

**CENTRAL POLLUTION CONTROL BOARD
NATIONAL GANGA RIVER BASIN PROJECT**

No.:B-2311/WQM/NGRBA/2013

Date: 29-10-2015

SUMMARY OF DISCUSSION AND RESPONSE TO QUERIES
OF THE PRE- BID MEETING

Subject: Pre-bid meeting for “Continuous Real Time Water Quality Monitoring Data, NGRBA/PP14-15/CPCB/W/01”

The Pre-bid meeting was held on 30 September 2015 as per the scheduled notified in the bid document and the members of Bid evaluation committee constituted by Central Pollution Control Board were present.

At the outset, Additional Director & In-charge NGRBA Cell welcomed the participants present for the meeting. Thereafter, the queries raised by representatives of bidders were discussed in detail. It was clarified that many issues raised by the bidders have already been covered in bidding document.

Further the queries raised by the bidders, requiring clarifications are as under:

Sr. No.	Section/ Clause/ Page	Query/Issue	Clarification
1	Section II / Clause 5.5(e) / Page 26,	“liquid assets and/or credit facilities US\$2 million or INR 130 million”: We understand that you are requesting a certificate of the line of credit of the company, and that the format requested to certify it may be a declaration issued by each bidder.	As per provisions of bid document 5.5 (e) of Section 1 Instruction to Bidders. The bidder should show that it has access to liquid assets through the financial statements and credit facility.
2	Section II / Clause 14.4 / Page 27	Contract Price would be subjected to adjustment in accordance with GC 6.6 read with corresponding provision in SCC. <i>Is there an available ceiling for the Contract Price?</i>	There is no available ceiling for the contract price. The GC clause 6.6 of bid document defines the modus operandi of price adjustment.
3	Section III Page 35	Please confirm if the custom duty exemption is available for	Refer Section III, bid document. Its Service Provider responsibility



Sr. No.	Section/ Clause/ Page	Query/Issue	Clarification
		procurement of imported equipment under this project and subsequent spares thereof.	to obtain / generate the duly certified document from Employer to avail the rebate /exemption as applicable [Ref : Section –I, Clause 14.3,page 13]
4	Section VIII, Clause 2.1 (page -76)	“Payments will be made for data validated by Data Qualification Consultant”. Would you please specify which requirements and methodology will be applied by the Data Qualification Consultant to validate the data and if contrast parameters will be used.	The Data Qualification Consultant (being engaged through separate process) would require to validate the quality of data considering the following; <ol style="list-style-type: none"> (1) Operational status of the system installed, (2) Calibration of sensors and or analyzer as carried out by Service Provider as per the schedule given in advance and availability of data so generated, (3) Data generation, transmission and delivery, (4) Data representativeness with parameters specifications and others as mentioned in Section VIII Performance Specifications [Ref: Section VIII, Clause 2.1 (page -76)]
5	Section VI Clause 2.4 / Page 56	Arrangement of continuous electricity supply to be ensured, power grid interruption will be considered as a Force Majeure for transmission of data, even if it is common in a given location?	The Service Provider is required to ensure the supply of power required for the system to function uninterrupted by the means to be arranged by the Service Provider itself



Sr. No.	Section/ Clause/ Page	Query/Issue	Clarification
6	Section VI / Clause 2.5 / Page 56	The network of the monitoring stations is expected to function 5-7 years. It is not unlikely that during this time, there would be major river contamination anomalies, not excluding painful accidents in industrial, water treatment, and/or other facilities along the river. Would the "Employer" advice the bidder to take into account such possibility? Or, to comply with requirements of bid?	The Service Provider has to comply with requirements of bid. The bidder should quote the price taking into consideration any changes that would reasonably be expected to happen during the contract period.
7	Section VI Clause 3 / Page 59	i.) Would the Employer be prepared to accept new technologies for the measurement of various parameters? ii.)The only technical or equipment selection related specification available in the bid document is the parameter and their range, resolution and accuracy. So it is our understanding that bidders are free to choose the equipment, technology they feel is appropriate for such monitoring. Please confirm.	The choice of Technology lies with the Service provider. The Employer is "Technology Neutral" Ref the provisions of Section VI, clause 3.1 (page 59).
8	Section VI, Clause 6.4 / page 63	We would be grateful if you could expand on point 6.4 "Advance contract payment of 10%)" Does this mean that if the overall contract for the supply of data for the five year period were USD\$x million then the advance payment for the project would be 10% of the total "x million"?	Yes. 10 % of Contract Price shall be paid as interest free advance after signing of contract against submission of a bank guarantee
9	Section VII / Clause 7/ Page 64-65	Does the "Employer" anticipate any monitoring and tracking of the physical status of the equipment and the system?	Physical status of the equipment and the system is an essential ingredient for quality data production therefore as part of its

