



REQUEST FOR PROPOSAL (RFP)

for

CONSULTANCY ASSIGNMENTS

Firms

Lump sum - *QCBS*

**Appointment of Consulting Services for preparation of
Feasibility Report cum Detailed Project Report for
Rehabilitation of Defunct Dumping site at
Erumapalayam in Salem City Municipal Corporation**

**PROJECT DEVELOPMENT GRANT FUND
NO. 19, T.P. SCHEME ROAD,
RAJA ANNAMALAIPURAM,
CHENNAI – 600 028**

LETTER OF INVITATION

Dear Sirs,

Subject: Appointment of Consultant for preparation of Feasibility Report cum Detailed Project Report for Rehabilitation of Defunct Dumping site at Erumapalayam in Salem City Municipal Corporation -reg.

1. You are hereby invited to submit Pre-qualification, technical and financial proposals for **Consulting Services for preparation of Feasibility Report cum Detailed Project Report for Rehabilitation of Defunct Dumping site at Erumapalayam in Salem City Municipal Corporation** to be taken up by the Project Development Grant Fund (PDGF), managed by Tamil Nadu Urban Infrastructure Financial Service Limited (TNUIFSL), which could form the basis for future negotiations and ultimately a contract between your firm and The Managing Director, TNUIFSL, Chennai – 600 028.
2. The purpose of this assignment is Consulting Services for preparation of Feasibility Report cum Detailed Project Report for Rehabilitation of Defunct Dumping site at Erumapalayam in Salem City Municipal Corporation as mentioned in the Terms of Reference (ToR).
- 2.1 Client means PDGF managed by TNUIFSL.
3. A firm will be selected under Quality and Cost Base Selection (QCBS) procedures described in this RFP and in accordance with the procurement guidelines of the TAMIL NADU TRANSPARENCY IN TENDERS ACT, 1998 and RULES 2000 as amended from time to time.
4. The following documents are enclosed to enable you to submit your proposal:
 - (a) Terms of reference (TOR) (Annexure 1);
 - (b) Pre-qualification Criteria (Annexure 2);
 - (c) Supplementary information for firm, including a suggested format of curriculum vitae of key personnel (Annexure 3);
 - (d) A Sample draft Agreement of Contract for this assignment to be carried out by the Firm. (Annexure 4); and
 - (e) Bank Guarantee (Annexure 5);
5. A pre-proposal conference open to all prospective firms will be held on **19.01.2018 @ 15.30** hrs in the **TNUIFSL, No. 19, T.P. Scheme Road, RajaAnnmalaiPuram, Chennai – 600 028**. The prospective firms will have an opportunity to obtain clarification regarding the scope of the work, terms of reference, contract conditions and any other pertinent information.

The Clarification/Amendments if any in the Pre – Proposal Conference will be published only in the Government Web site www.tenders.tn.gov.in, and www.tnuifsl.com

The Managing Director or its representative
TNUIFSL

No. 19, T.P. Scheme Road, RajaAnnmalaiPuram, Chennai – 600 028

Phone / Fax No: 24643103/4/5/7 Fax: 24613106 Email : pandiands@tnuifsl.com, vijay@tnuifsl.com,

Please ensure that advance intimation regarding your visit is sent to enable them to make appropriate arrangements.

6. The Submission of Proposals:
- 6.1 The proposals addressed to Managing Director, TNUIFSL shall be submitted in three parts, viz., Pre-qualification, Technical and financial and should follow the form given in the "Supplementary Information for Firms."

- 6.2. The “Pre-qualification”, “Technical” and “Financial” proposals must be submitted in three separate sealed envelopes (with respective marking in bold letters) following the formats/schedules given in the Pre-qualification for firms (Annexure-2), supplementary information for firms (Annexure-3). The first envelope marked “Pre-qualification criteria” in one separate cover, viz., Cover-1 must be sealed with sealing wax and initialed twice across the seal. This cover should contain the Earnest Money Deposit (EMD) of **Rs. 50,000/-** in the form of Demand Draft to be taken in the name of “**Project Development Grant Fund**” Chennai – 600 028. The EMD of unsuccessful firms will be returned within 45 days of the date of completion of selection / tender process.
- 6.3 The second envelope, viz., Cover-2 marked "Technical proposal for the captioned project" must also be sealed and initialed twice across the seal and should contain information required in Annexure 3 viz., supplementary information for firms.
- 6.4 The first and second envelopes should not contain any cost information whatsoever. The third envelope viz., Cover-3 marked "Financial Proposal for the captioned project" must also be sealed and initialed twice across the seal and should contain the detailed price offer for the firms services.

You will provide detailed breakdown of costs and fees in the format prescribed in Form 6:

The sealed envelopes Cover 1, Cover 2 and Cover3 should again be placed in a separate sealed in one cover, which shall be clearly marked with the name of the assignment and received in the office of the **Tamil Nadu Urban Infrastructure Financial Services Limited (TNUIFSL), No. 19, T.P. Scheme Road, Raja AnnmalaiPuram, Chennai – 600 028**, up to 15.00 hours on **30.01.2018**.

If the cover of proposals is not marked with the name of the assignment indicating the bid submission date and time, the cover will not be opened and returned to the firm unopened treating as “Not Qualified”.

6.5 **Opening of proposal**

The proposals (first envelope (cover 1) containing pre-qualification criteria only) will be opened by the Managing Director, TNUIFSL or his authorized representative in its office at 16.00 hours on **30.01.2018**. It may please be noted that the second envelope containing the technical proposal will not be opened until pre-qualification criteria is evaluated, and detailed price offer will not be opened until technical evaluation has been completed and the result approved and notified to all firms.

7. **Evaluation**

7.1 A three-stage procedure will be adopted in evaluating the proposals:

- i) a pre-qualification of firms will be verified, which will be carried out prior to opening of technical proposal (as per Annexure 2)
- ii) a technical evaluation of the pre-qualified firms, which will be carried out prior to opening any financial proposal;
- iii) a financial evaluation

7.2 **Pre-qualification**

Firms who have the following qualifications may submit the proposal along with necessary proof –

(i) Consultants who have completed **two assignments for Preparation of DPR for Processing of Solid Wastes** in urban areas in the last 10 years. (*Assignment along with client certificate only considered for evaluation*)

(ii) Average annual turnover of **Rs. 100.00 lakhs** for the last three years (2014-15, 2015-16 & 2016-17). **Audited financials shall be submitted as proof in the last three financial years.**

(iii) Covers without **EMD** will be treated as non-responsive and will be disqualified.

It should be noted that “assignment along with client certificate will only be considered for evaluation”.

Only proposals of firms determined to be qualified will be considered for technical and financial evaluation. The technical and price envelopes of others will not be considered and returned unopened after completing the selection process.

7.3 Technical Proposal

The evaluation committee appointed by the Client will carry out its evaluation of qualified firms’ technical proposal applying the evaluation criteria and point system specified below. Each responsive proposal will be attributed a technical score (St).

- (i) the quality of the methodology proposed (25 points); and
[Note to Consultant: The Client will assess whether the proposed methodology is clear, responds to the TORs, work plan is realistic and implementable; overall team composition is balanced and has an appropriate skills mix; and the work plan has right input of Experts]
- (ii) the qualifications of key staff proposed for the assignment (75 points).

S. No	Key Professionals	Marks
1	Team Leader / Solid Waste Management Expert	30
2	Deputy Team Leader / SWM Processing Expert	15
3	Environmental Expert	10
4	Social Development Specialist	10
5	Quantity Surveyor	10
	Total	75

Curriculum vitae of senior personnel in each discipline for assessing the qualifications and experience of the personnel proposed to be deployed for the studies should be included with the proposal (in the format of the sample curriculum vitae). These personnel will be rated in accordance with:

- (i) General qualifications - (30 points)
- (ii) Adequacy for the project (suitability to perform the duties for this assignment. These include education and training, length of experience on fields similar to those required as per terms of reference, type of positions held, time spent with the firm etc) - (70 points)

Quality and competence of the consulting service shall be considered as the paramount requirement. Technical proposals scoring not less than 75% of the total points will only be considered for financial evaluation. The price envelopes of others will not be considered and returned unopened after completing the selection process. The client shall notify the consultants, results of the technical evaluation and invite those who have secured the minimum qualifying mark for opening of the financial proposals indicating the date and time.

Team Leader and Deputy Team Leader shall be available full time till the approval of the Feasibility Report Completion stage.

7.4 Financial Proposal

7.4.1 Opening:

The financial proposal shall be opened in the presence of the firms’ representatives who choose to attend. The name of the firm, the quality scores and the proposed prices shall be read out and recorded. The client shall prepare minutes of bid opening.

7.4.2 Evaluation:

The evaluation committee will determine if the financial proposals are complete in accordance with ToR. The quoted price shall be corrected for arithmetical errors in accordance with Tender Transparency Rules 2000 and as amended there on.

The evaluation committee will determine if the financial proposals are complete and without computational errors. The evaluation shall exclude taxes.

The lowest financial proposal (Fm) will be given a financial score (Sf) of 100 points. The financial scores of all the proposals will be computed as follows: $Sf = 100 \times Fm/F$ (F - amount of financial proposal).

Proposals will finally be ranked according to their combined technical (St) and financial (Sf) scores using a weight of 75% for technical proposal and 25% for financial proposal.

$$S = St \times 0.75 + Sf \times 0.25$$

The Firm securing the highest score will be invited for negotiations.

8. Negotiations

8.1 Negotiations normally take a day. The aim is to reach agreement on all points, and initial a draft contract by the conclusion of Negotiations.

8.2 Negotiations will commence with a discussion of your technical proposal, the proposed methodology (work plan), costing, staffing and any suggestions you may have made to improve the TORs. Agreement must then be reached on the final TORs, the staffing and staff months, logistics and reporting.

8.3 Changes agreed upon will then be reflected in the draft contract, using proposed unit rates (**after negotiation of the unit rates, including the man month rates, tax liability and all cost, etc**).

8.4 The negotiations will be concluded with a review of the draft form of Contract. The Client and the Firms will finalize the contract to conclude negotiations.

8.5 The Contract will be awarded after successful negotiations, with the selected Firm as per the Tamil Nadu Transparency in Tenders Act 1998 and Rules 2000 and as amended there on.

9. Fraud and Corrupt Practices

9.1 The Firm and its Personnel shall observe the highest standards of ethics and shall not have engaged in and shall not hereafter engage in any corrupt practice, fraudulent practice, coercive practice, undesirable practice or restrictive practice (collectively the "Prohibited Practices"). Notwithstanding anything to the contrary contained in this Agreement, the Client shall be entitled to terminate this Agreement forthwith by a communication in writing to the Firm, without being liable in any manner whatsoever to the Firm, if it determines that the Firm has, directly or indirectly or through an agent, engaged in any Prohibited Practices in the Selection Process or before or after entering into of this Agreement. In such an event, the Client shall forfeit and appropriate the performance security, if any, as mutually agreed genuine pre-estimated compensation and damages payable to the Client towards, inter alia, the time, cost and effort of the Client, without prejudice to the Client's any other rights or remedy hereunder or in law.

10. Please note that the TNUIFSL are not bound to select any of the firms submitting proposals. Further, as quality is the principal selection criterion, the TNUIFSL does not bind itself in any way to select the firm offering the lowest price.

