
GOVERNMENT OF KERALA

KERALA SOLID WASTE MANAGEMENT PROJECT (KSWMP)

REQUEST FOR BIDS NO : IN-SUCM -394361-CW-RFB

**NATIONAL OPEN COMPETITIVE
PROCUREMENT****(Two-Envelope Bidding Process with e-Procurement)*****Design-Build Works***

NAME OF WORK	:	Biomining and Bioremediation of 12 Legacy Waste Dumpsites across Kerala
PERIOD OF SALE OF BIDDING DOCUMENT	:	From 20 December 2023
PRE-BID MEETING ¹	:	26 December 2023 at 11.00 hrs.
LAST DATE AND TIME FOR RECEIPT OF BIDS	:	19 January 2024 at 16.00 hrs
TIME AND DATE OF OPENING BIDS – Technical Part	:	19 January 2024 at 16.30 hrs
PLACE OF OPENING OF BIDS	:	Office of the Project Director, Kerala Solid Waste Management Project, Thiruvananthapuram, Kerala, India.
OFFICER INVITING BIDS	:	Project Director, Kerala Solid Waste Management Project.

December 2023

REQUEST FOR BIDS

(RFB)

**GOVERNMENT OF KERALA
KERALA SOLID WASTE MANAGEMENT PROJECT (KSWMP)**

**REQUEST FOR BIDS (RFB)
E-Procurement Notice
(Two-Envelope Bidding Process with e-Procurement)**

NATIONAL OPEN COMPETITIVE PROCUREMENT

Name of Project	: Kerala Solid Waste Management Project (KSWMP)
Contract title	: Biomining and Bioremediation of 12 Legacy Waste Dumpsites across Kerala
Loan No./ Credit No./ Grant No.	: IBRD-P4960
RFB No. Reference No.:	: IN-SUCM -394361-CW-RFB
Date	: 20 December 2023

1. The Government of Kerala through the Government of India has received financing from the World Bank toward the cost of the Kerala Solid Waste Management Project (KSWMP) and intends to apply part of the proceeds toward eligible payments under the contract for execution of works as detailed below.
2. Bidding will be conducted through national open competitive procurement using a Request for Bids (RFB) as specified in the World Bank's "Procurement Regulations for IPF Borrowers, July 2016, Fourth Edition November 2020" ("Procurement Regulations") and is open to all Bidders as defined in the Procurement Regulations.
3. The Kerala Solid Waste Management Project (KSWMP) (*implementing agency*) now invites online Bids from eligible Bidders for the design and execution of works detailed below in the table. Interested bidders may obtain further information and inspect the bidding document at the address given below during office hours or download the bidding document from e-procurement system <https://etenders.kerala.gov.in> Bidders are advised to note the clauses on eligibility (Section I Clause 4) and minimum qualification criteria (Section III – Evaluation and Qualification Criteria), to qualify for the award of the contract. In addition, please refer to paragraphs 3.14 and 3.15 of the "Procurement Regulations" setting forth the World Bank's policy on conflict of interest.
4. The bidding document is available online on e-procurement system from...20 December 2023 to 19 January 2024 (*dates*) for a non-refundable fee as indicated in the table below, in the form of Online Payment/ NEFT/ RTGS as per the provision provided on e- tender portal (Payment documents are to be submitted as per the procedure described in paragraph 9

below). Bidders will be required to register on the website. The bidders would be responsible for ensuring that any addenda available on the website is also downloaded and incorporated.

5. For submission of the bid, the bidder is required to have Class III Digital Signature Certificate (DSC) in the name of the person duly authorized to sign on behalf of the Bidder from one of the Certifying Authorities authorised by Government of India for issuing DSC (e.g. Verasys/ Sify/ nCode/ eMudhra² etc.), with their profile. It is mandatory for the bidder to register their firm with e-procurement system and obtain user ID and password for participating in e-procurement in this Project. A non-refundable fee of Rs 15,000/- (Inclusive of tax) is required to be paid. The mode of payment shall be in the form of online Payment/ NEFT/ RTGS as per the provision provided on e- tender portal. Payment documents are to be submitted along with other documents listed in paragraph 9 below before the bid submission deadline.
6. Bids comprise two Parts, namely the Technical Part and the Financial Part, and both parts must be submitted simultaneously online on the e-procurement system on or before 16:00 hours on 19 January 2024 and the 'Technical Part' of the bids will be publicly opened online on the same day at 16:30 hours, in the presence of the bidders designated representatives who wish to attend. The "Financial Part" shall remain unopened in the e-procurement system until the second public Bid opening for the financial part. Any bid or modifications to bid (including discount) received outside e-procurement system will not be considered. If the office happens to be closed on the date of opening of the bids as specified, the bids will be opened on the next working day at the same time and venue. The electronic procurement system would not allow any late submission of bids.
7. All Bids must be accompanied by a Bid Security of the amount specified for the work in the table below, drawn in favor of the **Project Director, Kerala Solid Waste Management Project**. Bid security will have to be in any one of the forms as specified in the bidding document and shall have to be valid for 45 days beyond the validity of the bid. Procedure for submission of bid security is described in **Para 8**.
8. The bidders are required to submit (a) original payment documents towards the cost of bid document; and registration on e-procurement website (if applicable); (b) original bid security and (c) original affidavit regarding correctness of information furnished with bid document with *to the address specified at para 11* before the bid submission deadline, either by registered post/speed post/courier or by hand, failing which the bids will be declared non-responsive and will not be opened.
9. A pre-bid meeting will be held on 26 December 2023 at 11:00 hours at the office of Project Director, Kerala Solid Waste Management Project/ Online Video Conferencing. to clarify the issues and to answer questions on any matter that may be raised at that stage as stated in ITB Clause 7.4 of 'Instructions to Bidders' of the bidding document. The prospective bidders wishing to join the pre-bid meeting VC can access the link to the online meeting from KSWMP website <https://www.kswmp.org>. Bidders are advised to download the bidding

² For details of certifying authorities refer CCA website https://cca.gov.in/digital_signature.html

document prior to the pre-bid meeting in order for bidders to have a good understanding of the scope of work under this contract for discussion and clarification at the pre-bid meeting. The bidders who wish to visit the project sites can raise their written request to the implementing agency at the communication link mentioned below. The Bidders may visit the project site on their own arrangements, the implementing agency shall facilitate such visit by providing necessary information and intimating the respective ULBs of the visit. The Point of Contact for site Visit purpose is provided in clause BDS7.4 of this RFB

10. Other details can be seen in the bidding document. The Employer shall not be held liable for any delays due to system failure beyond its control. Even though the system will attempt to notify the bidders of any bid updates, the Employer shall not be liable for any information not received by the bidder. It is the bidders' responsibility to verify the website for the latest information related to this bid.

11. The address for communication is as under:

*Project Director,
Kerala Solid Waste Management Project (KSWMP)
Address: Upper Ground Floor, Trans Towers, Vazhuthacaud,
Thiruvananthapuram -695014, Kerala, India
Telephone: +91 471-2333011
E-Mail: tenderkswmp@gmail.com;
Website: www.kswmp.org*

TABLE

Package No	Name of Work	Bid Security * (Rs.)	Cost of Document (Rs.)	Period of Completion
1	2	3	4	5
01	Biomining and bioremediation of 12 Legacy Waste Dumpsites across Kerala	5,00,000 (Rupees Five Lakh Only)	15,000 (Rupees Fifteen Thousand Only)	270 days

Seal of office

Table of Contents

PART 1 – Bidding Procedures.....	7
Section I - Instructions to Bidders	8
Section II - Bid Data Sheet (BDS).....	35
Section III - Evaluation and Qualification Criteria.....	41
Section IV - Bidding Forms.....	61
Section V - Eligible Countries	101
Section VI - Fraud and Corruption	102
PART 2 – Employer’s Requirements.....	104
Section VII - Employer’s Requirements.....	137
PART 3 – Conditions of Contract and Contract Forms	110
Section VIII - General Conditions of Contract.....	111
Section IX - Particular Conditions of Contract.....	144
Section X - Contract Forms	249

PART 1 – Bidding Procedures

Section I - Instructions to Bidders

A. General	
1. Scope of Bid	<p>1.1 In connection with the Specific Procurement Notice - Request for Bids (RFB), specified in the Bid Data Sheet (BDS), the Employer, as specified in the BDS, issues this bidding document for the provision of Works as specified in Section VII, Employer's Requirements. The name, identification and number of lots (contracts) of this RFB are specified in the BDS.</p>
	<p>1.2 Throughout this bidding document:</p> <ul style="list-style-type: none"> (a) the term "in writing" means communicated in written form (e.g. by mail, e-mail, and fax, including if specified in the BDS, distributed or received through the electronic-procurement system used by the Employer) with proof of receipt; (b) if the context so requires, "singular" means "plural" and vice versa; (c) "Day" means calendar day, unless otherwise specified as "Business Day". A Business Day is any day that is a working day of the Borrower. It excludes the Borrower's official public holidays; (d) the term "ES" means environmental and social (including Sexual Exploitation, and Abuse (SEA), and Sexual Harassment (SH)); (e) "Sexual Exploitation and Abuse" "(SEA)" means the following: <ul style="list-style-type: none"> (i) "Sexual Exploitation" is defined as any actual or attempted abuse of position of vulnerability, differential power or trust, for sexual purposes, including, but not limited to, profiting monetarily, socially or politically from the sexual exploitation of another. (ii) "Sexual Abuse" is defined as the actual or threatened physical intrusion of a sexual nature, whether by force or under unequal or coercive conditions; (f) "Sexual Harassment" "(SH)" is defined as unwelcome sexual advances, requests for sexual favors, and other verbal or

	<p>physical conduct of a sexual nature by the Contractor's Personnel with other Contractor's or Employer's Personnel;</p> <p>(g) "Contractor's Personnel" is as defined in Sub-Clause 1 (ii) of the General Conditions of Contract; and</p> <p>(h) "Employer's personnel" is as defined in GCC Sub-Clause 1 (nn) of the General Conditions of Contract.</p> <p>A non-exhaustive list of (i) behaviors which constitute SEA and (ii) behaviors which constitute SH is attached to the Code of Conduct form in Section IV.</p>
<p>2. Source of Funds</p>	<p>2.1 The Borrower or Recipient (hereinafter called "Borrower") specified in the BDS has received or has applied for financing (hereinafter called "funds") from the International Bank for Reconstruction and Development or the International Development Association (hereinafter called "the Bank") in an amount specified in the BDS, toward the project named in the BDS. The Borrower intends to apply a portion of the funds to eligible payments under the contract(s) for which this bidding document is issued.</p>
	<p>2.2 Payment by the Bank will be made only at the request of the Borrower and upon approval by the Bank, and will be subject, in all respects, to the terms and conditions of the Loan (or other financing) Agreement. The Loan (or other financing) Agreement prohibits a withdrawal from the loan account for the purpose of any payment to persons or entities, or for any import of goods, equipment, plant, or materials, if such payment or import is prohibited by a decision of the United Nations Security Council taken under Chapter VII of the Charter of the United Nations. No party other than the Borrower shall derive any rights from the Loan (or other financing) Agreement or have any claim to the proceeds of the Loan (or other financing).</p>
<p>3. Fraud and Corruption</p>	<p>3.1 The Bank requires compliance with the Bank's Anti-Corruption Guidelines and its prevailing sanctions policies and procedures as set forth in the WBG's Sanctions Framework, as set forth in Section VI.</p> <p>3.2 In further pursuance of this policy, bidders shall permit and shall cause their agents (whether declared or not), subcontractors, sub-consultants, service providers, suppliers, and personnel, to permit the Bank to inspect all accounts, records and other documents relating to any initial selection process, prequalification process, bid submission, proposal submission, and contract performance</p>

	(in the case of award), and to have them audited by auditors appointed by the Bank.
4. Eligible Bidders	<p>4.1 A Bidder may be a firm that is a private entity, or a state-owned enterprise or institution subject to ITB 4.6, or any combination of them in the form of a joint venture (JV), under an existing agreement, or with the intent to enter into such an agreement supported by a letter of intent, unless otherwise specified in the BDS. In the case of a joint venture, all members shall be jointly and severally liable for the execution of the entire Contract in accordance with the Contract terms. The JV shall nominate a Representative who shall have the authority to conduct all business for and on behalf of any and all the members of the JV during the Bidding process and, in the event the JV is awarded the Contract, during contract execution. This authorization shall be evidenced by submitting a power of attorney signed by legally authorized signatories of all members. Unless specified in the BDS, there is no limit on the number of members in a JV. The joint venture agreement shall be registered in the place specified in BDS so as to be legally valid and binding on members. Joint venture agreement must allocate the scope and parts of the contract to be carried out by each member commensurate with the qualifications and capacity of the members as claimed in the bid.</p>
	<p>4.2 A Bidder shall not have a conflict of interest. All Bidders found to have a conflict of interest shall be disqualified. A Bidder may be considered to have a conflict of interest for the purpose of this Bidding process, if the Bidder:</p> <ul style="list-style-type: none"> (a) directly or indirectly controls, is controlled by or is under common control with another Bidder; or (b) receives or has received any direct or indirect subsidy from another Bidder; or (c) has the same legal representative as another Bidder; or (d) has a relationship with another Bidder, directly or through common third parties, that puts it in a position to influence the Bid of another Bidder, or influence the decisions of the Employer regarding this bidding process; or (e) any of its affiliates participated as a consultant in the preparation of the design or technical specifications of the works that are the subject of the Bid; or

	<p>(f) any of its affiliates has been hired (or is proposed to be hired) by the Employer or Borrower as Project Manager (Engineer) for the Contract implementation;</p> <p>(g) would be providing goods, works, or non-consulting services resulting from or directly related to consulting services for the preparation or implementation of the project specified in the BDS ITB 2.1 that it provided or were provided by any affiliate that directly or indirectly controls, is controlled by, or is under common control with that firm;</p> <p>(h) has a close business or family relationship with a professional staff of the Borrower (or of the project implementing agency, or of a recipient of a part of the loan) who: (i) are directly or indirectly involved in the preparation of the bidding document or specifications of the contract, and/or the Bid evaluation process of such contract; or (ii) would be involved in the implementation or supervision of such contract unless the conflict stemming from such relationship has been resolved in a manner acceptable to the Bank throughout the procurement process and execution of the contract.</p>
	<p>4.3 A firm that is a Bidder (either individually or as a JV member) shall not participate in more than one Bid, except for permitted alternative Bids. This includes participation as a Subcontractor in other Bids. Such participation shall result in the disqualification of all Bids in which the firm is involved. A firm that is not a Bidder or a JV member may participate as a subcontractor in more than one Bid.</p>
	<p>4.4 A Bidder may have the nationality of any country, subject to the restrictions pursuant to ITB 4.8. A Bidder shall be deemed to have the nationality of a country if the Bidder is constituted, incorporated or registered in and operates in conformity with the provisions of the laws of that country, as evidenced by its articles of incorporation (or equivalent documents of constitution or association) and its registration documents, as the case may be. This criterion also shall apply to the determination of the nationality of proposed subcontractors or sub-consultants for any part of the Contract including related Services.</p>
	<p>4.5 A Bidder that has been sanctioned by the Bank, pursuant to the Bank's Anti-Corruption Guidelines, in accordance with its prevailing sanctions policies and procedures as set forth in the WBG's Sanctions Framework as described in Section VI paragraph 2.2 d., shall be ineligible to be prequalified for, initially selected for, bid for, propose for, or be awarded a Bank-financed</p>

	contract or benefit from a Bank-financed contract, financially or otherwise, during such period of time as the Bank shall have determined. The list of debarred firms and individuals is available at the electronic address specified in the BDS .
	4.6 Bidders that are state-owned enterprises or institutions in the Employer's Country may be eligible to compete and be awarded a Contract(s) only if they can establish, in a manner acceptable to the Bank, that they (i) are legally and financially autonomous (ii) operate under commercial law, and (iii) are not under supervision of the Employer.
	4.7 A Bidder shall not be under suspension from Bidding by the Employer as the result of the operation of a Bid-Securing or Proposal-Securing Declaration.
	4.8 Firms and individuals may be ineligible if so indicated in Section V and (a) as a matter of law or official regulations, the Borrower's country prohibits commercial relations with that country, provided that the Bank is satisfied that such exclusion does not preclude effective competition for the supply of goods or the contracting of works or services required; or (b) by an act of compliance with a decision of the United Nations Security Council taken under Chapter VII of the Charter of the United Nations, the Borrower's country prohibits any import of goods or contracting of works or services from that country, or any payments to any country, person, or entity in that country. When the Works are implemented across jurisdictional boundaries (and more than one country is a Borrower, and is involved in the procurement), then exclusion of a firm or individual on the basis of ITB 4.8 (a) above by any country may be applied to that procurement across other countries involved, if the Bank and the Borrowers involved in the procurement agree. A Bidder shall provide such documentary evidence of eligibility satisfactory to the Employer, as the Employer shall reasonably request.
5. Eligible Materials, Equipment and Services	5.1 The materials, equipment and services to be supplied under the Contract and financed by the Bank may have their origin in any country subject to the restrictions specified in Section V, Eligible Countries, and all expenditures under the Contract will not contravene such restrictions. At the Employer's request, Bidders may be required to provide evidence of the origin of materials, equipment and services.
B. Contents of Bidding Document	

<p>6. Sections of Bidding Document</p>	<p>6.1 The bidding document consists of Parts 1, 2, and 3, which include all the sections specified below, and which should be read in conjunction with any Addenda issued in accordance with ITB 8.</p> <p>PART 1 Bidding Procedures</p> <ul style="list-style-type: none"> • Section I - Instructions to Bidders (ITB) • Section II - Bid Data Sheet (BDS) • Section III - Evaluation and Qualification Criteria • Section IV - Bidding Forms • Section V - Eligible Countries • Section VI - Fraud and Corruption <p>PART 2 Employer's Requirements</p> <ul style="list-style-type: none"> • Section VII - Employer's Requirements <p>PART 3 Conditions of Contract and Contract Forms</p> <ul style="list-style-type: none"> • Section VIII - General Conditions of Contract (GCC) • Section IX - Particular Conditions of Contract (PCC) • Section X - Contract Forms
	<p>6.2 The Specific Procurement Notice - Request for Bids (RFB) issued by the Employer is not part of this bidding document.</p>
	<p>6.3 Unless obtained directly from the Employer or downloaded from the official website specified in the 'E-Procurement Notice', the Employer is not responsible for the completeness of the bidding document, responses to requests for clarification, the minutes of the pre-Bid meeting (if any), or Addenda to the bidding document in accordance with ITB 8. In case of any contradiction, documents obtained directly from the Employer or downloaded from the official website specified in the 'E-Procurement Notice' shall prevail.</p>
	<p>6.4 The Bidder is expected to examine all instructions, forms, terms, and specifications in the bidding document and to furnish with its Bid all information and documentation as is required by the bidding document.</p>
<p>7. Clarification of Bidding Document, Site</p>	<p>7.1 The electronic procurement system specified in the BDS provides for online clarifications. A Bidder requiring any clarification on the bidding document may notify the Employer online on the e-procurement system or raise its inquiries during the pre-Bid meeting if provided for in accordance with ITB 7.4. Clarifications</p>

<p>Visit, Pre-Bid Meeting</p>	<p>requested through any other mode shall not be considered by the Employer. The Employer will respond to any request for clarification, provided that such request is received prior to the deadline for submission of Bids within a period specified in the BDS. Description of clarification sought and the response of the Employer shall be uploaded on the e-procurement system for information of all Bidders without identifying the source of request for clarification. Should the clarification result in changes to the essential elements of the bidding document, the Employer shall amend the bidding document following the procedure under ITB 8 and ITB 22.2. It is the bidder's responsibility to check on the e-procurement system, for any addendum/ amendment/ corrigendum to the bidding document.</p>
	<p>7.2 The Bidder is advised to visit and examine the Site of Works and its surroundings and obtain for itself on its own responsibility all information that may be necessary for preparing the bid and entering into a contract for execution of the Works. The costs of visiting the Site shall be at the Bidder's own expense.</p>
	<p>7.3 The Bidder and any of its personnel or agents will be granted permission by the Employer to enter upon its premises and lands for the purpose of such visit, but only upon the express condition that the Bidder, its personnel, and agents will release and indemnify the Employer and its personnel and agents from and against all liability in respect thereof, and will be responsible for death or personal injury, loss of or damage to property, and any other loss, damage, costs, and expenses incurred as a result of the inspection.</p>
	<p>7.4 If so specified in the BDS, the Bidder's designated representative is invited to attend a pre-Bid meeting and/or a Site of Works visit. The purpose of the meeting will be to clarify issues and to answer questions on any matter that may be raised at that stage.</p>
	<p>7.5 The Bidder is requested, to submit any questions only through the e-procurement system, not later than one week before the meeting. Clarifications requested through any other mode shall not be considered by the Employer.</p>
	<p>7.6 Minutes of the pre-Bid meeting, if applicable, including the text of the questions asked by Bidders, without identifying the source, and the responses given, together with any responses prepared after the meeting, will be uploaded online on e-procurement system. Any modification to the bidding document that may become necessary as a result of the pre-Bid meeting shall be made by the Employer exclusively through the issue of an addendum pursuant to ITB 8 and not through the minutes of the pre-Bid</p>

	meeting. It is the bidder's responsibility to check on the e-procurement system, for any addendum/ amendment/ corrigendum to the bidding document. Nonattendance at the pre-Bid meeting will not be a cause for disqualification of a Bidder.
8. Amendment of Bidding Document	8.1 At any time prior to the deadline for submission of bids, the Employer may amend the bidding document by issuing addenda.
	8.2 Any addendum issued shall be part of the bidding document and shall be deemed to have been communicated to all the bidders. The addenda will appear on the e-procurement system under "Latest Corrigendum", and Email notification is also automatically sent to those bidders who have started working on the tender, unless otherwise specified in the BDS . The Employer shall not be liable for any information not received by the bidder. It is the bidders' responsibility to verify the website for the latest information related to this bid.
	8.3 To give prospective Bidders reasonable time in which to take an addendum into account in preparing their Bids, the Employer may, at its discretion, extend the deadline for the submission of Bids, pursuant to ITB 22.2.
C. Preparation of Bids	
9. Cost of Bidding	9.1 The Bidder shall bear all costs associated with the preparation and submission of its Bid, and the Employer shall in no case be responsible or liable for those costs, regardless of the conduct or outcome of the Bidding process.
10. Language of Bid	10.1 The Bid, as well as all correspondence and documents relating to the Bid exchanged by the Bidder and the Employer, shall be written in English. Supporting documents and printed literature that are part of the Bid may be in another language provided they are accompanied by an accurate translation of the relevant passages in English, in which case, for purposes of interpretation of the Bid, such translation shall govern.
11. Documents Comprising the Bid	11.1 The Bid shall comprise two Parts, namely the Technical Part and the Financial Part. These two Parts shall be submitted simultaneously. 11.2 The Technical Part shall contain the following: (a) Letter of Bid – Technical Part prepared in accordance with ITB 12 and ITB 14;

- (b) **Bid Security or Bid-Securing Declaration** in accordance with ITB 19.1;
- (c) **Alternative Bid – Technical Part**, if permissible, in accordance with ITB 13, the Technical Part of any Alternative Bid;
- (d) **Authorization:** written confirmation authorizing the signatory of the Bid to commit the Bidder, in accordance with ITB 20.3, and in accordance with ITB 20.4 in case of a JV;
- (e) **Bidder’s Eligibility:** documentary evidence in accordance with ITB 17 establishing the Bidder’s eligibility to Bid;
- (f) **Qualifications:** documentary evidence in accordance with ITB 17 establishing the Bidder’s qualifications to perform the contract if its Bid is accepted;
- (g) **Conformity:** a technical proposal in accordance with ITB 16;
- (h) Design Methodology, Work Management Strategy, Statement of Work Methods, Equipment, Personnel, Schedule and any other information as stipulated in Section IV, Bidding Forms
- (i) Contractor Registration certificate (as per RFB); and
- (j) any other document **required in the BDS.**

11.3 The **Financial Part** shall contain the following:

- (a) **Letter of Bid – Financial Part:** prepared in accordance with ITB 12 and ITB 14;
- (b) **Completed Schedules** including priced Schedule of Activities in accordance with ITB 12 and ITB 14, as **specified in BDS;**
- (c) **Alternative Bid - Financial Part:** if permissible in accordance with ITB 13; and
- (d) any other document **required in the BDS.**

11.4 The Technical Part shall not include any information related to the Bid price. Where material financial information related to the Bid price is contained in the Technical Part the Bid shall be declared non-responsive.

	<p>11.5 In addition to the requirements under ITB 11.2, Bids submitted by a JV (where permitted) shall include a copy of the Joint Venture Agreement entered into by all members. Alternatively, a letter of intent to execute a Joint Venture Agreement in the event of a successful Bid shall be signed by all members and submitted with the Bid, together with a copy of the proposed Agreement.</p> <p>11.6 The Bidder shall furnish in the Letter of Bid – Financial Part information on commissions and gratuities, if any, paid or to be paid to agents or any other party relating to this Bid.</p>
<p>12. Process of Bid Submission</p>	<p>12.1 The Letter of Bid – Technical Part, Letter of Bid – Financial Part, Schedules including Schedule of Activities, and all documents listed under Clause 11, shall be prepared using the relevant forms furnished in Section IV, Bidding Forms. The forms must be completed without any alterations to the text, and no substitutes shall be accepted except as provided under ITB 20.3. All blank spaces shall be filled in with the information requested.</p> <p>12.2 Entire Bid including the Letters of Bid, Schedules and filled-up Schedule of Activities shall be submitted online on e-procurement system specified in ITB 7.1. Details and process of online submission of the tender and relevant documents are given in the website mentioned above. Scanned copies of documents listed in ITB Clauses 11 and 12.3 should also be uploaded on this website.</p> <p>12.3 Submission of Original Documents: The bidders are required to separately submit (i) original payment documents towards the cost of bid document; and registration on e-procurement website (if applicable); (ii) original bid security or Bid-Securing Declaration in approved form; and (iii) original affidavit regarding correctness of information furnished with bid document, with the office specified in the BDS, before the Bid submission deadline, either by registered/speed post/courier or by hand, failing which the bids will be declared non-responsive and will not be opened. Hard copy of rest of the bid or any other document are not to be submitted. These original documents shall be sealed in an envelope(s) that (a) shall bear the name and address of the Bidder; (b) shall be addressed to the Employer; and (c) shall bear the specific identification of this bidding process as indicated in BDS 1.1.</p>
<p>13. Alternative Bids</p>	<p>13.1 Unless otherwise specified in the BDS, alternative Bids shall not be considered.</p>
	<p>13.2 When alternative times for completion are explicitly invited, a statement to that effect will be included in the BDS and the method of evaluating different alternative times for completion</p>

	will be described in Section III, Evaluation and Qualification Criteria.
	13.3 Except as provided under ITB 13.4 below, Bidders wishing to offer technical alternatives to the requirements of the bidding document must first price the Employer's design as described in the bidding document and shall further provide all information necessary for a complete evaluation of the alternative by the Employer, including drawings, design calculations, technical specifications, breakdown of prices, and proposed Work methodology and other relevant details. Only the technical alternatives, if any, of the Bidder with the Most Advantageous Bid conforming to the basic technical requirements shall be considered by the Employer.
	13.4 When specified in the BDS , Bidders are permitted to submit alternative technical solutions for specified parts of the Works. Such parts will be identified in the BDS and described in Section VII, Employer's Requirements. The method for their evaluation will be stipulated in Section III, Evaluation and Qualification Criteria.
14. Bid Prices and Discounts	14.1 The prices and discounts quoted by the Bidder in the Letter of Bid –Financial Part and in the Schedules including Schedule of Activities shall conform to the requirements specified below.
	14.2 The Bidder shall submit a Bid for the whole of the Works described in ITB 1.1 by filling in prices for all items of the Works, as identified in Section IV - Bidding Forms along with the total bid price (both in figures and words). The Bidder shall fill in rates and prices for all items of the Works described in the Schedule of Activities. Items against which no rate or price is entered by the Bidder will not be paid for by the Employer when executed and shall be deemed covered by the rates for other items and prices in the Schedule of Activities. Corrections if any, in the bid can be carried out by editing the information before electronic submission on e-procurement system.
	14.3 The price to be quoted in the Letter of Bid – Financial Part, in accordance with ITB 12.1, shall be the total price of the Bid, excluding any discounts offered.
	14.4 The Bidder shall quote any discounts and indicate the methodology for their application in the Letter of Bid – Financial Part in accordance with ITB 12.1.

	<p>14.5 Unless otherwise specified in the BDS and the Conditions of Contract, the prices quoted by the Bidder shall be fixed.</p> <p>14.6 If so specified in ITB 1.1, Bids are invited for individual lots (contracts) or for any combination of lots (packages). Bidders wishing to offer discounts for the award of more than one Contract shall specify in their Bid the price reductions applicable to each package, or alternatively, to individual Contracts within the package. Discounts shall be submitted in accordance with ITB 14.4, provided the Bids for all lots (contracts) are opened at the same time.</p>
	<p>14.7 All duties, taxes, and other levies payable by the Contractor under the Contract, or for any other cause, as of the deadline for submission of Bids, shall be included in the rates and prices and the total Bid price submitted by the Bidder.</p> <p>14.8 Bidders may like to ascertain availability of tax/duty exemption benefits available in India. They are solely responsible for obtaining such benefits which they have considered in their bid and in case of failure to receive such benefits for reasons whatsoever, the Employer will not compensate the bidder (Contractor). The bidder shall furnish along with his bid a declaration to this effect in the Declaration Format provided in Section IV of the bidding document.</p> <p>Where the bidder has quoted taking into account such benefits, it must give all information required for issue of certificates in terms of the Government of India's relevant Notifications as per the declaration format. In case the bidder has not provided the required information or has indicated to be furnished later on in the Declaration Format, the same shall be construed that the goods/ equipment for which certificate is required is Nil.</p> <p>To the extent the Employer determines the quantities indicated therein are reasonable keeping in view the Activity Schedules, Work management strategy and work methods, the certificates will be issued within 60 days of signing of the contract and no subsequent changes will be permitted. In case of materials pertaining to Variation items and quantities, the certificate shall be issued only on request from the Contractor when in need and duly certified by the Project Manager.</p> <p>No certificate will be issued for items where no quantity/capacity of equipment is indicated in the statement.</p> <p>If the bidder has considered the tax/duty exemption for materials/ equipment to be bought for the work, the bidder shall confirm and</p>

	<p>certify that the Employer will not be required to undertake any responsibilities of the Government of India Scheme or the said exemptions being available during the contract execution, except issuing the required certificate. The bids which do not conform to the above provisions or any condition by the bidder which makes the bid subject to availability of tax/duty exemption for materials/equipment or compensation on withdrawal of any variations to the said exemptions will be treated as non-responsive and rejected.</p> <p>Any delay in procurement of the equipment/ machinery/goods as a result of the above shall not be a cause for granting any extension of time.</p>
15. Currencies of Bid and Payment	15.1 The unit rates and prices shall be quoted by the Bidder and shall be paid for, entirely in Indian Rupees.
16. Documents Comprising the Technical Proposal	16.1 The Bidder shall furnish a technical proposal in the Technical Part of the Bid, including a design methodology, Work management strategy, statement of work methods, equipment, personnel, schedule and any other information as stipulated in Section IV, Bidding Forms, in sufficient detail to demonstrate the adequacy of the Bidders' proposal to meet the work's requirements and the completion time.
17. Documents Establishing the Eligibility and Qualifications of the Bidder	<p>17.1 To establish Bidder's eligibility in accordance with ITB 4, Bidders shall complete the Letter of Bid – Technical Part, included in Section IV, Bidding Forms.</p> <p>17.2 In accordance with Section III, Evaluation and Qualification Criteria, to establish its qualifications to perform the Contract, the Bidder shall provide the information requested in the corresponding information sheets included in Section IV, Bidding Forms.</p>
18. Period of Validity of Bids	18.1 Bids shall remain valid for 90 days or for the Bid Validity period specified in the BDS . The Bid Validity period starts from the date fixed for the Bid submission deadline (as prescribed by the Employer in accordance with ITB 22.1). A Bid valid for a shorter period shall be rejected by the Employer as nonresponsive.
	18.2 In exceptional circumstances, prior to the expiration of the Bid validity period, the Employer may request Bidders to extend the period of validity of their Bids. The request and the responses

	<p>shall be made in writing. If a Bid Security is requested in accordance with ITB 19, it shall also be extended for forty five (45) days beyond the deadline of the extended validity period. A Bidder may refuse the request without forfeiting its Bid Security. A Bidder granting the request shall not be required or permitted to modify its Bid, except as provided in ITB 18.3.</p>
	<p>18.3 If the award is delayed by a period exceeding fifty-six (56) days beyond the expiry of the initial Bid validity period, the Contract price shall be determined as follows:</p>
	<p>(a) in the case of fixed price contracts, the Contract price shall be the Bid price adjusted by the factor specified in the BDS;</p> <p>(b) in the case of adjustable price contracts, no adjustment shall be made; or</p> <p>(c) in any case, Bid evaluation shall be based on the Bid price without taking into consideration the applicable correction from those indicated above.</p>
19. Bid Security	<p>19.1 The Bidder shall furnish as part of the Technical Part of its Bid, either a Bid-Securing Declaration or a Bid Security as specified in the BDS, in original form and, in the case of a Bid security, for the amount specified in the BDS.</p>
	<p>19.2 A Bid Securing Declaration shall use the form included in Section IV, Bidding Forms.</p>
	<p>19.3 If a Bid Security is specified pursuant to ITB 19.1, the Bid Security shall be a demand guarantee in any of the following forms at the Bidder's option:</p> <p>(a) an unconditional bank guarantee issued by a Nationalized or Scheduled bank located in India;</p> <p>(b) an irrevocable letter of credit issued by a Nationalized or Scheduled bank located in India;</p> <p>(c) a cashier's or certified check or demand draft issued by a Nationalized or Scheduled bank located in India;</p> <p>(d) another security specified in the BDS,</p> <p>In the case of a bank guarantee, the Bid Security shall be submitted using the Bid Security Form included in Section IV, Bidding Forms. The form must include the complete name of the Bidder. The Bid Security shall be valid for forty-five (45) days beyond the</p>

	original validity period of the Bid, or beyond any period of extension if requested under ITB 18.2.
	19.4 If a Bid Security or Bid Securing Declaration is specified pursuant to ITB 19.1, any Bid not accompanied by a substantially responsive Bid Security or Bid Securing Declaration shall be rejected by the Employer as non-responsive.
	19.5 If a Bid Security is specified pursuant to ITB 19.1, the Bid Security of unsuccessful Bidders shall be returned as promptly as possible upon the successful Bidder's signing the Contract and furnishing the Performance Security and if required in the BDS, the Environmental and Social (ES) Performance Security pursuant to ITB 50.
	19.6 The Bid Security of the successful Bidder shall be returned as promptly as possible once the successful Bidder has signed the Contract and furnished the required Performance Security and if required in the BDS, the Environmental and Social (ES) Performance Security.
	<p>19.7 The Bid Security may be forfeited or the Bid-Securing Declaration executed:</p> <ul style="list-style-type: none"> (a) if a Bidder withdraws/modifies/substitutes its Bid during the period of Bid validity specified by the Bidder on the Letter of Bid - Technical Part and repeated in Letter of Bid - Financial Part, or any extension thereto provided by the Bidder; or (b) if the Bidder does not accept the correction of its Bid Price pursuant to ITB 36; or (c) if the successful Bidder fails to: <ul style="list-style-type: none"> (i) sign the Contract in accordance with ITB 49; or (ii) furnish a Performance Security and if required in the BDS, the Environmental and Social (ES) Performance Security in accordance with ITB 50.
	19.8 The Bid Security or the Bid-Securing Declaration of a JV shall be in the name of the JV that submits the Bid. If the JV has not been constituted into a legally enforceable JV, at the time of Bidding, the Bid Security or the Bid-Securing Declaration shall be in the names of all future members as named in the letter of intent mentioned in ITB 4.1 and ITB 11.2.

	<p>19.9 If a Bid Security is not required in the BDS, pursuant to ITB 19.1, and:</p> <p>(a) if a Bidder withdraws its Bid during the period of Bid validity specified by the Bidder in the Letters of Bid or any extended date provided by the Bidder; or if the Bidder does not accept the correction of its Bid Price pursuant to ITB Sub-Clause 36; or</p> <p>(b) if the successful Bidder fails to: sign the Contract in accordance with ITB 49; or furnish a Performance Security and if required in the BDS, the Environmental and Social (ES) Performance Security in accordance with ITB 50;</p> <p>the Borrower may, if provided for in the BDS, declare the Bidder ineligible to be awarded a contract by the Employer for a period of time as stated in the BDS.</p>
20. Format and Signing of Bid	20.1 The Bidder shall prepare the Bid as per details given in ITB 21.
	20.2 Bidders shall mark as “CONFIDENTIAL” information in their Bids which is confidential to their business.
	20.3 The Bid shall be signed by a person duly authorized to sign on behalf of the Bidder. This authorization shall consist of a written confirmation as specified in the BDS and shall be uploaded along with the Bid. The name and position held by each person signing the authorization must be typed or printed below the signature.
	<p>20.4 In case the Bidder is a JV, the Bid shall be signed by an authorized representative of the JV on behalf of the JV, and so as to be legally binding on all the members as evidenced by a power of attorney signed by their legally authorized representatives. Documents establishing authority to sign the bid on behalf of the JV shall be uploaded along with the bid.</p> <p>20.5 Any interlineations, erasures, or overwriting shall be valid only if they are signed or initialled by the person signing the Bid.</p>
D. Online Submission and Opening of Bids	
21. Preparation of Bids	21.1 Bids, both Technical and Financial Parts, shall be submitted online on the e-procurement system specified in BDS 7.1. Detailed guidelines for viewing bids and submission of online bids are given on the website. The Request for Bids under this Project is published on this website. Any citizen or prospective bidder can logon to this website and view the Request for Bids

	<p>and can view the details of works for which bids are invited. A prospective bidder can submit its bid online; however, the bidder is required to have enrolment/registration in the website, and should have valid Digital Signature Certificate (DSC) in the form of smart card/e-token obtained from any certifying agency authorised by the Government of India (for class of DSC specified in BDS).</p> <p>As part of the enrolment process, bidders are required to choose unique username and assign a password for their accounts. Upon enrolment, the Bidders will be required to register their valid Digital Signature Certificate (DSC) with their profile. The bidders should register their valid email address and mobile numbers as part of the registration process. These would be used for any communication from the e-procurement system. A bidder can then login the website through the secured login by entering the password of the e-token & the user id/ password chosen during registration. After getting the bid schedules, the Bidder should go through them carefully and submit the specified documents, along with the bid, otherwise the bid will be rejected.</p>
	<p>21.2 The completed bid comprising of documents indicated in ITB 12, should be uploaded on the e-procurement system along with scanned copies of requisite certificates as are mentioned in different sections in the bidding document and scanned copy of the bid security.</p>
	<p>21.3 All the documents are required to be signed digitally by the bidder. After electronic online bid submission, the system generates a bid summary and a unique bid identification number which is time stamped as per server time. This shall be treated as acknowledgement of bid submission, and a copy should be retained by the Bidder.</p>
	<p>21.4 Physical, e-mail, Telex, Cable or Facsimile bids will be rejected as non-responsive.</p>
<p>22. Deadline for Submission of Bids</p>	<p>22.1 Bids, both Technical and Financial Parts, must be uploaded online no later than the date and time specified in the BDS. The server time will be considered as the standard time for referencing the deadlines for submission of the bids, opening of bids etc.</p>
	<p>22.2 The Employer may, at its discretion, extend the deadline for the submission of Bids by amending the bidding document in accordance with ITB 8, in which case all rights and obligations of the Employer and Bidders previously subject to the deadline shall thereafter be subject to the deadline as extended.</p>

23. Late Bids	23.1 The electronic procurement system would not allow any late submission of bids after due date & time as per server time.
24. Withdrawal, Substitution, and Modification of Bids	24.1 Bidders may modify their bids by using the appropriate option for bid modification on e-procurement system, before the deadline for submission of bids. For this the bidder need not make any additional payment towards the cost of bid document. For bid modification and consequential re-submission, the bidder is not required to withdraw his bid submitted earlier. The last modified bid submitted by the bidder within the bid submission time shall be considered as the bid. For this purpose, modification/withdrawal by other means will not be accepted. In online system of bid submission, the modification and consequential re-submission of bids is allowed any number of times. A bidder may withdraw his bid by using the appropriate option for bid withdrawal, before the deadline for submission of bids, however, if the bid is withdrawn, re-submission of the bid is not allowed (or allowed if specified in BDS).
	24.2 Bids requested to be withdrawn in accordance with ITB 24.1 shall not be opened.
	24.3 No Bid may be withdrawn, substituted, or modified in the interval between the deadline for submission of Bids and the expiration of the period of Bid validity specified by the Bidder on the Letter of Bid or any extension thereof. This will result in the forfeiture of the Bid Security or execution of the Bid-Securing Declaration pursuant to ITB 19.7.
E. Public Opening of Technical Parts of Bids	
25. Public Opening of Technical Parts of Bids	25.1 The Employer shall publicly open Technical Parts of all Bids received by the deadline, at the date, time and place specified in the BDS , in the presence of Bidders' designated representatives and anyone who chooses to attend, and this could also be viewed by the bidders online. The Financial Parts of the bids shall remain unopened in the e-procurement system, until the subsequent public opening, following the evaluation of the Technical Parts of the Bids. In all cases, original documents submitted as specified in ITB 12.3 shall be first scrutinized, and Bids that do not comply with the provisions of ITB 12.3 will be declared non-responsive and will not be opened. Thereafter, bidders' names, the presence or absence of a Bid Security or Bid Securing Declaration, if one was required, alternative bids – technical parts, if any, and such other details as the Employer may consider appropriate will be notified, online by the Employer at the time of bid opening.

	<p>In the event of the specified date of bid opening being declared a holiday for the Employer, the bids will be opened at the appointed time and location on the next working day.</p> <p>25.2 The electronic summary of the bid opening will be generated and uploaded online. The Employer will also prepare minutes of the Bid opening, including the information disclosed and upload the same for viewing online. Only Technical Parts of Bids, and technical parts of Alternative Bids if any, that are opened at technical Bid opening shall be considered further for evaluation.</p>
<p>F. Evaluation of Bids – General Provisions</p>	
26. Confidentiality	<p>26.1 Information relating to the evaluation of Bids and recommendation of contract award, shall not be disclosed to Bidders or any other persons not officially concerned with the Bidding process until information on Intention to Award the Contract is transmitted to all Bidders in accordance with ITB 45. In cases where ITB 45 is not applicable, such information shall not be disclosed until Notification of Award is transmitted in accordance with ITB 47.</p>
	<p>26.2 Any effort by a Bidder to influence the Employer in the evaluation of the Bids or Contract award decisions may result in the rejection of its Bid.</p>
	<p>26.3 Notwithstanding ITB 26.2, from the time of Bid opening to the time of Contract award, if a Bidder wishes to contact the Employer on any matter related to the Bidding process, it shall do so in writing.</p>
27. Clarification of Bids	<p>27.1 To assist in the examination, evaluation, and comparison of the Bids, and qualification of the Bidders, the Employer may, at its discretion, ask any Bidder for a clarification of its Bid giving a reasonable time for a response. Any clarification submitted by a Bidder that is not in response to a request by the Employer shall not be considered. The Employer's request for clarification and the response shall be in writing and shall be delivered to concerned bidders through e-procurement system/ official email id mentioned in IFB. No change, including any voluntary increase or decrease in the prices or substance of the Bid shall be sought, offered, or permitted, except to confirm the correction of arithmetic errors discovered by the Employer in the evaluation of the Bids, in accordance with ITB 36.</p>
	<p>27.2 The bidder shall respond to the queries on e- procurement system. If a Bidder does not provide clarifications of its Bid by the date</p>

	and time set in the Employer’s request for clarification, its Bid may be rejected.
28. Deviations, Reservations, and Omissions	<p>28.1 During the evaluation of Bids, the following definitions apply:</p> <p>(a) “Deviation” is a departure from the requirements specified in the bidding document;</p> <p>(b) “Reservation” is the setting of limiting conditions or withholding from complete acceptance of the requirements specified in the bidding document; and</p> <p>(c) “Omission” is the failure to submit part or all of the information or documentation required in the bidding document.</p>
29. Nonmaterial Nonconformities	<p>29.1 Provided that a Bid is substantially responsive, the Employer may waive any nonconformities in the Bid which do not constitute a material deviation, reservation or omission.</p>
	<p>29.2 Provided that a Bid is substantially responsive, the Employer may request that the Bidder submit the necessary information or documentation, within a reasonable period of time, to rectify nonmaterial nonconformities in the Bid related to documentation requirements. Requesting information or documentation on such nonconformities shall not be related to any aspect of the price or substance of the Bid. Failure of the Bidder to comply with the request may result in the rejection of its Bid.</p>
	<p>29.3 Provided that a Bid is substantially responsive, the Employer shall rectify quantifiable nonmaterial nonconformities related to the Bid Price. To this effect, the Bid Price shall be adjusted, for comparison purposes only, to reflect the price of a missing or nonconforming activity or component in the manner specified in the BDS.</p>
G. Evaluation of Technical Parts of Bids	
30. Evaluation of Technical Parts	<p>30.1 In evaluating the Technical Parts of each Bid, the Employer shall use the criteria and methodologies listed in this ITB and Section III, Evaluation and Qualification Criteria. No other evaluation criteria or methodologies shall be permitted.</p>
	<p>30.2 The scores to be given to technical factors and sub factors are specified in the BDS.</p>
31. Determination of Responsiveness	<p>31.1 The Employer’s determination of a Bid’s responsiveness is to be based on the contents of the Bid itself, as defined in ITB 11.</p>

	<p>31.2 A substantially responsive Bid is one that meets the requirements of the bidding document without material deviation, reservation, or omission. A material deviation, reservation, or omission is one that:</p> <p>(a) if accepted, would:</p> <ul style="list-style-type: none"> (i) affect in any substantial way the scope, quality, or performance of the Works specified in the Contract; or (ii) limit in any substantial way, inconsistent with the bidding document, the Employer's rights or the Bidder's obligations under the proposed Contract; or <p>(b) if rectified, would unfairly affect the competitive position of other Bidders presenting substantially responsive Bids.</p>
	<p>31.3 The Employer shall examine the technical aspects of the Bid submitted in accordance with ITB 16, in particular, to confirm that all requirements of Section VII, Employer's Requirements have been met without any material deviation, reservation or omission.</p>
	<p>31.4 If a Bid is not substantially responsive to the requirements of the bidding document, it shall be rejected by the Employer and may not subsequently be made responsive by correction of the material deviation, reservation, or omission.</p>
<p>32. Qualification of the Bidder</p>	<p>32.1 The Employer shall determine to its satisfaction whether the eligible Bidders that have submitted substantially responsive Bid - Technical Parts meet the qualifying criteria specified in Section III, Evaluation and Qualification Criteria.</p>
	<p>32.2 The determination shall be based upon an examination of the documentary evidence of the Bidder's qualifications submitted by the Bidder, pursuant to ITB 17. The determination shall not take into consideration the qualifications of other firms such as the Bidder's subsidiaries, parent entities, affiliates, subcontractors (other than Specialized Subcontractors if permitted in the bidding document), or any other firm different from the Bidder.</p>
	<p>32.3 If a Bidder does not meet the qualifying criteria specified in Section III, Evaluation and Qualification Criteria, its Bid shall be rejected by the Employer and may not subsequently be made responsive by correction of the material deviation, reservation, or omission.</p>

	32.4 Only Bids that are both substantially responsive to the bidding document, and meet all Qualification Criteria shall have the Financial Parts of their Bids opened at the second public opening.
33. Subcontractors	<p>33.1 Unless otherwise stated in the BDS, the Employer does not intend to execute any specific elements of the Works by subcontractors selected in advance by the Employer.</p> <p>33.2 The subcontractor's qualifications shall not be used by the Bidder to qualify for the Works unless their specialized parts of the Works were previously designated by the Employer in the BDS as can be met by subcontractors referred to hereafter as 'Specialized Subcontractors', in which case, the qualifications of the Specialized Subcontractors proposed by the Bidder may be added to the qualifications.</p> <p>33.3 Bidders may propose subcontracting up to the percentage of total value of contracts or the volume of works as specified in the BDS. Subcontractors proposed by the Bidder shall be fully qualified for their parts of the Works.</p> <p>33.4 Bidders shall be responsible for ensuring that any proposed subcontractor complies with the requirements of ITB 4, and that any Works to be provided by the subcontractor comply with the requirements of ITB 5 and ITB 16.</p>
H. Public Opening of Financial Parts of Bids	
34. Public Opening of Financial Parts	34.1 Following the completion of the evaluation of the Technical Parts of the Bids, and the Bank has issued its no objection (if applicable), the Employer shall notify in writing those Bidders whose Bids were considered non-responsive to the bidding document or failed to meet the Qualification Criteria, advising them of the following information:
	<p>(a) the grounds on which their Technical Part of Bid failed to meet the requirements of the bidding document;</p> <p>(b) their Financial Part of Bid shall not be opened; and</p> <p>(c) notify them of the date, time, and location for public opening of Financial Parts of the Bids.</p>
	34.2 The Employer shall, simultaneously, notify in writing those Bidders whose Technical Part have been evaluated as substantially responsive to the bidding document and met all Qualifying Criteria, advising them of the following information:

	<p>(a) their Bid has been evaluated as substantially responsive to the bidding document and met the Qualification Criteria;</p> <p>(b) their Financial Part of Bid will be opened at the public opening of the Financial Parts; and</p> <p>(c) notify them of the date, time and location for public opening of the Financial Parts of the Bids, as specified in the BDS.</p>
	<p>34.3 The opening date should allow Bidders sufficient time to make arrangements for attending the opening. The Financial Part of the Bids shall be opened publicly in the presence of Bidders' designated representatives and anyone who chooses to attend, and this could also be viewed by the bidders online. The bidder's names, the Bid prices, per lot (contract) if applicable, including any discounts and Alternative Bid - Financial Part if any, and such other details as the Employer may consider appropriate, will be notified online by the Employer at the time of bid opening.</p> <p>In the event of the specified date of bid opening being declared a holiday for the Employer, the bids will be opened at the appointed time and location on the next working day.</p>
	<p>34.4 The electronic summary of the bid opening will be generated and uploaded online. The Employer will also prepare minutes of the Bid opening, including the information disclosed and upload the same for viewing online. Only Financial Parts of Bids, Financial Parts of Alternative Bids, and discounts that are opened at Bid opening shall be considered further for evaluation.</p>
I. Evaluation of Financial Parts of Bids & Combined Evaluation	
35. Evaluation of Financial Parts	35.1 To evaluate the Financial Part, the Employer shall consider the following:
	(a) the Bid price, excluding Provisional Sums and the provision, if any, for contingencies in the Grand Summary table;
	(b) price adjustment for correction of arithmetic errors in accordance with ITB 36.1;
	(c) price adjustment due to discounts offered in accordance with ITB 14.4;
	(d) Not used;
	(e) price adjustment due to quantifiable nonmaterial nonconformities in accordance with ITB 29.3; and

	(f) the additional evaluation factors are specified in Section III, Evaluation and Qualification Criteria.
	35.2 The estimated effect of the price adjustment provisions of the Conditions of Contract, applied over the period of execution of the Contract, shall not be taken into account in Bid evaluation.
	35.3 If this bidding document allows Bidders to quote separate prices for different lots (contracts), each lot will be evaluated separately to determine the Most Advantageous Bid using the methodology specified in Section III, Evaluation and Qualification Criteria. Discounts that are conditional on the award of more than one lot or slice shall not be considered for Bid evaluation.
36. Correction of Arithmetical Errors	36.1 In evaluating the Financial Part of each Bid, the Employer shall correct arithmetical errors on the following basis: <ul style="list-style-type: none"> (a) only for admeasurement contracts, if there is a discrepancy between the unit price and the total price that is obtained by multiplying the unit price and quantity, the unit price shall prevail and the total price shall be corrected; (b) if there is an error in a total corresponding to the addition or subtraction of subtotals, the subtotals shall prevail and the total shall be corrected; and (c) if there is a discrepancy between words and figures, the amount in words shall prevail, unless the amount expressed in words is related to an arithmetic error, in which case the amount in figures shall prevail subject to (a) and (b) above.
	36.2 Bidders shall be requested to accept correction of arithmetical errors. Failure to accept the correction in accordance with ITB 36.1, shall result in the rejection of the Bid and the Bid Security may be forfeited or the Bid-Securing Declaration may be executed in accordance with ITB Sub-Clause 19.7.
37. Conversion to Single Currency	37.1 Not used.
38. Margin of Preference	38.1 Not applicable.
39. Evaluation of combined Technical and Financial Parts	39.1 The Employer's evaluation of responsive Bids will take into account technical factors, in addition to cost factors in accordance with Section III Evaluation and Qualification Criteria. The weight to be assigned for the Technical factors and cost is specified in

	the BDS. The Employer will rank the Bids based on the evaluated Bid score (B).
40. Abnormally Low Bids	<p>40.1 An Abnormally Low Bid is one where the Bid price, in combination with other constituent elements of the Bid, appears unreasonably low to the extent that the Bid price raises material concerns as to the capability of the Bidder to perform the Contract for the offered Bid price.</p> <p>40.2 In the event of identification of a potentially Abnormally Low Bid, the Employer, unless otherwise specified in the BDS, shall seek written clarifications from the Bidder, including detailed price analyses of its Bid price in relation to the subject matter of the contract, scope, proposed methodology, schedule, allocation of risks and responsibilities and any other requirements of the bidding document.</p> <p>40.3 After evaluation of the price analyses, in the event that the Employer determines that the Bidder has failed to demonstrate its capability to perform the Contract for the offered Bid Price, the Employer shall reject the Bid.</p>
41. Unbalanced or Front-Loaded Bids	<p>41.1 If the Bid for an admeasurement contract, which results in the lowest evaluated cost is, in the Employer's opinion, seriously unbalanced or, front-loaded, the Employer may require the Bidder to provide written clarifications. Clarifications may include detailed price analyses (with breakdown of unit rates) to demonstrate the consistency of the Bid prices with the scope of works, proposed methodology, schedule and any other requirements of the bidding document.</p> <p>41.2 After the evaluation of the information and detailed price analysis presented by the Bidder, the Employer may as appropriate:</p> <ul style="list-style-type: none"> (a) accept the Bid without any additional Performance Security; or (b) require that the amount of the Performance Security be increased at the expense of the Bidder to a level not exceeding twenty percent (20%) of the Contract Price to protect the Employer against financial loss in the event of default of the successful Bidder under the Contract; or (c) reject the Bid if the risk cannot be mitigated through additional performance security.
42. Most Advantageous Bid	42.1 The Employer shall determine the Most Advantageous Bid. The Most Advantageous Bid is the Bid of the Bidder that meets the Qualification Criteria and whose Bid has been determined to be

	substantially responsive to the Bidding document and is the Bid with the highest combined technical and financial score.
43. Employer's Right to Accept Any Bid, and to Reject Any or All Bids	43.1 The Employer reserves the right to accept or reject any Bid, and to annul the Bidding process and reject all Bids at any time prior to Contract Award, without thereby incurring any liability to Bidders. In case of annulment, all documents submitted and specifically, Bid securities, shall be promptly returned to the Bidders.
44. Standstill Period	Standstill Period shall not apply.
45. Notice of Intention to Award	45.1 Not used.
J. Award of Contract	
46. Award Criteria	46.1 Subject to ITB 43, the Employer shall award the Contract to the successful Bidder. This is the Bidder whose Bid has been determined to be the Most Advantageous Bid as specified in ITB 42.
47. Notification of Award	<p>47.1 Prior to the expiration of the Bid Validity Period, the Employer shall transmit the Letter of Acceptance to the successful Bidder. The Letter of Acceptance shall specify the sum that the Employer will pay the Contractor in consideration of the execution of the contract (hereinafter and in the Conditions of Contract and Contract Forms called "the Contract Price").</p> <p>47.2 Within ten (10) Business Days after the date of transmission of the Letter of Acceptance, the Employer shall publish the Contract Award Notice which shall contain, at a minimum, the following information:</p> <ul style="list-style-type: none"> (a) name and address of the Employer; (b) name and reference number of the contract being awarded, and the selection method used; (c) names of all Bidders that submitted Bids, and their Bid prices as read out at Bid opening, and as evaluated; (d) names of all Bidders whose Bids were rejected either as nonresponsive or as not meeting qualification criteria, or were not evaluated, with the reasons therefor; and (e) the name of the successful Bidder, the final total contract price, the contract duration and a summary of its scope.

	47.3 The Contract Award Notice shall be published on a National website (GoI website http://tenders.gov.in or GoI Central Public Procurement Portal https://eprocure.gov.in/cppp/) or on the Employer's website, and on the e-procurement system.
	47.4 Until a formal contract is prepared and executed, the notification of award shall constitute a binding Contract.
48. Debriefing by the Employer	48.1 Not used.
49. Signing of Contract	49.1 Promptly upon Notification of Award, the Employer shall prepare the Contract Agreement, and keep it ready in the office of the Employer for the signature of the Employer and the successful Bidder, within 21 days following the date of Letter of Acceptance. The Contract Agreement shall incorporate all agreements between the Employer and the successful Bidder.
	49.2 Within twenty-one (21) days of receipt of the Letter of Acceptance, the successful Bidder shall (a) furnish the performance security and if required in the BDS, the Environmental and Social (ES) Performance Security in accordance with ITB Clause 50 and revised Work methodology; (b) if the successful bidder is a JV, it shall also furnish the JV agreement duly signed by all the members, if it had submitted only a letter of intent to execute the JV agreement along with the bid; and (c) shall sign, date and return the Agreement to the Employer along with the documents stated at (a) and (b) above.
50. Performance Security	50.1 Within twenty-one (21) days of the receipt of the Letter of Acceptance from the Employer, the successful Bidder shall furnish the Performance Security and if required in the BDS, the Environmental and Social (ES) Performance Security in accordance with the General Conditions of Contract, subject to ITB 41.2 (b), using for that purpose the Performance Security and ES Performance Security Forms included in Section X, Contract Forms. The performance security and if required in the BDS, the Environmental and Social (ES) Performance Security of a Joint Venture shall be in the name of the Joint Venture specifying the names of all members.
	50.2 Failure of the successful Bidder to submit the above-mentioned Performance Security and if required in the BDS, the Environmental and Social (ES) Performance Security or to sign the Contract Agreement shall constitute sufficient grounds for the

	<p>annulment of the award and forfeiture of the Bid Security. In that event the Employer may award the Contract to the Bidder offering the next Most Advantageous Bid.</p> <p>50.3 Upon the successful Bidder's signing the Agreement and furnishing of the Performance Security and if required in the BDS, the Environmental and Social (ES) Performance Security pursuant to ITB Clause 50.1, the Employer shall promptly notify the name of the winning bidder to each unsuccessful bidder and shall discharge the Bid Securities of the bidders pursuant to ITB Clause 19.5 and 19.6.</p>
<p>51. Adjudicator</p>	<p>51.1 The Employer proposes the person named in the BDS to be appointed as Adjudicator under the Contract, at the daily fee specified in the BDS, plus reimbursable expenses (actual boarding, lodging, travel and other incidental expenses). If the Bidder disagrees with this proposal, the Bidder should so state in his Bid. If, in the Letter of Acceptance, the Employer does not agree on the appointment of the Adjudicator, the Employer will request the Appointing Authority designated in the Particular Conditions of Contract (PCC) pursuant to Clause 23.1 of the General Conditions of Contract (GCC), to appoint the Adjudicator.</p>

Section II - Bid Data Sheet (BDS)

The following specific data for the Works to be procured shall complement, supplement, or amend the provisions in the Instructions to Bidders (ITB). Whenever there is a conflict, the provisions herein shall prevail over those in ITB.

