projects and policies at state and local government level. Prior public sector (India and/or other South Asian countries) experience of conducting training needs assessment (TNA), preparing training plans and calendars, curriculums, designing Train the Trainers programs is mandatory.
- ii. Regional language (Malayalam) writing, reading and speaking skills will be highly preferred.
- iii. Regional experience of working in Kerala will also be preferred.
- iv. Demonstrated capabilities to lead multidisciplinary teams and to work with a range of different stakeholders.
- v. Worked in development projects funded by multilateral agencies such as World Bank, ADB, among others.
- vi. Skills in communicating with authorities and other stakeholders
- vii. Must demonstrate good report writing skills.
- viii. Experience of working in similar projects at the local government level in India or other South Asian regions.

25. Institutional Analyst

- i. Must have a minimum 7 years of experience of working with state and local government on institutional and governance arrangements.
- ii. Must have policy and institutional experience of working on SWM sector with local governments.
- iii. Must have sound knowledge of the prevailing SWM state and national policies, guidelines, strategies.
- iv. Worked in development projects funded by multilateral agencies such as World Bank, ADB, among others.
- v. Must demonstrate good report writing skills.
- vi. Experience of working in similar projects at the local government level in India or other South Asian regions.

H. Key Resources experience and qualification requirements for DPMU

1. District Coordinator(SWM Expert)

- i. Master's degree in Civil Engineering with experience in urban infrastructure and strong background in municipal solid waste management is required.
- ii. Minimum of 12 years of project management experience in urban infrastructure projects is required. At least 5 year of experience of working as a Team Leader for similar assignments focusing on solid waste management and other service delivery functions of ULB is required.
- iii. Regional experience of working in Kerala would also be preferred.
- iv. Demonstrated capabilities to lead multidisciplinary teams and to work with a range of different stakeholders.
- v. Has in-depth knowledge of national and state level SWM policies, regulations and strategies.
- vi. Experience of working on technical designs, feasibility reports and detailed project reports (DPRs) for urban sanitation infrastructure projects is required.
- vii. Directly involved in multilateral funded projects such as World Bank, ADB, among others.
- viii. Skills in communicating with authorities and other stakeholders
- ix. Must have good reporting writing skills.

2. Environment Expert

- i. Bachelor's degree in civil engineering with master's degree in environmental engineering is required.
- ii. A minimum of 10 years of experience of working in environmental management, with experience of preparing IEE/EIA reports, implementing environmental management plans (EMP), and managing / safeguarding site works is required.
- iii. Should be familiar with EHS, National/State legislation, Bank Safeguard policies/WBG EHS standards, with proven experience in working with a multi-stakeholder community. Relevant experience to urban sustainable development is also preferred.
- iv. Experience with large multilateral funded projects such as WB, ADB, among others.
- v. Skills in communicating with authorities and other stakeholders.
- vi. Regional language speaking, reading and writing skills is required.

3. Social Safeguards and Gender Expert

- i. Master's degree in Social Sciences preferably Social Work / Sociology /Economics/ or any another related field is required.
- ii. A minimum of 8 years work experience in social sector projects is required.
- iii. Must have worked in at least one project financed by the World Bank or by another international finance institution.
- iv. Has extensive knowledge of the World Bank's social safeguards requirements in projects.
- v. He/she shall be conversant with assessment of the social safeguards including the issues to be addressed and well informed about the present regional legislative and institutional challenges that may be faced while implementing the safeguards action plan.

- vi. Regional language speaking, reading and writing skills is required.

4. Communications Expert

- i. Master's Degree in Mass Communication, Journalism, Public Relations is required.
- ii. A minimum of 5 years' experience in communication and media relations is required.
- iii. Must have worked in at least one project financed by the World Bank or by another international finance institution.
- iv. Has experience of working on various awareness generation campaigns for similar projects, carrying out communication needs assessments, developing communication strategies, citizen feedback mechanisms.
- v. Regional (Kerala) language speaking, reading and writing skills is a must.

5. Procurement Expert

- i. Master's degree in civil engineering or related engineering/management discipline and bachelor's degree in engineering is required.
- ii. A minimum of 8 years work experience in procurement and contract management of public works related to infrastructure and investments, is required, preferably at local government level. Sectoral experience in solid waste management and working with local governments in India or other South Asian countries in the past will be preferred.
- iii. In depth knowledge and understanding of technical, commercial and legal aspects of procurement in development projects, financed by the government and its development partners.
- iv. Preferably well-acquainted with the World Bank's Procurement Regulations for IPF Borrowers, July 2016 (Revised November 2017 and August 2018) and STEP requirements. Working knowledge of any GePNIC based e-procurement system is desired.
- v. Experience handling similar projects at the local government level.
- vi. Regional (Kerala) language speaking, reading and writing skills is a must.
- vii. Experience with large multilateral funded projects such as WB, ADB, among others are highly desired.

6. Financial Management Expert

- i. Master's degree in business studies/business administration with specialization in finance/accounts, or a relevant professional qualification such as a CA, CPA, CIMA is required.
- ii. A minimum of 8 years of experience in financial management with an in-depth financial knowledge of local governments is required.
- iii. Sectoral experience in solid waste management and working with local governments in India or other South Asian countries in the past will be preferred.
- iv. Experience handling similar projects at the local government level.
- v. Skills in communicating with authorities and other stakeholders.