11. The selected firm shall not disclose any information / data to others without the written permission of the TNUIFSL.
12. You are requested to hold your proposal valid for 90 days from the date of submission without changing the personnel proposed for the assignment and your proposed price. The TNUIFSL will make its best efforts to select a firm within this period.
13. Please note that the cost of preparing a proposal and of negotiating a contract including visits to TNUIFSL, if any is not reimbursable as a direct cost of the assignment.
14. Assuming that the contract can be satisfactorily concluded in Feb 2018, you will be expected to take-up / commence with the assignment in Feb 2018.
15. The successful bidder will be invited for signing agreement. The bidder is requested to furnish a performance security at the rate of 5% of the finalized agreement value in the form of Irrevocable Bank Guarantee from any one of the Nationalized Bank in India taken in favour of the PDGF, Chennai valid for a period of 4 months or till the successful completion of the assignment and subject to extensions without any financial implications. The same will be released on successful completion of all the works satisfactorily. The validity of performance security will be extended according to the extension of contract period as per the agreement executed.
16. The Earnest Money Deposit of the successful Tenderer will be discharged when the Tenderer furnishes the required Performance Security and signs the Agreement.
17. The Earnest Money Deposit may be forfeited
 - (i) If the bidder withdraws the tender after Tender opening during the period of validity of the tender.
 - (ii) If the bidder withdraws the Tender after the issue of letter of acceptance of his Tender.
 - (iii) In the case of a successful bidder, if the bidder fails within the specified time limit to:
 - furnish the required performance security or
 - sign the Agreement
 - accept the Letter of Intent
 - (iv) if the bidder has furnished incorrect information on qualification and experience.
18. The fees shall be quoted in Indian Rupees only. Please note that the remuneration which you receive from the contract will be subject to normal tax liability in India. Kindly contact the concerned tax authorities for further information in this regard if required.
19. Please note that mobilization advance will not be given to the Firm.
20. It is estimated that about 9 man-months of services will be required for the study and generally you should base your financial proposal on this figure. However, you should feel free to submit the proposal on the basis of man-months considered necessary by you to undertake the assignment.
21. Joint venture not allowed.
21. All documents relating to the Bid and all communications in connection with the Bid shall be in English language. All the pages should be serially numbered and signed by the Firms.
22. Any dispute arising out of the Contract, which cannot be amicably settled between the parties, shall be referred to adjudication/arbitration in accordance with the Arbitration & Conciliation Act 1996. The place of arbitration shall be at Chennai.
23. PDGF reserves the right to postpone / cancel this RFP at any point of time without assigning any reason, whatsoever.
24. Please note that conditional bids *are liable for rejection*.

25. SETTLEMENT OF DISPUTES

25.1 Amicable Settlement The Parties shall use their best efforts to settle amicably all disputes arising out of or in connection with this Contract or the interpretation thereof.

25.2 Right to Arbitration and Rules of Procedure Any dispute between the parties as to matters arising pursuant to this Contract which cannot be settled amicably within sixty (60) days after receipt by one Party of the other Party's request for such amicable settlement, shall be referred to the adjudication of a Committee of three arbitrators. The Committee shall be composed of one Expert to be nominated by the Client, one to be nominated by the Consultants and the third, who will also act as the chairman of the Committee but not as an umpire, who will be chosen jointly by the two arbitrators from a panel of five candidates, none of whom would be in regular employment of the Government, supplied by the Executive Committee of Indian Roads Congress. If either of the Parties fail to appoint his arbitrator or fail to agree on the third nominee within sixty (60) days after receipt of notice for the appointment of such arbitrator, the President of the Indian Roads Congress shall appoint, upon request from either Party and from such panel or otherwise, such arbitrator(s) for the matter in dispute. The arbitration shall be conducted in accordance with the provisions of the Arbitration and Conciliation Act 1996 and any statutory modification or enactment thereof and shall be held at such place and time in India as the committee of arbitrators may determine. The decision of the majority of the Arbitrators shall be final and binding as may be determined by the Arbitrators. Performance under the Contract shall continue during the arbitration proceedings and payments due to the Consultants by the Client shall not be withheld, unless they are the subject matter of the arbitration proceedings. All awards shall be in writing and such awards shall state reasons for the awards.

Miscellaneous. In any arbitration proceeding hereunder:

- (a) proceedings shall, unless otherwise agreed by the Parties, be held in Chennai.
- (b) the English language shall be the official language for all purposes; and
- (c) the decision of the sole arbitrator or of a majority of the arbitrators (or of the third arbitrator if there is no such majority) shall be final and binding and shall be enforceable in any court of competent jurisdiction, and the Parties hereby waive any objections to or claims of immunity in respect of such enforcement.

26. This Contract may be terminated by either Party as per provisions set up below:

a. By the Client

The Client may terminate this Contract in case of the occurrence of any of the events specified in paragraphs (a) through (f) of this Clause. In such an occurrence the Client shall give at least thirty (30) calendar days' written notice of termination to the Consultant in case of the events referred to in (a) through (d); at least sixty (60) calendar days' written notice in case of the event referred to in (e); and at least five (5) calendar days' written notice in case of the event referred to in (f):

- (a) If the Consultant fails to remedy a failure in the performance of its obligations hereunder, as specified in a notice of suspension;
- (b) If the Consultant becomes (or, if the Consultant consists of more than one entity, if any of its members becomes) insolvent or bankrupt or enter into any agreements with their creditors for relief of debt or take advantage of any law for the benefit of debtors or go into liquidation or receivership whether compulsory or voluntary;
- (c) If the Consultant fails to comply with any final decision reached as a result of arbitration proceedings;
- (d) If, as the result of Force Majeure, the Consultant is unable to perform a material portion of the Services for a period of not less than sixty (60) calendar days;
- (e) If the Client, in its sole discretion and for any reason whatsoever, decides to terminate this Contract;
- (f) If the Consultant fails to confirm availability of Key Experts as required as per ToR. Furthermore, if the Client determines that the Consultant has engaged in Fraud and Corruption in competing for or in executing the Contract, then the Client may, after giving fourteen (14) calendar days written notice to the Consultant, terminate the Consultant's employment under the Contract.

b. By the Consultant

The Consultant may terminate this Contract, by not less than thirty (30) calendar days' written notice to the Client, in case of the occurrence of any of the events specified in paragraphs (a) through (d) of this Clause.

(a) If the Client fails to pay any money due to the Consultant pursuant to this Contract and not subject to dispute within forty-five (45) calendar days after receiving written notice from the Consultant that such payment is overdue.

(b) If, as the result of Force Majeure, the Consultant is unable to perform a material portion of the Services for a period of not less than sixty (60) calendar days.

(c) If the Client fails to comply with any final decision reached as a result of arbitration.

(d) If the Client is in material breach of its obligations pursuant to this Contract and has not remedied the same within forty-five (45) days (or such longer period as the Consultant may have subsequently approved in writing) following the receipt by the Client of the Consultant's notice specifying such breach.

c. Cessation of Services:

Upon termination of this Contract by notice of either Party to the other, the Consultant shall, immediately upon dispatch or receipt of such notice, take all necessary steps to bring the Services to a close in a prompt and orderly manner and shall make every reasonable effort to keep expenditures for this purpose to a minimum. Upon termination of this Contract, the Client shall make the payments to the Consultant: for Services satisfactorily performed prior to the effective date of termination

27. Force Majeure:

- a. **Definition** For the purposes of this Contract, "Force Majeure" means an event which is beyond the reasonable control of a Party, is not foreseeable, is unavoidable, and makes a Party's performance of its obligations hereunder impossible or so impractical as reasonably to be considered impossible under the circumstances, and subject to those requirements, includes, but is not limited to, war, riots, civil disorder, earthquake, fire, explosion, storm, flood or other adverse weather conditions, strikes, lockouts or other industrial action confiscation or any other action by Government agencies.

Force Majeure shall not include (i) any event which is caused by the negligence or intentional action of a Party or such Party's Experts, Sub-consultants or agents or employees, nor (ii) any event which a diligent Party could reasonably have been expected to both take into account at the time of the conclusion of this Contract, and avoid or overcome in the carrying out of its obligations hereunder.

Force Majeure shall not include insufficiency of funds or failure to make any payment required hereunder.

- b. **No Breach of Contract** The failure of a Party to fulfill any of its obligations hereunder shall not be considered to be a breach of, or default under, this Contract insofar as such inability arises from an event of Force Majeure, provided that the Party affected by such an event has taken all reasonable precautions, due care and reasonable alternative measures, all with the objective of carrying out the terms and conditions of this Contract.

- c. **Measures to be Taken** A Party affected by an event of Force Majeure shall continue to perform its obligations under the Contract as far as is reasonably practical, and shall take all reasonable measures to minimize the consequences of any event of Force Majeure.

A Party affected by an event of Force Majeure shall notify the other Party of such event as soon as possible, and in any case not later than fourteen (14) calendar days following the occurrence of such event, providing evidence of the nature and cause of such event, and shall similarly give written notice of the restoration of normal conditions as soon as possible.

Any period within which a Party shall, pursuant to this Contract, complete any action or task, shall be extended for a period equal to the time during which such Party was unable to perform such action as a result of Force Majeure.

During the period of their inability to perform the Services as a result of an event of Force Majeure, the Consultant, upon instructions by the Client, shall either:

(a) demobilize, in which case the Consultant shall be reimbursed for additional costs they reasonably and necessarily incurred, and, if required by the Client, in reactivating the Services; or

(b) continue with the Services to the extent reasonably possible, in which case the Consultant shall continue to be paid under the terms of this Contract and be reimbursed for additional costs reasonably and necessarily incurred.

In the case of disagreement between the Parties as to the existence or extent of Force Majeure, the matter shall be settled according to Clause 25.

Suspension

The Client may, by written notice of suspension to the Consultant, suspend part or all payments to the Consultant hereunder if the Consultant fails to perform any of its obligations under this Contract, including the carrying out of the Services, provided that such notice of suspension (i) shall specify the nature of the failure, and (ii) shall request the Consultant to remedy such failure within a period not exceeding thirty (30) calendar days after receipt by the Consultant of such notice of suspension.

28. Test of responsiveness:

- i. Pre-qualification Proposal along with EMD – Cover – 1
(Signed and sealed copy of the RFP, Pre-proposal Minutes of the Meeting, Addendums issued, etc., shall be submitted as part of Cover 1, without any financials)
- ii. Technical Proposal – Cover – 2
- iii. Financial Proposal – Cover – 3
- iv. All the pages of above proposals (addendums / corrigendum issued, if any) shall be duly sealed and signed by the bidders authorized representative.

Note: The proposals shall be submitted in the Office of Tamil Nadu Urban Infrastructure Financial Services Limited, (TNUIFSL), No. 19, T.P. Scheme Road, Raja Annamalai Puram, Chennai – 600 028.