ITB Reference	A. General
ITB 1.1	<p>The number of the Request for Bids is: one</p> <p>The Employer is: <i>Project Director, Kerala Solid Waste Management Project (KSWMP)</i></p> <p style="padding-left: 40px;">The reference number of the Request for Bids (RFB) is: IN-SUCM - 394361-CW-RFB</p> <p>The name of the RFB is: Biomining and bioremediation of 12 Legacy Waste Dumpsites across Kerala</p> <p>The number and identification of lots (contracts) comprising this RFB is: <i>[insert number and identification of lots (One)]</i></p>
ITB 1.2	The Employer shall use the e-procurement system specified in BDS 7.1.
ITB 2.1	<p>The Borrower is: Government of India. The sub-Borrower is Government of Kerala</p> <p>Loan or Financing Agreement amount: \$105 million</p> <p>The name of the Project is: Kerala Solid Waste Management Project (KSWMP)</p>
ITB 4.1	<p>Bids from Joint ventures are acceptable.</p> <p>Where Joint Ventures are permitted:</p> <p>(a) Maximum number of members in the Joint Venture (JV) shall be: Two (2)</p> <p>(b) Place where the agreement to form JV to be registered is Thiruvananthapuram, Kerala</p> <p>(c) A statement to the effect that all members of the joint venture shall be jointly and severally liable for the execution of the entire Contract in accordance with the Contract terms, shall be included in the authorization nominating a Representative or member in charge, as well as in the Bid and in the Agreement <i>[in case of a successful bid]</i>.</p> <p>(d) The joint venture agreement should define precisely the division of assignments to each member of JV. All members of JV should have active</p>

	<p>participation in the execution during the currency of the contract. The scope and parts of the contract to be carried out by each member shall commensurate with the qualifications and capacity of the members as evidenced in the bid. This should not be varied/ modified subsequently without prior approval of the Employer.</p>
ITB 4.5	<p>A list of debarred firms and individuals is available on the Bank’s external website: http://www.worldbank.org/debarr.</p>
<p>B. Contents of Bidding Document</p>	
ITB 7.1	<p>Electronic – Procurement System</p> <p>The Employer shall use the following electronic-procurement system to manage this Bidding process: https://etenders.kerala.gov.in</p> <p>Requests for clarification should be received by the Employer no later than: 14 days prior to the deadline for submission of bids</p>
ITB 7.4	<p>A Pre-Bid meeting will take place through Video Conference (VC) on 26 December 2023 at 11:00 Hours.</p> <p>The prospective bidders wishing to join the pre-bid meeting VC can access the link to the online meeting from KSWMP website https://www.kswmp.org.</p> <p>A site visit conducted by the Employer “<i>shall not be</i>” organized. However, the employer shall allow and facilitate with necessary information to the bidders intending to visit the site. The Bidders who desires to visit the site may raise a written request to the Employer. The bidder has to visit the site on their own arrangement. The Employer shall facilitate the site visit by the bidder by intimating the respective ULBs and providing necessary information to the bidder</p>
<p>C. Preparation of Bids</p>	
ITB 11.2 (j)	<p>The Bidder shall submit the following additional documents in its Bid:</p> <p>Management Strategies and Implementation Plans (MSIP) to manage the (ES) risks</p> <p>The Bidder shall submit Management Strategies and Implementation Plans (MSIPs) to manage the following key Environmental and Social (ES) risks:</p> <ul style="list-style-type: none"> • Storage of retrieved wastes and its disposal • Fire Safety Plan and Emergency (incl Incidents/Accidents) Response Plan: Implementation, monitoring and reporting

	<ul style="list-style-type: none"> • Traffic Management Plan to ensure safety of local communities from traffic related to segregated fraction disposal; • Drainage and Leachate Management Plan • Gas emissions, Foul Odour and Vector & Flies Management Plan • Dust Control and Management Plan • Site Biodiversity Management Plan • Water Resource Protection Plan to prevent contamination of drinking water and water bodies (ground, surface) in and around the site • Strategy for obtaining Consents/Permits prior to the start of relevant works such excavation of Dumpsite, stacking of disposables, windrow formation etc. • Gender based violence issues (Refer GBV Action plan) • Consultation with host community – regarding the detailed scope of activities mentioned in the Site-specific citizen engagement plan • Hazardous, C&D and Biomedical Waste Management strategy – arrangements and disposal management plan • Disposal Plan for all recovered fractions • Occupational health and safety management plan, workers safety implementation, monitoring and reporting • Labour issues and labour compliance as per the Labour management plan • Issues related to labour influx camps and impacts to the host community • Community health and safety issues identified in the ESIA (Refer Social management plan of Annex.) • Access of the community to use the public utilities (Refer Social Management Plan) • Community engagement and citizen sensitization as mentioned in the site-specific Citizen engagement plan • EMP, Environmental measures under scope of contractor <p>(i) Valid Scanned Copies of the statutory documents (In case of Consortium/ JV all members should submit the required documents)</p> <ul style="list-style-type: none"> • Copy of PAN Card • Copy of valid and active GST registration Certificate
ITB 11.3 (b)	The following schedules shall be submitted with the bid: Priced Schedule of Activities
ITB 12	Note for Bidders: Bidders have to submit the bids on the e-procurement system along with the relevant required documents. For this purpose, the bidders shall fill up online, the forms that are available for online filling on

	<p>the e-procurement system. The rest of the forms shall be download by the bidders and filled up. The filled-up pages shall then be scanned and uploaded on the e-procurement system along with the scanned copies of the supporting documents. Documents which are to be submitted as scanned documents shall be printed or written in indelible ink (or legible photocopies in the case of copies) and all the pages shall be signed by person or persons duly authorized to sign on behalf of the Bidder before scanning and uploading.</p>
ITB 12.3	<p>For submission of original documents, the Employer's address is:</p> <p>Attention: <i>Project Director, Kerala Solid Waste Management Project</i> Street Address: <i>Trans Towers, Vazhuthacaud</i> Floor/ Room number: <i>Upper Ground Floor</i> City: <i>Thiruvananthapuram, Kerala</i> PIN/Postal Code: <i>695014</i> Country: INDIA</p>
ITB 13.1	Alternative Bids <i>shall not be</i> permitted.
ITB 13.2	Alternative times for completion <i>shall not be</i> permitted.
ITB 13.3	Not Applicable
ITB 13.4	Alternative technical solutions shall be permitted for the following parts of the Works: Not Applicable
ITB 14.5	<p>The prices quoted by the Bidder "<i>shall not be</i>" subject to adjustment during the performance of the Contract.</p> <p>The adjustment of contract price, if provided, will be done in accordance with GCC Clause 49 and corresponding provisions under PCC and Appendix 2 to PCC.</p>
ITB 18.1	The Bid validity period shall be 120 days.
ITB 18.3 (a) & (b)	Not Applicable
ITB 19.1	<p>A Bid Security "<i>shall be</i>" required.</p> <p>A Bid-Securing Declaration "<i>shall not be</i>" required</p> <p>If a Bid Security shall be required, the Bidder shall furnish a Bid Security in the amount of Rs 5,00,000 (Rupees Five Lakh Only)</p>
ITB 19.3 (d)	None

ITB 19.9	Not used
ITB 20.3	<p>The written confirmation of authorization to sign on behalf of the Bidder shall consist of:</p> <p>(a) Legally valid Power of Attorney is required to demonstrate the authority of the signatory to sign the Bid; and</p> <p>(b) In the case of Bids submitted by an existing or intended JV, if permitted as per ITB 4.1, the authorization shall be evidenced by a Power of Attorney signed by legally authorized signatories of all the members.”]</p>
D. Online Submission and Opening of Bids	
ITB 21.1	Class of DSC required is: Class III
ITB 22.1	<p>The deadline for uploading the Bids is:</p> <p>Date: 19 January 2024</p> <p>Time: 16.00 hrs.</p>
ITB 24.1	Re-submission of the bid is <i>“not allowed”</i> , if withdrawn.
E. Public Opening of Technical Parts of Bids	
ITB 25.1	<p>The online Bid opening of Technical Parts of Bids shall take place at: <i>Office of Project Director, Kerala Solid Waste Management Project (KSWMP)</i></p> <p>Street Address: <i>Trans Towers, Vazhuthacaud</i></p> <p>Floor/Room number: <i>Upper Ground Floor</i></p> <p>City: <i>Thiruvananthapuram, Kerala</i></p> <p>Country: INDIA</p> <p>Date: Same as mentioned at BDS 22.1</p> <p>Time: 16.30 hrs.</p>
F. Evaluation of Bids – General Provisions	
ITB 29.3	The price of any activity or sub-activity that the Bidder may have omitted is deemed to be included in the price of other activities or sub-activities in the Schedule of Priced Activities and Sub-activities and will not be paid for separately by the Employer.
G. Evaluation of Bids - Technical Parts	
ITB 30.2	The technical factors (sub-factors) and the corresponding weight in are: Refer to sub-section-2 (Evaluation of Technical Proposal) of Section-III

	A minimum score of 70 points out of 100 points shall also be used as a qualification criterion for the purpose of evaluation.
ITB 33.1	At this time the Employer <i>“does not intend”</i> to execute certain specific parts of the Works by subcontractors selected in advance.
ITB 33.2	Not Applicable
ITB 33.3	Not Applicable
H. Public Opening of Financial Parts	
ITB 34.2 (c)	<p>Following the completion of the evaluation of the Technical Parts of the Bids, the Employer will notify all Bidders of the date, time, and location of the public opening of Financial Parts.</p> <p>The online bid opening of Financial Parts of Bids shall take place at: <i>Office of Project Director, Kerala Solid Waste Management Project (KSWMP)</i> Street Address: <i>Trans Towers, Vazhuthacaud</i> Floor/Room number: <i>Upper Ground Floor</i> City: <i>Thiruvananthapuram, Kerala</i> Country: INDIA Date: <i>To be informed later.</i> Time: <i>To be informed later</i></p> <p>In addition to the above the Employer shall publish a notice of the public opening of the Financial Parts of the Bid on its website https://etenders.kerala.gov.in</p>
I. Evaluation of Bids - Financial Parts & Combined Evaluation	
ITB 39.1	The weight to be given for cost is: 0.7
ITB 40.2	Provisions related to Abnormally Low Bids does apply
J. Award of Contract	
ITB 50.1 and 50.2	<p>The successful Bidder shall also be required to submit an Environmental and Social (ES) Performance Security.</p> <p>Throughout this bidding document the term 'performance security', unless the context clearly indicates otherwise, means and includes both 'the performance security and the ES performance security' to be submitted by the successful bidder in the amounts specified in GCC/ PCC 54.</p>

ITB 51

The Adjudicator proposed by the Employer is: ***It will be notified before signing of the contract.*** The daily fee for this proposed Adjudicator shall be:

The daily fee for this proposed Adjudicator shall be:

Professional fee: Rs. 10,000/- (Rupees Ten Thousand only) per day

Transport: vehicle with driver or Travel cost reimbursement @ Rs. 10 (Rupees Ten only) per km if travelled by own car.

Accommodation: Outstation stay in Government Guest House / Government Owned Hotel or Equivalent with a budget of Rs 3200 per including taxes.

The biographical data of the proposed Adjudicator is as follows:

To be informed before signing of the contractor

Section III - Evaluation and Qualification Criteria

This section contains all the criteria that the Employer shall use to evaluate Bids and qualify Bidders. No other factors, methods or criteria shall be used other than specified in this Bidding document. The Bidder shall provide all the information requested in the forms included in Section IV, Bidding Forms.

Evaluation of Bids

1. Qualification

1.1 Update of Information

The Bidder's qualification shall be assessed in accordance with the Qualification table included in this section.

1.2 Subcontractors

Not applicable

1.3 Financial Resources

Using the relevant Form 3.1 in Section IV, Bidding Forms, the Bidder must demonstrate access to, or availability of, financial resources such as liquid assets, unencumbered real assets, lines of credit, and other financial means, other than any contractual advance payments to meet the overall cash flow requirements for this Contract and its current Works commitment.

1.4 Contractor's Representative and Key Personnel

The Bidder must demonstrate that it will have a suitably qualified Contractor's Representative and suitably qualified (and in adequate numbers) Key Personnel, as described in the Employer's Requirement.

The Bidder shall provide details of the Contractor's Representative and Key Personnel and such other Key Personnel that the Bidder considers appropriate to perform the Contract, together with their academic qualifications and work experience. The Bidder shall complete the relevant Forms in Section IV, Bidding Forms.

1.5 Equipment

The Bidder must demonstrate that it has access to the key equipment listed hereafter:

No.	Equipment Type and Characteristics	Minimum Number required
1	Excavator	8

2	Earth Movers	8
3	Trommel Machine/ ballistic Separator	4
4	Tipper Trucks	8
5	Tractor with Trolley	8

The capacity of the above equipment should be such that it should be sufficient to process and dispose minimum 1,200 M³ per day.

The Bidder shall provide further details of proposed items of equipment using the relevant Form in Section IV, Bidding Forms.

2. Evaluation of Technical Proposal

Assessment of adequacy of Technical Proposal with Requirements in accordance with ITB 30.1:

The bidders must meet the criteria mentioned in Section III 'A: Qualification' prior to being considered for technical evaluation by applying the scored technical factors/subfactors in accordance with BDS ITB 30.2. The criteria mentioned under 'A Qualification' is a Pass/fail type criteria and no scores shall be awarded to the bidders for the mentioned criteria.

The technical factors, and sub factors if any, to be evaluated and the scores to be given to each technical factor and sub factors as required under the BDS ITB 30.2 are specified below

Technical Proposal Scoring Methodology

S. No	Technical Factor and sub-factors	Sub Factor Score	Maximum Technical Score	Documents
1	Bidders Past performance in Similar Contracts		40	

S. No	Technical Factor and sub-factors	Sub Factor Score	Maximum Technical Factor Score	Documents												
1.1	<p>Experience of successfully completion of Biomining and Bioremediation of legacy waste dumpsites between 1st January 2019 and bid submission deadline, with any Urban Local Body/ Government bodies/ Public Sector Undertakings in India with direct contract with them</p> <p>a. From a Single Project- Biomining and Bioremediation quantity per annum</p> <table border="1" data-bbox="272 684 878 884"> <tr> <td data-bbox="272 684 808 747">>1,35,000 M³ to <=1,90,000 M³</td> <td data-bbox="808 684 878 747">10</td> </tr> <tr> <td data-bbox="272 747 808 810">>1,90,000 M³ to <=2,44,000 M³</td> <td data-bbox="808 747 878 810">14</td> </tr> <tr> <td data-bbox="272 810 808 884">>2,44,000 M³</td> <td data-bbox="808 810 878 884">20</td> </tr> </table> <p>b. From Multiple Projects (maximum three)- Biomining and Bioremediation quantity per annum</p> <table border="1" data-bbox="272 989 878 1104"> <tr> <td data-bbox="272 989 808 1031">>1,62,000 M³ to <=2,16,000 M³</td> <td data-bbox="808 989 878 1031">10</td> </tr> <tr> <td data-bbox="272 1031 808 1073">>2,16,000 M³ to <=2,71,000 M³</td> <td data-bbox="808 1031 878 1073">14</td> </tr> <tr> <td data-bbox="272 1073 808 1104">>2,71,000 M³</td> <td data-bbox="808 1073 878 1104">20</td> </tr> </table>	>1,35,000 M ³ to <=1,90,000 M ³	10	>1,90,000 M ³ to <=2,44,000 M ³	14	>2,44,000 M ³	20	>1,62,000 M ³ to <=2,16,000 M ³	10	>2,16,000 M ³ to <=2,71,000 M ³	14	>2,71,000 M ³	20	20		<ul style="list-style-type: none"> certificates issued by the consumer with unique reference number for verification along with Performance/Completion Certificates issued by the Urban or Local Bodies confirming the same, signed by officer above or equal to the rank of Executive Engineer <p>Proof in the form of photographs/ contour maps/ drone map/image to be provided to prove land reclamation in the eligible experience projects</p>
>1,35,000 M ³ to <=1,90,000 M ³	10															
>1,90,000 M ³ to <=2,44,000 M ³	14															
>2,44,000 M ³	20															
>1,62,000 M ³ to <=2,16,000 M ³	10															
>2,16,000 M ³ to <=2,71,000 M ³	14															
>2,71,000 M ³	20															
1.2	<p>Experience in disposal of RDF (Refused derived fuel) from a single/multiple biomining project to cement plant/ waste to energy/ thermal plants/ other Industries during any one year between 1st January 2019 and bid submission deadline a. From a Single project- RDF quantity per annum in preceding five years</p> <table border="1" data-bbox="272 1341 878 1472"> <tr> <td data-bbox="272 1341 808 1383">>27,000 MT to <=38,000 MT</td> <td data-bbox="808 1341 878 1383">10</td> </tr> <tr> <td data-bbox="272 1383 808 1425">>38,000 MT to <= 49,000 MT</td> <td data-bbox="808 1383 878 1425">14</td> </tr> <tr> <td data-bbox="272 1425 808 1472">>49,000 MT</td> <td data-bbox="808 1425 878 1472">20</td> </tr> </table> <p>b. From a multiple project (maximum three projects)- RDF quantity per annum</p> <table border="1" data-bbox="272 1577 878 1703"> <tr> <td data-bbox="272 1577 808 1619">>32,000 MT to <=43,000 MT</td> <td data-bbox="808 1577 878 1619">10</td> </tr> <tr> <td data-bbox="272 1619 808 1661">>43,000,000 MT to <= 54,000 MT</td> <td data-bbox="808 1619 878 1661">14</td> </tr> <tr> <td data-bbox="272 1661 808 1703">>54,000 MT</td> <td data-bbox="808 1661 878 1703">20</td> </tr> </table>	>27,000 MT to <=38,000 MT	10	>38,000 MT to <= 49,000 MT	14	>49,000 MT	20	>32,000 MT to <=43,000 MT	10	>43,000,000 MT to <= 54,000 MT	14	>54,000 MT	20	20		<ul style="list-style-type: none"> Co-processing certificates issued by the consumer with unique reference number for verification along with Certificates issued by the Urban or Local Bodies confirming the same, signed by officer above or equal to the rank of Executive Engineer
>27,000 MT to <=38,000 MT	10															
>38,000 MT to <= 49,000 MT	14															
>49,000 MT	20															
>32,000 MT to <=43,000 MT	10															
>43,000,000 MT to <= 54,000 MT	14															
>54,000 MT	20															
2	Bidders Financial Capability		30													

S. No	Technical Factor and sub-factors	Sub Factor Score	Maximum Technical Factor Score	Documents										
2.1	Average Annual Turnover within the last five financial years (1st April 2018 to 31st March 2023) (Certified by CA/ Statutory Auditor of Bidder) <table border="1" data-bbox="321 499 930 619"> <tr> <td data-bbox="321 499 821 541">=Rs 1000 million</td> <td data-bbox="821 499 930 541">4</td> </tr> <tr> <td data-bbox="321 541 821 583">>Rs. 1000 million to <= Rs. 1200 million</td> <td data-bbox="821 541 930 583">8</td> </tr> <tr> <td data-bbox="321 583 821 619">>Rs. 1200 million</td> <td data-bbox="821 583 930 619">10</td> </tr> </table>	=Rs 1000 million	4	>Rs. 1000 million to <= Rs. 1200 million	8	>Rs. 1200 million	10	10		copies audited balance sheets attested by statutory auditor				
=Rs 1000 million	4													
>Rs. 1000 million to <= Rs. 1200 million	8													
>Rs. 1200 million	10													
2.2	Access to, availability of, liquid assets, unencumbered real assets, lines of credit, and other financial means (independent of any contractual advance payment) for amount <table border="1" data-bbox="321 783 930 898"> <tr> <td data-bbox="321 783 821 825">= Rs. 300 million</td> <td data-bbox="821 783 930 825">2</td> </tr> <tr> <td data-bbox="321 825 821 867">> Rs 300 million to <=Rs. 400 million</td> <td data-bbox="821 825 930 867">6</td> </tr> <tr> <td data-bbox="321 867 821 898">> Rs. 400 million</td> <td data-bbox="821 867 930 898">10</td> </tr> </table>	= Rs. 300 million	2	> Rs 300 million to <=Rs. 400 million	6	> Rs. 400 million	10	10		Bankers' certificate				
= Rs. 300 million	2													
> Rs 300 million to <=Rs. 400 million	6													
> Rs. 400 million	10													
2.3	Available bid capacity for Solid Waste Management <table border="1" data-bbox="321 940 930 1056"> <tr> <td data-bbox="321 940 821 982">= Rs. 500 Mn</td> <td data-bbox="821 940 930 982">4</td> </tr> <tr> <td data-bbox="321 982 821 1024">>Rs 500 Mn to <= Rs 600 Mn</td> <td data-bbox="821 982 930 1024">8</td> </tr> <tr> <td data-bbox="321 1024 821 1056">> Rs 600 Mn</td> <td data-bbox="821 1024 930 1056">10</td> </tr> </table>	= Rs. 500 Mn	4	>Rs 500 Mn to <= Rs 600 Mn	8	> Rs 600 Mn	10	10		The bidder shall submit certificate from its statutory Auditor/ chartered Accountant certifying his bid capacity				
= Rs. 500 Mn	4													
>Rs 500 Mn to <= Rs 600 Mn	8													
> Rs 600 Mn	10													
3	Method Statement for Biomining Activity		25											
3.1	Design Methodology <table border="1" data-bbox="321 1192 930 1587"> <tr> <td data-bbox="321 1192 821 1287">Required feature is absent; no relevant information to demonstrate how the requirement is met</td> <td data-bbox="821 1192 930 1287">0</td> </tr> <tr> <td data-bbox="321 1287 821 1381">Required feature present with deficiencies such as insufficient or information that lacks clarity</td> <td data-bbox="821 1287 930 1381">1</td> </tr> <tr> <td data-bbox="321 1381 821 1444">Sufficient information to demonstrate how the requirement will be met</td> <td data-bbox="821 1381 930 1444">2</td> </tr> <tr> <td data-bbox="321 1444 821 1507">Sufficient information to demonstrate that the requirement will be marginally exceeded</td> <td data-bbox="821 1444 930 1507">4</td> </tr> <tr> <td data-bbox="321 1507 821 1587">Sufficient information that significantly exceed the requirement/proposal contributes to significant value addition</td> <td data-bbox="821 1507 930 1587">5</td> </tr> </table>	Required feature is absent; no relevant information to demonstrate how the requirement is met	0	Required feature present with deficiencies such as insufficient or information that lacks clarity	1	Sufficient information to demonstrate how the requirement will be met	2	Sufficient information to demonstrate that the requirement will be marginally exceeded	4	Sufficient information that significantly exceed the requirement/proposal contributes to significant value addition	5	5		The bidder shall submit the details in the form Appendix to Technical Part 'Design Methodology'
Required feature is absent; no relevant information to demonstrate how the requirement is met	0													
Required feature present with deficiencies such as insufficient or information that lacks clarity	1													
Sufficient information to demonstrate how the requirement will be met	2													
Sufficient information to demonstrate that the requirement will be marginally exceeded	4													
Sufficient information that significantly exceed the requirement/proposal contributes to significant value addition	5													
3.2	Forward Linkage of fractions recovered after biomining activity (Approach for disposal of biomining fractions) <table border="1" data-bbox="321 1724 930 1877"> <tr> <td data-bbox="321 1724 849 1818">Sufficient information to demonstrate the forward linkage/ disposal methodology for each recovered fraction from biomining operations</td> <td data-bbox="849 1724 930 1818">2.5</td> </tr> <tr> <td data-bbox="321 1818 849 1877">Memorandum of Understanding (MoU)/ Agreement from Authorized Cement/ Waste to</td> <td data-bbox="849 1818 930 1877">2.5</td> </tr> </table>	Sufficient information to demonstrate the forward linkage/ disposal methodology for each recovered fraction from biomining operations	2.5	Memorandum of Understanding (MoU)/ Agreement from Authorized Cement/ Waste to	2.5	5		The bidder shall submit the details in the form Appendix to Technical Part 'Method Statement'						
Sufficient information to demonstrate the forward linkage/ disposal methodology for each recovered fraction from biomining operations	2.5													
Memorandum of Understanding (MoU)/ Agreement from Authorized Cement/ Waste to	2.5													

S. No	Technical Factor and sub-factors	Sub Factor Score	Maximum Technical Factor Score	Documents								
	Energy/ Thermal Plants for RDF take off or RDF Co-processing											
3.3	<p>Work Management Strategy</p> <table border="1" data-bbox="272 579 886 898"> <tr> <td>Required feature is absent; no relevant information to demonstrate how the requirement is met</td> <td>0</td> </tr> <tr> <td>Sufficient information to demonstrate how the requirement will be met</td> <td>1</td> </tr> <tr> <td>Sufficient information to demonstrate that the requirement will be marginally exceeded</td> <td>2</td> </tr> <tr> <td>Sufficient information that significantly exceed the requirement/proposal contributes to significant value addition</td> <td>3</td> </tr> </table>	Required feature is absent; no relevant information to demonstrate how the requirement is met	0	Sufficient information to demonstrate how the requirement will be met	1	Sufficient information to demonstrate that the requirement will be marginally exceeded	2	Sufficient information that significantly exceed the requirement/proposal contributes to significant value addition	3	3		The bidder shall submit the details in the form Appendix to Technical Part 'Work Management Strategy'
Required feature is absent; no relevant information to demonstrate how the requirement is met	0											
Sufficient information to demonstrate how the requirement will be met	1											
Sufficient information to demonstrate that the requirement will be marginally exceeded	2											
Sufficient information that significantly exceed the requirement/proposal contributes to significant value addition	3											
3.4	<p>Risk mitigation measures- Proposal for alternative plan in case proposed work management strategy and forward linkages are not viable at implementation of actual work</p> <table border="1" data-bbox="272 1129 886 1449"> <tr> <td>Required feature is absent; no relevant information to demonstrate how the requirement is met</td> <td>0</td> </tr> <tr> <td>Sufficient information to demonstrate how the requirement will be met</td> <td>1</td> </tr> <tr> <td>Sufficient information to demonstrate that the requirement will be marginally exceeded</td> <td>2</td> </tr> <tr> <td>Sufficient information that significantly exceed the requirement/proposal contributes to significant value addition</td> <td>3</td> </tr> </table>	Required feature is absent; no relevant information to demonstrate how the requirement is met	0	Sufficient information to demonstrate how the requirement will be met	1	Sufficient information to demonstrate that the requirement will be marginally exceeded	2	Sufficient information that significantly exceed the requirement/proposal contributes to significant value addition	3	3		The bidder shall submit the details in the form Appendix to Technical Part 'Method Statement'
Required feature is absent; no relevant information to demonstrate how the requirement is met	0											
Sufficient information to demonstrate how the requirement will be met	1											
Sufficient information to demonstrate that the requirement will be marginally exceeded	2											
Sufficient information that significantly exceed the requirement/proposal contributes to significant value addition	3											
3.5	<p>Site Organization, team composition, qualifications, and experience of Contractor's Personnel</p> <table border="1" data-bbox="272 1541 886 1759"> <tr> <td>Sufficient information to demonstrate efficient Site Organization</td> <td>1</td> </tr> <tr> <td>Availability of Minimum team composition proposed in this RFB and demonstration on efficiently integration of the team for this work</td> <td>2</td> </tr> <tr> <td>Experience of Contractor's personnel in similar work</td> <td>3</td> </tr> </table>	Sufficient information to demonstrate efficient Site Organization	1	Availability of Minimum team composition proposed in this RFB and demonstration on efficiently integration of the team for this work	2	Experience of Contractor's personnel in similar work	3	3		The bidder shall submit the details in the form Appendix to Technical Part 'Site Organization' & Key Personnel Schedule		
Sufficient information to demonstrate efficient Site Organization	1											
Availability of Minimum team composition proposed in this RFB and demonstration on efficiently integration of the team for this work	2											
Experience of Contractor's personnel in similar work	3											
3.6	Key equipment strategy	3		documentary evidence of ownership or leasing equipment								

S. No	Technical Factor and sub-factors		Sub Factor Score	Maximum Technical Factor Score	Documents
	Availability of minimum Key Equipment (Owned or Leased- shall be demonstrated by providing documentary evidence of ownership or leasing) listed in the RFB	2			Details of Equipment to be provided in Appendix to Technical Part: Equipment
	demonstration on efficiently integration of the Key Equipment for this work execution including minimum processing capacity per day, equipment deployment schedule	1			
3.7	Work Program and Schedule		3		The bidder shall submit the details in the form Appendix to Technical Part 'Mobilization Schedule' & 'Work Schedule'
	Required feature is absent; no relevant information to demonstrate how the requirement is met	0			
	Sufficient information to demonstrate how the requirement will be met	1			
	Sufficient information to demonstrate that the requirement will be marginally exceeded	2			
	Sufficient information that significantly exceed the requirement/proposal contributes to significant value addition	3			
4	Management strategies and implementation plans (MSIPs) for ES			5	The bidder shall submit the details in the form Appendix to Technical Part Environmental and Social, Health Management Strategies and Implementation Plans
	Required feature is absent; no relevant information to demonstrate how the requirement is met	0			
	Sufficient information to demonstrate how the requirement will be met	3			
	Sufficient information to demonstrate that the requirement will be marginally exceeded	4			
	Sufficient information that significantly exceed the requirement/proposal contributes to significant value addition	5			
TOTAL				100	

3. Financial Evaluation

Criteria for Financial Evaluation

In addition to the criteria listed in ITB 35.1 (a) – (e) the following criteria shall apply:

None

4. Combined Evaluation

The Employer will evaluate and compare the Bids that have been determined to be substantially responsive.

An Evaluated Bid Score (B) will be calculated for each responsive Bid using the following formula, which permits a comprehensive assessment of the evaluated cost and the technical merits of each Bid:

$$B \equiv \frac{C_{low}}{C} * X * 100 + \frac{T}{T_{high}} * (1 - X) * 100$$

Where:

C = Evaluated Bid Cost

C_{low} = the lowest of all Evaluated Bid Costs among responsive Bids

T = the total Technical Score awarded to the Bid

T_{high} = the Technical Score achieved by the Bid that was scored best among all responsive Bids

X = weight for Cost as specified **in the BDS**

The Bid with the best evaluated Bid Score (B) among responsive Bids shall be the Most Advantageous Bid provided the Bidder is qualified to perform the Contract.

5. Multiple Contracts – Not Applicable

A. Qualification

Eligibility and Qualification Criteria			Compliance Requirements				Documentation
No.	Subject	Requirement	Single Entity	Joint Venture (existing or intended) where permitted			Submission Requirements
				All members Combined	Each Member	At least one Member	
1. Eligibility							
1.1	Nationality	Nationality in accordance with ITB 4.4	Must meet requirement	Must meet requirement	Must meet requirement	N/A	Forms ELI – 1.1 and 1.2, with attachments
1.2	Conflict of Interest	No conflicts of interest in accordance with ITB 4.2	Must meet requirement	Must meet requirement	Must meet requirement	N/A	Letter of Bid
1.3	Bank Eligibility	Not having been declared ineligible by the Bank, as described in ITB 4.5.	Must meet requirement	Must meet requirement	Must meet requirement	N/A	Letter of Bid
1.4	State-owned enterprise or institution of the Borrower country	Meets conditions of ITB 4.6	Must meet requirement	Must meet requirement	Must meet requirement	N/A	Forms ELI – 1.1 and 1.2, with attachments
1.5	United Nations resolution or Borrower's country law	Not having been excluded as a result of prohibition in the Borrower's country laws or official regulations against commercial relations with the Bidder's country, or by an act of compliance with UN Security Council resolution, both in accordance with ITB 4.8 and Section V.	Must meet requirement	Must meet requirement	Must meet requirement	N/A	Forms ELI – 1.1 and 1.2, with attachments
2. Historical Contract Non-Performance							
2.1	History of Non-	Non-performance of a	Must meet requirement ⁷	Must meet requirements	Must meet	N/A	Form CON-2

Eligibility and Qualification Criteria			Compliance Requirements				Documentation
No.	Subject	Requirement	Single Entity	Joint Venture (existing or intended) where permitted			Submission Requirements
				All members Combined	Each Member	At least one Member	
	Performing Contracts	contract ³ did not occur as a result of contractor default since 1 st January 2019.	& 8		requirement ⁴		
2.2	Suspension Based on Execution of Bid/ Proposal Securing Declaration by the Employer or withdrawal of the Bid within Bid validity period	Not under suspension based on execution of a Bid/ Proposal Securing Declaration pursuant to ITB 4.7 or withdrawal of the Bid pursuant ITB 19.9	Must meet requirement	Must meet requirement	Must meet requirement	N/A	Letter of Bid
2.3	Pending Litigation	Bidder's financial position and prospective long-term profitability sound according to criteria established in 3.1 below and assuming that all pending litigation will be resolved against the Bidder	Must meet requirement	N/A	Must meet requirement	N/A	Form CON – 2
2.4	Litigation History	No consistent history of court/arbitral award decisions	Must meet requirement	Must meet requirement	Must meet requirement	N/A	Form CON – 2

³ Non-performance, as decided by the Employer, shall include all contracts where (a) non-performance was not challenged by the contractor, including through referral to the dispute resolution mechanism under the respective contract, and (b) contracts that were so challenged but fully settled against the contractor. Non-performance shall not include contracts where Employers decision was overruled by the dispute resolution mechanism. Non-performance must be based on all information on fully settled disputes or litigation, i.e. dispute or litigation that has been resolved in accordance with the dispute resolution mechanism under the respective contract and where all appeal instances available to the Bidder have been exhausted.

⁴ This requirement also applies to contracts executed by the Bidder as JV member.

Eligibility and Qualification Criteria			Compliance Requirements			Documentation	
No.	Subject	Requirement	Single Entity	Joint Venture (existing or intended) where permitted			Submission Requirements
				All members Combined	Each Member	At least one Member	
		against the Bidder ⁵ since 1 st January 2019					
2.5	Declaration: Environmental and Social (ES) past performance	Declare any Solid Waste Management work contracts that have been suspended or terminated and/or performance security called by an employer for reasons of breach of environmental, or social (including Sexual Exploitation, and Abuse) contractual obligations in the past five years ⁶ .	Must make the declaration.	N/A	Each must make the declaration.	N/A	Form CON-3 ES Performance Declaration
3. Financial Situation and Performance							
3.1	Financial Capabilities	(i) The Bidder shall demonstrate that it has access to, or has available, liquid assets, unencumbered real assets, lines of credit ⁷ , and other financial means (independent of any contractual advance payment)	Must meet requirement	Must meet Requirement	Must meet at least 25% of the requirement as a minimum	Lead Member Must meet at least 50% of the requirement as a minimum	Form FIN – 3.1, with attachments

⁵ The Bidder shall provide accurate information on the Letter of Bid about any litigation or arbitration resulting from contracts completed or ongoing under its execution over the last five years. A consistent history of court/arbitral awards against the Bidder or any member of a joint venture may result in disqualifying the Bidder.

⁶ The Employer may use this information to seek further information or clarifications in carrying out its due diligence.

⁷ In case the bidder submits a letter of intent from a commercial bank with the bid, firm commitment from the bank to provide line of credit shall be required before contract signing.

Eligibility and Qualification Criteria			Compliance Requirements			Documentation	
No.	Subject	Requirement	Single Entity	Joint Venture (existing or intended) where permitted			Submission Requirements
				All members Combined	Each Member	At least one Member	
		sufficient to meet the Work execution cash flow requirements estimated as Rs. 300 Mn (Rupees Three Hundred Million Only) for the subject contract(s) net of the Bidder's other commitments					
		(ii) The Bidders shall also demonstrate, to the satisfaction of the Employer, that it has adequate sources of finance to meet the cash flow requirements on works currently in progress and for future contract commitments.	Must meet requirement	Must meet requirement	Must meet requirement	N/A	
		(iii) The audited balance sheets or, if not required by the laws of the Bidder's country, other financial statements acceptable to the Employer, for the last five years shall be submitted and must demonstrate the current soundness of the Bidder's financial position and indicate its prospective long-term profitability.	Must meet requirement	N/A	Must meet requirement	N/A	

Eligibility and Qualification Criteria			Compliance Requirements			Documentation	
No.	Subject	Requirement	Single Entity	Joint Venture (existing or intended) where permitted			Submission Requirements
				All members Combined	Each Member	At least one Member	
3.2	Average Annual Turnover	Minimum average annual turnover of Rs. 1,000 Mn (Rupees One Thousand Million Only) , calculated as total certified payments received for contracts in progress and/or completed within the last five financial years, divided by five years.	Must meet requirement	Must meet requirement	Must meet 25%, (twenty five percent) of the requirement	Must meet 50%, (fifty percent) of the requirement as lead member	(i) Form FIN – 3.2 (ii) Certificate issued from a practicing Chartered Accountant/ Statutory Auditor of Bidder, not older than six (6) months from the date of submission of this RFB, certifying the average Turnover of the Bidder (Individual bidder or all members of consortium/Joint venture as the case may be) in the preceding five financial years from the due date of bid submission. (iii) Copies of Audited Balance Sheets and Profit & Loss Statements for preceding five financial years

Eligibility and Qualification Criteria			Compliance Requirements			Documentation	
No.	Subject	Requirement	Single Entity	Joint Venture (existing or intended) where permitted			Submission Requirements
				All members Combined	Each Member	At least one Member	
4. Experience							
4.1(a)	<i>Not Applicable</i>						
4.1 (b)	Design Experience	A minimum number of One (1) contract of Legacy Waste processing capacity of at least 1,200 M³/ day (One Thousand Two Hundred Cubic Meter per day) or Multiple (maximum three) Concurrent contracts (should have been designed in the same year) of at least cumulative Legacy Waste Processing Capacity of 1,500 M³/ day (One Thousand Five Hundred Cubic Meter per day) for the design of Legacy Waste Dumpsite remediation through Bioremediation and Biomining process/ Landfill mining/ Biomining/ Land reclamation through Biomining successfully	Must meet requirement	N/A	N/A	Must meet requirement	(i) Form EXP - 4.1(b) (ii) Copy of Agreement for eligible projects with the concerned client (iii) Performance/ Credential Certificate(s) from the concerned client issued by an officer of rank not less than Executive Engineer or equivalent in support of “the technical capacity” clearly stating the required details

Eligibility and Qualification Criteria			Compliance Requirements			Documentation	
No.	Subject	Requirement	Single Entity	Joint Venture (existing or intended) where permitted			Submission Requirements
				All members Combined	Each Member	At least one Member	
		completed between 1st January 2019 and bid submission deadline. The selected design contracts shall relate to Employer's <i>requirement under section VII</i>					
4.2 (a)	Not Applicable						
4.3 (a)	Specific Work & Contract Management Experience	(i) A minimum number of One (1) ⁸ similar contracts specified below that have been satisfactorily and substantially ⁹ completed as a prime contractor, joint venture member ¹⁰ , management contractor between 1st January 2019	Must meet requirement	Must meet requirement ¹¹	Must meet the requirement for one contract of at least 25% value	Must meet the requirement for one contract of at least 50% value as lead member	Form EXP 4.3(a) (iii) Copy of Agreement for eligible projects with the concerned client (iii) Performance/ Credential

⁸ Cost of completed works of previous years shall be given weightage @5% per year based on rupees value to bring them to the price level of the financial year in which bids are received.

⁹ Substantial completion shall be based on 80% or more works completed under the contract.

¹⁰ For contracts under which the Bidder participated as a joint venture member, only the Bidder's share, by value, shall be considered to meet this requirement. The relevant work for technical qualification should have been undertaken for a State and Central Government Department, Urban Local Bodies, Public Sector Undertaking in India with a direct contract from the Government entity. Work done as Sub-contractor shall not be considered for evaluation

¹¹ In the case of JV, the value of contracts completed by its members shall not be aggregated to determine whether the requirement of the minimum value of a single contract has been met. Instead, each contract performed by each member shall satisfy the minimum value of a single contract as required for single entity. In determining whether the JV meets the requirement of total number of contracts, only the number of contracts completed by all members each of value equal or more than the minimum value required shall be aggregated.

Eligibility and Qualification Criteria			Compliance Requirements			Documentation	
No.	Subject	Requirement	Single Entity	Joint Venture (existing or intended) where permitted			Submission Requirements
				All members Combined	Each Member	At least one Member	
		<p>and bid submission deadline:</p> <p>(i) One contract of minimum value Rs. 400 Mn (Rupees Four Hundred Million)</p> <p>Or,</p> <p>(ii) More than One Contract (maximum three) each of minimum contract value of Rs. 125 Mn (Rupees One Hundred Twenty-Five Million Only), but with total value of all contracts equal or more than Rs. 500 Mn (Rupees Five Hundred Million Only)</p> <p>The similarity of the contracts shall be based on the following: Based on Section VII, Scope of Works, for Legacy Waste Dumpsite</p>					<p>Certificate(s) from the concerned client issued by an officer of rank not less than Executive Engineer or equivalent in support of “the technical capacity” clearly stating the required details</p>

Eligibility and Qualification Criteria			Compliance Requirements			Documentation	
No.	Subject	Requirement	Single Entity	Joint Venture (existing or intended) where permitted			Submission Requirements
				All members Combined	Each Member	At least one Member	
		remediation through Bioremediation and Biomining process/ Landfill mining/Biomining/ Land reclamation through Biomining					
4.3 (b)		<p>For the above and any other contracts [substantially completed and under implementation] as prime contractor, joint venture member, between 1st January 2019 and Bid submission deadline, a minimum Work experience in the following key activities successfully completed¹²:</p> <ul style="list-style-type: none"> • <i>Biomining and Bioremediation of minimum 1,35,000 M³ per annum of Legacy Waste in a single project with minimum</i> 	Must meet requirements	Must meet requirements	N/A	Must meet the following requirements for all the key activities listed below as lead member	<p>Form EXP – 4.3 (b)</p> <p>(i) Copy of Agreement for eligible projects with the concerned client</p> <p>(ii) Performance/ Credential Certificate(s) from the concerned client issued by an officer of rank not less than Executive Engineer or equivalent in support of “the technical capacity”</p>

¹² Volume, number or rate of production of any key activity can be demonstrated in one or more contracts combined if executed during same time period.

Eligibility and Qualification Criteria			Compliance Requirements			Documentation	
No.	Subject	Requirement	Single Entity	Joint Venture (existing or intended) where permitted			Submission Requirements
				All members Combined	Each Member	At least one Member	
		<p><i>processing capacity of 800 M³ per day</i></p> <p><i>Or,</i></p> <ul style="list-style-type: none"> <i>Biomining and Bioremediation of minimum 1,62,000 M³ per annum of Legacy Waste in multiple projects (maximum three projects) with minimum cumulative processing capacity of 900 M³ per day</i> <p><i>At least one of the eligible Biomining and Bioremediation project out of the multiple projects should qualify min. 50% of the capacity i.e. 81,000 M³ per annum and processing capacity of minimum 500 M³ per day.</i></p> <p><i>AND,</i></p> <ul style="list-style-type: none"> <i>Responsibly disposed</i> 				clearly stating the required details	

Eligibility and Qualification Criteria			Compliance Requirements			Documentation	
No.	Subject	Requirement	Single Entity	Joint Venture (existing or intended) where permitted			Submission Requirements
				All members Combined	Each Member	At least one Member	
		<p><i>of RDF (Refused derived fuel) of quantity not less than 327,000 MT/ annum from a single project Location or cumulative 32,000 MT annum cumulative from multiple locations (maximum three locations) to Cement Plant/ Waste to Energy/ Thermal Plants/ other Industries.</i></p> <p><i>Note:</i></p> <p>1. If the eligible project Quantity is in Metric Ton (MT) then conversion factor for the sake of evaluation shall be considered as 1M³= 0.8 MT.</p> <p>2. <i>Average Legacy Waste biomining and bioremediation per annum during the project i.e Legacy Waste Processed per year/ no.</i></p>					

Eligibility and Qualification Criteria			Compliance Requirements			Documentation	
No.	Subject	Requirement	Single Entity	Joint Venture (existing or intended) where permitted			Submission Requirements
				All members Combined	Each Member	At least one Member	
		<p><i>of years;</i></p> <p>3. <i>minimum processing capacity per day calculated as Average biomining and bioremediation quantity/ 365</i></p> <p>4. <i>RDF supplied under Extended Producer Responsibility (EPR) will not be considered for qualification</i></p>					
4.3 I	Specific Experience in managing ES aspects	<ul style="list-style-type: none"> For the contracts in 4.3 (a) above and/or any other contracts [substantially completed and under implementation] as prime contractor, joint venture member, 	Must meet requirements	Must meet requirement	Must meet requirement for at least any two aspects	Must meet requirement for at least any four aspects as lead member	Form EXP – 4.3 (c) Work order of relevant project clearly mentioning the scope of work. Corresponding to ES risk management

Eligibility and Qualification Criteria			Compliance Requirements			Documentation	
No.	Subject	Requirement	Single Entity	Joint Venture (existing or intended) where permitted			Submission Requirements
				All members Combined	Each Member	At least one Member	
		<p>or Subcontractor between 1st January 2019 and Application submission deadline, experience in managing ES risks and impacts in the following aspects:</p> <p><i>Managed Ambient Air Quality (Dust, Odour & other Emissions) in Project Area</i></p> <ul style="list-style-type: none"> • <i>Drainage/Surface in Project Area</i> • <i>Drainage/Surface run-off and Leachate Management</i> • <i>Dumpsite Gas Management</i> • <i>Pest, Flies & vectors Management through integrated management options</i> • <i>Soil Pollution</i> 					

Eligibility and Qualification Criteria			Compliance Requirements			Documentation	
No.	Subject	Requirement	Single Entity	Joint Venture (existing or intended) where permitted			Submission Requirements
				All members Combined	Each Member	At least one Member	
		<ul style="list-style-type: none"> • <i>Ambient Noise Level</i> • <i>Management of health, and safety incidents/accidents at work site.</i> 					
<p>NOTE: List the monthly or annual production rate for the key construction activity (or activities) in the proposed contract or works, e.g., “one million M³ of rock placed in rock fill dams in one year; X tons of asphalt concrete per month placed in road paving; Y M³ of concrete placed in . . . etc.” The rates should be a percentage (say about 80 percent) of the estimated production rate of the key activity (or activities) in the contract or Works as needed to meet the expected construction schedule with due allowance for adverse climatic conditions.</p> <p>Borrower should fill this after careful review of the requirements for the work. Where the elements of work are specialized, and it is proposed to accept employment of specialist sub-contractors, this could be so specified for that activity and bidders may be requested to name the sub-contractors and furnish their qualification and experience.</p>							
4.3 (d)	<p>Bid Capacity: Bidders who meet the minimum qualification criteria will be qualified only if their available bid capacity for Solid Waste Management work is equal to or more than the total estimated bid value of the work i.e. Rs 500 Mn (Rupees Five Hundred Million Only). The available bid capacity will be calculated as under:</p> <p>Assessed Available bid capacity = (A*N*1.15-B)</p> <p>Where,</p> <p>A = Maximum value of civil engineering works executed in any one year during the last five years (updated to the price level of the financial year 2023-2024. at the rate of 5% per year), taking into account the completed as well as works in progress).</p> <p>N = Number of years prescribed for completion of the works for which bids are invited (period up to 6 months to be taken as half-year and more than</p>						

Eligibility and Qualification Criteria			Compliance Requirements			Documentation	
No.	Subject	Requirement	Single Entity	Joint Venture (existing or intended) where permitted			Submission Requirements
				All members Combined	Each Member	At least one Member	
		6 months as one year). B = Value, at the current price level, of existing commitments on on-going works to be completed during the period of completion of the works for which bids are invited. Note: the statements in Section IV showing the value of existing commitments of on-going works as well as the stipulated period of completion remaining for each of the works listed should be countersigned by the Engineer in charge, not below the rank of an Executive Engineer or equivalent.					

General notes for the Proposer:

- a. For contracts under which the Proposer participated as a joint venture member or sub-contractor, only the Proposer's share, by value, shall be considered to meet this requirement
- b. Substantial completion shall be based on 80% or more Plant and installation completed under the contract.
- c. In the case of JV, the value of contracts completed by its members shall not be aggregated to determine whether the requirement of the minimum value of a single contract has been met. Instead, each contract performed by each member shall satisfy the minimum value of a single contract as required for single entity. In determining whether the JV meets the requirement of total number of contracts, only the number of contracts completed by all members each of value equal or more than the minimum value required shall be aggregated.
- d. The Proposer may use a single contract to satisfy two or more criteria requirements. In such cases, the Proposer shall complete separate EXP forms for each subject contract type. (For example, if a contractor undertook both design and construction on a similar contract, it may use that experience to qualify under Design Experience and Construction Experience. In such case it would complete forms EXP-4.2 and EXP4.3.)

Section IV - Bidding Forms

Letter of Bid – Technical Part

INSTRUCTIONS TO BIDDERS: DELETE THIS BOX ONCE YOU HAVE COMPLETED THE DOCUMENT

The Bidder must prepare this Letter of Bid on stationery with its letterhead clearly showing the Bidder's complete name and business address.

Note: All italicized text is to help Bidders in preparing this form.

Date of this Bid submission: *[insert date (as day, month and year) of Bid submission]*

RFB No.: *[insert number of RFB process]*

Alternative No¹: *[insert identification No. if this is a Bid for an alternative]*

To: *[insert complete name of Employer]*

We, the undersigned, hereby submit our Bid, in two parts, namely:

- (a) the Technical Part, and
- (b) the Financial Part

In submitting our Bid, we make the following declarations:

- (a) **No reservations:** We have examined and have no reservations to the bidding document, including Addenda issued in accordance with ITB 8;
- (b) **Eligibility:** We meet the eligibility requirements and have no conflict of interest in accordance with ITB 4;
- (c) **Bid-Securing Declaration:** We have not been suspended nor declared ineligible by the Employer based on execution of a Bid-Securing Declaration or Proposal-Securing Declaration in the Employer's Country in accordance with ITB 4.7
- (d) **Conformity:** We offer to execute in conformity with the bidding document the following Works: *[insert a brief description of the Works]*
- (e) **Bid Validity Period:** Our Bid shall be valid for a period specified in BDS ITB 18.1 (or as amended if applicable) from the date fixed for the Bid submission deadline specified in BDS 22.1 (or as amended if applicable), and it shall remain binding upon us and may be accepted at any time before the expiration of that period;
- (f) **Performance Security:** If our Bid is accepted, we commit to obtain a performance security *[and an Environmental and Social (ES) Performance Security, Delete if not applicable]* in accordance with the bidding document;

¹ Delete if not applicable

- (g) **One Bid Per Bidder:** We are not submitting any other Bid(s) as an individual Bidder or as a subcontractor, and we are not participating in any other Bid(s) as a Joint Venture member, and meet the requirements of ITB 4.3, other than alternative Bids submitted in accordance with ITB 13;
- (h) **Suspension and Debarment:** We, along with any of our subcontractors, suppliers, consultants, manufacturers, or service providers for any part of the contract, are not subject to, and not controlled by any entity or individual that is subject to, a temporary suspension or a debarment imposed by the World Bank Group or a debarment imposed by the World Bank Group in accordance with the Agreement for Mutual Enforcement of Debarment Decisions between the World Bank and other development banks. Further, we are not ineligible under the Employer's Country laws or official regulations or pursuant to a decision of the United Nations Security Council.
- (i) **State-owned enterprise or institution:** We are not a state-owned enterprise, or institution/ We are a state-owned enterprise or institution but meet the requirements of ITB 4.6²;
- (j) **Binding Contract:** We understand that this Bid, together with your written acceptance thereof included in your Letter of Acceptance, shall constitute a binding contract between us, until a formal contract is prepared and executed.
- (k) **Not Bound to Accept:** We understand that you are not bound to accept the Most Advantageous Bid or any other Bid that you may receive; and
- (l) **Fraud and Corruption:** We hereby certify that we have taken steps to ensure that no person acting for us or on our behalf engages in any type of Fraud and Corruption; and
- (m) **Adjudicator:** We accept the appointment of *[insert name proposed in Bid Data Sheet]* as the Adjudicator.

[or]

We do not accept the appointment of *[insert name proposed in Bid Data Sheet]* as the Adjudicator and propose instead that *[insert name]* be appointed³ as Adjudicator, whose daily fees and biographical data are attached.

Name of the Bidder: **[insert complete name of person signing the Bid]*

Name of the person duly authorized to sign the Bid on behalf of the Bidder:***[insert complete name of person duly authorized to sign the Bid]*

Title of the person signing the Bid: *[insert complete title of the person signing the Bid]*

² Use one of the two options as appropriate

³ In case appointment of Adjudicator was proposed from the list provided by an Institution in ITB 51, the replacement should also be proposed from the list of same institution.

Signature of the person named above: *[insert signature of person whose name and capacity are shown above]*

Date signed *[insert date of signing]* **day of** *[insert month]*, *[insert year]*

*: In the case of the Bid submitted by joint venture specify the name of the Joint Venture as Bidder

** : Person signing the Bid shall have the power of attorney given by the Bidder to be attached with the Bid

Technical Proposal

Technical Proposal Forms

- **Design Methodology**
- **Work Management Strategy**
- **Key Personnel Schedule**
- **Equipment**
- **Site Organization**
- **Method Statement**
- **Mobilization Schedule**
- **Work Schedule**
- **ES Management Strategies and Implementation Plans**
- **Code of Conduct for Contractor's Personnel (ES)**
- **Sub-contracting elements or works which in aggregate adds to more than 10% of Bid price (for each the qualifications and experiences on the identified subcontractor in the relevant field should be given)**

Note: Work should not be split into small parts and sub-contracted; but sub-contracting specialized elements of works is acceptable.

- **Others**
- **Bidder's Qualification**
- **Form of Bid Security - Bank Guarantee**
- **Form of Bid-Securing Declaration**

Appendix to Technical Part

Design Methodology

The Bidder shall submit a design methodology which addresses as a minimum the following:

- (a) organizational arrangements for the design including: team structure, roles and responsibilities, interface arrangements, design review and approval procedures and quality assurance arrangements;
- (b) Proposed design deliverables *in line with provision stipulated in 'Design and Engineering Phase' requirement mentioned in Section VII Scope of Work including but not limited to Egnagement of resources, processing capacity design, capacity of Machinery, Forward Linkages, Leachate Management, Storm Water Management, Site Profiling after completion of Work*
- (c) design statement setting out how the Employers Requirements will be achieved;
- (d) Any added value the Bidder will bring including examples of innovative aspects of the design;
- (e) comments on the Employer's Requirements, including:
 - i. status of the information available and relevant design issues for the Works;
 - ii. comments on any errors, defects or ambiguities noted in the Employer's Requirements; and
 - iii. *[details of any exceptions in the conceptual design taken to the Employer's Requirements];*
- (f) Sustainable Procurement: sustainability aspects (e.g. energy efficiency, reduction of wastages, material reduction, sources of materials etc.) demonstrating the Bidder's approach and commitment to sustainable design and work execution practices;
- (g) strategy for gathering baseline ES information in time to inform design development;
- (h) details of how the ES requirements, and any proposal to enhance ES outcomes, will be incorporated into all design stages, and how the implications for the execution phase has been considered;
- (i) details of the approach to managing risks, stakeholder engagement, consultation and environmental permits/consents;
- (j) value engineering (value management) arrangements, including consideration of ES issues; and
- (k) *[modify/include any other relevant information, as appropriate.]*

Appendix to Technical Part

Work Management Strategy

The Bidder shall submit a Work management strategy which addresses as a minimum:

- (a) organizational arrangements for the Work management including: team structure, roles and responsibilities, interface arrangements, approval procedures and quality assurance arrangements (including each site);
- (b) subcontractor selection and management;
- (c) proposals for training all personnel attending site;
- (d) stakeholder engagement;
- (e) obtaining and managing consents, permits and approvals;
- (f) site setup proposals including access, accommodation, welfare facilities, arrangement for plant and material storage;
- (g) Work execution phasing proposals including sequence of work at each site and management of conflicting activities (time is the essence);
- (h) ensuring that geotechnical investigations or other advance works meet the ES requirements;
- (i) risk management approach for geotechnical and subsurface aspects of the Works;
- (j) quality management system including a draft of the quality management plan;
- (k) sustainability aspects demonstrating the Bidder's approach and commitment to sustainable work execution practices (e.g. energy efficiency, reduction of wastages, material reduction and sources of materials etc.);
- (l) preparation, approval (before start of any subproject related activities on sites) and implementation of the Contractor's environmental and social management plan (C-ESMP) (specific to each dumpsite, updating the EIA to reflect impacts and risks of actual work plan, and method; & ESMP presented in annexure)
- (m) preparation, approval and implementation of the Contractor's health and safety manual;
- (n) grievance redress mechanisms, ICC
- (o) reporting arrangements, including topics (that include ES) and timescales in accordance with the Particular Conditions – Part B Sub-Clause 4.20;
- (p) Reporting arrangements for MIS tool for labor management/compliance provided by KSWMP
- (q) arrangements for testing upon completion of the works;
- (r) arrangements for site handover, including completion as per work plan, preparation of operation and maintenance manuals, and any other relevant aspects; and
- (s) Provide for Plan B (ex-situ processing of waste including transportation, processing, disposal/resued of recovered fractions etc at no additional cost to the authority)

Appendix to Technical Part

Key Personnel Schedule

Forms for Personnel

Form PER – 1: Key Personnel Schedule

Bidders should provide the names and details of the suitably qualified Key Personnel to perform the Contract. The data on their experience should be supplied using the Form PER-2 below for each candidate.

Key Personnel

1.	Title of position:	
	Name of candidate:	
	Duration of appointment:	<i>[insert the whole period (start and end dates) for which this position will be engaged]</i>
	Time commitment for this position:	<i>[insert the number of days/week/months/ that has been scheduled for this position]</i>
	Expected time schedule for this position:	<i>[insert the expected time schedule for this position (e.g. attach high level Gantt chart)]</i>
2.	Title of position:	
	Name of candidate:	
	Duration of appointment:	<i>[insert the whole period (start and end dates) for which this position will be engaged]</i>
	Time commitment for this position:	<i>[insert the number of days/week/months/ that has been scheduled for this position]</i>
	Expected time schedule for this position:	<i>[insert the expected time schedule for this position (e.g. attach high level Gantt chart)]</i>
3.	Title of position:	
	Name of candidate:	
	Duration of appointment:	<i>[insert the whole period (start and end dates) for which this position will be engaged]</i>
	Time commitment for this position:	<i>[insert the number of days/week/months/ that has been scheduled for this position]</i>
	Expected time schedule for this position:	<i>[insert the expected time schedule for this position (e.g. attach high level Gantt chart)]</i>
4.	Title of position:	

	Name of candidate:	
	Duration of appointment:	<i>[insert the whole period (start and end dates) for which this position will be engaged]</i>
	Time commitment for this position:	<i>[insert the number of days/week/months/ that has been scheduled for this position]</i>
	Expected time schedule for this position:	<i>[insert the expected time schedule for this position (e.g. attach high level Gantt chart)]</i>
5.	Title of position: <i>e[Where a Project SEA risks are assessed to be substantial or high, Key Personnel shall include an expert with relevant experience in addressing sexual exploitation, sexual abuse and sexual harassment cases]</i>	
	Name of candidate:	
	Duration of appointment:	<i>[insert the whole period (start and end dates) for which this position will be engaged]</i>
	Time commitment for this position:	<i>[insert the number of days/week/months/ that has been scheduled for this position]</i>
	Expected time schedule for this position:	<i>[insert the expected time schedule for this position (e.g. attach high level Gantt chart)]</i>
6.	Title of position:	
	Name of candidate	
	Duration of appointment:	<i>[insert the whole period (start and end dates) for which this position will be engaged]</i>
	Time commitment for this position:	<i>[insert the number of days/week/months/ that has been scheduled for this position]</i>
	Expected time schedule for this position:	<i>[insert the expected time schedule for this position (e.g. attach high level Gantt chart)]</i>

Appendix to Technical Part

Form PER-2:

Resume and Declaration

Key Personnel

Name of Bidder

Position [#1]: <i>[title of position from Form PER-1]</i>											
Personnel information	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%; padding: 5px;">Name:</td> <td style="width: 50%; padding: 5px;">Date of birth:</td> </tr> <tr> <td style="padding: 5px;">Address:</td> <td style="padding: 5px;">E-mail:</td> </tr> <tr> <td colspan="2" style="padding: 5px;">Professional qualifications:</td> </tr> <tr> <td colspan="2" style="padding: 5px;">Academic qualifications:</td> </tr> <tr> <td colspan="2" style="padding: 5px;">Language proficiency:<i>[language and levels of speaking, reading and writing skills]</i></td> </tr> </table>	Name:	Date of birth:	Address:	E-mail:	Professional qualifications:		Academic qualifications:		Language proficiency: <i>[language and levels of speaking, reading and writing skills]</i>	
Name:	Date of birth:										
Address:	E-mail:										
Professional qualifications:											
Academic qualifications:											
Language proficiency: <i>[language and levels of speaking, reading and writing skills]</i>											
details	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td colspan="2" style="padding: 5px;">Address of employer:</td> </tr> <tr> <td style="width: 50%; padding: 5px;">Telephone:</td> <td style="width: 50%; padding: 5px;">Contact (manager / personnel officer):</td> </tr> <tr> <td style="padding: 5px;">Fax:</td> <td style="padding: 5px;"></td> </tr> <tr> <td style="padding: 5px;">Job title:</td> <td style="padding: 5px;">Years with present employer:</td> </tr> </table>	Address of employer:		Telephone:	Contact (manager / personnel officer):	Fax:		Job title:	Years with present employer:		
Address of employer:											
Telephone:	Contact (manager / personnel officer):										
Fax:											
Job title:	Years with present employer:										

Summarize professional experience in reverse chronological order. Indicate particular technical and managerial experience relevant to the project.

Project	Role	Duration of involvement [From - To]	Relevant experience
<i>[main project details]</i>	<i>[role and responsibilities on the project]</i>	<i>[time in role]</i>	<i>[describe the experience relevant to this position]</i>

Declaration

I, the undersigned Key Personnel, certify that to the best of my knowledge and belief, the information contained in this Form PER-2 correctly describes myself, my qualifications and my experience.

I confirm that I am available as certified in the following table and throughout the expected time schedule for this position as provided in the Bid:

Commitment	Details
Commitment to duration of contract:	<i>[insert period (start and end dates) for which this Key Personnel is available to work on this contract]</i>
Time commitment:	<i>[insert the number of days/week/months/ that this Key Personnel will be engaged]</i>

I understand that any misrepresentation or omission in this Form may:

- (a) be taken into consideration during Bid evaluation;
- (b) result in my disqualification from participating in the Bid;
- (c) result in my dismissal from the contract.

Name of Key Personnel: *[insert name]*

Signature: _____

Date: (day month year): _____

Countersignature of authorized representative of the Bidder:

Signature: _____

Date: (day month year): _____

Appendix to Technical Part: Equipment

Forms for Equipment

The Bidder shall provide adequate information to demonstrate clearly that it has the capability to meet the requirements for the key equipment listed in Section III (Evaluation and Qualification Criteria). A separate Form shall be prepared for each item of equipment listed, or for alternative equipment proposed by the Bidder. The Bidder shall provide all the information requested below, to the extent possible. Fields with asterisk (*) shall be used for evaluation.

Type of Equipment*		
Equipment Information	Name of manufacturer,	Model and power rating
	Capacity*	Year of manufacture*
Current Status	Current location	
	Details of current commitments	
Source	Indicate source of the equipment <input type="checkbox"/> Owned <input type="checkbox"/> Rented <input type="checkbox"/> Leased <input type="checkbox"/> Specially manufactured	

The following information shall be provided only for equipment not owned by the Bidder.

Owner	Name of owner	
	Address of owner	
	Telephone	Contact name and title
	Fax	Telex
Agreements	Details of rental / lease / manufacture agreements specific to the project	

Appendix to Technical Part

Site Organization

[Bidder to insert Site Organization information]

Appendix to Technical Part

Method Statement

[insert method Statement – A detailed note should be submitted outlining bidders proposed methodology and program of Work execution including Contractor’s Environmental and Social, Health Management Strategies and Implementation Plans (ES-MSIP), backed with equipment, materials and manpower planning and deployment, duly supported with broad calculations and quality control system/assurance procedures proposed to be adopted, justifying their capability of execution and completion of the work as per technical specifications within the stipulated period of completion as per milestones.

- Equipment and Resource Mobilization
- Legacy Waste Excavation
- Equipment and resource deployment strategy
- Method statement for Biomining operation
- Forward linkage for disposal of Biomining fraction
- Leachate Management
- Fire accident prevention and control
- Dumpsite Gas Management

Appendix to Technical Part

Mobilization Schedule

[insert Mobilization Schedule]

In accordance with the Particular Conditions, Sub-Clause 16.2, the Contractor shall not carry out mobilization to Site unless the Project manager gives consent that appropriate measures are in place to address environmental and social risks and impacts, which as a minimum shall include applying the Management Strategies and Implementation Plans (MSIPs) and Code of Conduct for Contractor's Personnel, submitted as part of the Bid, and agreed as part of the Contract.

