Bidding Document
For
Procurement of

PILOT AIR QUALITY MONITORING STATION
(SUPPLY, INSTALLATION AND COMMISSIONING)
Contract ID No: PPCR/DHM/G/ICB-42

Project:
Building Resilience to Climate Related Hazards

Purchaser:
BRCH Project / Department of Hydrology and Meteorology

Country:
Nepal

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PART 1 – BIDDING PROCEDURES
# SECTION I. INSTRUCTIONS TO BIDDERS

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A. General

1. Scope of Bid

1.1 In connection with the Invitation for Bids, specified in the Bid Data Sheet (BDS), the Purchaser, as specified in the BDS, issues these Bidding Documents for the supply of Goods and Related Services incidental thereto as specified in Section VII, Schedule of Requirements. The name, identification and number of lots (contracts) of this International Competitive Bidding (ICB) procurement are specified in the BDS.

1.2 Throughout these Bidding Documents:
   a. The term “in writing” means communicated in written form (e.g. By mail, e-mail, fax, telex) with proof of receipt;
   b. If the context so requires, “singular” means “plural” and vice versa; and
   c. “Day” means calendar day.

2. Source of Funds

2.1 The Borrower or Recipient (hereinafter called “Borrower”) specified in the BDS has applied for or received 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 BDS, toward the project named in BDS. The Borrower intends to apply a portion of the funds to eligible payments under the contract for which these Bidding Documents are issued.

2.2 Payment by the Bank will be made only at the request of the Borrower and upon approval by the Bank in accordance with the terms and conditions of the Loan (or other financing) Agreement. The Loan (or other financing) Agreement prohibits a withdrawal from the Loan (or other financing) account for the purpose of any payment to persons or entities, or for any import of goods, if such payment or import, to the knowledge of the Bank, is prohibited by 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).

3. Corrupt and Fraudulent Practices

3.1 The Bank requires compliance with its policy in regard to corrupt and fraudulent practices as set forth in Section VI.
3.2 In further pursuance of this policy, Bidders shall permit and shall cause its agents (where declared or not), sub-contractors, sub-consultants, service providers or suppliers and to permit the Bank to inspect all accounts, records and other documents relating to the submission of the application, bid submission (in case prequalified), and contract performance (in the case of award), and to have them audited by auditors appointed by the Bank.

4. Eligible Bidders

4.1 A Bidder may be a firm that is a private entity, a government-owned entity—subject to ITB 4.5—or any combination of such entities 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. In the case of a joint venture, all members shall be jointly and severally liable for the execution of the 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. Unless specified in the BDS, there is no limit on the number of members in a JV.

4.2 A Bidder shall not have a conflict of interest. Any Bidder 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:

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 Purchaser regarding this bidding process; or

e. Participates in more than one bid in this bidding process. Participation by a Bidder in more than one Bid will result in the disqualification of all Bids in which such Bidder is involved. However, this does not limit the inclusion of the same subcontractor in more than one bid; or

f. 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
g. Any of its affiliates has been hired (or is proposed to be hired) by the Purchaser or Borrower for the Contract implementation; or

h. 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; or

i. 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 documents 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

4.3 A Bidder may have the nationality of any country, subject to the restrictions pursuant to ITB 4.7. 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.

4.4 A Bidder that has been sanctioned by the Bank in accordance with the above ITB 3.1, including in accordance with the Bank’s Guidelines on Preventing and Combating Corruption in Projects Financed by IBRD Loans and IDA Credits and Grants (“Anti-Corruption Guidelines”), shall be ineligible to be prequalified for, bid for, or be awarded a Bank-financed 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.
4.5 Bidders that are Government-owned enterprises or institutions in the Purchaser’s Country may participate only if they can establish that they (i) are legally and financially autonomous (ii) operate under commercial law, and (iii) are not dependent agencies of the Purchaser. To be eligible, a government-owned enterprise or institution shall establish to the Bank’s satisfaction, through all relevant documents, including its Charter and other information the Bank may request, that it: (i) is a legal entity separate from the government (ii) does not currently receive substantial subsidies or budget support; (iii) operates like any commercial enterprise, and, inter alia, is not obliged to pass on its surplus to the government, can acquire rights and liabilities, borrow funds and be liable for repayment of its debts, and can be declared bankrupt; and (iv) is not bidding for a contract to be awarded by the department or agency of the government which under their applicable laws or regulations is the reporting or supervisory authority of the enterprise or has the ability to exercise influence or control over the enterprise or institution.

4.6 A Bidder shall not be under suspension from bidding by the Purchaser as the result of the operation of a Bid–Securing Declaration.

4.7 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.

4.8 A Bidder shall provide such evidence of eligibility satisfactory to the Purchaser, as the Purchaser shall reasonably request.

5. Eligible Goods and Related Services

5.1 All the Goods and Related Services to be supplied under the Contract and financed by the Bank may have their origin in any country in accordance with Section V, Eligible Countries.

5.2 For purposes of this Clause, the term “goods” includes commodities, raw material, machinery, equipment, and industrial plants; and “related services” includes services such as insurance, installation, training, and initial maintenance.
Section I Instruction to Bidders

5.3 The term “origin” means the country where the goods have been mined, grown, cultivated, produced, manufactured or processed; or, through manufacture, processing, or assembly, another commercially recognized article results that differs substantially in its basic characteristics from its components.

B. Contents of Bidding Document

6. Sections of Bidding Document

6.1 The Bidding Documents consist of Parts 1, 2, and 3, which include all the Sections indicated below, and should be read in conjunction with any Addenda issued in accordance with ITB 8.

PART 1 Bidding Procedures
- Section I. Instructions to Bidders (ITB)
- Section II. Bidding Data Sheet (BDS)
- Section III. Evaluation and Qualification Criteria
- Section IV. Bidding Forms
- Section V. Eligible Countries
- Section VI. Bank Policy-Corrupt and Fraudulent Practices

PART 2 Supply Requirements
- Section VII. Schedule of Requirements

PART 3 Contract
- Section VIII. General Conditions of Contract (GCC)
- Section IX. Special Conditions of Contract (SCC)
- Section X. Contract Forms

6.2 The Invitation for Bids issued by the Purchaser is not part of the Bidding Document.

6.3 Unless obtained directly from the Purchaser, the Purchaser is not responsible for the completeness of the 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 Purchaser shall prevail.

6.4 The Bidder is expected to examine all instructions, forms, terms, and specifications in the Bidding Documents and to furnish with its Bid all information or documentation as is required by the Bidding Documents.
7. **Clarification of **

**Bidding Documents**

7.1 A Bidder requiring any clarification of the Bidding Document shall contact the Purchaser in writing at the Purchaser’s address **specified in the BDS**. The Purchaser will respond in writing 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**. The Purchaser shall forward copies of its response to all Bidders who have acquired the Bidding Documents in accordance with ITB 6.3, including a description of the inquiry but without identifying its source. If so **specified in the BDS**, the Purchaser shall also promptly publish its response at the web page **identified in the BDS**. Should the clarification result in changes to the essential elements of the Bidding Documents, the Purchaser shall amend the Bidding Documents following the procedure under ITB 8 and ITB 22.2.

8. **Amendment of Bidding Document**

8.1 At any time prior to the deadline for submission of bids, the Purchaser may amend the Bidding Documents by issuing addenda.

8.2 Any addendum issued shall be part of the Bidding Documents and shall be communicated in writing to all who have obtained the Bidding Documents from the Purchaser in accordance with ITB 6.3. The Purchaser shall also promptly publish the addendum on the Purchaser’s web page in accordance with ITB 7.1.

8.3 To give prospective Bidders reasonable time in which to take an addendum into account in preparing their bids, the Purchaser 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 Purchaser shall not 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 Purchaser, shall be written in the language **specified in the BDS**. 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 into the language **specified in the BDS**, 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 the following:

a. Letter of Bid in accordance with ITB 12;

b. Completed schedules, in accordance with ITB 12 and 14

c. Bid Security or Bid-Securing Declaration, in accordance with ITB 19.1;

d. Alternative bids, if permissible, in accordance with ITB 13;

e. Written confirmation authorizing the signatory of the Bid to commit the Bidder, in accordance with ITB 20.2;

f. Documentary evidence in accordance with ITB 17 establishing the Bidder’s qualifications to perform the contract if its bid is accepted;

g. Documentary evidence in accordance with ITB 17 establishing the Bidder’s eligibility to bid;

h. Documentary evidence in accordance with ITB 16, that the Goods and Related Services to be supplied by the Bidder are of eligible origin;

i. Documentary evidence in accordance with ITB 16 and 30, that the Goods and Related Services conform to the Bidding Documents;

j. Any other document **required in the BDS.**

11.2 In addition to the requirements under ITB 11.1, bids submitted by a JV 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.

11.3 The Bidder shall furnish in the Letter of Bid information on commissions and gratuities, if any, paid or to be paid to agents or any other party relating to this Bid.

12. **Letter of Bid and Price Schedules**

12.1 The Letter of Bid and Price Schedules 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 20.2. All blank spaces shall be filled in with the information requested.

13. **Alternative Bids**

13.1 Unless otherwise **specified in the BDS**, alternative bids shall not be considered.
14. **Bid Prices and Discounts**

14.1 The prices and discounts quoted by the Bidder in the Letter of Bid and in the Price Schedules shall conform to the requirements specified below.

14.2 All lots (contracts) and items must be listed and priced separately in the Price Schedules.

14.3. The price to be quoted in the Letter of Bid 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, in accordance with ITB 12.1.

14.5 Prices quoted by the Bidder shall be fixed during the Bidder’s performance of the Contract and not subject to variation on any account, unless otherwise specified in the BDS. A bid submitted with an adjustable price quotation shall be treated as nonresponsive and shall be rejected, pursuant to ITB 29. However, if in accordance with the BDS, prices quoted by the Bidder shall be subject to adjustment during the performance of the Contract, a bid submitted with a fixed price quotation shall not be rejected, but the price adjustment shall be treated as zero.

14.6 If so specified in ITB 1.1, bids are being invited for individual lots (contracts) or for any combination of lots (packages). Unless otherwise specified in the BDS, prices quoted shall correspond to 100% of the items specified for each lot and to 100% of the quantities specified for each item of a lot. 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.

14.7 The terms EXW, CIP, and other similar terms shall be governed by the rules prescribed in the current edition of Incoterms, published by The International Chamber of Commerce, as specified in the BDS.

14.8 Prices shall be quoted as specified in each Price Schedule included in Section IV, Bidding Forms. The dis-aggregation of price components is required solely for the purpose of facilitating the comparison of bids by the Purchaser. This shall not in any way limit the Purchaser’s right to contract on any of the terms offered. In quoting prices, the Bidder shall be free to use transportation through carriers registered
in any eligible country, in accordance with Section V, Eligible Countries. Similarly, the Bidder may obtain insurance services from any eligible country in accordance with Section V, Eligible Countries. Prices shall be entered in the following manner:

a. For Goods manufactured in the Purchaser’s Country:
   i. The price of the Goods quoted EXW (ex-works, ex-factory, ex warehouse, ex showroom, or off-the-shelf, as applicable), including all customs duties and sales and other taxes already paid or payable on the components and raw material used in the manufacture or assembly of the Goods;
   ii. Any Purchaser’s Country sales tax and other taxes which will be payable on the Goods if the contract is awarded to the Bidder; and
   iii. The price for inland transportation, insurance, and other local services required to convey the Goods to their final destination (Project Site) specified in the BDS.

b. For Goods manufactured outside the Purchaser’s Country, to be imported:
   i. The price of the Goods, quoted CIP named place of destination, in the Purchaser’s Country, as specified in the BDS;
   ii. the price for inland transportation, insurance, and other local services required to convey the Goods from the named place of destination to their final destination (Project Site) specified in the BDS;

c. For Goods manufactured outside the Purchaser’s Country, already imported:
   i. The price of the Goods, including the original import value of the Goods; plus any mark-up (or rebate); plus any other related local cost, and custom duties and other import taxes already paid or to be paid on the Goods already imported.
   ii. The custom duties and other import taxes already paid (need to be supported with documentary evidence) or to be paid on the Goods already imported;
   iii. The price of the Goods, obtained as the difference between (i) and (ii) above;
iv. Any Purchaser’s Country sales and other taxes which will be payable on the Goods if the contract is awarded to the Bidder; and

v. The price for inland transportation, insurance, and other local services required to convey the Goods from the named place of destination to their final destination (Project Site) specified in the BDS.

b. For Related Services, other than inland transportation and other services required to convey the Goods to their final destination, whenever such Related Services are specified in the Schedule of Requirements:

i. The price of each item comprising the Related Services (inclusive of any applicable taxes).

15. Currencies of Bid and Payment

15.1 The currency(ies) of the bid and the currency(ies) of payments shall be as specified in the BDS. The Bidder shall quote in the currency of the Purchaser’s Country the portion of the bid price that corresponds to expenditures incurred in the currency of the Purchaser’s country, unless otherwise specified in the BDS.

15.2 The Bidder may express the bid price in any currency. If the Bidder wishes to be paid in a combination of amounts in different currencies, it may quote its price accordingly but shall use no more than three foreign currencies in addition to the currency of the Purchaser’s Country.

16. Documents Establishing the Eligibility and Conformity of the Goods and Related Services

16.1 To establish the eligibility of the Goods and Related Services in accordance with ITB 5, Bidders shall complete the country of origin declarations in the Price Schedule Forms, included in Section IV, Bidding Forms.

16.2 To establish the conformity of the Goods and Related Services to the Bidding Documents, the Bidder shall furnish as part of its Bid the documentary evidence that the Goods conform to the technical specifications and standards specified in Section VII, Schedule of Requirements.

16.3 The documentary evidence may be in the form of literature, drawings or data, and shall consist of a detailed item by item description of the essential technical and performance characteristics of the Goods and Related Services, demonstrating substantial responsiveness of the Goods and Related Services to the
technical specification, and if applicable, a statement of deviations and exceptions to the provisions of the Section VII, Schedule of Requirements.

16.4 The Bidder shall also furnish a list giving full particulars, including available sources and current prices of spare parts, special tools, etc., necessary for the proper and continuing functioning of the Goods during the period specified in the BDS following commencement of the use of the goods by the Purchaser.

16.5 Standards for workmanship, process, material, and equipment, as well as references to brand names or catalogue numbers specified by the Purchaser in the Schedule of Requirements, are intended to be descriptive only and not restrictive. The Bidder may offer other standards of quality, brand names, and/or catalogue numbers, provided that it demonstrates, to the Purchaser’s satisfaction, that the substitutions ensure substantial equivalence or are superior to those specified in the Section VII, Schedule of Requirements.

17. Documents Establishing the Eligibility and Qualifications of the Bidder

17.1 To establish Bidder’s eligibility in accordance with ITB 4, Bidders shall complete the Letter of Bid, included in Section IV, Bidding Forms.

17.2 The documentary evidence of the Bidder’s qualifications to perform the contract if its bid is accepted shall establish to the Purchaser’s satisfaction:

i. That, if required in the BDS, a Bidder that does not manufacture or produce the Goods it offers to supply shall submit the Manufacturer’s Authorization using the form included in Section IV, Bidding Forms to demonstrate that it has been duly authorized by the manufacturer or producer of the Goods to supply these Goods in the Purchaser’s Country;

ii. That, if required in the BDS, in case of a Bidder not doing business within the Purchaser’s Country, the Bidder is or will be (if awarded the contract) represented by an Agent in the country equipped and able to carry out the Supplier’s maintenance, repair and spare parts-stocking obligations prescribed in the Conditions of Contract and/or Technical Specifications; and

iii. That the Bidder meets each of the qualification criterion specified in Section III, Evaluation and Qualification Criteria.
18. Period of Validity of Bids

18.1 Bids shall remain valid for the period specified in the BDS after the bid submission deadline date prescribed by the Purchaser in accordance with ITB22.1. A bid valid for a shorter period shall be rejected by the Purchaser as nonresponsive.

18.2 In exceptional circumstances, prior to the expiration of the bid validity period, the Purchaser may request bidders to extend the period of validity of their bids. The request and the responses shall be made in writing. If a Bid Security is requested in accordance with ITB Clause 19, it shall also be extended for a corresponding 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.

18.3 If the award is delayed by a period exceeding fifty-six (56) days beyond the expiry of the initial bid validity, the Contract price shall be determined as follows:
   a. In the case of fixed price contracts, the Contract price shall be the bid price adjusted by the factor specified in the BDS.
   b. In the case of adjustable price contracts, no adjustment shall be made.
   c. In any case, bid evaluation shall be based on the bid price without taking into consideration the applicable correction from those indicated above.

19. Bid Security

19.1 The Bidder shall furnish as 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. In the amount and currency specified in the BDS.

19.2 A Bid Securing Declaration shall use the form included in Section IV, Bidding Forms.

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:
   a. An unconditional guarantee issued by a bank or financial institution (such as an insurance, bonding or surety company);
   b. An irrevocable letter of credit;
   c. A cashier’s or certified check; or
d. Another security specified in the BDS,

From a reputable source from an eligible country. If the unconditional guarantee is issued by a financial institution located outside the Purchaser’s Country, the issuing financial institution shall have a correspondent financial institution located in the Purchaser’s Country to make it enforceable. In the case of a bank guarantee, the bid security shall be submitted either using the Bid Security Form included in Section IV, Bidding Forms, or in another substantially similar format approved by the Purchaser prior to bid submission. The bid security shall be valid for twenty-eight (28) days beyond the original validity period of the bid, or beyond any period of extension if requested under ITB 18.2.

19.4 If a Bid Security is specified pursuant to ITB 19.1, any bid not accompanied by a substantially responsive Bid Security shall be rejected by the Purchaser 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 pursuant to ITB 42.

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.

19.7 The Bid Security may be forfeited or the Bid Securing Declaration executed:

a. If a Bidder withdraws its bid during the period of bid validity specified by the Bidder on the Letter of Bid, or any extension thereto provided by the Bidder; or

b. If the successful Bidder fails to:

   i. Sign the Contract in accordance with ITB 41; or
   
   ii. Furnish a performance security in accordance with ITB 42.

19.8 The bid security or Bid-Securing Declaration of a JV must be in the name of the JV that submits the bid. If the JV has not been legally constituted into a legally enforceable JV at the time of bidding, the bid security or Bid-Securing Declaration shall be in the names of all future members as named in the letter of intent referred to in ITB 4.1 and ITB 11.2.
19.9 If a bid security is **not required in the BDS**, pursuant to ITB 19.1, and

a. If a Bidder withdraws its bid during the period of bid validity specified by the Bidder on the Letter of Bid, or

b. If the successful Bidder fails to: sign the Contract in accordance with ITB41; or furnish a performance security in accordance with ITB 42;

The Borrower may, if provided for in the BDS, declare the Bidder ineligible to be awarded a contract by the Purchaser for a period of time as stated in the BDS.

20. **Format and Signing of Bid**

20.1 The Bidder shall prepare one original of the documents comprising the bid as described in ITB 11 and clearly mark it “ORIGINAL.” Alternative bids, if permitted in accordance with ITB 13, shall be clearly marked “ALTERNATIVE.” In addition, the Bidder shall submit copies of the bid, in the number specified in the BDS and clearly mark them “COPY.” In the event of any discrepancy between the original and the copies, the original shall prevail.

20.2 The original and all copies of the bid shall be typed or written in indelible ink and 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 attached to the bid. The name and position held by each person signing the authorization must be typed or printed below the signature. All pages of the bid where entries or amendments have been made shall be signed or initialed by the person signing the bid.

20.3 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.

20.4 Any inter-lineation, erasures, or overwriting shall be valid only if they are signed or initialed by the person signing the bid.

D. **Submission and Opening of Bids**

21. **Sealing and Marking of Bids**

21.1 The Bidder shall enclose the original and all copies of the bid, including alternative bids, if permitted in accordance with ITB 13, in separate sealed envelopes, duly marking the envelopes as “ORIGINAL”, “ALTERNATIVE” and “COPY.” These envelopes containing the original and the copies shall then be enclosed in one single envelope.

21.2 The inner and outer envelopes shall:

a. Bear the name and address of the Bidder;

b. Be addressed to the Purchaser in accordance with ITB 24.1;
Section I Instruction to Bidders

c. Bear the specific identification of this bidding process indicated in ITB1.1; and

d. Bear a warning not to open before the time and date for bid opening.

21.3 If all envelopes are not sealed and marked as required, the Purchaser will assume no responsibility for the misplacement or premature opening of the bid.

22. Deadline for Submission of Bids

22.1 Bids must be received by the Purchaser at the address and no later than the date and time specified in the BDS. When so specified in the BDS, bidders shall have the option of submitting their bids electronically. Bidders submitting bids electronically shall follow the electronic bid submission procedures specified in the BDS.

22.2 The Purchaser may, at its discretion, extend the deadline for the submission of bids by amending the Bidding Documents in accordance with ITB 8, in which case all rights and obligations of the Purchaser and Bidders previously subject to the deadline shall thereafter be subject to the deadline as extended.

23. Late Bids

22.3 The Purchaser shall not consider any bid that arrives after the deadline for submission of bids, in accordance with ITB 22. Any bid received by the Purchaser after the deadline for submission of bids shall be declared late, rejected, and returned unopened to the Bidder.

24. Withdrawal, Substitution, and Modification of Bids

24.1 A Bidder may withdraw, substitute, or modify its Bid after it has been submitted by sending a written notice, duly signed by an authorized representative, and shall include a copy of the authorization (the power of attorney) in accordance with ITB 20.2, (except that withdrawal notices do not require copies). The corresponding substitution or modification of the bid must accompany the respective written notice. All notices must be:

a. Prepared and submitted in accordance with ITB 20 and 21 (except that withdrawal notices do not require copies), and in addition, the respective envelopes shall be clearly marked "WITHDRAWAL," "SUBSTITUTION," or "MODIFICATION;” and

b. Received by the Purchaser prior to the deadline prescribed for submission of bids, in accordance with ITB 22.
24.2 Bids requested to be withdrawn in accordance with ITB 24.1 shall be returned unopened to the Bidders.