Yours faithfully,

Sd/-
Managing Director
TNUIFSL

Enclosures:

1. Terms of Reference.
2. Supplementary Information to Firms.
3. Draft contract under which service will be performed.

Terms of Reference

Consulting Services for preparation of Feasibility Report cum Detailed Project Report for Rehabilitation of Defunct Dumping site at Erumapalayam in Salem City Municipal Corporation

I. INTRODUCTION

Salem, the district headquarters of Salem District is located at 11.669437° N latitude and 78.140865° E longitude. The area of Salem Municipal Corporation is 91.34 sq.km. Municipal solid waste management is a vital part of the urban infrastructure that ensures the protection of environment and human health. Salem city Municipal Corporation is having effective solid waste management mechanism and Erumapalyam composting yard was utilised till 2009 for dumping the solid waste collected and the yard was ceased its function from 2009 as it is located in the centre of the town and its posing a environmental and health hazard in and around the site. Since then the dumping made till 2009 was kept unprocessed which also creates continuous environmental problems around the site. In order to reclaim the site and to put into effective use and also, to eliminate the environmental and health problems.

Salem City Municipal Corporation has requested TNUIFSL to appoint consultants for preparation of Feasibility cum Detailed Project Report for Sustainable Rehabilitation of Defunct Dumping site at Erumapalayam in Salem Corporation. Now, it is proposed to prepare a Feasibility cum Detailed Project Report for Sustainable Rehabilitation of Defunct Dumping site at Erumapalayam for Salem City Municipal Corporation.

In this connection it is proposed to appoint a consultant to study and prepare a Feasibility Report cum Detailed Project Report for Sustainable Rehabilitation of Defunct Dumping site at Erumapalayam for the Salem City Municipal Corporation, through the Project Development Grant Fund managed by TNUIFSL.

II.OBJECTIVES

1. To study the characteristics of the dumps in the defunct dumping site.

2. To estimate the quantum of legacy waste dumped and study the physical, chemical and biological parameters of the dumped waste.
3. To study the Environmental and health impacts of the existing dumps and definition of current contamination
4. To evaluate various process proven technologies with implementable remediation measures complying to the necessary guidelines, rules and regulations by conducting secondary analysis primary study, assessments, conduct necessary surveys, field investigations, etc., as required.
5. To suggest measures for reclaim the land through exploring various technological options and its feasibility for treatment and disposal of dumped waste .
6. To prepare detailed project report for the approved implementable design including required detailed design and drawings
7. To prepare necessary bid documents with BOQ and necessary O&M Manual.

III. Study Area

The study area is the defunct solid waste dumping yard in Erumapalayam in Ward No44 and its surrounding areas.

IV. Scope of the study

1. Conduct a reconnaissance and preliminary assessment of the dump site through field visits, review of existing documents, maps and existing data / information.
2. Review available information on topographical, geological, sub-soil, ground water, storm water drainage, flooding, land use, rainfall, soil cover, human settlements, flora and fauna, pattern around dump sites
3. Assessing the age of the dumpsite and nature & waste characterization and quantify the dumped waste.
4. To evaluate the characteristics of waste such as its depth, degree of compaction, extent of area the waste dumped.
5. To explore the potential of mining of the waste and options for recycling and reusing the dumped /legacy waste.

6. Conduct a desk review of previous studies, site investigation reports on all aspects related to the study, including the aspects specified in task 2 above
7. Consult and discuss with local people, administration, municipal and regulatory authorities, RWAs/NGOS, etc. to understand the problems and issues (if any) related to environmental pollution / contamination related to the dump site.
8. Develop a field sampling and investigation protocol and parameters of analysis to assess the level of pollution in the influence area around the dump site as per national regulations and international good practices.
9. Identify the sampling locations based on various ages of dumping and in consultation with Municipal authorities
10. Characterization of the existing dumping has to be carried over at different locations of dumping site by putting necessary augers from top to under and also by bulking sampling at selected locations.
11. Physical and chemical characterization of the dumped waste at different depths from the top cover to the bottom of original dumping
12. The report, testing, samplings, no of samplings, field quantification, waste characterisation, etc., shall be done as per the rules and regulations of MOUD / CPHEEO / SWM Rules 2016, with latest revisions.
13. Guidance for the Preparation of MSWM DPRs is provided in the Enclosure III
14. The site characterization should assess facility aspects, such as geological features, stability of the surrounding area, and proximity of ground water, and should determine the fractions of usable soil, recyclable material, combustible waste, and hazardous waste etc., at the site
15. Assess the Leachate generation from the closed dumpsite and if the leachate is not produced, the period of leachate generation has stopped should be recorded
16. Assess the ground water, surface water and soil quality for the parameters required as per CPCB standards and the inferences of the dumping into the quality of water and soil may be clearly brought into the report.
17. Determine pollutant concentration in soil, groundwater and surface water through test pits, existing bore holes, monitoring wells, nearby water bodies, etc. through soil, groundwater and surface water sampling. Both within the dumpsite and outside the dumpsite.
18. The sampling should be carried over at least at five locations for water and soil inside and five locations in the outer periphery of the dumping yard.

19. Conduct detailed topographic survey inside the dumping yard and prepare a detailed plan with contours to quantify the old waste available for processing
20. Based on the waste characterization evaluated, explore various options for developing waste treatment and disposal, either at standalone basis or at cluster basis.
21. Conduct test holes to assess the soil conditions after removal of the solid waste upto original soil level, determine the soil type by sieve screenings and standard soil classification / characterization tests (i.e., sieve analysis, standard penetration tests, Atterberg limits, cation exchange capacity, and permeability), assess the seasonal high ground water levels from mottling, piezometric levels and other signs of high water table. Dig one test hole for every 2 hectares.
22. Conduct borings to the uppermost confined aquifer (or to within 30 m of the ground surface) to assess geological and hydrogeological conditions, take piezometric water levels, take groundwater samples to test for basic parameters of potability, and determine flow directions. Assess whether any deep aquifers which are used or potentially anticipated to be used for water supply are protected by a confining layer of impermeable rock or soil
23. Determine wind, rainfall, evaporation and other conditions which will affect the movement of windblown litter, dust, odour during construction stage and landfill gases during maintenance period.
24. Assess estimates of leachate generation before and after closure and propose optimal measures for collection and treatment.
25. Assess proposals for surface water control and propose preferred schemes to be incorporated into the works required for closure
26. SWOT analysis for each of the feasible options available with various technical, financial, economic, social, legal parameters
27. Options have to be evaluated as technology proven, sustainable and should comply with regulatory requirements as in force.
28. Identify various techniques in bio-remediation for the affected soil in the project area
29. Options have to be evaluated for recovery of the land for significant economic value
30. Assess the potential economic benefits of each option
31. Assessing the capital cost including operational cost for various options
32. Based on the accepted option by the Review Committee, the consultant should evaluate
 - How to reach the project goals such as the quantity to be processed each day, period for full reclamation, without exceeding the budget

- Proper lay out to place the equipments proposed and for processing
- How the material will be moved and stockpiled near the processing site
- Marketing options for recovered or processed waste
- Sampling analysis and procedures for waste excavated and processed.
- Prepare detailed designs, drawings, estimates, specifications and bid documents for the interventions proposed in the DPR. No lump sum shall be provided in the estimates.
- How the inert will be disposed including location of disposal site shall be detailed out.

33. Environmental and Social Assessment: The consultants have to carry out environmental (as per the standard terms of reference for E1 category projects) and social assessment (guidance provided in the Enclosure I & II) complying with the Environmental and Social Management Framework (ESMF).

34. Assess the environmental and social status & impact of Erumapalayam dumpsite. The activities carried out as in the scope above shall be adequately incorporated in the assessment report, and prepare Environmental and Social Impact Assessment Reports with respect to the project components. Alternatives considered shall also be assessed for environmental and social considerations.

35. To study and report the necessary clearances, compliances, regulatory requirements to be adopted. (all the discussion with various stakeholders shall be recorded and minutes to be added in the report).

36. Separate cost estimates to be prepared both on the basis of 'Schedule of Rates' as well as 'Market Rates';

37. BOQ to be detailed and comprehensive to cover all aspects, including safety, worker facilities, EMP, etc. as part of DPR.

38. Detailed engineering: Inter alia, critical aspects to be additionally covered in preparation of DPR are: (i) Surveys and preparation of designs and drawings, including construction drawings; (ii) QAP, safety plan, Environmental management plan along with manpower requirement for their implementation and cost thereof; (iii) Investment planning – alternatives for investment- phasing of plant capacity relating to time frame and funds available; (iv) Procurement plan and implementation time schedules; and (v) Resource allocation – Cash flow- human resources, machinery and equipment – materials.

39. BoQ / Estimate Provisions / Bid Docs: Critical costs that need to be included in cost estimates, among others, are: (i) Provision for Finance charges, insurance charges, labour-cess, third party inspection charges, employer's office, transport, etc.; (ii) statutory taxes and duties; (iii) provisions for safety planning, Environmental Management Plan; (iv) appropriate costs shall be provided in the estimate to cover the additional cost towards vehicles, staff, laboratory equipment and tests etc. for the employer; (v) Price contingencies linked to implementation time frame and expected escalation; and (vi) Detailed BOQ, technical specifications, designs and drawings for all project components.
40. As part of the financing plan for project implementation, the consultant to study and suggest various options/models available for Corporation based on the feasibility like regular EPC, outsourcing, Public Private Partnership Model, etc., Necessary, value for money analysis, public private sector comparator, economic analysis and financial analysis to be prepared and submitted for various options / models / packages as per the TNIDB requirement enabling the corporation to take a feasible decision.
41. Implementation Plan and Implementation Mechanism: The consultant shall provide implementation plan with analysis of manpower requirements.
42. Necessary packaging, phasing with prioritization shall be added to the Implementation plan and mechanism

V. Outputs and Related Payment Mechanisms

The time of completion of the assignment is 3 months. This is based on the targets given below and three weeks for the client to respond with final comments on the outputs.

S. No	Particulars	Time line	Payment Terms
1	Inception report covering existing status of solid waste management practices, proposed sampling and field survey strategies, study implementation schedule etc.	15 days from date of issue of LoI.	On submission and approval 15 % of the agreement value
2	Interim / Feasibility Report with field study report, various	30 days from approval of Inception report	On submission and approval 25 % of the agreement value.

S. No	Particulars	Time line	Payment Terms
	remedial measures and related technologies (Feasibility Report)		
3	Stakeholder Consultation and Report	15 days from approval of interim report	On submission of stakeholder consultation report / dissemination report 5% of the agreement value.
4	Draft Final Report and Draft estimates and EIA & SIA Report and Draft Master Plan with Draft Bid Documents	30 days from approval of Interim report	On submission and approval 25 % of the agreement value.
5	Final DPR complete with Final Bid Documents	15 days from days from approval of draft DPR and also should meet the following: Letter of verification of design / estimate / draft bid documents from Madurai Municipal Corporation	On submission and approval 30% of the agreement value.

The consultant has to submit 9 copies for each of the deliverables and submit hard and soft copies. The hard copies shall be printed in duplex mode wherever possible. All the designs, data and editable version of the reports shall be submitted in the soft copies.

The Final Report (Approved version) shall be submitted in hard bound 12 copies with soft copy (both Editable & non-editable and all drawings, etc) in Pen Drive.

The consultant has to make necessary presentation to the clients, CMA, GoTN, etc., on as required basis during various stages of the assignment along with the key experts.

VI. Data, Services & Facilities to be provided by the Client:

All the available documents, reports etc. shall be shared with the consultant and facilitate the consultants for steering the study. However, the collection of all requisite data is the sole responsibility of the Consultants.