Appendix to Technical Part

Work Schedule

[insert Work Schedule]

The Work schedule shall include the following activities and key milestone –

- (a) design of the Works, including the submission of the design deliverables, review, and approval of the design by the Engineer.*
- (b) processes and deliverables needed to commence the Works.*
- (c) execution of the Works within the Time for Completion, highlighting activities imposing constraints on the work sequence.*
- (d) testing, commissioning and handing over of the completed Works.*
- (e) No-objection to the Code of Conduct for Contractor's Personnel and Contractor's MSIPs, and EIA/EMP that shall be updated in line with the Contractors work method & plan / locations for disposal of retrieved wastes (to form the C-ESMP), in accordance with the Particular Conditions of Contract Sub-Clause 16.2.*
- (f) insert any other, as may be appropriate.*

Appendix to Technical Part

Environmental and Social, Health Management Strategies and Implementation Plans

(ES-MSIP)

The Bidder shall submit comprehensive and concise Environmental and Social Management Strategies and Implementation Plans (ES-MSIP) as required by ITB 11.2 (j) of the Bid Data Sheet. These strategies and plans shall describe in detail the actions, materials, equipment, management processes etc.; based on existing site & work conditions. that will be implemented by the Contractor, and its subcontractors. Once on Board, the successful Bidder shall update the existing Environmental Impact Assessment (EIA) and Environmental Management Plan to prepare the C-EMP specific to each dumpsite in line with the contractor's design/work method & schedule for clearance from the Client before initiating any activity on site. The ESMSIPs prepared at this stage shall be useful for the same. The successful bidder shall be responsible for implementing the proposed activities mentioned in the Social Management Plan provided by KSWMP (SPMU) which includes Community health and safety, Labour compliance, Grievance management, ICC, Actions for GBV related issues, compliance with activities to ensure host community wellbeing in case of labour influx , Community consultations and citizen engagement activities (Refer Social Management Plan with Labour management plan, labor influx management plan, GBV action plan and site specific Citizen engagement plan)

In developing these strategies and plans, the Bidder shall have regard to the ES provisions of the contract including those as may be more fully described in the Works Requirements in Section VII.

Appendix to Technical Part

Code of Conduct for Contractor's Personnel (ES) Form

Note to the Bidder:

The minimum content of the Code of Conduct form as set out by the Employer shall not be substantially modified. However, the Bidder may add requirements as appropriate, including to take into account Contract-specific issues/risks.

The Bidder shall initial and submit the Code of Conduct form as part of its bid.

CODE OF CONDUCT FOR CONTRACTOR'S PERSONNEL

We are the Contractor, *[enter name of Contractor]*. We have signed a contract with *[enter name of Employer]* for *[enter description of the Works]*. These Works will be carried out at *[enter the Site and other locations where the Works will be carried out]*. Our contract requires us to implement measures to address environmental and social risks related to the Works, including the risks of sexual exploitation, sexual abuse and sexual harassment.

This Code of Conduct is part of our measures to deal with environmental and social risks related to the Works. It applies to all our staff, laborers and other employees at the Works Site or other places where the Works are being carried out. It also applies to the personnel of each subcontractor and any other personnel assisting us in the execution of the Works. All such persons are referred to as “**Contractor's Personnel**” and are subject to this Code of Conduct.

This Code of Conduct identifies the behavior that we require from all Contractor's Personnel.

Our workplace is an environment where unsafe, offensive, abusive or violent behavior will not be tolerated and where all persons should feel comfortable raising issues or concerns without fear of retaliation.

REQUIRED CONDUCT

Contractor's Personnel shall:

1. carry out his/her duties competently and diligently;
2. comply with this Code of Conduct and all applicable laws, regulations and other requirements, including requirements to protect the health, safety and well-being of other Contractor's Personnel and any other person;
3. maintain a safe working environment including by:
 - a. ensuring that workplaces, machinery, equipment and processes under each person's control are safe and without risk to health;

- b. wearing required personal protective equipment;
 - c. using appropriate measures relating to chemical, physical and biological substances and agents; and
 - d. following applicable emergency operating procedures.
4. report work situations that he/she believes are not safe or healthy and remove himself/herself from a work situation which he/she reasonably believes presents an imminent and serious danger to his/her life or health;
 5. treat other people with respect, and not discriminate against specific groups such as women, people with disabilities, migrant workers or children;
 6. not engage in Sexual Harassment, which means unwelcome sexual advances, requests for sexual favors, and other verbal or physical conduct of a sexual nature with other Contractor's or Employer's Personnel;
 7. not engage in Sexual Exploitation, which means any actual or attempted abuse of position of vulnerability, differential power or trust, for sexual purposes, including, but not limited to, profiting monetarily, socially or politically from the sexual exploitation of another;
 8. not engage in Sexual Abuse, which means the actual or threatened physical intrusion of a sexual nature, whether by force or under unequal or coercive conditions;
 9. not engage in any form of sexual activity with individuals under the age of 18, except in case of pre-existing marriage;
 10. complete relevant training courses that will be provided related to the environmental and social aspects of the Contract, including on health and safety matters, and Sexual Exploitation, and Abuse (SEA) and Sexual Harassment (SH);
 11. report violations of this Code of Conduct; and
 12. not retaliate against any person who reports violations of this Code of Conduct, whether to us or the Employer, or who makes use of the grievance mechanism for Contractor's Personnel or the project's Grievance Redress Mechanism.

RAISING CONCERNS

If any person observes behavior that he/she believes may represent a violation of this Code of Conduct, or that otherwise concerns him/her, he/she should raise the issue promptly. This can be done in either of the following ways:

1. Contact [*enter name of the Contractor's Social Expert with relevant experience in handling gender-based violence, or if such person is not required under the Contract, another individual designated by the Contractor to handle these matters*] in writing at this address [] or by telephone at [] or in person at []; or
2. Call [] to reach the Contractor's hotline (*if any*) and leave a message.

The person's identity will be kept confidential, unless reporting of allegations is mandated by the country law. Anonymous complaints or allegations may also be submitted and will be given all due and appropriate consideration. We take seriously all reports of possible misconduct and

will investigate and take appropriate action. We will provide warm referrals to service providers that may help support the person who experienced the alleged incident, as appropriate.

There will be no retaliation against any person who raises a concern in good faith about any behavior prohibited by this Code of Conduct. Such retaliation would be a violation of this Code of Conduct.

CONSEQUENCES OF VIOLATING THE CODE OF CONDUCT

Any violation of this Code of Conduct by Contractor's Personnel may result in serious consequences, up to and including termination and possible referral to legal authorities.

FOR CONTRACTOR'S PERSONNEL:

I have received a copy of this Code of Conduct written in a language that I comprehend. I understand that if I have any questions about this Code of Conduct, I can contact [*enter name of Contractor's contact person with relevant experience*] requesting an explanation.

Name of Contractor's Personnel: [insert name]

Signature: _____

Date: (day month year): _____

Countersignature of authorized representative of the Contractor:

Signature: _____

Date: (day month year): _____

ATTACHMENT 1: Behaviors constituting Sexual Exploitation and Abuse (SEA) and behaviors constituting Sexual Harassment (SH)

ATTACHMENT 1 TO THE CODE OF CONDUCT FORM
BEHAVIORS CONSTITUTING SEXUAL EXPLOITATION AND ABUSE (SEA) AND
BEHAVIORS CONSTITUTING SEXUAL HARASSMENT (SH)

The following non-exhaustive list is intended to illustrate types of prohibited behaviors:

(1) **Examples of sexual exploitation and abuse** include, but are not limited to:

- A Contractor's Personnel tells a member of the community that he/she can get them jobs related to the work site (e.g. cooking and cleaning) in exchange for sex.
- A Contractor's Personnel that is connecting electricity input to households says that he can connect women headed households to the grid in exchange for sex.
- A Contractor's Personnel rapes, or otherwise sexually assaults a member of the community.
- A Contractor's Personnel denies a person access to the Site unless he/she performs a sexual favor.
- A Contractor's Personnel tells a person applying for employment under the Contract that he/she will only hire him/her if he/she has sex with him/her.

(2) **Examples of sexual harassment in a work context**

- Contractor's Personnel comment on the appearance of another Contractor's Personnel (either positive or negative) and sexual desirability.
- When a Contractor's Personnel complains about comments made by another Contractor's Personnel on his/her appearance, the other Contractor's Personnel comment that he/she is "asking for it" because of how he/she dresses.
- Unwelcome touching of a Contractor's or Employer's Personnel by another Contractor's Personnel.
- A Contractor's Personnel tells another Contractor's Personnel that he/she will get him/her a salary raise, or promotion if he/she sends him/her naked photographs of himself/herself.

Others

Appendix to Technical Part
Sub-Contracting

SCHEDULE OF SUBCONTRACTORS

Item	Element of work (Activity/Sub-Activity)	% of bid price	Name and address of sub-contractor	Qualification and experience of sub-contractor on similar works of the elements executed

The Bidder shall enter in this schedule a list of the major sections and appropriate value of the work for which he proposed to use subcontractors [*for those costing more than 10% of the bid price for each element*], together with the names, addresses and experiences of the proposed subcontractors.

The capability of the sub-contractor will also be assessed (on the same lines as for the main Contractor) before according approval to him.

(Work should not be split into small parts and sub-contracted; but sub-contracting specialized elements of works is acceptable).

**Appendix to Technical Part
Others**

Appendix to Technical Part

Bidder's Qualification

To establish its qualifications to perform the contract in accordance with Section III (Evaluation and Qualification Criteria) the Bidder shall provide the information requested in the corresponding Information Sheets included hereunder

Appendix to Technical Part

Form ELI -1.1: Bidder Information Form

Date: _____
 RFB No. and title: _____
 Page _____ of _____ pages

Bidder's legal name
In case of Joint Venture (JV), legal name of each member:
Bidder's actual or intended country of registration: <i>[indicate country of Constitution]</i>
Bidder's actual or intended year of incorporation:
Bidder's legal address [in country of registration]:
Bidder's authorized representative information Name: _____ Address: _____ Telephone/Fax numbers: _____ E-mail address: _____
1. Attached are copies of original documents of <ul style="list-style-type: none"> <input type="checkbox"/> Articles of Incorporation (or equivalent documents of constitution or association), and/or documents of registration of the legal entity named above, in accordance with ITB 4.4. <input type="checkbox"/> Authorization to represent the firm or JV named in above, in accordance with ITB 20. <input type="checkbox"/> In case of JV, letter of intent to form JV or JV agreement, in accordance with ITB 4.1. <input type="checkbox"/> In case of state-owned enterprise or institution, in accordance with ITB 4.6 documents establishing: <ul style="list-style-type: none"> • Legal and financial autonomy • Operation under commercial law • Establishing that the Bidder is not under the supervision of the Employer
2. Included are the organizational chart, a list of Board of Directors, and the beneficial ownership.

Appendix to Technical Part

Form ELI -1.2: Information Form for JV Bidders

(Where permitted as per BDS ITB 4.1)
(to be completed for each member of Joint Venture)

Date: _____
RFB No. and title: _____
Page _____ of _____ pages

JV Information
Bidder's Joint Venture legal name:
JV member's legal name:
JV member's country of registration:
JV member's year of constitution:
JV member's legal address in country of constitution:
JV member's authorized representative information Name: _____ Address: _____ Telephone/Fax numbers: _____ E-mail address: _____
1. Attached are copies of original documents of <ul style="list-style-type: none"> <input type="checkbox"/> Articles of Incorporation (or equivalent documents of constitution or association), and/or registration documents of the legal entity named above, in accordance with ITB 4.4. <input type="checkbox"/> Authorization to represent the firm or JV named in above, in accordance with ITB 20. <input type="checkbox"/> In case of a state-owned enterprise or institution, documents establishing legal and financial autonomy, operation in accordance with commercial law, and is not under the supervision of the Employer, in accordance with ITB 4.6. 2. Included are the organizational chart, a list of Board of Directors, and the beneficial ownership.

Appendix to Technical Part

Form ELI -1.2 A

Specialized Subcontractor's Information Form

(to be completed for each Specialized Subcontractor)

Date: _____

RFB No. and title: _____

Page _____ of _____ pages

Bidder's legal name:

Specialized Subcontractor's legal name:

Specialized Subcontractor's country of registration:

Specialized Subcontractor's year of constitution:

Specialized Subcontractor's legal address in country of constitution:

Specialized Subcontractor's authorized representative information

Name: _____

Address: _____

Telephone/Fax numbers: _____

E-mail address: _____

Attached are copies of original documents of

- Articles of Incorporation (or equivalent documents of constitution or association), and/or registration documents of the legal entity named above, in accordance with ITB 4.4.
- Authorization to represent the Specialized Subcontractor.

Appendix to Technical Part

DETAILS OF PARTICIPATION IN THE JOINT VENTURE

PARTICIPATION DETAILS	FIRM 'A' (Lead Member)	FIRM 'B'	FIRM 'C'
Financial			
Name of the Banker(s)			
Planning			
Equipment			
Key Personnel			
Execution of Work (Give details on proposed contribution of each)			

The Joint Venture should indicate the details of participation as above.

Appendix to Technical Part

Form CON – 2: Historical Contract Non-Performance, Pending Litigation and Litigation History

[to be completed for the Bidder and for each member of a Joint Venture]

Bidder's Name: _____

Date: _____

Joint Venture Member's Name _____

RFB No. and title: _____

Page _____ of _____ pages

Non-Performed Contracts in accordance with Section III, Evaluation and Qualification Criteria			
<input type="checkbox"/> Contract non-performance did not occur since 1 st January <i>[insert year]</i> specified in Section III, Evaluation and Qualification Criteria, Sub-Factor 2.1.			
<input type="checkbox"/> Contract(s) not performed since 1 st January <i>[insert year]</i> specified in Section III, Evaluation and Qualification Criteria, requirement 2.1			
Year	Non-performed portion of contract	Contract Identification	Total Contract Amount (Rs.)
<i>[insert year]</i>	<i>[insert amount and percentage]</i>	Contract Identification: <i>[indicate complete contract name/ number, and any other identification]</i> Name of Employer: <i>[insert full name]</i> Address of Employer: <i>[insert street/city/country]</i> Reason(s) for non-performance: <i>[indicate main reason(s)]</i>	<i>[insert amount]</i>
Pending Litigation, in accordance with Section III, Evaluation and Qualification Criteria			
<input type="checkbox"/> No pending litigation in accordance with Section III, Evaluation and Qualification Criteria, Sub-Factor 2.3.			
<input type="checkbox"/> Pending litigation in accordance with Section III, Evaluation and Qualification Criteria, Sub-Factor 2.3 as indicated below.			

Year of dispute	Amount in dispute (Rs.)	Contract Identification	Total Contract Amount (Rs.)
<i>[insert year]</i>	<i>[insert amount]</i>	Contract Identification: [indicate complete contract name, number, and any other identification] Name of Employer: <i>[insert full name]</i> Address of Employer: <i>[insert street/city/country]</i> Matter in dispute: <i>[indicate main issues in dispute]</i> Party who initiated the dispute: <i>[indicate "Employer" or "Contractor"]</i> Status of dispute: <i>[Indicate if it is being treated by the Adjudicator, under Arbitration or being dealt with by the Judiciary]</i>	<i>[insert amount]</i>
<i>[insert year]</i>	<i>[insert amount]</i>	Contract Identification: [indicate complete contract name, number, and any other identification] Name of Employer: <i>[insert full name]</i> Address of Employer: <i>[insert street/city/country]</i> Matter in dispute: <i>[indicate main issues in dispute]</i> Party who initiated the dispute: <i>[indicate "Employer" or "Contractor"]</i> Status of dispute: <i>[Indicate if it is being treated by the Adjudicator, under Arbitration or being dealt with by the Judiciary]</i>	<i>[insert amount]</i>
Litigation History in accordance with Section III, Evaluation and Qualification Criteria			
<input type="checkbox"/> No Litigation History in accordance with Section III, Evaluation and Qualification Criteria, Sub-Factor 2.4. <input type="checkbox"/> Litigation History in accordance with Section III, Evaluation and Qualification Criteria, Sub-Factor 2.4 as indicated below.			

Year of award	Outcome as percentage of Net Worth	Contract Identification	Total Contract Amount (Rs.)
<i>[insert year]</i>	<i>[insert percentage]</i>	Contract Identification: [indicate complete contract name, number, and any other identification] Name of Employer: <i>[insert full name]</i> Address of Employer: <i>[insert street/city/country]</i> Matter in dispute: <i>[indicate main issues in dispute]</i> Party who initiated the dispute: <i>[indicate "Employer" or "Contractor"]</i> Reason(s) for Litigation and award decision <i>[indicate main reason(s)]</i>	<i>[insert amount]</i>

Appendix to Technical Part

Form CON – 3: Environmental and Social (ES) Performance Declaration

[The following table shall be filled in for the Bidder, each member of a Joint Venture and each Specialized Subcontractor]

Bidder's Name: _____ *[insert full name]*
 Date: _____ *[insert day, month, year]*
 Joint Venture Member's or Specialized Subcontractor's Name: _____ *[insert full name]*
 RFB No. and title: _____ *[insert RFB number and title]*
 Page _____ *[insert page number]* of _____ *[insert page number]* pages

Environmental and Social Performance Declaration in accordance with Section III, Qualification Criteria, and Requirements			
<input type="checkbox"/> No suspension or termination of contract: An employer has not suspended or terminated a contract and/or called the performance security for a contract for reasons related to Environmental or Social (ES) performance since the date specified in Section III, Qualification Criteria, and Requirements, Sub-Factor 2.5.			
<input type="checkbox"/> Declaration of suspension or termination of contract: The following contract(s) has/have been suspended or terminated and/or Performance Security called by an employer(s) for reasons related to Environmental or Social (ES) performance since the date specified in Section III, Qualification Criteria, and Requirements, Sub-Factor 2.5. Details are described below:			
Year	Suspended or terminated portion of contract	Contract Identification	Total Contract Amount (Rs.)
<i>[insert year]</i>	<i>[insert amount and percentage]</i>	Contract Identification: <i>[indicate complete contract name/ number, and any other identification]</i> Name of Employer: <i>[insert full name]</i> Address of Employer: <i>[insert street/city/country]</i> Reason(s) for suspension or termination: <i>[indicate main reason(s) e.g. for gender-based violence; sexual exploitation or sexual abuse breaches]</i>	<i>[insert amount]</i>
<i>[insert year]</i>	<i>[insert amount and percentage]</i>	Contract Identification: <i>[indicate complete contract name/ number, and any other identification]</i> Name of Employer: <i>[insert full name]</i> Address of Employer: <i>[insert street/city/country]</i>	<i>[insert amount]</i>

		Reason(s) for suspension or termination: <i>[indicate main reason(s)]</i>	
...	...	<i>[list all applicable contracts]</i>	...
Performance Security called by an employer(s) for reasons related to ES performance			
Year	Contract Identification		Total Contract Amount (Rs.)
<i>[insert year]</i>	Contract Identification: <i>[indicate complete contract name/ number, and any other identification]</i> Name of Employer: <i>[insert full name]</i> Address of Employer: <i>[insert street/city/country]</i> Reason(s) for calling of performance security: <i>[indicate main reason(s) e.g. for gender-based violence; sexual exploitation or sexual abuse breaches]</i>		<i>[insert amount]</i>

Appendix to Technical Part

Form CCC: Current Contract Commitments / Works in Progress

Bidders and each member of a JV should provide information on their current commitments on all contracts that have been awarded, or for which a letter of intent or acceptance has been received, or for contracts approaching completion, but for which an unqualified, full completion certificate has yet to be issued.

(A) Existing commitments and on-going works:

Description of Work	Place & State	Contract No. & Date	Name and Address of Employer	Value of Contract (Rs. equivalent in million)	Stipulated period of completion	Value of works ¹ remaining to be completed (Rs. equivalent in million)	Anticipated date of completion	Average Monthly Invoicing Over Last Six Months (Rs./month) Equivalent in millions)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)

(B) Works for which bids already submitted and likely to be awarded – expected additional commitment.

¹ Attach certificate(s) from the Engineer(s)-in-Charge.

Description of Work	Place & State	Name and Address of Employer	Estimated value of Works (Rs. equivalent in million)	Stipulated period of completion	Date when decision is expected	Remarks, if any
(1)	(2)	(3)	(4)	(5)	(6)	(7)

Appendix to Technical Part

Form FIN – 3.1: Financial Situation and Performance

[To be completed by the Bidder and by each member of a Joint Venture]

Bidder's Legal Name: _____

Date: _____

Joint Venture Member's Legal Name _____

RFB No. and title: _____

Page _____ of _____ pages

1. Financial data

Type of Financial information in (Rs.)	Historic information for previous _____ years, _____ (amount in Rs.)				
	Year 1	Year 2	Year 3	Year 4	Year 5
Statement of Financial Position (Information from Balance Sheet)					
Total Assets (TA)					
Total Liabilities (TL)					
Total Equity/Net Worth (NW)					
Current Assets (CA)					
Current Liabilities (CL)					
Working Capital (WC)					
Information from Income Statement					
Total Revenue (TR)					
Profits Before Taxes (PBT)					
Cash Flow Information					

Cash Flow from Operating Activities					
This information should be extracted from the Annual Financial Statements/ Balance sheets, which should be enclosed. Year 1 will be the latest year for which audited financial statements are available. Year 2 shall be the year immediately preceding year 1 and year 3 shall be the year immediately preceding Year 2.					

2. Sources of Finance

Specify sources of finance to meet the cash flow requirements on works currently in progress and for future contract commitments.

No.	Source of finance	Amount (Rs.)
1		
2		
3		

3. Financial documents

The Bidder and its parties shall provide copies of financial statements for *Five (5)* years pursuant Section III, Evaluation and Qualifications Criteria, Sub-factor 3.2. The financial statements shall:

- (a) reflect the financial situation of the Bidder or in case of JV member, and not an affiliated entity (such as parent company or group member).
- (b) be independently audited or certified in accordance with local legislation. In case of Indian bidders, the financial statements shall be audited by a certified chartered accountant.
- (c) be complete, including all notes to the financial statements.
- (d) correspond to accounting periods already completed and audited.

Attached are copies of financial statements¹ (balance sheets, including all related notes, and income statements) for the _____ years required above; and complying with the requirements

¹ If the most recent set of financial statements is for a period earlier than 12 months from the date of bid, the reason for this should be justified.

Appendix to Technical Part
Form FIN - 3.2: Average Annual Turnover

[To be completed by the Bidder and by each member of a Joint Venture]

Bidder's Legal Name: _____

Date: _____

Joint Venture Member's Legal Name _____

RFB No. and title: _____

Page _____ of _____ pages

Annual turnover data	
Year	Amount in Rs.
<i>[indicate year]</i>	<i>[insert amount]</i>
Average Annual Turnover *	

* See Section III, Evaluation and Qualification Criteria, Sub-Factor 3.2. Annual turnover calculated as total certified payments received for work in progress or completed, for 5 years. This should be certified by a Chartered Accountant.

Appendix to Technical Part JOINT VENTURE

Names of all members of a joint venture
1. Member in charge
2. Member
3. Member

Total value of annual turnover, in terms of work billed to clients, in Rupees

Annual Turnover Data (in Rs. *)							
Member	Form 3.2 page no.	Year 1	Year 2	Year 3	Year 4	Year 5	Average
1. Member in charge							
2. Member							
3. Member							
TOTALS							

*** To be certified by a chartered accountant**

Name and address of Bankers to the Joint Venture

Provide details regarding financial responsibility and participation (percentage share in the total) of each firm in the Joint Venture. Attach a Memorandum of Understanding for the Proposed Agreement of joint Venture which should lay down responsibility regarding work and financial arrangements in respect of each of the firm in the Joint Venture (Refer also ITB Clause 4.1).

Appendix to Technical Part

Form FIN - 3.3: Financial Resources

Specify proposed sources of financing, such as liquid assets, unencumbered real assets, lines of credit, and other financial means, net of current commitments, available to meet the total Work execution cash flow demands of the subject contract or contracts as specified in Section III, Evaluation and Qualification Criteria.

Source of financing	Amount (Rs.)
1.	
2.	
3.	
4.	

FORMAT FOR EVIDENCE OF ACCESS TO OR AVAILABILITY OF CASH FLOW

[To be given from a Nationalized or Scheduled Bank in India]

Clause 3.1(ii) of Section III – Qualification Criteria

(1) AVAILABILITY OF CASH FLOW (WORKING CAPITAL)

This is to certify that M/s. _____ is a reputed company with a good financial standing.

If the contract for the works, namely _____ [funded by the World Bank] is awarded to the above firm, we shall be able to provide overdraft/credit facilities to the extent of Rs. equivalent _____ to meet their capital requirements for executing the above contract.

-- Sd. --

Name of Bank Manager

Senior Bank Manager

Address of the Bank

*** Change the text as follows for Joint venture:**

This is to certify that M/s. who has formed a JV with M/s. and M/s. for participating in this bid, is a reputed company with a good financial standing.

If the contract for the work, namely [funded by the World Bank] is awarded to the above Joint Venture, we shall be able to provide overdraft/credit facilities to the extent of Rs. to meet the working capital requirements for executing the above contract.

[This should be given by the JV members in proportion to their financial participation.]

Appendix to Technical Part

Form EXP - 4.1(a) Not Applicable

Form EXP - 4.1(b) Specific Design Experience

[The following table shall be filled in for contracts performed by the Bidder, each member of a Joint Venture, and Specialized Sub-contractors]

Bidder's Name: *[insert full name]*

Date: *[insert day, month, year]*

Joint Venture Member Name: *[insert full name]*

RFB No. and title: *[insert RFB number and title]*

Page *[insert page number]* of *[insert total number]* pages

Similar Contract No. <i>[insert number] of [insert number of similar contracts required]</i>	Information			
Contract Identification	<i>[insert contract name and number, if applicable]</i>			
Award date	<i>[insert day, month, year]</i>			
Completion date	<i>[insert day, month, year]</i>			
Role in Contract <i>[check the appropriate boxes]</i>	Prime Contractor <input type="checkbox"/>	Member in JV/ Consortium <input type="checkbox"/>	Sub-Contractor <input type="checkbox"/>	Other <input type="checkbox"/>
Total Contract Amount (In INR)	<i>[[insert Exchange rate and total contract amount in INR equivalent, if contract-amount is in foreign currency] *</i>		US\$ <i>[insert Exchange rate and total contract amount in US\$ equivalent] *</i>	
If member in a JV or sub-contractor, specify share in value in total Contract amount and roles and responsibilities	<i>[insert a percentage amount]</i>			
	<i>[insert roles and responsibilities]</i>			
Description of the similarity in accordance with Section III Table 1,				

4.1(b) including brief scope of work in the contract	
Physical size of required contracts items	
Total Legacy Waste Quantity as per contract (M ³ / MT)	
Per day Legacy Waste Processing Capacity (M ³ / Day)	
Description of design and detailed engineering work undertaken-	(e.g. Survey, quantity assessment, detailed design and engineering documentation/ report, work plan, implementation schedule etc.)
Methods/Technology	<i>[insert specific aspects of the methods/technology involved in the contract]</i>
Other Characteristics	<i>[insert other characteristics as described in Section VII, Scope of Employer's Requirements]</i>
Employer's Name:	<i>[insert full name]</i>
Address:	<i>[indicate street / number / town or city / country]</i>
Telephone/fax number	<i>[insert telephone/fax numbers, including country and city area codes]</i>
E-mail:	<i>[insert e-mail address, if available]</i>

* Refer ITB for date and source of exchange rate.

Form EXP - 4.2: Not Applicable

Appendix to Technical Part Form EXP - 4.3(a): Specific Work and Contract Management Experience

[The following table shall be filled in for contracts performed by the Bidder, each member of a Joint Venture, and specialist sub-contractors]

Bidder's Legal Name: _____

Date: _____

Joint Venture Member's Legal Name _____

RFB No. and title: _____

Page _____ of _____ pages

Work performed as prime Contractor or JV Member or Sub-Contractor or Management Contractor (in the same name and style) on construction works of a similar nature and volume over the last five years¹. [Attach certificate from the Engineer-in-charge.]

Similar Contract No.	Information			
Contract Identification				
Award date				
Completion date				
Role in Contract	Prime Contractor <input type="checkbox"/>	Member in JV <input type="checkbox"/>	Management Contractor <input type="checkbox"/>	Sub-contractor <input type="checkbox"/>
Total Contract Amount	Rs. _____			
If member in a JV or consortium, specify participation (%) in total Contract amount				
Employer's Name:				
Address:				
Telephone/fax number				

E-mail:	
---------	--

**Appendix to Technical Part
Form EXP - 4.3(a) (cont.)
Specific Work and Contract Management Experience (cont.)**

Similar Contract No.	Information
Description of the similarity in accordance with Sub-Factor 4.3(a) of Section III:	
brief Scope of work of the Contractor in the Project, in accordance with sub-factor 4.3 (a)	
Value of Completed Work (In INR)	
2. Physical size of required works items-Quantity of Legacy Waste as per contract) Project Award Date Quantity of Legacy Waste Processed till due date of Bid submission	
3. Complexity	
4. Methods/Technology	
5. Processing rate per day for biomining of Legacy Waste	
6. Other Characteristics	

Appendix to Technical Part

Form EXP - 4.3(b): Work Experience in Key Activities

Bidder's Legal Name: _____

Date: _____

Joint Venture Member's Legal Name _____

Subcontractor's Legal Name² (as per ITB 33.2 and 33.3): _____

RFB No. and title: _____

Page _____ of _____ pages

Subcontractor's Name (as per ITB 33.2 and 33.3): _____

All subcontractors for key activities must complete the information in this form as per ITB 33.2 and 33.3 and Section III, Qualification Criteria and Requirements, Sub-Factor 4.3.

1. Key Activity No One: _____

	Information			
Contract Identification				
Award date				
Completion date				
Role in Contract	Prime Contractor <input type="checkbox"/>	Member in JV <input type="checkbox"/>	Management Contractor <input type="checkbox"/>	Sub- contractor <input type="checkbox"/>
Total Contract Amount	Rs.			
Total Legacy Waste Quantity to be processed through biomining and bioremediation (M3)				
Per day Legacy Waste Processing capacity through biomining and bioremediation (M3/day)				
Legacy Waste Processed through biomining and bioremediation	Year (Last 5 years from bid submission due date)		Legacy Waste Quantity processed/ Annum	
	Year 1			
	Year 2			
	Year 3			

² If applicable.

	Year 4	
	Year 5	
	Average Legacy Waste Processed per Annum	
	Per day Processing capacity (Av. Legacy Waste processed per annum/ 365)	
Disposal of Refused Derived Fuel (RDF) recovered from the Project	Year (Last 5 years from bid submission due date)	RDF disposed per annum
	Year 1	
	Year 2	
	Year 3	
	Year 4	
	Year 5	
	Average RDF disposed per Annum	

	Information
Employer's Name ³ :	
Address:	
Telephone/fax number	
E-mail:	

³ Attach certificate from the Client issued by an officer not less that Executive Engineer in rank

Appendix to Technical Part

Form EXP - 4.3(c)

Specific Experience in Managing ES aspects

[The following table shall be filled in for contracts performed by the Bidder, and each member of a Joint Venture]

Bidder's Name: _____

Date: _____

Bidder's JV Member Name: _____

RFB No. and title: _____

Page _____ of _____ pages

1. Key Requirement no 1 in accordance with 4.3 (c): _____

Contract Identification				
Award date				
Completion date				
Role in Contract	Prime Contractor <input type="checkbox"/>	Member in JV <input type="checkbox"/>	Management Contractor <input type="checkbox"/>	Subcontractor <input type="checkbox"/>
Total Contract Amount			Rs.	
Details of relevant experience				

2. Key Requirement no 2 in accordance with 4.3 (c): _____

3. Key Requirement no 3 in accordance with 4.3 (c): _____

4.

5.

...

Appendix to Technical Part

Form.....

(Name of the Project)

(Declaration regarding tax/duty exemption for materials/ equipment bought for the work)

(Bidder's Name and Address)

To:
(Name of the Employer & address)

Dear Sir:

Re: [Name of Work]

Certificate for Import/Procurement of Goods/ Equipment

Government Order/Circular Number under which tax/duty Exemption is being sought: ...

1. We confirm that we are solely responsible for obtaining tax/duty waivers which we have considered in our bid and in case of failure to receive such waivers for reasons whatsoever, the employer will not compensate us.
2. We are furnishing below the information required by the Employer for issue of the necessary certificates in terms of the Government of India's relevant Notifications.
3. The goods/ equipment for which certificates are required are as under:

Items <i>(modify the list suitably for each specific work)*</i>	Make/ Brand Name	Capacity <i>[where applicable]</i>	Quantity	Value	State whether it will be procured locally or imported <i>[if so from which country]</i>	Remarks regarding justification for the quantity and their usage in works.
Goods (if applicable)						
Equipment						

4. We agree that no modification to the above list is permitted after bids are opened.

-
5. We agree that the certificate will be issued only to the extent considered reasonable by the Employer for the work, based on the Schedule of Activities and the Work program and methodology as furnished by us along with the bid.
6. We confirm that the above goods and equipment will be exclusively used for the execution of the above work and the equipment will not be sold or otherwise disposed of in any manner for a period of five years from the date of acquisition.

Date: _____

(Signature) _____

Place: _____

(Printed Name) _____

(Designation) _____

(Common Seal) _____

[This certificate will be issued within 60 days of signing of contract and no subsequent changes will be permitted.]

**** Modify the above to suit the requirements given in Government of India's Notifications as current of date of bidding.***

Appendix to Technical Part: Bid Security

Form of Bid Security - Bank Guarantee

[Guarantor letterhead or SWIFT identifier code]

Bank Guarantee No..... [insert guarantee reference number]

Date..... [insert date of issue of the guarantee]

WHEREAS, _____ [name of Bidder]⁴ (hereinafter called "the Applicant") has submitted his Bid dated _____ [date] or will submit his Bid for the construction of _____ [name of Contract] (hereinafter called "the Bid") under Request for Bids No.....[insert number] (hereinafter called "the RFB")

KNOW ALL PEOPLE by these presents that We _____ [name of bank] of _____ [name of country] having our registered office at _____ (hereinafter called "the Bank") are bound unto _____ [name of Employer] (hereinafter called "the Employer") in the sum of _____⁵ for which payment well and truly to be made to the said Employer the Bank binds itself, his successors and assigns by these presents.

SEALED with the Common Seal of the said Bank this _____ day of _____ 20____.

THE CONDITIONS of this obligation are:

(1) If after Bid opening the Applicant (a) withdraws his bid during the period of Bid validity specified in the Letter of Bid, or any extended date provided by the Applicant ("the Bid Validity Period"); or (b) does not accept the correction of the Bid Price pursuant to ITB 36;

Or

(2) If the Applicant having been notified of the acceptance of his bid by the Employer during the period of Bid validity:

(a) fails or refuses to execute the Contract Agreement in accordance with the Instructions to Bidders, if required; or

⁴ Insert name of the Bidder, which in the case of a joint venture shall be (a) the name of the joint venture that submits the bid if the JV has been constituted into a legally enforceable JV, or (b) the names of all future members of the JV as named in the letter of intent to execute the JV Agreement submitted by the bidder along with its bid.

⁵ The Applicant should insert the amount of the guarantee in words and figures denominated in Indian Rupees. This figure should be the same as shown in Clause 19.1 of the Instructions to Bidders.

- (b) fails or refuses to furnish the Performance Security and if required, the Environmental and Social (ES) Performance Security, in accordance with the Instruction to Bidders.

we undertake to pay to the Employer up to the above amount upon receipt of his first written demand, without the Employer having to substantiate his demand, provided that in his demand the Employer will note that the amount claimed by him is due to him owing to the occurrence of one or any of the four conditions, specifying the occurred condition or conditions.

This Guarantee will remain in force up to and including the date _____ ⁶days after the deadline for submission of Bids as such deadline is stated in the Instructions to Bidders or as it may be extended by the Employer, notice of which extension(s) to the Bank is hereby waived. Any demand in respect of this guarantee should reach the Bank not later than the above date.

DATE _____ SIGNATURE OF THE BANK _____

WITNESS _____ SEAL _____

[signature, name, and address]

Note: All italicized text (including footnotes) is for use in preparing this form and shall be deleted from the final product.

⁶ 45 days after the end of the validity period of the Bid.

Letter of Bid - Financial Part

INSTRUCTIONS TO BIDDERS: DELETE THIS BOX ONCE YOU HAVE COMPLETED THE DOCUMENT

The Bidder must prepare this Letter of Bid on stationery with its letterhead clearly showing the Bidder's complete name and business address.

Note: All italicized text is to help Bidders in preparing this form.

Date of this Bid submission: *[insert date (as day, month and year) of Bid submission]*

Request for Bid No.: *[insert identification]*

Alternative No.⁷: *[insert identification No if this is a Bid for an alternative]*

To: *[insert complete name of Employer]*

We, the undersigned, hereby submit the second part of our Bid, the Bid Price and Schedule of Price Activities and Sub-Activities. This accompanies the Letter of Bid - Technical Part.

In submitting our Bid, we make the following additional declarations:

- (a) **Bid Validity Period:** Our Bid shall be valid for a period specified in BDS 18.1 (or as amended if applicable) from the date fixed for the Bid submission deadline specified in BDS 22.1 (or as amended if applicable), and it shall remain binding upon us and may be accepted at any time before the expiration of that period;
- (b) **Bid Price:** The total price of our Bid, excluding any discounts offered in item (c) below is: *[Insert one of the options below as appropriate]*

Total price is: *[insert the total price of the Bid in Rs. in words and figures]; As quoted in Online BoQ*

- (c) **Discounts:** The discounts offered and the methodology for their application are:

- (i) The discounts offered are: *[Specify in detail each discount offered]*

⁷ Delete if not applicable

- (ii) The exact method of calculations to determine the net price after application of discounts is shown below: *[Specify in detail the method that shall be used to apply the discounts]*;
- (d) **Commissions, gratuities and fees:** We have paid, or will pay the following commissions, gratuities, or fees with respect to the Bidding process or execution of the Contract: *[insert complete name of each Recipient, its full address, the reason for which each commission or gratuity was paid and the amount and currency of each such commission or gratuity]*.

Name of Recipient	Address	Reason	Amount

(If none has been paid or is to be paid, indicate “none.”)

Name of the Bidder: **[insert complete name of person signing the Bid]*

Name of the person duly authorized to sign the Bid on behalf of the Bidder: *** [insert complete name of person duly authorized to sign the Bid]*

Title of the person signing the Bid: *[insert complete title of the person signing the Bid]*

Signature of the person named above: *[insert signature of person whose name and capacity are shown above]*

Date signed *[insert date of signing] day of [insert month], [insert year]*

*: In the case of the Bid submitted by a Joint Venture specify the name of the Joint Venture as Bidder.

** : Person signing the Bid shall have the power of attorney given by the Bidder. The power of attorney shall be attached with the Bid Schedules

**Appendix to Financial Part: Schedules
Sub-contracting- NOT APPLICABLE**

).

Appendix to Financial Part:

Schedule of Priced Activities and Sub-activities

The total of the prices of the activities in the Schedule of Priced Activities is the Bidder's offer to complete the works on a "single responsibility" basis.

The price of any activity or sub-activity that the Bidder may have omitted is deemed to be included in the price of other activities or sub-activities in the Schedule of Priced Activities and Sub-activities and will not be paid for separately by the Employer.

Schedule of Priced Activities Table

[To be completed by the Bidder (more tables to be used by the Bidder as appropriate)]

Activity No.	Description of Activity	Unit	Quantity	Unit Activity Rate (In INR)	Total Activity Price (In INR)
1.	Design and detailed engineering* along with design and detailed engineering report submission for 12 Legacy Waste dumpsites as per provision of the RFB	LS	01		
2	Biomining of Legacy Waste and recovery of various fractions such as recyclables, RDF, inert, compost at existing Dumpsites	Cubic Metres (M ³)	2,70,614		
3.	Disposal/ Removal of RDF Fraction from the dumpsite location and providing the same for co- processing along with documentary evidence (Loading slip, Unloading slip, E-way bill, Acknowledgement Letter from processor and photographic evidence	MT	54,123		
4.	Disposal/ Removal of Inert Fraction from/within the dumpsite location along with documentary (Loading slip, Unloading slip, Acknowledgement Letter from processor/ end user) and photographic evidence				
a	Disposal of Inert fraction including Stacking, spreading, backfilling and profiling within the dumpsite as per the provision of the RFB (in-situ disposal of Inert fraction)# (Compacted density considered as 1.6 MT/M3)	(M ³)	30,444		
b	Disposal/ removal of the Inert fraction at an outside location of	MT	1,13,658		

	the dumpsite (off-site disposal of the inert fraction)				
	Total price of Activities carried forward to Grand Summary, Page _____				

Note:

1. *The Quantities mentioned here are indicative and the total activity price calculated in table above is only for bid evaluation purpose, the payment shall be made based on unit Activity rate finalised in contract agreement.*
2. **The Quote for the Activity Design and detailed engineering S.No. '1' above should not exceed by 5% of the sum total of activities in S.No. '2'*
3. *Price is to be quoted by the bidder in online BoQ format only. The above table is provided here for reference of the bidder and no price to be quoted herein above table.*
4. *The rates quoted by the Contractor shall be deemed to be inclusive of all taxes and levies that the Contractor will have to pay for the performance of this Contract except GST. The GST,if applicable, shall be payable extra to the contractor by the employer.*
5. *#The quantities mentioned in Sl. No. 4a and 4b are indicative. The actual quantity of in-situ backfilling required in each site and the quantity to be transported outside would be known only after completion of biomining activity.*

Activity: _____

Grand Summary

<i>General Summary</i>	<i>Page</i>	<i>Amount</i>
<i>Subtotal of Activities</i>	(A)	
<i>Bid Price</i>		

Schedule of Payments

1. Terms of Payment

Payment disbursement/milestones for delivering each part of the scope of work will be as per following mechanism:

Sr. No.	Description of Activity	Unit	Quantity (W)	Unit Activity Rate (In INR) (R)	Total Activity Price (In INR)
1.	Payment for Detailed Design and Engineering- (On submission and approval of Detailed Design & Engineering, Work Plan, and Implementation Schedule)	LS	1		
2	Biomining and Processing of legacy waste by excavation and screening of legacy waste	Cubic Metres (M ³)			
3.	Disposal of RDF fraction from the screened legacy waste for co-processing purpose	MT			
4.	Disposal/ Removal of Inert from the screening legacy waste for end use				
a	In-situ disposal of Inert fraction (after compaction)	(M ³)			
b	Ex-situ disposal of Inert fraction	MT			
	Total Payment				$\sum W \times R$

Payment for the work shall be calculated by the employer based on the following formula:

Payment calculation for Work (P) = $\sum W \times R$

The Bidder shall submit to the Client a statement (“the Running Bill”) on completion of every month, but in no case late than 7th (Seventh) day of the succeeding month or in case the 7th (Seventh) day is a holiday then on the following working day of such month. The statement should include the following details:

- (i) Quantity of Work Completed (in terms of material sent out from the dumpsite/ stacked in segregated manner at designated location for use within the site as approved by the employer) at site including photographic evidence of the same.
- (ii) Certificate from the Engineer-in-Charge certifying the work done as per the work plan
- (iii) The documents furnishing the proof of disposal/ utilization (with date, quantity, other details) at the suitable location for the end product (inert, combustible, others if any). Utilization certificate of disposed material must be furnished. Please refer to the Terms of References/ Scope of Work
- (iv) All disposal vehicles must be GPS enabled. A report on Vehicle operation to be submitted along with the invoice.

#The Contractor shall also submit report providing details of the total quantum of the waste at the beginning, waste removed from the site and the remaining volume of the waste after completion of each milestone as mentioned in below.

The payments shall be released on milestone basis, subject to the compliances of all the clauses mentioned above and in the scope of work, as per following schedule:

1. An amount of **50%*** of Certified payment shall be paid within 30 days of the bill submission by the Contractor/agency.
2. An amount of **45%** of certified payment shall be paid within 30 days of submission of documentary proof/ evidence, as per clause (i) to (iv) mentioned above. The payment @45% for the last month's bill shall be held back and shall be released after completion of milestone '8' i.e after removal of any residue material at project sites and profiling of project sites as per recommendation of the employer.
3. The Client/ ULB shall retain 5 % of each invoice amount of the selected bidder, which shall be released within the duration as mentioned in the GCC/PCC
4. All the payments shall be made after deduction of penalties/fine (if any).

Provision for Variation in Quantity:

If there is a variation in Total indicative Quantity of Legacy waste from the quantity of Legacy Waste approved in the Work Plan the following provision shall be adopted:

A. If the Actual Quantity is more than 20% of the Indicative Total quantity of the Legacy Waste in 12 dumpsites

The employer shall revise lower rate in case of variation beyond (+) 20% of the indicative total quantity of legacy waste in 12 dumpsites. The rate will be decreased by 5% for every 10% increase in the quantity beyond the (+) 20% variation. The rate will freeze at maximum of 20% decrease from the quoted price. The variation in the rate shall be applicable only on the variation quantity. The variation shall be

calculated only on the cumulative variation of the quantity in 12 Dumpsites and not on individual quantity variation in respective dumpsites within the ULB. Also, the variation in price shall only effect on finalized unit rate 'Biomining of Legacy Waste and recovery of various fractions such as recyclables, RDF, inert, compost etc. at existing Dumpsites (i.e. Legacy Waste Processing only through Biomining and bioremediation) in 12 dumpsites in ULBs of Kerala. The rate for other activities shall be firm as finalized irrespective of the quantity variation

B. If the Actual Quantity is less than 80% of the Indicative Total quantity of the Legacy waste in 12 dumpsites

The employer shall revise higher rate in case of variation beyond less than 80% of the indicative total quantity of Legacy Waste in 12 dumpsites. The rate will be increased by 5% for every 10% decrease in the quantity beyond the (-) 20% variation. The rate will freeze at maximum of 20% increase from the quoted price. The variation in the rate shall be applicable only on the variation quantity. The variation shall be calculated only on the cumulative variation of the quantity in the 12 Dumpsites and not on individual quantity variation in respective dumpsites within the ULB. Also, the variation in price shall only effect on finalized unit rate for 'Biomining of Legacy Waste and recovery of various fractions such as recyclables, RDF, inert, compost etc. at existing Dumpsites (i.e. Legacy Waste Processing only through Biomining and bioremediation) in 12 dumpsites in ULBs of Kerala. The rate for other activities shall be firm as finalized irrespective of the quantity variation

Schedule of Performance Guarantees and Performance Damages

No.	Penalty Description	Penalty Amount
1.	Non-Compliance to, SWM Rules 2016 and other Environmental Standards notified by regulatory authorities or as specified in the Contract.	Rs. 10,000/- per Incidence till the compliance of the failure in addition to the Penalties/ Actions imposed by various authorities.
2.	Non-compliance of Safety Standards, use of Personal Protective Equipment, fire safety, slope stability while forming windrows (if any during pre-stabilization process) by the workers.	Rs.15,000/- per incidence, till the compliance of the failure is achieved

3.	Non-compliance against disposal mechanism as prescribed in the scope of work (for inert, combustible/RDF or any other end product).	Rs.10,000/- per incidence , till the compliance of the failure is achieved.
4.	Non-provision of Site Facilities as per the work plan, submitted by the Bidder at the start of work and duly approved by the Client	Rs.10,000 per item , till the compliance of the failure is achieved
6.	Tampering of records or submission of manipulated records or any malpractice which will affect quantity & quality of work done.	5% of the value of bills certified for three (03) preceding months from the month of incidence noticed.
7	Failure to Submit Progress Report on time	Rs. 1,000/- per incidence
8	Runoff of leachate from the site throughout the project period	Rs. 2,000/- per incidence
9	Failure to comply to the ESMP as per site specific EIA	For delay towards the Implementation of ESMP the Penalty shall be imposed based on severity
10	Non deployment of phase wise (Design Engineering Phase and work Execution Phase) min. resources as provided in the RFB (including additional resources as approved in Work Plan)	Rs 1,000 per resource per day
11	Non-Compliance during Monsoon period (during rains beyond monsoon period also) The contractor shall ensure All recovered materials shall either be stored under a temporary shed or stored at an elevated platform or similar arrangement to prevent washing by rain / rising waters, covered with 200 gsm silpaulin material and tied with ropes at proper interval with weights so as to ensure the material remains dry and safe with a cut off drain around.	Rs. 5,000/- per incidence till compliance is achieved

Note:

1. The above penalty shall be in addition to statutory penalty levied by any authority and also include cost of remedial measure if any undertaken by the client.

2. The maximum amount of cumulative penalty amount at a given time of project should not exceed the sum of Performance Guarantee and accumulated retention security deposit. Also, the cumulative maximum amount of penalty for the whole of the Works is 10% of the accepted Contract Price beyond the contract may attract termination as per GCC clause 61

The liquidated damages for the whole of the Works are *as per Table below*. The maximum amount of liquidated damages for the whole of the Works is **10%** of the final Contract Price.

Milestone	Activity to be completed	Time Period for Completion from Signing of Agreement in number of Days	Liquidated Damage
01	To process and dispose of cumulative 15 % of Estimated Legacy Waste Quantity*	75	0.11% per day of the accepted contract amount
02	To process and dispose of cumulative 50 % Estimated Legacy Waste Quantity	145	0.11% per day of the cost of unprocessed accepted contract amount
03	To process and dispose of cumulative 65 % of Estimated Legacy Waste Quantity	175	0.14% per day of the accepted contract amount
04	To process and dispose of cumulative 80 % of Estimated Legacy Waste Quantity	205	0.14% per day of the accepted contract amount
05	To process and dispose of cumulative 100 % Estimated Legacy Waste Quantity	245	0.14% per day of the accepted contract amount

Milestone	Activity to be completed	Time Period for Completion from Signing of Agreement in number of Days	Liquidated Damage
06	Dispose of any balance fraction, if any, as instructed by the employer and profiling the site to surrounding ground level with use of recovered fraction in	270	0.14% per day of the accepted contract amount

Note:

1. *The maximum amount of liquidated damages for the whole of the Works is 10% of the accepted Contract Price beyond the contract may attract termination as per GCC clause 61*
2. *The liquidated damages recovered against interim milestone shall be credited to the contractor if the final milestone is achieved within stipulated timeline*
3. *If the quantity of waste will be more than estimated quantity, then Bidder shall be responsible for processing complete legacy waste for which contract period may be extended on pro-rata basis. The Liquidated Damage for the additional quantity of legacy waste shall be applicable as per the rate stipulated in table above i.e. @0.11% per day of the accepted contract amount reckoned from the end date of the extended pro-rated timeline*

Section V - Eligible Countries

Eligibility for the Provision of Goods, Works and Non-consulting Services in Bank-Financed Procurement

In reference to ITB 4.8, and 5.1, for the information of the Bidders, at the present time firms, goods and services from the following countries are excluded from this Bidding process:

Under ITB 4.8 (a) and 5.1 : *None*

Under ITB 4.8 (b) and 5.1 : *None*

[Note: as and when some country/ countries become ineligible insert the list of such countries following approval by the Bank to apply the restriction]

Section VI - Fraud and Corruption

(Section VI shall not be modified)

1. Purpose

1.1 The Bank's Anti-Corruption Guidelines and this annex apply with respect to procurement under Bank Investment Project Financing operations.

2. Requirements

2.1 The Bank requires that Borrowers (including beneficiaries of Bank financing); bidders, (applicants/proposers), consultants, contractors and suppliers; any sub-contractors, sub-consultants, service providers or suppliers; any agents (whether declared or not); and any of their personnel, observe the highest standard of ethics during the procurement process, selection and contract execution of Bank-financed contracts, and refrain from Fraud and Corruption.

2.2 To this end, the Bank:

- a. Defines, for the purposes of this provision, the terms set forth below as follows:
 - i. "corrupt practice" is the offering, giving, receiving, or soliciting, directly or indirectly, of anything of value to influence improperly the actions of another party;
 - ii. "fraudulent practice" is any act or omission, including misrepresentation, that knowingly or recklessly misleads, or attempts to mislead, a party to obtain financial or other benefit or to avoid an obligation;
 - iii. "collusive practice" is an arrangement between two or more parties designed to achieve an improper purpose, including to influence improperly the actions of another party;
 - iv. "coercive practice" is impairing or harming, or threatening to impair or harm, directly or indirectly, any party or the property of the party to influence improperly the actions of a party;
 - v. "obstructive practice" is:
 - (a) deliberately destroying, falsifying, altering, or concealing of evidence material to the investigation or making false statements to investigators in order to materially impede a Bank investigation into allegations of a corrupt, fraudulent, coercive, or collusive practice; and/or threatening, harassing, or intimidating any party to prevent it from disclosing its knowledge of matters relevant to the investigation or from pursuing the investigation; or
 - (b) acts intended to materially impede the exercise of the Bank's inspection and audit rights provided for under paragraph 2.2 e. below.
- b. Rejects a proposal for award if the Bank determines that the firm or individual recommended for award, any of its personnel, or its agents, or its sub-consultants, sub-

- contractors, service providers, suppliers and/ or their employees, has, directly or indirectly, engaged in corrupt, fraudulent, collusive, coercive, or obstructive practices in competing for the contract in question;
- c. In addition to the legal remedies set out in the relevant Legal Agreement, may take other appropriate actions, including declaring misprocurement, if the Bank determines at any time that representatives of the Borrower or of a recipient of any part of the proceeds of the loan engaged in corrupt, fraudulent, collusive, coercive, or obstructive practices during the procurement process, selection and/or execution of the contract in question, without the Borrower having taken timely and appropriate action satisfactory to the Bank to address such practices when they occur, including by failing to inform the Bank in a timely manner at the time they knew of the practices;
 - d. Pursuant to the Bank's Anti- Corruption Guidelines and in accordance with the Bank's prevailing sanctions policies and procedures, may sanction a firm or individual, either indefinitely or for a stated period of time, including by publicly declaring such firm or individual ineligible (i) to be awarded or otherwise benefit from a Bank-financed contract, financially or in any other manner;¹ (ii) to be a nominated² sub-contractor, consultant, manufacturer or supplier, or service provider of an otherwise eligible firm being awarded a Bank-financed contract; and (iii) to receive the proceeds of any loan made by the Bank or otherwise to participate further in the preparation or implementation of any Bank-financed project;
 - e. Requires that a clause be included in bidding/request for proposals documents and in contracts financed by a Bank loan, requiring (i) bidders (applicants/proposers), consultants, contractors, and suppliers, and their sub-contractors, sub-consultants, service providers, suppliers, agents personnel, permit the Bank to inspect³ all accounts, records and other documents relating to the procurement process, selection and/or contract execution, and to have them audited by auditors appointed by the Bank.

¹ For the avoidance of doubt, a sanctioned party's ineligibility to be awarded a contract shall include, without limitation, (i) applying for pre-qualification, expressing interest in a consultancy, and bidding, either directly or as a nominated sub-contractor, nominated consultant, nominated manufacturer or supplier, or nominated service provider, in respect of such contract, and (ii) entering into an addendum or amendment introducing a material modification to any existing contract.

² A nominated sub-contractor, nominated consultant, nominated manufacturer or supplier, or nominated service provider (different names are used depending on the particular bidding document) is one which has been: (i) included by the bidder in its pre-qualification application or bid because it brings specific and critical experience and know-how that allow the bidder to meet the qualification requirements for the particular bid; or (ii) appointed by the Borrower.

³ Inspections in this context usually are investigative (i.e., forensic) in nature. They involve fact-finding activities undertaken by the Bank or persons appointed by the Bank to address specific matters related to investigations/audits, such as evaluating the veracity of an allegation of possible Fraud and Corruption, through the appropriate mechanisms. Such activity includes but is not limited to: accessing and examining a firm's or individual's financial records and information, and making copies thereof as relevant; accessing and examining any other documents, data and information (whether in hard copy or electronic format) deemed relevant for the investigation/audit, and making copies thereof as relevant; interviewing staff and other relevant individuals; performing physical inspections and site visits; and obtaining third party verification of information.

PART 2 – Employer’s Requirements

Section VII - Employer's Requirements

Employer's Requirements

Environmental and Social Requirements

ESMF has been prepared by the Government of Kerala to guide E&S aspects of KSWMP in line with National / State Regulations, guidance's and WB Safeguard Policies. All subprojects of KSWMP shall follow the ESMF throughout the project period. Refer [ESMF Document – KERALA SOLID WASTE MANAGEMENT PROJECT – \(KSWMP\)](#)

The following is a non-exhaustive list of Sub-Clauses of the Conditions of Contract that refer to ES matters stated in the Specifications.

Sub-Clause/ Clause No.*	Remarks
<i>1.3</i>	<i>Regulatory Gap Assessment – Environmental Regulations / Policies</i>
<i>2.5.1</i>	<i>ESHS performance security</i>
<i>3.3.1</i>	<i>Subproject Monitoring: Environmental Management Table 11: Employer's Monitoring Schedule</i>
<i>Section VI</i>	<i>I. Common Permits Required for Works as per Environmental Legislation</i>
	<i>O. Indicative EMP and Monitoring Plan for Remediation of Existing Open Dumpsites</i>
<i>Section VII</i>	<i>Environment Code of Practices (ECoP)</i>
<i>ECoP 06</i>	<i>Guidance on Siting & Layout of Construction Camp</i>
<i>ECoP 07</i>	<i>Guidance on Topsoil Management</i>
<i>ECoP 08</i>	<i>Guidance on Traffic Control and Safety during Construction</i>
<i>ECoP 11</i>	<i>Guidance on Biomining and Bioremediation</i>
<i>ECoP 12</i>	<i>Guidance on COVID 19 b. Clauses for Inclusion in Civil works Contracts</i>
<i>Section VIII</i>	<i>Physical Cultural Resources Management Framework</i>
<i>Section IX</i>	<i>Guidance on Preparing Natural Habitat Management Plan</i>

**Clauses of Kerala Solid Waste Management Project (KSWMP) Environmental and Social Management Framework, generic and site specific EMP/SMP annexed with the RFB and forms part of this RFB*

In addition to provisions in the above table, the Employer shall specify the following as applicable.

World Bank Operational Policy OP/BP 4.01

The project has potential impacts and pose risks to various environmental factors during the implementation phase. Consequently, this policy is triggered, necessitating assessment and management of E&S risks and impacts, and ensuring a structured approach to safeguard management for risk mitigation including (but not limited to) health & safety risks, risks and impacts due to linked activities in alignment with regulatory requirements, and Environmental and Social Management Framework (ESMF).

World Bank Operation Policy OP/BP 4.04

Under WB OP/BP 4.04 promotes and supports natural habitat conservation and improved land, the subprojects activities impacts and mitigation measures as applicable. Specific requirements for the management to followed (see ESMF EMF Guidance Manual: Section IX)

World Bank Operational Policy OP/BP 4.09

Considering the possible pest related issues as the project deals with wastes and improvements to dump sites, OP 4.09 Pest Management is triggered. As per this policy the banned pesticides/insecticides listed by the Nation / State and the World Health Organization (WHO) other international/national/state bodies should not be used in the project, and as much as possible Integrated Pest Management Options shall be followed. It shall be ensured that In assisting borrowers to manage pests that affect either agriculture or public health, the Bank supports a strategy that promotes the use of biological or environmental control methods and reduces reliance on synthetic chemical pesticides. In Bank-financed projects, the borrower addresses pest management issues in the context of the project's environmental assessment.

World Bank Operational Policy OP/BP 4.11

Under WB OP/BP 4.11, methodology adopted a precautionary approach to ensure that project do not affect important physical cultural resources (PCRs), the potential impact that the sub-projects activities as applicable, specify requirements for the management to followed (see ESMF guidance manual Section VIII. Table A guidance on possible impact)

World Bank operational Policy OP 4.12

If the project will have any risks of a) land loss, b) loss of livelihoods of ragpickers and dry solid waste sellers, etc. c) landfill sites close to the tribal groups, d) exclusion of vulnerable including women planning process, livelihood opportunities and skill development. Hence based on the impact on land and livelihoods, the Operational Policy on Involuntary Resettlement (4.12) will be considered

Overview of labor use

- Number of labors to be onboarded
- Total number of migrant labors to be onboarded
- Category of labors
 - . The implementation of activities listed in the Labor Management Plan will be the responsibility of the contractor as per the labour compliance to be incorporated un the Bid document of the Biomining and Bioremediation process

Monitoring of labor compliance

The labor compliance will be monitored through the separate MIS tool to be deployed by SPMU, the data and necessary inputs will be provided by the contractor as per the timeline mentioned in the bid document. A separate login to be provided to all the contractors for each work and training will be provided to them to use the MIS tool for registration (they need to do the initial registration including uploading registration certificate, entry of labors with name,

sex, qualifications, category, etc.) and regular updating of attendance, wages details, labor compliance as mentioned in the labor management plan

GBV Issues

The contractor shall specify the plan of implementing the procedures mentioned in the GBV action plan including mechanism for Grievance management, Internal compliance committee.

Labour Influx Management

The plan to be developed to reduce potential impacts associated with influx on the host population and receiving environment are minimized; provide for safe and healthy working conditions, and a comfortable environment for migrant labour; and ensure compliance with the national labour laws

Community consultations

The contractor shall be responsible for conducting community engagement and consultation activities as per the site-specific citizen engagement plan provided by the employer

KSWMP has prepared an EIA and EMP in line with ESMF to guide the implementation of the subproject. EMP includes mitigation & management actions to be implemented to ensure environmental management. Each ESMP item and contingencies shall be considered while estimating the price.

The contractor shall carry out the specific activities to the sites as mentioned in the Social management plan provided by the employer (

KSWMP has prepared an EIA and EMP in line with ESMF to guide the implementation of the subproject. EMP includes mitigation & management actions to be implemented to ensure environmental management. Each ESMP item and contingencies shall be considered while estimating the price. The contractor shall preferably undertake visit to the sites to understand the Environmental safeguards requirements in line with ESMF and estimate realistic costs for mitigation, management, and monitoring including all aspects in the EMP/EMoP & SMP.

PAYMENT FOR ES REQUIREMENTS

The cost towards ES requirement shall be factored and included in the price quoted by the bidder.

Scope of the Works

2. Background

2.1 KSWMP has taken the initiative to start the biomining activity of 12 selected dumpsites as a first phase. Total estimated volume of accumulated waste is 2,70,614 cubic meters, ranging from 2,023 cubic meters (~1618 MT) to 55,928 cubic meters (~ 44,742 MT).

2.2 The 12 dumpsites selected for Biomining and Bioremediation are spread over seven (7) districts of the State of Kerala as detailed below

The details of the ULBs wise estimated Legacy Waste Quantity** are presented in the table below:

Sr. No	Name of ULB	Legacy Waste in Quantity (As per FR) (In M ³)	Legacy Waste Quantity (In MT)
1	Kottarakkara	8,245.00	6,596.00
2	Kayamkulam	10,261.00	8,208.80
3	Koothattukulam	2,103.52	1,682.82
4	Kothamangalam	29,915.00	23,932.00
5	Muvattupuzha	55,736.66	44,589.33
6	North Paravoor	23,332.84	18,666.27
7	Kalamasseri	55,927.88	44,742.30
8	Vadakara	38,367.00	30,693.60
9	Kalpetta	9485.37	7,588.30
10	Iritty	2,023.11	1,618.49
11	Kuthupparamba	15,102.00	12,081.60
12	Kasargod	20,115.00	16,092.00
	Total Quantity	2,70,614.38	2,16,491.50

*For the sake of estimation, the conversion factor from M³ to MT at bid stage is taken as 1 M³ = 0.8 MT

** The Legacy Waste Quantity in the dumpsites presented in table above are estimated and for reference only. Bidders to do their own due diligence of the quantity before bidding.