Sr. No.	Section/ Clause/ Page	Query/Issue	Clarification
			<p>duty the Data Qualification Consultant would be ensuring quality control through field verification.</p> <p>[Refer Section VII, Clause 7.1 (page 64 – 65)]</p>
10	Section VII / Clause 6.4.2 Page 70	Page 70, Section 6.4.2 A. "Price of hourly data supplied from fixed station": Being P the contract Price and Qa, Qb, Qc and Qd the quantity of parameters, we assume that the correct parentheses in the price of hourly data formulas are shown in the bid documents.	No change or explanation required.
11	Section VIII Performance Specification / Page 75	Design-based data quality reliability. The document does not specifically and in details addressee data integrity (vulnerability/security) aspect; however, unreliable, altered and/or hacked data can compromise the entire undertaking and make the system unusable.	[Ref Performance Specifications / Section VIII, Page 75].
12	Section V/ Page 45 Section VIII/ Clause 3.1/ page 76	Data collection: 'Hourly data', does it correspond to an instantaneous measurement or to an average?	Bid document mentions the meaning of hourly and 24 hourly data. [Ref Section VIII, Clause 3.1, page 76]
13	Section VIII, Clause 3.1.1, page 76	We understand that the Employer has already obtained No Objection Certificates (NOCs) from the corresponding Owners/Agencies, so that the permissions for installations and civil works have been granted for all the locations.	[Refer Appendix A Page 89 and Section VIII, Clause 3.1.1, page 76] and the URL http://cpcb.nic.in/ngrba/LocationsNOCsLinked.pdf

Sr. No.	Section/ Clause/ Page	Query/Issue	Clarification
14	Section VIII, Clause 3.1.2.1 Page 77	Fixed stations, "If the flow regime changes over a period of time, the instruments/equipment must be relocated to a point where maximum flow is experienced. On an average, such relocations may not be required more than twice per year": Who will be taking this decision about relocation?	Service provider shall be responsible for relocating the system under intimation to the Employer [Ref: Section VIII, Clause 3.1.2.1 Page 77].
15	Section VIII / Clause 3.2 / Page 77 Data Collection and Delivery	The data transfer will be implemented using the SFTP service or other open communication standard": Only validated data will be transferred? In case of communication problems impeding transfer within 5 minutes of measurement, will these measurements be considered as incorrect and not qualified for payment?	The Service Provider required to arrange the communication network and ensure the data delivery at Employer data center within ± 5 min from the time of data generated on hourly basis. The clause of the bid reads as "Server time of the data Center will be the basis for determining whether the data was transferred within the specified time limit, so as to be qualified for payment." Thus, data delivery at Employer data center beyond ± 5 min from the time of data generated will make data not qualified for payment. It implies that the Service Provider require to employ the communication software which supports the time stamping of the data. [Ref Section VIII, Clause 3.1.2.2, Page 77]
16	Section VIII, clause 3.2, Page 77.	Does the "Employer" indeed need just text files or does he prefer to have the data in some more modern format (e.g. Excel spreadsheet, some data-base format) to be able to use and analyze	[Ref: Section VIII, clause 3.2, Page 77].
17	Section VIII ,	Document page #78, § 3.3 determines that calibration is	Service Provider shall be responsible for data collection and

Sr. No.	Section/ Clause/ Page	Query/Issue	Clarification
	Clause 3.3 / Page 78	required every 14 days. Is it understood that for the calibration process a substitute sensor has to be deployed, since if calibration takes longer time, the measurement cycle may be not in compliance with bid document.	delivery (page 77) as per the Performance Specification mentioned in Section VIII of bid Document which implies that the data would be qualified only when specific quantity of data are received by the Employer. [Ref: Section VIII / Clause 3.6.1 a, b / Page 80].
18	Section VIII , Clause 3.2.2 / Page 78	Should the data centre be compliant with ANSI/TIA standards or TIER classification? How do you plan to recover and show the data collected? Do you expect specific software to be developed (web, accessible for different type of users according to permissions granted)? Any back-up system?	[Ref: Section VIII, Clause 3.2.2 / Page 78].
19	Section VIII / Clause 3.3.2 / Page 78	It is stated in the documents that BOD should be measured by sampling and then laboratory analysis. Are the bidders to assume that this is to achieve the BOD5 reading? Would board be prepared to accept instantaneous readings of a surrogate for BOD5 which can be measured continuously and transmitted with the rest of the data?	As per provision of bid document.
20	Section VIII , Clause 3.4 / Page 79	Is the Data Qualification Consultant expected to attend all the 14-day calibration visits along with the Service Provider?	Yes, as mentioned in bid document at clause 3.4 Section VII Page 79.
21	Section VIII Clause 3.4.1 / Page 79	"If the minimum measurement conditions cannot be met, all data from the respective station will not qualified for payment": Under these conditions, for how long will be the	For data to be qualified for payment minimum measurement conditions are mandatory. Therefore for data to be qualified for payment minimum