VII. KEY PROFESSIONALS

S. No.	Key Professional	Experience
1.	Team Leader / Solid Waste Management Expert	A post graduate in Civil / Public Health Engineering / Environmental Engineering with experience in design and execution of at least one solid waste processing including sanitary land fill as per MSW Rules and statutory provisions of Indian environmental regulations with 12 years of post-graduation experience.
2.	Deputy Team Leader / SWM Processing Expert	A post graduate in Environmental Engineering with Civil Engineering background of minimum 10 years of experience in, general Municipal Solid Waste Management projects and also has experience in developing contracts for related projects including preparation of bid documents, bid evaluation reports etc.
3.	Environmental Expert	A post graduate in Environmental Engineering / Science with about 7 years' experience in environmental impact assessment of preparation of Environmental management plan, for Municipal Solid Waste Projects.
4.	Social Development Specialist	A post graduate in sociology/social work, development studies / environmental economics, with experience in conducting stake holder

S. No.	Key Professional	Experience
		consultation and community mobilization for solid waste management projects developed per MSW Rules and statutory provisions of Indian environmental regulations with 10 years of post-graduation experience.
5.	Quantity Surveyor	A graduate civil engineering with about 10 years of experience in the preparation cost estimates, BoQs and shall be familiar with Schedule of Rates.

Note:

- Copy of the Educational certificates has to be enclosed along with CV's.
- Adequate support staff like civil engineer, structural engineer, geo technical engineer, waste treatment engineer, processing engineer, surveyors, Mechanical Engineer, Demand/Market Research expert, institutional, capacity building, soil experts, Financial, etc., may be brought in by the consultants from allied and associated fields with adequate experience to ensure that the objectives of the project are achieved within the stipulated time-lines.
- Team Leader and Deputy Team Leader shall be available full time till the approval of the Feasibility Report Completion stage.

VIII. Review Committee & Review Mechanism:

The Committee comprises of the following members will review the reports submitted by the Consultants.

- 1) Representatives from Commissionerate of Municipal Administration
- 2) Representatives from Salem City Municipal Corporation
- 3) Representatives from Salem Smart City Limited
- 4) Representative from TN Pollution Control Board
- 5) Representatives from TUFIDCO
- 6) Representatives from TNUIFSL
- 7) Any other member (as required)

In addition to the above committee, the draft final report shall be reviewed by the World Bank and the final report shall incorporate the observations of the World Bank.

IX. REVIEW MECHANISM

The review committee will review the progress of the work through the presentation to be made by the consultants during each stage of the reports. The comments or views on the various reports shall be given to the consultant within 15 days of the presentation. The decision / suggestion carried out will be reviewed in the next meeting.

I- Social Impact Assessment

The purpose of the proposed Social Impact Assessment is:

- Determine key social issues associated with the proposed sub-project;
- Identify potential adverse social impacts associated with the proposed project and recommend measures to mitigate impacts;
- Carry out an analysis of the vulnerable communities associated with the project, identify their concerns with regard to social aspects (including inclusion), and recommend measures to mainstream these into project design;
- Determine the applicability of Involuntary and or Indigenous Peoples Policies for the identified impacts and carry out additional surveys, consultation to prepare mitigation plans in accordance with the provisions of ESMF, if required.

Methodology. The consultant should devise appropriate methodology to carry out the various tasks towards realizing the above objectives. SIA should also include a census and socio-economic survey of Project affected households and the results will provide basis for preparation of Resettlement Action Plan in order to mitigate adverse impacts and enhance development outcomes of the project. The strategy for socio-economic survey should be drawn up based on findings of the above SIA exercises carried out through quick reconnaissance surveys, public consultations, and stakeholder analysis. (The indicative list of information to be gathered is provided in V below).

Stakeholders: Identify the various groups who have an interest or a stake in the project. Stakeholders are those who are likely to be affected by a project, as well as those that may influence the project's outcomes. In addition to the beneficiaries of the project and other groups directly affected by it, stakeholders may include organized groups from the public and private sectors as well as civil society who have an interest in the project. Based on the findings of the stakeholder analysis, the Consultant will undertake a comprehensive consultation and participation process in the project area. This will include specific consultation with intended project beneficiaries and likely affected social groups on the proposed project objectives, components and implementation arrangements.

Participation: Examine opportunities and conditions for participation by stakeholders – particularly the excluded groups and women – in the project (e.g. implementation and/or monitoring; influencing decision-making; holding public institutions accountable for the services they are bound to provide; access to project benefits and opportunities; etc.).

II - Preparation of RAP, if needed. Based on the outcome of SIA, additional surveys and consultations need to be carried out to prepare Resettlement Action Plan, if needed and should be prepared in line with the process described in paras 26-29 of ESMF. If private land acquisition is involved, then the applicable process under RTFCTLARR Act, 2013 should also be followed as required in the state. The respective ULB/ implementing agency need to approve the final report and need to disclose in their websites.

III - Outputs: The final outputs include (i) social Impact Assessment; and (ii) Resettlement Action Plan, if needed. If Tribal persons are affected the required consultations and documentation needs to be discussed with the World Bank. All the draft reports will be reviewed by TNUIFSL/ Bank and the comments need to be incorporated.

IV - Consultant Team. The key Social Safeguard person on consultants' Team should have a post-graduation in social sciences with at least 10 years of professional experience in carrying out tasks related to SIA, resettlement and rehabilitation related studies, consultations, community development and related activities. .

V - Indicative Data Requirements for Census and Baseline Socio-Economic Surveys

Socio-economic survey is meant to convert information gathered during initial consultative SIA exercises into measurable data, required for providing R&R assistance for different categories of PAPs, and for monitoring changes in people's conditions beyond the project period. The Socio-economic survey should provide information including but not limited to the following. The information gathered during the census and socio-economic surveys will form the basis for designing the Social Management and Tribal Development Plans.

- Social status of the affected families/persons: Caste/ tribe/gender category of families
- Economic status of the affected families/persons: source of livelihood, monthly incomes; number of bread earners in family and types of incomes, land ownership, household assets, ineptness, etc.
- Residential families: nature and quantity of likely loss-homestead area, residential structure, agricultural land, cattle shed; types of RR assistance preferred
- Commercial Units: nature of land and structure affected, title, business type, legal status of business, monthly incomes; number of employees;
- List of landless wage labourers, employees working in formal or informal sector who may have been adversely affected due to the project with data on nature of occupation, education and skill level, social category, age, and income.
- Common properties affected (grazing fields, community land, cultural properties, ponds, schools, community centres, dispensaries, emergency shelters; community forests; etc.)
- List of vulnerable persons/families: (poor, SC/ST, women headed, aged/infirm, physically or mentally challenged) with socio-economic profile;
- Other key information: travel time to work place; access to basic services; health status; participation in development schemes of the government; level of mainstream linkage;
- Any other information considered important in the local context.
- The outcome of the census and baseline survey should be in the form of a report and include but not limited to:(1) lists of PAPs according to their socio-economic and impact category (residential-legal and squatters; commercial-legal and squatter category; and encroachers-residential and commercial); (2) aggregated data on mean/ average household incomes, access to basic services, social and economic categories affected; common properties; and other details. (3) R&R impacts showing impacted lands and structures (type, quantity) across specific sections in line with the finalized alignment maps.

Guidelines for preparation of Environmental Assessment Report as per ESMF

1.0 Brief Introduction

A brief introduction to the project shall be provided in this section

.A brief description of the project area / city and salient features of the city shall be presented in this section, such as geographic location, climate, rainfall, soil profile, wind direction, existing drainage system, need for the proposed project etc.

2.0 The Project Objectives and Need

A brief profile of the status of existing infrastructure in the project city with respect to the proposed project, service levels, problems & issues and salient features of the proposed project shall be discussed in this section along with the environmental implications of the proposed project by covering the following objectives.

1. Establish the environmental baseline in the study area
2. identify and assess the adverse environmental impacts; and provide requisite measures to address these impacts
3. identify the opportunities for environmental enhancements in the project area and provide requisite guidance/plans in this regard
4. Identify and assess the climate change related aspects of the project
5. Wherever relevant integrate the measures (mitigation and enhancement related) in the project planning and design;
6. Develop appropriate management plans and codes of practices for implementing, monitoring and reporting of the environmental mitigation and enhancement measures suggested.

The EA shall be carried out in line with the Government of India (GoI)'s regulations (EIA Notification), and to suit ESMF.

The EA shall comprise filling the screening format, Environmental screening, Project EA, and the Environmental Management Plans (EMPs) & Mitigation measures. The EA shall be carried out in a consultative manner through "Stakeholder Consultations", at various stages, with the affected communities, NGOs, selected government agencies and other stakeholders.

3.0 Scope of Work

The following are the tasks to be performed by the consultants while conducting

Environmental Assessment for the project including nature, scale and magnitude of impacts that the project is likely to cause on environment.

Task 1 Description of Project

A succinct description of the proposed project shall be provided covering: (a) status analysis of the existing infrastructure (b) description of each of the proposed components, activities and sub-activities. The task shall also bring out the rationale, the need for the proposed project and list out the various benefits of project implementation. As part of this activity, the consultant shall provide necessary maps to scale

Task 2 Review of Earlier Studies

The consultants shall review various earlier studies such as feasibility and detailed project reports, etc., of the project and understand the project and various aspects associated with the same. This shall provide a base to formulate the environmental surveys necessary for the project and assessing impacts of the same.

Task 3 Legislative and Regulatory Considerations

A review of the legal and regulatory provisions applicable for the project shall be carried out in this task and provide relevance of the law or regulations to the sub-project. The objective of the review is to bring out the legal and policy issues to be addressed in the project at various stages of project development such as planning, design, execution and operation. In addition to the environmental laws such as EP Act, Water Act, Air Act, SWM rules, EIA notifications etc., the consultants shall review applicable operational policies / directives of the EFA.

The review shall thus provide a complete list of regulatory formalities required for the project and various clearances required from different regulatory agencies including State Pollution Control Board.

Task 4 Preparation of Environmental Profile

An environmental profile of the project influence area shall be prepared, based on appropriate primary & secondary surveys and field investigations. The objective of this profile is to establish existing environmental conditions of the project area, in terms of air, water, noise, soil and other environmental parameters, which should form the basis for prediction of impacts due to proposed project activities. As part of this, the environmentally sensitive land uses (protected natural areas, areas of ecological value, sensitive receptors like schools, hospitals etc) would also be identified and plotted on a map to scale.

The extent and duration (atleast one season for rapid assessment and the three seasons for

full detailed assessment) of surveys shall be judiciously decided by the consultant as per requirements of the environmental regulations applicable in India and guidelines of international funding agencies. The profile prepared shall be adequate enough to predict impacts of the project and shall cater to the requirements of obtaining necessary environmental clearances from the authorities.

The profile shall essentially include all physical, ecological and socio-economic components of the project environment and bring out the salient and sensitive features of the same. Important aspects such as reserve forests, national parks, major water bodies, structures of archaeological / historic importance, and other environmental resources (if any) shall be identified and salient features of the same shall be presented.

In addition to the basic environmental profile, quality of water supplied by the present water supply system, potential points of cross contamination and health profile of the project area population shall also be brought out in detail through appropriate sampling surveys and field investigations.

Detailed activities to be carried out under environmental assessment is given under section 4.0.