3. Scope of Work

The employer wants to engage agencies for Biomining, and Bioremediation of legacy waste located at the dumpsites in 12 ULBs as listed at 2.2 above and detailed in 'Site Information' by a competitive bid process. The employer/ respective ULBs shall handover the dumpsite on 'as-is-where-is' basis. The project primarily aims for land reclamation through resource recovery and scientific disposal of legacy waste from the existing dumpsite. The work in all

the dumpsite is to be completed in a period of **270 days** reckoned from the date of signing of the agreement. The selected bidder needs to remove, process and scientifically manage legacy waste accumulated in the dumpsite, dispose the processed material in scientific manner in compliance to the State Pollution control board norms, CPCB guidelines ([LegacyWasteBiomining guidelines 29.04.2019.pdf \(cpcb.nic.in\)](#)), SWM Rules 2016 ([Microsoft Word - 1750gi \(cpcb.nic.in\)](#)) and NGT/ other regulatory directions.

The area for the biomining shall be demarcated by Client.

3.1 Design-Engineering Phase

- i. In line with the CPCB 2019 Guidelines and other applicable Guidelines of Government of India (GoI) / Government of Kerala (GoK), the selected contractor shall access the project requirement, plan for deployment of resources for parallel work at dumpsites, plant and machinery of required capacity, per day processing capacity to bio-mine and bioremediate the legacy waste, suitable methods and processes to excavate the legacy waste and process it. The contractor shall provide after this exercise a list of deliverables and timelines based on the employer's requirement.
- ii. The client and the contractor shall conduct a joint survey after award of contract (topography and bore hole samples for finalizing the Legacy Waste quantity. The minimum required borehole samples are three (3) numbers per hectare or part thereof and additional at a rate of two (2) borehole samples per hectare.
- iii. The quantity of Legacy Waste dumped in the respective dumpsites within the ULBs shall be re-assessed based on the joint survey. If the aggregate quantity of re-assessed quantity of legacy waste within ULBs is more than 20% of the indicative legacy waste quantity mentioned in sub-clause 1.3 above the same shall be certified by an Agency, approved by the client. The cost towards such certification shall be borne by the employer.
- iv. The contractor, based on the survey report and site assessment, shall prepare a site-specific detailed design and Work plan for all the 12 dumpsites, and shall submit it to the employer for approval. The approved detailed design and work plan shall form part of the contract.
- v. The selected bidder shall also prepare and submit a detailed site-specific implementation schedule with clear timelines for entire project duration including each activity from mobilization till project completion for all the 12 Dumpsites. The implementation schedule should include plan for parallel works at dumpsites to achieve the milestone. The implementation schedule shall be submitted to the employer along with the work plan for approval.
- vi. The quantity of legacy waste as mentioned in the work plan and approved by the employer

shall be in the scope of work of the contractor and shall be remediated by the contractor as per the provision stipulated in the RFB and contract agreement.

- vii. The Work plan should include for disposal/ reuse of each recovered fractions after biomining and bioremediation. The contractor shall include scheme and engineering design for utilizing Bio-earth and inert fractions (in line with CPCB 2019 guidelines), if proposed by the contractor, within the site for backfilling and profiling purpose.
- viii. **Preparation of Contractor-EMP (C-EMP):** The client has prepared EIA & EMP for the biomining works in line with ESMF for KSWMP, which partially covers the proposed activity, as the plan for storage, transport and disposal of retrieved wastes, location of labour camps and other details particular to work at each dumpsite will be known only once the successful bidder finalizes his work plan. Hence, the ‘successful bidder’ or the contractor shall update the EIA and EMP based on his final plan / work method and schedule to prepare site specific C-EMPs and get it cleared by the engineer before initiation of any activity on site; and implement the C-EMP during subproject implementation. All impacts related to health and safety of workers, pollution and biodiversity for the proposed activity and all linked activities shall be addressed in the C-EMP in line with the contractor's final work schedule and proposed plan /DPR for implementation including the impacts due to leachate, gas and all other types of pollution on environmental parameters, impacts on biodiversity, health and safety aspects of working on legacy waste and use/handling of hazardous and biomedical waste if any mined out, chemicals, pest/vector/fly management and use of pesticides; storage, transport and disposal/ reuse of various legacy waste fractions bio mined; bioremediation related health and safety and use of products such as bio cultures and others.
- ix. **Emergency Response Plan:** The Emergency Response Plan (“ERP”) shall be developed by the contractor. This shall be developed in discussion with all concerned agencies, departments and in line with regulations and good practices and made a part of the Operations Protocol developed by contractor. The ERP shall set out steps to be taken and measures to be adopted by the contractor in responding to dealing with Emergency including those situations related to personal injuries or fatalities, property damage and force majeure.
- x. The contractor is required to submit a leachate, drainage management plan and fire management plan detailing to manage fire hazard and safety measures to be adopted to be submitted as part of Work Plan

3.2 Work execution Phase

- i. Prior to the start of work execution, the Contractor shall be responsible for obtaining all the applicable statutory clearances, permission, licenses, consents, and authorizations necessary for the Project at their own cost. The Client shall provide the assistance, in terms

of necessary endorsement letter/ certificates, information, wherever required.

- ii. The selected Bidder needs to deploy necessary manpower, materials, equipment, tools and construction of plants and sheds (if required) and creation of facilities for handling, separating, segregating, storing facilities for the bioremediation and biomining operation and using vehicles (properly covered) for the transportation of materials taken out, not limited to:
 - a. Installation of trommel or automated segregation machines of required sieve sizes with necessary shredder, density separator, screener, hopper, conveyors or any other required machinery with adequate capacity of motors and pulleys.
 - b. Spraying the bio-culture over the loosened partially degraded legacy waste and windrow making of partially degraded wastes for stabilization.
 - c. Shifting and loading of the legacy waste into the hopper and segregating the materials size wise and type wise by engaging the manpower on both sides of conveyors with proper safety precautions.
 - d. Processing the legacy waste on everyday basis and segregate it in to Refused Derived Fuel (RDF), Bio-earth/ good earth material/ compost, recyclables and inert material conforming to the guidelines issued by the Central Pollution Control Board for management of legacy waste.
 - e. The material collected shall be disposed of by engaging suitable covered vehicles as per guidelines on the subject.
 - f. Create all facilities and make arrangements for controlling the emission, pollution and contamination of the environment including but not limited to control of dust, odour, air quality, water quality and noise pollution.
 - g. Based on site requirement, setting up of provision for safe leachate collection, storage, reuse and recirculation and treatment at the site or disposal for treatment outside of site without affecting the existing natural drainage.
 - h. Other wastes like Hazardous Waste, E-Waste; Bio-medical Waste (if any; present in the Legacy Waste) shall be managed by the contractor as per the guidelines in close coordination with Client, under the relevant rules & regulations as amended from time to time.
 - i. Monitoring and recording all the activities to account for the quantity and quality of recovered materials.
 - j. Ensure clean, safe and hygienic worker facilities and proper safety measures for the workers involved in the day-to-day operations for the execution of legacy waste biomining and bioremediation works.
 - k. All the workers involved should be covered under ESIC, Health check-ups and other

beneficiary schemes as applicable from time to time.

- l. Adequate illumination at site.
- m. To identify and tie up with employer approved weighbridges for measurement for quantum of out-going recovered fractions.
- iii. The contractor to deploy such process or technology during biomining, so that the quality of RDF and other products produced meets the standards acceptable to the industry/ organization.
- iv. The contractor should provide sufficient machineries / equipment to clear the dumpsite as per the timelines mentioned in this tender document and proposed by the contractor in its implementation schedule.
- v. All the activities for the legacy waste biomining shall be in complete adherence to the rules and regulation mentioned in SWM Rules 2016, CPCB Guidelines on Legacy Waste - 2019, directions from Hon'ble NGT and Kerala State Pollution Control Board (KSPCB) and all other applicable rules and regulations.
- vi. The selected Contractor shall carry out Total Station Survey (TSS)/ Drone Based Survey of the complete project site. The survey shall be done monthly, and the survey report shall be shared with the Client and volume of reclaimed portion or waste reduction shall be clearly marked in the drawing shall be presented by the contractor along with his monthly invoices. However, the survey for final billing will be conducted by the Client jointly with the contractor. The same will be shared with the contractor.
- vii. Anything of historical, anthropological, geological or other interest or of significant value unexpectedly discovered on the site is the property of Client. The contractor is to notify the Client of such discoveries and carry out the Client's instructions (follow chance find procedures of concerned authority/department) for dealing with them.
- viii. The contractor shall allow any person authorized by the Client to access the Site, to any place where work in connection with the Contract is being carried out or is intended to be carried out and to any place where materials or plant are being manufactured / fabricated / assembled for the works.
- ix. In case the contractor is required to set up ancillary facilities at site like Fuel storage, DG set etc., the necessary permissions and pollution control measures required are to be obtained by the Selected Bidder at his cost.
- x. The contractor shall channelize the recovered/ segregated material from the legacy waste to the identified vendors/parties and disposal/ resale of inert/rejects as per CPCB Guidelines, without stacking them at site for more than 15 days (not exceeding 10 % of the fraction at any given point of time except Bio-earth and non-reactive inert material which may be stacked at site for site profiling purpose as approved by the employer). All such vendors/ agencies have to be authorized by the concerned State Pollution Control

Board. The contractor shall submit proof of delivery on a fortnightly basis, ensuring traceability of such products (RDF, Compost/Bio-earth, recyclables and inert). The Client reserves the right to audit such agencies and confirm compliance. The selected Bidder shall facilitate such inspections.

- xi. The Selected Bidder shall submit necessary supporting documents, in order to ensure the safe disposal of the processed material, to the Client along with every bill. This may include, but not limited to the following:
 - a. Undertaking that the processed and recovered material has been disposed off in accordance with all applicable guidelines and RFB conditions, mentioning the quantity along with place / site of disposal/ reuse.
- xii. An acknowledgment/ certificate from the organization/ industry/ government agency regarding the receipt of the same quantity of recovered fraction material as mentioned at 'a' above along with supporting documents such as Loading slip, Unloading slip, E-way bill, Acknowledgement Letter from the respective entity, GPS report and photographic evidences.
- xiii. The selected Bidder shall be solely responsible for genuineness/ authenticity of documents submitted. Anything found contrary latter on will invite strict action/ penalty as per agreement/ law.
- xiv. The inert shall be, if so proposed by the contractor and approved by the employer, used for back filling if it is free of contaminants or any other appropriate use which is in line with relevant guidelines. In case, the inert are to be used as filling within the project site, then the contractor shall clearly earmark such an area, fence and regulate the entry and exit of men and material. It is the responsibility of the contractor to ensure materials (excluding the non-reactive inert fraction that is proposed to be used within the site and with the prior approval of the employer on the same) after scientific processing is not dumped at the site and cleared within 30 days of segregation. The Selected Bidder shall have to make necessary arrangement like fencing, or any other suitable arrangement as directed by Client authorities.
- xv. Packing, storing, stacking, selling, diverting for recycling, marketing and recycling of all useful material within 15 days of segregation, at own cost, shall be the responsibility of the contractor.
- xvi. The contractor is required to analyze the compost/ Bio-earth, inert for contamination of heavy metals or other contamination and for the necessary intended use every month. It is preferable to use such compost/ Bio-earth, inert within the site itself after ensuring it is free of contamination. The reports of the same shall be provided along with the bills. If heavy- metal contamination is found, the selected bidder is required to follow instructions such as further sampling and analysis of the material. The further sampling if required will be facilitated by the employer with additional payments towards the analysis and

further course of action (transportation and disposal to Hazardous waste landfill etc as per Hazardous Waste Management Rules 2016) as per actuals.

- xvii. The revenue or the income from the sale of the segregated useful material such as reusable and recyclable, Compost, Soil conditioner, RDF or any other by- product materials shall go to the Contractor's account.
- xviii. The contractor shall be responsible for the payment towards fleet management in order to dispose the material recovered from the legacy waste.
- xix. The contract shall not be assigned or sublet.
- xx. Contractor shall be responsible for the Electricity connection and utility arrangement including Water arrangements for Work execution. All the cost related to these operations, including electrical consumption and other utility charges, and required field arrangements, manpower deployment shall have to be borne by the Contractor only.

3.3 Record keeping and Reporting:

- i. The contractor shall maintain a record of the daily processed legacy waste. The Selected Bidder shall also keep proper record of all the recovered and disposed of materials. The Selected Bidder shall prepare all periodical reports, applicable to the Projects, as may be required by Client, other stakeholders or the State Government etc. including weekly report on C-ESMP implementation to the PIU and details on incidents/accidents if any
- ii. The contractor shall furnish authorized weigh bridge records at the point of receipt by end designated agency. A consolidated certificate signed by the Plant Manager or higher rank of the authorized Cement plant/ WtE or such units certifying the total RDF received from the Project is a valid proof of compliance. The Client shall share such data with the Kerala State Pollution Control and the respective State Pollution Control Board where the cement plant is located.
- iii. The contractor shall provide traceability report/ documentation for disposal/ usages of recovered fraction.
- iv. The site shall be operated in CCTV surveillance with data storage of entire contract period. For CCTV surveillance to ensure full coverage of site with High-Definition IP based cameras in adequate numbers shall be provided by the contractor to abide and comply with the contract conditions. All the vehicles, transporting the recovered fraction for disposal out of the site shall be fitted with GPS based monitoring system and the movement record of the vehicles shall be maintained by the contractor. In addition, the contractor shall maintain videographic records of the of transportation vehicles for disposal of recovered fraction at the weighing location. No Payment shall be released without GPS monitoring report and in site or weighing location videographic evidence.
- v. CCTV Recordings of operations shall be provided as and when required by the employer

or its designated Authority.

3.4 Routine Maintenance Standards:

In order to ensure smooth and uninterrupted operations, the contractor shall ensure routine maintenance of the facilities including, but not be limited to:

- i. Prompt repairs of the storage and waste drying places, electrical items, drains, vehicular passages, sieving machineries, lighting and fencing.
- ii. Replacement of equipment/ consumables and repairs to equipment, structures and other civil works which are part of the Legacy waste processing facility.
- iii. Maintaining the shape, slope, full cross-section of the storm water drainage system and Leachate collection and drainage system; maintain stock spare parts for the machinery.
- iv. Keeping the work area at project site in a clean, tidy and orderly condition and taking all practical measures to prevent damage to the facility or any other property on or near the site.
- v. Preventing, any unauthorized entry to and exit from and any encroachments including any encroachments on the site.
- vi. The site shall be made available for inspection at any time as and when felt necessary by the Authorities.

3.5 Quality Control:

- (a) **Identifying defects:** The Client shall check the selected contractor's work and notify him of any Defects that are found. Such checking shall not affect the contractor's responsibilities. The Client may instruct the contractor to search for a Defect and to uncover and test any work that the Client considers may have a Defect.
- (b) **Tests:** If the Client instructs the contractor to carry out a test not specified in the Specification to check whether any work has a Defect and the test shows that it does, the contractor shall pay for the test and any samples. If there is no Defect the test shall be compensated on actuals. Test/s related to presence of methane while operations may be conducted using online methane analyzer, in addition to this any additional test related to presence of excessive leachate or hazardous material may be proposed.
- (c) **Correction of defects**
 - (i) The Client shall give notice to the contractor of any Defects before the end of the Defects Liability Period, which begins at Completion and continue till end of one year. The Defects Liability Period shall be extended for as long as Defects remain to be corrected.
 - (ii) Every time notice of a Defect is given; the contractor shall correct the notified

Defect within the length of time specified by the Client's notice.

- (d) **Uncorrected defects:** If the contractor has not corrected a Defect within the time specified in the Client's notice, the Client will assess the cost of having the Defect corrected, and the contractor shall have to pay this amount.

3.6 Testing requirements for each Site

Sr. No.	Testing	Samples	Periodicity	Responsibility
1	Ambient Air Sampling Parameters – ((Sulphur Dioxide (So ₂), Nitrogen Dioxide (No ₂), Particulate Matter 2.5, Particulate Matter 10, Ozone (O ₃), Lead (Pb), Carbon Monoxide (CO), Ammonia (NH ₃), Benzene (C ₆ H ₆), Benzo pyrene (BaP), Arsenic (As), Nickel (Ni)) for 24 hrs	2	Before starting the bio-mining works and bi-weekly thereof	Contractor
2	Ambient Noise Level Monitoring (E(p)Rules) for 24 hours	1	Before starting the bio-mining works and bi-weekly thereof	Contractor
3	Surface Water Sampling (pH, Colour, DO, BOD, Oil & Grease, Chlorides, Sulphates, Nitrates, Fluorides, TDS, heavy metals (such as Pb, Cd, Cu, Zn, Cr, Hg, Ni), Fe, E-coli and Total Coliforms (IS 2296 Class C Water)	2	Before starting the bio-mining works and bi-weekly thereof	Contractor
4	Ground Water Sampling (Well Water Samples -1 up gradient, 2 down gradient) - (shallow and deep wells): pH, Colour, EC, Turbidity, SS, TDS, COD, heavy metals (such as Pb, Cd, Cu, Zn, Cr, Hg, Ni), Fe, C/N, F, As and Mn, Cl, NO ₃ , SO ₄ , Total hardness and Total Pesticides, E-coli and Total Coliforms	2	Before starting the bio-mining works and bi-weekly thereof	Contractor
5	Compost Analysis As per Schedule II of SWM Rules 2016	1	Before starting the bio-mining works and bi-weekly thereof	Contractor
6	Inert Analysis Heavy metals (such as Pb, Cd, Cu, Zn, Cr, Hg, Ni) as per Schedule II of SWM Rules 2016	1	Before starting the bio-mining works and bi-weekly thereof	Contractor
7	RDF Analysis Ash content, Moisture, Chlorine, Sulphur, Net Calorific Value (Kcal/kg) Ref- Guidelines on Usage of Refuse Derived Fuel in Various Industries (CPHEEO- MoHUA)	1	Before starting the bio-mining works and bi-weekly thereof	Contractor

Sr. No.	Testing	Samples	Periodicity	Responsibility
8	<p>Leachate Analysis</p> <p>(TCLP usepa 1311) (SCHEDULE II of SWM rules, 2016), Suspended solids, Dissolved solids (inorganic), pH, Ammonical nitrogen (as N), Total Kjeldahl nitrogen (as N), BOD, COD, Arsenic (as 'As'), Mercury, Lead, Cadmium, Copper, Zinc, Nickel, Cyanide, Chloride, Fluoride, Phenolic compounds)</p>	1	Before starting the bio-mining works and bi-weekly thereof	Contractor
9	<p>Gas Analysis</p> <p>Methane [The concentration of methane gas generated at landfill site shall not exceed 25 per cent of the lower explosive limit (LEL)- SWM Rules 2016]</p>	1	Before execution and after works completion for period of 7 days and twice a day.	Contractor
10	<p>Soil Testing</p> <p>Heavy metals (such as Pb, Cd, Cu, Zn, Cr, Hg, Ni)</p>	3 no.s	After works completion to ensure no contamination is present in the soil	Contractor
11	<p>Bore Hole Analysis</p> <p>Permeability test- standard penetration test SPT and collection of undisturbed samples - Soil Investigation - Classification, gradation, Atterberg's limit, Bulk density, dry density, water content, cohesion, angle of internal friction, Proctor density, Optimum moisture content, coefficient of permeability, strength, compressibility, Cation Exchange Capacity Chemical Analysis of soil pH, EC, Nitrogen, Phosphorus, Potassium, Carbon, CN Ratio, Arsenic, Cadmium, Chromium, Copper, Lead, Nickel, Iron, Zinc, Mercury (vertically-3 samples in soil per borehole upto 6 m or N>50 whichever is earlier),</p>	Minimum 3 no.s (add 2 no.s per hectare)	Before execution and finalization of design methodology and work plan	Contractor

3.7 Social, Health & Safety measures

- i. The contractor should use methods and processes to control foul odor and other such eco-friendly and non-polluting processes for minimizing the impact of the bio-mining activity in the adjacent areas of the dumpsite.

-
- ii. While carrying out the waste excavation, the contractor shall ensure the safety in terms of required slope during the waste cutting operations through Loader, Excavator etc.
 - iii. The contractor must make all the necessary arrangement to monitor and comply all environmental, health and safety standards as per CPCB guidelines and applicable rules.
 - iv. Necessary safety gears shall be provided by the selected Bidder to all staff working as per the good industry practice.
 - v. The aspects relating to employee and worker safety, control mechanisms of litter, pest, fire, surface runoffs etc., needs to be followed.
 - vi. Taking all reasonable measures for the safety of all the workmen, material, supplies, and equipment brought to the site. Explosives, if any, shall be stored, transported, and disposed of by the selected bidder in accordance with Applicable Laws/ Permits
 - vii. Adequate illumination at site by setting up lighting system to facilitate working at night hours.
 - viii. The contractor shall adhere to Health and Safety norms as per the industrial standards in the work area and the site premises. The contractor shall maintain provision for First Aid kit as per good industry practice and norms at workplace and other strategic locations within each dumpsite. In addition, the contractor shall identify location of nearest health centers and tie-up with them for emergency health situations. The Contractor shall maintain a display board at project site displaying emergency numbers in legible form.
 - ix. The contractor shall be responsible to ensure the labour welfare activities and procedures as per the labour management plan provided by the employer
 - x. The contractor shall ensure the timely implementation of mitigation measures mentioned in the Social Management Plan provided by the employer in annexure ___ to mitigate the potential social impacts due to the dumpsite remediation identified through social screening and impact assessment.
 - xi. The contractor shall ensure the timely implementation of mitigation measures/specific activities mentioned in the required action plans (GBV/ labour influx/community health and safety management plans) provided by the employer in annexure ___.
 - xii. The bidder shall adhere to the MIS tool for labour management/ compliance system of the employer provided during Work execution (The training and guideline for operating and updating the same shall be given separately).
 - xiii. The contractor shall adhere to the M&E plan provided by the employer in annexure ___ for the implementation of mitigation measures mentioned in SMP and required action plans and ensure to update the progress in MIS as per the guidance of employer designated personnel/ consultant.

-
- xiv. The contractor shall be responsible for implementing the activities as per the site-specific Citizen engagement plan provided by the employer, which includes community engagement and citizen engagement.
 - xv. **Implementation of Social Safeguard Measures:** the cumulative and summary reports on Social Safeguards are attached with this RFB in Annexure ___ along with the site specific SMP, The Contractor shall implement the mitigation measures as per the plan in consultation with the Social Experts of the employer/ or employer designated Consultants
 - xvi. The Contractor shall abide with the provision of Minimum Wages Act/Workman Compensation Act and such other statutory obligations notified by the concerned Govt. departments, from time to time. It should be specifically noted that the Contractor shall have to get them registered with the relevant authorities as required under various labor laws and submit undertaking of compliance along with the first payment bill failing which the payment bill shall not be processed.
 - i. The Contractor shall strictly comply with all the statutory requirements notified by the concerned Govt. departments from time to time and indemnify the Corporation against any claim(s), whatsoever arising there from and the tenderer shall be solely responsible for consequences thereof. The Contractor is requested to take cognizance of Child Labor Act and take precaution not to deploy child Labor. If Child Labor is found to be deployed on the work, necessary action as deemed fit will be taken.

3.8 Environmental, Health & Safety measures:

- i. Create all facilities for controlling the emission, pollution and contamination of the environment including but not limited to control of dust, particulate matter, and other air quality parameters including odour, water quality (surface and ground), leachate, soil, noise pollution, impacts on biodiversity and Health & Safety.
- ii. The Bidder must follow the Environmental Standards and Guidelines as mentioned below, but not limited to:
 - a. Air Quality Monitoring - As per Solid Waste Management Rules 2016 (SWM Rules 2016) or amendments thereafter with respect to baseline site parameters on bi-weekly basis.
 - b. Noise Monitoring – As per Noise Pollution Rules 2000 or amendments thereafter with respect to baseline site parameters on bi-weekly basis.
 - c. Odour Monitoring – As per CPCB guidelines ‘Odour Pollution & Its Control or amendments thereafter with respect to site parameters periodically.
 - d. Water Quality Monitoring - As per Solid Waste Management Rules 2016 (SWM Rules 2016) or amendments thereafter with respect to baseline site parameters on bi-weekly

basis.

- e. Disposal of recovered fractions- As per Solid Waste Management Rules 2016 (SWM Rules 2016) or amendments thereafter with respect to baseline site parameters. including FCO 1985 norms and its amendments if used as Bio-earth or compost (also considering pathogens, helminth ova and salmonella)
- f. All monitoring specified as per Guidelines for disposal of legacy waste (old municipal solid waste) by the CPCB, February 2019.
- g. Drainage & Leachate Quality monitoring
 - i. The Bidder must make all the necessary arrangement to monitor and comply all environmental standards.
 - ii. The Bidder shall segregate any Hazardous waste [as defined in Hazardous and other waste (Management and Trans- Boundary movement) Rules 2016 existing inside the site and separately earmarked. The bidder shall dispose of the same at KSPCB's approved sites (CHWTSDf) in accordance with Hazardous and other waste (Management and Trans- Boundary movement) Rules 2016 or amendments thereafter and records on the type, quantity and quality of such wastes shall be maintained and reported as per reporting schedule. The payment for the disposal of the same shall be borne by the client on actuals.
 - iii. The Bidder shall segregate any Biomedical waste [as defined in Biomedical Waste Management Rules 2016] existing inside the site and store separately in line with the guidance in the Rules. The bidder shall dispose of the same at KSPCB's approved Biomedical Waste Management Facility in accordance with Rules or amendments thereafter and records on the type, quantity and quality of such wastes shall be maintained and reported as per reporting schedule
 - iv. It is the sole responsibility of the Bidder to abate the odor and fire nuisance on site. The Bidder shall use enzyme/herbal based products as described in Legacy Waste Biomining Guidelines of CPCB after testing of the contents in a NABL land to rule out any possible hazardous content or banned insecticide/pesticide which shall help to abate the odor and fly's nuisance. Necessary firefighting arrangements on site including water tanks, sprinklers, hoses, training to staff, vehicles and any other in discussion with Fire Safety Department shall be arranged to abate the fire nuisance.
 - v. It is the sole responsibility of the Bidder to abate the odor and fire nuisance on site. The Bidder shall use enzyme/herbal based products as described in Legacy Waste Biomining Guidelines of CPCB which shall help to abate the odor and flies nuisance; after testing of the contents in a NABL accredited Lab to rule out any possible hazardous content or banned insecticide/pesticide. Fire safety management plan shall be prepared as suggested in ESMP. Necessary firefighting arrangements

on site including water tanks, sprinklers, hoses, training to staff, vehicles and any other in discussion with Fire Safety Department shall be arranged to abate the fire nuisance.

- vi. For discharge of wastewater and foul gasses, emission standards to be followed strictly as per prevailing KSPCB, CPCB, CPHEEO or any Govt. norms.
- vii. All the vehicles to be used by the Bidder in and outside the plant shall strictly follow latest emission standard.
- viii. Ensure daily washing of the vehicles (without polluting the surrounding environment around wash areas) used for the transportation/disposal of processed and segregated material.
- ix. Adequate number of smog machines and other mechanisms as appropriate on site including screens to ensure dust suppression and control to ensure compliance with standards specified in Solid Waste Management Rules 2016 and amendments thereof.
- x. The bidder shall ensure OHS at all times in the proposed activity both inside the site during biomining and storage of wastes, and outside the site while undertaking transport of men, material, and retrieved fractions and disposal of retrieved fractions. Protocols, systems and capacities to manage all High Energy Hazards shall be arranged before start of activities on site. National/State regulations and ESMP clauses on worker health and safety shall be strictly followed, at all times. All records of incidents shall be maintained on site including indicative, serious and severe.
- xi. All severe and serious incidents shall be reported to the Client immediately and support the client in undertaking Root Cause Analysis and preparation of Safeguard Corrective Action Plans.
- xii. **Implementation of Environment Safeguard Measures:** the cumulative and summary reports on Environment Safeguards are attached with this RFB in Annexure along with the site specific EMP, The Contractor shall implement the mitigation measures as per the plan in consultation with the Environmental Experts of employer/ or employer designated Consultants
- xiii. The bidder shall ensure the timely implementation of mitigation measures mentioned in the Environmental Management Plan prepared by the employer and updated by the successful bidder as C-EMP to mitigate the potential impacts due to the dumpsite remediation identified through screening and impact assessment. The EIA/EMP shall be updated by the bidder considering the locational aspects, his work plan & details, and submitted to the client for clearances and obtain clearances before initiating any type of activity on site.

3.9 Emergency Response and Fire Safety:

- i. The Contractor shall be responsible for implementation of Emergency Response plan during Work execution.
 - a. In the event of an Emergency, the contractor shall immediately carry out an inspection of the area affected by the Emergency. Where Emergency has necessitated closure of the Legacy Waste processing facility or part thereof, the Bidder shall promptly carry out any repair works necessary to restore the legacy waste processing facilities to safe condition and in any event shall carry out such works before the affected area of the project facilities is re-opened for normal operations.
 - b. The contractor shall ensure that sufficient staff, plant, equipment and materials, including without limitation medical assistance are available to respond to Emergency within reasonable period at all times during the Operations Period.

ii. Fire Safety and Fire Management

The contractor is required to obtain NoC from Fire & Rescue Services for execution of dumpsite Biomining and Bioremediation where the fire & rescue services will provide for specific conditions in the NoC for compliance. The contractor is required to comply to the conditions at no additional cost. The compliance shall be ensured till the project site is handed over.

Further, the Contractor is required to liaison with Kerala Fire & Rescue Services or private agencies and deploy a fire brigade and connected manpower (Fire Tender/Ambulance etc.) as stand by during the period of the works till site handover.

The contractor is also required to adhere to the following with respect to fire safety.

- a. Fire Fighting System including fire hydrant, pressure pumps, 5000 Ltr (min) water storage, adequate hose reel and fire extinguishers to be provided at site.
- b. Alternate source of power (DG) for specific purpose
- c. Manual Fire Alarm System with evacuation plan
- d. Regular check, maintenance of equipment for firefighting (before initiating work and then at interval of 1 months thereof)
- e. Training to all men and conducting fire drill. (Before initiating work and then at interval of 3 months thereof)
- f. Maintaining fire line/ break while storage of material (RDF). Stored RDF to not exceed 10% of total estimated RDF volume at site at any given point of time.
- g. Any potential flammable fuel to be stored atleast 25 m away from the RDF stack and in a designated storage space.

- h. Water storage should be within 30 m of RDF stack.
- i. All vehicles to carry atleast one ABC rated fire extinguisher.
- j. any other requirement in consultation with local Fire & Rescue Services office.
- k. Assigning one designated person as safety officer/ spotter and responsible to identify potential situations of fire

3.10 Project Site Handover Condition after Work Completion

- i. Dumpsite land shall be reclaimed i.e. all the legacy waste will be removed till it reaches the surface of the earth/ soil.
- ii. The Machinery & Vehicles of the implementation agency shall be vacated within 14 days from the date of handover of site to ULB (and in no case later than 270 days from the date of agreement). The date of completion of work for a specific dumpsite shall be the date as approved by the employer or its designated personal/ consultant.
- iii. The encumbrance free bio-remediated land shall be handed over to ULB after filling the inert/ Bio-earth at the site upto surrounding ground level with proper compaction (in layers of 300mm and compacted to 225mm with proctor density not less than 95% of the Maximum Dry Density. The test for the proctor density is to be carried out for every layer at the rate of 1 sample per 1000 sqm. The Moisture Content should be within 95% of Optimum Moisture Content. The contractor may add suitable additives such as lime etc for ensuring soil suitability for improving stability and strength criteria) and appropriate profiling for an aesthetic appearance and surrounding ground level. The material must be stabilized and is expected to be within the allowable limits for landfill, however the profiling will be done with appropriate drainage system. The maximum slope shall conform the stability calculation prepared for the fill materials. It will be the responsibility of the contractor to ensure proper slope stability, compaction, and surface run-off drainage. Adequate drainage should be ensured in the planning. The inert and Bio-earth recovered will be subjected to bi-weekly sampling to check the parameters mentioned in schedule II of SWM Rules 2016 before using the material at site.

Milestones required to be achieved within the given timeframe are as mentioned below.

S.No.	Activity to be completed	Time Period for Completion from Signing of Agreement in
01	Submission of Workplan including updated EIA, Contractor EMP by the contractor and review and approval	

S.No.	Activity to be completed	Time Period for Completion from Signing of Agreement in
02	Statutory Clearances and Erection and Commissioning of the Plant and Machinery	45
03	To process and dispose of cumulative 15 % of Estimated Waste Quantity from ULBs	75
04	To process and dispose of cumulative 50 % Estimated Waste Quantity from ULBs	145
05	To process and dispose of 65 % of Estimated Waste Quantity from ULBs	175
06	To process and dispose 80 % of Estimated Waste Quantity of from ULBs	205
07	To process and dispose 100 % of Estimated Waste Quantity from ULBs	245
08	Dispose of any balance fraction, if any, as instructed by the employer and profiling the site to surrounding ground level with use of recovered fraction.	270

1. Task Matrix for Legacy Waste Dumpsite Biomining and Bioremediation*

Unit Operation	Operational Requirement	Tendering Authority/ Contractor	Notes/ Remarks
Pre-operational period (Baseline Monitoring, Data and Methodology)	Feasibility study (FS) of all the Dumpsites within the scope and their GPS location	Tendering Authority	The FS Report containing GPS location is provided along with RFB document by KSWMP
	EIA with EMP and SIA with SMP report for individual Dumpsites		The EIA with EMP and SIA with SMP report for each Dumpsites is provided by KSWMP
	Topographical drawings of each Dumpsites with 0.5M contour		The Topographical drawing/drone survey of each Dumpsites is provided by SPMU in FS Report
	Geotechnical investigation results of one representative Borehole within the Dumpsites		The Geotechnical investigation results is part of FS report

Unit Operation	Operational Requirement	Tendering Authority/ Contractor	Notes/ Remarks
	Surface and Ground water quality results around the Dumpsites		The Surface and Ground water quality results is part of FS report
	Ambient Air Quality results around the Dumpsites		The Ambient Air Quality results is part of FS report
	Noise levels at the site		The Noise Level results are part of FS report
	The Leachate analysis results shall be part of FS report		The Leachate analysis results is part of FS report
	Location of the nearest cement plant from each Dumpsites		The Location of the nearest cement plant is part of FS report
	Estimated quantities of Biomining and Bioremediation volumes in m ³		The Estimated quantities of Biomining and Bioremediation volumes in m ³ is part of FS report
	Estimated quantities of RDF, compost/ Bio-earth, Recyclables, Inert in MT		The Estimated quantities of RDF, compost/ Bio-earth, Recyclables, Inert in MT is part of FS report
	Electrical and water amenities available at each Dumpsites		The Electrical and water amenities available at each Dumpsites are provided in FS report
	Methodology to accommodate Quantity, Quality and time variation in bills		The Methodology to accommodate Quantity, Quality and time variation in bills is provided in RFB
	Billing Methodology		The Billing Methodology is provided in RFB
Tendering Process (Price Bid, Implementation Plan, EMP)	Unit rates of Biomining and Bioremediation in M ³	Contractor (Bidder)	The bidder shall provide the unit rates of Biomining and Bioremediation in M ³ in their financial Bid
	Unit rates of disposal of RDF, Inert in MT		The bidder shall provide the unit rates of disposal of RDF, Inert in MT in the financial bid
	Potential location for disposal of recovered fractions		Potential location for disposal of recovered fractions shall be provided by

Unit Operation	Operational Requirement	Tendering Authority/ Contractor	Notes/ Remarks
			Contractor in the technical bid
	Procedures to manage the air, Leachate, Odour, Soil, water, noise, solids and OHS		Procedures to manage Procedures to manage the air, Leachate, Odour, Soil and OHS shall be provided by the bidder in the technical bid
	Indicative Details of manpower and machinery		Indicative Details of manpower and machinery shall be provided by the bidder in the technical bid
	Strategies for contingency planning		Strategies for contingency planning shall be provided by the bidder in the technical bid such as rains, fire, etc.
	Undertaking to confirm with methodology for Dumpsites Biomining and Bioremediation, forward linkages, time frame and ESMP		Undertaking to confirm with methodology for Dumpsites Biomining and Bioremediation, forward linkages, time frame and ESMP shall be provided by the bidder in the technical bid
Site preparation	Site handover	Tendering Authority	The client shall ensure that the site shall be handed over to the contractor “as-is-where-is” basis.
	Joint Survey	Tendering Authority and Contractor	The client and contractor shall conduct a joint survey after award of contract (topography and bore hole samples for finalizing the work plan. The minimum required borehole samples are 3 no’s and additional at a rate of 2 borehole samples per hectare)
	Site services (power/water)	Contractor	The contractor shall arrange grid connection/ water to the site. For backup power, the contractor shall provide DG set for the Biomining and Bioremediation works.
	Site services (drainage)	Contractor	The contractor is responsible for ensuring drainage around the site (to allow all surface runoff from and outside the site to be collected and

Unit Operation	Operational Requirement	Tendering Authority/ Contractor	Notes/ Remarks
			disposed in drain, without mixing with waste & leachate) properly segregated from leachate
	Site access	Contractor	The Contractor to ensure proper site access for machinery and equipment (3 m width)
	Site security	Contractor	Once the site is handed over to the contractor, the safety and security of the site (including incidents) is responsibility of the contractor
	Site fencing (for control of air, water, land, noise pollution)	Contractor	The contractor shall ensure necessary safeguards such as dust suppression, noise barriers, leachate collection system etc. and others in ESMP
Excavation	Site zoning/phasing (horizontally) vertically/over time)	Contractor	The contractor shall provide the same in the work plan and adhere to the same. The authority may seek for changing the same from case to case)
	Rate of excavation (material flow)	Contractor	The contractor shall be responsible for meeting the timelines given in the tender document
	Machinery and equipment	Contractor	The contractor shall be responsible for ensuring the machinery/ equipment are in compliance to applicable standards including [but not limited to] the Central Pollution Control Board (CPCB) guidelines for legacy waste management, finalized workplan and ESIA
Materials handling	Volume, types and variability of material to be excavated, handled Segregation etc	Contractor	The contractor is required to adhere to the tender conditions and CPCB

Unit Operation	Operational Requirement	Tendering Authority/ Contractor	Notes/ Remarks
			guidelines for legacy waste management
	Numbers and types of vehicles or other transport means	Contractor	The contractor shall be responsible to provide for the adequate no's and type of GPS enabled vehicles/ transport means
	Machinery and equipment	Contractor	The contractor shall be responsible for ensuring the machinery/ equipment are in compliance to the CPCB guidelines for legacy waste management
Final disposal off-site	RDF- Transport and disposal arrangement	Contractor	The contractor shall be responsible for ensuring that the RDF recovered meets the standards mentioned in the tender and is transported in GPS enabled covered vehicles for end disposal in compliance to the SWM Rules 2016 and CPCB guidelines for legacy waste management
	Compost/ Bio-earth-Transport and disposal arrangement	Contractor	The contractor shall be responsible for ensuring that the compost/ Bio-earth recovered meets the standards mentioned in the tender and is transported in GPS enabled covered vehicles / disposed for proper end use in compliance to the CPCB guidelines for legacy waste management and if used as fertilizer conforms with SWM Rules, 2016 and FCO 1985 and its amendments therein. The site suitability of proposed site for reuse of Inert/ bio-earth shall be verified by the ULB Engineer- LSGD Dept in consultation with the KSPCB. The transportation of inert/ bio-earth shall

Unit Operation	Operational Requirement	Tendering Authority/ Contractor	Notes/ Remarks
			happen only after the approval is in place.
	Inert- Transport and disposal arrangement	Contractor	The contractor shall be responsible for ensuring that the inert fraction recovered meets the standards mentioned in the tender and is transported in GPS enabled covered vehicles / disposed for proper end use in compliance to the CPCB guidelines for legacy waste management. The site suitability of proposed site for reuse of Inert/ bio-earth shall be verified by the ULB Engineer- LSGD Dept in consultation with the KSPCB. The transportation of inert/ bio-earth shall happen only after the approval is in place.
Final disposal on-site	Technical characterization of designated area Volumes and types of materials to be placed	Contractor	The contractor in consultation and after written confirmation from Client shall be responsible for any on-site disposal of inert fraction and Bio-earth meeting the standards mentioned in the tender and free of heavy metal contamination. The fill density, moisture content and grading shall be as per approved designs
Clearing and conditioning of the Site	Site Clearance, profiling, conditioning etc.	Contractor	The contractor shall be responsible for handing over the cleared and reclaimed site free of any unprocessed legacy waste fractions along with profiling/ conditioning if there is on-site disposal along with test as specified in RFB.

Unit Operation	Operational Requirement	Tendering Authority/ Contractor	Notes/ Remarks
Post-handover management	Post-excavation validation for excavated area & periodic review and maintenance	Tendering Authority	The Client shall be responsible for validation of the excavated and reclaimed area and further periodic review /further use of the land post site contamination assessment

4 Contract Period

The Contract period shall be **Two Hundred seventy days (270 Days) reckoned from the date of signing of the contract agreement.** (including mobilization, Statutory Clearances and Erection and Commissioning of the Plant and Machinery period of 45 days) to dispose of _____ m³ of Legacy Waste from the dumpsites in 12 ULBs in Kerala through Biomining and Bioremediation.

5 Project Site

- (a) The Client/ ULB shall handover the dumpsite to the Selected bidder as per the approved Work Plan. After completion of contract period, within 1 (One) month, the selected bidder has to completely remove the plant, machineries and equipment from the site and clear the project area. Performance security of the selected bidder shall be released within the duration as mentioned in GCC/PCC
- (b) There shall be no lease of land to the Bidder. He shall only set up the plant on Client's/ ULB's land for scientifically treating the legacy waste and operate it without any interest in land whatsoever. However, Client/ ULB shall provide necessary assistance to lenders/bankers/financial institutions funding the project in terms of granting right to entry if there is a need. Such right of entry however shall be restricted to the plant and machinery set up by the selected bidder.
- (c) Provision for building ancillary facilities: In case the selected bidder is required to set up ancillary facilities at site like Fuel storage, DG set etc., ULB may assist the selected bidder in getting the same installed at site for period of contract only. However, the necessary permissions required are to be obtained by the selected bidder at his cost.
- (d) The area of the dumpsite which shall be cleared and cleaned shall remain with Client/ ULB.

6 Provision for Variation in Quantity:

If there is a variation in Total Quantity of Legacy waste than the quantity of Legacy Waste approved in the Work Plan the following provision shall be adopted:

A. **If the Actual Quantity is more than 20% of the Indicative Total quantity of the Legacy Waste**

The authority shall revise lower rate in case of variation beyond (+) 20% of the indicative total quantity of the legacy waste in 12 Dumpsites. The rate will be decreased by 5% for every 10% increase in the quantity beyond the (+) 20% variation. The rate will freeze at maximum of 20% decrease from the quoted price. The variation in the rate shall be applicable only on the variation quantity. The variation shall be calculated only on the cumulative variation of the quantity in the existing dumpsites in 12 ULBs and not on individual quantity variation in respective dumpsites within the ULB. Also, the variation in price shall only effect on finalized unit rate for 'Biomining of Legacy Waste and recovery of various fractions such as recyclables, RDF, inert, compost etc. at existing Dumpsites (i.e. Legacy Waste Processing only through Biomining and bioremediation) at existing Dumpsites in 12 ULBs in Kerala'. The rate for other activities shall be firm as finalized irrespective of the quantity variation

B. **If the Actual Quantity is less than 80% of the Indicative Total quantity of the Legacy Waste**

The authority shall revise higher rate in case of variation beyond less than 80% of the indicative total quantity of legacy waste in 12 Dumpsites. The rate will be increased by 5% for every 10% decrease in the quantity beyond the (-) 20% variation. The rate will freeze at maximum of 20% increase from the quoted price. The variation in the rate shall be applicable only on the variation quantity. The variation shall be calculated only on the cumulative variation of the quantity in existing dumpsites in 12 ULBs and not on individual quantity variation in respective dumpsites within the ULB. Also, the variation in price shall only effect on finalized unit rate for 'Biomining of Legacy Waste and recovery of various fractions such as recyclables, RDF, inert, compost etc. at existing Dumpsites (i.e. Legacy Waste Processing only through Biomining and bioremediation). at existing Dumpsites in 12 ULBs in Kerala'. The rate for other activities shall be firm as finalized irrespective of the quantity variation

Site Information

The Site information provided below are indicative and presented for the reference of the bidder. The bidder should do their own due diligence of the sites before bidding. **The employer has created a document repository including Feasibility Report (FR) and Environment and Social Impact Assessment (ESIA) for all the 12 dumpsites and is available for the reference of the bidder during the bid stage or later. The bidder who requires the mentioned documents may request the employer in writing to get the online download link for the same.**

Dumpsite Parameters	Puthiyappa Dumpsite	Ugrankunnu, Kottarakkara	Valakkuzhi dumpsite
Location of Dumpsite	Ward 20, Puthiyappa-Vadakara, Kozhikode	Ugrankunnu, Kottarakkara, Kollam	Ward No. 25 of the Muvattapuzha
Co-ordinates of Dumpsite	11° 35' 37.5612" N, 75° 36' 20.9376" E	9° 0'4.68"N 76°45'33.73"E	9.993628 N 76.561114 E
Distance from the central part of the town	1.35 km	3.5km	2.5 km
Area of dumpsite	1.52 Acres	37.66 Cents	5.47 Acres
Legacy waste spread	1.25 Acres	37.66 Cents	3.2 Acres
Total Land area	1.52 Acres	1 Acre 50 Cents	5.47 Acres
Average height of dumpsite	Above Ground 5 m & below Ground 1.7 m	Above Ground 4.3 m	5.5 m below and 2.47m above
Ownership of dumpsite land	Municipality	Municipality	Municipality
Distance from nearby features-residential, school, offices, temples, institutions, industry etc.)	30 m	There are a Residential and other structures within 25 meters from the site	Residential and other structures within 100 m from the site
Start date of dumpsite	1962 till 2018	1994 till 2018	1960
Quantity of waste dumped per day	None	None	None
Utilities on site	Nearby Transformer available for electricity connection.	Electricity connection is available	Electricity connection is available
Site demarcated	Site is currently demarcated with a boundary wall.	Site is currently demarcated.	Site is currently demarcated with a boundary wall.
Interlinked Facilities	Unused, Semi Built MCF Facility available.	Near to the dumpsite MCF, RRF is working	RRF and Windrows Plant is Working
Availability of electrical power	Nearby Transformer available for electricity connection.	Electricity connection is available	440 LV grid available at 100m from site
Availability of water for process	5000-liter water tank is available. Can be filled through water tanker.	Water to be supplied by tanker	Water connection is Available within Dumpsite

Dumpsite Parameters	Puthiyappa Dumpsite	Ugrankunnu, Kottarakkara	Valakkuzhi dumpsite
Detail property surrounding dumpsite	Unused Semi Built MCF & Surrounded by Residence in the proximity. FCI Godown and Schools and Staff quarters for the Teachers within 500 m. Vadakkra - Meppayil Road.	MCF, RRF Available nearby Dumpsite	RRF Available nearby Dumpsite

Name of Dumpsite	Kumbalathumury Dumpsite	Kalamassery dumpsite	Thalipaduppu, Kasaragod
Location of Dumpsite	Ward No. 6 of the Kothamangala Municipality	Ward No. 6 of the Kalamassery Municipality	Ward No. 4, Thalipaduppu, Kasaragod
Co-ordinates of Dumpsite	10° 4'45.75" N 76°38'51.80" E	10.065159°N 76.327607°E	12 30'59.01" 74 59'11.099"
Distance from the central part of the town	6.0 KM	1.0 km	500 m
Area of dumpsite	2.6 Acres	1.95 Acres	1.1 Acre
Legacy waste spread	2.13 Acres	1.67 Acres	1.1 Acre
Total Land area	2.6 Acres	1.95 Acres	1.1 Acre
Average height of dumpsite	2.5m Above the ground level 3.0 m Below the ground level	8.5 m below GL and 2.5m above GL)	Above Ground 4.5 m
Ownership of dumpsite land	Municipality	Municipality	Municipality
Distance from nearby features-residential, school, offices, temples, institutions, industry etc.)	Uninhabited area with rubber plantation surrounding	SCMS Cochin School of Business within 200 meters. There are no Residential habitats within 300 meters from the site.	50 m
Start date of dumpsite	1988	1990	1970 till 2010
Quantity of waste dumped per day	None	None	None
Utilities on site	Electricity connection is available	Existing Electricity connection is available	Nearby Transformer available for electricity connection. Water facility not available
Site demarcated	Site is currently demarcated with a boundary wall.	Site is currently demarcated with a boundary wall.	Site is currently demarcated with a boundary wall.
Interlinked Facilities	Near to the dumpsite MCF, RRF and Windrow Plant is working	Near to the dumpsite MCF, and RRF is working	None
Availability of electrical power	440 LV grid available at Dumpsite	440 LV grid available at 100m from site	None
Availability of water for process	Water connection is not Available within Dumpsite	Water to be supplied by tanker	None

Name of Dumpsite	Kumbalathumury Dumpsite	Kalamassery dumpsite	Thalipaduppu, Kasaragod
Detail property surrounding dumpsite	One quarry situated nearby dump site stone	National Highway and Metro passing through the Western boundary and Railway line passing through the western side of the dumpsite One Crematorium owned by the ULB is operating near the dumpsite	Close proximity to the commercial areas like shops - KSEB office and Other residential areas. Educational institutions such as Govt. UP school Adakabathil - 750 m Arabian Sea - 1.8 km Stream (Sankaran Kuzhi Thodu) - 300 m

Name of Dumpsite	Athithattu, Iritty	Palaparamba-Koothuparamba	Adlayed, Kalpetta
Location of Dumpsite	Ward 12, Athithattu, Iritty	Ward 05, Palaparamba, Koothuparamba, Thalassery Taluk, Kannur	Adlayed, Kalpetta - Ward 23, Kalpetta Taluk, Wayanad
Co-ordinates of Dumpsite	11° 58' 04.41" N 75° 40' 54.066" E	11° 50' 10.14" N, 75° 34' 18.959" E	11° 35' 24.3" N 76° 03' 19.2" E
Distance from the central part of the town	1 km	1 km	2 km
Area of dumpsite	2 Acre 40.44 Cent	4 Acre 81.69 Cents	3.65 Acres
Legacy waste spread	0.11 Acre	0.986 Acre	1.12 Acres
Total Land area	2 Acre 40.44 Cent	4 Acre 81.69 Cents	3.65 Acres
Average height of dumpsite	Above Ground 4.5 m	Above Ground 5.5 m	Above Ground 3 m
Ownership of dumpsite land	Municipality	Municipality	Municipality
Distance from nearby features- residential, school, offices, temples, institutions, industry etc.)	200 m	200 m	250 m
Start date of dumpsite	2000 till 2020	1973	1980 till 2010
Quantity of waste dumped per day	None	None	None
Utilities on site	Existing Electricity connection is available. Bore water facility available at site	Existing Electricity connection is available. Bore water facility available at site	Existing Electricity connection is available. Bore water available at site
Site demarcated	Site is currently demarcated with a boundary wall.	Site is currently demarcated.	Site is currently demarcated.
Interlinked Facilities	Near to the dumpsite MCF, Windrow compost unit and RRF building is available	Near to the dumpsite MCF, Windrow compost unit, Vermi compost unit and RRF building is available	Near to the dumpsite MCF, Windrow compost unit, Vermi compost unit and RRF building is available
Availability of electrical power	Electricity connection is available	Electricity connection is available	Electricity connection is available
Availability of water for process	Water connection is Available within Dumpsite	Water connection is Available within Dumpsite	Water connection is Available within Dumpsite

Name of Dumpsite	Athithattu, Iritty	Palaparamba-Koothuparamba	Adlayed, Kalpetta
Detail property surrounding dumpsite	Educational institutions such as Global India Public School - 1.20 Km Poonthurutti kunnu (hiking area) - 2.1 km Kolly waterfall - 1. 8 km Baveli river - 1.25 km Athithattu hill view - 800 m	Educational institutions such as Govt. HSS-Koothuparambu - 730 m Nearest Pond - 300 m Anjarakandy River - 3.5 km	Educational institutions such as Govt. Sanskrit HSS - 500 m Kabini river - 3 km Nearest Pond - 1. 34 Km

Name of Dumpsite	North Paravoor dumpsite	Kayamkulam-Murikkummodu	Koothattukulam dumpsite
Location of Dumpsite	Ward No. 10 of the municipality	Ward No. 22 of the municipality	Ward No. 15 of the municipality
Co-ordinates of Dumpsite	10.151089°N 76.242185°E	9.173379°N 76.521623°E	9.863771° N 76.590936° E
Distance from the central part of the town	2.2 km	2.8 km	1.0 km
Area of dumpsite	1.5 Acres	1 acre	40 Cent
Legacy waste spread	1.25 Acres	0.65 Acre	29 Cent
Total Land area	1.5 Acres	1 acre	40 Cent
Average height of dumpsite	Above the Ground level 2.33 m 6.75 m below the Ground Level	Below 1.2m and Above 3.3 m	0.8 m (Above GL)
Ownership of dumpsite land	Municipality	Municipality	Municipality
Distance from nearby features-residential, school, offices, temples, institutions, industry etc.)	There are a Residential and other structures within 25 meters from the site	There are Residential and other structures within 10 meters from the site	There is Residential and other structures within 20 meters from the site
Start date of dumpsite	2001	1940	1990
Quantity of waste dumped per day	None	None	None
Utilities on site	Electricity connection is available	440 LV grid available at 100m from site. Water connection available at dumpsite, drinking water to be supplied by tanker	Electricity connection is available
Site demarcated	Site is currently demarcated with boundary wall.	Site is currently demarcated with a boundary wall.	Site is currently demarcated with boundary wall.
Interlinked Facilities	Near to the dumpsite MCF, RRF and Near to the dumpsite MCF, RRF and Windrow Plant is working VermiPlant is working	Near to the dumpsite MCF, RRF and Near to the dumpsite MCF, RRF and Windrow is working	MCF located within the dumpsite area
Availability of electrical power	440 LV grid available within dumpsite	440 LV grid available within dumpsite	440 LV grid available at 100m from site

Name of Dumpsite	North Paravoor dumpsite	Kayamkulam-Murikkummodu	Koothattukulam dumpsite
Availability of water for process	No water connection at site.	No water connection at site.	Water is not available at dumpsite, water to be supplied by tanker
Detail property surrounding dumpsite	Fire Station Located at Northern Side of the Dumpsite	Kayamkulam Police station is at a distance of 2.08 km. Fire station at 2.79km. Hospitals ie Medical Trust Hospital at 2.14km. Govt Taluk Hospital at a distance of 2.40km.	Koothattukulam Market and Bus Stand is located very adjacent to the dumpsite

Contractor's Representative and Key Personnel

[Note: Insert in the following table, the minimum key specialists required to execute the contract, taking into account the nature, scope, complexity and risks of the contract.]

Contractor's Representative and Key Personnel

Item No.	Position/specialization	Relevant academic qualifications	Minimum years of relevant work experience
1	Contractor's Representative	BE/ B.Tech. - Civil/ Mechanical Engineering	min. 15 years' experience in executing Solid Waste Management projects with minimum 7 years' experience in legacy waste dumpsite Biomining and Bioremediation projects
<i>Key Personnel for Design</i>			
2.	Solid Waste Management Specialist	B.E./B.Tech-Civil Engineering	min. 10 years' experience in executing Solid Waste Management projects with minimum 7 years' experience in legacy waste dumpsite Biomining and Bioremediation projects
3.	Environmental Specialist	BE/ B.Tech./ Environment Engineering/ Civil Engineering/ Post Graduate in Environment Science	minimum. 10 years' experience Solid Waste Management Project or Similar Projects
4.	Health and Safety Specialist	Graduate (preferably Civil Engineer) with accepted Certificate, Diploma or similar in Health and Safety	minimum 10 years' experience in similar work environment
5.	Social Specialist	Master's in social works (MSW)/ Masters in Social Science	minimum 10 years' of experience in monitoring and managing risks related to Social issues

6.	Labor Welfare Expert (Need based)	Graduate in Law	Minimum 5 years of working experience on Labour Welfare programs
<i>Key Personnel for Work Execution</i>			
7.	Mechanical/ Electrical Engineer	B.E./ B.Tech. - Mechanical/ Electrical Engineering	minimum 10 years' experience in Solid Waste Management Works
8.	Site Engineer/ Civil Engineer	B.E./ B.Tech. – Civil Engineering	minimum 10 years' experience in Solid Waste Management Works with at least 5 years' experience in Biomining and Bioremediation of Legacy Waste Dumpsite
9	Occupational health and safety specialist	Diploma in OHS/ Safety Engineering	Minimum 10 years' experience in managing Occupational health and safety in any large Construction/ Urban Infrastructure Projects with at least 5 years' experience in managing such activities in Solid Waste Management projects
10	Environmental Specialist	BE/ B.Tech./ Environmental or civil Engineering/ Post Graduate in Environmental Science	minimum. 10 years' experience in Solid Waste Management/similar Projects
11	Social Specialist	Master's in social works (MSW)/ Masters in Social Science	minimum 10 years' of experience in monitoring and managing risks related to Social issues

PART 3 – Conditions of Contract and Contract Forms

Section VIII - General Conditions of Contract

These General Conditions of Contract (GCC), read in conjunction with the Particular Conditions of Contract (PCC) and other documents listed therein, should be a complete document expressing fairly the rights and obligations of both parties.

These General Conditions of Contract have been developed on the basis of considerable international experience in the drafting and management of contracts, bearing in mind a trend in the Solid Waste Management industry towards simpler, more straightforward language.

The GCC can be used for both smaller admeasurement contracts and lump sum contracts.

General Conditions of Contract

A. General

1. Definitions

Boldface type is used to identify defined terms.

- (a) The **Accepted Contract Amount** means the amount accepted in the Letter of Acceptance for the execution and completion of the Works and the remedying of any defects.
- (b) The **Activity Schedule (also interchangeably referred as “Schedule of Activities”)** is a schedule of the activities comprising the construction, installation, testing, and commissioning of the Works in a lump-sum contract. It includes a lump-sum price for each activity, which is used for valuations and for assessing the effects of Variations and Compensation Events.
- (c) The **Adjudicator** is the person appointed jointly by the Employer and the Contractor to resolve disputes in the first instance, as provided for in GCC 23.
- (d) **Bank** means the financing institution **named in the PCC**.
- (e) **Bill of Quantities** means the priced and completed Bill of Quantities forming part of the Bid, if applicable.
- (f) **Compensation Events** are those defined in GCC Clause 46 hereunder.
- (g) The **Completion Date** is the date of completion of the Works as certified by the Project Manager, in accordance with GCC Sub-Clause 57.1.
- (h) The **Contract** is the Contract between the Employer and the Contractor to execute, complete, and maintain the Works. It consists of the documents listed in GCC Sub-Clause 2.3 below.
- (i) The **Contractor** is the party whose Bid to carry out the Works has been accepted by the Employer.
- (j) The **Contractor’s Bid** is the completed bidding document submitted by the Contractor to the Employer.
- (k) The **Contract Price** is the Accepted Contract Amount stated in the Letter of Acceptance and thereafter as adjusted in accordance with the Contract.
- (l) **Days** are calendar days; months are calendar months.
- (m) **Dayworks** are varied work inputs subject to payment on a time basis for the Contractor’s employees and

- Equipment, in addition to payments for associated Materials and Plant.
- (n) A **Defect** is any part of the Works not completed in accordance with the Contract.
 - (o) The **Defects Liability Certificate** is the certificate issued by Project Manager upon correction of defects by the Contractor.
 - (p) The **Defects Liability Period** is the period **named in the PCC** pursuant to GCC Sub-Clause 38.1 and calculated from the Completion Date.
 - (q) **Drawings** means the drawings of the Works, as included in the Contract, and any additional and modified drawings issued by (or on behalf of) the Employer in accordance with the Contract, include calculations and other information provided or approved by the Project Manager for the execution of the Contract.
 - (r) The **Employer** is the party who employs the Contractor to carry out the Works, **as specified in the PCC**.
 - (s) **Equipment** is the Contractor's machinery and vehicles brought temporarily to the Site to construct the Works.
 - (t) "**In writing**" or "**written**" means hand-written, type-written, printed or electronically made, and resulting in a permanent record;
 - (u) The **Initial Contract Price** is the Contract Price listed in the Employer's Letter of Acceptance.
 - (v) The **Intended Completion Date** is the date on which it is intended that the Contractor shall complete the Works. The **Intended Completion Date** is specified in the PCC. The **Intended Completion Date** may be revised only by the Project Manager by issuing an extension of time or an acceleration order.
 - (w) **Materials** are all supplies, including consumables, used by the Contractor for incorporation in the Works.
 - (x) **Plant** is any integral part of the Works that shall have a mechanical, electrical, chemical, or biological function.
 - (y) The **Project Manager** is the person named in the PCC (or any other competent person appointed by the Employer and notified to the Contractor, to act in replacement of the Project Manager) who is responsible for supervising the execution of the Works and administering the Contract.

- (z) **PCC** means Particular Conditions of Contract.
- (aa) The **Site** is the area defined as such in the PCC.
- (bb) **Site Investigation Reports** are those that were included in the bidding document and are factual and interpretative reports about the surface and subsurface conditions at the Site.
- (cc) **Specification** means the Specification of the Works included in the Contract and any modification or addition made or approved by the Project Manager.
- (dd) The **Start Date** is **given in the PCC**. It is the latest date when the Contractor shall commence execution of the Works. It does not necessarily coincide with any of the Site Possession Dates.
- (ee) A **Subcontractor** is a person or corporate body who has a Contract with the Contractor to carry out a part of the work in the Contract, which includes work on the Site.
- (ff) **Temporary Works** are works designed, constructed, installed, and removed by the Contractor that are needed for execution or installation of the Works.
- (gg) A **Variation** is an instruction given by the Project Manager which varies the Works.
- (hh) The **Works** are what the Contract requires the Contractor to design, construct, install, and turn over to the Employer, as defined in the PCC.
- (ii) “**Contractor’s Personnel**” refers to all personnel whom the Contractor utilizes on the Site or other places where the Works are carried out, including the staff, labor and other employees of each Subcontractor.
- (jj) “**Key Personnel**” means the positions (if any) of the Contractor’s personnel that are stated in the Employer’s Requirement.
- (kk) “**ES**” means Environmental and Social (including Sexual Exploitation and Abuse (SEA), and Sexual Harassment (SH)).
- (ll) “**Sexual Exploitation and Abuse**” “**(SEA)**” means the following:

Sexual Exploitation is defined as any actual or attempted abuse of position of vulnerability, differential power or trust, for sexual purposes, including, but not limited to,

profiting monetarily, socially or politically from the sexual exploitation of another;

Sexual Abuse is defined as the actual or threatened physical intrusion of a sexual nature, whether by force or under unequal or coercive conditions.