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.

25. Bid Opening

25.1 Except as in the cases specified in ITB 23 and 24, the Purchaser shall publicly open and read out in accordance with ITB25.3 all bids received by the deadline at the date, time and places specified in the BDS in the presence of Bidders’ designated representatives and anyone who choose to attend. Any specific electronic bid opening procedures required if electronic bidding is permitted in accordance with ITB 22.1, shall be as specified in the BDS.

25.2 First, envelopes marked “WITHDRAWAL” shall be opened and read out and the envelope with the corresponding bid shall not be opened, but returned to the Bidder. If the withdrawal envelope does not contain a copy of the “power of attorney” confirming the signature as a person duly authorized to sign on behalf of the Bidder, the corresponding bid will be opened. No bid withdrawal shall be permitted unless the corresponding withdrawal notice contains a valid authorization to request the withdrawal and is read out at bid opening. Next, envelopes marked “SUBSTITUTION” shall be opened and read out and exchanged with the corresponding Bid being substituted, and the substituted Bid shall not be opened, but returned to the Bidder. No Bid substitution shall be permitted unless the corresponding substitution notice contains a valid authorization to request the substitution and is read out at bid opening. Envelopes marked “MODIFICATION” shall be opened and read out with the corresponding Bid. No Bid modification shall be permitted unless the corresponding modification notice contains a valid authorization to request the modification and is read out at Bid opening. Only bids that are opened and read out at Bid opening shall be considered further.

25.3 All other envelopes shall be opened one at a time, reading out: the name of the Bidder and whether there is a modification; the total Bid Prices, per lot (contract) if applicable, including any discounts and alternative bids; the presence or absence of a Bid Security, if required; and any other details as the Purchaser may consider appropriate. Only discounts and alternative bids read out at Bid
opening shall be considered for evaluation. The Letter of Bid and the Price Schedules are to be initialed by representatives of the Purchaser attending bid opening in the manner **specified in the BDS**. The Purchaser shall neither discuss the merits of any bid nor reject any bid (except for late bids, in accordance with ITB 25.1).

25.4 The Purchaser shall prepare a record of the bid opening that shall include, as a minimum: the name of the Bidder and whether there is a withdrawal, substitution, or modification; the Bid Price, per lot (contract) if applicable, including any discounts, and alternative bids; and the presence or absence of a Bid Security, if one was required. The Bidders’ representatives who are present shall be requested to sign the record. The omission of a Bidder’s signature on the record shall not invalidate the contents and effect of the record. A copy of the record shall be distributed to all Bidders.

### E. Evaluation and Comparison of Bids

#### 26. Confidentiality

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 Contract Award is communication to all Bidders in accordance with ITB 40.

26.2 Any effort by a Bidder to influence the Purchaser in the evaluation or contract award decisions may result in the rejection of its Bid.

26.3 Notwithstanding ITB 26.2, from the time of bid opening to the time of Contract Award, if any Bidder wishes to contact the Purchaser on any matter related to the bidding process, it should do so in writing.

#### 27. Clarification of Bids

27.1 To assist in the examination, evaluation, comparison of the bids, and qualification of the Bidders, the Purchaser may, at its discretion, ask any Bidder for a clarification of its Bid. Any clarification submitted by a Bidder in respect to its Bid and that is not in response to a request by the Purchaser shall not be considered. The Purchaser’s request for clarification and the response shall be in writing. 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 Purchaser in the Evaluation of the bids, in accordance with ITB 31.

27.2 If a Bidder does not provide clarifications of its bid by the date and time set in the Purchaser’s request for clarification, its bid may be rejected.
28. Deviations, Reservations, and Omissions

28.1 During the evaluation of bids, the following definitions apply:

a. “Deviation” is a departure from the requirements specified in the Bidding Documents;

b. “Reservation” is the setting of limiting conditions or withholding from complete acceptance of the requirements specified in the Bidding Documents; and

c. “Omission” is the failure to submit part or all of the information or documentation required in the Bidding Documents.

29. Determination of Responsiveness

29.1 The Purchaser’s determination of a bid’s responsiveness is to be based on the contents of the bid itself, as defined in ITB 11.

29.2 A substantially responsive Bid is one that meets the requirements of the Bidding Documents without material deviation, reservation, or omission. A material deviation, reservation, or omission is one that:

a. If accepted, would
   i. Affect in any substantial way the scope, quality, or performance of the Goods and Related Services specified in the Contract; or
   ii. Limit in any substantial way, inconsistent with the Bidding Documents, the Purchaser’s rights or the Bidder’s obligations under the Contract; or

b. If rectified, would unfairly affect the competitive position of other bidders presenting substantially responsive bids.

29.3 The Purchaser shall examine the technical aspects of the bid submitted in accordance with ITB 16 and ITB 17, in particular, to confirm that all requirements of Section VII, Schedule of Requirements have been met without any material deviation or reservation, or omission.

29.4 If a bid is not substantially responsive to the requirements of Bidding Documents, it shall be rejected by the Purchaser and may not subsequently be made responsive by correction of the material deviation, reservation, or omission.

30. Nonconformities, Errors and Omissions

30.1 Provided that a Bid is substantially responsive, the Purchaser may waive any nonconformities in the Bid.

30.2 Provided that a bid is substantially responsive, the Purchaser may request that the Bidder submit the necessary information or
Section I Instruction to Bidders

documentation, within a reasonable period of time, to rectify nonmaterial nonconformities or omissions in the bid related to documentation requirements. Such omission shall not be related to any aspect of the price of the Bid. Failure of the Bidder to comply with the request may result in the rejection of its Bid.

30.3 Provided that a bid is substantially responsive, the Purchaser 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 non-conforming item or component.

31. Correction of Arithmetical Errors

31.1 Provided that the Bid is substantially responsive, the Purchaser shall correct arithmetical errors on the following basis:

a. If there is a discrepancy between the unit price and the line item total that is obtained by multiplying the unit price by the quantity, the unit price shall prevail and the line item total shall be corrected, unless in the opinion of the Purchaser there is an obvious misplacement of the decimal point in the unit price, in which case the line item total as quoted shall govern and the unit 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.

31.2 Bidders shall be requested to accept correction of arithmetical errors. Failure to accept the correction in accordance with ITB 31.1, shall result in the rejection of the Bid.

32. Conversion to Single Currency

32.1 For evaluation and comparison purposes, the currency(ies) of the Bid shall be converted in a single currency as specified in the BDS.

33. Margin of Preference

33.1 Unless otherwise specified in the BDS, a margin of preference shall not apply.

34. Evaluation of Bids

34.1 The Purchaser shall use the criteria and methodologies listed in this Clause. No other evaluation criteria or methodologies shall be permitted.
34.2 To evaluate a Bid, the Purchaser shall consider the following:
   a. Evaluation will be done for Items or Lots (contracts), as specified in the BDS; and the Bid Price as quoted in accordance with clause 14;
   b. Price adjustment for correction of arithmetic errors in accordance with ITB 31.1;
   c. Price adjustment due to discounts offered in accordance with ITB 14.3;
   d. Converting the amount resulting from applying (a) to (c) above, if relevant, to a single currency in accordance with ITB 32;
   e. Price adjustment due to quantifiable nonmaterial nonconformities in accordance with ITB 30.3;
   f. The additional evaluation factors are specified in Section III, Evaluation and Qualification Criteria;

34.3 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.

34.4 If these Bidding Documents allows Bidders to quote separate prices for different lots (contracts), the methodology to determine the lowest evaluated price of the lot (contract) combinations, including any discounts offered in the Letter of Bid Form, is specified in Section III, Evaluation and Qualification Criteria.

34.5 The Purchaser’s evaluation of a bid will exclude and not take into account:
   a. In the case of Goods manufactured in the Purchaser’s Country, sales and other similar taxes, which will be payable on the goods if a contract is awarded to the Bidder;
   b. In the case of Goods manufactured outside the Purchaser’s Country, already imported or to be imported, customs duties and other import taxes levied on the imported Good, sales and other similar taxes, which will be payable on the Goods if the contract is awarded to the Bidder;
   c. Any allowance for price adjustment during the period of execution of the contract, if provided in the bid.

34.6 The Purchaser’s evaluation of a bid may require the consideration of other factors, in addition to the Bid Price quoted in accordance with ITB 14. These factors may be related to the characteristics,
performance, and terms and conditions of purchase of the Goods and Related Services. The effect of the factors selected, if any, shall be expressed in monetary terms to facilitate comparison of bids, unless otherwise specified in the BDS from amongst those set out in Section III, Evaluation and Qualification Criteria. The criteria and methodologies to be used shall be as specified in ITB 34.2 (f).

35. Comparison of Bids

35.1 The Purchaser shall compare the evaluated prices of all substantially responsive bids established in accordance with ITB 34.2 to determine the lowest evaluated bid. The comparison shall be on the basis of CIP (place of final destination) prices for imported goods and EXW prices, plus cost of inland transportation and insurance to place of destination, for goods manufactured within the Borrower’s country, together with prices for any required installation, training, commissioning and other services. The evaluation of prices shall not take into account custom duties and other taxes levied on imported goods quoted CIP and sales and similar taxes levied in connection with the sale or delivery of goods.

36. Qualification of the Bidder

36.1 The Purchaser shall determine to its satisfaction whether the Bidder that is selected as having submitted the lowest evaluated and substantially responsive bid meets the qualifying criteria specified in Section III, Evaluation and Qualification Criteria.

36.2 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.

36.3 An affirmative determination shall be a prerequisite for award of the Contract to the Bidder. A negative determination shall result in disqualification of the bid, in which event the Purchaser shall proceed to the next lowest evaluated bid to make a similar determination of that Bidder’s qualifications to perform satisfactorily.

37. Purchaser’s Right to Accept Any Bid, and to Reject Any or All Bids

The Purchaser 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 bids submitted and specifically, bid securities, shall be promptly returned to the Bidders.

F. Award of Contract

38. Award Criteria

38.1 Subject to ITB 37.1, the Purchaser shall award the Contract to the Bidder whose bid has been determined to be the lowest evaluated
bid and is substantially responsive to the Bidding Documents, provided further that the Bidder is determined to be qualified to perform the Contract satisfactorily.

39. Purchaser’s Right to Vary Quantities at Time of Award

39.1 At the time the Contract is awarded, the Purchaser reserves the right to increase or decrease the quantity of Goods and Related Services originally specified in Section VII, Schedule of Requirements, provided this does not exceed the percentages specified in the BDS, and without any change in the unit prices or other terms and conditions of the bid and the Bidding Documents.

40. Notification of Award

40.1 Prior to the expiration of the period of bid validity, the Purchaser shall notify the successful Bidder, in writing, that its Bid has been accepted. The notification letter (hereinafter and in the Conditions of Contract and Contract Forms called the “Letter of Acceptance”) shall specify the sum that the Purchaser will pay the Supplier in consideration of the supply of Goods (hereinafter and in the Conditions of Contract and Contract Forms called “the Contract Price”). At the same time, the Purchaser shall also notify all other Bidders of the results of the bidding and shall publish in UNDB online the results identifying the bid and lot (contract) numbers and the following information:

(i) Name of each Bidder who submitted a Bid;

(ii) Bid prices as read out at Bid Opening;

(iii) Name and evaluated prices of each Bid that was evaluated;

(iv) Name of bidders whose bids were rejected and the reasons for their rejection; and

(v) Name of the successful Bidder, and the Price it offered, as well as the duration and summary scope of the contract awarded.

40.2 Until a formal Contract is prepared and executed, the notification of award shall constitute a binding Contract.

40.3 The Purchaser shall promptly respond in writing to any unsuccessful Bidder who, after notification of award in accordance with ITB 40.1, requests in writing the grounds on which its bid was not selected.

41. Signing of Contract

41.1 Promptly after notification, the Purchaser shall send the successful Bidder the Contract Agreement.
Section I Instruction to Bidders

41.2 Within twenty-eight (28) days of receipt of the Contract Agreement, the successful Bidder shall sign, date, and return it to the Purchaser.

41.3 Notwithstanding ITB 41.2 above, in case signing of the Contract Agreement is prevented by any export restrictions attributable to the Purchaser, to the country of the Purchaser, or to the use of the products/goods, systems or services to be supplied, where such export restrictions arise from trade regulations from a country supplying those products/goods, systems or services, the Bidder shall not be bound by its bid, always provided however, that the Bidder can demonstrate to the satisfaction of the Purchaser and of the Bank that signing of the Contract Agreement has not been prevented by any lack of diligence on the part of the Bidder in completing any formalities, including applying for permits, authorizations and licenses necessary for the export of the products/goods, systems or services under the terms of the Contract.

42. Performance Security

42.1 Within twenty eight (28) days of the receipt of notification of award from the Purchaser, the successful Bidder, if required, shall furnish the Performance Security in accordance with the GCC, subject to ITB 34.5, using for that purpose the Performance Security Form included in Section X, Contract Forms, or another Form acceptable to the Purchaser. If the Performance Security furnished by the successful Bidder is in the form of a bond, it shall be issued by a bonding or insurance company that has been determined by the successful Bidder to be acceptable to the Purchaser. A foreign institution providing a bond shall have a correspondent financial institution located in the Purchaser’s Country.

42.2 Failure of the successful Bidder to submit the above-mentioned Performance Security or sign the Contract shall constitute sufficient grounds for the annulment of the award and forfeiture of the Bid Security. In that event the Purchaser may award the Contract to the next lowest evaluated Bidder, whose bid is substantially responsive and is determined by the Purchaser to be qualified to perform the Contract satisfactorily.
SECTION II. BID DATA SHEET (BDS)

The following specific data for the goods 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.

<table>
<thead>
<tr>
<th>ITB Clause Reference</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>A. General</strong></td>
<td></td>
</tr>
<tr>
<td>ITB 1.1</td>
<td>The reference number of the Invitation for Bids is: PPCR/DHM/G/ICB-42</td>
</tr>
<tr>
<td>ITB 1.1</td>
<td>The Purchaser is: Department of Hydrology and Meteorology Building Resilience to Climate Related Hazards Project, Project Management Unit, Nagpokhari, Naxal, Kathmandu.</td>
</tr>
<tr>
<td>ITB 1.1</td>
<td>The name of the ICB is: Pilot Air Quality Monitoring Station (Supply, Delivery, Installation and Commissioning) The identification number of the ICB is: PPCR/DHM/G/ICB-42 The number and identification of lots (contracts) comprising this ICB is: Not applicable</td>
</tr>
<tr>
<td>ITB 2.1</td>
<td>The Borrower is: Government of Nepal</td>
</tr>
<tr>
<td>ITB 2.1</td>
<td>Loan or Financing Agreement amount: Total US$ 31 Million (SCF Loan 15 Million and SCF Grant 16 Million)</td>
</tr>
<tr>
<td>ITB 2.1</td>
<td>The name of the Project is: Building Resilience to Climate Related Hazards Project</td>
</tr>
<tr>
<td>ITB 4.1</td>
<td>Maximum number of members in the JV shall be: 3(Three)</td>
</tr>
<tr>
<td>IITB 4.4</td>
<td>A list of debarred firms and individuals is available on the Bank’s external website: <a href="http://www.worldbank.org/debarr">http://www.worldbank.org/debarr</a>.</td>
</tr>
<tr>
<td><strong>B. Contents of Bidding Documents</strong></td>
<td></td>
</tr>
<tr>
<td>ITB 7.1</td>
<td>For Clarification of bid purposes only, the Purchaser’s address is: Attention: Mr. Shiva Nepal, Assistant Project Director, BRCH Project</td>
</tr>
</tbody>
</table>
### Address:
**Department of Hydrology and Meteorology**

**Building Resilience to Climate Related Hazards Project,**

**Project Management Unit, Nagpokhari, Naxal,**

**Floor/ Room number:** First Floor  
**City:** Kathmandu  
**ZIP Code:** Not applicable  
**Country:** Nepal  
**Telephone:** +977-1-4433472/4436272  
**Electronic mail address:** ppcr.brch@dhm.gov.np

Requests for clarification should be received by the Employer no later than: no later than **FIFTEEN (15) days** prior to the deadline date for submission of bid.

### ITB 7.1

**Web page:** [www.dhm.gov.np](http://www.dhm.gov.np)

### C. Preparation of Bids

#### ITB 10.1

The language of the bid is: **English**

All correspondence exchange shall be in **English** language.  
Language for translation of supporting documents and printed literature is **English**.

#### ITB 11.1 (j)

The Bidder shall submit the following additional documents in its bid: **None**

#### ITB 13.1

Alternative Bids **shall not be** considered.

#### ITB 14.5

The prices quoted by the Bidder **shall not** be subject to adjustment during the performance of the Contract.

#### ITB 14.6

Prices quoted for each contract shall correspond to **100 percent** of the items specified in each contract.

#### ITB 14.7

The Incoterms edition is: **Incoterm 2000**

#### ITB 14.8 (b) (i) and (c)

Place of Destination: **CIP Kathmandu**;

#### ITB 14.8 (a) (iii);(b)(ii) and (c)(v)

“Final destination (Project Site)”: Nagarkot, Bhaktpur District, Nepal

Please refer Section VII Schedule of Requirements, **3. Technical Specifications for Pilot Air Quality Monitoring Station**

#### ITB 15.1

The prices shall be quoted by the bidder in: **US Dollar or freely Convertible currency**
The Bidder “is” required to quote in the currency of the Purchaser’s Country the portion of the bid price that corresponds to expenditures incurred in that currency.

<table>
<thead>
<tr>
<th>ITB 16.4</th>
<th>Period of time the Goods are expected to be functioning (for the purpose of spare parts): 10 years</th>
</tr>
</thead>
</table>
| ITB 17.2 (a) | Manufacturer’s authorization is: **Required for equipment below**  
**Key Pilot Air Quality Monitoring Station**  
1. Equipment housing  
2. Sampling system  
3. Analyzer equipment  
4. Equipment for QA/QC  
5. Data management system |
| ITB 17.2 (b) | After sales service is: “**required**” |
| ITB 18.1   | The bid validity period shall be: **120 days** |
| ITB 18.3 (a) | The bid price shall be adjusted by the following factor(s):  
The local currency portion of the Contract price shall be adjusted by a factor reflecting local inflation during the period of extension, and the foreign currency portion of the Contract price shall be adjusted by a factor reflecting the international inflation (in the country of the foreign currency) during the period of extension. |
| ITB 19.1   | A Bid Security “**shall be**” required.  
A Bid-Securing Declaration “**shall not be**” required.  
The amount and currency of the bid security shall be **US Dollar 7,500** (Seven Thousand and Five hundred) or equivalent. |
| ITB 19.3 (d) | Other types of acceptable securities: None |
| ITB 20.1   | In addition to the original of the bid, the number of copies is: **Two** |
| ITB 20.2   | The written confirmation of authorization to sign on behalf of the Bidder shall consist of: **Letter of Authorization/ Power of attorney.** |

**D. Submission and Opening of Bids**

| ITB 22.1 | For **bid submission purposes** only, the Purchaser’s address is:  
Attention: **Mr. Rajendra Sharma, Chief/ Procurement Unit,** |
### Section II Bid Data Sheet (BDS)

<table>
<thead>
<tr>
<th>Section</th>
<th>Details</th>
</tr>
</thead>
</table>
| **ITB 25.1** | The bid opening shall take place at:  
Street Address: Department of Hydrology and Meteorology  
Building Resilience to Climate Related Hazards Project, Procurement Unit, Nagpokhari, Naxal.  
Floor/Room number: Third Floor  
City: Kathmandu  
ZIP/Postal Code: Not applicable  
Country: Nepal  
**Date:** 17-02-2019  
**Time:** 12:00 (noon) Local Time  
Bidders *“shall”* have the option of submitting their bids electronically.  
The electronic bidding submission procedures shall be: Not applicable. |
| **ITB 25.3** | The Letter of Bid and Price Schedules of each bid shall be initialed by all representatives of the Purchaser conducting Bid opening. |
| **E. Evaluation and Comparison of Bids** |  
**ITB 32.1** | The currency that shall be used for bid evaluation and comparison purposes to convert all bid prices expressed in various currencies into a single currency is: **Nepali rupees (NPR)**  
The source of exchange rate shall be: Nepal Rastra Bank  
The date for the exchange rate shall be: **21-01-2019** which is **28 days prior to the deadline for original submission of the Bids.** |
| **ITB 33.1** | ‘Shall not apply’ |
| **ITB 34.2(a)** | Bids will be evaluated for total items and the Contract will comprise the items awarded to the successful Bidder. |
The adjustments shall be determined using the following criteria, from amongst those set out in Section III, Evaluation and Qualification Criteria:

a. Deviation in Delivery schedule: **No**

b. Deviation in payment schedule: **No**

c. The cost of major replacement components, mandatory spare parts, and service: **No**

d. The availability in the Purchaser’s Country of spare parts and after-sales services for the equipment offered in the bid: **No**

e. The projected operating and maintenance costs during the life of the equipment: **No**

f. The performance and productivity of the equipment offered: **No**

**F. Award of Contract**

The maximum percentage by which quantities may be increased is: **15 percent**

The maximum percentage by which quantities may be decreased is: **15 percent**
SECTION III. EVALUATION AND QUALIFICATION CRITERIA

This Section contains all the criteria that the Purchaser shall use to evaluate a bid and qualify the Bidders in accordance with ITB 34 and ITB 36, no other factors, methods or criteria shall be used.