Task 5 Determination of Potential Impacts

Based on the environmental profile of the project area prepared above and the proposed project activities discussed under Activity 1, the consultants shall carry out environmental screening to determine the nature of impacts and level of Environmental Assessment to be carried out (Section 5.0 provide the details to be carried out).

- 1) In case of low or insignificant level of impacts, where an EMP will suffice, the consultant shall review the recent versions of generic EMPs available with TNUIFSL and carry out necessary changes to suit the project requirements.
- 2) As part of screening, if medium to high impacts, requiring a detailed EA and standalone EMP, the consultant shall carry out detailed impact analysis. The consultant shall predict environmental impacts of the project components, activities and sub-activities on various environmental attributes (bio, geo and physical) through appropriate analytical tools and techniques such as modelling techniques, overlays, etc. Significant or insignificant, permanent or temporary, reversible or irreversible, negative or positive impacts shall be categorised separately and presented for each phase of project development.
- 3) Based on the outcome of the screening, if subsequent relevance to climate change is

envisaged in the project implementation or during operation, then the consultants shall collect relevant information and appraise the climate change impact. The consultants shall identify adaptation needs of the project, review for greenhouse gas reduction potential and identify necessary measures for implementation.

All identified impacts shall be summarised in an easily understandable format and the magnitude and significance of each impact shall be explained in detail.

An analysis of various project alternatives, including the 'Project' and 'No Project' scenario shall be brought out and impacts shall be analysed for each scenario. Based on the above analysis the best alternative that causes minimum or no impact shall be recommended for implementation.

Task 6 Stakeholder Consultations

The consultants shall carry out consultations with Experts, NGOs, Forest Department (if applicable) and other selected Government Agencies and other stakeholders to (a) collect baseline information, (b) obtain a better understanding of the potential impacts (c) appreciate the perspectives/concerns of the stakeholders, and (d) secure their active involvement during subsequent stages of the project as appropriate. For E1 projects at least two consultations shall be conducted, one after screening and the second with the draft final EA / EMP.

Consultations shall be preceded by a systematic stakeholder analysis, which would (a) identify the individual or stakeholder groups relevant to the project and to environmental issues, (b) include expert opinion and inputs, (c) determine the nature and scope of consultation with each type of stakeholders, and (d) determine the tools to be used in contacting and consulting each type of stakeholders. A systematic consultation plan with attendant schedules will be prepared for subsequent stages of project preparation as well as implementation and operation, as required. Where community consensus is required in respect of proposed mitigation measures for impacts on community assets including water bodies, places of worships etc., specific plan for modification/relocation etc have to be disclosed and consensus obtained.

Task 7 Development of an Environmental Management Plan / Determination of Mitigation measures

The consultants using outputs of the above tasks shall develop an implementable Environmental Management Plan (EMP) for the project. Development of an Environmental Management Plan is detailed under Section 5.0 below

4.0 Environmental Screening and EA activities to be carried out in detailed

4.1 Environment Screening

- (v) Environmental screening shall be undertaken to identify the environmental hot spots along the project corridors, project relevance to climate change and determine the level of environmental analysis required for the EA. The consultant shall carry out a preliminary analysis to assess the nature, scale and magnitude of the impacts that the project is likely to cause on environment. In case of significant environmental impacts encountered (may be applicable to the entire project/specific project interventions/specific locations), The consultants shall explore possible alternatives to the project and/or project components in a consultative manner. The deliverable at this stage will be Environmental Screening Report.
- (vi) The screening exercise shall be supported through secondary and primary information collection and, stakeholder consultations on existing environment scenario. As part of the screening exercise the consultants shall:
 - (a) Identify sensitive locations in the project area including regionally or nationally recognized environmental resources and sensitive manmade land uses like hospitals, schools, etc
 - (b) Establish baseline environmental quality with regard to air, water and noise at sensitive receptors.
 - (c) List and map common property resources such as roadside trees; forests, large water bodies; and major physical cultural properties, etc.
 - (d) Identify Human settlement, physical infrastructure and project activities that would result in severance.
- (vii) The consultants shall also appraise the project in terms of substantial greenhouse gas reduction potential and substantial need of adaptation to possible climate change.

4.2 Project EA

- (i) Existing Environment and Baseline Conditions: Baseline assessment shall be carried out based on the outcome of Environmental Screening carried out for the project. The baseline conditions shall be established through detailed primary level field surveys. At this stage the consultants shall prepare detailed maps showing candidate sites for environmental improvements. The specific tasks under this include the following:

- (ii) Data Collection: Data shall be collected on relevant physical, biological and socio-economic conditions to establish the current environmental status of the project area. The data collection should be undertaken to arrive at meaningful information that will facilitate assessment of impacts and preparing management plan. Broadly, the following form of the data categories shall be covered (the consultant is also encouraged to use professional judgement and local knowledge in defining other data requirements):

The current land uses at the proposed project site and the study area using maps plotted to appropriate scale, covering lakes/ponds and their uses, forests and its classification, ecologically sensitive areas (sanctuaries, national parks, wildlife corridors, identified areas of nesting, mangroves and / or of interest of migratory birds, etc.), prominent land marks, sensitive receptors, community severance, village settlements, agricultural lands, pasture and barren lands, various categories of CRZ areas if any, etc.

Physical - Geology, topography, soils, climate and meteorology (with emphasis on critical season considering water bodies and air quality), ambient air quality, surface and groundwater hydrology, existing sources of air emissions, existing water quality status of water bodies of importance.

- (iii) Biological and Ecological assessment covering water bodies, fauna & flora, ecologically sensitive areas (perceived as well as officially listed).
- (iv) Based on the outcome of screening report, the consultants shall carry out additional air and noise quality monitoring, which in future may depict the base line conditions for EMP monitoring.

Critical areas of environmental importance shall be identified as an output of the current environmental status of the project sites

5.

Impact Prediction: The Consultant shall identify positive and negative impacts likely to result from the proposed project, interpreting “environmental” throughout the EA to include socio-economic impacts as well as impacts on the natural environment. All the project activities during pre-construction, construction and operation phases shall be considered to assess the impacts. The impact assessment shall necessarily cover “no

action” alternative in the analysis. The consultants shall regularly interact with technical and social team of the project to share the findings of the impact assessment. The assessment of environmental impacts shall necessarily cover (but not limited to) the following:

- (a) Impacts on the water bodies (including, but not limited to the impacts on water source proposed to be developed for the project in case of a water supply scheme)
- (b) Impacts on topography and surface drainage due the proposed project activities in the project area,
- (c) Community and cultural severance, identified through consultations
- (d) Expected impacts on the land use patterns at and around the proposed project facilities/components
- (e) Impact on ecologically sensitive features including spawning areas in creeks/estuarine areas, etc.
- (f) Detailed assessment of impacts on receiving water bodies (including source of water bodies and down stream impacts on riparian rights)
- (g) Assess the change of stream course due to diversion channels to construction intake structures and its impact on downstream users
- (h) Impact on Socio-economic aspects of the projects area
- (i) The noise and air quality related impacts during construction period on sensitive receptors shall be assessed
- (j) Impact on Trees, public utilities and other community structures, cross overs, etc to be assessed.
- (k) Any impacts that are irreversible and/or cannot be avoided or mitigated should be identified
- (l) The consideration of the aspects in terms of **climate change adaptation** (Climate Proofing) should ensure that the desired developmental impacts of the strategy or measure are not endangered despite the forecasted effects of climate change. Furthermore the assessment should analyse whether the capacity for adaptation can be further increased in the framework of the strategy or measure. In this regard the expected climate changes and their consequences for the strategy or measure will be analysed. This includes both direct effects (e.g. more frequent flooding or drying out of water sources) and indirect effects of climate change. The analysis will also examine the longer targeted period of impacts beyond the formal period of the strategy or measure. On this

basis, options will be developed and implemented to increase the capacity of the project to adapt.

- (m) The assessment and consideration of the potential for **greenhouse gas reduction** (Emission Saving) to avoid substantial greenhouse gas emissions. First, the expected development of greenhouse gases in the project area/sector will be assessed, followed by review of the planned strategy or measures for their contribution to greenhouse gas emissions and if there are potentials for reducing greenhouse gas emissions. On this basis, options to contribute to greenhouse gas reduction shall be developed, and if applicable taking into consideration the developmental impacts.

5.0 Environmental Management Plan

The EMP should suggest ways / options for mitigating negative impacts of the project, the preventive measures necessary. Where required, EMP shall include community consensus for the mitigation measures proposed. The EMP shall identify the means / agency responsible for implementation of the same and recommend suitable monitoring mechanism for the EMP. The EMP shall be in the form of contract covenants and shall provide detailed cost estimates converted into BOQ items wherever necessary and applicable for implementation of the same. The consultant shall also recommend an appropriate institutional mechanism as per the requirements of EMP.

The above referred activity shall be applicable for Generic EMPs as well as specific EMPs developed as an outcome of detailed EAs

The consultant shall prepare a detailed EMP covering the measures to mitigate and/or minimize the negative impacts, including the implementation arrangement and a monitoring plan for the same with site specific requirements. EMP shall cover the following details:

4) Management/Mitigatory / Enhancement measures:

- (i) For each of the significant negative impact, the consultant should recommend measures to eliminate or mitigate the impact. In case any impact is non-mitigable, the cost of damage shall be estimated and adequate compensatory measures shall be recommended.
- (ii) Consultants shall recommend enhancement measures for incorporation in the design for attaining energy efficiency, reuse of treated water, control of water leakage, energy generation etc.

- (iii) The cost (capital and recurring) of all the mitigation measures and the responsible parties for implementation should be clearly identified and shall be translated in to BOQ items. Wherever possible the measures should be drafted as contract clauses, which can be incorporated in construction/operational phase agreements
 - (iv) The mitigatory measures should necessarily contain conceptual designs wherever necessary. The consultants should also specify neighbourhood committees to supervise effective implementation of the proposed mitigatory measures.
- 5) Landscape plan: Wherever necessary, the Landscaping plan should be prepared considering the project area as a whole and shall meet project specific requirements. Considering the nature of the project area, the EA should provide a conceptual landscape plan for all the project components while considering the special environmental and social needs.
 - 6) Budget Estimates: The EMP budget estimates shall be prepared for each of the project component and the shall be integrated with the overall project cost estimates and the relevant costs shall be included in the BOQ provisions
 - 7) Monitoring Plan: The Consultant should specify the types of monitoring needed for potential environmental impacts during construction and operation. As in the case of the mitigation plan, requirements should be specific as to what is to be monitored, how and by whom along with reporting formats and recommendations if any Cost estimates are necessary and where monitoring reports are to be prepared, the recipient responsible for review and any corrective action should be identified. The monitoring plan should be supplemented with a detailed schedule of implementation of EMP measures.
 - 8) Institutional Arrangement to Manage Environment Impacts Effectively: The consultants shall identify institutional/organizational needs to implement the recommendations of the project EA and to propose steps to strengthen or expand, if required. This may extend to new agency functions, inter-sectoral arrangements, management procedures and training, staffing, operation and maintenance, training and budgeting.