- (mm) **“Sexual Harassment” “(SH)”** is defined as unwelcome sexual advances, requests for sexual favors, and other verbal or physical conduct of a sexual nature by the Contractor’s Personnel with other Contractor’s or Employer’s Personnel; and
- (nn) **“Employer’s Personnel”** refers to the Project Manager and all other staff, labor and other employees (if any) of the Project Manager and of the Employer engaged in fulfilling the Employer’s obligations under the Contract; and any other personnel identified as Employer’s Personnel, by a notice from the Employer or the Project Manager to the Contractor.

2. Interpretation

- 2.1 In interpreting these GCC, words indicating one gender include all genders. Words indicating the singular also include the plural and words indicating the plural also include the singular. Headings have no significance. Words have their normal meaning under the language of the Contract unless specifically defined. The Project Manager shall provide instructions clarifying queries about these GCC.
- 2.2 If sectional completion is **specified in the PCC**, references in the GCC to the Works, the Completion Date, and the Intended Completion Date apply to any Section of the Works (other than references to the Completion Date and Intended Completion Date for the whole of the Works).
- 2.3 The documents forming the Contract shall be interpreted in the following order of priority:
 - (a) Agreement,
 - (b) Letter of Acceptance,
 - (c) Contractor’s Bid (Technical Part as well as Financial Part),
 - (d) Particular Conditions of Contract,
 - (e) General Conditions of Contract, including Appendices,
 - (f) Employer’s Requirement,

(g) Completed Activity Schedule,¹ and

(h) any other document **listed in the PCC** as forming part of the Contract.

- 3. Language and Law**
- 3.1 The language of the Contract and the law governing the Contract are **stated in the PCC**.
- 3.2 Throughout the execution of the Contract, the Contractor shall comply with the import of goods and services prohibitions in the Employer's country when
- (a) as a matter of law or official regulations, the Borrower's country prohibits commercial relations with that country; or
- (b) by an act of compliance with a decision of the United Nations Security Council taken under Chapter VII of the Charter of the United Nations, the Borrower's Country prohibits any import of goods from that country or any payments to any country, person, or entity in that country.
- 4. Project Manager's Decisions**
- 4.1 Except where otherwise specifically stated, the Project Manager shall decide contractual matters between the Employer and the Contractor in the role representing the Employer.
- 5. Delegation**
- 5.1 Unless otherwise **specified in the PCC**, the Project Manager may delegate any of his duties and responsibilities to other people, except to the Adjudicator, after notifying the Contractor, and may revoke any delegation after notifying the Contractor.
- 6. Communications**
- 6.1 Communications between parties that are referred to in the Conditions shall be effective only when in writing. A notice shall be effective only when it is delivered.

7. Subcontracting	7.1 The Contractor may subcontract with the approval of the Project Manager, but may not assign the Contract without the approval of the Employer in writing. Subcontracting shall not alter the Contractor's obligations. The Contractor shall require that its Subcontractors execute the Works in accordance with the Contract, including complying with the relevant ES requirements and the obligations set out in Sub-Clause 28.1.
8. Other Contractors	8.1 The Contractor shall cooperate and share the Site with other contractors, public authorities, utilities, and the Employer between the dates given in the Schedule of Other Contractors, as referred to in the PCC . The Contractor shall also provide facilities and services for them as described in the Schedule. The

¹ In lump-sum contracts, delete "Bill of Quantities" and replace with "Activity Schedule."

	<p>Employer may modify the Schedule of Other Contractors, and shall notify the Contractor of any such modification.</p> <p>8.2 The Contractor shall also, as stated in the Specifications or as instructed by the Project Manager, cooperate with and allow appropriate opportunities for the Employer's or any other personnel, notified to the Contractor by the Employer or Project Manager, to conduct any environmental and social assessment.</p>
8.A Design	8.A.1 Contractor shall meet Design obligations as stated under Appendix-C to GCC

9. Personnel and Equipment

- 9.1 The Contractor shall employ the Key Personnel and use the Equipment identified in its Bid, to carry out the Works or other personnel and Equipment approved by the Project Manager. The Project Manager shall approve any proposed replacement of Key Personnel and Equipment only if their relevant qualifications or characteristics are substantially equal to or better than those proposed in the Bid.
- 9.2 The Project Manager may require the Contractor to remove (or cause to be removed) any person employed on the Site or Works, including the Key Personnel (if any), who:
- (a) persists in any misconduct or lack of care;
 - (b) carries out duties incompetently or negligently;
 - (c) fails to comply with any provision of the Contract;
 - (d) persists in any conduct which is prejudicial to safety, health, or the protection of the environment;
 - (e) based on reasonable evidence, is determined to have engaged in Fraud and Corruption during the execution of the Works;
 - (f) has been recruited from the Employer's Personnel;
 - (g) undertakes behavior which breaches the Code of Conduct for Contractor's Personnel (ES).

If appropriate, the Contractor shall then promptly appoint (or cause to be appointed) a suitable replacement with equivalent skills and experience.

Notwithstanding any requirement from the Project Manager to remove or cause to remove any person, the Contractor shall take immediate action as appropriate in response to any violation of (a) through (g) above. Such immediate action shall include removing (or causing to be removed) from the Site or other places where the Works are being carried out, any Contractor's Personnel who engages in (a), (b), (c), (d), (e) or (g) above or has been recruited as stated in (f) above."

- 9.3 The Contractor shall take all necessary safety measures to avoid the occurrence of incidents and injuries to any third party associated with the use of, if any, Equipment on public roads or other public infrastructure. The Contractor shall monitor road safety incidents and accidents to identify negative safety issues, and establish and implement necessary measures to resolve them.
- 9.4 Labor

9.4.1 *Engagement of Staff and Labor.* The Contractor shall provide and employ on the Site for the execution of the Works such skilled, semi-skilled and unskilled labor as is necessary for the proper and timely execution of the Contract. The Contractor is encouraged, to the extent practicable and reasonable, to employ staff and labor with appropriate qualifications and experience from sources within the Country.

Unless otherwise provided in the Contract, the Contractor shall be responsible for the recruitment, transportation, accommodation and welfare facilities in accordance with GCC Sub-Clause 9.4.6, of the Contractor's Personnel, and for all payments in connection therewith.

The Contractor shall provide the Contractor's Personnel information and documentation that are clear and understandable regarding their terms and conditions of employment. The information and documentation shall set out their rights under relevant labor laws applicable to the Contractor's Personnel (which will include any applicable collective agreements), including their rights related to hours of work, wages, overtime, compensation and benefits, as well as those arising from any requirements in the Specifications. The Contractor's Personnel shall be informed when any material changes to their terms or conditions of employment occur.

9.4.2 *Conditions of Labor.* The Contractor shall inform the Contractor's Personnel about:

- (a) any deduction to their payment and the conditions of such deductions in accordance with the applicable laws or as stated in the Specifications; and
- (b) their liability to pay personal income taxes in the Country in respect of such of their salaries, wages, allowances and any benefits as are subject to tax under the laws of the Country for the time being in force.

The Contractor shall perform such duties in regard to such deductions thereof as may be imposed on him by such laws.

Where required by applicable laws or as stated in the Specifications, the Contractor shall provide the Contractor's Personnel written notice of termination of employment and details of severance payments in a timely manner. The Contractor shall have paid the Contractor's Personnel (either directly or where appropriate for their benefit) all due wages and entitlements including, as applicable, social security benefits and pension contributions, on or before the end of their engagement/ employment.

-
- 9.4.3 The Contractor may bring into the Country any foreign personnel who are necessary for the execution of the Works to the extent allowed by the applicable Laws. The Contractor shall ensure that these personnel are provided with the required residence visas and work permits. The Employer will, if requested by the Contractor, use its best endeavors in a timely and expeditious manner to assist the Contractor in obtaining any local, state, national, or government permission required for bringing in the Contractor's personnel.
- 9.4.4 The Contractor shall at its own expense provide the means of repatriation to and the Contractor's Personnel employed on the Contract at the Site to their various home countries. It shall also provide suitable temporary maintenance of all such persons from the cessation of their employment on the Contract to the date programmed for their departure. In the event that the Contractor defaults in providing such means of transportation and temporary maintenance, the Employer may provide the same to such personnel and recover the cost of doing so from the Contractor.
- 9.4.5 *Disorderly conduct.* The Contractor shall at all times during the progress of the Contract use its best endeavors to prevent any unlawful, riotous or disorderly conduct or behavior by or amongst the Contractor's Personnel.
- 9.4.6 *Facilities for Staff and Labor.* Except as otherwise stated in the Specification, the Contractor shall provide and maintain all necessary accommodation and welfare facilities for the Contractor's Personnel. If stated in the Specification, the Contractor shall give access to or provide services that accommodate the physical, social and cultural needs of the Contractor's Personnel. The Contractor shall also provide similar facilities for the Employer's Personnel if stated in the Specifications.
- 9.4.7 The Contractor shall, in all dealings with the Contractor's Personnel, pay due regard to all recognized festivals, official holidays, religious or other customs and all local laws and regulations pertaining to the employment of labor. The Contractor shall provide the Contractor's Personnel annual holiday and sick, maternity and family leave, as required by applicable laws or as stated in the Specifications.
- 9.4.8 *Supply of Foodstuffs.* The Contractor shall arrange for the provision of a sufficient supply of suitable food as may be stated in the Specification at reasonable prices for the

Contractor's Personnel for the purposes of or in connection with the Contract.

- 9.4.9 *Supply of Water.* The Contractor shall, having regard to local conditions, provide on the Site an adequate supply of drinking and other water for the use of the Contractor's Personnel.
- 9.4.10 *Measures against Insect and Pest Nuisance.* The Contractor shall at all times take the necessary precautions to protect the Contractor's Personnel employed on the Site from insect and pest nuisance, and to reduce the danger to their health. The Contractor shall comply with all the regulations of the local health authorities, including use of appropriate insecticide.
- 9.4.11 *Alcoholic Liquor or Drugs.* The Contractor shall not, otherwise than in accordance with the laws of the Country, import, sell, give, barter or otherwise dispose of any alcoholic liquor or drugs, or permit or allow importation, sale, gift, barter or disposal thereto by Contractor's Personnel.
- 9.4.12 *Arms and Ammunition.* The Contractor shall not give, barter, or otherwise dispose of, to any person, any arms or ammunition of any kind, or allow Contractor's Personnel to do so.
- 9.4.13 *Funeral Arrangements.* The Contractor shall be responsible, to the extent required by local regulations, for making any funeral arrangements for any of its local employees who may die while engaged upon the Works.
- 9.4.14 *Forced Labor.* The Contractor, including its Subcontractors, shall not employ or engage forced labor. Forced labor consists of any work or service, not voluntarily performed, that is exacted from an individual under threat of force or penalty, and includes any kind of involuntary or compulsory labor, such as indentured labor, bonded labor or similar labor-contracting arrangements.

No persons shall be employed or engaged who have been subject to trafficking. Trafficking in persons is defined as the recruitment, transportation, transfer, harboring or receipt of persons by means of the threat or use of force or other forms of coercion, abduction, fraud, deception, abuse of power, or of a position of vulnerability, or of the giving or receiving of payments or benefits to achieve the consent of a person having control over another person, for the purposes of exploitation.

- 9.4.15 *Child Labor.* The Contractor, including its Subcontractors, shall not employ or engage a child under the age of 14 unless the national law specifies a higher age (the minimum age).

The Contractor, including its Subcontractors, shall not employ or engage a child between the minimum age and the age of 18

in a manner that is likely to be hazardous, or to interfere with, the child's education, or to be harmful to the child's health or physical, mental, spiritual, moral, or social development.

The Contractor including its Subcontractors, shall only employ or engage children between the minimum age and the age of 18 after an appropriate risk assessment has been conducted by the Contractor with the Project Manager's approval. The Contractor shall be subject to regular monitoring by the Project Manager that includes monitoring of health, working conditions and hours of work.

Work considered hazardous for children is work that, by its nature or the circumstances in which it is carried out, is likely to jeopardize the health, safety, or morals of children. Such work activities prohibited for children include work:

- (a) with exposure to physical, psychological or sexual abuse;
- (b) underground, underwater, working at heights or in confined spaces;
- (c) with dangerous machinery, equipment or tools, or involving handling or
- (d) transport of heavy loads;
- (e) in unhealthy environments exposing children to hazardous substances, agents, or processes, or to temperatures, noise or vibration damaging to health; or
- (f) under difficult conditions such as work for long hours, during the night or in confinement on the premises of the employer.

9.4.16 *Employment Records of Workers.* The Contractor shall keep complete and accurate records of the employment of labor at the Site. The records shall include the names, ages, genders, hours worked, and wages paid to all workers. These records shall be summarized on a monthly basis and submitted to the project Manager.

9.4.17 *Workers' Organizations.* In countries where the relevant labor laws recognize workers' rights to form and to join workers' organizations of their choosing and to bargain collectively without interference, the Contractor shall comply with such laws. In such circumstances, the role of legally established workers' organizations and legitimate workers' representatives will be respected, and they will be provided with information needed for meaningful negotiation in a timely manner. Where the relevant labor laws substantially restrict workers' organizations, the Contractor shall enable alternative means for

the Contractor's Personnel to express their grievances and protect their rights regarding working conditions and terms of employment. The Contractor shall not seek to influence or control these alternative means. The Contractor shall not discriminate or retaliate against the Contractor's Personnel who participate, or seek to participate, in such organizations and collective bargaining or alternative mechanisms. Workers' organizations are expected to fairly represent the workers in the workforce.

- 9.4.18 *Non-Discrimination and Equal Opportunity.* The Contractor shall not make decisions relating to the employment or treatment of Contractor's Personnel on the basis of personal characteristics unrelated to inherent job requirements. The Contractor shall base the employment of Contractor's Personnel on the principle of equal opportunity and fair treatment, and shall not discriminate with respect to any aspects of the employment relationship, including recruitment and hiring, compensation (including wages and benefits), working conditions and terms of employment, access to training, job assignment, promotion, termination of employment or retirement, and disciplinary practices.

Special measures of protection or assistance to remedy past discrimination or selection for a particular job based on the inherent requirements of the job shall not be deemed discrimination. The Contractor shall provide protection and assistance as necessary to ensure non-discrimination and equal opportunity, including for specific groups such as women, people with disabilities, migrant workers and children (of working age in accordance with GCC Sub-Clause 9.4.15).

- 9.4.19 *Contractor's Personnel Grievance Mechanism.* The Contractor shall have a grievance mechanism for Contractor's Personnel, and where relevant the workers' organizations stated in GCC Sub-Clause 9.4.17, to raise workplace concerns. The grievance mechanism shall be proportionate to the nature, scale, risks and impacts of the Contract. The mechanism shall address concerns promptly, using an understandable and transparent process that provides timely feedback to those concerned in a language they understand, without any retribution, and shall operate in an independent and objective manner.

The Contractor's Personnel shall be informed of the grievance mechanism at the time of engagement for the Contract, and the measures put in place to protect them against any reprisal for

its use. Measures will be put in place to make the grievance mechanism easily accessible to all Contractor's Personnel.

The grievance mechanism shall not impede access to other judicial or administrative remedies that might be available, or substitute for grievance mechanisms provided through collective agreements.

The grievance mechanism may utilize existing grievance mechanisms, providing that they are properly designed and implemented, address concerns promptly, and are readily accessible to Contractor's Personnel. Existing grievance mechanisms may be supplemented as needed with Contract-specific arrangements.

9.4.20 *Training of Contractor's Personnel.* The Contractor shall provide appropriate training to relevant Contractor's Personnel on ES aspects of the Contract, including appropriate sensitization on prohibition of SEA and SH, and health and safety training referred to in GCC Sub-Clause 18.2.

As stated in the Specifications or as instructed by the Project Manager, the Contractor shall also allow appropriate opportunities for the relevant Contractor's Personnel to be trained on ES aspects of the Contract by the Employer's Personnel.

The Contractor shall provide training on SEA and SH, including its prevention, to any of its personnel who has a role to supervise other Contractor's Personnel.

10. Employer's and Contractor's Risks

10.1 The Employer carries the risks which this Contract states are Employer's risks, and the Contractor carries the risks which this Contract states are Contractor's risks.

11. Employer's Risks

11.1 From the Start Date until the Defects Liability Certificate has been issued, the following are Employer's risks:

- (a) The risk of personal injury, death, or loss of or damage to property (excluding the Works, Plant, Materials, and Equipment), which are due to
 - (i) use or occupation of the Site by the Works or for the purpose of the Works, which is the unavoidable result of the Works or
 - (ii) negligence, breach of statutory duty, or interference with any legal right by the Employer or by any person employed by or contracted to him except the Contractor.

- (b) The risk of damage to the Works, Plant, Materials, and Equipment to the extent that it is due to a fault of the Employer or in the Employer's design, or due to war or radioactive contamination directly affecting the country where the Works are to be executed.

11.2 From the Completion Date until the Defects Liability Certificate has been issued, the risk of loss of or damage to the Works, Plant, and Materials is an Employer's risk except loss or damage due to

- (a) a Defect which existed on the Completion Date,
- (b) an event occurring before the Completion Date, which was not itself an Employer's risk, or
- (c) the activities of the Contractor on the Site after the Completion Date.

12. Contractor's Risks

12.1 From the Starting Date until the Defects Liability Certificate has been issued, the risks of personal injury, death, and loss of or damage to property (including, without limitation, the Works, Plant, Materials, and Equipment) which are not Employer's risks are Contractor's risks.

13. Insurance

13.1 The Contractor shall provide, in the joint names of the Employer and the Contractor, insurance cover from the Start Date to the end of the Defects Liability Period, in the amounts and deductibles **stated in the PCC** for the following events which are due to the Contractor's risks:

- (a) loss of or damage to the Works, Plant, and Materials;
- (b) loss of or damage to Equipment;
- (c) loss of or damage to property (except the Works, Plant, Materials, and Equipment) in connection with the Contract; and
- (d) personal injury or death.

13.2 Policies and certificates for insurance shall be delivered by the Contractor to the Project Manager for the Project Manager's approval before the Start Date. All such insurance shall provide for compensation to be payable in the types and proportions of currencies required to rectify the loss or damage incurred.

13.3 If the Contractor does not provide any of the policies and certificates required, the Employer may effect the insurance which the Contractor should have provided and recover the premiums the Employer has paid from payments otherwise due

to the Contractor or, if no payment is due, the payment of the premiums shall be a debt due.

13.4 Alterations to the terms of an insurance shall not be made without the approval of the Project Manager.

13.5 Both parties shall comply with any conditions of the insurance policies.

14. Site Data

14.1 The Contractor shall be deemed to have examined any Site Data **referred to in the PCC**, supplemented by any information available to the Contractor.

15. Contractor to Construct the Works

15.1 The Contractor shall construct and install the Works in accordance with the Specifications and Drawings.

15.2 If the Contract specifies that the Contractor shall design any part of the permanent Works, the Contractor shall take into account the Employer's requirements which may include, if stated in the Specifications:

- (a) designing structural elements of the Works taking into account climate change considerations;
- (b) applying the concept of universal access (the concept of universal access means unimpeded access for people of all ages and abilities in different situations and under various circumstances; and
- (c) considering the incremental risks of the public's potential exposure to operational accidents or natural hazards, including extreme weather events.

16. The Works to Be Completed by the Intended Completion Date

16.1 The Contractor may commence execution of the Works on the Start Date and shall carry out the Works in accordance with the Program submitted by the Contractor, as updated with the approval of the Project Manager, and complete them by the Intended Completion Date.

16.2 The Contractor shall not carry out mobilization to the Site unless the Project Manager gives approval, an approval that shall not be unreasonably delayed, to the measures the Contractor proposes to address environmental and social risks and impacts, which at a minimum shall include applying the Management Strategies and Implementation Plans (MSIPs) and Code of Conduct for Contractor's Personnel submitted as part of the Bid and agreed as part of the Contract.

The Contractor shall submit, to the Project Manager for its approval any additional MSIPs as are necessary to manage the ES risks and impacts of ongoing Works. These MSIPs

collectively comprise the Contractor's Environmental and Social Management Plan (C-ESMP). The Contractor shall review the C-ESMP, periodically (but not less than every six (6) months), and update it as required to ensure that it contains measures appropriate to the Works. The updated C-ESMP shall be submitted to the Project Manager for its approval.

- 17. Approval by the Project Manager**
- 17.1 The Contractor shall submit Specifications and Drawings showing the proposed Permanent/Temporary Works to the Project Manager, for his approval.
- 17.2 The Contractor shall be responsible for design of Permanent/Temporary Works.
- 17.3 The Project Manager's approval shall not alter the Contractor's responsibility for design of the Permanent/ Temporary Works.
- 17.4 The Contractor shall obtain approval of third parties to the design of the Permanent/ Temporary Works, where required.
- 17.5 All Drawings prepared by the Contractor for the execution of the temporary or permanent Works, are subject to prior approval by the Project Manager before this use.
- 18. Health, Safety and Protection of the Environment**
- 18.1 The Contractor shall be responsible for the protection of the environment and safety of all activities on the Site.
- 18.2 The Contractor shall:
- (a) comply with all applicable environmental, health and safety regulations and Laws;
 - (b) comply with all applicable environmental, health and safety obligations specified in the Contract; including getting required permits and clearances before start of any activity on site
 - (c) take care for the health and safety of all persons entitled to be on the Site and other places, if any, where the Works are being executed;
 - (d) keep the Site and Works clear of unnecessary obstruction so as to avoid danger to these persons;
 - (e) provide fencing, lighting, safe access, guarding and watching of the site and Works until the issue of the Contract Completion Certificate;
 - (f) provide any Temporary Works (including roadways, footways, guards and fences) which may be necessary, because of the execution of the Works, for the use and protection of the public and of owners and occupiers of adjacent land;

-
- (g) provide health and safety training of Contractor's Personnel as appropriate and maintain training records;
 - (h) actively engage the Contractor's Personnel in promoting understanding, and methods for, implementation of health and safety requirements, as well as in providing information to Contractor's Personnel, training on occupational safety and health, and provision of personal protective equipment without expense to the Contractor's Personnel;
 - (i) put in place workplace processes for Contractor's Personnel to report work situations that they believe are not safe or healthy, and to remove themselves from a work situation which they have reasonable justification to believe presents an imminent and serious danger to their life or health.
 - (j) Contractor's Personnel who remove themselves from such work situations shall not be required to return to work until necessary remedial action to correct the situation has been taken. Contractor's Personnel shall not be retaliated against or otherwise subject to reprisal or negative action for such reporting or removal;
 - (k) where the Employer's Personnel, any other contractors employed by the Employer, and/or personnel of any legally constituted public authorities and private utility companies are employed in carrying out, on or near the site, of any work not included in the Contract, collaborate in applying the health and safety requirements, without prejudice to the responsibility of the relevant entities for the health and safety of their own personnel; and
 - (l) establish and implement a system for regular (not less than six-monthly) review of environmental pollution, health and safety performance and the working environment.

Subject to GCC Sub-Clause 16.2, the Contractor shall submit to the Project Manager for its approval a health and safety manual which has been specifically prepared for the Works, the Site and other places (if any) where the Contractor intends to execute the Works.

The health and safety manual shall be in addition to any other similar document required under applicable health and safety regulations and laws.

The health and safety manual shall set out all the health and safety requirements under the Contract,

-
- (a) which shall include at a minimum:
- (i) the procedures to establish and maintain a safe working environment without risk to health at all workplaces, machinery, equipment and processes under the control of the Contractor, including control measures for chemical, physical and biological substances and agents;
 - (ii) details of the training to be provided, records to be kept;
 - (iii) the procedures for prevention, preparedness and response activities to be implemented in the case of an emergency event (i.e. an unanticipated incident, arising from both natural and man-made hazards, typically in the form of fire, explosions, leaks or spills, which may occur for a variety of different reasons including failure to implement operating procedures that are designed to prevent their occurrence, extreme weather or lack of early warning);
 - (iv) remedies for adverse impacts such as occupational injuries, deaths, disability and disease;
 - (v) the measures to be taken to avoid or minimize the potential for community exposure to water-borne, water-based, water-related, and vector-borne diseases,
 - (vi) the measures to be implemented to avoid or minimize the spread of communicable diseases (including transfer of Sexually Transmitted Diseases or Infections (STDs), such as HIV virus) and non-communicable diseases associated with the execution of the Works, taking into consideration differentiated exposure to and higher sensitivity of vulnerable groups. This includes taking measures to avoid or minimize the transmission of communicable diseases that may be associated with the influx of temporary or permanent Contract-related labor;
 - (vii) the policies and procedures on the management and quality of accommodation and welfare facilities if such accommodation and welfare facilities are provided by the Contractor in accordance with GCC Sub-Clause 9.4.6; and
- (b) any other requirements stated in the Specification

18.3 Protection of the environment

The Contractor shall take all necessary measures to:

- 18.3.1 protect the environment (both on and off the Site); and
- 18.3.2 limit damage and nuisance to people and property resulting from pollution, noise and other results of the Contractor's operations and/ or activities.

The Contractor shall ensure that emissions, surface discharges, effluent and any other pollutants from the Contractor's activities shall exceed neither the values indicated in the Specifications, nor those prescribed by applicable laws.

In the event of damage to the environment, property and/or nuisance to people, on or off Site as a result of the Contractor's operations, the Contractor shall agree with the Project Manager the appropriate actions and time scale to remedy, as practicable, the damaged environment to its former condition. The Contractor shall implement such remedies at its cost to the satisfaction of the Project Manager.

19. Archaeological and Geological Findings or Chance found Fauna, Flora

19.1 All fossils, coins, articles of value or antiquity, structures, groups of structures, and other remains or items of geological, archaeological, paleontological, historical, architectural or religious interest or exquisite fauna, flora found on the Site shall be placed under the care and custody of the Employer. The Contractor shall:

- (a) take all reasonable precautions, including fencing-off the area or site of the finding, to avoid further disturbance and prevent Contractor's Personnel or other persons from removing or damaging any of these findings;
- (b) train relevant Contractor's Personnel on appropriate actions to be taken in the event of such findings; and
- (c) implement any other action consistent with the requirements of the Specifications and relevant laws.

The Contractor shall, as soon as practicable after discovery of any such finding, notify the Project Manager of such discoveries and carry out the Project Manager's instructions for dealing with them.

20. Possession of the Site

20.1 The Employer shall give possession of all parts of the Site to the Contractor. If possession of a part is not given by the date **stated in the PCC**, the Employer shall be deemed to have delayed the

start of the relevant activities, and this shall be a Compensation Event.

- 21. Access to the Site**
- 21.1 The Contractor shall allow the Project Manager and any person authorized by the Project Manager (including the Bank staff or consultants acting on the Bank's behalf, stakeholders and third parties, such as independent experts, local communities, or non-governmental organizations), including to carry out environmental and social audit, as appropriate, access to the Site and to any place where work in connection with the Contract is being carried out or is intended to be carried out.
- 22. Instructions, Inspections and Audits**
- 22.1 The Contractor shall carry out all instructions of the Project Manager which comply with the applicable laws where the Site is located.
- 22.2 The Contractor shall keep, and shall make all reasonable efforts to cause its Subcontractors and subconsultants to keep, accurate and systematic accounts and records in respect of the Works in such form and details as will clearly identify relevant time changes and costs.
- 22.3 Inspections & Audit by the Bank
- Pursuant to paragraph 2.2 e. of Appendix A to the GCC- Fraud and Corruption, the Contractor shall permit and shall cause its agents (where declared or not), subcontractors, subconsultants, service providers, suppliers, and personnel, to permit, the Bank and/or persons appointed by the Bank to inspect the site and/or the accounts, records and other documents relating to the procurement process, selection and/or contract execution, and to have such accounts, records and other documents audited by auditors appointed by the Bank. The Contractor's and its Subcontractors' and subconsultants' attention is drawn to GCC Sub-Clause 25.1 (Fraud and Corruption) which provides, inter alia, that acts intended to materially impede the exercise of the Bank's inspection and audit rights constitute a prohibited practice subject to contract termination (as well as to a determination of ineligibility pursuant to the Bank's prevailing sanctions procedures).
- 23. Appointment of the Adjudicator**
- 23.1 The Adjudicator shall be appointed jointly by the Employer and the Contractor, at the time of the Employer's issuance of the Letter of Acceptance. If, in the Letter of Acceptance, the Employer does not agree on the appointment of the Adjudicator, the Employer will request the Appointing Authority **designated**

in the PCC, to appoint the Adjudicator within 14 days of receipt of such request.

23.2 Should the Adjudicator resign or die, or should the Employer and the Contractor agree that the Adjudicator is not functioning in accordance with the provisions of the Contract, a new Adjudicator shall be jointly appointed by the Employer and the Contractor. In case of disagreement between the Employer and the Contractor, within 30 days, the Adjudicator shall be designated by the Appointing Authority **designated in the PCC** at the request of either party, within 14 days of receipt of such request.

24. Procedure for Disputes

24.1 If the Contractor believes that a decision taken by the Project Manager was either outside the authority given to the Project Manager by the Contract or that the decision was wrongly taken, the decision shall be referred to the Adjudicator within 14 days of the notification of the Project Manager's decision.

24.2 The Adjudicator shall give a decision in writing within 28 days of receipt of a notification of a dispute.

24.3 The Adjudicator shall be paid by the hour at the **rate specified in the PCC**, together with reimbursable expenses of the types **specified in the PCC**, and the cost shall be divided equally between the Employer and the Contractor, whatever decision is reached by the Adjudicator. Either party may refer a decision of the Adjudicator to an Arbitrator within 28 days of the Adjudicator's written decision. If neither party refers the dispute to arbitration within the above 28 days, the Adjudicator's decision shall be final and binding.

24.4 The arbitration shall be conducted in accordance with the arbitration procedures published by the institution named and, in the place **specified in the PCC**.

25. Fraud and Corruption

25.1 The Bank requires compliance with the Bank's Anti-Corruption Guidelines and its prevailing sanctions policies and procedures as set forth in the WBG's Sanctions Framework, as set forth in Appendix A to the GCC.

25.2 The Employer requires the Contractor to disclose any commissions or fees that may have been paid or are to be paid to agents or any other party with respect to the bidding process or execution of the Contract. The information disclosed must include at least the name and address of the agent or other party, the amount and currency, and the purpose of the commission, gratuity or fee.

26. Stakeholder Engagement

26.1 The Contractor shall provide relevant contract- related information, as the Employer and/or Project Manager may reasonably request to conduct Stakeholder engagements. “Stakeholder” refers to individuals or groups who:

- (i) are affected or likely to be affected by the Contract; and
- (ii) may have an interest in the Contract.

The Contractor may also directly participate in Stakeholder engagements, as the Employer and/or Project Manager may reasonably request

27. Suppliers (other than Subcontractors)

27.1 **Forced Labor:** The Contractor shall take measures to require its suppliers (other than Subcontractors) not to employ or engage forced labor including trafficked persons as described in GCC Sub-Clause 9.4.14. If forced labor/trafficking cases are identified, the Contractor shall take measures to require the suppliers to take appropriate steps to remedy them. Where the supplier does not remedy the situation, the Contractor shall within a reasonable period substitute the supplier with a supplier that is able to manage such risks.

27.2 *Child Labor:* The Contractor shall take measures to require its suppliers (other than Subcontractors) not to employ or engage child labor as described in GCC Sub-Clause 9.4.15. If child labor cases are identified, the Contractor shall take measures to require the suppliers to take appropriate steps to remedy them. Where the supplier does not remedy the situation, the Contractor shall within a reasonable period substitute the supplier with a supplier that is able to manage such risks.

27.3 *Serious Safety Issues:* The Contractor, including its Subcontractors, shall comply with all applicable safety obligations, including as stated in GCC Sub-Clause 18.2. The Contractor shall also take measures to require its suppliers (other than Subcontractors) to adopt procedures and mitigation measures adequate to address safety issues related to their personnel. If serious safety issues are identified, the Contractor shall take measures to require the suppliers to take appropriate steps to remedy them. Where the supplier does not remedy the situation, the Contractor shall within a reasonable period substitute the supplier with a supplier that is able to manage such risks.

27.4 *Obtaining natural resource materials in relation to supplier:* The Contractor shall obtain natural resource *materials* from suppliers that can demonstrate, through compliance with the applicable verification and/ or certification requirements, that obtaining such materials is not contributing to the risk of

significant conversion or significant degradation of natural or critical habitats such as unsustainably harvested wood products, gravel or sand extraction from river beds or beaches.

If a supplier cannot continue to demonstrate that obtaining such materials is not contributing to the risk of significant conversion or significant degradation of natural or critical habitats, the Contractor shall within a reasonable period substitute the supplier with a supplier that is able to demonstrate that they are not significantly adversely impacting the habitats.

28. Code of Conduct

28.1 The Contractor shall have a Code of Conduct for the Contractor's Personnel.

The Contractor shall take all necessary measures to ensure that each Contractor's Personnel is made aware of the Code of Conduct including specific behaviors that are prohibited, and understands the consequences of engaging in such prohibited behaviors.

These measures include providing instructions and documentation that can be understood by the Contractor's Personnel and seeking to obtain that person's signature acknowledging receipt of such instructions and/or documentation, as appropriate.

The Contractor shall also ensure that the Code of Conduct is visibly displayed in multiple locations on the Site and any other place where the Works will be carried out, as well as in areas outside the Site accessible to the local community and project affected people. The posted Code of Conduct shall be provided in languages comprehensible to Contractor's Personnel, Employer's Personnel and the local community.

The Contractor's Management Strategy and Implementation Plans shall include appropriate processes for the Contractor to verify compliance with these obligations.

29. Security of the Site

29.1 The Contractor shall be responsible for the security of the Site, and:

- (a) for keeping unauthorized persons off the Site;
- (b) authorized persons shall be limited to the Contractor's Personnel, the Employer's Personnel, and to any other personnel identified as authorized personnel (including the Employer's other contractors on the Site), by a notice from the Employer or the Project Manager to the Contractor.

Subject to GCC Sub-Clause 16.2, the Contractor shall submit for the Project Manager's No-objection a security management plan that sets out the security arrangements for the Site

The Contractor shall (i) conduct appropriate background checks on any personnel retained to provide security; (ii) train the security personnel adequately (or determine that they are properly trained) in the use of force (and where applicable, firearms), and appropriate conduct towards Contractor's Personnel, Employer's Personnel and affected communities; and (iii) require the security personnel to act within the applicable Laws and any requirements set out in the Specifications.

The Contractor shall not permit any use of force by security personnel in providing security except when used for preventive and defensive purposes in proportion to the nature and extent of the threat.

In making security arrangements, the Contractor shall also comply with any additional requirements stated in the Specification."

B. Time Control

30. Program and Progress Reports

- 30.1 Within the time **stated in the PCC**, after the date of the Letter of Acceptance, the Contractor shall submit to the Project Manager for approval a Program showing the general methods, arrangements, order, and timing for all the activities in the Works. In the case of a lump-sum contract, the activities in the Program shall be consistent with those in the Activity Schedule. The Project Manager's approval of the Program shall not alter the Contractor's obligations. The Contractor may revise the Program and submit it to the Project Manager again at any time. A revised Program shall show the effect of Variations and Compensation Events.
- 30.2 An update of the Program shall be a program showing the actual progress achieved on each activity and the effect of the progress achieved on the timing of the remaining work, including any changes to the sequence of the activities.
- 30.3 The Contractor shall monitor progress of the Works and submit to the Project manager progress report and any updated Program showing the actual progress achieved and the effect of the progress achieved on the timing of the remaining Works, including any changes to the sequence of the activities, at intervals no longer than the period **stated in the PCC**. If the Contractor does not submit an updated Program within this period, the Project Manager may withhold the amount **stated in**

the PCC from the next payment certificate and continue to withhold this amount until the next payment after the date on which the overdue Program has been submitted. In the case of lump-sum Contract, the Contractor shall provide an updated Activity Schedule within 14 days of being instructed to by the Project Manager.

- 30.4 Unless otherwise stated in the Specifications, each progress report shall include the Environmental and Social (ES) metrics set out in Appendix B. Progress on EMP & EMoP implementation shall be reported.
- 30.5 In addition to the progress reports, the Contractor shall inform the Project Manager immediately of any allegation, incident or accident in the Site, which has or is likely to have a significant adverse effect on the environment, the affected communities, the public, Employer's Personnel, Project Manager's personnel or Contractor's Personnel. This includes, but is not limited to, any incident or accident causing fatality or serious injury; significant adverse effects or damage to private property; or any allegation of SEA and/or SH. In case of SEA and/or SH, while maintaining confidentiality as appropriate, the type of allegation (sexual exploitation, sexual abuse or sexual harassment), gender and age of the person who experienced the alleged incident should be included in the information.

The Contractor, upon becoming aware of the allegation, incident or accident, shall also immediately inform the Project Manager of any such incident or accident on the Subcontractors' or suppliers' premises relating to the Works which has or is likely to have a significant adverse effect on the environment, the affected communities, the public, Employer's Personnel, or Contractor's, its Subcontractors' and suppliers' personnel. The notification shall provide sufficient detail regarding such incidents or accidents. The Contractor shall provide full details of such incidents or accidents to the Project Manager within the timeframe agreed with the Project Manager.

The Contractor shall require its Subcontractors and suppliers (other than Subcontractors) to immediately notify the Contractor of any incidents or accidents referred to in this Subclause.

31. Extension of the Intended Completion Date

- 31.1 The Project Manager shall extend the Intended Completion Date if a Compensation Event occurs or a Variation is issued which makes it impossible for Completion to be achieved by the Intended Completion Date without the Contractor taking steps to accelerate the remaining work, which would cause the Contractor to incur additional cost.

31.2 The Project Manager shall decide whether and by how much to extend the Intended Completion Date within 21 days of the Contractor asking the Project Manager for a decision upon the effect of a Compensation Event or Variation and submitting full supporting information. If the Contractor has failed to give early warning of a delay or has failed to cooperate in dealing with a delay, the delay by this failure shall not be considered in assessing the new Intended Completion Date.

32. Acceleration

32.1 When the Employer wants the Contractor to finish before the Intended Completion Date, the Project Manager shall obtain priced proposals for achieving the necessary acceleration from the Contractor. If the Employer accepts these proposals, the Intended Completion Date shall be adjusted accordingly and confirmed by both the Employer and the Contractor.

32.2 If the Contractor's priced proposals for an acceleration are accepted by the Employer, they are incorporated in the Contract Price and treated as a Variation.

33. Delays Ordered by the Project Manager

33.1 The Project Manager may instruct the Contractor to delay the start or progress of any activity within the Works.

34. Management Meetings

34.1 Either the Project Manager or the Contractor may require the other to attend a management meeting. The business of a management meeting shall be to review the plans for remaining work and to deal with matters raised in accordance with the early warning procedure.

34.2 The Project Manager shall record the business of management meetings and provide copies of the record to those attending the meeting and to the Employer. The responsibility of the parties for actions to be taken shall be decided by the Project Manager either at the management meeting or after the management meeting and stated in writing to all who attended the meeting.

35. Early Warning

35.1 The Contractor shall warn the Project Manager at the earliest opportunity of specific likely future events or circumstances that may adversely affect the quality of the work, increase the Contract Price, or delay the execution of the Works. The Project Manager may require the Contractor to provide an estimate of the expected effect of the future event or circumstance on the Contract Price and Completion Date. The estimate shall be provided by the Contractor as soon as reasonably possible.

35.2 The Contractor shall cooperate with the Project Manager in making and considering proposals for how the effect of such an event or circumstance can be avoided or reduced by anyone

involved in the work and in carrying out any resulting instruction of the Project Manager.

C. Quality Control

- 36. Identifying Defects** 36.1 The Project Manager shall check the Contractor's work and notify the Contractor of any Defects that are found. Such checking shall not affect the Contractor's responsibilities. The Project Manager may instruct the Contractor to search for a Defect and to uncover and test any work that the Project Manager considers may have a Defect.
- 37. Tests** 37.1 If the Project Manager instructs the Contractor to carry out a test not specified in the Specifications to check whether any work has a Defect and the test shows that it does, the Contractor shall pay for the test and any samples. If there is no Defect, the test shall be a Compensation Event.
- 38. Correction of Defects** 38.1 The Project Manager shall give notice to the Contractor of any Defects before the end of the Defects Liability Period, which begins at Completion, and is **defined in the PCC**. The Defects Liability Period shall be extended for as long as Defects remain to be corrected.
- 38.2 Every time notice of a Defect is given, the Contractor shall correct the notified Defect within the length of time specified by the Project Manager's notice.
- 39. Uncorrected Defects** 39.1 If the Contractor has not corrected a Defect within the time specified in the Project Manager's notice, the Project Manager shall assess the cost of having the Defect corrected, and the Contractor shall pay this amount.

D. Cost Control

- 40. Contract Price²** 40.1 The Contractor shall provide updated Activity Schedules within 14 days of being instructed to by the Project Manager. The Activity Schedule shall contain the priced activities for the Works to be performed by the Contractor. The Activity Schedule is used to monitor and control the performance of activities on which basis the Contractor will be paid. If payment

² In lump-sum contracts, replace GCC Sub-Clauses 40.1 as follows:

40.1 The Contractor shall provide updated Activity Schedules within 14 days of being instructed to by the Project Manager. The Activity Schedule shall contain the priced activities for the Works to be performed by the Contractor. The Activity Schedule is used to monitor and control the performance of activities on which basis the Contractor will be paid. If payment for materials on site shall be made separately, the Contractor shall show delivery of Materials to the Site separately on the Activity Schedule.

for materials on site shall be made separately, the Contractor shall show delivery of Materials to the Site separately on the Activity Schedule.

41. Changes in the Contract Price³

41.1 Activity Schedule shall be amended by the Contractor to accommodate changes of Program or method of working made at the Contractor's own discretion. Prices in the Activity Schedule shall not be altered when the Contractor makes such changes to the Activity Schedule.

42. Variations

42.1 All Variations shall be included in updated Programs⁴ and Activity Schedules produced by the Contractor.

42.2 The Contractor shall provide the Project Manager with a quotation for carrying out the Variation when requested to do so by the Project Manager. The Contractor shall also provide information of any ES risks and impacts of the Variation. The Project Manager shall assess the quotation, which shall be given within seven (7) days of the request or within any longer period stated by the Project Manager and before the Variation is ordered.

42.3 If the Contractor's quotation is unreasonable, the Project Manager may order the Variation and make a change to the Contract Price, which shall be based on the Project Manager's own forecast of the effects of the Variation on the Contractor's costs.

42.4 If the Project Manager decides that the urgency of varying the work would prevent a quotation being given and considered without delaying the work, no quotation shall be given and the Variation shall be treated as a Compensation Event.

42.5 The Contractor shall not be entitled to additional payment for costs that could have been avoided by giving early warning.

42.6 Not applicable

42.7 Value Engineering: The Contractor may prepare, at its own cost, a value engineering proposal at any time during the performance of the contract. The value engineering proposal shall, at a minimum, include the following;

- (a) the proposed change(s), and a description of the difference to the existing contract requirements;

³ In lump-sum contracts, replace entire GCC Clause 41 with new GCC Sub-Clause 41.1, as follows:

41.1 The Activity Schedule shall be amended by the Contractor to accommodate changes of Program or method of working made at the Contractor's own discretion. Prices in the Activity Schedule shall not be altered when the Contractor makes such changes to the Activity Schedule.

⁴ In lump-sum contracts, add "and Activity Schedules" after "Programs."

- (b) a full cost/benefit analysis of the proposed change(s) including a description and estimate of costs (including life cycle cost) the Employer may incur in implementing the value engineering proposal;
- (c) a description of any effect(s) of the change on performance/functionality; and
- (d) a description of the proposed work to be performed, a program for its execution and sufficient ES information to enable an evaluation of ES risks and impacts.

The Employer may accept the value engineering proposal if the proposal demonstrates benefits that:

- (a) accelerates the contract completion period; or
 - (b) reduces the Contract Price or the life cycle costs to the Employer; or
 - (c) improves the quality, efficiency, safety or sustainability of the Facilities; or
 - (d) yields any other benefits to the Employer,
- without compromising the functionality of the Works.

If the value engineering proposal is approved by the Employer and results in:

- (a) a reduction of the Contract Price; the amount to be paid to the Contractor shall be the **percentage specified in the PCC** of the reduction in the Contract Price; or
- (b) an increase in the Contract Price; but results in a reduction in life cycle costs due to any benefit described in (a) to (d) above, the amount to be paid to the Contractor shall be the full increase in the Contract Price.

43. Cash Flow Forecasts

43.1 When the Program or Activity Schedule,⁵ is updated, the Contractor shall provide the Project Manager with an updated cash flow forecast. The cash flow forecast shall include different currencies, as defined in the Contract, converted as necessary using the Contract exchange rates.

44. Payment Certificates

44.1 The Contractor shall submit to the Project Manager monthly statements of the estimated value of the work executed less the cumulative amount certified previously.

44.2 The Project Manager shall check the Contractor's monthly statement and certify the amount to be paid to the Contractor.

⁵ In lump-sum contracts, add "or Activity Schedule" after "Program."

- 44.3 The value of work executed shall be determined by the Project Manager.
- 44.4 The value of work executed shall comprise the value of completed activities in the Activity Schedule.⁶
- 44.5 The value of work executed shall include the valuation of Variations and Compensation Events.
- 44.6 The Project Manager may exclude any item certified in a previous certificate or reduce the proportion of any item previously certified in any certificate in the light of later information.
- 44.7 If the Contractor was, or is, failing to perform any ES obligations or work under the Contract, the value of this work or obligation, as determined by the Project Manager, may be withheld until the work or obligation has been performed, and/or the cost of rectification or replacement, as determined by the Project Manager, may be withheld until rectification or replacement has been completed. Failure to perform includes, but is not limited to the following:
- (a) failure to comply with any ES obligations or work described in the Employer's Requirements which may include working outside site boundaries, excessive dust, failure to keep public roads in a safe usable condition, damage to offsite vegetation, pollution of water courses from oils or sedimentation, contamination of land e.g. from oils, human waste, damage to archeology or cultural heritage features, air pollution as a result of unauthorized and/or inefficient combustion;
 - (b) failure to regularly review C-ESMP and/or update it in a timely manner to address emerging ES issues, or anticipated risks or impacts.
 - (c) failure to implement the C-ESMP e.g. failure to provide required training or sensitization;
 - (d) failing to have appropriate consents/permits prior to undertaking Works or related activities.
 - (e) failure to submit ES report/s (as described in Appendix B), or failure to submit such reports in a timely manner.
 - (f) failure to implement Biomining and Bioremediation as instructed by the Project Manager within the specified

⁶ In lump-sum contracts, replace this paragraph with the following: "The value of work executed shall comprise the value of completed activities in the Activity Schedule."

timeframe (e.g. Biomining and Bioremediation addressing non-compliance/s).

45. Payments

- 45.1 Payments shall be adjusted for deductions for advance payments and retention. The Employer shall pay the Contractor the amounts certified by the Project Manager within 28 days of the date of each certificate. If the Employer makes a late payment, the Contractor shall be paid interest on the late payment in the next payment. Interest shall be calculated from the date by which the payment should have been made up to the date when the late payment is made at the prevailing rate of interest for commercial borrowing for each of the currencies in which payments are made.
- 45.2 If an amount certified is increased in a later certificate or as a result of an award by the Adjudicator or an Arbitrator, the Contractor shall be paid interest upon the delayed payment as set out in this clause. Interest shall be calculated from the date upon which the increased amount would have been certified in the absence of dispute.
- 45.3 Unless otherwise stated, all payments and deductions shall be paid or charged in the proportions of currencies comprising the Contract Price.
- 45.4 Items of the Works for which no rate or price has been entered in shall not be paid for by the Employer and shall be deemed covered by other rates and prices in the Contract.

46. Compensation Events

- 46.1 The following shall be Compensation Events:
- (a) The Employer does not give access to a part of the Site by the Site Possession Date pursuant to GCC Sub-Clause 20.1.
 - (b) The Employer modifies the Schedule of Other Contractors in a way that affects the work of the Contractor under the Contract.
 - (c) The Project Manager orders a delay or does not issue Drawings, Specifications, or instructions required for execution of the Works on time.
 - (d) The Project Manager instructs the Contractor to uncover or to carry out additional tests upon work, which is then found to have no Defects.
 - (e) The Project Manager unreasonably does not approve a subcontract to be let.
 - (f) Ground conditions are substantially more adverse than could reasonably have been assumed before issuance of

the Letter of Acceptance from the information issued to bidders (including the Site Investigation Reports), from information available publicly and from a visual inspection of the Site.

- (g) The Project Manager gives an instruction for dealing with an unforeseen condition, caused by the Employer, or additional work required for safety or other reasons.
- (h) Other contractors, public authorities, utilities, or the Employer does not work within the dates and other constraints stated in the Contract, and they cause delay or extra cost to the Contractor.
- (i) The advance payment is delayed.
- (j) The effects on the Contractor of any of the Employer's Risks.
- (k) The Project Manager unreasonably delays issuing a Certificate of Completion.

46.2 If a Compensation Event would cause additional cost or would prevent the work being completed before the Intended Completion Date, the Contract Price shall be increased and/or the Intended Completion Date shall be extended. The Project Manager shall decide whether and by how much the Contract Price shall be increased and whether and by how much the Intended Completion Date shall be extended.

46.3 As soon as information demonstrating the effect of each Compensation Event upon the Contractor's forecast cost has been provided by the Contractor, it shall be assessed by the Project Manager, and the Contract Price shall be adjusted accordingly. If the Contractor's forecast is deemed unreasonable, the Project Manager shall adjust the Contract Price based on the Project Manager's own forecast. The Project Manager shall assume that the Contractor shall react competently and promptly to the event.

46.4 The Contractor shall not be entitled to compensation to the extent that the Employer's interests are adversely affected by the Contractor's not having given early warning or not having cooperated with the Project Manager.

47. Tax

47.1 The Project Manager shall adjust the Contract Price if taxes, duties, and other levies are changed between the date 28 days before the submission of bids for the Contract and the date of the last Completion certificate. The adjustment shall be the change in the amount of tax payable by the Contractor, provided

such changes are not already reflected in the Contract Price or are a result of GCC Clause 49.

48. Currencies

48.1 Where payments are made in currencies other than the currency of the Employer's country **specified in the PCC**, the exchange rates used for calculating the amounts to be paid shall be the exchange rates stated in the Contractor's Bid.

49. Price Adjustment

49.1 Prices shall be adjusted for fluctuations in the cost of inputs only if **provided for in the PCC**. If so provided, the amounts certified in each payment certificate, before deducting for Advance Payment, shall be adjusted by applying the respective price adjustment factor to the payment amounts due in each currency. A separate formula of the type specified below applies to each Contract currency:

$$P_c = A_c + B_c \text{ Imc/Ioc}$$

where:

P_c is the adjustment factor for the portion of the Contract Price payable in a specific currency "c."

A_c and B_c are coefficients⁷ **specified in the PCC**, representing the nonadjustable and adjustable portions, respectively, of the Contract Price payable in that specific currency "c;" and

Imc is the index prevailing at the end of the month being invoiced and Ioc is the index prevailing 28 days before Bid opening for inputs payable: both in the specific currency "c."

49.2 If the value of the index is changed after it has been used in a calculation, the calculation shall be corrected, and an adjustment made in the next payment certificate. The index value shall be deemed to take account of all changes in cost due to fluctuations in costs.

50. Retention

50.1 The Employer shall retain from each payment due to the Contractor the proportion **stated in the PCC** until Completion of the whole of the Works.

50.2 Upon the issue of a Certificate of Completion of the Works by the Project Manager, in accordance with GCC Sub-Clause 57.1, half the total amount retained shall be repaid to the Contractor and half when the Defects Liability Period has passed, and the

⁷ The sum of the two coefficients A_c and B_c should be 1 (one) in the formula for each currency. Normally, both coefficients shall be the same in the formulae for all currencies, since coefficient A_c , for the nonadjustable portion of the payments, is a very approximate figure (usually 0.15) to take account of fixed cost elements or other nonadjustable components. The sum of the adjustments for each currency are added to the Contract Price.

Project Manager has certified that all Defects notified by the Project Manager to the Contractor before the end of this period have been corrected. The Contractor may substitute retention money with an “on demand” Bank guarantee.

51. Liquidated Damages

- 51.1 The Contractor shall pay liquidated damages to the Employer at the rate per day **stated in the PCC** for each day that the Completion Date is later than the Intended Completion Date. The total amount of liquidated damages shall not exceed the amount **defined in the PCC**. The Employer may deduct liquidated damages from payments due to the Contractor. Payment of liquidated damages shall not affect the Contractor’s liabilities.
- 51.2 If the Intended Completion Date is extended after liquidated damages have been paid, the Project Manager shall correct any overpayment of liquidated damages by the Contractor by adjusting the next payment certificate. The Contractor shall be paid interest on the overpayment, calculated from the date of payment to the date of repayment, at the rates specified in GCC Sub-Clause 45.1.

52. Bonus

- 52.1 The Contractor shall be paid a Bonus calculated at the rate per calendar day **stated in the PCC** for each day (less any days for which the Contractor is paid for acceleration) that the Completion is earlier than the Intended Completion Date. The Project Manager shall certify that the Works are complete, although they may not be due to be complete.

53. Advance Payment

- 53.1 The Employer shall make advance payment to the Contractor of the amounts **stated in the PCC** by the date **stated in the PCC**, against provision by the Contractor of an Unconditional Bank Guarantee in a form and by a bank acceptable to the Employer in amounts and currencies equal to the advance payment. The Guarantee shall remain effective until the advance payment has been repaid, but the amount of the Guarantee shall be progressively reduced by the amounts repaid by the Contractor. Interest shall not be charged on the advance payment.
- 53.2 The Contractor is to use the advance payment only to pay for Equipment, Plant, Materials, and mobilization expenses required specifically for execution of the Contract. The Contractor shall demonstrate that advance payment has been used in this way by supplying copies of invoices or other documents to the Project Manager.
- 53.3 The advance payment shall be repaid by deducting proportionate amounts from payments otherwise due to the Contractor, following the schedule of completed percentages of

the Works on a payment basis. No account shall be taken of the advance payment or its repayment in assessing valuations of work done, Variations, price adjustments, Compensation Events, Bonuses, or Liquidated Damages.

- 54. Securities** 54.1 The Performance Security shall be provided to the Employer no later than the date specified in the Letter of Acceptance and shall be issued in an amount **specified in the PCC**, by a bank or surety acceptable to the Employer, and denominated in the types and proportions of the currencies in which the Contract Price is payable. The Performance Security shall be valid until a date 28 days from the date of issue of the Certificate of Completion in the case of a Bank Guarantee, and until one year from the date of issue of the Certificate of Completion in the case of a Performance Bond.
- 55. Dayworks** 55.1 If applicable, the Dayworks rates in the Contractor's Bid shall be used only when the Project Manager has given written instructions in advance for additional work to be paid for in that way.
- 55.2 All work to be paid for as Dayworks shall be recorded by the Contractor on forms approved by the Project Manager. Each completed form shall be verified and signed by the Project Manager within two days of the work being done.
- 55.3 The Contractor shall be paid for Dayworks subject to obtaining signed Dayworks forms.
- 56. Cost of Repairs** 56.1 Loss or damage to the Works or Materials to be incorporated in the Works between the Start Date and the end of the Defects Correction periods shall be remedied by the Contractor at the Contractor's cost if the loss or damage arises from the Contractor's acts or omissions.

E. Finishing the Contract

- 57. Completion** 57.1 The Contractor shall request the Project Manager to issue a Certificate of Completion of the Works, and the Project Manager shall do so upon deciding that the whole of the Works is completed.
- 58. Taking Over** 58.1 The Employer shall take over the Site and the Works within seven days of the Project Manager's issuing a certificate of Completion.
- 59. Final Account** 59.1 The Contractor shall supply the Project Manager with a detailed account of the total amount that the Contractor

considers payable under the Contract before the end of the Defects Liability Period. The Project Manager shall issue a Defects Liability Certificate and certify any final payment that is due to the Contractor within 56 days of receiving the Contractor's account if it is correct and complete. If it is not, the Project Manager shall issue within 56 days a schedule that states the scope of the corrections or additions that are necessary. If the Final Account is still unsatisfactory after it has been resubmitted, the Project Manager shall decide on the amount payable to the Contractor and issue a payment certificate.

60. Operating and Maintenance Manuals

- 60.1 If "as built" Drawings and/or operating and maintenance manuals are required, the Contractor shall supply them by the dates **stated in the PCC**.
- 60.2 If the Contractor does not supply the Drawings and/or manuals by the dates **stated in the PCC** pursuant to GCC Sub-Clause 60.1, or they do not receive the Project Manager's approval, the Project Manager shall withhold the amount **stated in the PCC** from payments due to the Contractor.

61. Termination

- 61.1 The Employer or the Contractor may terminate the Contract if the other party causes a fundamental breach of the Contract.
- 61.2 Fundamental breaches of Contract shall include, but shall not be limited to, the following:
- (a) the Contractor stops work for 28 days when no stoppage of work is shown on the current Program and the stoppage has not been authorized by the Project Manager;
 - (b) the Project Manager instructs the Contractor to delay the progress of the Works, and the instruction is not withdrawn within 28 days;
 - (c) the Employer or the Contractor is made bankrupt or goes into liquidation other than for a reconstruction or amalgamation;
 - (d) a payment certified by the Project Manager is not paid by the Employer to the Contractor within 84 days of the date of the Project Manager's certificate;
 - (e) the Project Manager gives Notice that failure to correct a particular Defect is a fundamental breach of Contract and the Contractor fails to correct it within a reasonable period of time determined by the Project Manager;

- (f) the Contractor does not maintain a Security, which is required;
- (g) the Contractor has delayed the completion of the Works by the number of days for which the maximum amount of liquidated damages can be paid, as **defined in the PCC**; or
- (h) if the Contractor, in the judgment of the Employer has engaged in Fraud and Corruption, as defined in paragraph 2.2 a of the Appendix A to the GCC, in competing for or in executing the Contract, then the Employer may, after giving fourteen (14) days written notice to the Contractor, terminate the Contract and expel him from the Site.

61.3 Notwithstanding the above, the Employer may terminate the Contract for convenience.

61.4 If the Contract is terminated, the Contractor shall stop work immediately, make the Site safe and secure, and leave the Site as soon as reasonably possible.

61.5 When either party to the Contract gives notice of a breach of Contract to the Project Manager for a cause other than those listed under GCC Sub-Clause 61.2 above, the Project Manager shall decide whether the breach is fundamental or not.

62. Payment upon Termination

62.1 If the Contract is terminated because of a fundamental breach of Contract by the Contractor, the Project Manager shall issue a certificate for the value of the work done and Materials ordered less advance payments received up to the date of the issue of the certificate and less the percentage to apply to the value of the work not completed, as **specified in the PCC**. Additional Liquidated Damages shall not apply. If the total amount due to the Employer exceeds any payment due to the Contractor, the difference shall be a debt payable to the Employer.

62.2 If the Contract is terminated for the Employer's convenience or because of a fundamental breach of Contract by the Employer, the Project Manager shall issue a certificate for the value of the work done, Materials ordered, the reasonable cost of removal of Equipment, repatriation of the Contractor's personnel employed solely on the Works, and the Contractor's costs of protecting and securing the Works, and less advance payments received up to the date of the certificate.

- 63. Property** 63.1 All Materials on the Site, Plant, Equipment, Temporary Works, and Works shall be deemed to be the property of the Employer if the Contract is terminated because of the Contractor's default.
- 64. Release from Performance** 64.1 If the Contract is frustrated by the outbreak of war or by any other event entirely outside the control of either the Employer or the Contractor, the Project Manager shall certify that the Contract has been frustrated. The Contractor shall make the Site safe and stop work as quickly as possible after receiving this certificate and shall be paid for all work carried out before receiving it and for any work carried out afterwards to which a commitment was made.
- 65. Suspension of Bank Loan or Credit** 65.1 In the event that the Bank suspends the Loan or Credit to the Employer, from which part of the payments to the Contractor are being made:
- (a) The Employer is obligated to notify the Contractor of such suspension within 7 days of having received the Bank's suspension notice.
 - (b) If the Contractor has not received sums due to it within the 28 days for payment provided for in GCC Sub-Clause 45.1, the Contractor may immediately issue a 14-day termination notice.

APPENDIX A TO GENERAL CONDITIONS

Fraud and Corruption *(Text in this Appendix shall not be modified)*

1. Purpose

1.1 The Bank's Anti-Corruption Guidelines and this annex apply with respect to procurement under Bank Investment Project Financing operations.

2. Requirements

2.1 The Bank requires that Borrowers (including beneficiaries of Bank financing); bidders (applicants/proposers), consultants, contractors and suppliers; any sub-contractors, sub-consultants, service providers or suppliers; any agents (whether declared or not); and any of their personnel, observe the highest standard of ethics during the procurement process, selection and contract execution of Bank-financed contracts, and refrain from Fraud and Corruption.

2.2 To this end, the Bank:

a. Defines, for the purposes of this provision, the terms set forth below as follows:

- i. "corrupt practice" is the offering, giving, receiving, or soliciting, directly or indirectly, of anything of value to influence improperly the actions of another party;
- ii. "fraudulent practice" is any act or omission, including misrepresentation, that knowingly or recklessly misleads, or attempts to mislead, a party to obtain financial or other benefit or to avoid an obligation;
- iii. "collusive practice" is an arrangement between two or more parties designed to achieve an improper purpose, including to influence improperly the actions of another party;
- iv. "coercive practice" is impairing or harming, or threatening to impair or harm, directly or indirectly, any party or the property of the party to influence improperly the actions of a party;
- v. "obstructive practice" is:
 - (a) deliberately destroying, falsifying, altering, or concealing of evidence material to the investigation or making false statements to investigators in order to materially impede a Bank investigation into allegations of a corrupt, fraudulent, coercive, or collusive practice; and/or threatening, harassing, or intimidating any party to prevent it from disclosing its knowledge of matters relevant to the investigation or from pursuing the investigation; or

- (b) acts intended to materially impede the exercise of the Bank's inspection and audit rights provided for under paragraph 2.2 e. below.
- b. Rejects a proposal for award if the Bank determines that the firm or individual recommended for award, any of its personnel, or its agents, or its sub-consultants, sub-contractors, service providers, suppliers and/ or their employees, has, directly or indirectly, engaged in corrupt, fraudulent, collusive, coercive, or obstructive practices in competing for the contract in question;
- c. In addition to the legal remedies set out in the relevant Legal Agreement, may take other appropriate actions, including declaring mis-procurement, if the Bank determines at any time that representatives of the Borrower or of a recipient of any part of the proceeds of the loan engaged in corrupt, fraudulent, collusive, coercive, or obstructive practices during the procurement process, selection and/or execution of the contract in question, without the Borrower having taken timely and appropriate action satisfactory to the Bank to address such practices when they occur, including by failing to inform the Bank in a timely manner at the time they knew of the practices;
- d. Pursuant to the Bank's Anti- Corruption Guidelines and in accordance with the Bank's prevailing sanctions policies and procedures, may sanction a firm or individual, either indefinitely or for a stated period of time, including by publicly declaring such firm or individual ineligible (i) to be awarded or otherwise benefit from a Bank-financed contract, financially or in any other manner;⁸ (ii) to be a nominated⁹ sub-contractor, consultant, manufacturer or supplier, or service provider of an otherwise eligible firm being awarded a Bank-financed contract; and (iii) to receive the proceeds of any loan made by the Bank or otherwise to participate further in the preparation or implementation of any Bank-financed project;
- e. Requires that a clause be included in bidding/request for proposals documents and in contracts financed by a Bank loan, requiring (i) bidders(applicants/proposers), consultants, contractors, and suppliers, and their sub-contractors, sub-consultants, service providers, suppliers, agents personnel, permit the Bank to inspect¹⁰ all accounts, records and other documents relating to the procurement process, selection and/or contract execution, and to have them audited by auditors appointed by the Bank.