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2. Evaluation (ITB 34) ........................................................................... 37
3. Qualification (ITB 36) ..................................................................... 37
1. **Margin of Preference (ITB 33): Not applicable**

2. **Evaluation (ITB 34)**

   2.1 **Evaluation Criteria (ITB 34.6)**

   The Purchaser’s evaluation of a bid may take into account, in addition to the Bid Price quoted in accordance with ITB Clause 14.8, one or more of the following factors as specified in ITB34.2 (f) and in BDS referring to ITB34.6, using the following criteria and methodologies.

   (a) Delivery schedule (as per Incoterms specified in the BDS): **Not applicable**

   (b) Deviation in payment schedule: **Not applicable**

   (c) Cost of major replacement components, mandatory spare parts, and service: **Not applicable**

   (d) Availability in the Purchaser’s Country of spare parts and after sales services for equipment offered in the bid: **Not Applicable**

   (e) Projected operating and maintenance costs: Not applicable

   (f) Performance and productivity of the equipment: Not applicable

   (g) Specific additional criteria: Not applicable

   2.2 **Multiple Contracts (ITB 34.4): Not applicable**

   2.3 **Alternative Bids (ITB 13.1): Not applicable**

3. **Qualification (ITB 36)**

   3.1 **Post-qualification Requirements (ITB 36.1)**

   After determining the lowest-evaluated bid in accordance with ITB 35.1, the Purchaser shall carry out the post-qualification of the Bidder in accordance with ITB 36, using only the requirements specified. Requirements not included in the text below shall not be used in the evaluation of the Bidder’s qualifications.

   (a) If Bidder is Manufacturer:

     (i) **Financial Capability**

        The Bidder shall furnish documentary evidence that it meets the following financial requirement(s): **Average annual turnover US$ 750,000 (Seven hundred and fifty thousand) in last five years**

     (ii) **Experience and Technical Capacity**

        The Bidder shall furnish documentary evidence to demonstrate that it meets the following experience requirement(s):

        The company shall provide written detail documents at least from 3 (three) deliveries in last 5 (Five) years for similar ambient air quality monitoring...
equipment and where the Services have been used as the standard operational equipment for ambient air quality monitoring.

(iii) Documentary Evidence

The Bidder shall furnish documentary evidence as requested in the specification documents to demonstrate that the Goods it offers meet the requirements stated in the technical specifications.

(b) If Bidder is not manufacturer:

If a Bidder is not a manufacturer, but is offering the Goods on behalf of the Manufacturer under Manufacturer’s Authorization Form (Section IV, Bidding Forms), the Manufacturer shall demonstrate the above qualifications (iii) and the Bidder shall demonstrate that it has Annual Average annual Turnover of US Dollar 300,000 (Three hundred thousand) and furnish documentary evidence of successfully completed at least (2) two contracts of Ambient Air Quality Monitoring Equipment (Supply, Delivery, Installation and Commissioning) in the past 10 years.
SECTION IV. BIDDING FORMS

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<td>Advance Payment Security</td>
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<td>SAMPLE FORMAT</td>
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</table>
Letter of Bid

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

Note: All italicized text is for use in preparing these forms and shall be deleted from the final products.

Date: xx-xx-2019 [insert date (as day, month and year) of Bid Submission]
ICB No.: PPCR/DHM/G/ICB-42
Invitation for Bid No.: xxx

To:
Department of Hydrology and Meteorology
Building Resilience to Climate Related Hazards Project,
Project Management Unit,
Nagpokhari, Naxal, Kathmandu

a. We have examined and have no reservations to the Bidding Documents, including Addenda issued in accordance with Instructions to Bidders (ITB 8);

b. We meet the eligibility requirements and have no conflict of interest in accordance with ITB 4;

c. We have not been suspended nor declared ineligible by the Purchaser based on execution of a Bid Securing Declaration in the Purchaser’s country in accordance with ITB 4.6

d. We offer to supply in conformity with the Bidding Documents and in accordance with the Delivery Schedules specified in the Schedule of Requirements the following Goods:

Supply, delivery, installation and commissioning of a Pilot Air Quality Monitoring Station in order -

- To monitor ambient air quality in accordance with the Technical specifications and standards

- The system must be designed to operate in electric supply and telecommunications which are appropriate for the infrastructure in Nepal. The expected life time of the system must be more than ten years.

e. The total price of our Bid, excluding any discounts offered in item (f) below is:

.................................................................

[The total price of the bid in words and figures, indicating the various amounts and the respective currencies]
f. The discounts offered and the methodology for their application are:
   (i) The discounts offered are: [Specify in detail each discount offered.]
   (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];

g. Our bid shall be valid for a period of 120 calendar days from the date fixed for the bid
submission deadline in accordance with the Bidding Documents, and it shall remain binding
upon us and may be accepted at any time before the expiration of that period;

h. If our bid is accepted, we commit to obtain a performance security in accordance with the
Bidding Documents;

i. We are not participating, as a Bidder or as a subcontractor, in more than one bid in this
bidding process in accordance with ITB 4.2(e), other than alternative bids submitted in
accordance with ITB 13;

j. We, including any of our subcontractors or suppliers for any part of the contract, have not
been declared ineligible by the Bank, under the Purchaser’s country laws or official
regulations or by an act of compliance with a decision of the United Nations Security Council;

k. We are not a government owned entity/We are a government owned entity but meet the
requirements of ITB 4.5;¹

l. 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]

<table>
<thead>
<tr>
<th>Name of Recipient</th>
<th>Address</th>
<th>Reason</th>
<th>Amount</th>
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</table>

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

m. We understand that this bid, together with your written acceptance thereof included in your
notification of award, shall constitute a binding contract between us, until a formal contract
is prepared and executed; and

¹ Bidder to use as appropriate
n. We understand that you are not bound to accept the lowest evaluated bid or any other bid that you may receive.

o. We hereby certify that we have taken steps to ensure that no person acting for us or on our behalf will engage in any type of fraud and corruption.

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 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 Schedules.
Bidder Information Form

[The Bidder shall fill in this Form in accordance with the instructions indicated below. No alterations to its format shall be permitted and no substitutions shall be accepted.]

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

ICB No.: PPCR/DHM/G/ICB-42

Page __________ of _______ pages

1. Bidder’s Name  [insert Bidder’s legal name]

2. In case of JV, legal name of each member : [insert legal name of each member in JV]

3. Bidder’s actual or intended country of registration: [insert actual or intended country of registration]

4. Bidder’s year of registration: [insert Bidder’s year of registration]

5. Bidder’s Address in country of registration: [insert Bidder’s legal address in country of registration]

6. Bidder’s Authorized Representative Information
   
   Name: [insert Authorized Representative’s name]
   Address: [insert Authorized Representative’s Address]
   Telephone/Fax numbers: [insert Authorized Representative’s telephone/fax numbers]
   Email Address: [insert Authorized Representative’s email address]

7. Attached are copies of original documents of [check the box(es) of the attached original documents]
   
   - 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 4.3.
   - In case of JV, letter of intent to form JV or JV agreement, in accordance with ITB 4.1.
   - In case of Government-owned enterprise or institution, in accordance with ITB 4.5 documents establishing:
     - Legal and financial autonomy
     - Operation under commercial law
     - Establishing that the Bidder is not dependent agency of the Purchaser

2. Included are the organizational chart, a list of Board of Directors, and the beneficial ownership.
### Bidder’s JV Members Information Form

[The Bidder shall fill in this Form in accordance with the instructions indicated below. The following table shall be filled in for the Bidder and for each member of a Joint Venture].

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

ICB No.: PPCR/DHM/G/ICB-42

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<table>
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<tbody>
<tr>
<td><strong>1.</strong> Bidder’s Name:</td>
<td>[insert Bidder’s legal name]</td>
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<td><strong>2.</strong> Bidder’s JV Member’s name:</td>
<td>[insert JV’s Member legal name]</td>
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<td><strong>3.</strong> Bidder’s JV Member’s country of registration:</td>
<td>[insert JV’s Member country of registration]</td>
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<td><strong>4.</strong> Bidder’s JV Member’s year of registration:</td>
<td>[insert JV’s Member year of registration]</td>
</tr>
<tr>
<td><strong>5.</strong> Bidder’s JV Member’s legal address in country of registration:</td>
<td>[insert JV’s Member legal address in country of registration]</td>
</tr>
<tr>
<td><strong>6.</strong> Bidder’s JV Member’s authorized representative information</td>
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<tr>
<td>Name:</td>
<td>[insert name of JV’s Member authorized representative]</td>
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<tr>
<td>Address:</td>
<td>[insert address of JV’s Member authorized representative]</td>
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<tr>
<td>Telephone/Fax numbers:</td>
<td>[insert telephone/fax numbers of JV’s Member authorized representative]</td>
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<tr>
<td>Email Address:</td>
<td>[insert email address of JV’s Member authorized representative]</td>
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<tr>
<td><strong>7.</strong> Attached are copies of original documents of</td>
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<tr>
<td>Articles of Incorporation (or equivalent documents of constitution or association), and/or registration documents of the legal entity named above, in accordance with ITB 4.3.</td>
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<tr>
<td>In case of a Government-owned enterprise or institution, documents establishing legal and financial autonomy, operation in accordance with commercial law, and absence of dependent status, in accordance with ITB 4.5.</td>
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<tr>
<td><strong>2.</strong> Included are the organizational chart, a list of Board of Directors, and the beneficial ownership.</td>
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</table>
Price Schedule Forms

[The Bidder shall fill in these Price Schedule Forms in accordance with the instructions indicated. The list of line items in column 1 of the Price Schedules shall coincide with the List of Goods and Related Services specified by the Purchaser in the Schedule of Requirements.]
**Price Schedule: Goods Manufactured Outside the Purchaser’s Country, to be Imported**

(Group C bidding, goods to be imported)  
Currencies in accordance with ITB 15

<table>
<thead>
<tr>
<th>Line Item</th>
<th>Description of Goods</th>
<th>Country of Origin</th>
<th>Delivery Date as defined by Incoterm</th>
<th>Quantity and physical unit</th>
<th>Unit price CIP</th>
<th>CIP Price per line item (Col. 5x6)</th>
<th>Price per line item for inland transportation and other services required in the Purchaser’s country to convey the Goods to their final destination specified in BDS</th>
<th>Total Price per Line item (Col. 7+8)</th>
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**Total Price**

**Name of Bidder** [insert complete name of Bidder]  
**Signature of Bidder** [signature of person signing the Bid]  
**Date** [Insert Date]
## Price Schedule: Goods Manufactured Outside the Purchaser’s Country, already imported*

(Group C bids, Goods already imported)

Currencies in accordance with ITB 15

<table>
<thead>
<tr>
<th>Line Item N°</th>
<th>Description of Goods</th>
<th>Country of Origin</th>
<th>Delivery Date as defined by Incoterms</th>
<th>Quantity and physical unit</th>
<th>Unit price including Custom Duties and Import Taxes paid, in accordance with ITB 14.8(c)(i)</th>
<th>Custom Duties and Import Taxes paid per unit in accordance with ITB 14.8(c)(ii), [to be supported by documents]</th>
<th>Unit Price net of customs duties and import taxes, in accordance with ITB 148 (c)(iii) (Col. 6 minus Col.7)</th>
<th>Price per line item net of Custom Duties and Import Taxes paid, in accordance with ITB 148 (c)(i) (Col. 5×8)</th>
<th>Price per line item for inland transportation and other services required in the Purchaser’s country to convey the goods to their final destination, as specified in BDS in accordance with ITB 14.8 (c)(v)</th>
<th>Sales and other taxes paid or payable per item if Contract is awarded (in accordance with ITB 14.8(c)(iv)</th>
<th>Total Price per line item (Col. 9+10)</th>
</tr>
</thead>
</table>

[insert number of the item] [insert name of Goods] [insert country of origin of the Good] [insert quoted Delivery Date] [insert number of units to be supplied and name of the physical unit] [insert unit price per unit] [insert unit price net of customs duties and import taxes] [insert price per line item for inland transportation and other services required in the Purchaser’s country] [insert sales and other taxes payable per item if Contract is awarded] [insert total price per line item]

Name of Bidder [insert complete name of Bidder] Signature of Bidder [signature of person signing the Bid] Date [insert date]

*For previously imported Goods, the quoted price shall be distinguishable from the original import value of these Goods declared to customs and shall include any rebate or mark-up of the local agent or representative and all local costs except import duties and taxes, which have been and/or have to be paid by the Purchaser. For clarity the bidders are asked to quote the price including import duties, and additionally to provide the import duties and the price net of import duties which is the difference of those values.*
### Price Schedule: Goods Manufactured in the Purchaser’s Country

<table>
<thead>
<tr>
<th>Line Item N°</th>
<th>Description of Goods</th>
<th>Delivery Date as defined by Incoterms</th>
<th>Quantity and physical unit</th>
<th>Unit price EXW</th>
<th>Total EXW price per line item (Col. 4×5)</th>
<th>Price per line item for inland transportation and other services required in the Purchaser’s Country to convey the Goods to their final destination</th>
<th>Cost of local labor, raw materials and components from with origin in the Purchaser’s Country as a % of Col. 5</th>
<th>Sales and other taxes payable per line item if Contract is awarded (in accordance with ITB 14.8(a)(ii))</th>
<th>Total Price per line item (Col. 6+7)</th>
</tr>
</thead>
<tbody>
<tr>
<td>[insert number of the item]</td>
<td>[insert name of Good]</td>
<td>[insert quoted Delivery Date]</td>
<td>[insert number of units to be supplied and name of the physical unit]</td>
<td>[insert EXW unit price]</td>
<td>[insert total EXW price per line item]</td>
<td>[insert the corresponding price per line item]</td>
<td>[insert cost of local labor, raw material and components from within the Purchaser’s country as a % of the EXW price per line item]</td>
<td>[insert sales and other taxes payable per line item if Contract is awarded]</td>
<td>[insert total price per item]</td>
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</table>

Name of Bidder  [insert complete name of Bidder]  Signature of Bidder  [signature of person signing the Bid]  Date  [insert date]
## Price and Completion Schedule - Related Services

Currencies in accordance with ITB 15

<table>
<thead>
<tr>
<th>Service N°</th>
<th>Description of Services (excludes inland transportation and other services required in the Purchaser’s country to convey the goods to their final destination)</th>
<th>Country of Origin</th>
<th>Delivery Date at place of Final destination</th>
<th>Quantity and physical unit</th>
<th>Unit price</th>
<th>Total Price per Service (Col. 5*6 or estimate)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Documentation and Training as per Technical specifications: Three sets of hard copies and an electronic copy of technical documentation and operation manuals in English. Training of technical staff of DHM on the operation, maintenance and calibration of the pilot air quality monitoring station (at least 2 people) and the operation of the data management system (at least 2 people).</td>
<td></td>
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<td>1 Job</td>
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</tbody>
</table>

Total Bid Price

Name of Bidder [insert complete name of Bidder]  Signature of Bidder [signature of person signing the Bid]  Date [insert date]
Form of Bid Security
(Bank Guarantee)

[The bank shall fill in this Bank Guarantee Form in accordance with the instructions indicated.]

[Guarantor letterhead or SWIFT identifier code]

**Beneficiary:** [Purchaser to insert its name and address]

**IFB No.:** [Purchaser to insert reference number for the Invitation for Bids]

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

**Date:** [Insert date of issue]

**BID GUARANTEE No.:** [Insert guarantee reference number]

**Guarantor:** [Insert name and address of place of issue, unless indicated in the letterhead]

We have been informed that ______ [insert name of the Bidder, which in the case of a joint venture shall be the name of the joint venture (whether legally constituted or prospective) or the names of all members thereof] (hereinafter called "the Applicant") has submitted or will submit to the Beneficiary its bid (hereinafter called "the Bid") for the execution of ________________ under Invitation for Bids No. __________ ("the IFB").

Furthermore, we understand that, according to the Beneficiary’s conditions, bids must be supported by a bid guarantee.

At the request of the Applicant, we, as Guarantor, hereby irrevocably undertake to pay the Beneficiary any sum or sums not exceeding in total an amount of __________ (__________) upon receipt by us of the Beneficiary’s complying demand, supported by the Beneficiary’s statement, whether in the demand itself or a separate signed document accompanying or identifying the demand, stating that either the Applicant:

(a) Has withdrawn its Bid during the period of bid validity set forth in the Applicant’s Letter of Bid (“the Bid Validity Period”), or any extension thereto provided by the Applicant; or

(b) Having been notified of the acceptance of its Bid by the Beneficiary during the Bid Validity Period or any extension thereto provided by the Applicant, (i) has failed to execute the contract agreement, or (ii) has failed to furnish the performance security, in accordance with the Instructions to Bidders (“ITB”) of the Beneficiary’s bidding document.
This guarantee will expire: (a) if the Applicant is the successful bidder, upon our receipt of copies of the contract agreement signed by the Applicant and the performance security issued to the Beneficiary in relation to such contract agreement; or (b) if the Applicant is not the successful bidder, upon the earlier of (i) our receipt of a copy of the Beneficiary’s notification to the Applicant of the results of the bidding process; or (ii) twenty-eight days after the end of the Bid Validity Period.

Consequently, any demand for payment under this guarantee must be received by us at the office indicated above on or before that date.

This guarantee is subject to the Uniform Rules for Demand Guarantees (URDG) 2010 Revision, ICC Publication No. 758.

_____________________________
[Signature(s)]

*Note: All italicized text is for use in preparing this form and shall be deleted from the final product.*
Form of Bid Security (Bid Bond) – (Not Applicable)

[The Surety shall fill in this Bid Bond Form in accordance with the instructions indicated.]

BOND NO. ______________________

BY THIS BOND [name of Bidder] as Principal (hereinafter called “the Principal”), and [name, legal title, and address of surety], authorized to transact business in [name of country of Purchaser], as Surety (hereinafter called “the Surety”), are held and firmly bound unto [name of Purchaser] as Obligee (hereinafter called “the Purchaser”) in the sum of [amount of Bond]2[amount in words], for the payment of which sum, well and truly to be made, we, the said Principal and Surety, bind ourselves, our successors and assigns, jointly and severally, firmly by these presents.

WHEREAS the Principal has submitted or will submit a written Bid to the Purchaser dated the ___ day of ______, 20__, for the supply of [name of Contract] (hereinafter called the “Bid”).

NOW, THEREFORE, THE CONDITION OF THIS OBLIGATION is such that if the Principal:

a. Has withdrawn its Bid during the period of bid validity set forth in the Principal’s Letter of Bid ("the Bid Validity Period"), or any extension thereto provided by the Principal; or

b. Having been notified of the acceptance of its Bid by the Purchaser during the Bid Validity Period or any extension thereto provided by the Principal; (i) failed to execute the contract agreement; or (ii) has failed to furnish the Performance Security, in accordance with the Instructions to Bidders (“ITB”) of the Purchaser’s bidding document.

then the Surety undertakes to immediately pay to the Purchaser up to the above amount upon receipt of the Purchaser’s first written demand, without the Purchaser having to substantiate its demand, provided that in its demand the Purchaser shall state that the demand arises from the occurrence of any of the above events, specifying which event(s) has occurred.

The Surety hereby agrees that its obligation will remain in full force and effect up to and including the date 28 days after the date of expiration of the Bid Validity Period set forth in the Principal’s Letter of Bid or any extension thereto provided by the Principal.

IN TESTIMONY WHEREOF, the Principal and the Surety have caused these presents to be executed in their respective names this ____ day of _______ 20__.

Principal: _______________________
Surety: _______________________

Corporate Seal (where appropriate)

(Signature) ________________________
(Printed name and title) ________________________

(Signature) ________________________
(Printed name and title) ________________________

2 The amount of the Bond shall be denominated in the currency of the Purchaser’s country or the equivalent amount in a freely convertible currency.
**Form of Bid-Securing Declaration (Not Applicable)**

[The Bidder shall fill in this Form in accordance with the instructions indicated.]

Date: [date (as day, month and year)]
Bid No.: [number of bidding process]
Alternative No.: [insert identification No if this is a Bid for an alternative]

To: [complete name of Purchaser]

We, the undersigned, declare that:

We understand that, according to your conditions, bids must be supported by a Bid-Securing Declaration.

We accept that we will automatically be suspended from being eligible for bidding in any contract with the Purchaser for the period of time of [number of months or years] starting on [date], if we are in breach of our obligation(s) under the bid conditions, because we:

(a) Have withdrawn our Bid during the period of bid validity specified in the Letter of Bid; or

(b) Having been notified of the acceptance of our Bid by the Purchaser during the period of bid validity, (i) fail or refuse to execute the Contract; or (ii) fail or refuse to furnish the Performance Security, if required, in accordance with the ITB.

We understand this Bid Securing Declaration shall expire if we are not the successful Bidder, upon the earlier of (i) our receipt of your notification to us of the name of the successful Bidder; or (ii) twenty-eight days after the expiration of our Bid.

Name of the Bidder*: ________________________________
Name of the person duly authorized to sign the Bid on behalf of the Bidder**: ____________
Title of the person signing the Bid_______________________
Signature of the person named above____________________

Date signed ________________________________ day of ___________________, _____

*: 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 attached to the Bid

[Note: In case of a Joint Venture, the Bid-Securing Declaration must be in the name of all members to the Joint Venture that submits the bid.]
Manufacturer’s Authorization

[The Bidder shall require the Manufacturer to fill in this Form in accordance with the instructions indicated. This letter of authorization should be on the letterhead of the Manufacturer and should be signed by a person with the proper authority to sign documents that are binding on the Manufacturer. The Bidder shall include it in its bid, if so indicated in the BDS.]

Date: [insert date (as day, month and year) of Bid Submission]
ICB No.: PPCR/DHM/G/ICB-42

To: [insert complete name of Purchaser]

WHEREAS

We [insert complete name of Manufacturer], who are official manufacturers of [insert type of goods manufactured], having factories at [insert full address of Manufacturer’s factories], do hereby authorize [insert complete name of Bidder] to submit a bid the purpose of which is to provide the following Goods, manufactured by us [insert name and or brief description of the Goods], and to subsequently negotiate and sign the Contract.