6.0 Public Disclosure

The consultants are to provide support and assistance to the Client in meeting the disclosure requirements, which at the minimum shall meet the EFA's policy on public disclosure. The consultants will prepare a plan for in-country disclosure, specifying the timing and locations; translate the key documents, such as the EA Summary in local language; draft the newspaper announcements for disclosure; and help the client to place all the EA reports in the client's website.

The consultants shall prepare an Executive Summary of the draft EA Report in both English and Tamil for public disclosure. In addition, for E1 projects, the consultants shall provide for the initial consultation a summary of the proposed project's objectives, description, and potential impacts; a summary of the EA's conclusions for consultation after the draft EA report is prepared.

7.0 Inputs to be provided by the Client

The client shall make available all relevant documents, reports in connection to the project area/study area and facilitate procurement of data to the consultants.

Guidance for the Preparation of MSWM DPRs

1: Random Waste Characterization study:

- i. Carry out waste characterization study, taking into account the characteristics of waste at different time and season as a result of floating population based on MoUD/CPHEEO/MSW rules by CPCB guidelines in force today.
- ii. Calculate the total quantum of garbage generated in the town along with the break up details as per the characterization.
- iii. Identify the sources for each category of the garbage categorised based on the waste characterization study.

2: Establish Current Status/base line of Solid Waste Management:

Based on the characterization study and the secondary information available establish the baseline in the following areas by carrying out the following studies:

- i) Adequacy of solid waste management staff and their capacity available with the municipality. The adequacy should be checked separately for collection, transportation and dumping.
- ii) Existing method of collection and mode of transfer of waste generated.
- iii) Transport facilities for both primary and secondary collection available with the Municipal Corporation
- iv) Extent of waste generated and the waste collected in the municipal corporation
- v) Extent of house hold segregation of the waste generated
- vi) Extent of source collection.
- vii) Identify the involvement of NGO's and private parties in the solid waste management activities in the expanded area.
- viii) Include the proposal to implement IEC activities for the proposed project.
- ix) Existing disposal facilities available in the expanded areas.
- x) Prepare a breakup of expenses made by the Corporation for all the above activities.

3: Develop a plan of action for effective Solid waste management

Based on the above, develop a plan of action for effective solid waste management for the municipal corporation considering the characterization of waste in the municipality and the technical, economical, environmental, financial and social feasibility of collection, segregation, transportation and disposal of waste.

- i. Prepare a road map for the source segregation and source collection.
- ii. Prepare a road map for involving NGO's, SHGs and Private operators for primary and secondary collection taking into account the retired/transferred solid waste management staff and carry out cost benefit analysis.
- iii. Prepare a detailed plan and road map for IEC activities for convincing people regarding source segregation and estimate capital and recurring cost for the same.

- iv. Carry out random survey among the public covering both domestic and non-domestic to assess willingness and capacity to pay for the conservancy charges.
- v. Prepare a least cost solution for transporting the garbage from source to disposal site. This has to be prepared by considering various alternatives like privatization of vehicles, leasing the maintenance of vehicles, shortest haul routes, etc.
- vi. The size of land requirement for both compost yard and scientific land fill should be done by considering the waste characterization and according to the road map of source segregation. Since the quantity of garbage to be dumped in the landfill will be reduced significantly with the increase in the level of segregation of bio-degradable and recyclable wastes, the landfill must be optimally sized. Further, it would be sufficient if the provisions like clay and geo-membrane liners required as per MSW Rules 2000, shall be provided for the initial sub-cells and later on, they may be done away with.

4: Examine Alternative Methods for effective solid waste management

, Study the treatment and disposal of waste and suggest the best option with cost benefit analysis. The consultants have to prepare road maps for each of the alternatives.

5: Assess the Geological characteristics of the waste disposal area

The consultants shall carry out on-site geological mapping of all the waste disposal site suggested and investigate the topography, geomorphology, hydrogeology, stratigraphy and other geological characteristics like the porosity, permeability etc. which will have significant influence on the design criteria for various facilities to be provided in and around the area.

6: Landfill and composting Design and Specifications

The Consultant shall develop the design, construction and operation specifications for landfill in accordance with the MoEF criteria. The consultants have to design the facility, considering the waste characterization and the road map of source segregation. Given that source segregation to achieve more than 90% in 3 years and all biodegradable waste to go for composting, landfill standard to be designed by factoring in the above. In other words, the first few cells would need development to the standard prescribed in the guidelines and later cells which will get minimal of biodegradable matters, need not be of very high standard.

This task should include:

- i) Developing a grading plan showing sequence of cell development over time, including the necessary earthwork to accomplish this. This should also include cell closure and post-closure restoration
- ii) Estimating and preparing drainage plans for the leachate and surface runoffs while recommending site development measures that minimize leachate generation
- iii) Designing a leachate collection system, together with a method for determining the effectiveness of this system so as to ensure that the landfill and compost yard will be functioning properly
- iv) Designing systems for disposal of leachate and surface runoffs, including likely drop inlets, piping, holding tanks, and connection to the leachate treatment plant within the main facility area

- v) Technology assessment for leachate treatment to the prescribed disposal standards and designing of leachate treatment plant
- vi) Designing a suitable system for landfill gas capturing and flaring the same.
- vii) Designing a suitable lining system
- viii) Selecting proper construction techniques and materials
- ix) Determining waste placement and cover methods to minimize stability problems, and to reduce infiltration of both surface water and groundwater. The landfill must be designed with sub-cells so as to carry out the filling operation in a phased manner. The first sub-cell may be designed to cater for five years period for the projected waste generation and the subsequent cells have to be designed keeping in view the level of source segregation achievable over a period of five years.
- x) Designing monitoring well systems
- xi) Developing a recommended site layout for the storage, treatment and disposal facilities (including land occupied, floor area, plant layout, transportation, storage, power supply, water supply, and sewage system); and
- xii) Designing a suitable site access system
- xiii) Providing details on appropriate analytical methods, instruments and on-site laboratory facilities, including preparing an equipment list and performance specifications in this respect
- xiv) The option for designing the landfill site with sub-cells, each phased for 5 years should be considered
- xv) Prepare detailed/itemized cost of landfill facility and compost yard. The cost estimates shall include capital cost; operation and maintenance cost; and post closure cost. The estimate should also include the cost for Information Education and Communication component.

The above task is required only for the cells that will initially get bio-degradable materials also, which will gradually get reduced in view of progressive attainment of source segregation.

The consultants have to carry out risk assessment of the above design option and suggest suitable risk management plan highlighting the issues. The consultants have to also prepare a plan for monitoring the post project quality of air, soil and water including flies, birds etc.

7: Assess the Market value of compost and recyclables.

- i. The consultants shall identify the potential market to sell the compost near the town.
- ii. The consultants have to assess the market value of the compost as per the quality of compost generated. The consultants have to address the pricing and branding aspect of the compost generated.
- iii. The consultant shall prepare a marketing plan for selling the compost.
- iv. The consultants have to prepare a clear cut action plan for disposal of recyclables in a cost effective manner.

Annexure - 2

PRE - QUALIFICATION CRITERIA FOR FIRMS

I. Brief description of organization

1

II. Outline of recent experience of assignments:

- nName of the assignment
- NName of the project 2
- NName of the owner or sponsoring authority
- Bbrief description of assignment

3

III. Cost of assignment (Fees)

IV. Attach Client certificate for completion of project

1. Date of commencement
2. Date of completion
3. Client certificate attached Yes / No

V. Annual Turnover of the firm

S. N	Financial Year	Amount in Rs.
1	2014-15	
2	2015-16	
3	2016-17	
	Average	

Balance Sheet and P&L A/c statement for the three financial years (2014-15, 2015-16 & 2016-17) duly certified by a Chartered Accountant shall be attached.

VI. Contact Person / Details:

Name :

Phone No:

email id :

Mob No :

SUPPLEMENTARY INFORMATION FOR FIRMS

Proposals

(1) Proposals should include the following information:

(a) Technical Proposal

Any comments or suggestions of the consultant on the Terms of Reference (TOR).

(ii) A description of the manner in which consultants would plan to execute the work. Work plan time schedule in Form F-3 and approach or methodology proposed for carrying out the required work.

(iii) The composition of the team of personnel which the consultant would propose to provide and the tasks which would be assigned to each team member in Form F-4.

(iv) Curriculum Vitae of the individual key staff members to be assigned to the work and of the team leader who would be responsible for supervision of the team. The curriculum vitae should follow the attached Format (F-5) duly signed by the concerned personnel.

(v) The consultant's comments, if any, on the data, services and facilities to be provided by the client indicated in the Terms of Reference (TOR).

(b) Financial Proposals

The financial proposals should include the Schedule of Price Bid in Form No.F-6 with cost break-up in Form 6a. for the work program indicated in Form F-7.

(2) **Two sets (Original + Duplicate) of Technical proposals (With Soft copy in Pen drive) and one original of Financial proposal should be submitted to TNUIFSL, 19,,T.P. Scheme Road, Raja Annamalai Puram, Chennai – 600 028.**

(3) Contract Negotiations

The aim of the negotiation is to reach an agreement on all points with the firm and initial a draft contract by the conclusion of negotiations. Negotiations commence with a discussion of Firm's proposal, costing (**after negotiation of the unit rates, including the man month rates, tax liability and all cost, etc**), the proposed work plan, staffing and any suggestions you may have made to improve the Terms of Reference. Agreement will then be reached on the final Terms of Reference, the staffing plan and the bar chart, which will indicate personnel, periods in the field and office, man-months, and reporting schedule. Based on these, adjustments necessary will be discussed and agreed. The Contract will be awarded after successful negotiations, with the selected Firm. If negotiations fail, the Client will invite the Firms having obtained the second highest score to Contract negotiations and so on.

(4) Contracts with Team Members. Firms are advised against making firm financial arrangements with prospective team members prior to negotiations.

(5) Nomination of Experts

Having selected a firm partly on the basis of an evaluation of personnel presented in the firm's proposal, TNUIFSL will negotiate a contract on the basis of the experts named in the proposal and, prior to contract negotiations, will require guarantees that these experts shall, in fact, be made available. As the expected date of mobilization is given in the letter inviting proposals, TNUIFSL will not consider substitution after contract negotiations, except in cases of unexpected delays on the starting date or incapacity of an expert for reasons of health, or leaving the firm. The desire of a firm to use an expert on another project shall not be accepted for substitution of personnel.

(6) Terms of Payment

The mode of payments to be made in consideration of the work to be performed by the firm as per Terms of Reference

Note: All payments shall be made on submission of pre-receipted bills by the firms in duplicate for respective stages.

(7) Review of reports

A review committee consisting of review committee members mentioned in ToR will review all reports of firms and suggest any modifications/changes considered necessary within 15 days of receipt. The decision / suggestion carried out will be reviewed in the next meeting.

FORM F-1

From

To

The Managing Director
TNUIFSL
RajaAnnamalaiPuram, Chennai 600 028

Sir:

Consulting services for _____ of _____ Regarding

I/We _____ firm/firms firm/organization herewith enclose Prequalification, Technical and Financial Proposal for selection of my/our firm as firm for _____.

We underscore the importance of a free, fair and competitive procurement process that precludes fraudulent use. In this respect we have neither offered nor granted, directly or indirectly, any inadmissible advantages to any public servants or other persons in connection with our bid, nor will we offer or grant any such incentives or conditions in the present procurement process, or in the event that we are awarded the contract, in the subsequent execution of the contract.