⁸ For the avoidance of doubt, a sanctioned party's ineligibility to be awarded a contract shall include, without limitation, (i) applying for pre-qualification, expressing interest in a consultancy, and bidding, either directly or as a nominated sub-contractor, nominated consultant, nominated manufacturer or supplier, or nominated service provider, in respect of such contract, and (ii) entering into an addendum or amendment introducing a material modification to any existing contract.

⁹ A nominated sub-contractor, nominated consultant, nominated manufacturer or supplier, or nominated service provider (different names are used depending on the particular bidding document) is one which has been: (i) included by the bidder in its pre-qualification application or bid because it brings specific and critical experience and know-how that allow the bidder to meet the qualification requirements for the particular bid; or (ii) appointed by the Borrower.

¹⁰ Inspections in this context usually are investigative (i.e., forensic) in nature. They involve fact-finding activities undertaken by the Bank or persons appointed by the Bank to address specific matters related to investigations/audits, such as evaluating the veracity of an allegation of possible Fraud and Corruption, through the appropriate mechanisms. Such activity includes but is not limited to: accessing and examining a firm's or individual's financial records and information, and making copies thereof as relevant; accessing and examining any other documents, data and information (whether in hard copy or electronic format) deemed relevant for the investigation/audit, and making copies thereof as relevant; interviewing staff and other relevant individuals; performing physical inspections and site visits; and obtaining third party verification of information.

APPENDIX B

Environmental and Social (ES) Metrics for Progress Reports

[Note to Employer: the following metrics may be amended to reflect the specifics of the Contract. The Employer shall ensure that the metrics provided are appropriate for the Works and impacts/key issues identified in the environmental and social assessment]

Metrics for regular reporting:

- a. *environmental incidents or non-compliances with contract requirements, including contamination, pollution or damage to ground or water supplies;*
- b. *health and safety incidents, accidents, injuries that require treatment and all fatalities;*
- c. *Labor compliance, GBV status and action taken*
- d. *interactions with regulators: identify agency, dates, subjects, outcomes (report the negative if none);*
- e. *Status of Community/stakeholder consultations as per the citizen engagement plan provided by KSWMP.*
- f. *status of all permits and agreements:*
 - i. *work permits: number required, number received, actions taken for those not received;*
 - ii. *status of permits and consents:*
 - *list areas/facilities with permits required dates of application, dates issued (actions to follow up if not issued), dates submitted to resident engineer (or equivalent), status of area (waiting for permits, working, abandoned without reclamation, decommissioning plan being implemented, etc.);*
 - *list areas with landowner agreements required, dates of agreements, dates submitted to resident engineer (or equivalent);*
 - *identify major activities undertaken in each area in the reporting period and highlights of environmental and social protection (land clearing, boundary marking, topsoil salvage, biomining, bioremediation, storage, transport & disposal of retrieved waste fractions, traffic management, decommissioning planning, decommissioning implementation);*

-
- g. *health and safety supervision:*
- i. safety officer: number days worked, number of full inspections & partial inspections, reports to construction/project management;
 - ii. No: & type of precautions taken for high energy hazards
 - iii. number of workers, work hours, metric of PPE use (percentage of workers with full personal protection equipment (PPE), partial, etc.), worker violations observed (by type of violation, PPE or otherwise), warnings given, repeat warnings given, follow-up actions taken (if any);
 - iv. Incidents: no: and type of fatalities including specifically on high energy hazards
- h. *worker accommodations:*
- i. No; of worker camps/other arrangements by the contractor; facilities therein & environmental management measures implemented as per regulatory requirements & good practices, number of migrant workers housed in accommodations, number of locals;
 - ii. date of last inspection, and highlights of inspection including status of accommodations' compliance with national and local law and good practice, including sanitation, space, etc.;
 - iii. actions taken to recommend/require improved conditions, or to improve conditions.
- i. *gender (for migrant workers and locals separately): number of female workers, percentage of workforce, gender issues raised and dealt with (cross-reference grievances or other sections as needed);*
- j. *training:*
- i. number of new workers, number receiving induction training, dates of induction training;
 - ii. number and dates of toolbox talks, number of workers receiving Occupational Health and Safety (OHS), environmental and social training;
 - iii. number and dates of communicable diseases (including STDs) sensitization and/or training, no. workers receiving training (in the reporting period and in the past); same questions for gender sensitization, flag person training.
 - iv. number and date of SEA and SH prevention sensitization and/or training events, including number of workers receiving training on Code of Conduct for Contractor's Personnel (in the reporting period and in the past), etc.

-
- k. *environmental and social supervision:*
- i. environmental expert: days worked, areas inspected and numbers of inspections of each (work/ activity sites, disposal areas, camp, accommodations), highlights of activities/findings (including violations of environmental practices/ EMP, actions taken), reporting the findings
 - ii. sociologist: days worked, number of partial and full site inspections (by area: road section, work camp, accommodations, clinic, HIV/AIDS center, community centers, etc.), highlights of activities (including violations of social requirements observed, actions taken), reports to social specialist/construction/site management; and
 - iii. community liaison person(s): days worked, number of people met, highlights of activities (issues raised, etc.), reports to social specialist /construction/site management.
- l. *Grievances:* list new grievances (e.g. number of allegations of SEA and SH) received in the reporting period and number of unresolved past grievances by date received, complainant's age and sex, how received, to whom referred to for action, resolution and date (if completed), data resolution reported to complainant, any required follow-up (Cross-reference other sections as needed):
- i. Worker grievances;
 - ii. Community grievances
- m. *Traffic, road safety and vehicles/equipment:*
- i. traffic and road safety incidents and accidents involving project vehicles & equipment: provide date, location, damage, cause, follow-up;
 - ii. traffic and road safety incidents and accidents involving or property (also reported under immediate metrics): provide date, location, damage, cause, follow-up;
 - iii. overall condition of vehicles/equipment (subjective judgment by environmental Specialist); non-routine repairs and maintenance needed to improve safety and/or environmental performance (to control smoke, etc.).
- n. *Environmental mitigations and issues (what has been done):*
- i. dust: number of working bowsers, number of waterings/day, number of complaints, warnings given by environmental specialist, actions taken to resolve;

- ii. erosion control: controls implemented by location, status of water bodies, environmental expert inspections and results, actions taken to resolve issues, emergency repairs needed to control erosion/sedimentation;
- iii. spill clean-ups, if any: material spilled, location, amount, actions taken, material disposal (report all spills that result in water or soil contamination).

o. compliance:

- i. compliance status for conditions of all relevant agreements/ consents/ permits, for the Work, statement of compliance or listing of issues and actions taken (or to be taken) to reach compliance;
- ii. Compliance on a) incident reporting (indicative serious, severe), b) Root Cause Analysis (RCA) & c) Corrective Action Plans (CAPs) within suggested time periods & implementation of CAP
- iii. compliance status of C-ESMP/MSIP requirements including storage, disposal of wastes, fire safety, leachate & drainage management: statement of compliance or listing of issues and actions taken (or to be taken) to reach compliance
- iv. compliance status of SEA and SH prevention and response action plan: statement of compliance or listing of issues and actions taken (or to be taken) to reach compliance
- v. compliance status of Health and Safety Management Plan re: statement of compliance or listing of issues and actions taken (or to be taken) to reach compliance

other unresolved issues from previous reporting periods related to environmental and social: continued violations, continued failure of equipment, continued lack of vehicle covers, spills not dealt.

Appendix-C to General Conditions

Design Obligations

1. General Design Obligations

The Contractor shall carry out, and be responsible for, the design of the Works. The design obligation shall be as per criteria and conditions mentioned in Employer's Requirement. The Contractor undertakes that the design, the Contractor's Documents, the execution and the completed Works will be in accordance with the Laws in the Country

2. Contractor's Documents

The Contractors Documents shall comprise the technical documents specified in the Employers Requirements including but not limited to Detailed Engineering and Design, Survey Reports, Work Plan and Implementation Schedule. In addition, the contractor shall also submit all designs, plans and reports as stated in the Employer's requirement

3. Design Errors

If errors, omissions, ambiguities, inconsistencies, inadequacies or other defects are found in the Contractor's Documents, they and the Works shall be corrected at the Contractor's cost, notwithstanding any consent or approval under this Appendix.

Section IX - Particular Conditions of Contract

Except where otherwise specified, all Particular Conditions of Contract should be filled in by the Employer prior to issuance of the bidding document. Schedules and reports to be provided by the Employer should be annexed.

A. General							
GCC 1.1 (d)	The financing institution is: The World Bank						
GCC 1.1 (r)	The Employer is <i>[insert name, address, and name of authorized representative]</i> .						
GCC 1.1 (v)	The Intended Completion Date for the whole of the Works shall be <i>270 days from the date of signing of contract agreement. While 180 days is project execution period an additional 90 days shall be provided to remove any residue materials/ fraction at project site and profiling of the project sites to surrounding ground level</i>						
GCC 1.1 (y)	The Project Manager is <i>[insert name, address, and name of authorized representative]</i> .						
GCC 1.1 (aa)	The Site means the places where the Permanent Works are to be executed, and any other places specified in the Contract as forming part of the Site, is located at <i>[insert address of Site]</i> and is defined in drawings No. <i>[insert numbers]</i>						
GCC 1.1 (dd)	The Start Date shall be <i>[insert date e.g. one week after the date of issue of notice to proceed with works to the contractor]</i> .						
GCC 1.1 (hh)	The Works consist of <i>[insert brief summary, including relationship to other contracts under the Project]</i> . Identification number of Contract is.....						
GCC 1.1 (jj)	GCC 1.1 (jj) is replaced with the following: “Key Personnel are the Contractor’s personnel named in GCC 9.1 of the Particular Conditions of Contract.”						
GCC 2.2	Sectional Completions are: <i>Not Applicable</i>						
GCC 2.3(i)	The following documents also form part of the Contract:						
	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 10%;">S. No.</th> <th style="width: 30%;">Document</th> <th style="width: 60%;">Description of the document</th> </tr> </thead> <tbody> <tr> <td style="height: 20px;"> </td> <td> </td> <td> </td> </tr> </tbody> </table>	S. No.	Document	Description of the document			
S. No.	Document	Description of the document					

	1.	Work Methodology	Work methodology given in bid amended as per comments of employer given in letter of acceptance.
	2.	Quality control	Quality control procedures and assurance plans given in the bid and amended as per comments of Employer given in letter of acceptance.
	3.	Fraud and Corruption	Appendix A – Fraud and Corruption
	4.	Environmental and Social	Appendix B - Environmental and Social (ES) Metrics for Progress Reports.
	5.	JV Agreement	Joint Venture Agreement (for JVs only).
	<i>[list any other documents]</i>		
GCC 3.1	<p>The following is inserted as a sub-clause at the end of GCC 3.1:</p> <p>“Salient features of major labour and other laws that are applicable to construction industry in India are given as Appendix 1 to these General Conditions of Contract.”</p> <p>The language of the contract is <i>English</i>.</p> <p>The law that applies to the Contract are the laws of Union of India.</p>		
GCC 4.1	<p>The following is inserted as a sub-paragraph at the end of GCC 4.1:</p> <p>“However, if the Project Manager is required, under the rules and regulations and orders of the Employer, to obtain approval of some other authorities for specific actions, he will so obtain the approval. Provided further that any requisite approval shall be deemed to have been given by the Employer for any such authority exercised by the Project Manager.”</p>		
GCC 5.1	The Project manager <i>may or</i> delegate any of his duties and responsibilities.		
GCC 6.1	<p>The following is inserted at the end of GCC 6.1:</p> <p>“All oral instructions shall be confirmed in writing in seven working days.”</p>		
GCC 7	<p>The first sentence of GCC 7. 1 is modified as: Subcontracting is not allowed</p> <p>“The Contractor may subcontract with the approval of the Project Manager up to a ceiling specified in PCC, but may not assign the Contract without the approval of the Employer in writing.”</p>		

GCC 7.1	Not used
GCC 8.1	Not Used
GCC 9	<p>The following is inserted as a sub-clause at the end of GCC 9.2:</p> <p>“In all the above cases, the contractor shall ensure that the person leaves the site within seven days and has no further connection with the work in the contract. The Contractor shall appoint a suitable replacement within 28 days or earlier as may be agreed to between the Project Manager and the Contractor.”</p> <p>The following sentence is deleted from first paragraph of GCC 9.4.1:</p> <p>“The Contractor is encouraged, to the extent practicable and reasonable, to employ staff and labor with appropriate qualifications and experience from sources within the Country.”</p> <p>GCC 9.4.3 and GCC 9.4.4 are deleted.</p> <p>The following sub-clauses are inserted at the end of GCC 9.4:</p> <p>“9.5 The Contractor shall not employ any retired Gazetted officer who has either not completed two years after the date of retirement or has not obtained permission from the Government authorities for employment with the Contractor¹.</p> <p>9.6 During continuance of the Contract, the Contractor and his Sub-Contractors shall abide at all times by all existing labour enactments and rules made there under, regulations, notifications and bye laws of the State or Central Government or local authority and any other labour laws (including rules), regulations, bye laws that may be passed or notification that may be issued under any labour law prevailing on the Base Date either by the State or the Central Government or the local authority. The Contractor shall keep the Employer indemnified in case any action is taken against the Employer by the competent authority on account of contraventions including amendments. If the Employer is caused to pay or reimburse, such amounts as may be necessary to cause or observe, or for non-observance of the provisions stipulated in the notifications/bye laws/Acts/Rules/regulations including amendments, if any, on the part of the Contractor, the Project Manager/ Employer shall have the right to deduct any money due to the Contractor including his amount of performance security and if applicable, the Environmental and Social (ES) Performance Security. The Employer/ Project Manager shall also have right to recover from the Contractor any sum required or</p>

¹Based on Government Directives.

	<p>estimated to be required for making good the loss or damage suffered by the Employer.</p> <p>9.7 The employees of the Contractor and the Sub-Contractor in no case shall be treated as the employees of the Employer at any point of time.</p> <p>9.8 The Contractor shall duly comply with the provisions of the Apprentices Act 1961 (III of 1961) and the rules made there under, and comply, failure or neglect to shall be subject to all liabilities and penalties provided in the said Act and Rules.”</p>																				
GCC 9.1	<i>[insert the name/s of each Key Personnel agreed by the Employer prior to Contract signature, Schedule of Key Personnel and equipment as indicated in accepted bid & work methodology].</i>																				
GCC 13.1	<p>The contractor shall insure all the Plant, Machinery and Manpower at all times during the project duration and shall indemnify the employer against any loses whatever during the entire project duration</p> <table border="1"> <thead> <tr> <th>S.No.</th> <th>Description</th> <th>Minimum cover for Insurance</th> <th>Maximum deductible for Insurance</th> </tr> </thead> <tbody> <tr> <td>(i)</td> <td>Works and Plant and Materials</td> <td colspan="2" rowspan="5">In accordance with the statutory requirements applicable in India</td> </tr> <tr> <td>(ii)</td> <td>Loss or damage to Equipment</td> </tr> <tr> <td>(iii)</td> <td>Other Property (except the Works, Plant, Materials, and Equipment)</td> </tr> <tr> <td>(iv)</td> <td>Personal injury or death insurance:</td> </tr> <tr> <td></td> <td>a) for other people;</td> </tr> <tr> <td></td> <td>b) for Contractor’s Employees</td> <td></td> <td></td> </tr> </tbody> </table>	S.No.	Description	Minimum cover for Insurance	Maximum deductible for Insurance	(i)	Works and Plant and Materials	In accordance with the statutory requirements applicable in India		(ii)	Loss or damage to Equipment	(iii)	Other Property (except the Works, Plant, Materials, and Equipment)	(iv)	Personal injury or death insurance:		a) for other people;		b) for Contractor’s Employees		
S.No.	Description	Minimum cover for Insurance	Maximum deductible for Insurance																		
(i)	Works and Plant and Materials	In accordance with the statutory requirements applicable in India																			
(ii)	Loss or damage to Equipment																				
(iii)	Other Property (except the Works, Plant, Materials, and Equipment)																				
(iv)	Personal injury or death insurance:																				
	a) for other people;																				
	b) for Contractor’s Employees																				
GCC 14.1	Site Data are: <i>[list Site Data]as provided in Site Information and online data repository mentioned in ‘Site Information’</i>																				
GCC 15.1	GCC 15.1 is replaced with the following:																				

	“The Contractor shall construct and install the Works in accordance with the Specifications and Drawings and as per instructions of Project Manager.”
GCC 18 (add new 18.3.3)	The following is inserted as a new sub-clause 18.3.3: “18.3.3 During continuance of the contract, the contractor and his sub-contractors shall abide at all times by all existing enactments on environmental protection and rules made thereunder, regulations, notifications and by-laws of the State or Central Government, or local authorities and other law, bye-law, regulations that may be passed or notification that may be issued in this respect in future by the State or Central Government or the local authority. Salient features of the major laws are given in Appendix 1 to the General Conditions of Contract.”
GCC 20.1	The Site Possession Date(s) shall be: <i>[insert location(s) and date(s)]</i> The Site Possession Dates shall be: As per approved work plan.
GCC 23	The following is inserted as a new sub-clause 23.1.1: “23.1.1 The Adjudicator should be in position before “notice to proceed with work” is issued to the Contractor and an agreement should be signed with the Adjudicator jointly by the Employer and the Contractor in the form attached – Appendix 3.”
GCC 23.1 & GCC 23.2	Name of the agreed Adjudicator It will be notified before signing of contract agreement Appointing Authority for the Adjudicator: <i>Project Director, Kerala Solid Waste Management Project</i> <i>[Note: if ITB 51 provides for an Adjudicator from list provided by an Institution, insert the name of the same institution as the appointing authority]</i>
GCC 24.3	In the first sentence in GCC 24.3, the words “The Adjudicator shall be paid by the hour at the rate” are replaced by the words “The Adjudicator shall be paid daily at the rate”
GCC 24.4	The procedure for adhoc arbitration will be as follows: (a) In case of Dispute or difference arising between the Employer and a Contractor relating to any matter arising out of or connected with this agreement, such disputes or difference shall be settled in accordance with the Arbitration and Conciliation Act, 1996. The arbitral tribunal

	<p>shall consist of 3 Arbitrators one each to be appointed by the Employer and the Contractor. The third Arbitrator shall be chosen by the two Arbitrators so appointed by the Parties and shall act as Presiding Arbitrator. In case of failure of the two Arbitrators appointed by the parties to reach upon a consensus within a period of 30 days from the appointment of the Arbitrator appointed subsequently, the Presiding Arbitrator shall be appointed by the* Indian Council of Arbitration/ President of the Institution of Engineers (India)/The International Centre for Alternative Disputes Resolution (India).</p> <p>(b) If one of the parties fails to appoint its Arbitrator in pursuance of sub-clause (a) above within 30 days after receipt of the notice of the appointment of its Arbitrator by the other party, then the *Indian Council of Arbitration/President of the Institution of Engineers (India)/The International Centre for Alternative Disputes Resolution (India), both in cases of Foreign Contractor as well as Indian Contractor, shall appoint the Arbitrator. A certified copy of the order of the* Indian Council of Arbitration/President of the Institution of Engineers (India)/The International Centre for Alternative Disputes Resolution (India), making such an appointment shall be furnished to each of the parties.</p> <p>(c) Arbitration may be commenced prior to or after completion of the Works, provided that the obligations of the Employer, the Project Manager, the Contractor and the Adjudicator shall not be altered by reason of the arbitration being conducted during the progress of the Works.</p> <p>(d) Arbitration proceedings shall be held at Trivandrum, Kerala, and the language of the arbitration proceedings and that of all documents and communications between the parties shall be English.</p> <p>(e) The decision of the majority of Arbitrators shall be final and binding upon both parties. The cost and expenses of Arbitration proceedings will be paid as determined by the arbitral tribunal. However, the expenses incurred by each party in connection with the preparation, presentation, etc. of its proceedings as also the fees and expenses paid to the Arbitrator appointed by such party or on its behalf shall be borne by each party itself.</p> <p>(f) Where the value of the contract is Rs. 50 million and below, the disputes or differences arising shall be referred to the Sole Arbitrator. The Sole Arbitrator should be appointed by agreement between the parties; failing such agreement, by the appointing authority, namely the * Indian Council of Arbitration/President of the Institution of</p>
--	---

	<p>Engineers (India)/The International Centre for Alternative Disputes Resolution (India).</p> <p>(g) The Arbitrator should give final award within...120days of starting of the proceedings</p> <p>(h) Performance under the contract shall continue during the arbitration proceedings and payments due to the contractor by the Employer shall not be withheld, unless they are the subject matter of the arbitration proceedings.</p>
B. Time Control	
GCC 30.1	<p>The Contractor shall submit for approval a Program for the Works within 14 days of delivery of the Letter of Acceptance.</p> <p>Any revision in Program should only be agreed in writing.</p>
GCC 30.3	<p>The period between Program updates is 21 days.</p> <p>The amount to be withheld for late submission of an updated Program is <i>Rs. 500,000</i>.</p> <p>The period for submission of progress reports is <i>21</i> days.</p>
GCC 31	<p>GCC 31.1 is replaced with the following:</p> <p>“31.1 The Project Manager shall extend the Intended Completion Date including milestones if a Compensation Event occurs or a Variation is issued which makes it impossible for Completion to be achieved by the Intended Completion Date as per the agreed milestones without the Contractor taking steps to accelerate the remaining work, which would cause the Contractor to incur additional cost.”</p> <p>In GCC 31.2, replace the words “Intended Completion Date” at the first occurrence by the words “Intended Completion Date/ Milestones”; and at the second occurrence by the words “Intended Completion Date/ Milestone”.</p>
GCC 34	<p>GCC 34.1 is replaced with the following:</p> <p>“Either the Project Manager or the Contractor may require the other to attend a management meeting (which will be held at the place indicated in PCC. The periodicity shall be fixed by Project Manager/ Contractor jointly). The</p>

	business of a management meeting shall be to review the progress of Work with reference to the Work program given in accordance with GCC 30.1, the plans for remaining work and to deal with matters raised in accordance with the early warning procedure.”
GCC 34.1	Venue of management meeting will be Trivandrum, Kerala The management meetings shall be held at intervals of every month.
C. Quality Control	
GCC 36	The following sub-clause is inserted at the end of GCC 36.1: “36.2 The contractor shall permit the Employer’s Technical auditor to check the contractor’s work and notify the Project Manager and Contractor of any defects that are found. Such a check shall not affect the Contractor’s or the Project Manager’s responsibility as defined in the Contract Agreement.”
GCC 37	The following sub-clauses are inserted before GCC 37.1, and GCC 37.1 is re-numbered as GCC 37.3: “GCC 37.1 The Contractor shall institute Quality Assurance (QA) and Quality Control (QC) systems in accordance with Quality Assurance Plan to demonstrate compliance with the requirements of the Contract as approved by the Project Manager. Compliance with the QA/QC systems shall not relieve the Contractor of any of his duties obligations or responsibilities under the Contract. GCC 37.2 The Contractor shall provide all apparatus, assistance, documents and other information, electricity, equipment, fuel, consumables, instruments, labour, materials, and suitably qualified and experienced staff, as are necessary to carry out the specified tests efficiently.”
GCC 38.1	The Defects Liability Period is: 120 days
GCC 39.1	The following notes are added at the end of GCC 39.1: <i>“Note: 1. Where in certain cases, the technical specifications provide for acceptance of works within specified tolerance limits at reduced rates, Project Manager will certify payments to Contractor accordingly. 2. Where the failure to correct a particular defect within the specified time is considered as a fundamental breach of contract a notice should be given to the contractor as stated in GCC 61.2(e).”</i>

D. Cost Control

GCC 41	<p>GCC 41.1 is replaced with the following, and existing GCC 41.2 is re-numbered as GCC 41.3:</p> <p>“41.1 If the final quantity of the work done differs from the quantity in the Bill of Quantities for the particular item by more or less than 20 percent of the indicative Total Quantity of the Cluster (Cumulative quantity of Legacy Waste in 12 Dumpsites of the ULBs in Kerala), the Project Manager shall adjust the rate to allow for the change.</p> <p><u>(a) If the final Quantity is more than 20% of the Indicative Total quantity of the Legacy waste in 12 dumpsites</u></p> <p>The project manager/employer shall revise lower rate in case of variation beyond (+) 20% of the total indicative legacy waste quantity in 12 dumpsites. The rate will be decreased by 5% for every 10% increase in the quantity beyond the (+) 20% variation. The rate will freeze at maximum of 20% decrease from the quoted price. The variation in the rate shall be applicable only on the variation quantity. The variation shall be calculated only on the cumulative variation of the quantity in the existing dumpsites in 12 ULBs and not on individual quantity variation in respective dumpsites within the ULB. Also, the variation in price shall only effect on finalized unit rate for ‘Biomining of Legacy Waste and recovery of various fractions such as recyclables, RDF, inert, compost etc. at existing Dumpsites (i.e. Legacy Waste Processing only through Biomining and bioremediation) at existing Dumpsites in 12 ULBs in Kerala’. The rate for other activities shall be firm as finalized irrespective of the quantity variation</p> <p><u>If the final Quantity is less than 80% of the Indicative Total quantity of the Legacy in the 12 dumpsites.</u></p> <p>The project manager/ employer shall revise higher rate in case of variation beyond less than 80% of the total indicative quantity of legacy waste in 12 dumpsites. The rate will be increased by 5% for every 10% decrease in the quantity beyond the (-) 20% variation. The rate will freeze at maximum of 20% increase from the quoted price. The variation in the rate shall be applicable only on the variation quantity. The variation shall be calculated only on the cumulative variation of the quantity in existing dumpsites in 12 ULBs and not on individual quantity variation in respective dumpsites within the ULB. Also, the variation in price shall only effect on finalized unit rate for ‘Biomining of Legacy Waste and recovery of various fractions such as recyclables, RDF, inert, compost etc. at existing Dumpsites (i.e. Legacy Waste Processing only through Biomining and bioremediation). at existing Dumpsites in 12 ULBs in Kerala’. The rate for other activities shall be firm as finalized irrespective of the quantity variation</p>
---------------	---

	41.2 The Project Manager shall not adjust rates from changes in quantities if thereby the Accepted Contract Amount is exceeded by more than 15 percent, except with the prior approval of the Employer.”
GCC 42	In GCC 42.2, Deleted
GCC 42.7	Provisions related to Value Engineering do not apply.
GCC 43.1	The second sentence in GCC 43.1 is replaced with the following: “The cash flow forecast shall be in Indian Rupees.”
GCC 44	At the end of GCC 44.1 after the word ‘previously’, the following words are added: “alongwith details of measurement of the quantity of works executed in a tabular form approved by the Project Manager” At the end of GCC 44.2 after the words ‘the Contractor’, the following words are added: “after taking into account any credit or debit for the month in question in respect of materials for the works in the relevant amount and under conditions set forth in GCC Sub-Clause 53.1 (Secured Advance)”
GCC 45	GCC 45.1 is replaced with the following: “Payments shall be adjusted for deductions for advance payments, retention, other recoveries in terms of contract & taxes to be deducted at source [TDS] as per applicable law. The Employer shall pay the Contractor the amounts certified by the Project Manager within 28 days of the date of each certificate. If the Employer makes a late payment, the Contractor shall be paid interest on the late payment in the next payment. Interest shall be calculated from the date by which the payment should have been made up to the date when the late payment is made at the rate stated in the PCC. ”
GCC 45.1	Interest rate for Delayed payment shall be the Prime Lending Rate (PLR) issued by the State Bank of India (SBI) as on the date of signing of contract agreement.
GCC 45.3	All payments (and deductions) shall be paid or charged in Indian Rupees.
GCC 45.5	Deleted
GCC 47	The GCC 47.1 is replaced with following clause:

	<p>“47.1 The rates quoted by the Contractor shall be deemed to be inclusive of all taxes and levies that the Contractor will have to pay for the performance of this Contract except GST. The GST, if applicable, shall be payable extra to the contractor. The Employer will perform such duties in regard to the deduction of such taxes at source [TDS] as per applicable law.”</p> <p>In first line of the re-numbered GCC 47.2, replace the words ‘the date 28 days before’ with the words ‘the deadline for’.</p>
GCC 48	All payments shall be made in Indian Rupees.
GCC 49	GCC 49.1 is Deleted
GCC 49.1	<p>Price Adjustment:</p> <p>The contract “<i>is not</i>” subject to price adjustment in accordance with G.C.C. Clause 49</p>
GCC 50.1	The proportion of payments retained (Retention Money) shall be 2.5% from each gross bill amount subject to the maximum of 2.5% of accepted contract price.
GCC 50.2	<p>The last line of GCC 50.2 is replaced with the following:</p> <p>“On completion of the whole works the Contractor may substitute the balance retention money with an “on demand” Bank guarantee.”</p>
GCC 51	<p>In the first sentence of GCC 51.1, the following words are inserted after the words ‘Intended Completion Date’:</p> <p>“(for the whole of the works or the milestones as stated in the PCC)”</p> <p>The following is inserted as a sub-paragraph at the end of GCC 51.1:</p> <p>“Time is the essence of the contract and payment or deduction of liquidated damages shall not relieve the contractor from his obligation to complete the work as per agreed Work program and milestones, or from any of the Contractor’s other obligations and liabilities under the contract.”</p> <p>In the first sentence in GCC 51.2 the following words are inserted after the words ‘Intended Completion Date’:</p> <p>“including milestones”</p>

GCC 51.1	The liquidated damages for the whole of the Works are <i>as per Table below per day</i> . The maximum amount of liquidated damages for the whole of the Works is 10% of the accepted Contract Price.		
Milestone	Activity to be completed	Time Period for Completion from Signing of Agreement in number of Days	Liquidated Damage
01	To dispose of cumulative 15 % of Estimated Legacy Waste Quantity*	75	0.11% per day of the accepted contract amount
02	To dispose of cumulative 50 % Estimated Legacy Waste Quantity	145	0.11% per day of the accepted contract amount
03	To dispose of cumulative 65 % of Estimated Legacy Waste Quantity	175	0.11% per day of the accepted contract amount
04	To dispose of cumulative 80 % of Estimated Legacy Waste Quantity	205	0.11% per day of the accepted contract amount
05	To dispose of cumulative 100 % Estimated Legacy Waste Quantity	245	0.11% per day of the accepted contract amount
06	Dispose of any balance fraction, if any, as instructed by the employer and profiling the site to surrounding ground level with use of recovered fraction in	270	0.11% per day of the accepted contract amount

	<p><i>Note:</i></p> <ol style="list-style-type: none"> 1. <i>The maximum amount of liquidated damages for the whole of the Works is 10% of the accepted Contract Price beyond the contract may attract termination as per GCC clause 61</i> 2. <i>The liquidated damages recovered against interim milestone shall be credited to the contractor if the final milestone is achieved within stipulated timeline</i> 3. <i>If the quantity of waste will be more than estimated quantity, then Bidder shall be responsible for processing complete legacy waste for which contract period may be extended on pro-rata basis. The Liquidated Damage for the additional quantity of legacy waste shall be applicable as per the rate stipulated in table above i.e. @0.11% per day of the accepted contract amount reckoned from the end date of the extended pro-rated timeline</i>
GCC 52.1	Bonus for the whole of the Works is 0.14% per day for each day of early completion of the work from intended completion date. The maximum amount of Bonus for the whole of the Works is 10% of the final Contract Price ² .
GCC 53	No Advance Payment Shall be made
GCC 53.1	Not Applicable
GCC 54	<p>GCC 54.1 is replaced with the following:</p> <p>“The Performance Security and an Environmental and Social (ES) Performance Security shall be provided to the Employer no later than the date specified in the Letter of Acceptance and shall be issued in the amounts specified in the PCC, and shall be issued by a Nationalized or Scheduled bank in India. The Performance Security including additional security for unbalanced bids, and the ES Performance Security, shall be valid until a date 28 days from the date of issue of the Certificate of Completion.”</p>
GCC 54.1	The Performance Security amount is 4% (four percent) of the Accepted Contract Amount plus _additional one percentage for each percentage of the quoted amount below 10%___(upto maximum 15% additional) as additional security for unbalanced bids [<i>in terms of ITB Clause 41.2</i>], and Environmental and Social (ES) Performance Security amount is 1% (one percent) of the Accepted Contract Amount

² Normally the rate of bonus and rate of liquidated damages should be the same.

	<p>The standard forms of Performance Security and if applicable ES Security acceptable to the Employer shall be <u>unconditional</u> Bank Guarantees from Scheduled or Nationalized banks in India of the types as presented in Section X of the Bidding Document.</p> <p>Throughout this bidding document the term 'performance security', unless the context clearly indicates otherwise, means and includes both 'the performance security and the ES performance security' to be submitted by the successful bidder in the amounts specified above.</p>
E. Finishing the Contract	
GCC 59.1	<p>The following is added after the words 'issue a payment certificate' at the end of GCC 59.1:</p> <p>“within 56 days of receiving the contractor’s revised account”</p>
GCC 60.1	Not Applicable
GCC 60.2	Not Applicable
GCC 61	<p>The following sub-clauses are added after GCC 61.2 (h):</p> <p>“(i) The contractor has contravened Clauses 7 and 9 of GCC.</p> <p>(j) The contractor does not adhere to the agreed Work execution program, agreed C-EMP [Clause 30 of GCC], SMP and also fails to take satisfactory remedial action as per agreements reached in the management meetings [Clause 30 of GCC] for a period of 60 days.</p> <p>(k) The contractor fails to carry out the instructions of the Project Manager within a reasonable time determined by the Project Manager in accordance with GCC Clause 15.1 and 22.</p> <p>(l) The contractor (in case of Joint Venture) has modified the composition of the joint venture and/or the responsibility of each member of the joint venture from what is stated in joint venture agreement without the prior approval of the Employer.”</p>
GCC 61.2 (g)	The maximum number of days are: <i>90 days</i>
GCC 61.2 (l)	Hiding any information regarding changes in roles and responsibilities of JV members, which is not authorized by the Employer, shall also be treated as violation of Appendix A to General Conditions (Fraud and Corruption).
GCC 62	The following is added after the words 'issue of the certificate' in the first sentence of GCC 62.1;

	<p>“less other recoveries due in terms of contract, less taxes to be deducted at source [TDS] as per applicable law,”</p> <p>The following is added after the words ‘date of the certificate’ at the end of GCC 62.2:</p> <p>“less other recoveries due in terms of contract, less taxes to be deducted at source [TDS] as per applicable law”</p>
GCC 62.1	The percentage to apply to the value of the work not completed, representing the Employer’s additional cost for completing the Works, is 20%.

Appendices

Appendix 1

Salient Features of Labour & Environment Protection Laws³

**SALIENT FEATURES OF SOME MAJOR LABOUR LAWS
APPLICABLE TO ESTABLISHMENTS ENGAGED IN BUILDING AND
OTHER CONSTRUCTION WORK**

- | |
|---|
| <p>(a) <u>Employees Compensation Act 1923</u>: The Act provides for compensation in case of injury, disease or death arising out of and during the course of employment.</p> <p>(b) <u>Employees P.F. and Miscellaneous Provision Act 1952 (since amended)</u>: The Act provides for monthly contribution by the employer plus workers @ 10% or 8.33%. The benefits payable under the Act are:</p> <p style="margin-left: 20px;">(i) Pension or family pension on retirement or death, as the case may be.
(ii) Deposit linked insurance on the death in harness of the worker.
(iii) Payment of P.F. accumulation on retirement/death etc.</p> <p>(c) <u>Maternity Benefit Act 1961</u>: The Act provides for leave and some other benefits to women employees in case of confinement or miscarriage etc.</p> <p>(d) <u>Sexual Harassment of Women at the Workplace (Prevention, Prohibition and Redressal) Act, 2013</u>: This Act defines sexual harassment in the workplace, provides for an enquiry procedure in case of complaints and mandates the setting up of an Internal Complaints Committee or a Local Complaints Committee</p> <p>(e) <u>Contract Labour (Regulation & Abolition) Act 1986</u>: The Act provides for certain welfare measures to be provided by the Contractor to contract labour and in case the Contractor fails to provide, the same are required to be provided, by the Principal Employer by law. The Principal Employer is required to take Certificate of Registration and the Contractor is required to take license from the designated Officer. The Act is applicable to the establishments or Contractor of Principal Employer if they employ 20 or more contract labour.</p> <p>(f) <u>Minimum Wages Act 1948</u>: The Employer is supposed to pay not less than the Minimum Wages fixed by appropriate Government as per provisions of the Act if the employment is a scheduled employment. Construction of Buildings, Roads, Runways are scheduled employments.</p> |
|---|

³ This list is only illustrative and not exhaustive. Bidders and Contractors are responsible for checking the correctness and completeness of the list. The law as current on the date of bid opening will apply.

- (g) Payment of Wages Act 1936: It lays down the mode, manner and by what date the wages are to be paid, what deductions can be made from the wages of the workers.
- (h) Equal Remuneration Act 1976: The Act provides for payment of equal wages for work of equal nature to male and female workers and for not making discrimination against Female employees in the matters of transfers, training and promotions etc.
- (i) Payment of Bonus Act 1965: The Act is applicable to all establishments employing 20 or more employees. Some of the State Governments have reduced this requirement from 20 to 10. The Act provides for payments of annual bonus subject to a minimum of 8.33% of the wages drawn in the relevant year. It applies to skilled or unskilled manual, supervisory, managerial, administrative, technical or clerical work for hire or reward to employees who draw a salary of Rs. 10,000/- per month or less. To be eligible for bonus, the employee should have worked in the establishment for not less than 30 working days in the relevant year. The Act does not apply to certain establishments.
- (j) Child Labour (Prohibition & Regulation) Act 1986: The Act prohibits employment of children below 14 years of age in certain occupations and processes and provides for regulation of employment of children in all other occupations and processes. Employment of Child Labour is prohibited in the Building and Construction Industry.
- (k) Inter-State Migrant workmen's (Regulation of Employment & Conditions of Service) Act 1979: The Act is applicable to an establishment which employs 5 or more inter-state migrant workmen through an intermediary (who has recruited workmen in one state for employment in the establishment situated in another state). The Inter-State migrant workmen, in an establishment to which this Act becomes applicable, are required to be provided certain facilities such as housing, medical aid, traveling expenses from home up to the establishment and back, etc.
- (l) The Building and Other Construction Workers (Regulation of Employment and Conditions of Service) Act 1996 and the Building and Other Construction Workers Welfare Cess Act, 1996 (BOCWW Cess Act): All the establishments who carry on any building or other construction work and employ 10 or more workers are covered under these Acts. All such establishments are required to pay cess at the rate not exceeding 2% of the cost of construction as may be notified by the Government. The Employer of the establishment is required to provide safety measures at the building or construction work and other welfare measures, such as Canteens, First – Aid facilities, Ambulance, Housing accommodations for workers near the work place etc. The Employer to whom the Act applies has to obtain a registration certificate from the Registering Officer appointed by the Government.
- (m) Bonded Labour System (Abolition) Act, 1976: The Act provides for the abolition of bonded labour system with a view to preventing the economic and physical

exploitation of weaker sections of society. Bonded labour covers all forms of forced labour, including that arising out of a loan, debt or advance.

- (n) Employees State Insurance Act 1948: The Act provides for certain benefits to insured employees and their families in case of sickness, maternity and disablement arising out of an employment injury. The Act applies to all employees in factories (as defined) or establishments which may be so notified by the appropriate Government. The Act provides for the setting up of an Employees' State Insurance Fund, which is to be administered by the Employees State Insurance Corporation. Contributions to the Fund are paid by the employer and the employee at rates as prescribed by the Central Government. The Act also provides for benefits to dependents of insured persons in case of death as a result of an employment injury.
- (o) The Personal Injuries (Compensation Insurance) Act, 1963: This Act provides for the employer's liability and responsibility to pay compensation to employees where workmen sustain personal injuries in the course of employment.
- (p) Industrial Employment (Standing Order) Act 1946: It is applicable to all establishments employing 100 or more workmen (employment size reduced by some of the States and Central Government to 50). The Act provides for laying down rules governing the conditions of employment by the Employer on matters provided in the Act and get the same certified by the designated Authority.

SALIENT FEATURES OF SOME OF THE MAJOR LAWS THAT ARE APPLICABLE FOR PROTECTION OF ENVIRONMENT.

1. The Environment (Protection) Act, 1986 and as amended: This provides for the protection and improvement of environment and for matters connected therewith, and the prevention of hazards to human beings, other living creatures, plants and property. 'Environment' includes water, air and land and the inter-relationship which exists among and between water, air and land, and human beings, other living creatures, plants, micro-organism and property.
2. The Forest Conservation Act, 1980, as amended, and Forest (Conservation) Rules, 1981 as amended: These provides for protection of forests by restricting conversion of forested areas into non- forested areas and prevention of deforestation, and stipulates the procedures for cutting any trees that might be required by the applicable rules. Permissions under the Act also stipulates the norms and compliance requirements of the employer and any contractor on behalf of the employer.
3. State Tree Preservation Acts as may be in force: These provide for protection of trees of important species. Contractors will be required to obtain prior permission for full or partial cutting, uprooting, or pruning of any such trees.
4. The Wildlife (Protection) Act, 1972, and as amended: This provides for protection of wildlife through notifying National Parks and Sanctuaries and buffer areas around these zones; and to protect individuals of nationally important species listed in the Annex of the Act.
5. The Biological Diversity Act, 2002: This provides for conservation of biological diversity, sustainable use of components of biological diversity, and fair and equitable sharing of the benefits arising out of the use of biological resources, knowledge and for matters connected therewith or incidental thereto.
6. The Public Liability Insurance Act, 1991 as amended and The Public Liability Insurance Rules, 1991 as amended: These provide for public liability insurance for the purpose of providing immediate relief to the persons affected by accident occurring while handling hazardous substances and for mattes connected herewith or incidental thereto. Hazardous substance means any substance or preparation which is defined as hazardous substance under the Environment (Protection) Act 1986, and exceeding such quantity as may be specified by notification by the Central Government.
7. The Ancient Monuments and Archaeological Sites and Remains Act, 1958 and the Ancient Monuments and Archaeological Sites and Remains (Amendment and Validation) Act, 2010, the Ancient Monuments and Archaeological Sites and Remains Rules, 1959 amended 2011, the National Monuments Authority Rules, 2011 and the similar State Acts: These provide for conservation of cultural and historical remains found in India. Accordingly, area within the radii of 100m and 300m from the "protected property" are designated as "protected area" and "controlled area" respectively. No development activity (including building, mining, excavating, blasting) is permitted in the "protected area" and development activities likely to damage the protected property is not permitted in the "controlled area" without prior

permission of the Archaeological Survey of India (ASI) or the State Departments of Art and Culture or Archaeology as applicable.

8. The Environmental Impact Assessment Notification, 2006 and as amended: This provides for prior environmental clearance for new, modernization and expansion projects listed in Schedule 1 of the Notification.
9. The Water (Prevention and Control of Pollution) Act, 1974 as amended, and the Water (Prevention and Control of Pollution) Rules, 1975 as amended: These provide for the prevention and control of water pollution and the maintaining and restoring of wholesomeness of water. 'Pollution' means such contamination of water or such alteration of the physical, chemical or biological properties of water or such discharge of any sewage or trade effluent or of any other liquid, gaseous or solid substance into water (whether directly or indirectly) as may, or is likely to, create a nuisance or render such water harmful or injurious to public health or safety, or to domestic, commercial, industrial, agricultural or other legitimate uses, or to the life and health of animals or plants or of aquatic organisms. Contractors will need to obtain consent for establishment and consent for operation of any item of work or installation of equipment that generates waste water, and observe the required standards of establishment and operation of these items of work or installations; as well as install and operate all required waste water treatment facilities.
10. The Water (Prevention and Control of Pollution) Cess Act, 1977 and The Water (Prevention and Control of Pollution) Cess Rules, 1978: These provide for the levy and collection of a cess on water consumed by persons carrying on certain industries and by local authorities, with a view to augment the resources of the Central Board and the State Boards for the prevention and control of water pollution under the Water (Prevention and Control of Pollution) Act, 1974.
11. The Air (Prevention and Control of Pollution) Act, 1981 as amended, and the Air (Prevention and Control of Pollution) Rules, 1982: These provides for prevention, control and abatement of air pollution. 'Air Pollution' means the presence in the atmosphere of any 'air pollutant', which means any solid, liquid or gaseous substance (including noise) present in the atmosphere in such concentration as may be or tend to be injurious to human beings or other living creatures or plants or property or environment. Contractors will need to obtain consent for establishment and consent for operation of any item of work or installation of equipment that generates air pollution such as batching plants, hot mix plants, power generators, backup power generation, material handling processes, and observe the required standards of establishment and operation of these items of work or installations.
12. Noise Pollution (Control and Regulation) Rules, 2000, and as amended: This provides for standards for noise for day and night for various land uses and specifies special standards in and around sensitive receptors of noise such as schools and hospitals. Contractors will need to ensure compliance to the applicable standards, and install and operate all required noise control devices as may be required for all plants and work processes.

13. Chemical Accidents (Emergency Planning, Preparedness and Response) Rules, 1996: This provides for Requirement of preparation of on-site and off-site Disaster Management Plans for accident-prone areas.
14. The Explosives Act 1884 and the Explosives Rules, 2008: These provide for safe manufacture, possession, sale, use, transportation and import of explosive materials such as diesel, Oil and lubricants etc.; and also for regulating the use of any explosives used in blasting and/or demolition. All applicable provisions will need compliance by the contractors.
15. The Petroleum Rules, 2002: This provides for safe use and storage of petroleum products, and will need to be complied by the contractors.
16. The Gas Cylinder Rules 2004 and amendments: This provides for regulations related to storage of gas, and possession of gas cylinder more than the exempted quantity. Contractors should comply with all the requirements of this Rule.
17. Manufacture, Storage and Import of Hazardous Chemical Rules of 1989 and as amended: These provide for use and storage of hazardous material such as highly inflammable liquids like HSD/LPG. Contractors will need to ensure compliance to the Rules; and in the event where the storage quantity exceeds the regulated threshold limit, the contractors will be responsible for regular safety audits and other reporting requirements as prescribed in the Rules.
18. Solid Waste Management Rules 2016 and amendments thereof: These provide for proper management of solid waste generated and details responsibilities of various stakeholders like waste generator, local body, Urban Development department etc. The rules also define standards for compost etc. The Contractors will ensure compliance to this Rule
19. Hazardous & Other Wastes (Management and Transboundary Movement) Rules, 2016: These provide for protection of general public from improper handling storage and disposal of hazardous waste. The rules prescribe the management requirement of hazardous wastes from its generation to final disposal. Contractors will need to obtain permission from the State Pollution Control Boards and other designated authorities for storage and handling of any hazardous material; and will to ensure full compliance to these rules and any conditions imposed in the permit.
20. The Bio Medical Waste Management Rules, 2016: This provides for control, storage, transportation and disposal of bio-medical wastes. As and where the contractor has any first aid facility and dispensaries, established in either temporary or permanent manner, compliance to these Rules are mandatory.
21. Construction and Demolition Waste Management Rules, 2016: This provides for management of construction and demolition waste (such as building materials possible to be reused, rubble and debris or the like); and applies to all those waste resulting from construction, re-modelling, repair or demolition of any civil structure. Contractor will need to prepare a waste disposal plan and obtain required approval from local authorities, if waste generation is more than 20

tons in any day or 300 tons in any month during the contract period; and ensure full compliance to these rules and any conditions imposed in the regulatory approval.

22. The E-Waste (Management) Rules, 2016: This provides for management of E-wastes (but not covering lead acid batteries and radio-active wastes) aiming to enable the recovery and/or reuse of useful material from e-waste, thereby reducing the hazardous wastes destined for disposal and to ensure the environmentally sound management of all types of waste of electrical and electronic equipment. This Rule applies to every manufacturer, producer, consumer, bulk consumer, collection centers, dealers, e-retailer, refurbisher, dismantler and recycler involved in manufacture, sale, transfer, purchase, collection, storage and processing of e-waste or electrical and electronic equipment listed in Schedule I, including their components, consumables, parts and spares which make the product operational.
23. Plastic waste Management Rules, 2016: This provides for control and management of the plastic waste generated from any activity. Contractors will ensure compliance to this Rule.
24. The Batteries (Management and Handling) Rules 2001: This provides for ensuring safe disposal and recycling of discarded lead acid batteries likely to be used in any equipment during construction and operation stage. Rules require proper control and record keeping on the sale or import of lead acid batteries and recollection of the used batteries by registered recyclers to ensure environmentally sound recycling of used batteries. Contractors will ensure compliance to this Rule.
25. The Ozone Depleting Substances (Regulation and Control) Rules, 2000 and as amended: This provides for regulation of production and consumption of ozone depleting substances in the country, and specifically prohibits export to or import from countries not specified in the Rules, and prohibits unless specifically permitted, any use of ozone depleting substance.
26. The Coastal Regulation Zone Notifications, 1991 and as amended (Latest in 2019): This provides for regulation of development activities within the 500m of high tide line in coastal zone and 50m of stretches of rivers and estuaries influenced by tides. Contractors will be required to ensure that no work starts until applicable clearances under the Notification is not available. Contractors will be responsible for implementation of any plan stipulated as per the permission under this Notification; and will be required to prepare and submit to the employer and compliance report stipulated in the permission under the Notification. No wastes shall be disposed in CRZ areas.
27. The Motor Vehicle Act 1988 as amended (and State Motor Vehicle Acts as may be in force) and the Motor Vehicle Rules, 1989, and as amended (and State Motor Vehicle Rules as may be in force): To minimize the road accidents, penalizing the guilty, provision of compensation to victim and family and check vehicular air and noise pollution. Contractors will be required to ensure full compliance to these rules.
28. Easement Act, 1882: This provides for the rights of landowners on groundwater. Contractors will need to ensure that other landowners' rights under the Act is not affected by any groundwater abstraction by the contractors.

29. State Groundwater Acts and Rules as may be in force and the Guidelines for Groundwater Abstraction for drinking and domestic purposes in Notified Areas and Industry/Infrastructure project proposals in Non-Notified areas, 2012: These provide for regulating extraction of ground water for construction/industrial and drinking and domestic purposes. Contractors will need to obtain permission from Central/State Groundwater Boards prior to groundwater abstraction through digging any bore well or through any other means; and will to ensure full compliance to these rules and any conditions imposed in the permit.
30. The Mines Act, 1952 as amended; the Minor Mineral and concession Rules as amended; and the State Mineral (Rights and Taxation) Acts as may be in force: These provide for for safe and sound mining activity. The contractors will procure aggregates and other building materials from quarries and borrow areas approved under such Acts. In the event the contractors open any new quarry and/or borrow areas, appropriate prior permission from the State Departments of Minerals and Geology will need to be obtained. Contractors will also need to ensure full compliance to these rules and any conditions imposed in the permit.
31. The Insecticides Act, 1968 and Insecticides Rules, 1971 and as amended: These provide for regulates the manufacture, sale, transport, distribution, export, import and use of pesticides to prevent risk to human beings or animals, and for matters connected therewith. No one should import or manufacture; sell, stock or exhibit foe sale; distribute, transport, use: (i) any misbranded insecticides, (ii) any insecticide the sale, distribution or use of which is for the time being prohibited under the Act; and (iii) any insecticide except in accordance with the condition on which it was registered under the Act.
32. National Building Codes of India, 2005 and as amended: This provides guidelines for regulating the building construction activities in India. The code mainly contains administrative regulations, development control rules and general building requirements; stipulations regarding materials, structural design and construction; and building and plumbing services. Contractors will be required to comply with all Bureau of Indian Standards Codes dealing with: (i) use and disposal of asbestos containing materials in construction; (ii) paints containing lead; (iii) permanent and temporary ventilations in workplace; (iv) safety, and hygiene at the workplace; (v) prevention of fire; (vi) prevention of accidents from faulty electrical gadgets, equipment and accessories; and all other such codes incidental to the Contract.

Appendix 2 Not Applicable
Appendix - 3⁴
Appointment of Adjudicator

Suggested Draft of **Letter of Appointment of Adjudicators** in civil works contracts

Sub: _____ (Name of the Contract)

To

Name and address of the Adjudicator

We hereby confirm your appointment as Adjudicator for the above contract to carry out the assignment specified in this Letter of Appointment.

For administrative purpose _____ (*name of the officer representing the Employer*) has been assigned to administer the assignment and to provide the Adjudicator with all relevant information needed to carry out the assignment on behalf of both the employer and the contractor. The services will be required during the period of contract for the work of (Name of the Contract) _____.

The Adjudicator shall visit the worksite once in 3 (three) months till the completion of the work indicated above or as specifically requested by Employer/ Contractor for the period up to the end of defects liability period with prior intimation to the Employer and the contractor. The duration of each visit shall ordinarily be for one day only. These durations are approximate and (*Name of the employer and Name of the Contractor*) may find it necessary to postpone or cancel the assignment and/or shorten or extend the duration.

The appointment will become effective upon confirmation of letter by you. The appointment of Adjudicator shall be liable for termination under a 30 (thirty) days written notice from the date of issue of the notice, if both Employer and the Contractor so desire. Also, the appointment shall automatically stand terminated 14 days after the defect notice / correction period as stated in Clauses 23 and 24 of the Conditions of Contract is over.

The Adjudicator will be paid a fee of Rs. _____ (Rupees _____ only) per each day of visit at the worksite. The actual expenses for boarding and traveling in connection with the assignment will be reimbursed to the Adjudicator. The Adjudicator will submit a pre-receipted bill in triplicate to the employer indicating the date of the visit, fees for the visit and a proof in support of the actual expenditure [only for items valued above Rs. 500 each] incurred by him against boarding, lodging and traveling expenses after performing the visit on each occasion. The Employer will make the admissible payment (both the Employer's and the Contractor's share) to the Adjudicator within 30 days of the receipt of the bill. The

⁴ If ITB 51 makes provision of an Adjudicator from list provided by an institution, kindly modify Appendix 3 to state that the fee and reimbursable payable to the adjudicator shall be as per the rules of the Institution.

Contractor's share on this account (half the paid amount) will be recovered by the Employer from the Contractor's bills against the work.

In accepting this assignment, the Adjudicator should understand and agree that he is responsible for any liabilities and costs arising out of risks associated with travel to and from the place of emergency repatriation, loss or damage to personal/professional effects and property. The Adjudicator is advised to effect personal insurance cover in respect of such risks if he does not already have such cover in place. In this regard, the Adjudicator shall maintain appropriate medical, travel, accident and third-party liability insurance. The obligation under this paragraph will survive till termination of this appointment.

Procedures for resolution of disputes by the Adjudicator is described in the contract of _____(name of the contract) between the employer and the contractor vide Clause No. 24 of the General Conditions of Contract. Your recommendation should be given in the format attached, within 28 days of receipt of a notification of dispute.

The Adjudicator will 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 will conduct himself in a manner consistent herewith. After visiting the worksite, the Adjudicator will discuss the matter with the Employer and if necessary with the Contractor before arriving at any decision.

The Adjudicator will agree that all knowledge and information not within the public domain, which may be acquired while carrying out this service shall be all time and for all purpose, regarded as strictly confidential and held in confidence, and shall not be directly or indirectly disclosed to any party whatsoever, except with the permission of the employer and the contractor. The Adjudicator's decision should be communicated in the form of a speaking order specifying the reasons.

The Adjudicator will agree that any manufacturing or construction firm with which he might be associated with, will not be eligible to participate in bidding for any goods or works resulting from or associated with the project of which this consulting assignment forms a part

Read and Agreed

Name of Adjudicator

Signature

Place:

Date:

Name of Employer

Signature of authorized representative of Employer

Name of the Contractor

Signature of authorized representative of Contractor

Attachment: Copy of contract document between the employer and contractor and format for recommendation.

SUMMARY OF ADJUDICATOR'S RESPONSIBILITIES

The Adjudicator has the following principal responsibilities:

1. Visit the site periodically.
2. Keep abreast of job activities and developments.
3. Encourage the resolution of disputes by the parties.
4. When a dispute is referred to it, conduct a hearing (no legal presentation), complete its deliberations, and prepare a recommendations in a professional and timely manner (as per sample format)

Sample Format of Adjudicator's Recommendation

[Project Name] Recommendation of Adjudicator

Dispute No. XX [*NAME OF DISPUTE*]

Hearing Date: _____

Dispute

Description of dispute. A one or two sentence summation of the dispute.

Contractor's Position

A short summation of the contractor's position as understood by the Adjudicator.

Employer's Position

A short summation of the Employer's position as understood by the Adjudicator.

Recommendation

The Adjudicator's specific recommendation for settlement of the dispute. (*The recommended course is consistent with the explanation*).

Explanation

(*This section could also be called Considerations, Rationale, Findings, Discussion, and so on.*)

The Adjudicator's description of how each recommendation was reached.

Respectfully submitted,

Date : _____

Date : _____

Date : _____

Section X - Contract Forms

This Section contains forms which, once completed, will form part of the Contract. The forms for Performance Security, ES performance security if applicable, and Advance Payment Security, when required, shall only be completed by the successful Bidder after contract award.

NOTIFICATION OF AWARD

Letter of Acceptance

[on letterhead paper of the Employer]

[The Letter of Acceptance shall be the basis for formation of the Contract as described in ITB Clause 47. This Standard Form of Letter of Acceptance shall be filled in and sent to the successful Bidder only after evaluation of bids has been completed, subject to any review by the World Bank required under the Loan Agreement.]

..... *[date]*

To: *[name and address of the Contractor]*

Subject: *[Notification of Award Contract No.]*

This is to notify you that your Bid dated ... *[insert date]* ... for execution of the
 *[insert name of the contract and identification number, as given in the PCC]*
 for the Accepted Contract Amount of *[insert amount in numbers and words]*, as corrected and modified⁵ in accordance with the Instructions to Bidders is hereby accepted by our Agency.

You are requested to furnish the Performance Security, plus additional security for unbalanced bids in terms of ITB Clause 41, and ES Performance Security in the form detailed in ITB Clause 50 for amounts⁶ of Rs., and Rs. specified therein, within 21 days of the receipt of this letter of acceptance, and visit this office to sign the contract, failing which action as stated in ITB Clause 50.2 will be taken in accordance with the Conditions of Contract. The securities shall be valid up to 28 days from the date of completion i.e. up to and shall be as per the Performance Security Form and the ES Performance Security Form, included in Section X - Contract Forms, of the bidding document.

[Choose one of the following statements:]

We accept that _____ *[insert the name of Adjudicator proposed by the Bidder]* be appointed as the Adjudicator⁷.

[or]

⁵ Delete "corrected and" or "and modified" if not applicable. See Notes on Standard Form of Agreement, next page.

⁶ Insert amounts for (i) Performance Security, plus additional security for unbalanced bids in terms of ITB Clause 41; and (ii) ES Performance Security respectively.

⁷ To be used only if the Contractor disagrees in the Bid with the Adjudicator proposed by the Employer in the Instructions to Bidders, and has accordingly offered another candidate.

We do not accept that _____ *[insert the name of the Adjudicator proposed by the Bidder]* be appointed as the Adjudicator, and by sending a copy of this Letter of Acceptance to _____ *[insert name of the Appointing Authority]*, the Appointing Authority, we are hereby requesting such Authority to appoint the Adjudicator in accordance with ITB 51.1 and GCC 23.1⁸.

We note that as per your bid, you do not intend to subcontract any component of work.

[OR]

We note that as per your bid, you propose to employ M/s. as sub-contractor for executing

We have reviewed the Work methodology submitted by you along with the bid in response to ITB Clause 16 and our comments are given in the attachment. You are requested to submit a revised Program including ES requirements as per Clause 30 of General Conditions of Contract within 14 days of receipt of this letter of acceptance.

Authorized Signature:

Name and Title of Signatory:

Name of Agency:

⁸ To be used only if the Contractor disagrees in the Bid with the Adjudicator proposed by the Employer in the ITB, has accordingly offered another candidate, and the Employer does not accept the counterproposal.

Issue of Notice to proceed with the work

(letterhead of the Employer)

_____ (date)

To

_____ (name and address of the Contractor)

Dear Sirs:

Pursuant to your furnishing the requisite securities as stipulated in ITB clause 50.1, insurance policy as per GCC 13, Work methodology as stated in letter of acceptance and signing of the contract agreement for the Work of _____ @ a Bid Price of Rs. _____, you are hereby instructed to proceed with the execution of the said works in accordance with the contract documents.

Yours faithfully,

(Signature, name and title of
signatory authorized to sign on
behalf of Employer)

Attachment: Contract Agreement

Contract Agreement

THIS AGREEMENT made theday of,, between
 . *[name of the Employer]* (hereinafter “the Employer”), of the one part, and
[name of the Contractor].(hereinafter “the Contractor”), of the other part:

WHEREAS the Employer desires that the Works known as *[name of the Contract]*.
should be executed by the Contractor, and has accepted a Bid by the Contractor for the
 execution and completion of these Works and the remedying of any defects therein,

The Employer and the Contractor agree as follows:

1. In this Agreement words and expressions shall have the same meanings as are respectively assigned to them in the Contract documents referred to.
2. The following documents shall be deemed to form and be read and construed as part of this Agreement. This Agreement shall prevail over all other Contract documents.
 - (i) This Agreement
 - (ii) the Letter of Acceptance
 - (iii) the Contractor’s Bid including completed schedules and priced schedule of activities
 - (iv) the addenda Nos _____(if any)
 - (v) the Particular Conditions
 - (vi) the General Conditions of Contract, including appendix;
 - (vii) Employer’s Requirement
 - (viii) the Drawings
 - (ix) Design Methodology Work Program, Methodology, Quality Assurance Program, the ES Management Strategies and Implementation Plans, and Code of Conduct for Contractor’s Personnel (ES)
 - (x) Joint Venture Agreement [for JVs only]; and
 - (xi) any other document **listed in the PCC** as forming part of the Contract.
3. In consideration of the payments to be made by the Employer to the Contractor as specified in this Agreement, the Contractor hereby covenants with the Employer to execute the Works and to remedy defects therein in conformity in all respects with the provisions of the Contract.

4. The Employer hereby covenants to pay the Contractor in consideration of the execution and completion of the Works and the remedying of defects therein, the Contract Price or such other sum as may become payable under the provisions of the Contract at the times and in the manner prescribed by the Contract.