We hereby extend our full guarantee and warranty in accordance with Clause 28 of the General Conditions of Contract, with respect to the Goods offered by the above firm.

Signed: [insert signature(s) of authorized representative(s) of the Manufacturer]

Name: [insert complete name(s) of authorized representative(s) of the Manufacturer]

Title: [insert title]

Dated on __________ day of ______________, _____ [insert date of signing]
SECTION V. ELIGIBLE COUNTRIES

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

In reference to ITB 4.7 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 4.7(a) and 5.1: None
Under ITB 4.7(b) and 5.1: None
SECTION VI. BANK POLICY - CORRUPT AND FRAUDULENT PRACTICES


Fraud and Corruption:

1.16 It is the Bank’s policy to require that Borrowers (including beneficiaries of Bank loans), bidders, suppliers, contractors and their agents (whether declared or not), sub-contractors, sub-consultants, service providers or suppliers, and any personnel thereof, observe the highest standard of ethics during the procurement and execution of Bank-financed contracts. In pursuance of this policy, 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 a misrepresentation, that knowingly or recklessly misleads, or attempts to mislead, a party to obtain a 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:

(aa) 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

(bb) Acts intended to materially impede the exercise of the Bank’s inspection and audit rights provided for under paragraph 1.16(e) below.

(b) Will reject a proposal for award if it determines that the bidder recommended for award, or 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) Will declare misprocurement and cancel the portion of the loan allocated to a contract if it 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 or the implementation 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) will sanction a firm or individual, at any time, in accordance with the prevailing Bank’s sanctions procedures, including by publicly declaring such firm or individual ineligible, either indefinitely or for a stated period of time: (i) to be awarded a Bank-financed contract; and (ii) to be a nominated contractor, consultant, manufacturer or supplier, or service provider (different names are used depending on the particular bidding document) is one which has either 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.

8 A firm or individual may be declared ineligible to be awarded a Bank financed contract upon: (i) completion of the Bank’s sanctions proceedings as per its sanctions procedures, including, inter alia, cross-debarment as agreed with other International Financial Institutions, including Multilateral Development Banks, and through the application the World Bank Group corporate administrative procurement sanctions procedures for fraud and corruption; and (ii) as a result of temporary suspension or early temporary suspension in connection with an ongoing sanctions proceeding. See footnote 14 and paragraph 8 of Appendix 1 of these Guidelines.

9 A nominated sub-contractor, consultant, manufacturer or supplier, or service provider (different names are used depending on the particular bidding document) is one which has either 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.
PART 2 – SUPPLY REQUIREMENTS
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2. List of Related Services and Completion Schedule ............................................. 63
3. Technical Specifications .................................................................................... 64
# 1. List of Goods and Delivery Schedule

<table>
<thead>
<tr>
<th>Line Item N°</th>
<th>Description of Goods</th>
<th>Quantity</th>
<th>Physical unit</th>
<th>Final (Project Site) Destination as specified in BDS</th>
<th>Delivery (as per Incoterms) Date</th>
<th>Earliest Delivery Date</th>
<th>Latest Delivery Date</th>
<th>Bidder’s offered Delivery date [to be provided by the bidder]</th>
</tr>
</thead>
<tbody>
<tr>
<td>[insert item No]</td>
<td>[insert description of Goods]</td>
<td>[insert quantity of item to be supplied]</td>
<td>[insert physical unit for the quantity]</td>
<td>[insert place of Delivery]</td>
<td>[insert the number of days following the date of effectiveness the Contract]*</td>
<td>[insert the number of days following the date of effectiveness the Contract]*</td>
<td>[insert the number of days following the date of effectiveness the Contract]*</td>
<td></td>
</tr>
<tr>
<td>1.</td>
<td>Equipment housing with installation</td>
<td>1 unit</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Within 4 months after contract signing</td>
</tr>
<tr>
<td>2</td>
<td>Analyzer equipment (with detailed breakdown of unit prices to be provided as given below)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Within 4 months after contract signing</td>
</tr>
<tr>
<td></td>
<td>2.1 Automatic analyzer for PM$<em>{10}$, PM$</em>{2.5}$, and PM$_{1.0}$</td>
<td>1 unit</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>2.2 Automatic analyzer for NO/NO$_2$/NO$_x$</td>
<td>1 unit</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>2.3 Automatic analyzer for O$_3$</td>
<td>1 unit</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>2.4 Automatic analyzer for SO$_2$</td>
<td>1 unit</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>2.5 Automatic analyzer for CO</td>
<td>1 unit</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>2.6 Automatic analyzer for black carbon</td>
<td>1 unit</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>2.7 Sequential sampler for gravimetric measurement of PM$_{10}$</td>
<td>1 unit</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### Section VII Schedule of Requirement

<table>
<thead>
<tr>
<th>Line Item No.</th>
<th>Description of Goods</th>
<th>Quantity</th>
<th>Physical unit</th>
<th>Final (Project Site) Destination as specified in BDS</th>
<th>Delivery (as per Incoterms) Date</th>
<th>Earliest Delivery Date</th>
<th>Latest Delivery Date</th>
<th>Bidder’s offered Delivery date [to be provided by the bidder]</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>Equipment for QA/QC as per Technical specifications (with detailed break-down of unit prices to be provided as given below)</td>
<td>[insert quantity of item to be supplied]</td>
<td>[insert physical unit for the quantity]</td>
<td>[insert place of Delivery]</td>
<td>[insert the number of days following the date of effectiveness the Contract]*</td>
<td>[insert the number of days following the date of effectiveness the Contract]*</td>
<td>Within 4 months after contract signing</td>
<td></td>
</tr>
<tr>
<td>3.1 Zero air generator</td>
<td>1 unit</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.2 Multi-gas calibration unit</td>
<td>1 unit</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.3 QA/QC for automatic analyzer for particulate matter (PM_{10}, PM_{2.5})</td>
<td>1 unit</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Data management system as per Technical specifications including data logger system, PC/notebook for monitoring site and data management system at central unit</td>
<td>1 unit</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Within 4 months after contract signing</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Consumables and spare parts to ensure performance of pilot air quality monitoring station for a period of 24 months from the date of commissioning as per Technical specifications</td>
<td>1 set</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Within 4 months after contract signing</td>
<td></td>
</tr>
</tbody>
</table>

* The detailed delivery schedule shall be finalized during negotiation.
2. List of Related Services and Completion Schedule

[This table shall be filled in by the Purchaser. The Required Completion Dates should be realistic, and consistent with the required Goods Delivery Dates (as per Incoterms)]

<table>
<thead>
<tr>
<th>Service</th>
<th>Description of Service</th>
<th>Quantity</th>
<th>Physical Unit</th>
<th>Place where Services shall be performed</th>
<th>Final Completion Date(s) of Services</th>
</tr>
</thead>
<tbody>
<tr>
<td>[insert Service No]</td>
<td>[insert description of Related Services]</td>
<td>[insert quantity of items to be supplied]</td>
<td>[insert physical unit for the items]</td>
<td>[insert name of the Place]</td>
<td>[insert required Completion Date(s)]</td>
</tr>
<tr>
<td>1</td>
<td>Documentation and Training as per Technical specifications: Three sets of hard copies and an electronic copy of technical documentation and operation manuals in English. Training of technical staff of DHM on the operation, maintenance and calibration of the pilot air quality monitoring station (at least 2 people) and the operation of the data management system (at least 2 people).</td>
<td>1 job</td>
<td></td>
<td></td>
<td>Within 6 months after contract signing</td>
</tr>
</tbody>
</table>
3. **Technical Specifications**

_Summary of Technical Specifications._ The Goods and Related Services shall comply with following Technical Specifications and Standards:
TECHNICAL SPECIFICATION for
PILOT AIR QUALITY MONITORING STATION
(SUPPLY, INSTALLATION AND COMMISSIONING)
1. **Equipment housing with installations**

   1.1 **Equipment housing**

   Final location of the station will be confirmed during contract signing. DHM will secure the needed access to the site.

   The *cabinet* for the pilot air quality monitoring station must fulfil at least the following requirements:

   - Stand-alone, single IP56 enclosure, self-contained cabinet, dimensions approximately length 3.0 m, width 2.0 m, height 2.5 m +/- 10%
   - Ability for transportation by crane via top four corners eye-bolt.
   - Frost resistant foundation and foundation plate including deep grounding. Size of foundation plate: Width: Container width plus 1.6 m. Length: Container length plus 1.7 m
   - Container protected against wanton destruction by fence with locked entrance
   - Substructure: complete galvanized
   - Protection against electrical/magnetic interference – inside and external of shelter.
   - Materials: long time persistent material to high ultra violet radiation, humidity, dust and corrosive environment
   - Thermal insulation, heat transfer coefficient < 0.6W/m²
   - Walls: 35 mm sandwich panel, both sides of the panels are of textured, galvanized and coated steel sheet, fireproof
   - Door: width 0.9 m, height 2 m, lockable
   - Roof: flat to enable fixing of sampling systems, covered with anti-slip material and properly fenced, sufficient drainage or gradient to prevent accumulation of water, capable of minimum 300 kg loading, access by stairs or ladder
   - Floor: water resistant and covered with anti-static material, load capacity minimum 250 kg/m²
   - Workspace for maintenance, calibration and operation

   **Environmental parameters**

   For equipment situated outside the air-conditioned shelter, the operating temperature may vary between -10°C and +50°C.

   Unless no other specifications are stated for any specific instrument, the operating temperature may vary between 5°C and 40°C and the operating humidity may vary between 50% and 90% relative humidity.
1.2 Installations

Electrical installations and light

The power supply is 230V, 50 Hz. The voltage and frequency of the electric power supply may vary between ±10% and +/-1Hz in relation to nominal values.

- Power line 3 * 230 V / 400 V.
- All electrical and/or analytical equipment to run on 230 VAC power supply.
- Automatic voltage stabilizer: 2100W / 3 kVA.
- Electric protections, power plugs and sockets.
- Grounded steel structure, over current, surge overvoltage and lightning protection for all parts of equipment including telephone / mobile communication line and container itself.
- Separated secured circuits for monitoring equipment, sampling equipment, data handling systems, peripheral equipment and air conditioning.
- UPS for all monitoring, analysis, sensor, sampling and data logging / communication devices operating at full power separated outlets connected to the UPS. UPS outlets for monitors and data equipment and non-UPS outlets for heating and cooling equipment need to be clearly labelled. Detailed requirements see below.

Uninterruptible power supply (UPS) system

The power supply system must provide uninterrupted power supply despite possible power cuts. The maximum duration of the power cuts might depend on the location of the pilot station and thus has to be specified when the location of the station has been fixed. Also dependent on the specific location will be whether a photovoltaic system can be installed.

<table>
<thead>
<tr>
<th>Item no.</th>
<th>Description: Uninterruptible Power Supply (UPS)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Parameter</td>
<td>Minimum Technical requirements</td>
</tr>
<tr>
<td>Operation Principle</td>
<td>Backup capacity for power supply in case of a 12 hour power cut</td>
</tr>
<tr>
<td>Capacity</td>
<td>5.0 kVA for monitoring equipment, air conditioning / heating</td>
</tr>
<tr>
<td>Crest factor</td>
<td>More than 3:1</td>
</tr>
<tr>
<td>Input Voltage</td>
<td>230 V AC</td>
</tr>
<tr>
<td>Voltage Range</td>
<td>± 25 %</td>
</tr>
<tr>
<td>Frequency</td>
<td>50 Hz ± 3 %</td>
</tr>
<tr>
<td>Output Voltage</td>
<td>230 V AC</td>
</tr>
</tbody>
</table>
### Section VII Schedule of Requirements

<table>
<thead>
<tr>
<th>Item no.</th>
<th>Description: Uninterruptible Power Supply (UPS)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Parameter</strong></td>
<td><strong>Minimum Technical requirements</strong></td>
</tr>
<tr>
<td>Voltage regulation</td>
<td>± 1 %</td>
</tr>
<tr>
<td>Frequency</td>
<td>50 Hz</td>
</tr>
<tr>
<td>Frequency regulation</td>
<td>± 0.01 %</td>
</tr>
<tr>
<td>Waveform</td>
<td>Pure sine wave</td>
</tr>
<tr>
<td>Battery type</td>
<td>Sealed maintenance free</td>
</tr>
<tr>
<td>Back up time</td>
<td>12 hours at full load</td>
</tr>
<tr>
<td>Battery Capacity</td>
<td>For required backup time</td>
</tr>
<tr>
<td>Recharge time</td>
<td>5 hours to 90% after complete discharge</td>
</tr>
<tr>
<td>Distortion</td>
<td>Less than 1 % on linear load</td>
</tr>
<tr>
<td>Power factor</td>
<td>0.9 to 1</td>
</tr>
<tr>
<td>Protections</td>
<td>According to international standards</td>
</tr>
<tr>
<td>Efficiency</td>
<td>&gt; 90%</td>
</tr>
<tr>
<td>Operating temperature</td>
<td>5 – 40 ºC</td>
</tr>
<tr>
<td>Operating humidity</td>
<td>10 % to 95 % (non-condensing)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Item no.</th>
<th>Description: Transformer module for UPS system</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Parameter</strong></td>
<td><strong>Minimum Technical requirements</strong></td>
</tr>
<tr>
<td>Nominal power and current</td>
<td>approx. 11 kVA</td>
</tr>
<tr>
<td>Nominal current</td>
<td>approx. 63 A</td>
</tr>
<tr>
<td>Voltage</td>
<td>Input 208 – 240 V AC, Output 120/208/240 V AC</td>
</tr>
<tr>
<td>Frequency</td>
<td>50 Hz ± 10 %</td>
</tr>
<tr>
<td>Operating temperature</td>
<td>5 – 40 ºC</td>
</tr>
<tr>
<td>Operating humidity</td>
<td>10 % to 95 % (non-condensing)</td>
</tr>
</tbody>
</table>
Air conditioning and ventilation

The air conditioning unit must be able to maintain the internal temperature at 15-25°C (tolerance ± 2°C) with typically a 3.5 kW equipment load and an ambient temperature of up to 40°C. Self-restart after loss of power.

Gas cylinder storage

- Minimum three cylinder holders for calibration gases (10 l bottles)

Installation of analysers and devices

- Minimum two pieces 19” racks suitable for offered monitoring equipment, all fixed and secured.
- One desk with drawers and one chair.
- At least one fire extinguisher.

Telephone lines / mobile communication lines

Full internet connectivity should be achieved via air (GSM/GPRS) and/or fixed line connection. The Contractor shall detail possible connectivity solutions and hardware for each option and their respective costs. The Contractor is responsible of the needed wiring, if any.

Container and device status sensors

The following information must be collected:
- Loss of data
- Maintenance mode on
- Changing system date/time
- Watchdog active
- Restart/Power on
- UPS battery operation and battery low
- Door open
- Voltage telephone / mobile communication line low
- Ambient gas flow low for each sampling unit
- Auxiliary power on
- Excess voltage
- Power supply grid off
- Temperature inside container
- Humidity inside container
- Optional pressure and flow of function check unit
1.3 Sampling system

The gas sampling manifold system must fulfil at least the following requirements:

- Sampling point (inlet) has to extend vertically through the roof of the housing to a height of 1.5 m above the roof, thereby giving 360° unrestricted flow
- Inlet protection against rainwater, insects or large particulate matter
- Prevention of condense water inside the sampling inlet. Condensation may occur in the case of high ambient temperature and/or humidity. The sample line may be moderately heated to avoid condensation.
- Good isolation of the breakthrough to the roof with fittings which are easy to change
- Sampling line shall be as short as practical to minimise the residence time in the sampling system from the sampling inlet to the inlet of the analyser < 5 sec.
- Sample inlet and sampling line shall be constructed of corrosion-proof and chemical inert material at least concerning all of the air pollutants measured, such materials are poly tetra fluoro ethylene (PTFE), borosilicate glass or stainless steel
- Easy access for cleaning and maintenance, possibility for manual cleaning of the sampling line, possibility to take apart and maintenance half yearly
- Connection (tube) from the manifold to the monitors max. 2 m and consisting of PTFE or another chemical inert material
- Connection for at least 10 monitors, size of outlets has to fit monitor inlets
- Control and regulation of sample flow rate including installation of a flow alarm system

A particulate filter has to be placed in the sample line before the inlet of the analyser to retain all particles which are likely to alter the performance of the analyser.

- Filter material: PTFE
- Material of the filter housing: chemically inert (e.g. PTFE, borosilicate glass or stainless steel)
- Pore size of the filter: 5 µm

The sampling pump for the manifold for sampling ambient air through the manifold must fulfil at least the following requirements:

- the inlet of the pump or fan is located at the end of the sampling manifold,
- the pump or fan is ensuring a volume flow of 3-6 m³/h,
- a flow alarm system is installed,
- the influence of the pressure drop induced by the manifold sampling pump on the measured concentration is below 1 %.
Sampling inlet for particulate analyser

A separate sample port in the roof of the housing is used to feed a sampling tube from the automatic PM-analyser to the PM10/PM2.5/PM1.0 inlet mounted externally on the roof.

2. Analyser equipment

2.1 Automatic analyser for particulate matter (PM$_{10}$, PM$_{2.5}$ and PM$_{1.0}$)

<table>
<thead>
<tr>
<th>Item no.</th>
<th>Description: Automatic analyser for PM$<em>{10}$ PM$</em>{2.5}$ and PM$_{1.0}$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Parameter</td>
<td>Minimum Technical requirements</td>
</tr>
<tr>
<td>Operation Principle</td>
<td>Oscillating microbalances, β-ray attenuation, or insitu optical methods (prEN 16450:2015)</td>
</tr>
<tr>
<td>Certification</td>
<td>Certificate which demonstrates the equivalency of the tested analyser with the reference method according to the EN12341 or U.S. EPA Federal Equivalent Method for regulatory PM$<em>{10}$ and for PM$</em>{2.5}$ monitoring is required.</td>
</tr>
<tr>
<td>Sampling system</td>
<td>PM$<em>{10}$/PM$</em>{2.5}$/PM$_{1.0}$ size selective inlet or non-size selective inlet in case of optical method; metal pipe of stainless steel or stainless steel with humidity extraction</td>
</tr>
<tr>
<td>Ranges/Ranging</td>
<td>0-10,000 μg/m$^3$; user selectable ranges, manual, automatic and remote controlled ranging</td>
</tr>
<tr>
<td>Unit</td>
<td>μg/m$^3$</td>
</tr>
<tr>
<td>Lower detectable limit</td>
<td>≤ 2 μg/m$^3$ (24 hour)</td>
</tr>
<tr>
<td>Precision</td>
<td>1 μg/m$^3$</td>
</tr>
<tr>
<td>Measuring cycles</td>
<td>1 min to 1 h</td>
</tr>
<tr>
<td>Flow rate</td>
<td>Automatic flow rate control, flow rate accuracy: ±3 % of sampling flow rate</td>
</tr>
<tr>
<td>Operating temperature</td>
<td>4 – 40 °C</td>
</tr>
<tr>
<td>Environmental parameter</td>
<td>Ambient humidity: 0-90% RH, noncondensing Ambient temperature: -30 to +50°C</td>
</tr>
<tr>
<td>Output</td>
<td>Serial interface RS-232/RS-485 and USB interface; at least one 4–20 mA output</td>
</tr>
<tr>
<td>Data storage</td>
<td>Capacity to store at least three months of data</td>
</tr>
<tr>
<td>Power supply</td>
<td>220-240 V, 50-60 Hz</td>
</tr>
</tbody>
</table>
### 2.2 Automatic analyser for nitrogen oxides (NO, NO₂, NOₓ)

<table>
<thead>
<tr>
<th>Item no.</th>
<th>Descripción: NO, NO₂, NOₓ analyser</th>
</tr>
</thead>
<tbody>
<tr>
<td>Parameter</td>
<td>Minimum Technical requirements</td>
</tr>
<tr>
<td><strong>Operation Principle</strong></td>
<td>Chemiluminescence (EN 14211)</td>
</tr>
<tr>
<td><strong>Certification</strong></td>
<td>According to EN 15267 or US EPA or equivalent</td>
</tr>
<tr>
<td><strong>Ranges/Ranging</strong></td>
<td>0-1,000 ppb and adjustable for other ranges; manual, automatic and remote controlled ranging</td>
</tr>
<tr>
<td><strong>Unit</strong></td>
<td>µg/m³, ppb (selectable)</td>
</tr>
<tr>
<td><strong>Zero noise</strong></td>
<td>≤ 0.3 ppb</td>
</tr>
<tr>
<td><strong>Lower detectable limit</strong></td>
<td>≤ 0.5 ppb</td>
</tr>
<tr>
<td><strong>Zero drift</strong></td>
<td>24 hours: &lt; 1 ppb</td>
</tr>
<tr>
<td><strong>Span drift</strong></td>
<td>&lt; 1% of full scale (24h)</td>
</tr>
<tr>
<td><strong>Precision</strong></td>
<td>0.5 % of reading</td>
</tr>
<tr>
<td><strong>Linearity</strong></td>
<td>≤ 4% of the measured value (full scale)</td>
</tr>
<tr>
<td><strong>Response time (T90)</strong></td>
<td>&lt; 120 sec</td>
</tr>
<tr>
<td><strong>Operating temperature</strong></td>
<td>5 – 40 °C</td>
</tr>
<tr>
<td><strong>Input</strong></td>
<td>Standard I/O</td>
</tr>
<tr>
<td><strong>Output</strong></td>
<td>Serial interface RS-232/RS-485 and USB interface, 1 Ethernet 10/100, status relays (failure, zero, span), 0-1 V independent analog outputs for NO, NOx and NO₂, optional selectable voltage, analogue voltage output, software selectable range, at least one 4-20 mA current output and power indication</td>
</tr>
<tr>
<td><strong>Data storage</strong></td>
<td>Capacity to store at least three months of data</td>
</tr>
<tr>
<td><strong>Power supply</strong></td>
<td>220-240 V, 50-60 Hz</td>
</tr>
<tr>
<td><strong>Compensation</strong></td>
<td>Automatic temperature and pressure compensation</td>
</tr>
</tbody>
</table>
| **Function Control** | Function control of 2 points (zero and span) automatically (every
### Item no. Description: NO, NO₂, NOₓ analyser