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Sr. No.	Section/ Clause/ Page	Query/Issue	Clarification
		measurements not qualified for payment (hours, days...)?	measurement conditions are to be met.
22	Section VIII Clause 3.6.1/ Page 79	a) Measurements must be received from at least 90% of the total locations (namely 31 locations); and b) The measurements received from each such location shall not be less than 90% of the measurements specified for it". In case one of the conditions above, "a)" or "b)", is not accomplished for an hour set of measurements, what are the main implications for the Service Provider?	In case one of the conditions above, "a)" or "b)", is not accomplished for an hour set of measurements, the main implications for the Service Provider is that he will not be qualified for payment of such measurements. [Ref: Section VIII, Clause 3.6.1 / Page 79-80].
23	Section VIII Clause 3.8 / Page 81,	Parameters to be measured and Specifications, table with parameters, ranges, accuracy and the resolution: Why is the accuracy of some parameters highlighted in green? Do they have a special consideration etc?	The highlighted (green colour) is refereed if better /higher accuracy than the mentioned in bid document is available.
24	Page 89 / Appendix A /	"Visits to the identified sites for finalizing exact locations for carrying out civil works and or mounting the equipment/sensors": In case civil works are needed to be carried out in certain locations, who will be paying for these works and who is expected to carry them out?	The Service Provider shall be responsible for all such arrangement including Civil work, erection of equipment structure and making the power supply available to the system.
25	Appendix A / Page 89	Is equipment cost an integral component of the cost of the entire bid? What would be ownership of all the equipment and infrastructure after completion of the entire project	The Service Provider will hold ownership of the equipments. [Ref Appendix –A, (Description of the Services) page 89, clearly mentioned the point].
26	Appendix A / Page 89	"Finalizing arrangement for requirements of power supply and communication network for each location": We understand that the	No, all such cost will be borne by Service Provider. Please read appendix A.

Sr. No.	Section/ Clause/ Page	Query/Issue	Clarification
		monthly costs related with communications and energy supply for all the locations will be assumed by the Employer.	
27	Section VIII / Clause 3.3.2 / Page 78	It is stated in the documents that BOD should be measured by sampling and then laboratory analysis. Are the bidders to assume that this is to achieve the BOD5 reading? Would board be prepared to accept instantaneous readings of a surrogate for BOD5 which can be measured continuously and transmitted with the rest of the data?	Regarding BOD measurement, please refer Clause 3.3.2 Section VIII which clearly describe the calibration, measurement and validation procedures.
28	Section VIII/ Clause 3.8 / Page 81,	For the parameters such as pH, DO, t, EC etc would the board accept the use of one multi parameter water quality monitoring instrument provided that the instrument conformed with International standard methods to help keep the package price down instead of discrete instruments? For BTX measurements, would the Board accept new and proven Optical technologies for this measurement?	Ref : Sr. No 7 as above
29	Section-VIII, Clause- 3.2/ page 77	Is there any way to collect ALL the measurement and data transmission frequency information and requirements and present it in one table?	[Ref: Section-VIII, Performance Specification, Clause- 3.2, page 77]
30	Section-VIII, Clause- 3.2/ page 77	Networks problems, Data Integrity, Data transmission and other system admin issues.	The Service Provider will make necessary arrangements for continuous monitoring and supply of data to Employer with all the networks and its integrity arrangements.