We also underscore the importance of adhering to minimum social standards (“Core Labour Standards”) in the implementation of the project. We undertake to comply with the Core Labour Standards ratified by the country of India.

We will inform our staff about their respective obligations and about their obligation to fulfill this declaration of undertaking and to obey the laws of the country of India.

Yours faithfully,

Signature: _____

Full name _____

and address: _____

(Authorized Representative)

FORM F-2

ASSIGNMENTS OF SIMILAR NATURE SUCCESSFULLY COMPLETED DURING LAST 10 YEARS

1. Brief Description of the Firm:

2. Outline of recent experience on assignments of similar nature:

<u>S.No.</u>	<u>Name of assignment</u>	<u>Name of project</u>	<u>Owner or sponsoring authority</u>	<u>Cost of assignment</u>	<u>Date of commencement</u>	<u>Date of completion</u>	<u>Was assignment satisfactorily completed</u>
1	2	3	4	5	6	7	8

Please attach relevant documents as proof (such as award letter, completion certificate etc.)

FORM F-3

WORK PLAN TIME SCHEDULE

A. Field Investigation

Sl. No.	Item	Month-wise Program											
		1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th	11th	12th

B. Compilation and submission of reports

1.Report } As indicated under TOR
2. . }
3. .
4. .
5.Report

C. A short note on the line of approach and methodology outlining various steps for performing the study.

FORM NO.F-4

Composition of the Team Personnel and the task which would be assigned to each Team Member

1. Key / Technical / Managerial Staff

S. No.	Name	Position	Task assignment
--------	------	----------	-----------------

2. Support Staff

S. No.	Name	Position	Task assignment
--------	------	----------	-----------------

FORM F-5

**FORMAT OF CURRICULUM VITAE (CV) FOR
PROPOSED KEY PROFESSIONAL STAFF**

Proposed Position: _____

Name of Firm: _____

Name of Staff: _____

Profession: _____

Date of Birth: _____

Years with Firm/Entity: _____ Nationality: _____

Membership in Professional Societies: _____

Detailed Tasks Assigned: _____

Key Qualifications:

[Give an outline of staff member's experience and training most pertinent to tasks on assignment. Describe degree of responsibility held by staff member on relevant previous assignments and give dates and locations. Use about half a page.]

Education:

[Summarize college/university and other specialized education of staff member, giving names of schools, dates attended, and degrees obtained. Use about one quarter of a page.]

Employment Record:

[Starting with present position, list in reverse order every employment held. List all positions held by staff member since graduation, giving dates, names of employing organizations, titles of positions held, and locations of assignments. For experience in last ten years, also give types of activities performed and client references, where appropriate. Use about two pages.]

Languages:

[For each language indicate proficiency: excellent, good, fair, or poor; in speaking, reading, and writing]

Certification:

I, the undersigned, certify that to the best of my knowledge and belief, these data correctly describe me, my qualifications, and my experience.

_____ **Date:** _____
[Signature of staff member and authorized representative of the Firm] *Day/Month/Year*

Full name of staff member: _____

Full name of the authorized representative: _____

FORM NO.F-6

SCHEDULE OF PRICE BID

Item	Amount in Rupees
Cost of the Financial Proposal	
(1) Remuneration	
(2) Reimbursables	
<u>Total Base Cost of the Financial Proposal: A</u>	
(i) {insert type of tax e.g., GST,}	
(ii)	
(iii) {insert type of tax}	
<u>Total Estimate for Indirect Local Tax: B</u>	
<u>Grand Total (A+B)</u>	

(Rupees in Words)

Signature
Seal of Firm
(Authorized representative)

FORM NO.F-6 - A
Cost Estimate of Services

Remuneration of Staff

<u>Staff</u>	<u>Name</u>	<u>Daily (Monthly) Rate</u> <u>(in currency)</u>	<u>Working Days</u> <u>(Months)</u>	<u>Total Cost</u> <u>(in currency)</u>
--------------	-------------	---	--	---

a) Team Leader _____

b) " _____

c) " _____

Sub-Total (Staff) _____

Support Staffs

Sub-Total (Support Staff) _____

Out-of-Pocket Expenses:

a) Per Diem:	Room	Subsistence Cost	Total	Days
--------------	------	---------------------	-------	------

b) Air fare: _____

c) Lump Sum Miscellaneous Expenses: _____

Sub-Total (Out-of-Pocket) _____

Other Expenses:

1. Survey cost
2. Printing cost
3. Stakeholders Meeting Expenses
4. Contingency Charges:

Total Other Expenses _____

TOTAL COST ESTIMATE _____

FORM F-7

WORK PROGRAM AND TIME SCHEDULE

<u>Name</u>	<u>Position</u>	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>	<u>7</u>	<u>8</u>	<u>9</u>	<u>10</u>	<u>11</u>	<u>12</u>	<u>Number of months</u>
-------------	-----------------	----------	----------	----------	----------	----------	----------	----------	----------	----------	-----------	-----------	-----------	-----------------------------

Total

Reports Due/Activities and Duration

- 1.
- 2.
- 3.
- 4.
- 5.
- 6.
- 7.
- 8.
- 9.
- 10.

Field Full Time _____
Reports Due _____
Activities Duration _____

Part Time _____

Consulting Services

Draft agreement of Contract for this Assignments Carried out by Firms / firm

To be executed in Rs. 100/- Stamp Paper

Subject: (Name of Assignment)

(Name of Firm)

PAN :

GST No:

This AGREEMENT (“Agreement”) is executed at Chennai on this __ day of2018 by and between PDGF, managed by TNUIFSL (‘Client’) (hereinafter will be referred as PDGF) having their office at No. 19, T.P. Scheme Road, Raja AnnamalaiPuram, Chennai – 600 028, and M/s., (‘Firm’) (hereinafter will be referred as Firms) having their Office located at

1. Set out below are the terms and conditions under which (Name of Firm) has agreed to carry out for (Name of Client) the above-mentioned assignment specified in the attached Terms of Reference.
2. For administrative purposes (Name of responsible staff of Client) has been assigned to administer the assignment and to provide [Name of Firm] with all relevant information needed to carry out the assignment. The services will be required in (Name of Project) for about _____ days/months, during the period from _____ to _____.
3. The (Name of Client) may find it necessary to postpone or cancel the assignment and/or shorten or extend its duration. In such case, every effort will be made to give you, as early as possible, notice of any changes. In the event of termination, the (Name of Firms) shall be paid for the services rendered for carrying out the assignment to the date of termination, and the [Name of Firm] will provide the (Name of Client) with any reports or parts thereof, or any other information and documentation gathered under this Contract prior to the date of termination.
4. The services to be performed, the estimated time to be spent, and the reports to be submitted will be in accordance with the attached Description of Services.
5. This Contract, its meaning and interpretation and the relation between the parties shall be governed by the laws of Union of India
6. This Contract will become effective upon confirmation of this letter on behalf of (Name of Firm) and will terminate on _____, or such other date as mutually agreed between the (Name of Client) and the (Name of Firms).
7. Payments for the services will not exceed a total amount of Rs. _____.

The (Name of Client) will pay (Name of Firm), within 45 days of receipt of invoice after approval of the report, which is as follows:

S. No	Deliverables	Payment Schedule	Amount in Rs.
1	Submission and approval of Inception Report		
2	Submission and Interim Report		
3	Submission of Dissemination Report		
4	Submission and approval of Draft Final Report & Draft Bid Documents		

S. No	Deliverables	Payment Schedule	Amount in Rs.
5	Submission and approval of Final Report & Final Bid Documents		
	Total		

The above remuneration includes all the costs related to carrying out the services, including overhead and any taxes imposed on [Name of Firms.]

8. The [Name of Firms] will be responsible for appropriate insurance coverage. In this regard, the [Name of Firms] shall maintain workers compensation, employment liability insurance for their staff on the assignment. The Firms shall also maintain comprehensive general liability insurance, including contractual liability coverage adequate to cover the indemnity of obligation against all damages, costs, and charges and expenses for injury to any person or damage to any property arising out of, or in connection with, the services which result from the fault of the [Name of Firms] or its staff. The [Name of Firms] shall provide the (Name of Client) with certification thereof upon request. The risks and the coverage shall be as follows:
- (a) Third Party liability insurance with a minimum coverage of Value of assignment [cost of assignment quoted by the firm];
 - (b) Professional liability insurance, with a minimum coverage of Value of assignment [cost of assignment quoted by the firm];
 - (c) employer's liability and workers' compensation insurance in respect of the Personnel of the Firm and of any Sub-Firms, in accordance with the relevant provisions of the Applicable Law, as well as, with respect to such Personnel, any such life, health, accident, travel or other insurance as may be appropriate;
9. The [Name of Firms] shall indemnify and hold harmless the (Name of Client) against any and all claims, demands, and/or judgments of any nature brought against the (Name of Client) arising out of the services by the [Name of Firms] under this Contract. The obligation under this paragraph shall survive the termination of this Contract.
10. The Firm agrees that, during the term of this Contract and after its termination, the Firm and any entity affiliated with the Firm, shall be disqualified from providing goods, works or services (other than the Services and any continuation thereof) for any project resulting from or closely related to the Services.
11. The Firm shall furnish a Bank Guarantee amounting to 5% of the negotiated firm's value in the form as per TT Act., within 21 days from the date of issue of LoI. The format of Bank Guarantee (specified at the end of the RFP) is enclosed in Annexure-5.
12. The Client shall have the right to invoke and appropriate the proceeds of the Performance Security, in whole or in part, without notice to the Firm in the event of breach of the work assigned in the ToR or the finalized Agreement.
13. All final reports, plans, specifications, analysis and other documents or software submitted by the [Name of Firms] in the performance of the Services shall become and remain the property of the Client. The Firms may retain a copy of such documents but shall not use them for purposes unrelated to this Contract without the prior written approval of the Client.
14. The Firm undertake to carry out the assignment in accordance with the highest standard of professional and ethical competence and integrity, having due regard to the nature and purpose of the assignment, and to ensure that the staff assigned to perform the services under this Contract, will conduct themselves in a manner consistent herewith.
15. The Firm will not assign this Contract or sub-contract or any portion of it without the Client's prior written Consent.

16. The [Name of Firms] shall pay the taxes, duties, fees, levies and other impositions levied under the Applicable law and the Client shall perform such duties, in regard to the deduction of such tax, as may be lawfully imposed.

17. The [Name of Firms] also agree that all knowledge and information not within the public domain which may be acquired during the carrying out of this Contract, shall be, for all time and for all purpose, regarded as strictly confidential and held in confidence, and shall not be directly or indirectly disclosed to any person whatsoever, except with the (Name of Client) written permission.

18. SETTLEMENT OF DISPUTES

18.1 Amicable Settlement The Parties shall use their best efforts to settle amicably all disputes arising out of or in connection with this Contract or the interpretation thereof.