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Minimum Technical requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Calibration unit</strong></td>
<td>Dilution unit for NO span gas (30 ppm) with integrated ozone generator for GPT, RS232 controlled, MFC controlled zero air flow 0 – 5 L/min, MFC controlled NO span gas flow 0 – 50 ml/min, gas cylinder approx. 50 ppm NO in N₂ including pressure reducer (full pressure: 150 bar, stability period: minimum 12 months, accuracy: ± 2 % maximum).</td>
</tr>
<tr>
<td><strong>Display</strong></td>
<td>Multi-character with indication of all parameters (NO, NO₂, NOₓ) at the same time and alarms/errors</td>
</tr>
<tr>
<td><strong>Dimensions</strong></td>
<td>Fit into a standard 19&quot; rack.</td>
</tr>
<tr>
<td><strong>Accessories</strong></td>
<td>At least 3 m teflon sampling tubing and necessary connection elements. Variable bolts, nuts, cable binders and other fixing materials</td>
</tr>
</tbody>
</table>

#### 2.3 Automatic analyser for ozone (O₃)

<table>
<thead>
<tr>
<th>Item no. Description: O₃ analyser</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Parameter</strong></td>
</tr>
<tr>
<td><strong>Operation Principle</strong></td>
</tr>
<tr>
<td><strong>Certification</strong></td>
</tr>
<tr>
<td><strong>Ranges/Ranging</strong></td>
</tr>
<tr>
<td><strong>Unit</strong></td>
</tr>
<tr>
<td><strong>Zero noise</strong></td>
</tr>
<tr>
<td><strong>Lower detectable limit</strong></td>
</tr>
<tr>
<td><strong>Zero drift</strong></td>
</tr>
<tr>
<td><strong>Span drift</strong></td>
</tr>
</tbody>
</table>
### Section VII Schedule of Requirements

**Item no.**  
Description: O₃ analyser

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Minimum Technical requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>Precision</td>
<td>≤ 1 ppb</td>
</tr>
<tr>
<td>Linearity</td>
<td>≤ 4% of the measured value (full scale)</td>
</tr>
<tr>
<td>Response time (T90)</td>
<td>&lt; 120 sec</td>
</tr>
<tr>
<td>Operating temperature</td>
<td>5 – 40 °C</td>
</tr>
<tr>
<td>Input</td>
<td>Standard I/O</td>
</tr>
<tr>
<td>Output</td>
<td>Serial interface RS-232/RS-485 and USB interface, 1 Ethernet 10/100, status relays (failure, zero, span), optional selectable voltage, analogue voltage output, software selectable range, at least one 4-20 mA current output and power indication</td>
</tr>
<tr>
<td>Data storage</td>
<td>Capacity to store at least three months of data</td>
</tr>
<tr>
<td>Power supply</td>
<td>220-240 V, 50-60 Hz</td>
</tr>
<tr>
<td>Compensation</td>
<td>Automatic energy, temperature and pressure compensation</td>
</tr>
<tr>
<td>Function Control</td>
<td>Function control of 2 points (zero and span) automatically (every 23 or 25 hours), manual and remote controlled.</td>
</tr>
<tr>
<td>Calibration unit</td>
<td>Ozone generator controlled via RS232 interface, multiple ozone levels from 0 to 500 ppb, MFC controlled gas flow 0 – 5 l/min</td>
</tr>
<tr>
<td>Display</td>
<td>Multi-character with indication of all parameters at the same time and alarms/errors</td>
</tr>
<tr>
<td>Dimensions</td>
<td>Fit into a standard 19&quot; rack.</td>
</tr>
<tr>
<td>Accessories</td>
<td>At least 3 m teflon sampling tubing and necessary connection elements. Variable bolts, nuts, cable binders and other fixing materials</td>
</tr>
</tbody>
</table>
2.4 Automatic analyser for sulphur dioxide (SO₂)

<table>
<thead>
<tr>
<th>Item no.</th>
<th>Description: SO₂ analyser</th>
</tr>
</thead>
<tbody>
<tr>
<td>Parameter</td>
<td>Minimum Technical requirements</td>
</tr>
<tr>
<td>Operation Principle</td>
<td>UV fluorescence (EN 14212)</td>
</tr>
<tr>
<td>Certification</td>
<td>According to EN 15267 or US EPA or equivalent</td>
</tr>
<tr>
<td>Ranges/Ranging</td>
<td>0-1,000 ppb and adjustable for other ranges; manual, automatic and remote controlled ranging</td>
</tr>
<tr>
<td>Unit</td>
<td>μg/m³, ppb (selectable)</td>
</tr>
<tr>
<td>Zero noise</td>
<td>&lt;0.2 ppb</td>
</tr>
<tr>
<td>Lower detectable limit</td>
<td>≤ 0.5 ppb (60s averaging time)</td>
</tr>
<tr>
<td>Zero drift</td>
<td>≤ 0.5 ppb (24h) &lt; 0.2 ppb (24 hours)</td>
</tr>
<tr>
<td>Span drift</td>
<td>&lt; 1.0 % full scale (24 hours)</td>
</tr>
<tr>
<td>Precision</td>
<td>1% reading g</td>
</tr>
<tr>
<td>Linearity</td>
<td>≤ 4% of the measured value (full scale)</td>
</tr>
<tr>
<td>Response time (T90)</td>
<td>&lt; 140 sec</td>
</tr>
<tr>
<td>Operating temperature</td>
<td>5 – 40 °C</td>
</tr>
<tr>
<td>Input</td>
<td>Standard I/O</td>
</tr>
<tr>
<td>Output</td>
<td>Serial interface RS-232/RS-485 and USB interface, 1 Ethernet 10/100, status relays (failure, zero, span), optional selectable voltage, analogue voltage output, software selectable range, at least one 4-20 mA current output and power indication</td>
</tr>
<tr>
<td>Data storage</td>
<td>Capacity to store at least three months of data</td>
</tr>
<tr>
<td>Power supply</td>
<td>220-240 V, 50-60 Hz</td>
</tr>
<tr>
<td>Compensation</td>
<td>Automatic UV energy, temperature and pressure compensation</td>
</tr>
<tr>
<td>Function Control</td>
<td>Function control of 2 points (zero and span) automatically (every 23</td>
</tr>
</tbody>
</table>
### 2.5 Automatic analyser for carbon monoxide (CO)

<table>
<thead>
<tr>
<th>Item no.</th>
<th>Description: CO analyser</th>
</tr>
</thead>
<tbody>
<tr>
<td>Parameter</td>
<td>Minimum Technical requirements</td>
</tr>
<tr>
<td>Operation Principle</td>
<td>Non-dispersive infrared spectroscopy using gas filter correlation (EN 14626)</td>
</tr>
<tr>
<td>Certification</td>
<td>According to EN 15267 or US EPA or equivalent</td>
</tr>
<tr>
<td>Ranges/Ranging</td>
<td>0-100 ppm and adjustable for other ranges; manual, automatic and remote controlled ranging</td>
</tr>
<tr>
<td>Unit</td>
<td>(\mu g/m^3, mg/m^3, ppb, ppm) (selectable)</td>
</tr>
<tr>
<td>Zero noise</td>
<td>(&lt; 0.02 ppm)</td>
</tr>
<tr>
<td>Lower detectable limit</td>
<td>(&lt; 0.04 ppm)</td>
</tr>
<tr>
<td>Zero drift</td>
<td>(&lt; 0.1 ppm (24 hours))</td>
</tr>
<tr>
<td>Span drift</td>
<td>(&lt; 1.0 % of reading (24 hours))</td>
</tr>
<tr>
<td>Item no.</td>
<td>Description: CO analyser</td>
</tr>
<tr>
<td>----------</td>
<td>--------------------------</td>
</tr>
<tr>
<td><strong>Parameter</strong></td>
<td><strong>Minimum Technical requirements</strong></td>
</tr>
<tr>
<td>Precision</td>
<td>0.5 % of reading</td>
</tr>
<tr>
<td>Linearity</td>
<td>≤ 4% of the measured value (full scale)</td>
</tr>
<tr>
<td>Response time (T90)</td>
<td>&lt; 120 sec</td>
</tr>
<tr>
<td>Operating temperature</td>
<td>5 – 40 °C</td>
</tr>
<tr>
<td>Input</td>
<td>Standard I/O</td>
</tr>
<tr>
<td>Output</td>
<td>Serial interface RS-232/RS-485 and USB interface, 1 Ethernet 10/100, status relays (failure, zero, span), optional selectable voltage, analogue voltage output, software selectable range, at least one 4-20 mA current output and power indication</td>
</tr>
<tr>
<td>Data storage</td>
<td>Capacity to store at least three months of data</td>
</tr>
<tr>
<td>Power supply</td>
<td>220-240 V, 50-60 Hz</td>
</tr>
<tr>
<td>Compensation</td>
<td>Automatic temperature and pressure compensation</td>
</tr>
<tr>
<td>Function Control</td>
<td>Function control of 2 points (zero and span) automatically (every 23 or 25 hours), manual and remote controlled.</td>
</tr>
<tr>
<td>Calibration unit</td>
<td>Dilution unit for CO span gas controlled via RS232, MFC controlled zero air flow 0 – 5 l/min, MFC controlled span gas flow 0 – 50 ml/min, gas cylinder CO approx. 80 ppm in synthetic air (full pressure: 150 bar, stability period: minimum 12 months, accuracy: ± 2 % maximum), pressure reducer</td>
</tr>
<tr>
<td>Display</td>
<td>Multi-character with indication of all parameters at the same time and alarms/errors</td>
</tr>
<tr>
<td>Dimensions</td>
<td>Fit into a standard 19” rack.</td>
</tr>
<tr>
<td>Accessories</td>
<td>At least 3 m teflon sampling tubing and necessary connection elements. Variable bolts, nuts, cable binders and other fixing materials</td>
</tr>
</tbody>
</table>
### 2.6 Automatic analyser for black carbon

<table>
<thead>
<tr>
<th>Item no.</th>
<th>Description: black carbon analyser</th>
</tr>
</thead>
<tbody>
<tr>
<td>Parameter</td>
<td>Minimum Technical requirements</td>
</tr>
<tr>
<td><strong>Operation Principle</strong></td>
<td>Continuous collection of aerosol on filter with simultaneously measurement of light absorption at a single or multiple wavelengths</td>
</tr>
<tr>
<td>Ranges</td>
<td>0.01-100 μg/m³ BC</td>
</tr>
<tr>
<td>Unit</td>
<td>μg/m³, ng/m³</td>
</tr>
<tr>
<td><strong>Lower detectable limit</strong></td>
<td>&lt; 0.02 μg/m³ BC</td>
</tr>
<tr>
<td><strong>Filter tape</strong></td>
<td>Glass fiber</td>
</tr>
<tr>
<td><strong>Operating temperature</strong></td>
<td>5 – 40 °C</td>
</tr>
<tr>
<td><strong>Output</strong></td>
<td>Serial interfaces RS 232</td>
</tr>
<tr>
<td><strong>Data storage</strong></td>
<td>Capacity to store at least three months of data</td>
</tr>
<tr>
<td><strong>Power supply</strong></td>
<td>220-240 V, 50-60 Hz</td>
</tr>
<tr>
<td><strong>Compensation</strong></td>
<td>Automatic temperature and pressure correction</td>
</tr>
<tr>
<td><strong>Dimensions</strong></td>
<td>Fit into a standard 19&quot; rack.</td>
</tr>
<tr>
<td><strong>Accessories</strong></td>
<td>At least 3 m teflon sampling tubing and necessary connection elements. Variable bolts, nuts, cable binders and other fixing materials</td>
</tr>
</tbody>
</table>

### 2.7 Sequential sampler for gravimetric measurement of PM$_{10}$

<table>
<thead>
<tr>
<th>Item no.</th>
<th>Description: Sampler for gravimetric measurement of PM$_{10}$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Parameter</td>
<td>Minimum Technical requirements</td>
</tr>
<tr>
<td><strong>Operation Principle</strong></td>
<td>Gravimetric mass determination according to EN 12341:2014</td>
</tr>
<tr>
<td><strong>Single-filter sampling period</strong></td>
<td>24 h ± 1 h</td>
</tr>
</tbody>
</table>
### Section VII Schedule of Requirements

**Item no.** | **Description: Sampler for gravimetric measurement of PM\(_{10}\)**
---|---
**Parameter** | **Minimum Technical requirements**

| **Sampling inlet design** | According to EN 12341:2014 |
| **Flow rate** | Nominal flow rate: 2.3 m\(^3\)/h at ambient conditions  
Constancy of sample volumetric flow: \(< 2\%\) sampling time |
| **Filter magazine** | Cooling and heating the filter magazine < 25°C |
| **Operation temperature range** | 5 °C to 40 °C surrounding air temperature (in container) |
| **Availability** | \(> 90\%\) (in a period of three month) |
| **Period of unattended operation** | minimum of 14 days by using automatic filter change |
| **Control** | microprocessor control, programmable starting time |
| **Sampling data output** | via serial RS 232 port  
Recording of operational parameters (at least flow rate, pressure drop across the filter, sampling time and sample volume, air temperature in filter section, temperature of filter storage) |
| **Power supply** | 230 Vac/ 50 Hz ±10 % |

#### 3. Equipment for QA/QC

**3.1 Zero air generator**

| **Item no.** | **Description: Zero air generator**
---|---
**Parameter** | **Minimum Technical requirements**

| **Principle demands** | Multistage ambient scrubber  
The gas cleaning process shall include dust particles extraction, compression, trace substances preliminary chemical treatment and sorption stages. |
| **Purity of zero gas** | NO/NO\(_2\), SO\(_2\), H\(_2\)S, NH\(_3\) < 0.1 ppb  
O\(_3\) < 0.5 ppb  
CO < 100 ppb  
BTX < 1 ppb |
### 3.2 Multi-gas calibration unit

<table>
<thead>
<tr>
<th>Item no.</th>
<th>Description: Multi-gas calibration unit</th>
<th>Minimum Technical requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Principle demands</strong></td>
<td>Multipoint gas calibration unit using automatic dilution system for the calibration of NO, SO\textsubscript{2}, CO and calibration of ozone analyser. Zero gas supplied by zero air generator (see 0). Compatible for remote calibration from Central Server.</td>
<td></td>
</tr>
<tr>
<td><strong>Flow control</strong></td>
<td>Gas flow controlled by mass flow controllers</td>
<td></td>
</tr>
<tr>
<td><strong>Calibration of NO/NO\textsubscript{2}/NO\textsubscript{x}</strong></td>
<td>Dilution of concentrated gas mixtures for span gas Gas Phase Titration (GPT) with O\textsubscript{3} generator</td>
<td></td>
</tr>
<tr>
<td><strong>Calibration of O\textsubscript{3}</strong></td>
<td>Production of ozone by UV-radiation including the ozone photometer</td>
<td></td>
</tr>
<tr>
<td><strong>Calibration of SO\textsubscript{2}</strong></td>
<td>Permeation system for permeation tubes, temperature 35-50°C (adjustable)</td>
<td></td>
</tr>
<tr>
<td><strong>Calibration of CO</strong></td>
<td>Dilution of concentrated gas mixtures for span gas</td>
<td></td>
</tr>
<tr>
<td><strong>Repeatability</strong></td>
<td>&lt; 3 %</td>
<td></td>
</tr>
<tr>
<td><strong>Power supply</strong></td>
<td>220 V, 50 Hz</td>
<td></td>
</tr>
<tr>
<td><strong>Dimensions</strong></td>
<td>Fit into a standard 19\textquotesingle rack.</td>
<td></td>
</tr>
</tbody>
</table>

The calibration gases and permeation tubes should be quoted in Consumables and spare parts, see Chapter 5.
3.3 QA/QC for automatic analyser for particulate matter (PM$_{10}$, PM$_{2.5}$, PM$_{1.0}$)
- External flow meter for calibration of instrument flow
- Mass foil calibration set for beta-ray attenuation analysers

4. Data management system

The PC or notebook at the mobile station should fulfil the following general requirements:
- The monitoring station shall be equipped with appropriate data loggers (or equivalent) which are capable for data acquisition from analysers and meteorological sensors.
- The station must be equipped with suitable PC or notebook (must have RS-232 port) with installed software application for connecting with calibrator unit and controlling of calibration at the monitoring station.
- Full and secure internet connectivity between monitoring sites and the central data management unit should be achieved via air (GSM/GPRS) and/or fixed line connection. The Contractor shall detail possible connectivity solutions and hardware for each option and their respective costs. The connectivity of each station may differ depending on the site and available amenities.
- The Contractor is responsible of the needed wiring, if any.

<table>
<thead>
<tr>
<th>Item no.</th>
<th>Description: Data logger system</th>
<th>Minimum Technical requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operation Principle</td>
<td>A data logger is required to archive the data from the monitoring equipment. The data logger communicates with the PC/notebook.</td>
<td></td>
</tr>
<tr>
<td>General requirement</td>
<td>Ability to log channels at different intervals and capability of averaging and displaying real time data and averaged data</td>
<td></td>
</tr>
<tr>
<td>Averages</td>
<td>Computation of at least three averages with the shortest average being of 1 minute</td>
<td></td>
</tr>
<tr>
<td>Ports</td>
<td>Type of ports dependent on monitoring equipment. The data logger system should in general handle up to 50 components in 18 bit resolution.</td>
<td></td>
</tr>
<tr>
<td>Storage capacity</td>
<td>Capacity to store at least six months of data</td>
<td></td>
</tr>
<tr>
<td>External memory</td>
<td>External memory card (CF or SD)</td>
<td></td>
</tr>
<tr>
<td>Housing</td>
<td>Housing adopted in a 19” rack</td>
<td></td>
</tr>
<tr>
<td>Restart</td>
<td>Automatic restart of the device after power supply breakdowns and self-building up in operating mode</td>
<td></td>
</tr>
<tr>
<td>Operating temperature</td>
<td>5 – 40 °C</td>
<td></td>
</tr>
<tr>
<td>Power supply</td>
<td>220-240 V, 50-60 Hz</td>
<td></td>
</tr>
</tbody>
</table>
### Description: PC/Notebook for monitoring site

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Minimum Technical requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operation Principle</td>
<td>PC/notebook for communication with data logger and interaction with the equipment. Electronic logbook</td>
</tr>
<tr>
<td>General</td>
<td>Standard industrial state of the art PC/notebook</td>
</tr>
<tr>
<td>Memory</td>
<td>4 GB</td>
</tr>
<tr>
<td>HDD</td>
<td>500 MB</td>
</tr>
<tr>
<td>Power supply</td>
<td>Standard suitable power supply</td>
</tr>
<tr>
<td>Keyboard</td>
<td>Standard Keyboard</td>
</tr>
<tr>
<td>Mouse</td>
<td>Standard Optical Mouse</td>
</tr>
<tr>
<td>Ports</td>
<td>3 USB ports, 1 Ethernet port</td>
</tr>
<tr>
<td>Optical drive</td>
<td>DVD R/W, internal</td>
</tr>
<tr>
<td>Monitor</td>
<td>14”</td>
</tr>
<tr>
<td>Accessories</td>
<td>4 USB to RS232 adapters with appropriate driver for installation</td>
</tr>
<tr>
<td>Operating temperature</td>
<td>5 – 40 °C</td>
</tr>
<tr>
<td>Power supply</td>
<td>220-240 V, 50-60 Hz</td>
</tr>
</tbody>
</table>

### Description: Data management system at central unit

<table>
<thead>
<tr>
<th>Parameter</th>
<th>General requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operation Principle</td>
<td>Data management system to validate, import, export and storing air quality data according to ISO 7168-1:1999(en) Air quality — Exchange of data</td>
</tr>
<tr>
<td>General</td>
<td>No restriction on number of locations and computers to be handled by software</td>
</tr>
<tr>
<td></td>
<td>Automatic and manual retrieval of data from monitoring sites at user defined time intervals</td>
</tr>
<tr>
<td>Requirement</td>
<td></td>
</tr>
<tr>
<td>---------------------------------------------------------------------------</td>
<td></td>
</tr>
<tr>
<td>Collection of raw data from the monitoring site, intermediate storage,</td>
<td></td>
</tr>
<tr>
<td>aggregation of the data, and transfer to final storage in a database</td>
<td></td>
</tr>
<tr>
<td>Automatic data validation and check for exceedances of user specified</td>
<td></td>
</tr>
<tr>
<td>standards</td>
<td></td>
</tr>
<tr>
<td>Manual data validation with several validation levels and different level</td>
<td></td>
</tr>
<tr>
<td>rights</td>
<td></td>
</tr>
<tr>
<td>Display of user defined selection of different on-line data from up to 10</td>
<td></td>
</tr>
<tr>
<td>monitoring sites in tabular text and graphic format</td>
<td></td>
</tr>
<tr>
<td>Assignment of data quality codes</td>
<td></td>
</tr>
<tr>
<td>Traceability of actions (data validation, adjustment)</td>
<td></td>
</tr>
<tr>
<td>Management of data archives, numerical and graphical analysis of data,</td>
<td></td>
</tr>
<tr>
<td>generation of a user defined air quality index.</td>
<td></td>
</tr>
<tr>
<td>Display of diagnostic data from monitoring equipment</td>
<td></td>
</tr>
<tr>
<td>Detection and signalling of dysfunction of monitoring equipment</td>
<td></td>
</tr>
<tr>
<td>Support of different state-of-the-art dialup systems, internet connectivity</td>
<td></td>
</tr>
<tr>
<td>Facility for remote control of calibrations of monitoring equipment</td>
<td></td>
</tr>
<tr>
<td>User specified reporting of aggregated air quality data</td>
<td></td>
</tr>
<tr>
<td>Import and export of data in various common file formats</td>
<td></td>
</tr>
<tr>
<td>Management of access rights</td>
<td></td>
</tr>
</tbody>
</table>

5. **Consumables and spare parts**

Consumables and spare parts including labour required to ensuring the required performance of the pilot air quality monitoring station shall be covered for a period of 24
months from the date of commissioning. Furthermore, the Contractor shall list required consumables and proposed yearly calibration and maintenance plan ensuring the proper operation of the system as well as an estimate of costing.