IN WITNESS whereof the parties hereto have caused this Agreement to be executed in accordance with the laws of India on the day, month and year specified above.

Signed by: _____
for and on behalf of the Employer

Signed by: _____
for and on behalf the Contractor

in the
presence of: _____
Witness, Name, Signature, Address,
Date

in the
presence of: _____
Witness, Name, Signature, Address, Date

Performance Security - Bank Guarantee
[including Additional Performance Security for unbalanced bids]
[Guarantor letterhead or SWIFT identifier code]

Performance Guarantee No..... *[insert guarantee reference number]*

Date..... *[insert date of issue of the guarantee]*

To: _____ *[name of Employer]*

_____ *[address of Employer]*

WHEREAS _____ *[name and address of Contractor⁹]* (hereinafter called "the Applicant") has undertaken, in pursuance of Contract No. _____ dated _____ to execute _____ *[name of Contract and brief description of Works]* (hereinafter called "the Contract");

AND WHEREAS it has been stipulated by you in the said Contract that the Applicant shall furnish you with a Bank Guarantee by a recognized bank for the sum specified therein as security for compliance with his obligations in accordance with the Contract;

AND WHEREAS we have agreed to give the Applicant such a Bank Guarantee;

NOW THEREFORE we hereby affirm that we are the Guarantor and responsible to you, on behalf of the Applicant, up to a total of _____ *[amount of guarantee¹⁰]* _____ *[in words]*, such sum being payable in the types and proportions of currencies in which the Contract Price is payable, and we undertake to pay you, upon your first written demand and without cavil or argument, any sum or sums within the limits of _____ *[amount of guarantee]* as aforesaid without your needing to prove or to show grounds or reasons for your demand for the sum specified therein.

We hereby waive the necessity of your demanding the said debt from the Applicant before presenting us with the demand.

⁹ *In the case of a JV, insert the name of the Joint Venture*

¹⁰ *An amount shall be inserted by the Guarantor, representing the percentage of the Contract Price specified in the Contract less provisional sums, if any, plus additional performance security for unbalanced bids if any, and denominated in Indian Rupees.*

We further agree that no change or addition to or other modification of the terms of the Contract or of the Works to be performed thereunder or of any of the Contract documents which may be made between you and the Applicant shall in any way release us from any liability under this guarantee, and we hereby waive notice of any such change, addition or modification.

This guarantee shall be valid until¹¹, and any demand for payment under it must be received by us at this office on or before that date.

Signature and seal of the guarantor _____

Name of Bank _____

Address _____

Date _____

Note: All italicized text (including footnotes) is for use in preparing this form and shall be deleted from the final product.

¹¹ *Insert the date twenty-eight days after the expected completion date as described in GC Clause 53.1. The Employer should note that in the event of an extension of this date for completion of the Contract, the Employer would need to request an extension of this guarantee from the Guarantor. Such request must be in writing and must be made prior to the expiration date established in the guarantee. In preparing this guarantee, the Employer might consider adding the following text to the form, at the end of the penultimate paragraph: "The Guarantor agrees to a one-time extension of this guarantee for a period not to exceed [six months][one year], in response to the Employer's written request for such extension, such request to be presented to the Guarantor before the expiry of the guarantee"*

Environmental and Social (ES) Performance Security ES – Bank Guarantee

[Guarantor letterhead or SWIFT identifier code]

ES Performance Guarantee No.: *[Insert guarantee reference number]*

Date..... *[insert date of issue of the guarantee]*

To: _____ *[name of Employer]*

_____ *[address of Employer]*

WHEREAS _____ *[name and address of Contractor¹²]* (hereinafter called "the Applicant") has undertaken, in pursuance of Contract No. _____ dated _____ to execute _____ *[name of Contract and brief description of Works]* (hereinafter called "the Contract");

AND WHEREAS it has been stipulated by you in the said Contract that the Applicant shall furnish you with a Bank Guarantee by a recognized bank for the sum specified therein as security for compliance with his Environmental and/or Social (ES) obligations in accordance with the Contract;

AND WHEREAS we have agreed to give the Applicant such a Bank Guarantee;

NOW THEREFORE we hereby affirm that we are the Guarantor and responsible to you, on behalf of the Applicant, up to a total of _____ *[amount of guarantee¹³]* _____ *[in words]*, such sum being payable in the types and proportions of currencies in which the Contract Price is payable, and we undertake to pay you, upon your first written demand and without cavil or argument, any sum or sums within the limits of _____ *[amount of guarantee]* as aforesaid without your needing to prove or to show grounds or reasons for your demand for the sum specified therein.

We hereby waive the necessity of your demanding the said debt from the Applicant before presenting us with the demand.

¹² *In the case of a JV, insert the name of the Joint Venture*

¹³ *An amount shall be inserted by the Guarantor, representing the percentage of the Contract Price specified in the Contract less provisional sums, if any, and denominated in Indian Rupees.*

We further agree that no change or addition to or other modification of the terms of the Contract or of the Works to be performed thereunder or of any of the Contract documents which may be made between you and the Applicant shall in any way release us from any liability under this guarantee, and we hereby waive notice of any such change, addition or modification.

This guarantee shall be valid until¹⁴, and any demand for payment under it must be received by us at this office on or before that date.

Signature and seal of the guarantor _____

Name of Bank _____

Address _____

Date _____

Note: All italicized text (including footnotes) is for use in preparing this form and shall be deleted from the final product.

¹⁴ *Insert the date twenty-eight days after the expected completion date as described in GC Clause 53.1. The Employer should note that in the event of an extension of this date for completion of the Contract, the Employer would need to request an extension of this guarantee from the Guarantor. Such request must be in writing and must be made prior to the expiration date established in the guarantee. In preparing this guarantee, the Employer might consider adding the following text to the form, at the end of the penultimate paragraph: "The Guarantor agrees to a one-time extension of this guarantee for a period not to exceed [six months][one year], in response to the Employer's written request for such extension, such request to be presented to the Guarantor before the expiry of the guarantee"*

**Advance Payment Security
Demand Guarantee**
[Guarantor letterhead or SWIFT identifier code]

Advance Payment Guarantee No..... *[insert guarantee reference number]*

Date..... *[insert date of issue of the guarantee]*

To: _____ *[name of Employer]*
 _____ *[address of Employer]*
 _____ *[name of Contract]*

Gentlemen:

In accordance with the provisions of the Conditions of Contract, Subclause 53.1 ("Advance Payment") of the above-mentioned Contract, _____ *[name and address of Contractor¹⁵]* (hereinafter called "the Applicant") shall deposit with _____ - _____ *[name of Employer]* a bank guarantee to guarantee his proper and faithful performance under the said Clause of the Contract in an amount of _____ *[amount of guarantee¹⁶]* _____ *[in words]*.

We, the _____ *[bank or financial institution]*, as instructed by the Applicant, agree unconditionally and irrevocably to guarantee as primary obligator and not as Surety merely, the payment to _____ *[name of Employer]* on his first demand without whatsoever right of objection on our part and without his first claim to the Applicant, in the amount not exceeding _____ *[amount of guarantee]* _____ *[in words]*.

We further agree that no change or addition to or other modification of the terms of the Contract or of Works to be performed thereunder or of any of the Contract documents which may be made between _____ *[name of Employer]* and the Applicant, shall in any way release us from any liability under this guarantee, and we hereby waive notice of any such change, addition or modification.

¹⁵ In the case of a JV, insert the name of the Joint Venture

¹⁶ An amount shall be inserted by the bank representing the amount of the Advance Payment, and denominated in Indian Rupees.

This guarantee shall remain valid and in full effect from the date of the advance payment under the Contract until _____ *[name of Employer]* receives full repayment of the same amount from the Applicant. Consequently, any demand for payment under this guarantee must be received by us at this office on or before that date.

Yours truly,

Signature and seal: _____

Name of Bank: _____

Address: _____

Date: _____

Note: All italicized text (including footnotes) is for use in preparing this form and shall be deleted from the final product.

Retention Money Security
Demand Guarantee
[Guarantor letterhead or SWIFT identifier code]

_____ *[Bank's name and address of issuing branch or office]*

Beneficiary: _____ *[Name and Address of Employer]*

Date: _____

RETENTION MONEY GUARANTEE NO.: _____

We have been informed that _____ *[name of contractor¹⁷]* (hereinafter called "the Applicant") has entered into Contract No. _____ *[reference number of the contract]* dated _____ with you, for the execution of _____ *[name of contract and brief description of Works]* (hereinafter called "the Contract").

Furthermore, we understand that, according to the conditions of the Contract, when the Taking-Over Certificate has been issued for the Works and the first half of the Retention Money has been certified for payment, payment of _____ *[insert the second half of the Retention Money]* is to be made against a Retention Money guarantee.

At the request of the Applicant, we _____ *[name of Bank]* hereby irrevocably undertake to pay you the sum or sums not exceeding in total an amount of _____ *[amount in Rupees]* (_____) *[amount in words¹⁸]* upon receipt by us of your first demand in writing accompanied by a written statement stating that the Applicant is in breach of its obligation under the Contract without cavil or argument.

It is a condition for any claim and payment under this guarantee to be made that the payment of the second half of the Retention Money referred to above must have been received by the Applicant on its account number _____ at _____ *[name and address of Bank]*.

¹⁷ *In the case of a JV, insert the name of the Joint Venture*

¹⁸ *The Guarantor shall insert an amount representing the amount of the second half of the Retention Money or if the amount guaranteed under the Performance Guarantee when the Taking-Over Certificate is issued is less than half of the Retention Money, the difference between half of the Retention Money and the amount guaranteed under the Performance Security.*

This guarantee shall expire, at the latest, 21 days after the date when the Employer has received a copy of the Defects Liability Certificate issued by the Project Manager. Consequently, any demand for payment under this guarantee must be received by us at this office on or before that date.

[Signature(s) and seal of the guarantor]

Note: All italicized text (including footnotes) is for use in preparing this form and shall be deleted from the final product.



Design works for Biomining and Bioremediation of 12 Legacy Waste Dumpsites across Kerala

Tender Reference No : RFB No.: IN-SUCM -394361-CW-RFB

Tender ID : 2023_KSWMP_633809_1

Corrigendum 1

With reference to RFB for the project having Tender reference **No.: IN-SUCM -394361-CW-RFB** dated 20/12/2023, is invited by the Project Director KSWMP is hereby providing additional information as Annexed.

Date 21/12/2023

Sd/-

Project Director
Kerala Solid Waste Management Project

Encl:

1. Environmental Management Plan
2. Environmental Monitoring Plan for Dumpsite Remediation
3. Feasibility Report on Dumpsite Remediation - Summary Report Of Social Safeguards For Cluster 1

ANNEXURE III: ENVIRONMENTAL MANAGEMENT PLAN

Detailed Environmental Management Plan with Generic section applicable to all dumpsites, and specific sections applicable to each dumpsite is presented here.

SI No	Probable Negative Impacts	Mitigation Measures	Implementation Responsibility	Monitoring Responsibility
A		Planning and Pre-Construction Stage		
1	Planning for biomining facility			
1	Biomining & Bioremediation Plan & Capacities	<ul style="list-style-type: none"> Contractor to update the EIA (if there is any change / additions in details presented), and this EMP (based on work plan & actual site conditions) & EMOp before start of any activity on site, based on his work plan and disposal plan for retrieved / biomined material. This shall be made a bid condition. The EMP shall also include mitigation, management & monitoring measures for the location of reuse/disposal of these biomined material considering the agreements of the Contractor and/or SPMU as applicable, with such facility owners in line with National, State regulations and WB Safeguard Policies and EHS. All mitigation and monitoring measures in this EMP shall be included in the C-EMP. All impacts would be considered & mitigation measures will be updated & adopted. Contractor to prepare & follow Disaster/Emergency Response Plan, a detailed Fire Safety Plan based on Hazard Analysis, Pests/Flies, Odour and Leachate management Plan. The contractor to have qualified & experienced environmental health & safety personal during all days to manage EHS aspects including EMP, EMOp, reporting and training of workers. Contractor to get all required licenses & permits before start of any activity on site 	SPMU to ensure this is part of Bid & Contract Condition C-EMP to be prepared & other capacities / aspects to be arranged by the Contractor	TSC, DPMU, SPMU to monitor
2	Site Access Closure	<ul style="list-style-type: none"> The total cessation of dumping in the site will be implemented before any works. All public access to the site, including waste pickers and scavengers should be prohibited via adequate fencing/compound wall, manned security, information to communities around and signage which prohibit public access completely, to avoid risk to the public. The site will be fully closed to any SWM operation and appropriate signage must be established at the site entrance to indicate that the waste dump has been closed from the operation. To avoid land disturbance and movement, the fence/compound wall shall generally follow the contour of the ground. Grading shall be performed where necessary to provide a neat appearance 	ULB or Contractor as per Bidding mechanism	TSC, DPMU, SPMU
3	Site assessments including soil boring, auger and test pit, or standard penetration tests for assessing the contamination of the waste – <i>impact on air quality, odor, water contamination due to leachate, health and safety impacts of the people working in the site assessment</i>	<ul style="list-style-type: none"> Carry out site assessments as per Guidelines for Biomining of Legacy waste Dumpsites of CPCB Consider safe biomining & gas / leachate generation from any existing capped portion of the site Assess the depth of contamination or the depth to which the site need remediation (to minimize impacts due to legacy waste and leachate) and type of remediation required by conducting bore and auger test and test pit, or standard penetration tests or other suitable means Provision of appropriate PPE's to the team undertaking the site assessments Ensure that waste samples are taken in a manner that does not greatly disturb the matrix of the existing waste mound. Ensure proper barricades while working on the pit and proper backfilling of test pits Care should be maintained, especially when working on the slopes to ensure further failures do not occur due to the height of the mound. Plan for machinery operated which will be operated by skilled operators at all times. Arrange adequate PPEs full-body suits, masks helmets, boots and gloves, and heat protection equipment to avoid exposure with raw decomposing waste material, which can be at higher temperatures. Appropriate PPEs and rescue devices shall be ready on site to aid rescue in case of loose waste/soil / decomposed matter, fire or any such risks identified through hazard analysis at the beginning of the works & each day based on work plan and emergencies Excavation work shall be planned and scheduled with information to concerned authorities and host communities – to follow a sequenced manner, to avoid ad-hoc exposed areas of the waste mound 	TSC, ULB, Contractor	TSC, DPMU, SPMU
4	Absence / Delay in Permissions for Developing the biomining facility and associated works as per National regulations	<ul style="list-style-type: none"> Required permissions for undertaking biomining at the existing dumpsite and assessments conducted for undertaking biomining as per existing Laws, Regulations; including for associated infrastructure, DG Sets, Consent to Establish; and other licenses including those as per Labor Laws, before the start of works on site 	Contractor, ULB	TSC, DPMU, SPMU
5	Dust impacts due to Site works, screening & stacking of retrieved wastes <i>(Air Pollution) and Visual Blight due to excavation</i>	<ul style="list-style-type: none"> Plan to Provide temporary high screen, buffers around the site before the start of work to curtail dust emissions Arrange a green belt as early as possible on the area of the site with no / less dump. Schedule use of bioremediation soil/compost from site to grow the green belt (preferably fast-growing thick canopies of indigenous trees, shrubs in layers) PPEs to be used by workers Awareness to communities & suggest to use PPEs 	Contractor and or ULB depending on agreement on bidding mechanism/DPR	TSC, DPMU, SPMU
6	Material sourcing, transport, and stacking of construction materials <i>(Occupational Health and Safety issues and Air noise pollution)</i>	<ul style="list-style-type: none"> Prior intimation to neighbors on proposed construction activities, timings, emergency contacts, grievance mechanism Prior intimation to nearby Primary Health Centre on work activities need for medical support, emergency support needs, type of laborers on-site and labor camp if any Materials shall be sourced only from approved quarries Material shall be transported only in closed trucks with PUC certificates, with water sprinkling if required to curtail dust emissions. The driver should be with required license and follow speed regulations Materials shall be transported preferably through well-surfaced roads. If road it kuchcha, water sprinkling shall be done to prevent dust emission before and after truck passes Material transport and unloading activities should not result in noise disturbance to locals and should be during day time Materials shall not be spread around on site. It shall be properly stored/stacked following good housekeeping practices (labeling, properly arranged); in covered sheds to prevent loss of strength and loss of material. Material storage shall not result in any harm to workers or visitors. Provide vehicle wheel wash area on site Workers to be provided with Personnel Protection Equipment (PPE) including safety boots, jackets, ear muffs, gloves. 	Contractor	TSC, DPMU, SPMU

SI No	Probable Negative Impacts	Mitigation Measures	Implementation Responsibility	Monitoring Responsibility
7	The layout of Labour camp (Impacts on Air, Water, Land, Fauna/Flora, Socio-economic)	<ul style="list-style-type: none"> Proper rest area on site shall be provided with water, first aid, toilets Labour camp layout, design and material/fire safety plan shall be approved by site engineer before start of construction of the camp Nearby health center shall be informed about the labor camp & appropriate medical checkup shall be arranged periodically Materials used for the camp shall be safe (from corrosion, fire/flood/other manmade and natural disasters) It should not be provided in the waste dumping yard compound. There shall be proper permission & written agreement with land owners wherever the labour is accommodated Camp must not be provided in an area prone to Hazards Camp should be adequately at higher plinth levels to prevent water intrusion Rooms shall be of appropriate sizes with adequate ventilation and livable temperature/other conditions and facilities like proper beds, storage areas, common kitchen where wood or unsafe fuels are not used (better to use LPG) Proper facilities shall be provided at the camp including food and common entertainment facilities, crèche (in case of female labourers- as in regulations), toilets with proper septic tanks, washing area, wastewater, and waste collection/management systems, etc. The camp shall be planned / designed to be maintained in good clean hygienic conditions and shall have outdoor seating areas, greenery, security (Refer ECOP section 06 and section 11 of EMF for KSWMP)	Contractor	Site engineer of SPMU, Labour Commissioner, PCB
8	Nearness/disturbance to sensitive areas such as forests, wildlife habitations, etc. especially in case of providing support facilities (Impacts on Fauna / Flora)	<ul style="list-style-type: none"> Ensure site selection for any support facilities or activities (such as vehicle storage etc. if no in biomining site) based on the screening checklist and the master plan of the region, to avoid sensitive areas. Follow mitigation hierarchy – Avoid, Minimize, Mitigate, Reduce. Obtain requisite permissions from respective authorities such as Pollution Control Board, ULB etc. Identify appropriate government site to avoid land acquisition and resettlement impacts Covered and well-marked storage area with cut off drains & odour/fly/dust/ fire prevention shall be ensured for excavated wastes and washing, segregation of the same are to be arranged with due consideration to nearby residences and other landuses 	Contractor	TSC, DPMU, SPMU
9	Contamination of groundwater due to leaching. Leachate parameters; BOD, COD, TDS, Ecoli, Heavy metals exceeding limits & impacts on ground water quality in nearby schools, residences, wells; long term soil pollution	<ul style="list-style-type: none"> During the excavation, ensure appropriate design provisions (based on hydrogeological aspects as well) are made for liners, lined drains for leachate collection and leachate treatment facilities to prevent percolation of leachate. Wherever excavated material is stored, it shall be kept on the platform with garland drain to collect leachate and direct it to the treatment plant Depending on the contractors plan for biomining of the capped area on site, adopt plans to manage leachate 	Contractor	TSC, DPMU, SPMU
10	Impacts on flora, fauna" consumption of wastes, leachate impacts, dust smoke – burning, trampling/machinery	<ul style="list-style-type: none"> Movement routes of vehicles to be planned to avoid key fauna/flora Leachate collection & storage/treatment and recirculation shall be planned to avoid impacts on flora, fauna 	Contractor	TSC, DPMU, SPMU
11	Nuisance hazards to neighboring areas	<ul style="list-style-type: none"> Ensure proper design and adequate compound wall; high screen during construction in consultation with communities, buffer zones and thick green belt to comply with SWM Rules, 2016 and other PCB requirements In case of waste mound and site edges are sliding or unsafe; provide engineered retention walls. 	Contractor	TSC, DPMU, SPMU
12	Treatment & Disposal of wastes and rejects	<ul style="list-style-type: none"> Contractor to Plan treatment & disposal mechanisms for retrieved wastes & rejects/inerts in line with applicable regulations for each type of waste. Retrieved Legacy Waste, reject & inert disposal plan shall be prepared, submitted to the Engineer for approval. All retrieved material shall be inventorised and quantified, including Bioearth, rejects, inerts. These shall be tested and disposed in line with applicable regulations including Hazardous Waste Management Rules 2016, Biomedical Waste Management Rules 2016, SWM Rules, 2016, C&D waste Rules 206, Plastic Waste Management Rules 2016, Fertiliser Control Order 1985 and their amendments. Asbestos Management Plan shall be prepared for management if Asbestos wastes retrieved if any. The bio-earth and C&D material recovered will be subjected to bi-weekly sampling and confirm to the parameters mentioned in Schedule II of SWM Rules 2016 (depending on end use) before using the material Further storage, treatment or disposal of retrieved legacy wastes or rejects/inerts shall not be in a manner that disturbs any sensitive receptor or area (communities, waterbodies, air, soil, biodiversity etc) in such a way that no material is allowed to remain on site after contract period. 		
B	Implementation or Biomining & Bioremediation stage and Construction of ancillary facilities such as access road improvements, compound walls, greenbelts, drainage etc.			
Implementation of biomining of the dumpsite				
1	Impact due to the vehicular movement (Air and noise environment & Vehicular - Vehicular & Vehicular - Pedestrian Conflicts)	<ul style="list-style-type: none"> Vehicles and machinery are to be maintained so that emission conforms to National Ambient air quality standards. All vehicles and machinery should obtain Pollution Under Control Certificates HORN PROHIBITION signpost to be erected. Rumble strips/speed breaker to be provided on access roads. Regular maintenance of heavy equipment used at the site and waste hauling vehicles to ensure their exhaust emissions meet the emissions standards prescribed. Vehicle movement shall be well planned. Ensure surfacing the site access when required & sprinkling of water to suppress dust before and after the movement of the vehicle Adopt required measures as per CPCB guidelines, and site & proposed work plan/schedule specific safety requirements. Avoid heavy vehicle movement through roads during peak hours and festivities, or other such events or circumstances Vehicle should move at control speed inside the dumpsite and reverse horn must be installed in every vehicle to avoid the accidents. 	Contractor, ULB	TSC, DPMU, SPMU
2	Impact due to the use of heavy vehicle and equipment	<ul style="list-style-type: none"> Mixing equipment (in case of construction of ancillary facilities) should be well sealed and be equipped with a dust-removal device. Equipment Operators & labourers should wear dust masks, ear protection, and hard hats. Vehicles delivering materials should be covered appropriately to reduce spills and dust blowing off the load. Labor to be provided masks / PPEs. 	Contractor	TSC, DPMU, SPMU

SI No	Probable Impacts	Negative	Mitigation Measures	Implementation Responsibility	Monitoring Responsibility
	(Air and Noise environment)		<ul style="list-style-type: none"> Construction / Biomining dump site prone to dust generation shall have fencing (of suitable material & height in consultation with communities) to arrest dust spreading into neighboring sensitive land uses Noise standards at operation machines are to be strictly monitored to prevent exceeding of GOI noise standards. <ul style="list-style-type: none"> Strictly adhering to designated working hours (day time); Sensitizing construction truck drivers and equipment operators to switch off idle engines. Using modern, well-maintained and regularly serviced vehicles. Ensuring that all generators and heavy-duty equipment be insulated or placed in enclosures to minimize ambient noise levels. Provision of earmuffs and ear protection to workers and employees in high noise areas. Workers in the vicinity of strong noise to wear protectors and their working time should be limited as a safety measure. As Puthiyapa dumpsite has sensitive receptors and settlement areas within 150m of it, noisy works shall be stopped from 22:00 to 06:00. Machinery and vehicles should be maintained well in good condition to keep their noise to a minimum. Avoid noisy activities/machines near the site where settlements and schools, hospital and similar landuses exist. Noise barrier shall be provided at all noise-sensitive locations / for noise generating equipment such as DG sets, mixers (for ancillary facilities) Adopt required measures as per CPCB guidelines, and site & work specific safety requirements 		
3	Impact during the construction activities	(water environment)	<ul style="list-style-type: none"> Labour camps if any (depending on Contractors work plan & arrangements) are to be located away from water bodies. Vehicle washing or maintenance near water bodies are to be avoided. Contaminated water from construction / biomining activities carrying soil, cement wash, etc shall not be allowed to flow out of the site. It shall be contained and treated on site. 	Contractor	TSC, SPMU, DPMU
4	Leachate and Runoff from biomining activities	(Soil contamination and groundwater contamination)	<ul style="list-style-type: none"> Provide site cut off drain around the site to divert off stormwater from entering the site, and to prevent contaminating downstream resources with run off from the dumpsite Depending on the contractors plan for biomining of the capped area on site, implement leachate management to cause no harm to communities & environment Ensure stormwater drains will lead to drain outlets on roads adjoining the dump yard Provide leachate drains – lined – from probable leachate pool areas (based on site geography or slope) and carry it to the leachate collection and treatment area Provide proper treatment of leachate and stormwater that unavoidably flows through dump or wastes in a tank, constructed wetland in the site or other such arrangements. Treated water/leachate shall be stored for reuse in greenery or for wash purposes. ULB may initiate green belt development on-site parts which will not be impacted by biomining activities The quality parameters for recycling and reuse applications must be as per SWM Rules, 2016 or other applicable standards. The treated water quality needs to be tested at prescribed regular intervals – once a week. The treated leachate water quality needs to comply with the latest standards prescribed by the KSPCB/CPCB. The storage areas of the facility should have a leachate barrier system that forms a secure barrier between the groundwater, soil, and substrata Design and maintain the slope and orientation of leachate drains such that free drainage of leachate to a collection drain is facilitated and ponding of leachate is avoided; shape the piles and windrows to maximize runoff and hence reduce infiltration Provide channels to collect leachate around heaped waste windrows (for air contact or enhancing natural drying) and provide cut off drain around all work areas with collection facility for leachate at the lower gradient and channelizing to the leachate treatment or recirculation mechanism Plan the works on-site only during non-rainy seasons and to complete the works before rains Store leachate preferably in aboveground storage tanks or such arrangements to minimize contamination and impacts of submergence/flooding/rains, and provide for emergency containment additionally 	Contractor, ULB	TSC, SPMU, DPMU
5	Soil decontamination from accumulated waste levels	(Impact on leachate, odor)	<ul style="list-style-type: none"> Decontaminate the soil / stabilized layers remaining after sieving out wastes using windrow and bioculture of appropriate quality in line with standards / regulations or appropriate means as per CPCB Guidelines Vegetative layer using contaminant absorptive root varieties like Vetiver may be tried on soil and along the edge of the green belt or floating wetlands may be deployed in water channels nearby to maximize absorption of leachate in the soil by root-zone phytoremediation Soil and water testing shall be done and changes in contamination shall be noted. 	Contractor	TSC, SPMU, DPMU
6	Excavation of waste from the waste mound	(Health and safety impacts)	<ul style="list-style-type: none"> The contractor will ensure that waste excavation is conducted in a manner that does not greatly disturb the matrix of the existing waste mound. Care should be maintained, especially when working on the slopes to ensure further failures do not occur due to the height of the mound. Slips of waste / stored heap and worker shall be avoided Machinery operated for excavation should be operated by skilled operators at all times. Workers working on machinery and site during excavation should be geared with full-body suits preferably of fluorescent color, masks helmets, boots and gloves, and heat protection equipment to avoid exposure with raw decomposing waste material, which can be at higher temperatures. Proper harness and toes shall be used considering slipping possibility on wastes. Excavation work shall be carried out in a sequenced manner, to avoid ad-hoc exposed areas on the waste mound In case of the waste mound and site edges are sliding or unsafe; provide engineered retention walls or string boundaries. When stockpiled, wastes mined out should be covered and with garland drain to collect leachate and channelize it to the leachate collection & treatment mechanism. 	Contractor	TSC, SPMU, DPMU
7	Transportation of wastes or retrieved or other material in overloaded and open vehicles	(Air, Odour nuisances; spills and littering impacts on Air, Water, Land)	<ul style="list-style-type: none"> All vehicles shall carry only approved load of weight Regular cleaning of roads & drains and removal of spills if any. All waste transport vehicles shall be covered and movement shall be during non-peak hours. Ensure provisions of SWM Rules 2016 & other relevant rules such as Biomedical Waste Management Rules or Hazardous Waste Management Rules 2016 or others as applicable for all waste / retrieved material Transportation activities. Adopt required measures as per CPCB guidelines, and site specific safety requirements. 	Contractor	TSC, SPMU, DPMU
8	Spreading and compaction of waste	(Safety)	<ul style="list-style-type: none"> Follow technical details in line with CPCB Guidelines The active working face should be minimized as much as practical an appropriate size is about 2 to 3 times the width of the compactor vehicle. Waste should be spread and compacted in layers not greater than 0.6m (2ft.) after compaction. Compaction of the waste should be on a slope of about 20-30% as guided via the permissible levels and worked from the bottom of the slope to the top 	Contractor	TSC, SPMU, DPMU

SI No	Probable Negative Impacts	Mitigation Measures	Implementation Responsibility	Monitoring Responsibility
9	Occupational health and safety impacts of the workers during the biomining & construction of support facilities (including all High Energy Hazards and Critical Controls): <ul style="list-style-type: none"> Health impacts of exposure to a variety of harmful materials of waste-related pollutants. Accidental spillage of chemicals/other materials, bioaerosols, microbes, dust, biocultures or wastes etc; and by moving vehicles. Cut & Bruises during handling of materials/rejects Allergies from pathogen and airborne dust <i>(Air environment, Health impacts)</i>	<ul style="list-style-type: none"> All Occupational health and safety aspects of potential impacts on workers: accidents and injuries; chemical exposure; exposure to pathogens and vectors; bioaerosols as potential etc of particular concern to the health of waste workers (reduced pulmonary function and increased respiratory disease for those in immediate proximity to waste sweeping and collection activities) to be mitigated and managed using Hierarchy of Controls at all stages, as applicable. Avoid direct & double handling of wastes through avoidance measures (suitable planning & equipments), engineering controls & use PPEs Work area & Labour camps shall be provided with First Aid and other related activities. Emergency Preparedness plans shall be prepared and implemented for all manpower working centers and its field extension centers. An Environment Health & Safety policy shall be prepared and implemented Adequate manpower shall be provided & manager & staff shall listen and act upon the manpower related grievances. Workers will be provided with PPE such as face mask, gloves, shoes, nose masks & goggles Provide / cull out non-slippery work areas as much is feasible; or provide with safe strong holding bars, harness, strings any other appropriate safety equipment to ensure that the activities are performed with out slip, trip, fall especially on waste, leachate or trenches Proper training will be provided regarding the maintenance of health Workers shall be provided with scrubbing facilities / wash areas; rest areas, toilet facilities (may be mobile toilets with septic tanks & water supply), food, and water in a hygienic environment (with proper handwash). Provide clean eating areas where workers are not exposed to contaminated, hazardous or noxious substances. First aid facilities will be available at accessible places. More than one first aid station if the site is large or work schedule requires thus Tie-up with the local hospital / Family, Primary or Community Health Centre and ASHA worker to be arranged through responsible Health Inspector of ULB or HC to be arranged to provide an ambulance to handle emergency cases and for regular health checkups. Arrange daily health checkup for workers working on waste heaps Worker Immunization for Tetanus, Hepatitis B & other conditions shall be ensured. Consultation with Health Services / Local OHC on the required immunizations/preventive measures & ensure these are provided to the workers Routine inspections, housekeeping, and maintenance of vehicles, site to be carried out at regular intervals. Measures such as deferred timings and stretch break to be adopted Secure all installations from unauthorized intrusion and accident risks; Undertake hazard assessment & prepare site and activity specific mitigation plan at the start of any subproject activity. Also undertake hazard assessment, safety briefing & tool box talks during every days start of works / activities. Key hazards would be (but not limited to) are flammability, work on ground which may be soggy & have leachate pools, fire hazards, gas and leachate from existing capped area on site, electric shocks, works with heavy machines & equipments, slips of men & material (retrieved) stacked, biohazards, explosion of existing batteries/other materials, infections, infectious/hazardous wastes etc. Routine monitoring / checks shall be conducted on Methane & other gases and hazardous & infectious material from dump and safety precautions adopted while working, Work permit system shall be ensured EHS specialist with adequate experience & third party supervision are important for biomining activity Provide H and S orientation training to all new workers to ensure that they are apprised of the basic site rules of work at the site, personal protective protection, and preventing injury to fellow workers. Safety flashes may be prepared for exchange with new works (migrants) or other sites Provide visitor orientation if visitors to the site need to gain access to areas where hazardous conditions or substances or stored materials may be present. Ensure also that visitor/s do not enter such areas unescorted. Communities esp. school children shall be advised to avoid work/vehicle movement areas as much possible Ensure the visibility of workers through their use of high visibility vests when working in or walking through heavy equipment operating areas; Ensure moving equipment is outfitted with audible back -up alarms & flag men with whistles or speakers; Electrical wires should be properly insulated and earthed, no exposed wires and no overloading thus it will reduce the accidents due to electrical short circuit. Mark and provide signboards for hazardous areas such as energized electrical devices and lines, service rooms housing high voltage equipment, and areas for storage and disposal. Signage shall follow international standards and be well known to, and easily understood by workers, visitors, and the general public as appropriate. Any electric posts, transformers, wires, or appurtenance and the like to be marked well & safe kept before activity start near those Disallow worker exposure to noise level greater than 85 dBA for more than 8 hours a day without hearing protection All workers shall be registered as per prevalent labor laws (including a workforce of subcontractors) and provided insurance cover & others as per existing acts/laws Workers and their kith and kin shall be suitably informed about the registration, other details of workers, and insurance details and provide contact details of contractors person/insurance agent While using heavy machinery like JCB, cranes, etc, inform workers on possible dangers and prevent going near operating / movement areas. Flagmen should be arranged on-site with a whistle. While using heavy machinery like JCB, cranes, etc, inform communities to prevent children and others from going near operating / movement areas including roads. Flagmen shall be arranged if work is near schools, hospitals, major roads, and traffic control is required with the support of police. Traffic management plan to be prepared, got approved & followed as required. Communities esp. school children to be advised to use alternate roads if possible A work permit system will be implemented for all works related to working at heights (typically when working over 2m and above – for example in case of any activity on heaped wastes) and for hot jobs; No worker shall enter site in intoxicated condition & suitable checks shall be adopted by the contractor All works related to working at heights will be undertaken only during the daytime when sufficient sunlight is available; Use of temporary fall protection measures and outer edges of any elevated work surfaces, such as handrails and toe boards to prevent materials from being dislodged will be done; All excavation activities to be conducted in supervision of the site contractor; Proper signage and lights to be provided in all work or activity areas & work permit system to be ensured. All records on emergencies, accidents, workers & their duty schedule, important site events, waste storage & disposal etc shall be maintained on site. All accidents including Indicative, Serious and Severe accidents to be recorded. All severe & serious accidents to be reported to the Bank & procedures followed for root cause analysis & Corrective Action Plans prepared and implemented, as per Banks Incident Reporting Tool 	Contractor, ULB	TSC, DPMU, SPMU
10	Risk of fire due to conditions leading to spontaneous combustion <i>(Air environment, disturbance to communities)</i>	<ul style="list-style-type: none"> Follow CPCB Directions (May 26, 2022) Directions under Section 5 of EP Act (1986) – for Implementation of SWM Rules 2016 – regdg Fire Incidents at MSW Dumpsites (https://cpcb.nic.in/openpdf.php?id=UHVibGijYXRpb25GaWxlZQyNDRfMTY1NDE2Mzk3N19tZWRpYXBob3RvNzYxMi5wZGY=), LSGD Kerala Government GO on Fire Safety of MRF, MCFs (for the MRF on site if used for storage of wastes) and other Regulations, guidelines applicable Divide the site & plan for work in each area/quadrant as per work plan & prepare fire safety plan & emergency response plan in line with EIA Annexure 3; and National/State regulations & WB EHS. Emergency Response exercises shall be conducted as required Examine the site everyday by experienced Fire Safety / OHS personnel for any smokes 	Contractor, ULB	TSC, DPMU, SPMU

SI No	Probable Negative Impacts	Mitigation Measures	Implementation Responsibility	Monitoring Responsibility
	and workers, health impacts, safety issues)	<ul style="list-style-type: none"> ▪ Avoid conditions that can lead to spontaneous combustion such as: <ul style="list-style-type: none"> ○ Smoking Ban: Prohibit smoking in all areas of the dumpsite facility to eliminate a common fire hazard ○ Preventing Fires: Strictly forbid activities like intentionally setting fire to materials in the landfill. ▪ Design the facility for access by firefighting equipment/machines, including clear aisles among waste heaps or work areas and access to adequate water supply. ▪ Ensure workers are briefed of fire hazard & its management; and the evacuation plan ▪ There shall be watch and ward full time (day and night on site) who patrols in and around the dumpsite at specific intervals as per approved plan. No unauthorized entry (or even authorized entry of workers with flammable materials, or in distressed/intoxicated condition) shall be permitted to the site; including of workers during holidays, night time, or hours other than normal work hours under the supervision of site engineer / supervisor. Fencing and barricades with proper signage boards indicating "trespassers not allowed" ▪ The following activities should be implemented to prevent fires from occurring at the facility <ul style="list-style-type: none"> ○ adequate fire-fighting equipment (as per plan, also agreed with Fire & Rescue Department, Government of Kerala) should be made available on-site and stored in an accessible manner, ○ all operating staff should be trained and able to manage fire outbreaks at any part of the facility. ○ Alarm system shall be in place and ensure its working at all times ○ clear signage should be established to inform workers and the public that flammable liquids are not permitted on the site. This should be reinforced by advice to customers at the gatehouse and inspection of loads at the organic reception area. ○ Approved quantities of combustible contaminants that have been separated (such as tires and plastic bottles) should be stockpiled in small piles or windrows. ○ all fuels or flammable solvents for operational use should be stored in an appropriately ventilated and secure store (at appropriate height). This store should be located away from the biomining, storage, and processing areas. ○ all flammable liquids should be stored within a bund that can hold 110% of the volume of the flammable liquids stored there so that any release of raw or burning fuel cannot cause a fire in the combustible organics present on the site or have an impact on contaminating stormwater. ▪ The local fire brigade shall be informed of the activity, and fire safety plan shall be submitted for their comments/feedback & implemented throughout the biomining activity in line with National State regulations, guidelines and international good practices ▪ Ensure that appropriate fire safety standards, facilities, equipment are in place for storage and transportation stages. Fire mock drills to be conducted monthly once. ▪ Contain all local smokes/small fires inside the dump asap. Fire brigade help shall be sought on all smokes/fires outside the dump asap ▪ Ash from earlier or new fires (it will be mixed with PVC, other contents unknown) to be contained at the earliest within the site using bunds or screens, rather than allowing to disturb nearby receptors. Early clearing and disposal of such ash at Common Hazardous Waste Transfer Storage and Disposal Facility to be ensured. ▪ Provide contact details of Fire Department & ambulance other essential emergency services on site & ensure training to the workers by such service providers 		
11	Construction of new facilities in retrieved land	<ul style="list-style-type: none"> ▪ The excavated site shall be protected from any dumping during or after the biomining activity and shall be reserved for SWM activities in line with SWM Rules 2016 ▪ Any new facility under KSWMP to be constructed on the retrieved land, shall follow EMF procedures & National State regulations 	ULB	SPMU/DPMU
12	Pest / Vermin Control & Visual impacts (Odour, flies, rodent / other pest menaces)	<ul style="list-style-type: none"> ▪ Regular cleaning and approved pest control measures to be adopted; preferably in coordination with Health section of ULB & local Health Center ▪ Communities around shall be made aware of possible pest menace & ULB shall support those in need with required pest management measures and offered health checkups ▪ Biopesticides / biological control shall be followed. However, biopesticides, or bio cultures used shall be tested to ensure the presence of no banned chemicals or hazardous materials ▪ Banned pesticides/insecticides shall not be used. ▪ Workers shall be made aware of storage and use of pest control measures and PPEs to be used ▪ Visual blight to be curtailed by screens, proper lighting, housekeeping, leachate management 	Contractor, ULB	DPMU, SPMU
13	Odour nuisance	<ul style="list-style-type: none"> ▪ Waste with a strong odor to be covered immediately they are emptied from vehicles. ▪ Control and manage leachate treatment to minimize odor. ▪ Provide buffers screens to curtail odor from reaching surrounding communities ▪ Using natural deodorizers such as lemongrass, eucalyptus etc. and planting fragrant flowering plants around the site to mask odor. 	Contractor, ULB	DPMU, SPMU
14	Storage, Collection, Transport, Treatment & Disposal of wastes and rejects	<ul style="list-style-type: none"> ▪ Storage, Collection, Treatment, treatment & disposal mechanisms for retrieved wastes & rejects/inerts in line with applicable regulations for each type of waste ▪ Storage, Collection, Transport, treatment or disposal of retrieved legacy wastes or rejects/inerts shall not be in a manner that disturbs any sensitive receptor or area (communities, waterbodies, air, soil, biodiversity etc); & adequate protection shall be made to prevent such impacts even during rains / disasters ▪ Waste handling shall be inline with existing regulations & guidelines & avoid health & safety impacts ▪ No material is allowed to remain on site after the contract period ▪ Adequate fire safety arrangements & awareness & training to workers shall be ensured on site & at disposal / treatment areas for wastes in discussion with Local Fire Brigade to prevent any fire on legacy waste site or retrieved & stored wastes or that is transported ▪ Vehicles movement shall be tracked by ULB to ensure disposal of material/rejects/inerts in designated or agreed area & are in line with schedule; using GPS 	Contractor, ULB	DPMU, SPMU
15	Other activities	<ul style="list-style-type: none"> ▪ No activity other than biomining shall take place on site & any activity shall cause no adverse impacts on the environment or people ▪ If existing MCF shall be used for storing biomining wastes, its safety shall be ensured in terms of fire & structural safety before starting to use the facility. Further usage of the MCF after biomining works shall be after proper cleaning / washing & disposal of all rejects/inerts & tools to ensure good housekeeping & no H&S impacts ▪ If existing MCF shall be used by the ULB for storing dry wastes from Town, during biomining period, alternate access shall be arranged & workers shall be adequately protected against any health & safety impacts 	Contractor, ULB	TSC, DPMU, SPMU
16	Energy Efficiency & Water Use efficiency	<ul style="list-style-type: none"> ▪ All activities to consider energy efficient & clean fuels; and use of energy efficient equipment & biomining / construction techniques ▪ Landscaping & green belts to use local / indigenous plants & trees ▪ Waste water and Leachate to be treated & recycled/reused 	Contractor	ULB
17	Environmental & OHS Audit	<ul style="list-style-type: none"> ▪ Project to ensure independent / third party Environmental Audit of the Biomining Activity while work is conducted. All recommendations of the audit to be implemented 	SPMU through External third party auditor	SPMU
C	Future Site Usage (EMP shall be updated in line with EMF & used if future site usage is proposed under KSWMP). This section is not the responsibility of the Contractor for Biomining, but of the future facility operator & ULB			

SI No	Probable Negative Impacts	Mitigation Measures	Implementation Responsibility	Monitoring Responsibility
1	Future use of the biomined site: Green Park, MCF, MRF, RRF, Treatment plants, landfill cell or any other, preferably for SWM	<ul style="list-style-type: none"> ULB to ensure that the site will not be used for future dumping. Activities at existing MCF to be upgraded to ensure that no waste (even dry wastes) gets dumped around. ULB shall plan the future use of the site shall be in consultation with the communities. Phase 1 Environmental Assessment to be carried out, EA for existing facilities & EIA for proposed development in line with EMF in case this is proposed to be developed under KSWMP All applicable clearances, permits shall be arranged in line with applicable regulations for the proposed new use of the site, and appropriate designs/plans to be prepared & implemented 	Future Facility Developer/ Operator & ULB	ULB (SPMU in case it is under KSWMP)
2	Vehicle movement for new activities: MCF/MRF, RRFs, Treatment plants, landfill cell <i>(Air, water environment, a nuisance to biodiversity, communities, Health impacts)</i>	<ul style="list-style-type: none"> The movement route shall be scheduled for each vehicle. Enforce speed limits applicable and make drivers aware of this Vehicles movement shall be tracked by Health Supervisors to ensure keeping up to schedule; preferably using GPS Any adulterated fuel shall be avoided. There shall be periodic emission tests for vehicles Provision of Personal Protective Equipment such as face mask, gloves, nose masks & goggles to all workers in C&T vehicles, Maintenance yards Proper lubrication shall be provided to minimize squeaking noise due to friction Honking shall be minimized to eliminate any possible discomfort to the nearby people. The most optimum route is planned with minimum no. of vehicles with the help of GIS mapping and apps for the general public Traffic will be managed at the site by providing adequate space for parking of vehicles Timely transfer and disposal of retrieved material shall be carried out by vehicles and should transfer materials only to designated areas as per design No waste or material shall be disposed in any place other than the designated area; including water bodies, coasts/forests, or sensitive areas. 	Future Facility operator	ULB
3	Exhaust emissions <i>(Air impacts)</i>	<ul style="list-style-type: none"> No idling of vehicles on site. Regular maintenance of heavy equipment used at the site and waste hauling vehicles to ensure their exhaust emissions meet the emissions standards prescribed 	Future Facility operator	ULB
4	Plying of vehicles through kutcha / unsurfaced roads and idling <i>(Air pollution: SPM, CO, CO2)</i>	<ul style="list-style-type: none"> Vehicle movement shall be well planned – through topped roads. In case of necessity to move through Kutcha roads, ensure sprinkling of water to suppress dust before and after the movement of the vehicle 	Future Facility operator	ULB
5	Odor <i>(Nuisance, Air)</i>	<ul style="list-style-type: none"> Daily soil covers to compacted wastes to manage odors. Waste with a strong odor to be covered immediately they are emptied from delivery vehicles; Control and manage leachate treatment plant to minimize odor. Adhere to air quality regulations with quarterly air quality monitoring Maintenance of the buffer zone and protective berms Provide buffers screens to curtail odor from reaching surrounding communities 	Future Facility operator	ULB
6	Impact on the ambient noise quality during the operations <i>(Noise, nuisance to sensitive receptors, health impacts)</i>	<ul style="list-style-type: none"> Strictly adhering to designated working hours (day time); Sensitizing construction truck drivers and equipment operators to switch off idle engines; Using modern, well-maintained and regularly serviced vehicles; Ensuring that all generators and heavy-duty equipment be insulated or placed in enclosures to minimize ambient noise levels. Provision of earmuffs and ear protection to workers and employees in high noise areas 	Future Facility operator	ULB
7	Occupational health and safety impacts of the workers: <ul style="list-style-type: none"> Health impacts of exposure to a variety of harmful materials of waste-related pollutants. Accidental spillage by moving vehicles. Cut & Bruises during handling of materials/rejects Allergies from pathogen and airborne dust <i>(Air environment, Health impacts)</i>	<ul style="list-style-type: none"> All OHS and CHS measures to be followed in line with applicable regulations, guidance Workers & communities shall be made aware of OHS, CHS risks and impacts & mitigation measures adopted Emergency management plan to be prepared & followed Workers shall be appropriately trained or OHS during construction & Operation of all future facilities 	Future Facility operator	ULB
8	Pest / Vermin Control <i>(Odour, flies, rodent / other pest menaces)</i>	<ul style="list-style-type: none"> Regular cleaning and approved pest control measures to be adopted Biopesticides / biological control shall be followed. Banned pesticides/insecticides shall not be used. Workers shall be made aware of storage and use of pest control measures and PPEs to be used 	Future Facility operator	ULB
9	Fire Safety	<ul style="list-style-type: none"> The local fire brigade shall be informed of the activity, and fire safety plan shall be submitted for their comments/feedback & implemented in line with National State regulations, guidelines and international good practices 	Future Facility Operator	ULB

SI No	Probable Impacts	Negative	Mitigation Measures	Implementation Responsibility	Monitoring Responsibility
10	Energy Efficiency & Water Use efficiency		<ul style="list-style-type: none"> All activities to consider energy efficient & clean fuels; and use of energy efficient equipment & construction techniques Landscaping & green belts to use local / indigenous plants & trees Waste water to be treated & recycled/reused 	Future Facility Operator	ULB
KEY ASPECTS SPECIFIC TO EACH DUMPSITE FOR MANAGEMENT & MONITORING					
A	Puthiyapa Dumpsite (1.52acre), Vadakara				
	All site specific Risks and Impacts		<ul style="list-style-type: none"> There is an unused new shed for use as MCF on dumpsite. Any structure, activity on the dumpsite shall be protected adequately from activities of biomining & bioremediation. Safeguards and arrangements shall be in place to ensure adequate access, avoid activity & vehicular conflicts and incidents, odour and dust (esp to north east, but important all around), leachate, fire, health & safety and other nuisance; including screens, alternate access, firefighting arrangements, and other measures as appropriate with adequate consultations with the stakeholders, based on the Contractors work planning & scheduling. All sides of the site have moderately dense residential areas (within 20m or more). These shall not be affected by vehicle movements, pollution & disturbances due to storage or disposal of rejects/inerts, leachate any other disturbance. There shall be appropriate notice & awareness on the works to residences nearby & commercial areas to west. Vehicular conflicts and other disturbances shall be avoided. There shall be proper planning and segregation of accesses to various facilities in and around the site, vehicle parking & movements in consultation with ULB & Traffic Police Department. Labour facilities, storage or disposal of rejects/inerts shall not impact the sensitive areas in the region including the Drain and stream or other sensitive receptors such as forests and the Coast. Waste slope protections, berms & cut off drains around storage areas & work areas and the sites are essential to prevent pollution and OHS issues. Drainage shall be segregated from site leachate & appropriately managed so as not to pollute the Rivers, Wetlands, 'thodu (stream)' and Canal or wells in close proximity. All water bodies (including wells) around the site shall be tested for quality by Contractor during works, & then by ULB & used only when it is of potable quality as per National Drinking Water standards. Local PHC/CHC shall be informed about the quality results. Till such time, the ULB shall arrange supply of water for various uses for all the users of wells/ponds etc. Adequate pollution / odor prevention shall be incorporated so that residences, temple and commercial activities around in proximity are not affected by dump site works. The site is slightly sloping to south and east. Leachate & drainage plan shall be appropriately devised by the contractor to ensure collection & treatment without hampering the slope stability, flow of wastes or leachate down to nearby areas, and work safety. There shall be adequate arrangements for leachate and storm water flow segregation & collection as appropriate in such a way that the communities nearby or their assets are not impacted by the stormwater, leachate or works. Leachate & drainage shall not pollute the drain or the stream along the boundary. Works/activities shall be protected against floods (considering nearness to stream & drain) climate risks & fire. Adequate screen & odour management shall prevent spread of odour. There is space to store waste retrieved on site. MCF will be used to store recyclables. However adequate safety arrangements (including for Fire) shall be arranged before shifting material to MCF. Alternate sites if any considered for storage of wastes shall be chosen only with adequate consultations with the host community and shall be least polluting and safe against flooding & other climate risks. Impact assessment & mitigation & monitoring measures required at such additional sites shall be updated in the EIA & EMP once contractor finalizes his work method. Spread or disposal of stabilized soil/compost or any waste fraction to any other places shall be after its testing, and with no negative impact or disturbance to the communities. Applicable regulations shall be followed & permits for disposal of all fractions shall be cleared by the Authority after thorough checking of regulations and applicable monitoring results. No soil/waste retrieved shall be stored, dumped in any area or in any manner that pollute sensitive receptors around. Movement of retrieved waste or materials shall not impact the activities in or near the site Fire & Rescue Department & Traffic Police shall be informed in writing of the work plan & schedule and arrangements made as per their suggestions to reduce risk of fire, and to ease rescue operations 	Contractor, ULB	TSC, DPMU, SPMU
B	Ugrankunnu Dumpsite, Kottarakkara ULB				
	All site specific Risks and Impacts		<ul style="list-style-type: none"> The RRF on site and its activities shall be protected adequately from activities of biomining & bioremediation. Safeguards and arrangements shall be in place to ensure adequate access, avoid activity & vehicular conflicts and incidents, odour, dust, leachate, fire, health & safety and other nuisance; including screens, alternate access, and other measures as appropriate with adequate consultations with the stakeholders, based on the Contractors work planning & scheduling Labour facilities or storage/Disposal of rejects/inerts shall not impact the forests in the region, including Shenduruny Sanctuary & Konni RF at around 50km from the site. Waste slope protections, berms & cut off drains around storage areas & work areas and the sites are essential to prevent pollution and OHS issues. Shallow wells, Quarry & ponds in & around the site shall not be used for drinking / other uses during biomining activity. These shall be tested for quality by Contractor during works, & then by ULB & used only when it is of potable quality as per National Drinking Water standards. Local PHC/CHS shall be informed about the quality results. Till such time, the ULB shall arrange supply of water for various uses for all the users of these wells. The site slopes gently to south western sides of the site from its center. There shall be adequate arrangements for leachate and storm water flow & collection from both these sides & other parts of the site as appropriate in such a way that the communities nearby or their assets are not impacted by the stormwater, leachate or works. Runoff from the site shall be segregated from leachate & both shall not flow to adjoining agricultural fields Adequate screen & odour management shall prevent spread of odour predominant wind direction towards Arabian sea & all sides of the site Considering the space constraint on site, the contractor shall plan to offtake biominer materials at the earliest to the disposal areas without allowing storage for more than a day (with adequate H&S and fire safety precautions). Alternate sites if any considered shall be chosen only with adequate consultations with the community and shall be least polluting and safe against flooding & other climate risks. Impact assessment & mitigation & monitoring measures required at such additional sites shall be updated in the EIA & EMP once contractor finalizes his work method Fire & Rescue Department & Traffic Police shall be informed of the work plan & schedule and arrangements made as per their suggestions to reduce risk of fire, and to ease rescue operations Spread of soil & compost retrieved through biomining shall be after its testing, and with no negative impact or disturbance to the communities. No soil/digested matter or any retrieved fractions shall be sent to agricultural fields without testing to confirm no pollution, and without written permission of the stakeholders. Applicable regulations shall be followed & permits for disposal of all fractions shall be cleared by the Authority after thorough checking of regulations and applicable monitoring results. Movement of retrieved waste or materials shall not impact the activities in or near the site including those of the temple nearby 	Contractor, ULB	TSC, DPMU, SPMU

SI No	Probable Impacts	Negative	Mitigation Measures	Implementation Responsibility	Monitoring Responsibility
			<ul style="list-style-type: none"> Fire & Rescue Department & Traffic Police shall be informed in writing of the work plan & schedule and arrangements made as per their suggestions to reduce risk of fire, and to ease rescue operations 		
C	Kalamassery Dumpsite (1.95 acres), of Kalamassery ULB				
	All site-specific Risks and Impacts		<ul style="list-style-type: none"> The MCF on site with 45 workers, and its activities shall be protected adequately from activities of biomining & bioremediation. Safeguards and arrangements shall be in place to ensure adequate access, to avoid activity & vehicular conflicts and incidents, odour, dust, leachate, fire, health & safety and other nuisance; including screens, alternate access, fire fighting arrangements, and other measures as appropriate with adequate consultations with the stakeholders, based on the Contractors work planning & scheduling. The crematorium functioning near the dumpsite shall not be affected by vehicle movements, storage or disposal of rejects/inerts, leachate any other disturbance. There shall be appropriate notice & awareness on the works to road-side large tanker / lorry parking in front of the dumpsite; and to all landuses around including agricultural, industrial & commercial. Vehicular conflicts and other disturbances shall be avoided. There shall be proper planning and segregation of accesses to various facilities in and around the site, vehicle parking & movements in consultation with ULB & Traffic Police Department, as the dumpsite opens into National Highway. No trespassing from any side - including the western side – railway line shall be allowed. Site shall be well protected, with watch and ward. Possibility of using the railway station nearby for transfer of recyclables to be explored in consultation with authorities. Labour facilities, storage or disposal of rejects/inerts shall not impact the sensitive areas in the region including the Muttar river, canal along the site boundary, and forests in the region including Kothamangalam Forest range at around 50km from the site. Waste slope protections, berms & cut off drains around storage areas & work areas and the sites are essential to prevent pollution and OHS issues. Check if the canal around the boundary is used for any purposes. If yes, the users shall be made aware of the possibility of pollution due to biomining & alternate mechanism shall be made available for them. Monitoring shall be done upstream & downstream of the point where the site drainage reaches the canal, and upstream & downstream of where the canal meets the Muttar River & results shall be analysed continuously. Canal, River, wells, quarry & ponds in & around the site if affected by biomining shall not be used for drinking / other uses during biomining activity. These shall be tested for quality by Contractor during works, & then by ULB & used only when it is of potable quality as per National Drinking Water standards. Local PHC/CHS shall be informed about the quality results. Till such time, the ULB shall arrange supply of water for various uses for all the users of these wells. At the point where leachate / site drainages empties into the canal suitable pollution reduction mechanisms shall be employed so that canal do not get polluted due to the activity (Bioswales, vetiver or natural root zone treatments may be an option; but shall be selected appropriately based on leachate & drainage quality) The site is flat, and hence leachate & drainage plan shall be appropriately devised by the contractor as suitable to ensure collection & treatment without hampering the work safety & resulting in pondage on site harboring flies, mosquitoes and odour. There shall be adequate arrangements for leachate and storm water flow segregation & collection as appropriate in such a way that the communities nearby or their assets are not impacted by the stormwater, leachate or works Works/activities shall be protected against floods, climate risks & fire Adequate screen & odour management shall prevent spread of odour to all sides of the site Alternate sites if any considered for storage of wastes shall be chosen only with adequate consultations with the host community and shall be least polluting and safe against flooding & other climate risks. Impact assessment & mitigation & monitoring measures required at such additional sites shall be updated in the EIA & EMP once contractor finalizes his work method Spread of stabilized soil/compost or any waste fraction shall be after its testing, and with no negative impact or disturbance to the communities. Applicable regulations shall be followed & permits for disposal of all fractions shall be cleared by the Authority after thorough checking of regulations and applicable monitoring results. Movement of retrieved waste or materials shall not impact the activities in or near the site Fire & Rescue Department & Traffic Police shall be informed in writing of the work plan & schedule and arrangements made as per their suggestions to reduce risk of fire, and to ease rescue operations 	Contractor, ULB	TSC, DPMU, SPMU
D	Vedimara (1.89 acres), North Paravur ULB				
	All site specific Risks and Impacts		<ul style="list-style-type: none"> Two MCF buildings, one windrow compost shed and a vermicompost shed with a total of 30 workers are engaged in different activities within the dumpsite. These buildings and activities shall be protected adequately from EHS impacts of biomining & bioremediation. Safeguards and arrangements shall be in place to ensure adequate access, avoid activity & vehicular conflicts and incidents, odour, dust, leachate, fire, health & safety and other nuisance; including screens, alternate access, firefighting arrangements, and other measures as appropriate with adequate consultations with the stakeholders, based on the Contractors work planning & scheduling. Activities/landuses around the dumpsite in close proximity including commercial and residential uses and the Paravoor River, shall not be affected by vehicle movements, pollution & disturbances due to storage or disposal of rejects/inerts, leachate any other disturbance. There shall be appropriate notice & awareness on the works to host communities. Vehicular conflicts and other disturbances shall be avoided. There shall be proper planning and segregation of accesses to various facilities in and around the site, vehicle parking & movements in consultation with ULB & Traffic Police Department. Labour facilities, storage or disposal of rejects/inerts shall not impact the sensitive areas in the region including the Paravoor River or Drainage canals, or other sensitive receptors such as the Coast. Waste / storage slope protections, berms & cut off drains around storage areas & work areas and the sites are essential to prevent pollution and OHS issues. Drainage shall be segregated from site leachate & appropriately managed so as not to pollute the River or wells nearby. All water bodies including the River if connected to the site by a channel or natural drainage, and wells around the site shall be tested for quality by Contractor during works, & then by ULB & used only when it is of potable quality as per National Drinking Water standards. Local PHC/CHC shall be informed about the quality results. Till such time, the ULB shall arrange supply of water for various uses for all the users of wells/ponds etc. The site is flat, and hence leachate & drainage plan shall be appropriately devised by the contractor as suitable to ensure collection & treatment without hampering the work safety & resulting in pondage on site harboring flies, mosquitoes and odour. There shall be adequate arrangements for leachate and storm water flow segregation & collection as appropriate in such a way that the communities nearby or their assets are not impacted by the stormwater, leachate or works. Leachate & drainage shall not pollute the Paravoor River. Works/activities shall be protected against floods (considering nearness to river and coast), climate risks & fire. Adequate screen & odour management shall prevent spread of odour to all sides of the site – and residential & commercial areas are seen all around except north where there is a Fire Station. 	Contractor, ULB	TSC, DPMU, SPMU