18.2 Right to Arbitration and Rules of Procedure Any dispute between the parties as to matters arising pursuant to this Contract which cannot be settled amicably within sixty (60) days after receipt by one Party of the other Party's request for such amicable settlement, shall be referred to the adjudication of a Committee of three arbitrators. The Committee shall be composed of one Expert to be nominated by the Client, one to be nominated by the Consultants and the third, who will also act as the chairman of the Committee but not as an umpire, who will be chosen jointly by the two arbitrators from a panel of five candidates, none of whom would be in regular employment of the Government, supplied by the Executive Committee of Indian Roads Congress. If either of the Parties fail to appoint his arbitrator or fail to agree on the third nominee within sixty (60) days after receipt of notice for the appointment of such arbitrator, the President of the Indian Roads Congress shall appoint, upon request from either Party and from such panel or otherwise, such arbitrator(s) for the matter in dispute. The arbitration shall be conducted in accordance with the provisions of the Arbitration and Conciliation Act 1996 and any statutory modification or enactment thereof and shall be held at such place and time in India as the committee of arbitrators may determine. The decision of the majority of the Arbitrators shall be final and binding as may be determined by the Arbitrators. Performance under the Contract shall continue during the arbitration proceedings and payments due to the Consultants by the Client shall not be withheld, unless they are the subject matter of the arbitration proceedings. All awards shall be in writing and such awards shall state reasons for the awards.

Miscellaneous. In any arbitration proceeding hereunder:

- (a) proceedings shall, unless otherwise agreed by the Parties, be held in Chennai.
- (b) the English language shall be the official language for all purposes; and
- (c) the decision of the sole arbitrator or of a majority of the arbitrators (or of the third arbitrator if there is no such majority) shall be final and binding and shall be enforceable in any court of competent jurisdiction, and the Parties hereby waive any objections to or claims of immunity in respect of such enforcement.

19. This Contract may be terminated by either Party as per provisions set up below:

a. By the Client

The Client may terminate this Contract in case of the occurrence of any of the events specified in paragraphs (a) through (f) of this Clause. In such an occurrence the Client shall give at least thirty (30) calendar days' written notice of termination to the Consultant in case of the events referred to in (a) through (d); at least sixty (60) calendar days' written notice in case of the event referred to in (e); and at least five (5) calendar days' written notice in case of the event referred to in (f):

- (a) If the Consultant fails to remedy a failure in the performance of its obligations hereunder, as specified in a notice of suspension;
- (b) If the Consultant becomes (or, if the Consultant consists of more than one entity, if any of its members becomes) insolvent or bankrupt or enter into any agreements with their creditors for relief of debt or take advantage of any law for the benefit of debtors or go into liquidation or receivership whether compulsory or voluntary;
- (c) If the Consultant fails to comply with any final decision reached as a result of arbitration proceedings;
- (d) If, as the result of Force Majeure, the Consultant is unable to perform a material portion of the Services for a period of not less than sixty (60) calendar days;
- (e) If the Client, in its sole discretion and for any reason whatsoever, decides to terminate this Contract;

(f) If the Consultant fails to confirm availability of Key Experts as required as per ToR. Furthermore, if the Client determines that the Consultant has engaged in Fraud and Corruption in competing for or in executing the Contract, then the Client may, after giving fourteen (14) calendar days written notice to the Consultant, terminate the Consultant's employment under the Contract.

b. By the Consultant

The Consultant may terminate this Contract, by not less than thirty (30) calendar days' written notice to the Client, in case of the occurrence of any of the events specified in paragraphs (a) through (d) of this Clause.

(a) If the Client fails to pay any money due to the Consultant pursuant to this Contract and not subject to dispute within forty-five (45) calendar days after receiving written notice from the Consultant that such payment is overdue.

(b) If, as the result of Force Majeure, the Consultant is unable to perform a material portion of the Services for a period of not less than sixty (60) calendar days.

(c) If the Client fails to comply with any final decision reached as a result of arbitration.

(d) If the Client is in material breach of its obligations pursuant to this Contract and has not remedied the same within forty-five (45) days (or such longer period as the Consultant may have subsequently approved in writing) following the receipt by the Client of the Consultant's notice specifying such breach.

c. Cessation of Services:

Upon termination of this Contract by notice of either Party to the other, the Consultant shall, immediately upon dispatch or receipt of such notice, take all necessary steps to bring the Services to a close in a prompt and orderly manner and shall make every reasonable effort to keep expenditures for this purpose to a minimum. Upon termination of this Contract, the Client shall make the payments to the Consultant: for Services satisfactorily performed prior to the effective date of termination

20. Force Majeure:

- a. **Definition** For the purposes of this Contract, "Force Majeure" means an event which is beyond the reasonable control of a Party, is not foreseeable, is unavoidable, and makes a Party's performance of its obligations hereunder impossible or so impractical as reasonably to be considered impossible under the circumstances, and subject to those requirements, includes, but is not limited to, war, riots, civil disorder, earthquake, fire, explosion, storm, flood or other adverse weather conditions, strikes, lockouts or other industrial action confiscation or any other action by Government agencies.

Force Majeure shall not include (i) any event which is caused by the negligence or intentional action of a Party or such Party's Experts, Sub-consultants or agents or employees, nor (ii) any event which a diligent Party could reasonably have been expected to both take into account at the time of the conclusion of this Contract, and avoid or overcome in the carrying out of its obligations hereunder.

Force Majeure shall not include insufficiency of funds or failure to make any payment required hereunder.

- b. **No Breach of Contract** The failure of a Party to fulfill any of its obligations hereunder shall not be considered to be a breach of, or default under, this Contract insofar as such inability arises from an event of Force Majeure, provided that the Party affected by such an event has taken all reasonable precautions, due care and reasonable alternative measures, all with the objective of carrying out the terms and conditions of this Contract.

- c. **Measures to be Taken** A Party affected by an event of Force Majeure shall continue to perform its obligations under the Contract as far as is reasonably practical, and shall take all reasonable measures to minimize the consequences of any event of Force Majeure.

A Party affected by an event of Force Majeure shall notify the other Party of such event as soon as possible, and in any case not later than fourteen (14) calendar days following the occurrence of such event, providing evidence of the nature and cause of such event,

and shall similarly give written notice of the restoration of normal conditions as soon as possible.

Any period within which a Party shall, pursuant to this Contract, complete any action or task, shall be extended for a period equal to the time during which such Party was unable to perform such action as a result of Force Majeure.

During the period of their inability to perform the Services as a result of an event of Force Majeure, the Consultant, upon instructions by the Client, shall either:

(a) demobilize, in which case the Consultant shall be reimbursed for additional costs they reasonably and necessarily incurred, and, if required by the Client, in reactivating the Services; or

(b) continue with the Services to the extent reasonably possible, in which case the Consultant shall continue to be paid under the terms of this Contract and be reimbursed for additional costs reasonably and necessarily incurred.

In the case of disagreement between the Parties as to the existence or extent of Force Majeure, the matter shall be settled according to Clause 25.

Suspension

The Client may, by written notice of suspension to the Consultant, suspend part or all payments to the Consultant hereunder if the Consultant fails to perform any of its obligations under this Contract, including the carrying out of the Services, provided that such notice of suspension (i) shall specify the nature of the failure, and (ii) shall request the Consultant to remedy such failure within a period not exceeding thirty (30) calendar days after receipt by the Consultant of such notice of suspension.

21. Any dispute arising out of the Contract, which cannot be amicably settled between the parties, shall be referred to Adjudication / arbitration in accordance with the Arbitration & Conciliation Act 1996. The place of arbitration shall be at Chennai.

22. The jurisdiction of court will be at Chennai.

Place:

Date:

.....

.....

.....

(Signature of Authorized Representative
on behalf of Firm)

(Signature & Name of the Client's Representative)

Bank Guarantee for Performance Security

To
 Project Development Grant Fund (PDGF)
 No.19, T.P. Scheme Road
 Raja Annamalaipuram
 Chennai – 600 028

In consideration of Project Development Grant Fund (PDGF) acting on behalf of the Government of Tamil Nadu (hereinafter referred as the “Client”, which expression shall, unless repugnant to the context or meaning thereof, include its successors, administrators and assigns) having awarded to M/s having its office at (hereinafter referred as the “Consultant” which expression shall, unless repugnant to the context or meaning thereof, include its successors, administrators, executors and assigns), vide the Client’s Letter of Intent no. dated and the agreement to be executed for Rs. (Rupees), (hereinafter referred to as the “Agreement”) Consulting Services for

..... and the Consultant having agreed to furnish a Bank Guarantee amounting to Rs. (Rupees) to the Client for performance of the said Agreement. We, (hereinafter referred to as the “Bank”) at the request of the Consultant do hereby undertake to pay to the Client an amount not exceeding Rs. (Rupees) against any loss or damage caused to or suffered or would be caused to or suffered by the Client by reason of any breach by the said Consultant of any of the terms or conditions contained in the said Agreement. We, (indicate the name of the Bank) do hereby undertake to pay the amounts due and payable under this Guarantee without any demur, merely on a demand from the Client stating that the amount/claimed is due by way of loss or damage caused to or would be caused to or suffered by the Client by reason of breach by the said Consultant of any of the terms or conditions contained in the said Agreement or by reason of the Consultant’s failure to perform the said Agreement. Any such demand made on the bank shall be conclusive as regards the amount due and payable by the Bank under this Guarantee. However, our liability under this Guarantee shall be restricted to an amount not exceeding Rs. (Rupees).

We, (indicate the name of Bank) undertake to pay to the Client any money so demanded notwithstanding any dispute or disputes raised by the Consultant in any suit or proceeding pending before any court or tribunal relating thereto, our liability under this present being absolute and unequivocal. The payment so made by us under this bond shall be a valid discharge of our liability for payment thereunder and the Consultant shall have no claim against us for making such payment.

We, (indicate the name of Bank) further agree that the Guarantee herein contained shall remain in full force and effect during the period that would be taken for the performance of the said Agreement and that it shall continue to be enforceable till all the dues of the Client under or by virtue of the said Agreement have been fully paid and its claims satisfied or discharged or till the Client certifies that the terms and conditions of the said Agreement have been fully and properly carried out by the said Consultant and accordingly discharges this Guarantee. Unless a demand or claim under this Guarantee is made on us in writing on or before a period of one year from the date of this Guarantee, we shall be discharged from all liability under this Guarantee thereafter.

We, (indicate the name of Bank) further agree with the Client that the Client shall have the fullest liberty without our consent and without affecting in any manner our obligations hereunder to vary any of the terms and conditions of the said Agreement or to extend time of performance by the said Consultant from time to time or to postpone for any time or from time to time any of the powers exercisable by the Client against the said Consultant and to forbear or enforce any of the terms and conditions relating to the said Agreement and we shall not be relieved from our liability by reason of any such variation, or extension being granted to the said Consultant or for any forbearance, act or omission on the part of the Client or any indulgence by the Client to the said Consultant or any such matter or thing whatsoever which under the law relating to sureties would, but for this provision, have the effect of so relieving us.

This Guarantee will not be discharged due to the change in the constitution of the Bank or the Consultant(s). We, (indicate the name of Bank) lastly undertake not to revoke this Guarantee during its currency except with the previous consent of the Client in writing.

For the avoidance of doubt, the Bank’s liability under this Guarantee shall be restricted to Rs. *** * (Rupees *****) only. The Bank shall be liable to pay the said amount or any part thereof only if the Client serves a written claim on the Bank in accordance with paragraph 2 hereof, on or before [*** (indicate date falling 90 days after the date of this Guarantee)].

For

Name of Bank:

Seal of the Bank:

Dated, the day of, 2018

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