This list should include at least the following consumables and spare parts, taking into consideration the proposed type of analysers and equipment:

- Particulate filter
- Fan and fan filter
- Dry Filter Unit (DFU) filter
- Pump rebuild kit
- Pump diaphragm
- Chemicals (e.g. charcoal, purafil) for zero air scrubber, ozone scrubber and/or dryer, if necessary
- Ozone filter
- O-rings & sintered filters
- Magnetic valves
- Flow sensors
- Pressure sensors
- UV lamp
- IR Source
- Calibration gases, permeation tubes
- Filter tape for PM-analyser, if applicable

The entire system including all the monitoring instruments, software, and other equipment covered in the Bidding Document for Procurement of Pilot Air Quality Monitoring Station shall be considered under Consumables and spare parts.

6. Documentation and training

The Contractor shall provide at least three sets of hard copies and an electronic copy of technical documentation and operation manuals in English.

The Contractor shall train the technical staff of DHM (at least 2 people) on the operation, maintenance and calibration of the pilot air quality monitoring station. In addition, at least 2 people shall be trained on the operation of the data management system. The duration and content of trainings to be conducted shall be prepared and submitted by the supplier for prior approval from Purchaser. All the related cost shall be borne by Supplier.
## 7. Warranty

7.1 The warranty period shall be two years starting from the successful completion of the operational test.

<table>
<thead>
<tr>
<th>YES</th>
<th>NO</th>
</tr>
</thead>
</table>

Annex.

## 8. Documentation

8.1 The Bidder shall submit full documentation, including user manuals and guidelines for operation and maintenance in English, for all equipment and software components supplied.

In addition a project-specific system operation manual has to be prepared, including
- Specific equipment layout;
- A procedural handbook;
- System block diagrams (logical connections);
- Wiring diagrams;
- Interface specifications, including communication protocols and configuration modes; and
- Software licenses.

The manual shall be provided both as hardcopy (2 copies) and on an appropriate electronic media.

The documents will also be transformed into a web-based helpline.

<table>
<thead>
<tr>
<th>YES</th>
<th>NO</th>
</tr>
</thead>
</table>

Annex.

## 9. Inspections, Tests and Acceptance

9.1 It is the Bidder’s responsibility to ensure that the equipment is sufficiently tested prior to shipment and installation. During final acceptance testing, the Bidder will have to demonstrate full functionality and performance of all system components according to specifications. Prior to final acceptance, all expenditures related to unsatisfactory performance of the equipment, such as the costs of repairs, additional site visits, shipping costs etc., will be at the Bidder’s expenses. The costs for all tests and for all inspections to be made under the contract shall be borne by the Bidder and shall be deemed to be included in the contract price.

<table>
<thead>
<tr>
<th>YES</th>
<th>NO</th>
</tr>
</thead>
</table>

Annex.
### Section VII Schedule of Requirements

| 9.2 | **Factory Acceptance Test (FAT).** The Bidder shall arrange a FAT with DHM staff or its representatives prior to the shipment. The FAT shall demonstrate the operation of the required functions on a configuration equivalent to the Bidder one. The FAT shall also include an inspection of all documentation to be supplied with the system. The FAT shall proceed according to a check plan, previously approved by the buyer. Eventual missing items or malfunctions will be recorded for further consideration and correction by the supplier. A satisfactory FAT will allow the Bidder to proceed into the delivery and installation. | YES ☐ / NO ☐ | Annex. |
| 9.3 | The system is to be inspected in-country, after clearing customs, to ensure that 100 percent of the shipment is received and delivered. The Bidder shall arrange for the receiving inspection appropriate storage facilities at Kathmandu, Nepal, maintained by the Bidder. | YES ☐ / NO ☐ | Annex. |
| 9.4 | **Site Acceptance Test (SAT).** A SAT shall be arranged after the completed installation. The purpose of the SAT is to check that all required functions are installed as specified in the contract and that the workings are good enough to start the operation test. The SAT will be conducted according to an agreed plan submitted by the supplier and approved by the buyer. | YES ☐ / NO ☐ | Annex. |
| 9.5 | **Operational Test (OT).** The reliability and functionality of the individual system items of hardware and software will be checked during an OT. The OT will continue for a period of 30 consecutive working days. During the OT, the various functional items shall achieve an availability figure specified in the contract to be signed. Furthermore, all functional requirements shall be checked to be working as specified. In principle, a failure of the OT shall result in the holding of a new OT after corrections by the supplier of the reasons for failure. The procedure shall be repeated until the OT is satisfactorily completed, after which the system receives its Final Acceptance and will be accepted into operational service. | YES ☐ / NO ☐ | Annex. |
PART 3 - CONTRACT
SECTION VIII. GENERAL CONDITIONS OF CONTRACT

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1. Definitions

1.1 The following words and expressions shall have the meanings hereby assigned to them:

a. “Bank” means the World Bank and refers to the International Bank for Reconstruction and Development (IBRD) or the International Development Association (IDA).

b. “Contract” means the Contract Agreement entered into between the Purchaser and the Supplier, together with the Contract Documents referred to therein, including all attachments, appendices, and all documents incorporated by reference therein.

c. “Contract Documents” means the documents listed in the Contract Agreement, including any amendments thereto.

d. “Contract Price” means the price payable to the Supplier as specified in the Contract Agreement, subject to such additions and adjustments thereto or deductions therefrom, as may be made pursuant to the Contract.

e. “Day” means calendar day.

f. “Completion” means the fulfillment of the Related Services by the Supplier in accordance with the terms and conditions set forth in the Contract.

g. “GCC” means the General Conditions of Contract.

h. “Goods” means all of the commodities, raw material, machinery and equipment, and/or other materials that the Supplier is required to supply to the Purchaser under the Contract.

i. “Purchaser’s Country” is the country specified in the Special Conditions of Contract (SCC).

j. “Purchaser” means the entity purchasing the Goods and Related Services, as specified in the SCC.

k. “Related Services” means the services incidental to the supply of the goods, such as insurance, installation, training and initial maintenance and other such obligations of the Supplier under the Contract.

l. “SCC” means the Special Conditions of Contract.
Section VIII General Condition of Contract

m. “Subcontractor” means any person, private or government entity, or a combination of the above, to whom any part of the Goods to be supplied or execution of any part of the Related Services is subcontracted by the Supplier.

n. “Supplier” means the person, private or government entity, or a combination of the above, whose bid to perform the Contract has been accepted by the Purchaser and is named as such in the Contract Agreement.

o. “The Project Site,” where applicable, means the place named in the SCC.

2. Contract Documents

2.1 Subject to the order of precedence set forth in the Contract Agreement, all documents forming the Contract (and all parts thereof) are intended to be correlative, complementary, and mutually explanatory. The Contract Agreement shall be read as a whole.

3. Corrupt and Fraudulent Practices

3.1 The Bank requires compliance with its policy in regard to corrupt and fraudulent practices as set forth in Appendix to the GCC.

3.2 The Purchaser requires the Supplier 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.

4. Interpretation

4.1 If the context so requires it, singular means plural and vice versa.

4.2 Incoterms

a. Unless inconsistent with any provision of the Contract, the meaning of any trade term and the rights and obligations of parties thereunder shall be as prescribed by Incoterms.

b. The terms EXW, CIP, FCA, CFR and other similar terms, when used, shall be governed by the rules prescribed in the current edition of Incoterms specified in the SCC and published by the International Chamber of Commerce in Paris, France.

4.3 Entire Agreement

The Contract constitutes the entire agreement between the Purchaser and the Supplier and supersedes all communications, negotiations and agreements (whether written or oral) of the parties with respect thereto made prior to the date of Contract.
Section VIII General Condition of Contract

4.4 Amendment

No amendment or other variation of the Contract shall be valid unless it is in writing, is dated, expressly refers to the Contract, and is signed by a duly authorized representative of each party thereto.

4.5 Non-waiver

a. Subject to GCC Sub-Clause 4.5(b) below, no relaxation, forbearance, delay, or indulgence by either party in enforcing any of the terms and conditions of the Contract or the granting of time by either party to the other shall prejudice, affect, or restrict the rights of that party under the Contract, neither shall any waiver by either party of any breach of Contract operate as waiver of any subsequent or continuing breach of Contract.

b. Any waiver of a party’s rights, powers, or remedies under the Contract must be in writing, dated, and signed by an authorized representative of the party granting such waiver, and must specify the right and the extent to which it is being waived.

4.6 Severability

If any provision or condition of the Contract is prohibited or rendered invalid or unenforceable, such prohibition, invalidity or unenforceability shall not affect the validity or enforceability of any other provisions and conditions of the Contract.

5. Language

5.1 The Contract as well as all correspondence and documents relating to the Contract exchanged by the Supplier and the Purchaser, shall be written in the language specified in the SCC. Supporting documents and printed literature that are part of the Contract may be in another language provided they are accompanied by an accurate translation of the relevant passages in the language specified, in which case, for purposes of interpretation of the Contract, this translation shall govern.

5.2 The Supplier shall bear all costs of translation to the governing language and all risks of the accuracy of such translation, for documents provided by the Supplier.
6. Joint Venture, Consortium or Association

6.1 If the Supplier is a joint venture, consortium, or association, all of the parties shall be jointly and severally liable to the Purchaser for the fulfillment of the provisions of the Contract and shall designate one party to act as a leader with authority to bind the joint venture, consortium, or association. The composition or the constitution of the joint venture, consortium, or association shall not be altered without the prior consent of the Purchaser.

7. Eligibility

7.1 The Supplier and its Subcontractors shall have the nationality of an eligible country. A Supplier or Subcontractor shall be deemed to have the nationality of a country if it is a citizen or constituted, incorporated, or registered, and operates in conformity with the provisions of the laws of that country.

7.2 All Goods and Related Services to be supplied under the Contract and financed by the Bank shall have their origin in Eligible Countries. For the purpose of this Clause, origin means the country where the goods have been grown, mined, cultivated, produced, manufactured, or processed; or through manufacture, processing, or assembly, another commercially recognized article results that differs substantially in its basic characteristics from its components.

8. Notices

8.1 Any notice given by one party to the other pursuant to the Contract shall be in writing to the address specified in the SCC. The term “in writing” means communicated in written form with proof of receipt.

8.2 A notice shall be effective when delivered or on the notice’s effective date, whichever is later.

9. Governing Law

9.1 The Contract shall be governed by and interpreted in accordance with the laws of the Purchaser’s Country, unless otherwise specified in the SCC.

9.2 Throughout the execution of the Contract, the Contractor shall comply with the import of goods and services prohibitions in the Purchaser’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.
10 Settlement of Disputes

10.1 The Purchaser and the Supplier shall make every effort to resolve amicably by direct informal negotiation any disagreement or dispute arising between them under or in connection with the Contract.

10.2 If, after twenty-eight (28) days, the parties have failed to resolve their dispute or difference by such mutual consultation, then either the Purchaser or the Supplier may give notice to the other party of its intention to commence arbitration, as hereinafter provided, as to the matter in dispute, and no arbitration in respect of this matter may be commenced unless such notice is given. Any dispute or difference in respect of which a notice of intention to commence arbitration has been given in accordance with this Clause shall be finally settled by arbitration. Arbitration may be commenced prior to or after delivery of the Goods under the Contract. Arbitration proceedings shall be conducted in accordance with the rules of procedure specified in the SCC.

10.3 Notwithstanding any reference to arbitration herein,

a. The parties shall continue to perform their respective obligations under the Contract unless they otherwise agree; and

b. The Purchaser shall pay the Supplier any monies due the Supplier.

11. Inspections and Audit by the Bank

11.1 The Supplier shall keep, and shall make all reasonable efforts to cause its Subcontractors to keep, accurate and systematic accounts and records in respect of the Goods in such form and details as will clearly identify relevant time changes and costs.

11.2 The Supplier shall permit, and shall cause its Subcontractors to permit, the Bank and/or persons appointed by the Bank to inspect the Supplier’s offices and all accounts and records relating to the performance of the Contract and the submission of the bid, and to have such accounts and records audited by auditors appointed by the Bank if requested by the Bank. The Supplier’s and its Subcontractors and consultants’ attention is drawn to Clause 3 [Fraud and Corruption], which provides, inter alia, that acts intended to materially impede the exercise of the Bank’s inspection and audit rights provided for under this Sub-Clause 11.1 constitute a prohibited practice subject to contract termination (as well as to a determination of ineligibility pursuant to the Bank’s prevailing sanctions procedures)
12. **Scope of Supply**  
12.1 The Goods and Related Services to be supplied shall be as specified in the Schedule of Requirements.

13. **Delivery and Documents**  
13.1 Subject to GCC Sub-Clause 33.1, the Delivery of the Goods and Completion of the Related Services shall be in accordance with the Delivery and Completion Schedule specified in the Schedule of Requirements. The details of shipping and other documents to be furnished by the Supplier are specified in the SCC.

14. **Supplier’s Responsibilities**  
14.1 The Supplier shall supply all the Goods and Related Services included in the Scope of Supply in accordance with GCC Clause 12, and the Delivery and Completion Schedule, as per GCC Clause 13.

15. **Contract Price**  
15.1 Prices charged by the Supplier for the Goods supplied and the Related Services performed under the Contract shall not vary from the prices quoted by the Supplier in its bid, with the exception of any price adjustments authorized in the SCC.

16. **Terms of Payment**  
16.1 The Contract Price, including any Advance Payments, if applicable, shall be paid as specified in the SCC.

16.2 The Supplier’s request for payment shall be made to the Purchaser in writing, accompanied by invoices describing, as appropriate, the Goods delivered and Related Services performed, and by the documents submitted pursuant to GCC Clause 13 and upon fulfillment of all other obligations stipulated in the Contract.

16.3 Payments shall be made promptly by the Purchaser, but in no case later than sixty (60) days after submission of an invoice or request for payment by the Supplier, and after the Purchaser has accepted it.

16.4 The currencies in which payments shall be made to the Supplier under this Contract shall be those in which the bid price is expressed.

16.5 In the event that the Purchaser fails to pay the Supplier any payment by its due date or within the period set forth in the SCC, the Purchaser shall pay to the Supplier interest on the amount of such delayed payment at the rate shown in the SCC, for the period of delay until payment has been made in full, whether before or after judgment or arbitrage award.

17. **Taxes and Duties**  
17.1 For goods manufactured outside the Purchaser’s Country, the Supplier shall be entirely responsible for all taxes, stamp duties, license fees, and other such levies imposed outside the Purchaser’s Country.
17.2 For goods Manufactured within the Purchaser’s country, the Supplier shall be entirely responsible for all taxes, duties, license fees, etc., incurred until delivery of the contracted Goods to the Purchaser.

17.3 If any tax exemptions, reductions, allowances or privileges may be available to the Supplier in the Purchaser’s Country, the Purchaser shall use its best efforts to enable the Supplier to benefit from any such tax savings to the maximum allowable extent.

18. Performance Security

18.1 If required as specified in the SCC, the Supplier shall, within twenty-eight (28) days of the notification of contract award, provide a performance security for the performance of the Contract in the amount specified in the SCC.

18.2 The proceeds of the Performance Security shall be payable to the Purchaser as compensation for any loss resulting from the Supplier’s failure to complete its obligations under the Contract.

18.3 As specified in the SCC, the Performance Security, if required, shall be denominated in the currency(ies) of the Contract, or in a freely convertible currency acceptable to the Purchaser; and shall be in one of the format stipulated by the Purchaser in the SCC, or in another format acceptable to the Purchaser.

18.4 The Performance Security shall be discharged by the Purchaser and returned to the Supplier not later than twenty-eight (28) days following the date of Completion of the Supplier’s performance obligations under the Contract, including any warranty obligations, unless specified otherwise in the SCC.

19. Copyright

19.1 The copyright in all drawings, documents, and other materials containing data and information furnished to the Purchaser by the Supplier herein shall remain vested in the Supplier, or, if they are furnished to the Purchaser directly or through the Supplier by any third party, including suppliers of materials, the copyright in such materials shall remain vested in such third party

20. Confidential Information

20.1 The Purchaser and the Supplier shall keep confidential and shall not, without the written consent of the other party hereto, divulge to any third party any documents, data, or other information furnished directly or indirectly by the other party hereto in connection with the Contract, whether such information has been furnished prior to, during or following completion or termination of the Contract.
Notwithstanding the above, the Supplier may furnish to its Subcontractor such documents, data, and other information it receives from the Purchaser to the extent required for the Subcontractor to perform its work under the Contract, in which event the Supplier shall obtain from such Subcontractor an undertaking of confidentiality similar to that imposed on the Supplier under GCC Clause 20.

20.2 The Purchaser shall not use such documents, data, and other information received from the Supplier for any purposes unrelated to the contract. Similarly, the Supplier shall not use such documents, data, and other information received from the Purchaser for any purpose other than the performance of the Contract.

20.3 The obligation of a party under GCC Sub-Claus 20.1 and 20.2 above, however, shall not apply to information that:

a. The Purchaser or Supplier need to share with the Bank or other institutions participating in the financing of the Contract;

b. Now or hereafter enters the public domain through no fault of that party;

c. Can be proven to have been possessed by that party at the time of disclosure and which was not previously obtained, directly or indirectly, from the other party; or

d. Otherwise lawfully becomes available to that party from a third party that has no obligation of confidentiality.

20.4 The above provisions of GCC Clause 20 shall not in any way modify any undertaking of confidentiality given by either of the parties hereto prior to the date of the Contract in respect of the Supply or any part thereof.

20.5 The provisions of GCC Clause 20 shall survive completion or termination, for whatever reason, of the Contract.

21. **Subcontracting**

21.1 The Supplier shall notify the Purchaser in writing of all subcontracts awarded under the Contract if not already specified in the bid. Such notification, in the original bid or later shall not relieve the Supplier from any of its obligations, duties, responsibilities, or liability under the Contract.

21.2 Subcontracts shall comply with the provisions of GCC Clauses 3 and 7.
22. Specifications and Standards

22.1 Technical Specifications and Drawings

a. The Goods and Related Services supplied under this Contract shall conform to the technical specifications and standards mentioned in Section VI, Schedule of Requirements and, when no applicable standard is mentioned, the standard shall be equivalent or superior to the official standards whose application is appropriate to the Goods’ country of origin.

b. The Supplier shall be entitled to disclaim responsibility for any design, data, drawing, specification or other document, or any modification thereof provided or designed by or on behalf of the Purchaser, by giving a notice of such disclaimer to the Purchaser.

c. Wherever references are made in the Contract to codes and standards in accordance with which it shall be executed, the edition or the revised version of such codes and standards shall be those specified in the Schedule of Requirements. During Contract execution, any changes in any such codes and standards shall be applied only after approval by the Purchaser and shall be treated in accordance with GCC Clause 33.

23. Packing and Documents

23.1 The Supplier shall provide such packing of the Goods as is required to prevent their damage or deterioration during transit to their final destination, as indicated in the Contract. During transit, the packing shall be sufficient to withstand, without limitation, rough handling and exposure to extreme temperatures, salt and precipitation, and open storage. Packing case size and weights shall take into consideration, where appropriate, the remoteness of the goods’ final destination and the absence of heavy handling facilities at all points in transit.

23.2 The packing, marking, and documentation within and outside the packages shall comply strictly with such special requirements as shall be expressly provided for in the Contract, including additional requirements, if any, specified in the SCC, and in any other instructions ordered by the Purchaser.

24. Insurance

24.1 Unless otherwise specified in the SCC, the Goods supplied under the Contract shall be fully insured—in a freely convertible currency from an eligible country—against loss or damage incidental to manufacture or acquisition, transportation, storage, and delivery, in accordance with the applicable Incoterms or in the manner specified in the SCC.
25. **Transportation and Incidental Services**

25.1 Unless otherwise specified in the SCC, responsibility for arranging transportation of the Goods shall be in accordance with the specified Incoterms.

25.2 The Supplier may be required to provide any or all of the following services, including additional services, if any, **specified in SCC:**

   (a) Performance or supervision of on-site assembly and/or start-up of the supplied Goods;

   (b) Furnishing of tools required for assembly and/or maintenance of the supplied Goods;

   (c) Furnishing of a detailed operations and maintenance manual for each appropriate unit of the supplied Goods;

   (d) Performance or supervision or maintenance and/or repair of the supplied Goods, for a period of time agreed by the parties, provided that this service shall not relieve the Supplier of any warranty obligations under this Contract; and

   (e) Training of the Purchaser’s personnel, at the Supplier’s plant and/or on-site, in assembly, start-up, operation, maintenance, and/or repair of the supplied Goods.

25.3 Prices charged by the Supplier for incidental services, if not included in the Contract Price for the Goods, shall be agreed upon in advance by the parties and shall not exceed the prevailing rates charged to other parties by the Supplier for similar services.

26. **Inspections and Tests**

26.1 The Supplier shall at its own expense and at no cost to the Purchaser carry out all such tests and/or inspections of the Goods and Related Services as are specified in the SCC.

26.2 The inspections and tests may be conducted on the premises of the Supplier or its Subcontractor, at point of delivery, and/or at the Goods’ final destination, or in another place in the Purchaser’s Country as specified in the SCC. Subject to GCC Sub-Clause 26.3, if conducted on the premises of the Supplier or its Subcontractor, all reasonable facilities and assistance, including access to drawings and production data, shall be furnished to the inspectors at no charge to the Purchaser.