7. Monitoring and Evaluation (M&E) Expert

- i. Master's degree in economics/statistics or equivalent is required.
- ii. A minimum of 8 years of experience in M&E of infrastructure projects. Experience of working with state and local government agencies in India and other South Asian countries will be preferred.
- iii. Strong quantitative skills and proven ability to carry out surveys/analysis of large datasets.
- iv. Experience handling similar projects at the local government level.
- v. Ability to work in an interdisciplinary team.
- xii. Report writing skills are required.
- xiii. Regional language speaking, reading and writing skills is required.

8. SWM Engineers

- i. Bachelor's degree in Civil/environmental/mechanical engineering and a master's degree in Civil/environmental Engineering is required.

- ii. A minimum of 7 years of experience in municipal solid waste management, wastewater management/faecal sludge management, or other related technical fields is required. A minimum of 5 years of experience of drafting/reviewing technical designs, planning and implementation supervision of urban infrastructure projects. Sectoral experience of SWM projects is required.
- iii. Experience of working directly with local governments and supporting them on project design and implementation aspects for urban infrastructure projects is required.
- iv. Has in-dept knowledge of the prevailing national and state level technical design guidelines, service level benchmarks and codes/standards.
- v. Regional experience of working in Kerala will also be preferred.
- vi. Has experience of working in development projects funded projects by multilateral agencies such as World Bank, ADB, among others.
- vii. Regional language speaking, reading and writing skills is required.

Annex 1: Scope of Work and major tasks to be performed for ESMF revision

The scope of work and major tasks to be performed by the consulting organisation are listed below:

- i. Conduct Consultation with Key Stakeholders in the sampled ULBs.
 - a. For conducting these consultations use the 7 types KIIs prepared by project.
 - b. Review all the 7 types KIIs and propose any changes required. Check if any additional type of KIIs are required to complete consultations.
 - c. Finalize all the KIIs in consultation with the SM
 - d. Select a representative sample of 15 to 20 ULBs which includes all types of ULBs covering all districts, duly considering socio-economic-political profile of ULBs, agro-climatic conditions, etc.
 - e. Finalize the sample in consultation with SM
 - f. In each of the sampled ULBs conduct about a total of 50 KIIs. The details of these are given below:

S.No.	Key Informants	Reference	Number of KIIs to be conducted
1	Generator General Household	Questionnaire Number 1	Minimum 20 Questionnaires to be filled out of which 50 percent should be of BPL HH. Please ensure: 3 HH are Tribal, 5 HH are Women headed, 2 HH are SC, and at least one HH from vulnerable groups like PwD, elderly etc.
2	Generator Physical places of worship	Questionnaire Number 2	Minimum 5 (ensure at least one from each faith- Church, Temple, Mosque and others if applicable)
3	Service Provider Municipal Officer	Questionnaire Number 3	Minimum 5 (3 Male, 3 Female)
4	Service Provider HKS	Questionnaire Number 4	Minimum 5
5	Service Provider Rag Picker	Questionnaire Number 5	Minimum 6 (3 Male, 3 Female)
6	Service Provider Waste Dealer	Questionnaire Number 6	Minimum 5
7	Service Provider Kudumbasree	Questionnaire Number 7	Minimum 1 (main office in the ULB)

- g. The consultation has to be Free Prior Informed Consultations
 - h. Analyze responses from the KIIs and incorporate the feedback into the TDF-SMF and RPF.
 - i. Attach a summary of all the KIIs as an annexure to the TDF-SMF and RPF.
 - j. Revise the report as per comments from SM and the World Bank.
- ii. Build a baseline of female workers in solid waste management in the ULBs.
 - a. Numeric data on all female SWM workers of all 93 ULBs: number of formal workers, number of informal workers
 - b. In the sampled ULBs, conduct a reconnaissance and identify female workers among rag pickers, HKS, Kudumbashree, recycling workers, processing workers, scrap agents and dealers, resellers, transporters, etc. involved in solid waste management value chain.
 - c. Prepare a questionnaire to collect complete a) demographic, b) socio-economic, c) livelihoods and skills, d) assets and liabilities, e) impacts and issues, f) problems and perceptions, etc. to conduct interviews with the female workers in SWM in the ULB.
 - d. Carry out discussions to map the trajectories and aspirations of the workers
 - e. Select a representative sample of about 20 to 25 female workers from each ULB and conduct the survey.

- f. Analyze the survey responses and prepare a Gender Baseline Report with quantitative and qualitative analysis
 - g. Revise the report as per comments from SM and the World Bank.
- iii. Updating the TDF-SMF and RPF
 - a. Update the TDF-SMF and RPF based on the KIIs and feedback given by key stakeholders.
 - b. Update the Gender chapter of TDF-SMF with the summary of gender baseline
 - c. Update SEP, GAP, GBV Plan, etc. in the TDF-SMF based on the findings from the gender baseline and KII findings.
 - d. Revise the reports as per comments from SM and the World Bank.
 - e. Advise SM on re-disclosure

Annex 2: PMC's team mapping for DPMU support

Sr.No	District	No. of ULBs	DPMU mapping
1	Thiruvananthapuram	5	DPMU team 1
2	Kollam	5	DPMU team 2
3	Pathanamthitta	4	DPMU team 3
4	Idukki	2	
5	Alappuzha	6	DPMU team 4
6	Kottayam	6	DPMU team 5
7	Ernakulam	14	DPMU team 6
8	Thrissur	8	DPMU team 7
9	Palakkad	7	DPMU team 8
10	Malappuram	12	DPMU team 9
11	Kozhikkode	8	DPMU team 10
12	Wayanad	3	
13	Kannur	10	DPMU team 11
14	Kasargod	3	
	Total	93	11 DPMU teams