SI No	Probable Impacts	Negative	Mitigation Measures	Implementation Responsibility	Monitoring Responsibility
			<ul style="list-style-type: none"> Alternate sites if any considered for storage of wastes shall be chosen only with adequate consultations with the host community and shall be least polluting and safe against flooding & other climate risks. Impact assessment & mitigation & monitoring measures required at such additional sites shall be updated in the EIA & EMP once contractor finalizes his work method. Spread or disposal of stabilized soil/compost or any waste fraction shall be after its testing, and with no negative impact or disturbance to the communities, River or drains. Applicable regulations shall be followed & permits for disposal of all fractions shall be cleared by the Authority after thorough checking of regulations and applicable monitoring results. No soil/waste retrieved shall be stored, dumped in any area or in any manner that pollute sensitive receptors around. Movement of retrieved waste or materials shall not impact the activities in or near the site Fire & Rescue Department (Fire Station to the North of the site) & Traffic Police shall be informed in writing of the work plan & schedule and arrangements made as per their suggestions to reduce risk of fire, and to ease rescue operations 		
E	Valakuzhi (5.47 acres), Muvattupuzha ULB				
	All site specific Risks and Impacts		<ul style="list-style-type: none"> The MCF, Organic Manure processing unit on site with 31 workers, and their activities shall be protected adequately from activities of biomining & bioremediation. Safeguards and arrangements shall be in place to ensure adequate access, avoid activity & vehicular conflicts and incidents, odour, dust, leachate, fire, health & safety and other nuisance; including screens, alternate access, firefighting arrangements, and other measures as appropriate with adequate consultations with the stakeholders, based on the Contractors work planning & scheduling. Activities/landuses around the dumpsite in close proximity (including plantations and residences) shall not be affected by vehicle movements, pollution & disturbances due to storage or disposal of rejects/inerts, leachate any other disturbance. There shall be appropriate notice & awareness on the works to host communities. Vehicular conflicts and other disturbances shall be avoided. There shall be proper planning and segregation of accesses to various facilities in and around the site, vehicle parking & movements in consultation with ULB & Traffic Police Department. Labour facilities, storage or disposal of rejects/inerts shall not impact the sensitive areas in the region including the Kadathy Canal nearby, drainage channels, or other sensitive receptors such as forests (22km). Waste slope protections, berms & cut off drains around storage areas & work areas and the sites are essential to prevent pollution and OHS issues. Drainage shall be segregated from site leachate & appropriately managed so as not to pollute the River or wells nearby. All water bodies around the site shall be tested for quality by Contractor during works, & then by ULB & used only when it is of potable quality as per National Drinking Water standards. Local PHC/CHC shall be informed about the quality results. Till such time, the ULB shall arrange supply of water for various uses for all the users of wells/ponds etc. The site is flat, and hence leachate & drainage plan shall be appropriately devised by the contractor as suitable to ensure collection & treatment without hampering the work safety & resulting in pondage on site harboring flies, mosquitoes and odour. There shall be adequate arrangements for leachate and storm water flow segregation & collection as appropriate in such a way that the communities nearby or their assets are not impacted by the stormwater, leachate or works. Leachate & drainage shall not pollute the Kadathy River. Works/activities shall be protected against floods (considering nearness to river/canal), climate risks & fire. Adequate screen & odour management shall prevent spread of odour to all sides of the site. Alternate sites if any considered for storage of wastes shall be chosen only with adequate consultations with the host community and shall be least polluting and safe against flooding & other climate risks. Impact assessment & mitigation & monitoring measures required at such additional sites shall be updated in the EIA & EMP once contractor finalizes his work method. Spread or disposal of stabilized soil/compost or any waste fraction shall be after its testing, and with no negative impact or disturbance to the communities. Applicable regulations shall be followed & permits for disposal of all fractions shall be cleared by the Authority after thorough checking of regulations and applicable monitoring results. No soil/waste retrieved shall be stored, dumped in any area or in any manner that pollute sensitive receptors around, including the Kadathy Canal or Plantations/agricultural areas around. Movement of retrieved waste or materials shall not impact the activities in or near the site Fire & Rescue Department & Traffic Police shall be informed in writing of the work plan & schedule and arrangements made as per their suggestions to reduce risk of fire, and to ease rescue operations 	Contractor, ULB	TSC, DPMU, SPMU
F	Dumpsite Near Market (40 cent), Koothattukulam				
	All site specific Risks and Impacts		<ul style="list-style-type: none"> The MCF operating on the dumpsite and their activities shall be protected adequately from activities of biomining & bioremediation. Safeguards and arrangements shall be in place to ensure adequate access, avoid activity & vehicular conflicts and incidents, odour, dust, leachate, fire, health & safety and other nuisance; including screens, alternate access, firefighting arrangements, and other measures as appropriate with adequate consultations with the stakeholders, based on the Contractors work planning & scheduling. The dumpsite is in an area near residences, commercial areas, Bus stand and market. These shall not be affected by vehicle movements, pollution & disturbances due to storage or disposal of rejects/inerts, leachate any other disturbance. There shall be appropriate notice & awareness on the works to host communities. Vehicular conflicts and other disturbances shall be avoided. There shall be proper planning and segregation of accesses to various facilities in and around the site, vehicle parking & movements in consultation with ULB & Traffic Police Department, Market Association and Bus Operators/Bus Stand. Labour facilities, storage or disposal of rejects/inerts shall not impact the sensitive areas in the region including the Canal running along the northern boundary of the dumpsite, other drainage channels, or other sensitive receptors such as forests (38km). Waste slope protections, berms & cut off drains around storage areas & work areas and the sites are essential to prevent pollution and OHS issues. Drainage shall be segregated from site leachate & appropriately managed so as not to pollute the Canal or wells nearby. All water bodies around the site shall be tested for quality by Contractor during works, & then by ULB & used only when it is of potable quality as per National Drinking Water standards. Local PHC/CHC shall be informed about the quality results. Till such time, the ULB shall arrange supply of water for various uses for all the users of wells/ponds etc. Fly and odor nuisance may be a concern as market area is nearby. Adequate pollution / odor prevention shall be incorporated & activity schedule devised in consultation with the market association The site is flat, and hence leachate & drainage plan shall be appropriately devised by the contractor as suitable to ensure collection & treatment without hampering the work safety & resulting in pondage on site harboring flies, mosquitoes and odour. There shall be adequate arrangements for leachate and storm water flow segregation & 	Contractor, ULB	TSC, DPMU, SPMU

SI No	Probable Impacts	Negative	Mitigation Measures	Implementation Responsibility	Monitoring Responsibility
			<p>collection as appropriate in such a way that the communities nearby or their assets are not impacted by the stormwater, leachate or works. Leachate & drainage shall not pollute the Canal adjoining the dumpyard.</p> <ul style="list-style-type: none"> Works/activities shall be protected against floods (considering nearness to river/canal), climate risks & fire. Adequate screen & odour management shall prevent spread of odour to all sides of the site. There is minimal space for storage of retrieved waste. The contractor shall arrange appropriate storage means that require less space, with least chances of safety risk or pollution. The contractor shall preferably off take retrieved waste to recycling facilities immediately to reduce the storage time on site & thus fire/odour/pest risks. Alternate sites if any considered for storage of wastes shall be chosen only with adequate consultations with the host community and shall be least polluting and safe against flooding & other climate risks. Impact assessment & mitigation & monitoring measures required at such additional sites shall be updated in the EIA & EMP once contractor finalizes his work method. Spread or disposal of stabilized soil/compost or any waste fraction shall be after its testing, and with no negative impact or disturbance to the communities. Applicable regulations shall be followed & permits for disposal of all fractions shall be cleared by the Authority after thorough checking of regulations and applicable monitoring results. No soil/waste retrieved shall be stored, dumped in any area or in any manner that pollute sensitive receptors around, including the Canal or agricultural areas around. Movement of retrieved waste or materials shall not impact the activities in or near the site Fire & Rescue Department & Traffic Police shall be informed in writing of the work plan & schedule and arrangements made as per their suggestions to reduce risk of fire, and to ease rescue operations 		
G	Kumbalathumuri Dumpsite (2.6acres), Kothamangalam ULB				
	All site specific Risks and Impacts		<ul style="list-style-type: none"> Windrow composting Unit - 3 TPD capacity (~300 sq.m), and Material Collection facility - approx. 250 sq.m operating on the dumpsite and their activities shall be protected adequately from activities of biomining & bioremediation. Safeguards and arrangements shall be in place to ensure adequate access, avoid activity & vehicular conflicts and incidents, odour, dust, leachate, fire, health & safety and other nuisance; including screens, alternate access, firefighting arrangements, and other measures as appropriate with adequate consultations with the stakeholders, based on the Contractors work planning & scheduling. There is a low dense residential area to the east of the site, while agricultural areas are seen on all sides at close proximity to the site. These shall not be affected by vehicle movements, pollution & disturbances due to storage or disposal of rejects/inerts, leachate any other disturbance. There shall be appropriate notice & awareness on the works to residences nearby and other agricultural areas around. Vehicular conflicts and other disturbances shall be avoided. There shall be proper planning and segregation of accesses to various facilities in and around the site, vehicle parking & movements in consultation with ULB & Traffic Police Department. Labour facilities, storage or disposal of rejects/inerts shall not impact the sensitive areas in the region including the Canal or River (both around 2km to the south) or other sensitive receptors such as forests (38km). Waste slope protections, berms & cut off drains around storage areas & work areas and the sites are essential to prevent pollution and OHS issues. Drainage shall be segregated from site leachate & appropriately managed so as not to pollute the Canal or wells in close proximity. All water bodies (including wells) around the site shall be tested for quality by Contractor during works, & then by ULB & used only when it is of potable quality as per National Drinking Water standards. Local PHC/CHC shall be informed about the quality results. Till such time, the ULB shall arrange supply of water for various uses for all the users of wells/ponds etc. Adequate pollution / odor prevention shall be incorporated The site is sloping / hilly and this require careful planning to minimize pollution and work safety risks. Leachate & drainage plan shall be appropriately devised by the contractor to ensure collection & treatment without hampering the slope stability, flow of wastes or leachate down to nearby areas, and work safety. There shall be adequate arrangements for leachate and storm water flow segregation & collection as appropriate in such a way that the communities nearby or their assets are not impacted by the stormwater, leachate or works. Leachate & drainage shall not pollute the Canal or River. Works/activities shall be protected against floods (considering nearness to river/canal), climate risks & fire. Key issue is slope stability during rains & adequate measures to prevent waste / loose soil flowing downhill shall be adopted Adequate screen & odour management shall prevent spread of odour. There is space to store waste retrieved on site. Alternate sites if any considered for storage of wastes shall be chosen only with adequate consultations with the host community and shall be least polluting and safe against flooding & other climate risks. Impact assessment & mitigation & monitoring measures required at such additional sites shall be updated in the EIA & EMP once contractor finalizes his work method. Spread or disposal of stabilized soil/compost or any waste fraction to nearby agricultural areas or any other places shall be after its testing, and with no negative impact or disturbance to the communities. Applicable regulations shall be followed & permits for disposal of all fractions shall be cleared by the Authority after thorough checking of regulations and applicable monitoring results. No soil/waste retrieved shall be stored, dumped in any area or in any manner that pollute sensitive receptors around, including the agricultural areas nearby. Movement of retrieved waste or materials shall not impact the activities in or near the site Fire & Rescue Department & Traffic Police shall be informed in writing of the work plan & schedule and arrangements made as per their suggestions to reduce risk of fire, and to ease rescue operations 	Contractor, ULB	TSC, DPMU, SPMU
H	Murikkumoodu Dumpsite (1 acre) Kayankulam ULB				
	All site specific Risks and Impacts		<ul style="list-style-type: none"> Any activity on the dumpsite shall be protected adequately from activities of biomining & bioremediation. Safeguards and arrangements shall be in place to ensure adequate access, avoid activity & vehicular conflicts and incidents, odour and dust (esp to north east, but important all around), leachate, fire, health & safety and other nuisance; including screens, alternate access, firefighting arrangements, and other measures as appropriate with adequate consultations with the stakeholders, based on the Contractors work planning & scheduling. All sides of the site have dense residential areas (within 10m). These shall not be affected by vehicle movements, pollution & disturbances due to storage or disposal of rejects/inerts, leachate any other disturbance. There shall be appropriate notice & awareness on the works to residences nearby. Vehicular conflicts and other disturbances shall be avoided. There shall be proper planning and segregation of accesses to various facilities in and around the site, vehicle parking & movements in consultation with ULB & Traffic Police Department. 	Contractor, ULB	TSC, DPMU, SPMU

SI No	Probable Impacts	Negative	Mitigation Measures	Implementation Responsibility	Monitoring Responsibility
			<ul style="list-style-type: none"> ▪ Labour facilities, storage or disposal of rejects/inerts shall not impact the sensitive areas in the region including the Drain along the west boundary, and stream along the south or other sensitive receptors such as forests (~50km) and the Coast (~9km). Waste slope protections, berms & cut off drains around storage areas & work areas and the sites are essential to prevent pollution and OHS issues. ▪ Drainage shall be segregated from site leachate & appropriately managed so as not to pollute the Stream and Canal or wells in close proximity. All water bodies (including wells) around the site shall be tested for quality by Contractor during works, & then by ULB & used only when it is of potable quality as per National Drinking Water standards. Local PHC/CHC shall be informed about the quality results. Till such time, the ULB shall arrange supply of water for various uses for all the users of wells/ponds etc. ▪ Adequate pollution / odor prevention shall be incorporated so that residences around in proximity are not affected by dump site works. Retrieved waste shall be removed from this site on priority. ▪ The site is flat. Leachate & drainage plan shall be appropriately devised by the contractor to ensure collection & treatment without hampering the slope stability, flow of wastes or leachate down to nearby areas, and work safety. There shall be adequate arrangements for leachate and storm water flow segregation & collection as appropriate in such a way that the communities nearby or their assets are not impacted by the stormwater, leachate or works. Leachate & drainage shall not pollute the drain or the stream along the boundary. ▪ Works/activities shall be protected against floods (considering nearness to stream & drain) climate risks & fire. ▪ Adequate screen & odour management shall prevent spread of odour. ▪ There is space to store waste retrieved on site. Alternate sites if any considered for storage of wastes shall be chosen only with adequate consultations with the host community and shall be least polluting and safe against flooding & other climate risks. Impact assessment & mitigation & monitoring measures required at such additional sites shall be updated in the EIA & EMP once contractor finalizes his work method. ▪ Spread or disposal of stabilized soil/compost or any waste fraction to any other places shall be after its testing, and with no negative impact or disturbance to the communities. Applicable regulations shall be followed & permits for disposal of all fractions shall be cleared by the Authority after thorough checking of regulations and applicable monitoring results. No soil/waste retrieved shall be stored, dumped in any area or in any manner that pollute sensitive receptors around. ▪ Movement of retrieved waste or materials shall not impact the activities in or near the site ▪ Fire & Rescue Department & Traffic Police shall be informed in writing of the work plan & schedule and arrangements made as per their suggestions to reduce risk of fire, and to ease rescue operations 		
I	Kelugudde (4470 sq.m) ULB	Dumpsite Kasargod	<ul style="list-style-type: none"> ▪ Electricity Board shall be informed of the biomining activity considering the staywire in the dumpsite; and the area to be fenced with caution board and red tapes to prevent vehicles colliding with the same. Any activity on the dumpsite shall be protected adequately from activities of biomining & bioremediation. Safeguards and arrangements shall be in place to ensure adequate access, avoid activity & vehicular conflicts and incidents, odour and dust, leachate, fire, health & safety and other nuisance; including screens, alternate access, firefighting arrangements, and other measures as appropriate with adequate consultations with the stakeholders, based on the Contractors work planning & scheduling. ▪ All sides of the site have residential and commercial areas (within 10m) and industrial areas to north and east. These shall not be affected by vehicle movements, pollution & disturbances due to storage or disposal of rejects/inerts, leachate any other disturbance. ▪ There shall be appropriate notice & awareness on the works to residences nearby. Vehicular conflicts and other disturbances shall be avoided. There shall be proper planning and segregation of accesses to various facilities in and around the site, vehicle parking & movements in consultation with ULB & Traffic Police Department. ▪ Labour facilities, storage or disposal of rejects/inerts shall not impact the sensitive areas in the region including the Drain along the east boundary, and thodu / stream to the north, wells, or other sensitive receptors such as Parappa forests (~20km) and the Coast (~2km). Waste slope protections, berms & cut off drains around storage areas & work areas and the sites are essential to prevent pollution and OHS issues. ▪ Drainage shall be segregated from site leachate & appropriately managed so as not to pollute the Stream and Canal or wells in proximity. All water bodies (including wells) around the site shall be tested for quality by Contractor during works, & then by ULB & used only when it is of potable quality as per National Drinking Water standards. Local PHC/CHC shall be informed about the quality results. Till such time, the ULB shall arrange supply of water for various uses for all the users of wells/ponds etc. ▪ Adequate pollution / odor prevention shall be incorporated so that residences around in proximity are not affected by dump site works and storage of retrieved wastes on site. ▪ The site is flat, though surroundings are sloping to the north where the Stream runs (starting from Choori and running towards Arabian sea). Leachate & drainage plan shall be appropriately devised by the contractor to ensure collection & treatment without hampering the slope stability, flow of wastes and to prevent leachate flowing down to the stream /nearby areas, and work safety. There shall be adequate arrangements for leachate and storm water flow segregation & collection as appropriate in such a way that the communities nearby or their assets are not impacted by the stormwater, leachate or works. Leachate & drainage shall not pollute the drain or the stream along the boundary. Monitoring shall be done upstream & downstream of the point where the site drainage & leachate reaches the stream and canal, and upstream & downstream of where the canal meets the sea & results shall be analysed continuously. ▪ Works/activities shall be protected against floods, climate risks & fire. ▪ Adequate screen & odour management shall prevent spread of odour. ▪ There is space to store waste retrieved on site. Alternate sites if any considered for storage of wastes shall be chosen only with adequate consultations with the host community and shall be least polluting and safe against flooding & other climate risks. Impact assessment & mitigation & monitoring measures required at such additional sites shall be updated in the EIA & EMP once contractor finalizes his work method. ▪ Spread or disposal of stabilized soil/compost or any waste fraction to any other places shall be after its testing, and with no negative impact or disturbance to the communities. Applicable regulations shall be followed & permits for disposal of all fractions shall be cleared by the Authority after thorough checking of regulations and applicable monitoring results. No soil/waste retrieved shall be stored, dumped in any area or in any manner that pollute sensitive receptors such as stream and drain nearby and forests, coast etc in the wider region. ▪ Movement of retrieved waste or materials shall not impact the activities in or near the site ▪ Fire & Rescue Department & Traffic Police shall be informed in writing of the work plan & schedule and arrangements made as per their suggestions to reduce risk of fire, and to ease rescue operations 	Contractor, ULB	TSC, DPMU, SPMU

SI No	Probable Impacts	Negative	Mitigation Measures	Implementation Responsibility	Monitoring Responsibility
J	Palaparamba Dumpsite, (0.98 acres), Koothuparamba ULB		<ul style="list-style-type: none"> MCF cum RRF and Windrow compost plant and Vermi compost located within same premises. All activities on the dumpsite shall be protected adequately from activities of biomining & bioremediation. Safeguards and arrangements shall be in place to ensure adequate access, avoid activity & vehicular conflicts and incidents, odour and dust, leachate, fire, health & safety and other nuisance; including screens, alternate access, firefighting arrangements, and other measures as appropriate with adequate consultations with the stakeholders, based on the Contractors work planning & scheduling. Residential areas are to the west (200m) and educational institutions to the west and north (more than 500m). These shall not be affected by vehicle movements, pollution & disturbances due to storage or disposal of rejects/inerts, leachate any other disturbance. There shall be appropriate notice & awareness on the works to residences nearby. Vehicular conflicts and other disturbances shall be avoided. There shall be proper planning and segregation of accesses to various facilities in and around the site, vehicle parking & movements in consultation with ULB & Traffic Police Department. Labour facilities, storage or disposal of rejects/inerts shall not impact the sensitive areas in the region including the well to the south and north, pond (all within 200m) to the east or other sensitive receptors such as forests (~12km). Waste slope protections, berms & cut off drains around storage areas & work areas and the sites are essential to prevent pollution and OHS issues. Currently, storm water & leachate runs off together to south and east direction during monsoons. Storm water runoff shall be segregated from site leachate & appropriately managed during biomining. This shall not affect landuses on all sides, including the school to south or wells or pond in proximity (south & east sides). All water bodies (including wells) around the site shall be tested for quality by Contractor during works, & then by ULB & used only when it is of potable quality as per National Drinking Water standards. Local PHC/CHC shall be informed about the quality results. Till such time, the ULB shall arrange supply of water for various uses for all the users of wells/ponds etc. Adequate pollution / odour prevention shall be incorporated so that landuses around in proximity are not affected by dump site works and storage of retrieved wastes on site. The site is flat, though surroundings are sloping to the south east. Leachate & drainage plan shall be appropriately devised by the contractor to ensure collection & treatment without hampering the slope stability, flow of wastes and to prevent leachate flowing down to the stream /nearby areas, and work safety. There shall be adequate arrangements for leachate and storm water flow segregation & collection as appropriate in such a way that the communities nearby or their assets are not impacted by the stormwater, leachate or works. Leachate & drainage shall not pollute the drain or the stream along the boundary. Monitoring shall be done upstream & downstream of the point where the site drainage & leachate reaches the stream and canal, and upstream & downstream of where the canal meets the sea & results shall be analysed continuously. Works/activities shall be protected against floods, climate risks & fire. Adequate screen & odour management shall prevent spread of odour There is space to store waste retrieved on the dumpsite. Alternate sites if any considered for storage of wastes shall be chosen only with adequate consultations with the host community and shall be least polluting and safe against flooding & other climate risks. Impact assessment & mitigation & monitoring measures required at such additional sites shall be updated in the EIA & EMP once contractor finalizes his work method. Spread or disposal of stabilized soil/compost or any waste fraction to any other places shall be after its testing, and with no negative impact or disturbance to the communities. Applicable regulations shall be followed & permits for disposal of all fractions shall be cleared by the Authority after thorough checking of regulations and applicable monitoring results. No soil/waste retrieved shall be stored, dumped in any area or in any manner that pollute sensitive receptors such as waterbodies or forests nearby or other receptors in the wider region. Movement of retrieved waste or materials shall not impact the activities in or near the site Fire & Rescue Department & Traffic Police shall be informed in writing of the work plan & schedule and arrangements made as per their suggestions to reduce risk of fire, and to ease rescue operations 	Contractor, ULB	TSC, DPMU, SPMU
K	Athithattu Dumpsite, (2.44 acres), Iritty ULB		<ul style="list-style-type: none"> Access road in narrow at certain points. ULB shall make arrangements to improve the road before start of works, or the Project shall use smaller vehicles. Impacts of this improvement to access road shall be captured in the updated EIA. If it is done before the contractor is on board, the ULB shall use an EMP to mitigate risks and impacts MCF cum RRF and Windrow compost plant are located within same premises. All activities on the dumpsite shall be protected adequately from activities of biomining & bioremediation. Safeguards and arrangements shall be in place to ensure adequate access, avoid activity & vehicular conflicts and incidents, odour and dust, leachate, fire, health & safety and other nuisance; including screens, alternate access, firefighting arrangements, and other measures as appropriate with adequate consultations with the stakeholders, based on the Contractors work planning & scheduling. Residential areas are to the west (200m – 2 houses) and educational institution (school) to the east (1.2km) agricultural field to the west (~30m). These shall not be affected by vehicle movements, pollution & disturbances due to storage or disposal of rejects/inerts, leachate any other disturbance. There shall be appropriate notice & awareness on the works to residences and other landuses (incl. school) nearby. Vehicular conflicts and other disturbances shall be avoided. There shall be proper planning and segregation of accesses to various facilities in and around the site, vehicle parking & movements in consultation with ULB & Traffic Police Department. Labour facilities, storage or disposal of rejects/inerts shall not impact the sensitive areas in the region including the well to the east, west (near around 100m), pond (700m) to the west or other sensitive receptors such as Pongottukavu forests (~12km). Waste slope protections are very important considering the hilly terrain, berms & cut off drains around storage areas & work areas and the sites are essential to prevent pollution and OHS issues. Currently, storm water & leachate runs off together to south and east direction during monsoons. Storm water runoff shall be segregated from site leachate & appropriately managed during biomining. This shall not affect landuses on all sides, including the school to south or wells or pond in proximity (south & east sides). All water bodies (including wells) around the site shall be tested for quality by Contractor during works, & then by ULB & used only when it is of potable quality as per National Drinking Water standards. Local PHC/CHC shall be informed about the quality results. Till such time, the ULB shall arrange supply of water for various uses for all the users of wells/ponds etc. Adequate pollution / odour prevention shall be incorporated so that landuses around in proximity are not affected by dump site works and storage of retrieved wastes on site. 	Contractor, ULB	TSC, DPMU, SPMU

SI No	Probable Impacts	Negative	Mitigation Measures	Implementation Responsibility	Monitoring Responsibility
			<ul style="list-style-type: none"> ▪ The site is flat, though surroundings are sloping to the south east. Leachate & drainage plan shall be appropriately devised by the contractor to ensure collection & treatment without hampering the slope stability, flow of wastes and to prevent leachate flowing down to nearby areas, and work safety. There shall be adequate arrangements for leachate and storm water flow segregation & collection as appropriate in such a way that the communities nearby or their assets are not impacted by the stormwater, leachate or works. Leachate & drainage shall not pollute the wells, ponds, agricultural fields and nearby landuses. ▪ Works/activities shall be protected against floods, climate risks & fire. ▪ Adequate screen & odour management shall prevent spread of odour. ▪ There is space to store waste retrieved on the dumpsite. Alternate sites if any considered for storage of wastes shall be chosen only with adequate consultations with the host community and shall be least polluting and safe against flooding & other climate risks. Impact assessment & mitigation & monitoring measures required at such additional sites shall be updated in the EIA & EMP once contractor finalizes his work method. ▪ Spread or disposal of stabilized soil/compost or any waste fraction to any other places shall be after its testing, and with no negative impact or disturbance to the communities. Applicable regulations shall be followed & permits for disposal of all fractions shall be cleared by the Authority after thorough checking of regulations and applicable monitoring results. No soil/waste retrieved shall be stored, dumped in any area or in any manner that pollute sensitive receptors such as waterbodies or fields nearby or other receptors (forests, coasts) in the wider region. ▪ Movement of retrieved waste or materials shall not impact the activities in or near the site such as the access to residences nearby ▪ Fire & Rescue Department & Traffic Police shall be informed in writing of the work plan & schedule and arrangements made as per their suggestions to reduce risk of fire, and to ease rescue operations 		
L	Adlayed Dumpsite, (3.65 acres), Kalpetta ULB				
			<ul style="list-style-type: none"> ▪ Access road in narrow (less than 3) at certain points. ULB shall make arrangements to improve the road before start of works, or the Project shall use smaller vehicles. Impacts of this improvement to access road shall be captured in the updated EIA. If it is done before the contractor is on board, the ULB shall use an EMP to mitigate risks and impacts ▪ MCF cum RRF and Windrow compost plant and Model Thumbboormozhi unit (Not functional) are located within same premises. All activities on the dumpsite shall be protected adequately from activities of biomining & bioremediation. Safeguards and arrangements shall be in place to ensure adequate access, avoid activity & vehicular conflicts and incidents, odour and dust, leachate, fire, health & safety and other nuisance; including screens, alternate access, firefighting arrangements, and other measures as appropriate with adequate consultations with the stakeholders, based on the Contractors work planning & scheduling. ▪ Residential and educational facilities are to the west (200m) and agricultural area very close b (<200m) to the north. Other landuses are Bitumen Plant and Faecal Sludge Treatment Plant to the north. These shall not be affected by vehicle movements, pollution & disturbances due to storage or disposal of rejects/inerts, leachate any other disturbance. ▪ There shall be appropriate notice & awareness on the works to residences and other landuses (incl. school) nearby. Vehicular conflicts and other disturbances shall be avoided. There shall be proper planning and segregation of accesses to various facilities in and around the site, vehicle parking & movements in consultation with ULB & Traffic Police Department. ▪ Labour facilities, storage or disposal of rejects/inerts shall not impact the sensitive areas in the region including the well and waterbodies or other sensitive receptors such as Meppadi forests (~20km) or the Coast at 48km. Waste slope protections are very important considering the hilly terrain, berms & cut off drains around storage areas & work areas and the sites are essential to prevent pollution and OHS issues. ▪ Currently, storm water & leachate runs off together to east direction during monsoons. Storm water runoff shall be segregated from site leachate & appropriately managed during biomining. This shall not affect landuses on all sides, or wells to east. All water bodies (including wells) around the site shall be tested for quality by Contractor during works, & then by ULB & used only when it is of potable quality as per National Drinking Water standards. Local PHC/CHC shall be informed about the quality results. Till such time, the ULB shall arrange supply of water for various uses for all the users of wells/ponds etc. ▪ Adequate pollution / odor prevention shall be incorporated so that landuses around in proximity are not affected by dump site works and storage of retrieved wastes on site. ▪ The site is undulating, and sloping to the east. Leachate & drainage plan shall be appropriately devised by the contractor to ensure collection & treatment without hampering the slope stability, flow of wastes and to prevent leachate flowing down to nearby areas, and work safety. There shall be adequate arrangements for leachate and storm water flow segregation & collection as appropriate in such a way that the communities nearby or their assets are not impacted by the stormwater, leachate or works. Leachate & drainage shall not pollute the wells, ponds, agricultural fields and nearby landuses. ▪ Works/activities shall be protected against floods, climate risks & fire. ▪ Adequate screen & odour management shall prevent spread of odour ▪ There is space to store waste retrieved on the dumpsite. Alternate sites if any considered for storage of wastes shall be chosen only with adequate consultations with the host community and shall be least polluting and safe against flooding & other climate risks. Impact assessment & mitigation & monitoring measures required at such additional sites shall be updated in the EIA & EMP once contractor finalizes his work method. ▪ Spread or disposal of stabilized soil/compost or any waste fraction to any other places shall be after its testing, and with no negative impact or disturbance to the communities. Applicable regulations shall be followed & permits for disposal of all fractions shall be cleared by the Authority after thorough checking of regulations and applicable monitoring results. No soil/waste retrieved shall be stored, dumped in any area or in any manner that pollute sensitive receptors such as waterbodies or fields nearby or other receptors (forests, coasts) in the wider region. ▪ Movement of retrieved waste or materials shall not impact the activities in or near the site such as the access to residences nearby ▪ Fire & Rescue Department & Traffic Police shall be informed in writing of the work plan & schedule and arrangements made as per their suggestions to reduce risk of fire, and to ease rescue operations 		

Environmental Monitoring Plan FOR DUMPSITE REMEDIATION

Environmental Monitoring Plan for Dumpsite Remediation to be followed as mentioned in the following table, as per the CPCB Guidelines 2018 and SWM rules 2016. The contractor shall investigate other site-specific monitoring based on their final workplan, site sensitivity and places of the disposal.

EMoP and its Parameters

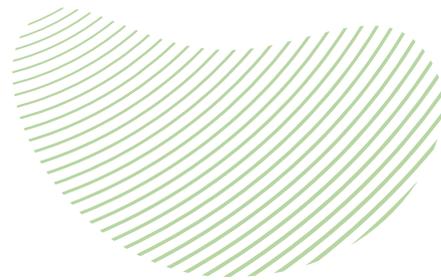
Environmental components	Locations	Frequency	Parameters
Ambient Air quality	Nearby habitations and downward locations	Quarterly [1 sample]	PM ₁₀ , PM _{2.5} , NO _x , CH ₄ , CO, Ammonia
Noise	Within the site	Monthly	Noise levels
Ground and Surface water	Ground water from the nearest well and streams or river	Quarterly	IS 10500:2012 drinking water parameter if required
Accidental release	Chemical, oil and fuel spills	Daily	Nil
Health safety Hazards	Medical records, documentation of injuries and accidents, Health and safety assessments	Monthly	Health and safety survey
Leachate	1 point per leachate pond	Quarterly	<ul style="list-style-type: none"> • pH • Biological Oxygen Demand- BOD • Chemical Oxygen Demand- COD • Nitrogen (Ammonia, Nitrate, Nitrite) • Oxidation-Reduction Potential- ORP • Electrical Conductivity-EC

			<ul style="list-style-type: none"> • Total Organic Carbon (TOC) • Dioxins
Gas Accumulation at disposal site	North, South, East, Center, and West (5 points) on top of closed mound) 8 points, North, South, East, West and 3 additional midpoints around the perimeter of the base	Gas monitoring should be conducted at least twice a day for about 7 consecutive days	<ul style="list-style-type: none"> • Oxygen • Nitrogen • Methane • Carbon anhydride • Hydrogen sulphide • Temperature
Soil subsidence	Top of the closed mound	Monthly	The topographic level at the top of the disposal site
Bio-earth	At site	Bi-Weekly	Physical, chemical, heavy metal analysis



KERALA SOLID WASTE MANAGEMENT PROJECT

**FEASIBILITY REPORT ON DUMPSITE REMEDIATION -
SUMMARY REPORT OF SOCIAL SAFEGUARDS FOR
CLUSTER 1**



Contents

Introduction	3
Approach for social safeguard assessment.....	4
Output from screening.....	4
Social risk identification	5
Scoping of SIA.....	7
Risk Category and safeguard requirements.....	7
Social Management Plan.....	9
Costing	11
ANNEXURE 1	13
PREVENTIVE GBV ACTION PLAN	13
ANNEXURE 2	16
LABOUR MANAGEMENT PLAN.....	16
ANNEXURE 3	26
LABOUR INFLUX MANAGEMENT PLAN	26

Introduction

Dumpsite remediation refers to the process of mitigating the adverse effects of existing dumpsites and restoring them to a safe and environmentally sustainable state. It involves a series of systematic actions aimed at minimizing pollution, reducing health risks, and rehabilitating the affected areas. The bio mining process of 18 dumpsites has been included in the World Bank supported KSWMP project. The Feasibility report of remediation activities has been divided in to two clusters, the cluster 1 includes 12 sites and cluster 2 includes 6 sites. This report constitutes the summary of integrated safeguard analysis and impact assessment with required plans for the remediation of 12 sites included in cluster 1. The details of cluster 1 sites are including the following sites

S.No	Name of Dumpsite	Name of ULB	Name of District	Area of Site (in acre)	Status (Functional /Closed)	Year of closing
1	Ugrankunnu	Kottarakkara	Kollam	1.412	Closed	2018
2	Kalamasseri	Kalamasseri	Eranakulam	1.95	Closed	2021
3	Valakkuzhi	Muvattupuzha	Eranakulam	5.47	Closed	2013
4	Kumbalathumuri	Kothamangalam	Eranakulam	2.5	Closed	2018
5	Vedimara	North Paravur	Eranakulam	2.4	Closed	2023
6	Muriikkummodu	Kayamkulam	Alappuzha	1.03	Closed	April 1 2023
7	Koothattukulam	Koothattukulam	Eranakulam	0.4	Closed	2017
8	Kelugudde	Kasargod	Kasargod	1.16	Closed	2010
9	Palaparambu	Kuthuparambu	Kannur	4.87	Closed	2014
10	Athithattu	Iritti	Kannur	2.44	Closed	2011
11	Puthiyappa	Vatakara	Kozhikod	1.52	Closed	2018
12	Vellaramkunnu	Kalpetta	Wayanad	1.12	Closed	2022

Remediation activities in these sites will prioritize social safeguard by considering the wellbeing of nearby community and this involves assessing and mitigating potential health risks, ensuring the community participation, access to public unitalities and basic services, livelihood impacts during and after the remediation process. labour compliance, Gender issues and risk for the community due to labour influx.

Stakeholder Identification

SL No	Stakeholders	Roles of the stakeholders associated with the remediation process
Service Providers		

1	ULB Council	Monitoring
2	Govt institutions like PCB, KSEB, KWA, Fire Station, Police Station, Thaluk Hospital etc	To deliver necessary approvals and provide necessary services in emergency situations during remediation purpose
3	ULB Officials	Support and Monitoring of the process
4	KSWMP-DPMU	Monitoring and Evaluation
5	TSC and DPMC Unit	Technical support and supervising
6	Contractor	Execution of the Remediation process
7	Haritha Karma Sena workers	Proper collection and waste segregation to prevent further dumping after remediation
8	Rag Pickers	Participation in informal collection to strengthen the collection process to prevent further dumping
9	Scrap dealers	Informal participation in NBD waste management to prevent further dumping after remediation
10	End recyclers	Process the inert and legacy waste safely after remediation

Approach for social safeguard assessment

The social safeguard analysis for the remediation process in the above 12 sites is detailing the following aspects

1. Output from the screening
2. Scoping of SIA
3. Costing
4. Social Management Plan consisting of standardized Labour management plan, labour influx management plan, GBV action plan, Site specific Citizen Engagement Plan (12 sites)

Output from screening

The social screening has been conducted at all the 12 dumpsites with the social and tribal screening checklist followed by the transect walk with the objective of assessing the positive and negative social impacts due to the remediation process and assess the effects on community health, livelihood, overall well-being and identifying the specific social challenges that need to be addressed during the implementation phase. The screening output of 12 sites indicates the site-specific social issues in terms of community health and safety, labour management, labour influx management and Gender based

violence. To ensure the community engagement and public support in the activity the social analysis identified the challenges in citizen engagement and prepared the site-specific citizen engagement plan for 12 sites.

Social risk identification

Name of the Site	Number of HH Within 200 m	Identification of potential social risk					
		Community health and safety	Access to Public utilities	Labour management	GBV	Labour influx	Other site-specific issues
Ugrankunnu	17	Possibility of Communicable Disease and respiratory issues	Nil	Labor compliance should be ensured	Gender Based Violence Harassment issues Sexual Abuse	The host community may get affected during influx	Transportation issues during remediation process
Kalamasseri	0	Dust and odor issues	Nil	Labor compliance should be ensured	Chance of occurrence of GVB /SEA incidents	Not Applicable	Temporary relocation of contract labors of CKC and shifting of MCF
Valakkuzhi	27	Dust and odor issues Chance of spread of Communicable diseases	Nil	Labor compliance should be ensured	Chance of occurrence of GVB /SEA incidents	The host community may get affected during influx	Nil
Kumbalathumuri	1	No issues Expected	Nil	Labor compliance should be ensured	Chance of occurrence of GVB /SEA incidents	No issues	Nil
Vedimara	40	Dust and odor issues, Chance of spread of Communicable diseases, Vehicle movement	Nil	Labor compliance should be ensured	Chance of occurrence of GVB /SEA incidents	The host community may get affected during influx	Nil
Murikkummoodu	100	Dust and odor issues, Chance of spread of Communicable diseases	No issues expected	Labor compliance should be ensured	Chance of occurrence of GVB /SEA incidents	The host community may get affected during influx	Temporary relocation of MCF

SUMMARY REPORT | CLUSTER 1 | FR DS REMEDIATION

Koothattukulam	7	Dust and odor issues, Chance of spread of Communicable diseases.	No issues expected	Labor compliance should be ensured	Chance of occurrence of GBV /SEA incidents	The host community may get affected during influx	Temporary relocation of MCF
Kelugudde	100	The site is in a residential area Chance of noise, foul smell, dust, leachate during execution	No risk identified	Expected no of labour is 25 Labor compliance should be ensured	Lack of proper GBV complaint redressal mechanism.	The site is in a residential area, there is risk of labour influx Community acceptance Offenses	The site is in a residential area with HHS and institutions The dumpsite border is shared by another local body
Palaparambu	20	Nil	No risk identified	Labor compliance should be ensured	Chance of occurrence of GVB /SEA incidents	The site is in a residential area, there is risk of labour influx Community acceptance Offenses	Nil
Athithattu	10	Nil	No risk identified	Expected no of labour is 20. Labour compliance should be ensured.	Chance of occurrence of GVB /SEA incidents	The site is in a residential area, there is risk of labour influx Community acceptance Offenses	Nil
Puthiyappa	300	The site is in a residential area Chance of noise, foul smell, dust, leachate during execution. The vulnerable community should be	Access to some public utilities (Including a public library) will be affected during remediation process	Expected no of labour is 25 Labor compliance should be ensured	Chance of occurrence of GVB /SEA incidents	The site is in a residential area, there is risk of labour influx Community acceptance Offenses	Nil

		considered separately					
Vellaramkunnu	0	There are no families living within 200 m and as per the identification there will not be any issues in terms of community health and safety	Nil	Expected no of labour is 30 Labor compliance should be ensured	Chance of occurrence of GVB /SEA incidents	The site is in a residential area, there is risk of labour influx Community acceptance Offenses	

Scoping of SIA

As per the analysis of screening output, the risk category has been identified for each site and prepared required mitigation and action plans according to the site-specific conditions. According to the risk assessment there is no land requirement and no impact on the livelihood of the host community due to the remediation process at 12 sites.

Risk Category and safeguard requirements

S.No	Name of Site	Name of ULB	Category of Social risk	Safeguard requirements
1	Ugrankunnu	Kottarakkara	Moderate	<ul style="list-style-type: none"> Labour Management Plan Labour influx management plan GBV action plan Site specific Citizen Engagement Plan
2	Kalamasseri	Kalamasseri	Moderate	<ul style="list-style-type: none"> Labour Management Plan Labour influx management plan GBV action plan Site specific Citizen Engagement Plan
3	Valakkuzhi	Muvattupuzha	Moderate	<ul style="list-style-type: none"> Labour Management Plan Labour influx management plan GBV action plan Site specific Citizen Engagement Plan
4	Kumbalathumuri	Kothamangalam	Moderate	<ul style="list-style-type: none"> Labour Management Plan

				<ul style="list-style-type: none"> • Labour influx management plan • GBV action plan • Site specific Citizen Engagement Plan
5	Vedimara	North Paravur	Moderate	<ul style="list-style-type: none"> • Labour Management Plan • Labour influx management plan • GBV action plan • Site specific Citizen Engagement Plan
6	Murikkumoodu	Kayamkulam	Moderate	<ul style="list-style-type: none"> • Labour Management Plan • Labour influx management plan • GBV action plan • Site specific Citizen Engagement Plan
7	Koothattukulam	Koothattukulam	Moderate	<ul style="list-style-type: none"> • Labour Management Plan • Labour influx management plan • GBV action plan • Site specific Citizen Engagement Plan
8	Kelugudde	Kasargod	Substantial	<ul style="list-style-type: none"> • Labour Management Plan • Labour influx management plan • GBV action plan • Site specific Citizen Engagement Plan
9	Palaparambu	Kuthuparambu	Moderate	<ul style="list-style-type: none"> • Labour Management Plan • Labour influx management plan • GBV action plan • Site specific Citizen Engagement Plan
10	Athithattu	Iritty	Moderate	<ul style="list-style-type: none"> • Labour Management Plan • Labour influx management plan • GBV action plan

				<ul style="list-style-type: none"> • Site specific Citizen Engagement Plan • Livelihood Action plan (To the 6 SWM workers engaged in the operation of existing Thumburmuzhi & Windrow composting unit in which they will lost livelihood during remediation process) The LAP will be prepared after the comprehensive SIA
11	Puthiyappa	Vatakara	Substantial	<ul style="list-style-type: none"> • Labour Management Plan • Labour influx management plan • GBV action plan • Site specific Citizen Engagement Plan
12	Vellaramkunnu	Kalpetta	Moderate	<ul style="list-style-type: none"> • Labour Management Plan • Labour influx management plan • GBV action plan • Site specific Citizen Engagement Plan

Social Management Plan

The Social Management Plan for mitigating and addressing the potential social risk includes

1. Labor management plan
2. Labour influx management plan
3. Preventive GBV action plan
4. Site-specific Citizen Engagement Plan

Labour Management Plan

Standardized labour management plan is prepared for all the sites and incorporated the budget to implement the activities. The implementation of activities listed in the LMP will be the responsibility of Contractors as per the labour compliance to be incorporated un the Bid document of the remediation process. The LMP consists of

Overview of labor use

- Number of labors to be onboarded
- Total number of migrant labors to be onboarded

- Category of labors

S. No	Name of Site	Total No. of labors to be onboarded	Category of labors	Total No. of migrant labors	Total No. of women labors
1	Ugrankunnu	25/day	(To be updated once the contractor be onboarded)	(To be updated once the contractor be onboarded)	(To be updated once the contractor be onboarded)
2	Kalamasseri	15/day			
3	Valakkuzhi	1/day			
4	Kumbalathumuri	15/day			
5	Vedimara	15/day			
6	Murikkummoodu	15/day			
7	Koothattukulam	15/day			
8	Kelugudde	25/day			
9	Palaparambu	20/day			
10	Athithattu	20/day			
11	Puthiyappa	20/day			
12	Vellaramkunnu	30/day			

Monitoring of labor compliance

The labor compliance will be monitored through the separate MIS tool to be deployed by KSWMP, the data and necessary inputs will be provided by the contractor as per the timeline mentioned in the bid document. A separate login to be provided to all the contractors for each work and training will be provided to them to use the MIS tool for registration (they need to do the initial registration including uploading registration certificate, entry of labors with name, sex, qualifications, category, etc.) and regular updation of attendance, wages details, labor compliance as mentioned in the labor management plan.

GBV Action plan

The preventive GBV action plan is detailing the operational strategy of ICC, Potential GBV issues, quality assessment of services, GBV awareness and sensitization programs, reporting, monitoring and review mechanism.

Labour influx management plan

The plan detailed to reduce potential impacts associated with influx on the host population and receiving environment are minimized; provide for safe and healthy working conditions, and a comfortable environment for migrant labour; and ensure compliance with the national labour laws.

- Social and Community wellbeing
- Economic and Livelihood Issues
- Accommodation /labour camp
- Communicable Diseases
- Crimes
- Child labor

Site specific Stakeholder Engagement plan

Site specific community/citizen engagement activities will be implemented to ensure transparency between the stakeholders, enhance the acceptance of dumpsite remediation activities and create platforms for citizens to contribute project sustainability, an inclusive process of engagement throughout the remediation activities and post implementation stage is critical. Site specific Citizen engagement plan prepared for 12 sites which detailed the stakeholder identification, public disclosure, awareness generation and community engagement activities.

Costing

SOCIAL MANAGEMENT PLAN				
	Labor Management Plan	Preventive GBV action plan	Influx Management Plan	Citizen Engagement Plan
Ugrankunnu	15000	11500	-	50000
Kalamasseri	15000	11500	-	9000
Valakkuzhi	15000	11500	-	38000
Kumbalathumuri	15000	11500	-	6000
Vedimara	15000	11500	-	49000
Murikkumoodu	15000	11500	-	35000
Koothattukulam	15000	11500	-	48000

Kelugudde	15000	11500		21000
Palaparambu	15000	11500		17000
Athithattu	15000	11500	-	17000
Puthiyappu	15000	11500		84000
Vellaramkunnu	15000	11500		32000
Total	180000.00	138000.00		406000.00
Total cost for Social Management plan (Cluster 1)				724000.00 (Rupees seven lakhs twenty-four thousand only)

Project level GRM Plan

The project level Grievance Redressal Management System will help in effective consolidation and tracking of the grievances received from various sources including web, mobile app, toll free number, social networking websites/ apps, incident reporting registers for each sub-project and physical registration/ submission of complain any at the ULBs. The system will help in delegation and escalation (if required as per the standard operating procedure) of the grievances to the higher level and will help in timely redressal of the grievances. The complaints will be closed only after getting feedback from the complainant. A separate login will be provided to the ward level officers in the ULB they will receive the complaints automatically once the complaint registered through the portal, and the hard copies received by the ULBs can transfer the complaint to portal through their front office system. An institutional mechanism is setup in the ULB level to handle the complaints according to category/geography and the system includes the escalation mechanism also.

OBJECTIVES

The system will be capable of handling grievances and issues related to the Project planning, implementation, and post implementation phases, SWM services, pollution, Labour related complaints, Land acquisition, resettlement, rehabilitation, etc

MODULES IN GRM

Registration of Grievance	Grievance Status	Grievance monitoring	Reporting
This module deals the registration of grievance through web, mobile app, call centre, Hardcopy	This module provides the status of the grievance through web, mobile, call centre	This module deals the monitoring of grievance through official login and dashboard facility.	In this module all the reports to grievance redressal management system can be generated.

ANNEXURE 1

PREVENTIVE GBV ACTION PLAN

Action	Tasks	Timeline	Implementing Responsibility	Monitoring Indicators	Monitoring responsibility
Formation of internal complaints committee	<ul style="list-style-type: none"> ▪ ULB level ICC will be constituted 	Before implementation	ULB	<ul style="list-style-type: none"> ▪ Minutes and Reports 	TSC
Map GBV issues	<p>Ensure safety and protection, reasonable wages, adequate Workspace, Avoid Gender discrimination</p> <p>Physical, Sexual, Psychological Issues</p>	During implementation	Contractor/ULB	<p>Issue tracking system in place</p> <p>Feedback report(monthly)</p>	TSC
Map GBV service providers and quality assessment of services	<ul style="list-style-type: none"> • NGOs • Police Station • KELSA • Women protection officer • List of Nongovernment and private agencies providing GBV support 	Before implementation	TSC	<ul style="list-style-type: none"> • Directory of service providers • List of key partners • Mapping of roles and responsibilities • Monthly report on 	TSC

Action	Tasks	Timeline	Implementing Responsibility	Monitoring Indicators	Monitoring responsibility
	<ul style="list-style-type: none"> • Map local informal grassroots level organizations • Review the quality of services in terms of prevention, protection, rescue, rehabilitation, restoration, reintegration, research, and documentation 			quality Assessment	
Facilitate GBV awareness and sensitization programs	<ul style="list-style-type: none"> • Organize sensitization activities • Display sign boards around the project site 	During implementation	Contractor/ICC	<ul style="list-style-type: none"> • Detailed activity plan • Progress reports • Completion report 	TSC
Create a GBV response and support mechanism	SOP for the actions to be followed in terms of any incidents related to GBV will be formed along with ICC. The SOP will	During implementation	ULB/ICC	<ul style="list-style-type: none"> • SOP for prevention, protection, and rehabilitation 	TSC

Action	Tasks	Timeline	Implementing Responsibility	Monitoring Indicators	Monitoring responsibility
	detail the identification of support mechanisms and terms of conditions for compliance with existing rules and regulations and operational strategy.				
Reporting, monitoring and review	<ul style="list-style-type: none"> • Create GBV data fields • Quarterly reports • Conduct review 	During implementation	Contractor/TSC	<ul style="list-style-type: none"> • Progress reports (Monthly, quarterly) • CB report • Monthly complaint status and action taken report • Establishment of Feedback system 	TSC

ANNEXURE 2

LABOUR MANAGEMENT PLAN

ASSESSMENT OF KEY POTENTIAL LABOUR RISKS

It is assessed that key labour risks would be associated with health and safety risks related to the construction activities such as exposure to physical hazards during construction activities such as: use of heavy equipment, exposure to noise and dust, falling objects, exposure to hazardous materials and exposure to electrical hazards from the use of tools and machinery, lack of proper sanitation facilities, availability of separate toilet for women workers. As the construction activities will involve hazardous work, persons under the age of 18 will not be employed by the Project. Many workers will be exposed to occupational health and safety hazards, primarily including but not limited to:

- Injuries/accidents/ fatalities leading to even death, while at work.
- Inadequate accommodation facilities at work force camps, including inadequate sanitation and health facilities.

- Non-payment of wages by Employer.
- Non-payment of benefits (compensation, bonus, maternity benefits etc.) by Employer
- Discrimination in Employment (e.g., abrupt termination from employment, working conditions, wages, or benefits etc.)
- Engagement of child labour.
- Sexual harassment at work sites.
- Forced labour or trafficking.
- Security of women work force.
- Inadequate facilities for pregnant women and lactating mothers.
- Inadequate facilities for the children of the workforce at workforce camp sites
- Possibility of Gender based violence as the work is mostly carried out within the premises of the existing facilities like MCFs/ RRFs etc where female SWM workers are engaged.
- Absence or inadequate or in accessible emergency response system for rescue of labour/workforce.
- Health risks of labour relating to HIV/AIDS and other sexually transmitted diseases.
- Unclear terms and conditions of employment.
- Discrimination and denial of equal opportunity in hiring and promotions/incentives/training opportunities.
- Denial for workers' rights to form workers organizations, etc.
- Absence of a grievance redressal mechanism for labour to seek redressal of their grievances/issues.

BRIEF OVERVIEW OF LABOUR LEGISLATION: TERMS AND CONDITIONS

SI No	Applicable Acts	Details
1.	Employees Compensation Act 1923:	The Act provides for compensation in case of injury, disease or death arising out of and during employment
2.	Contract Labour (Regulation & Abolition) Act 1970	The Act provides for certain welfare measures to be provided by the Contractor to contract labour and in case the Contractor fails to provide, the same are required to be provided, by the Principal Employer by law. The Principal

		Employer is required to take Certificate of Registration and the Contractor is required to take license from the designated Officer. The Act is applicable to the establishments or Contractor of Principal Employer if they employ 20 or more contract labour.
3.	Minimum Wages Act 1948:	The Employer is supposed to pay not less than the Minimum Wages fixed by appropriate Government as per provisions of the Act if the employment is a scheduled employment. Construction of Buildings, Roads, Runways are scheduled employments.
4.	Payment of Wages Act 1936:	It lays down the mode, manner and by what date the wages are to be paid, what deductions can be made from the wages of the workers.
5.	Equal Remuneration Act 1976:	The Act provides for payment of equal wages for work of equal nature to male and female workers and for not making discrimination against Female employees in the matters of transfers, training, and promotions etc.
6.	Inter-State Migrant workmen's (Regulation of Employment & Conditions of Service) Act 1979:	The Act is applicable to an establishment which employs 5 or more inter-state migrant workmen through an intermediary (who has recruited workmen in one state for employment in the establishment situated in another state). The Inter-State migrant workmen, in an establishment to which this Act becomes applicable, are required to be provided certain facilities such as housing, medical aid, travelling expenses from

		home up to the establishment and back, etc.
7.	Child Labour (Prohibition & Regulation) Act 1986:	The Act prohibits employment of children below 14 years of age in certain occupations and processes and provides for regulation of employment of children in all other occupations and processes. Employment of Child Labour is prohibited in the Building and Construction Industry.
8.	Employees State Insurance Act 1948:	The Act provides for certain benefits to insured employees and their families in case of sickness, maternity and disablement arising out of an employment injury. The Act applies to all employees in factories (as defined) or establishments which may be so notified by the appropriate Government. The Act provides for the setting up of an Employees' State Insurance Fund, which is to be administered by the Employees State Insurance Corporation. Contributions to the Fund are paid by the employer and the employee at rates as prescribed by the Central Government. The Act also provides for benefits to dependents of insured persons in case of death because of an employment injury.
9.	Sexual Harassment of Women at the Workplace (Prevention, Prohibition and Redressal) Act, 2013:	This Act defines sexual harassment in the workplace, provides for an enquiry procedure in case of complaints and mandates the setting up of an Internal Complaints Committee or a Local Complaints Committee
10.	Industrial Disputes Act 1947:	the Act lays down the machinery and procedure for resolution of Industrial disputes, in what situations, a strike or

		lock-out becomes illegal and what are the requirements for laying off or retrenching the employees or closing the establishment.
11.	Trade Unions Act 1926:	The Act lays down the procedure for registration of trade unions of workmen and employers. The Trade Unions registered under the Act have been given certain immunities from civil and criminal liabilities.

CODE OF CONDUCT

A code of conduct needs to be incorporated for all contracts under the project containing obligations on all project workers.

- Compliance with applicable laws, rules, and regulations of the jurisdiction
- Compliance with applicable health and safety requirements (including wearing prescribed personal protective equipment (PPE), preventing avoidable accidents and a duty to report conditions or practices that pose a safety hazard or threaten the environment)
- The use of illegal substances
- Non-Discrimination (for example based on family status, ethnicity, race, gender, religion, language, marital status, birth, age, disability, or political conviction)
- Interactions with community members (for example to convey an attitude of respect and non-discrimination)
- Sexual harassment (for example to prohibit use of language or behavior, towards women or children, that is inappropriate, harassing, abusive, sexually provocative, demeaning or culturally inappropriate)
- Violence or exploitation (for example the prohibition of the exchange of money, employment, goods, or services for sex, including sexual favors or other forms of humiliating, degrading or exploitative behavior)
- Protection of children (including prohibitions against abuse, defilement, or otherwise unacceptable behavior with children, limiting interactions with children, and ensuring their safety in project areas)
- Sanitation requirements (for example, to ensure workers use specified sanitary facilities provided by their employer and not open areas)
- Avoidance of conflicts of interest (such that benefits, contracts, or employment, or any sort of preferential treatment or favors, are not provided to any person with whom there is a financial, family, or personal connection)

- Respecting reasonable work instructions (including regarding environmental and social norms)
- Protection and proper use of property (for example, to prohibit theft, carelessness, or waste)
- Duty to report violations of this Code
- No retaliation against workers who report violations of the Code, if that report is made in good faith.

9. SYSTEMATIZING THE CODE OF CONDUCT

Awareness raising: The Contractor should conduct continuous awareness raising and training activities to ensure that workers abide by the Code of Conduct. The Contractor should also ensure that local communities are aware of the Code of Conduct and enable them to report any concerns or non-compliance.

10. TRANSPARENCY IN CONTRACT SPECIFIC TERMS AND CONDITIONS

All contracts must contain

- Wages: Specific wages and payment modality, timeline
- Working Hours: hours of work, maximum number of hours that can be worked on the project, overtime, compensation
- Leaves: rest per week, annual leave, maternity leave, sick leave
- Benefits: medical treatments in case of accidents or otherwise
- Notice of termination of employment and details of severance payments in a timely manner
- Collective agreements that apply to the project, other specific terms, and conditions
- Details of the grievance redressal mechanism

LABOUR MANAGEMENT PLAN MATRIX

Activities	Target	Timeline	Means of verification	Responsibility
To complete the registration by the Principal Employer, the ULB, as per the provisions of the Contract Labour (Regulation & Abolition) Act 1970 (CL Act), Inter-State Migrant workmen's (Regulation of Employment & Conditions of Service) Act 1979 (ISML Act) and The Building and Other Construction Workers (Regulation of Employment and Conditions of Service) Act 1996 (BOCW Act) and procure certificate to that effect.	3 Registration Certificates to be procured by the ULB under CL Act, ISML Act and BOCW Act respectively.	Before Awarding works	Registration Certificate issued by District Labour Officer under CL Act, ISML Act and BOCW Act	ULB/PIU
To Procure license under CL Act, ISML Act and registration under BOCW Act by the contractor	2 Licenses and One registration under CL Act, ISML Act and BOCW Act respectively.	Before commencing the work at site	License and registration certificate issued by the competent Authority.	Contractor
To procure Workmen Compensation insurance policy proportionate to the number of labour force deployed. (By the Contractor)	One insurance policy.	Before commencing work at site	Copy of insurance policy	Contractor
To display a copy of the certificate of registration at the conspicuous place at the premises where the building and other construction work is being carried on.	One notice board	As soon as the work is started.	Photographs of the notice board where the license is displayed.	Contractor
To establish a labour information signboard at camp site by including following details like, date of payment of wages, working hours, holidays, wages rates for different categories of labours and name and contact details of local labour inspector and his/ her office and emergency contact numbers.	One notice board	Do	do	

To conduct pre- employment medical examination (as per the provisions of BOCW Act)- to ensure medical fitness of the employee.	All workers must be examined	No of workers employed by the contractor	Pre-Medical Examination certificate issues as per Rule 223(C) of BOCW Act (Form No. IX) by the Registered Medical Practitioner.	Contractor
To conduct Periodical Medical Check-ups (once in every six months)	All workers must be examined.	No of workers employed by the contractor	Medical Examination certificate issued by a registered medical practitioner.	Contractor
To provide safe drinking water- the contractor must provide safe drinking water at worksite as well as camp site* (Guideline is provided along with this document)	As per requirement	During the entire contract period	Photographs of supply of potable water, Bill of water purchase.	Contractor
To arrange first Aid facility at work site as well as camp site (Specifications and items to be maintained in the box is mentioned in this document)	As per requirement	During the entire contract period	First Aid Register, Bill of purchase, photographs of First Aid kit	Contractor
To arrange separate First Aid room at work site	Allot one specified room	To be made available during the construction period	Photographs of the facility	Contractor
To provide first Aid training to selected labours or staff members through an authorised agency.	One training with authorized agency	Within one month of commencement of the work	Training records & Photographs	Contractor
To establish linkage with local hospitals/ health care institutions for emergency medical assistance	Tie up with at least one hospital	Within one month of the commencement of the work	Letters issued by the hospital or correspondence and agreement with the hospital.	Contractor
To establish rest room at work site or camp site		Before the commencement of the work	Photographs of the rest room	Contractor

To establish Canteen facility for labours if the contractor engages more than 250 labours		Before the commencement of the work	Photographs of the facility, canteen register etc	Contractor
To maintain essential registers and records like Form A (Registration of employees), Attendance Register, Wages Register, and other registers like incidents registers including Accident register, Harassment complaints, recovery register, Maternity leave, Termination etc		As and when the work starts	Copy of registers.	Contractor
Constitute GRC for labours (maximum members to be six. Number of members from employer and employee to be equal. Female members should be minimum 50%.)		As and when work starts	Copy of register and minutes of meeting. Complaint box etc	Contractor
Constitution of ICC (minimum members to be four. The presiding member should be a senior female employee)		As and when work starts	Copy of register and minutes of meeting. Complaint box etc	Contractor
To publish the abstract of labour laws within the premises of the labour camp. <ol style="list-style-type: none"> 1. The Payment of Wages Act 2. The Employee compensation Act 3. The Building and Other Construction Workers (RECS) Act 4. The Contract Labour (A&R) Act 5. The Child and Adolescent Labour (P&R) Act 6. The Maternity Benefit Act <input checked="" type="checkbox"/>	Abstract of Six acts	As and when the camp is established	Photos of the notices published.	Contractor
To establish code of conduct and provide induction trainings		As and when new employees are joined	Training reports and other documents	Contractor
Conduct HIV/AIDS awareness programmes	As per requirement	Once in six months	Reports, photographs etc	Contractor
All the Drivers should possess effective and valid Driving Licence	Drivers should be selected after verification of DL	As and when drivers are appointed	Photocopy of license ids to be collected	PIU

<p>All the vehicles involved in the project shall be insured to cover the third-party risk</p>	<p>Vehicle must be allowed to be plied in the project only after procurement of third-party insurance to the vehicle</p>	<p>As and when vehicles are plied in the project</p>	<p>Photocopy of insurance is to be collected</p>	<p>PIU</p>
--	--	--	--	------------

ANNEXURE 3

LABOUR INFLUX MANAGEMENT PLAN

Risk	Mitigation Measures	Implementation responsibility	Monitoring indicators	Monitoring responsibility
Social and Community wellbeing	Joint Meeting with the community, ULB officials and Elected members	Contractor/PIU	<ul style="list-style-type: none"> • Risk identification report • Proposed action/mitigation plan • Action taken report/progress report 	TSC/DPMU
Economic and Livelihood Issues	Economic and livelihood activities of the community shall not be affected	Contractor/PIU	<ul style="list-style-type: none"> • Risk identification report • Proposed action/mitigation plan • Action taken report/progress report 	TSC/DPMU
Accommodation /labour camp	Ensure basic amenities are provided to the laborers (Toilets, Water, Kitchen facilities etc.)	Contractor	<ul style="list-style-type: none"> • Risk identification report • Proposed action/mitigation plan • List of facilities in labour camp • Details of labors 	TSC/DPMU

Risk	Mitigation Measures	Implementation responsibility	Monitoring indicators	Monitoring responsibility
Communicable Diseases	<ul style="list-style-type: none"> • Premedical check-up to be ensured • Awareness to the labors 	Contractor	<ul style="list-style-type: none"> • SOP for prevention of communicable disease and health wellbeing on worksite and labour camp • Report on medical check-up 	TSC/DPMU
Crimes	<ul style="list-style-type: none"> • Intimation to the Local police about the camp 	Contractor	<ul style="list-style-type: none"> • Work site complaint register • Number of cases reported, and action taken 	TSC/DPMU
Child Labour	<ul style="list-style-type: none"> • Ensure that no person is working in the site below the age of 18 • Ensure Adhar card of all laborers at the site 	Contractor & TSC	<ul style="list-style-type: none"> • Number of child labour issues reported • Data of labors 	ULB/DPMU
Gender-based violence, including sexual harassment child abuse and exploitation	Gender sensitization briefing to the laborers	Contractor/TSC	<ul style="list-style-type: none"> • Number of cases reported • Action taken report • Number of cases resolved • Time taken for resolving complaints 	ULB/DPMU

Risk	Mitigation Measures	Implementation responsibility	Monitoring indicators	Monitoring responsibility
Labour license	Mandatory provisions to be followed	Contractor/PIU	<ul style="list-style-type: none"> Number of labors having license 	DPMU