26.3 The Purchaser or its designated representative shall be entitled to attend the tests and/or inspections referred to in GCC Sub-Clause 26.2, provided that the Purchaser bear all of its own costs and
expenses incurred in connection with such attendance including, but not limited to, all traveling and board and lodging expenses.

26.4 Whenever the Supplier is ready to carry out any such test and inspection, it shall give a reasonable advance notice, including the place and time, to the Purchaser. The Supplier shall obtain from any relevant third party or manufacturer any necessary permission or consent to enable the Purchaser or its designated representative to attend the test and/or inspection.

26.5 The Purchaser may require the Supplier to carry out any test and/or inspection not required by the Contract but deemed necessary to verify that the characteristics and performance of the Goods comply with the technical specifications codes and standards under the Contract, provided that the Supplier’s reasonable costs and expenses incurred in the carrying out of such test and/or inspection shall be added to the Contract Price. Further, if such test and/or inspection impedes the progress of manufacturing and/or the Supplier’s performance of its other obligations under the Contract, due allowance will be made in respect of the Delivery Dates and Completion Dates and the other obligations so affected.

26.6 The Supplier shall provide the Purchaser with a report of the results of any such test and/or inspection.

26.7 The Purchaser may reject any Goods or any part thereof that fail to pass any test and/or inspection or do not conform to the specifications. The Supplier shall either rectify or replace such rejected Goods or parts thereof or make alterations necessary to meet the specifications at no cost to the Purchaser, and shall repeat the test and/or inspection, at no cost to the Purchaser, upon giving a notice pursuant to GCC Sub-Clause 26.4.

26.8 The Supplier agrees that neither the execution of a test and/or inspection of the Goods or any part thereof, nor the attendance by the Purchaser or its representative, nor the issue of any report pursuant to GCC Sub-Clause 26.6, shall release the Supplier from any warranties or other obligations under the Contract.

27. Liquidated Damages

27.1 Except as provided under GCC Clause 32, if the Supplier fails to deliver any or all of the Goods by the Date(s) of delivery or perform the Related Services within the period specified in the Contract, the Purchaser may without prejudice to all its other remedies under the Contract, deduct from the Contract Price, as liquidated damages, a
sum equivalent to the percentage specified in the SCC of the delivered price of the delayed Goods or unperformed Services for each week or part thereof of delay until actual delivery or performance, up to a maximum deduction of the percentage specified in those SCC. Once the maximum is reached, the Purchaser may terminate the Contract pursuant to GCC Clause 35.

28. Warranty

28.1 The Supplier warrants that all the Goods are new, unused, and of the most recent or current models, and that they incorporate all recent improvements in design and materials, unless provided otherwise in the Contract.

28.2 Subject to GCC Sub-Clause 22.1(b), the Supplier further warrants that the Goods shall be free from defects arising from any act or omission of the Supplier or arising from design, materials, and workmanship, under normal use in the conditions prevailing in the country of final destination.

28.3 Unless otherwise specified in the SCC, the warranty shall remain valid for twelve (12) months after the Goods, or any portion thereof as the case may be, have been delivered to and accepted at the final destination indicated in the SCC, or for eighteen (18) months after the date of shipment from the port or place of loading in the country of origin, whichever period concludes earlier.

28.4 The Purchaser shall give notice to the Supplier stating the nature of any such defects together with all available evidence thereof, promptly following the discovery thereof. The Purchaser shall afford all reasonable opportunity for the Supplier to inspect such defects.

28.5 Upon receipt of such notice, the Supplier shall, within the period specified in the SCC, expeditiously repair or replace the defective Goods or parts thereof, at no cost to the Purchaser.

28.6 If having been notified, the Supplier fails to remedy the defect within the period specified in the SCC, the Purchaser may proceed to take within a reasonable period such remedial action as may be necessary, at the Supplier's risk and expense and without prejudice to any other rights which the Purchaser may have against the Supplier under the Contract.

29. Patent Indemnity

29.1 The Supplier shall, subject to the Purchaser’s compliance with GCC Sub-Clause 29.2, indemnify and hold harmless the Purchaser and its employees and officers from and against any and all suits, actions or
administrative proceedings, claims, demands, losses, damages, costs, and expenses of any nature, including attorney’s fees and expenses, which the Purchaser may suffer as a result of any infringement or alleged infringement of any patent, utility model, registered design, trademark, copyright, or other intellectual property right registered or otherwise existing at the date of the Contract by reason of:

a. The installation of the Goods by the Supplier or the use of the Goods in the country where the Site is located; and

b. The sale in any country of the products produced by the Goods.

Such indemnity shall not cover any use of the Goods or any part thereof other than for the purpose indicated by or to be reasonably inferred from the Contract, neither any infringement resulting from the use of the Goods or any part thereof, or any products produced thereby in association or combination with any other equipment, plant, or materials not supplied by the Supplier, pursuant to the Contract.

29.2 If any proceedings are brought or any claim is made against the Purchaser arising out of the matters referred to in GCC Sub-Clause 29.1, the Purchaser shall promptly give the Supplier a notice thereof, and the Supplier may at its own expense and in the Purchaser’s name conduct such proceedings or claim and any negotiations for the settlement of any such proceedings or claim.

29.3 If the Supplier fails to notify the Purchaser within twenty-eight (28) days after receipt of such notice that it intends to conduct any such proceedings or claim, then the Purchaser shall be free to conduct the same on its own behalf.

29.4 The Purchaser shall, at the Supplier’s request, afford all available assistance to the Supplier in conducting such proceedings or claim, and shall be reimbursed by the Supplier for all reasonable expenses incurred in so doing.

29.5 The Purchaser shall indemnify and hold harmless the Supplier and its employees, officers, and Subcontractors from and against any and all suits, actions or administrative proceedings, claims, demands, losses, damages, costs, and expenses of any nature, including attorney’s fees and expenses, which the Supplier may suffer as a result of any infringement or alleged infringement of any
Section VIII General Condition of Contract

patent, utility model, registered design, trademark, copyright, or other intellectual property right registered or otherwise existing at the date of the Contract arising out of or in connection with any design, data, drawing, specification, or other documents or materials provided or designed by or on behalf of the Purchaser.

30 Limitation of Liability

30.1 Except in cases of criminal negligence or willful misconduct,

(a) The Supplier shall not be liable to the Purchaser, whether in contract, tort, or otherwise, for any indirect or consequential loss or damage, loss of use, loss of production, or loss of profits or interest costs, provided that this exclusion shall not apply to any obligation of the Supplier to pay liquidated damages to the Purchaser and

(b) The aggregate liability of the Supplier to the Purchaser, whether under the Contract, in tort or otherwise, shall not exceed the total Contract Price, provided that this limitation shall not apply to the cost of repairing or replacing defective equipment, or to any obligation of the supplier to indemnify the purchaser with respect to patent infringement

31. Change in Laws and Regulations

31.1 Unless otherwise specified in the Contract, if after the date of 28 days prior to date of Bid submission, any law, regulation, ordinance, order or bylaw having the force of law is enacted, promulgated, abrogated, or changed in the place of the Purchaser’s country where the Site is located (which shall be deemed to include any change in interpretation or application by the competent authorities) that subsequently affects the Delivery Date and/or the Contract Price, then such Delivery Date and/or Contract Price shall be correspondingly increased or decreased, to the extent that the Supplier has thereby been affected in the performance of any of its obligations under the Contract. Notwithstanding the foregoing, such additional or reduced cost shall not be separately paid or credited if the same has already been accounted for in the price adjustment provisions where applicable, in accordance with GCC Clause 15.

32. Force Majeure

32.1 The Supplier shall not be liable for forfeiture of its Performance Security, liquidated damages, or termination for default if and to the extent that its delay in performance or other failure to perform its obligations under the Contract is the result of an event of Force Majeure.
32.2 For purposes of this Clause, “Force Majeure” means an event or situation beyond the control of the Supplier that is not foreseeable, is unavoidable, and its origin is not due to negligence or lack of care on the part of the Supplier. Such events may include, but not be limited to, acts of the Purchaser in its sovereign capacity, wars or revolutions, fires, floods, epidemics, quarantine restrictions, and freight embargoes.

32.3 If a Force Majeure situation arises, the Supplier shall promptly notify the Purchaser in writing of such condition and the cause thereof. Unless otherwise directed by the Purchaser in writing, the Supplier shall continue to perform its obligations under the Contract as far as is reasonably practical, and shall seek all reasonable alternative means for performance not prevented by the Force Majeure event.

33. **Change Orders and Contract Amendments**

33.1 The Purchaser may at any time order the Supplier through notice in accordance GCC Clause 8, to make changes within the general scope of the Contract in any one or more of the following:

   a. Drawings, designs, or specifications, where Goods to be furnished under the Contract are to be specifically manufactured for the Purchaser;
   
   b. The method of shipment or packing;
   
   c. The place of delivery; and
   
   d. The Related Services to be provided by the Supplier.

33.2 If any such change causes an increase or decrease in the cost of, or the time required for, the Supplier’s performance of any provisions under the Contract, an equitable adjustment shall be made in the Contract Price or in the Delivery/Completion Schedule, or both, and the Contract shall accordingly be amended. Any claims by the Supplier for adjustment under this Clause must be asserted within twenty-eight (28) days from the date of the Supplier’s receipt of the Purchaser’s change order.

33.3 Prices to be charged by the Supplier for any Related Services that might be needed but which were not included in the Contract shall be agreed upon in advance by the parties and shall not exceed the prevailing rates charged to other parties by the Supplier for similar services.

33.4 Subject to the above, no variation in or modification of the terms of the Contract shall be made except by written amendment signed by the parties.
34. **Extensions of Time**

34.1 If at any time during performance of the Contract, the Supplier or its subcontractors should encounter conditions impeding timely delivery of the Goods or completion of Related Services pursuant to GCC Clause 13, the Supplier shall promptly notify the Purchaser in writing of the delay, its likely duration, and its cause. As soon as practicable after receipt of the Supplier’s notice, the Purchaser shall evaluate the situation and may at its discretion extend the Supplier’s time for performance, in which case the extension shall be ratified by the parties by amendment of the Contract.

34.2 Except in case of Force Majeure, as provided under GCC Clause 32, a delay by the Supplier in the performance of its Delivery and Completion obligations shall render the Supplier liable to the imposition of liquidated damages pursuant to GCC Clause 26, unless an extension of time is agreed upon, pursuant to GCC Sub-Clause 34.1.

35. **Termination**

35.1 Termination for Default

   a. The Purchaser, without prejudice to any other remedy for breach of Contract, by written notice of default sent to the Supplier, may terminate the Contract in whole or in part:
      
      i. If the Supplier fails to deliver any or all of the Goods within the period specified in the Contract, or within any extension thereof granted by the Purchaser pursuant to GCC Clause 34;
      
      ii. If the Supplier fails to perform any other obligation under the Contract; or
      
      iii. If the Supplier, in the judgment of the Purchaser has engaged in fraud and corruption, as defined in GCC Clause 3, in competing for or in executing the Contract.

   b. In the event the Purchaser terminates the Contract in whole or in part, pursuant to GCC Clause 35.1(a), the Purchaser may procure, upon such terms and in such manner as it deems appropriate, Goods or Related Services similar to those undelivered or not performed, and the Supplier shall be liable to the Purchaser for any additional costs for such similar Goods or Related Services. However, the Supplier shall continue performance of the Contract to the extent not terminated.

35.2 Termination for Insolvency.

   a. The Purchaser may at any time terminate the Contract by giving notice to the Supplier if the Supplier becomes bankrupt or otherwise insolvent. In such event, termination will be without
compensation to the Supplier, provided that such termination will not prejudice or affect any right of action or remedy that has accrued or will accrue thereafter to the Purchaser.

35.3 Termination for Convenience.

a. The Purchaser, by notice sent to the Supplier, may terminate the Contract, in whole or in part, at any time for its convenience. The notice of termination shall specify that termination is for the Purchaser’s convenience, the extent to which performance of the Supplier under the Contract is terminated, and the date upon which such termination becomes effective.

b. The Goods that are complete and ready for shipment within twenty-eight (28) days after the Supplier’s receipt of notice of termination shall be accepted by the Purchaser at the Contract terms and prices. For the remaining Goods, the Purchaser may elect:

i. To have any portion completed and delivered at the Contract terms and prices; and/or

ii. To cancel the remainder and pay to the Supplier an agreed amount for partially completed Goods and Related Services and for materials and parts previously procured by the Supplier.

36. Assignment

36.1 Neither the Purchaser nor the Supplier shall assign, in whole or in part, their obligations under this Contract, except with prior written consent of the other party.

37. Export Restriction

37.1 Notwithstanding any obligation under the Contract to complete all export formalities, any export restrictions attributable to the Purchaser, to the country of the Purchaser, or to the use of the products/goods, systems or services to be supplied, which arise from trade regulations from a country supplying those products/goods, systems or services, and which substantially impede the Supplier from meeting its obligations under the Contract, shall release the Supplier from the obligation to provide deliveries or services, always provided, however, that the Supplier can demonstrate to the satisfaction of the Purchaser and of the Bank that it has completed all formalities in a timely manner, including applying for permits, authorizations and licenses necessary for the export of the products/goods, systems or services under the terms of the Contract. Termination of the Contract on this basis shall be for the Purchaser’s convenience pursuant to Sub-Clause 35.3.
APPENDIX TO GENERAL CONDITIONS

Bank’s Policy- Corrupt and Fraudulent Practices

(text in this Appendix shall not be modified)

Guidelines for Procurement of Goods, Works, and Non-Consulting Services under IBRD Loans and IDA Credits & Grants by World Bank Borrowers, dated January 2011:

“Fraud and Corruption:

1.16 It is the Bank’s policy to require that Borrowers (including beneficiaries of Bank loans), bidders, suppliers, contractors and their agents (whether declared or not), sub-contractors, sub-consultants, service providers or suppliers, and any personnel thereof, observe the highest standard of ethics during the procurement and execution of Bank-financed contracts. In pursuance of this policy, 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 a misrepresentation, that knowingly or recklessly misleads, or attempts to mislead, a party to obtain a 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;

In this context, any action to influence the procurement process or contract execution for undue advantage is improper.

For the purpose of this sub-paragraph, “another party” refers to a public official acting in relation to the procurement process or contract execution. In this context, “public official” includes World Bank staff and employees of other organizations taking or reviewing procurement decisions.

For the purpose of this sub-paragraph, “party” refers to a public official; the terms “benefit” and “obligation” relate to the procurement process or contract execution; and the “act or omission” is intended to influence the procurement process or contract execution.

For the purpose of this sub-paragraph, “parties” refers to participants in the procurement process (including public officials) attempting either themselves, or through another person or entity not participating in the procurement or selection process, to simulate competition or to establish bid prices at artificial, non-competitive levels, or are privy to each other’s bid prices or other conditions.

For the purpose of this sub-paragraph, “party” refers to a participant in the procurement process or contract execution.
"obstructive practice" is:

(aa) 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

(bb) Acts intended to materially impede the exercise of the Bank’s inspection and audit rights provided for under paragraph 1.16(e) below.

(b) will reject a proposal for award if it determines that the bidder recommended for award, or 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) will declare misprocurement and cancel the portion of the loan allocated to a contract if it 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 or the implementation 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) will sanction a firm or individual, at any time, in accordance with the prevailing Bank’s sanctions procedures, including by publicly declaring such firm or individual ineligible, either indefinitely or for a stated period of time: (i) to be awarded a Bank-financed contract; and (ii) to be a nominated sub-contractor, consultant, manufacturer or supplier, or service provider (different names are used depending on the particular bidding document) is one which has either 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.
SECTION IX. SPECIAL CONDITIONS OF CONTRACT

The following Special Conditions of Contract (SCC) shall supplement and / or amend the General Conditions of Contract (GCC). Whenever there is a conflict, the provisions herein shall prevail over those in the GCC.

| GCC 1.1(i) | The Purchaser’s country is: Nepal |
| GCC 1.1(j) | The Purchaser is: Department of Hydrology and Meteorology Building Resilience to Climate Related Hazards Project, Nagpokhari, Naxal, Kathmandu |
| GCC 1.1 (o) | The Project Site(s)/Final Destination(s) is/are: as specified in: Nagarkot, Bhaktpur district, Nepal |
| GCC 4.2 (a) | The meaning of the trade terms shall be as prescribed by Incoterm. If the meaning of any trade term and the rights and obligations of the parties there under shall not be as prescribed by Incoterm, they shall be as prescribed by: Other internationally accepted trade terms |
| GCC 4.2 (b) | The version edition of Incoterm shall be INCOTERM 2000 |
| GCC 5.1 | The language shall be: English |
| GCC 8.1 | For notices, the Purchaser’s address shall be: Attention: Mr. Shiva Nepal, Assistant Project Director, BRCH Project Street Address: Department of Hydrology and Meteorology Building Resilience to Climate Related Hazards Project, Project Management Unit, Nagpokhari, Naxal Floor/ Room number: First floor City: Kathmandu ZIP Code: Not applicable Country: Nepal Telephone: +977-1-4433472/4436272 Electronic mail address: ppcr.brch@dhm.gov.np |
| GCC 9.1 | The governing law shall be the law of: Nepal |
**GCC 10.2**

The rules of procedure for arbitration proceedings pursuant to GCC Clause 10.2 shall be as follows:

“Clause 10.2 (a) shall be retained in the case of a Contract with a foreign Supplier and clause 10.2 (b) shall be retained in the case of a Contract with a national of the Purchaser’s country.”

(a) **Contract with foreign Supplier:**

GCC 10.2 (a)—Any dispute, controversy or claim arising out of or relating to this Contract, or breach, termination or invalidity thereof, shall be settled by arbitration in accordance with the UNCITRAL Arbitration Rules as at present in force.

(b) **Contracts with Supplier national of the Purchaser’s country:**

In the case of a dispute between the Purchaser and a Supplier who is a national of the Purchaser’s country, the dispute shall be referred to adjudication or arbitration in accordance with the laws of the Purchaser’s country.

**GCC 13.1**

Details of Shipping and other Documents to be furnished by the Supplier are:

- i. A negotiable bill of lading,
- ii. A non-negotiable sea way bill,
- iii. An airway bill,
- iv. A railway consignment note,
- v. A road consignment note,
- vi. Insurance certificate,
- vii. Manufacturer’s or Supplier’s warranty certificate,
- viii. Inspection certificate issued by nominated inspection agency,
- ix. Supplier’s factory shipping details etc.

The above documents shall be received by the Purchaser before arrival of the Goods and, if not received, the Supplier will be responsible for any consequent expenses.

**Sub-clause GCC14.1**

Add following after 14.1

Also the supplier shall establish local office and/or representative to facilitate all equipment checking and testing, and transfer to the manufacturer for repair.

**GCC 15.1**

The prices charged for the Goods supplied and the related Services performed shall not be adjustable.
GCC 16.1—The method and conditions of payment to be made to the Supplier under this Contract shall be as follows:

### Payment for Goods supplied from abroad:

Payment of foreign currency portion shall be made in (US Dollar) \[\text{currency of the Contract Price}\] in the following manner:

1. **Advance Payment:** Ten (10) percent of the Contract Price shall be paid within thirty (30) days of signing of the Contract, and upon submission of claim and a bank guarantee for equivalent amount valid until the Goods are delivered and in the form provided in the bidding documents or another form acceptable to the Purchaser.

2. **On Shipment:** Sixty (70) percent of the Contract Price of the Goods shipped shall be paid through irrevocable confirmed letter of credit opened in favor of the Supplier in a bank in its country, upon submission of documents specified in GCC Clause 12.

3. **On completion and commissioning:** Ten (10) percent of the CIP amount of Goods installed and commissioned shall be paid within thirty (30) days of the claim supported by the Acceptance certificate issued by the Purchaser.

4. **On Operational Acceptance:** Ten (10) percent of the CIP amount of Goods upon issue of Operational Acceptance certificate within thirty (30) days of receipt of the invoice.

Payment of local currency portion shall be made in Nepalese Rupee \[\text{NPR}\] within thirty (30) days of presentation of claim supported by a certificate from the Purchaser declaring that the Goods have been delivered and that all other contracted Services have been performed.

### Payment for Goods and Services supplied from within the Purchaser’s country:

Payment for Goods and Services supplied from within the Purchaser’s country shall be made in US dollar / Freely Convertible currencies, as follows:

1. **Advance Payment:** Ten (10) percent of the Contract Price shall be paid within thirty (30) days of signing of the Contract against a simple receipt and a bank guarantee for the equivalent amount and in the form provided in the bidding documents or another form acceptable to the Purchaser.

2. **On Delivery:** Seventy (70) percent of the Contract Price shall be paid on receipt of the Goods and upon submission of the documents specified in GCC Clause 13.
(iii) **On Acceptance:** The remaining thirty (30) percent of the Contract Price shall be paid to the Supplier within thirty (30) days after Installation (Commissioning as applicable) and after the date of the acceptance certificate for the respective delivery issued by the Purchaser.

**Payment for Related Services:**

In respect of installation other related services for both the foreign and local currency portions, the following payments shall be made:

Ten percent (10%) of the total related services amount as an advance payment against receipt of invoice, and an irrevocable advance payment security for the equivalent amount made out in favor of the Employer/Purchaser.

Eighty percent (80%) of the measured value of work performed by the Contractor/Supplier, as identified in the said Program of Performance, during the preceding month, as evidenced by the Employer’s authorization of the Contractor’s application, will be made monthly within forty-five (45) days after receipt of invoice.

Five percent (5%) of the total or pro rata value of installation and related services performed by the Contractor/Supplier as evidenced by the Employer’s/Purchaser’s authorization of the Contractor’s/Supplier’s monthly applications, upon issue of the Completion Certificate, within forty-five (45) days after receipt of invoice.

Five percent (5%) of the total or pro rata value of installation and related services performed by the Contractor/Supplier as evidenced by the Employer’s/Purchaser’s authorization of the Contractor’s/Supplier’s monthly applications, upon issue of the Operational Acceptance Certificate, within forty-five (45) days after receipt of invoice.

**GCC 16.5**

The payment-delay period after which the Purchaser shall pay interest to the supplier shall be 30 days.

The interest rate that shall be applied is 4% for foreign currency and 8% for local currency.

**GCC 18.1**

A Performance Security “shall” be required.

The amount of the Performance Security shall be: **Ten Percent of contract Price including VAT**

**GCC 18.3**

The Performance security shall be in the form of: “performance security Option -1: (bank Guarantee) in attached format.”
### GCC 23.2
The packing, marking and documentation within and outside the packages shall be: A complete packing list indicating the content of each package shall be enclosed in a waterproof envelope and shall be secured to the outside of the packing case. In addition, each package shall be marked with indelible ink/paint in bold letters, as follows:

- **a.** Contract number:
- **b.** Name and address of the Purchaser:
- **c.** Country of origin:
- **d.** Gross weight
- **e.** Net weight
- **f.** Package number of total number of packages
- **g.** Brief description of content

Upright markings, where appropriate, shall be placed on all four vertical sides of the package.

All materials used for packing shall be environmentally neutral.

### GCC 24.1
The insurance coverage shall be as specified in the Incoterms.

### GCC 25.1
“The Supplier is required under the Contract to transport the Goods to a specified place of final destination within the Purchaser’s country, defined as the Project Site, transport to such place of destination in the Purchaser’s country, including insurance and storage, as shall be specified in the Contract, shall be arranged by the Supplier, and related costs shall be included in the Contract Price”

### GCC 25.2
Incidental services to be provided are:

- During Factory Acceptance Test (FAT) for equipment as provided in 9.2 Factory Acceptance Test (FAT) for Pilot Air Quality Monitoring Station.

  The Contractor has to include in its Price costing, an arrangement of local transports including logistic arrangements (such as meal and accommodation) at factory inspection area/town for inspection period duration for each of Two (2) inspection members of DHM. Actual inspection of equipment at factory/site shall be adequate and not less than 3 days. Also, the Purchaser has to be duly informed at least 3 weeks in advance of the place, date and itinerary for Factory Acceptance Test (FAT) to ensure availability of Inspection members.

### GCC 26.1
The inspections and tests shall be: Tests and Inspections specified in Section VII, Schedule of Requirements, shall be carried out at the following times or milestones, and places:
**Goods:** (Refer to Technical Specification of Pilot Air Quality Monitoring Station including Training and Support).

**Type of Test:** The reliability and functionality of the individual system items of hardware and software will be checked during an Operational Test (OT) as provided in ‘Technical Specification of Pilot Air Quality Monitoring Station and 9. Inspection, Test and Acceptance.’

**Time or Milestone:**

The overall time period from the execution of the Contract to the final acceptance is 6 months after signing of Contract.

**After arrival in the Purchaser's premises**

**Place:** Warehouse to be located as agreed by Department of Hydrology and Meteorology, Nagpokhari, Kathmandu. All the cost of warehousing and thereto to be borne by the Supplier.

| GCC 26.2 | The Inspections and tests shall be conducted at: Apart from Factory Acceptance Test (FAT), during delivery at Nagarkot, Nepal. Department of Hydrology and Meteorology, Nagpokhari, Kathmandu or places deemed appropriate for inspections and tests by purchaser. And other tests at various stages as detailed in 9. Inspection, Test and Acceptance of the Technical Specifications: Pilot Air Quality Monitoring Station. |
|GCC 27.1 | The liquidated damage shall be: [insert number] **0.35 percent of the Contract Price** per week |
|GCC 27.1 | The maximum amount of liquidated damages shall be: **Ten (10) percent of the Contract Price.** |
|GCC 28.3 | The period of validity of the Warranty shall be: 2 (Two) years starting from the successful completion of the Operational Test. For the purposes of the Warranty, the place of final destination shall be: Department of Hydrology and Meteorology, Nagpokhari, Naxal, Kathmandu or Project sites as applicable |
|GCC 28.5 | The period for repair or replacement shall be: maximum downtime of 30 days. |
Attachment: Price Adjustment Formula -- (Not applicable)

If in accordance with GCC 15.1, prices shall be adjustable, the following method shall be used to calculate the price adjustment:

15.1 Prices payable to the Supplier, as stated in the Contract, shall be subject to adjustment during performance of the Contract to reflect changes in the cost of labor and material components in accordance with the formula:

\[ P_1 = P_0 [a + bL_1 + cM_1] - P_0 \]

\[ L_0 M_0 \]

\[ a + b + c = 1 \]

In which:

- \( P_1 \) = adjustment amount payable to the Supplier.
- \( P_0 \) = Contract Price (base price).
- \( a \) = fixed element representing profits and overheads included in the Contract Price and generally in the range of five (5) to fifteen (15) percent.
- \( b \) = estimated percentage of labor component in the Contract Price.
- \( c \) = estimated percentage of material component in the Contract Price.
- \( L_0, L_1 \) = labor indices applicable to the appropriate industry in the country of origin on the base date and date for adjustment, respectively.
- \( M_0, M_1 \) = material indices for the major raw material on the base date and date for adjustment, respectively, in the country of origin.

The Bidder shall indicate the source of the indices and the base date indices in its bid.

The coefficients \( a \), \( b \), and \( c \) as specified by the Purchaser are as follows:

- \( a \) = [insert value of coefficient]
- \( b \) = [insert value of coefficient]
- \( c \) = [insert value of coefficient]

Base date = thirty (30) days prior to the deadline for submission of the bids.

Date of adjustment = [insert number of weeks] weeks prior to date of shipment (representing the mid-point of the period of manufacture).
The above price adjustment formula shall be invoked by either party subject to the following further conditions:

(a) No price adjustment shall be allowed beyond the original delivery dates. As a rule, no price adjustment shall be allowed for periods of delay for which the Supplier is entirely responsible. The Purchaser will, however, be entitled to any decrease in the prices of the Goods and Services subject to adjustment.

(b) If the currency in which the Contract Price $P_0$ is expressed is different from the currency of origin of the labor and material indices, a correction factor will be applied to avoid incorrect adjustments of the Contract Price. The correction factor shall correspond to the ratio of exchange rates between the two currencies on the base date and the date for adjustment as defined above.

(c) No price adjustment shall be payable on the portion of the Contract Price paid to the Supplier as advance payment.
SECTION X. CONTRACT FORMS

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

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Letter of Acceptance

[letterhead paper of the Purchaser]

To: [name and address of the Supplier]

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 SCC]........... for the Accepted Contract Amount of ....... .... .[insert amount in numbers and words and name of currency], as corrected and modified in accordance with the Instructions to Bidders is hereby accepted by our Agency.

You are requested to furnish the Performance Security within 28 days in accordance with the Conditions of Contract, using for that purpose the of the Performance Security Form included in Section X, Contract Forms, of the Bidding Document.

Authorized Signature: ____________________________

Name and Title of Signatory: ______________________

Name of Agency: ________________________________

Attachment: Contract Agreement
Contract Agreement

[The successful Bidder shall fill in this form in accordance with the instructions indicated]

THIS AGREEMENT made the [insert: number] day of [insert: month], [insert: year].

BETWEEN

(1) [insert complete name of Purchaser], a [insert description of type of legal entity, for example, an agency of the Ministry of ... of the Government of {insert name of Country of Purchaser}, or corporation incorporated under the laws of {insert name of Country of Purchaser} and having its principal place of business at [insert address of Purchaser] (hereinafter called “the Purchaser”), of the one part, and

(2) [insert name of Supplier], a corporation incorporated under the laws of [insert: country of Supplier] and having its principal place of business at [insert: address of Supplier] (hereinafter called “the Supplier”), of the other part:

WHEREAS the Purchaser invited bids for certain Goods and ancillary services, viz., [insert brief description of Goods and Services] and has accepted a Bid by the Supplier for the supply of those Goods and Services.

The Purchaser and the Supplier 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.

   a. The Letter of Acceptance
   b. The Letter of Bid
   c. The Addenda Nos._____ (if any)
   d Special Conditions of Contract
   e. General Conditions of Contract
   f. The Specification (including Schedule of Requirements and Technical Specifications) and appendices thereto.
   g. The completed Schedules (including Price Schedules)
   h. Any other document listed in GCC as forming part of the Contract

3. In consideration of the payments to be made by the Purchaser to the Supplier as specified in this Agreement, the Supplier hereby covenants with the Purchaser to provide the Goods and Services and to remedy defects therein in conformity in all respects with the provisions of the Contract.
4. The Purchaser hereby covenants to pay the Supplier in consideration of the provision of the Goods and Services 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 [insert the name of the Contract governing law country] on the day, month and year indicated above.

For and on behalf of the Purchaser

Signed: [insert signature]
in the capacity of [insert title or other appropriate designation]
in the presence of [insert identification of official witness]

For and on behalf of the Supplier

Signed: [insert signature of authorized representative(s) of the Supplier]
in the capacity of [insert title or other appropriate designation]
in the presence of [insert identification of official witness]
Performance Security
Option 1: (Bank Guarantee)

[The bank, as requested by the successful Bidder, shall fill in this form in accordance with the instructions indicated]

[Guarantor letterhead or SWIFT identifier code]

**Beneficiary:** [insert name and Address of Purchaser]

**Date:** [Insert date of issue]

**PERFORMANCE GUARANTEE No.:** [Insert guarantee reference number]

**Guarantor:** [Insert name and address of place of issue, unless indicated in the letterhead]

We have been informed that _ [insert name of Supplier, which in the case of a joint venture shall be the name of the joint venture] (hereinafter called "the Applicant") has entered into Contract No. [insert reference number of the contract] dated [insert date] with the Beneficiary, for the supply of _ [insert name of contract and brief description of Goods and related Services][hereinafter called "the Contract"]).

Furthermore, we understand that, according to the conditions of the Contract, a performance guarantee is required.

At the request of the Applicant, we as Guarantor, hereby irrevocably undertake to pay the Beneficiary any sum or sums not exceeding in total an amount of [insert amount in figures] ([insert amount in words]),¹ such sum being payable in the types and proportions of currencies in which the Contract Price is payable, upon receipt by us of the Beneficiary’s complying demand supported by the Beneficiary’s statement, whether in the demand itself or in a separate signed document accompanying or identifying the demand, stating that the Applicant is in breach of its obligation(s) under the Contract, without the Beneficiary needing to prove or to show grounds for your demand or the sum specified therein.

¹ The Guarantor shall insert an amount representing the percentage of the Accepted Contract Amount specified in the Letter of Acceptance, and denominated either in the currency(ies) of the Contract or a freely convertible currency acceptable to the Beneficiary.
This guarantee shall expire, no later than the .... Day of ...., 2... ^2, and any demand for payment under it must be received by us at this office indicated above on or before that date.

This guarantee is subject to the Uniform Rules for Demand Guarantees (URDG) 2010 Revision, ICC Publication No. 758, except that the supporting statement under Article 15(a) is hereby excluded.

_____________________
[signature(s)]

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

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^2 Insert the date twenty-eight days after the expected completion date as described in GC Clause 18.4. The Purchaser should note that in the event of an extension of this date for completion of the Contract, the Purchaser 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 Purchaser 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 Beneficiary’s written request for such extension, such request to be presented to the Guarantor before the expiry of the guarantee.”
Option 2: Performance Bond-- Not Applicable

By this Bond[insert name of Principal] as Principal (hereinafter called “the Supplier”) and[insert name of Surety] as Surety (hereinafter called “the Surety”), are held and firmly bound unto[insert name of Purchaser] as Obligee (hereinafter called “the Supplier”) in the amount of [insert amount in words and figures], for the payment of which sum well and truly to be made in the types and proportions of currencies in which the Contract Price is payable, the Supplier and the Surety bind themselves, their heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

WHEREAS the Contractor has entered into a written Agreement with the Purchaser dated the __________ day of ____, 20 ____, for [name of contract and brief description of Goods and related Services] in accordance with the documents, plans, specifications, and amendments thereto, which to the extent herein provided for, are by reference made part hereof and are hereinafter referred to as the Contract.

NOW, THEREFORE, the Condition of this Obligation is such that, if the Supplier shall promptly and faithfully perform the said Contract (including any amendments thereto), then this obligation shall be null and void; otherwise, it shall remain in full force and effect. Whenever the Supplier shall be, and declared by the Purchaser to be, in default under the Contract, the Purchaser having performed the Purchaser’s obligations thereunder, the Surety may promptly remedy the default, or shall promptly:

(1) Complete the Contract in accordance with its terms and conditions; or

(2) Obtain a Bid or bids from qualified Bidders for submission to the Purchaser for completing the Contract in accordance with its terms and conditions, and upon determination by the Purchaser and the Surety of the lowest responsive Bidder, arrange for a Contract between such Bidder and Purchaser and make available as work progresses (even though there should be a default or a succession of defaults under the Contract or Contracts of completion arranged under this paragraph) sufficient funds to pay the cost of completion less the Balance of the Contract Price; but not exceeding, including other costs and damages for which the Surety may be liable hereunder, the amount set forth in the first paragraph hereof. The term “Balance of the Contract Price,” as used in this paragraph, shall mean the total amount payable by Purchaser to Supplier under the Contract, less the amount properly paid by Purchaser to Contractor; or

(3) Pay the Purchaser the amount required by Purchaser to complete the Contract in accordance with its terms and conditions up to a total not exceeding the amount of this Bond.
The Surety shall not be liable for a greater sum than the specified penalty of this Bond.

Any suit under this Bond must be instituted before the expiration of one year from the date of the issuing of the Taking-Over Certificate.

No right of action shall accrue on this Bond to or for the use of any person or corporation other than the Purchaser named herein or the heirs, executors, administrators, successors, and assigns of the Purchaser.

In testimony whereof, the Supplier has hereunto set his hand and affixed his seal, and the Surety has caused these presents to be sealed with his corporate seal duly attested by the signature of his legal representative, this _ day of _____ 20 _________.

SIGNED ON _______________________ on behalf of _______________________

By _____________________________ in the capacity of _______________________

In the presence of _______________________

SIGNED ON _______________________ on behalf of _______________________

By _____________________________ in the capacity of _______________________

In the presence of _______________________

_____________________________

Pilot Air Quality Monitoring Station 125
Advance Payment Security

[Guarantor letterhead or SWIFT identifier code]

**Beneficiary:** [Insert name and Address of Purchaser]

**Date:** [Insert date of issue]

**ADVANCE PAYMENT GUARANTEE No.:** [Insert guarantee reference number]

**Guarantor:** [Insert name and address of place of issue, unless indicated in the letterhead]

We have been informed that [insert name of Supplier, which in the case of a joint venture shall be the name of the joint venture] (hereinafter called “the Applicant”) has entered into Contract No. [insert reference number of the contract] dated [insert date] with the Beneficiary, for the execution of [insert name of contract and brief description of Goods and related Services] (hereinafter called "the Contract").

Furthermore, we understand that, according to the conditions of the Contract, an advance payment in the sum [insert amount in figures] () [insert amount in words] is to be made against an advance payment guarantee.

At the request of the Applicant, we as Guarantor, hereby irrevocably undertake to pay the Beneficiary any sum or sums not exceeding in total an amount of [insert amount in figures] () [insert amount in words] upon receipt by us of the Beneficiary’s complying demand supported by the Beneficiary’s statement, whether in the demand itself or in a separate signed document accompanying or identifying the demand, stating either that the Applicant:

a. Has used the advance payment for purposes other than toward delivery of Goods; or
b. Has failed to repay the advance payment in accordance with the Contract conditions, specifying the amount which the Applicant has failed to repay.

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2 The Guarantor shall insert an amount representing the amount of the advance payment and denominated either in the currency(ies) of the advance payment as specified in the Contract, or in a freely convertible currency acceptable to the Purchaser.
A demand under this guarantee may be presented as from the presentation to the Guarantor of a certificate from the Beneficiary’s bank stating that the advance payment referred to above has been credited to the Applicant on its account number [insert number] at [insert name and address of Applicant’s bank].

The maximum amount of this guarantee shall be progressively reduced by the amount of the advance payment repaid by the Applicant as specified in copies of interim statements or payment certificates which shall be presented to us. This guarantee shall expire, at the latest, upon our receipt of a copy of the interim payment certificate indicating that ninety (90) percent of the Accepted Contract Amount, has been certified for payment, or on the [insert day] day of [insert month], 2 [insert year], whichever is earlier. Consequently, any demand for payment under this guarantee must be received by us at this office on or before that date.

This guarantee is subject to the Uniform Rules for Demand Guarantees (URDG) 2010 Revision, ICC Publication No.758, except that the supporting statement under Article 15(a) is hereby excluded.

____________________
[signature(s)]

Note:  All italicized text (including footnotes) is for use in preparing this form and shall be deleted from the final product.
Government of Nepal  
Ministry of Energy, Water Resources and Irrigation  
Department of Hydrology and Meteorology  
Nagpokhari, Naxal, Kathmandu

### Building Resilience to Climate Related Hazards Project

**Invitation for Bids**

**Date of First Publication:** January 1, 2019

Name of the Development Partner: World Bank  
SCF Grant No: TF013665 Loan No: 13557

The Government of Nepal has received financing from the World Bank toward the cost of the *Building Resilience to Climate Related Hazards Project (BRCH Project)* and intends to apply part of the proceeds toward payments under the contract for “Pilot Air Quality Monitoring Station (Supply, Delivery, Installation and Commissioning).”

The Department of Hydrology and Meteorology now invites sealed bids from eligible bidders for "supply, delivery, Installation and Commissioning of Pilot Air Quality Monitoring Station " with the components, software and technical features as specified in the bidding document.

<table>
<thead>
<tr>
<th>S.N.</th>
<th>Contract ID No.</th>
<th>Description of Works</th>
<th>Price of Bidding Document (Non-refundable(NRs) &amp; Validity Period)</th>
<th>Bid security amount (US Dollar)&amp; Validity Period</th>
<th>Last Date and Time of Purchas e</th>
<th>Last Date and Time of Submissio n</th>
<th>Date and Time of Bid opening</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>PPCR/DHM/G/ICB</td>
<td>&quot;Pilot Air Quality Monitoring Station (Supply, Delivery, Installation and Commissioning).&quot;</td>
<td>5,000/- (Five Thousand) &amp; 120 days</td>
<td>US Dollar 7500/- or equivalent freely convertible currency &amp; 150 days</td>
<td>February 16, 2019 during office hour</td>
<td>February 17, 2019 &amp; 12:00 noon (NST)</td>
<td>February 17, 2019 &amp; 01:00 pm (NST)</td>
</tr>
</tbody>
</table>

1. Bidding will be conducted through the International Competitive Bidding procedures as specified in the World Bank’s Guidelines: *Procurement of Goods, Works, and Non-Consulting Services under IBRD Loans and IDA Credits & Grants by World Bank Borrowers, January 2011*, and is open to all eligible bidders as defined in the Procurement Guidelines. In addition, please refer to paragraphs 1.6 and 1.7 setting forth the World Bank’s policy on conflict of interest.

2. Bidding documents may be purchased from the above office by eligible Bidders upon payment of a nonrefundable fee on the submission of a written application accompanied by a letter of Authority from the firm to the address above along with the copy of Notary Certified Company/Firm registration certificate, PAN/VAT certificate, Tax Clearance certificate for fiscal year 2016/17(2074/75) and Self declaration letter of not being ineligible upto the submission date. The payment mode may be direct deposit or bank transfer to the Gov. Revenue A/C Title No.14229 on Rastiya Baniya Bank, Thamel, Kathmandu, Nepal or Bankers cheque payable to Department of Hydrology and Meteorology, Kathmandu, Nepal (Office Code No. 308013502, A/C No. ka-1-1-001). If so requested, the Bidding Documents can also be sent by courier services/mail upon payment of additional cost of NRs. 12,000.00 (Twelve Thousand Nepalese Rupees) or equivalent. However, the Purchaser will not be responsible for delay or non-delivery of the documents so sent whatsoever the cause thereof.

3. Sealed bids must be submitted to the Procurement Unit of Department of Hydrology and Meteorology. Documents received after submission deadline shall not be accepted.

4. Bids shall be opened in the presence of Bidder's representatives who choose to attend on the opening date given in above Table at the office of Department of Hydrology and Meteorology, P.O.Box 406, Nagpokhari, Naxal, Kathmandu, Nepal. Bids must be valid for a period of 120 days counting from the day of bid opening and must be accompanied by bid security, amount given in above table, which shall be valid for minimum 30 days.
5. If the last date of purchasing, submission and opening falls on a government holiday, then the next working day shall be considered the last day. In such a case the bid validity and bid security validity shall be recognized with effect from the original bid submission deadline.

6. Bids should comply in all respects with the Instruction to Bidder included in the Bid Document. Non-compliance with these instructions shall result in disqualification.

7. The Bid, as well as all correspondence and documents relating to the bid submitted by the Bidder shall be written in the English language.

8. A pre-bid meeting shall be held at Purchaser’ address as mention above on date January 25, 2019 & 12:00 noon (NST) in order to clarify any issues or information related to bid.

9. The Department of Hydrology and Meteorology reserves the right to accept or reject, wholly or partly any or all the bids without assigning reason, whatsoever.

10. Eligible Bidders may obtain further information and inspect about the bidding documents at the above office

   Attn: Rajendra Sharma (Head/Procurement Unit)
   Telephone: +977-1-4433477, 4433563, 4436272, E-mail: ppcr.brch@dhm.gov.np, dhmprocurement@gmail.com
   Website: www.dhm.gov.np,