Sr. No.	Section/ Clause/ Page	Query/Issue	Clarification
31	<p>Section VI Clause 2.4 / Page 56</p> <p>Section VIII Clause 3.2 / Page 77</p>	<p>Is the energy supply without solar panels assured in every location? Are all the locations easily accessible by means of a motor vehicle?</p> <p>Is there a preference related with the mean for communications (mobile, radio, satellite,)?</p>	<p>The Service Provider is encouraged to visit the sites/ locations and do enough desk studies to aquatint with site conditions. Service provider shall quote rates considering that they have to provide data considering existing site situations.</p> <p>The Service Provider may opt communication network(s) based on any technology.</p>


(Suneel Dave)
 Additional Director & In-charge NGRBA Cell,
 Central Pollution Control Board



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NATIONAL GANGA RIVER BASIN PROJECT (INDIA)
(WORLD BANK FUNDED)
CORRIGENDUM 01

Loan / Credit No.: Ln. 8065-IN/ Cr. 4955-IN

Name of Contract: Procurement of Continuous Real Time Water Quality Monitoring Data

Contract No: NGRBA/PP14-15/CPCB/W/01

Following items for the bid advertised on 10 September 2015 and issued on 14th September 2015 shall be read as mentioned below. Other Conditions shall remain same.

Reference	Item	Shall be read as
Clause 21.1 Section II : Bidding data sheet	Deadline for submission of bids	“The deadline for submission of bids shall be 17th November, 2015 at 15.00 hrs (IST)”.

Member Secretary

BIDDING DOCUMENTS

Procurement of:
Continuous Real Time Water Quality
Monitoring Data

ICB

National Ganga River Basin Project
Central Pollution Control Board

India

Issued on: September 14, 2015

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Table of Contents

Part I – Bidding Procedures.....	1
Section I. Instructions to Bidders.....	3
Section II. Bidding Data Sheet.....	25
Section III. Bidding Forms	29
Section IV. Eligible Countries	42
Part II – Activity Schedule.....	43
Section V- Activity Schedule.....	45
Part III – Conditions of Contract and Contract Forms	49
Section VI. General Conditions of Contract	51
Section VII. Special Conditions of Contract.....	67
Section VIII. Performance Specifications.....	75
Section IX. Contract Forms	83

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Part I – Bidding Procedures

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Section I. Instructions to Bidders

Table of Contents

A. General	5
1. Scope of Bid.....	5
2. Source of Funds	5
3. Corrupt or Fraudulent Practices	5
4. Eligible Bidders	7
5. Qualification of the Bidder	8
6. One Bid per Bidder	10
7. Cost of Bidding.....	10
8. Site Visit.....	10
B. Bidding Documents	11
9. Content of Bidding Documents	11
10. Clarification of Bidding Documents.....	11
11. Amendment of Bidding Documents	11
C. Preparation of Bids	12
12. Language of Bid.....	12
13. Documents Comprising the Bid.....	12
14. Bid Prices	12
15. Currencies of Bid and Payment	13
16. Bid Validity.....	14
17. Bid Security	14
18. Alternative Proposals by Bidders.....	16
19. Format and Signing of Bid.....	16
D. Submission of Bids	17
20. Sealing and Marking of Bids	17
21. Deadline for Submission of Bids	17
22. Late Bids	17
23. Modification and Withdrawal of Bids	18
E. Bid Opening and Evaluation	18
24. Bid Opening	18
25. Process to Be Confidential.....	19
26. Clarification of Bids.....	19
27. Examination of Bids and Determination of Responsiveness	19
28. Correction of Errors	20
29. Currency for Bid Evaluation.....	20
30. Evaluation and Comparison of Bids	21
31. Preference for Domestic Bidders	21
F. Award of Contract	21
32. Award Criteria	21

33.	Employer’s Right to Accept any Bid and to Reject any or all Bids	22
34.	Notification of Award and Signing of Agreement.....	22
35.	Performance Security	23
36.	Advance Payment and Security	23
37.	Adjudicator	23

Instructions to Bidders

A. General

- 1. Scope of Bid**
 - 1.1 The Employer, as defined in the **Bidding Data Sheet (BDS)**, invites bids for the Services, as described in the Appendix A to the Contract. The name and identification number of the Contract is **provided in the BDS**.
 - 1.2 The successful Bidder will be expected to complete the performance of the Services by the Intended Completion Date **provided in the BDS**.
- 2. Source of Funds**
 - 2.1 The Borrower, as **defined in the BDS**, intends to apply part of the funds of a loan from the World Bank, **as defined in the BDS**, towards the cost of the Project, **as defined in the BDS**, to cover eligible payments under the Contract for the Services. Payments by the World Bank will be made only at the request of the Borrower and upon approval by the World Bank in accordance with the Loan Agreement, and will be subject in all respects to the terms and conditions of that Agreement. Except as the World Bank may specifically otherwise agree, no party other than the Borrower shall derive any rights from the Loan Agreement or have any rights to the loan proceeds.
- 3. Corrupt or Fraudulent Practices**
 - 3.1 It is the Bank's policy to require that Borrowers (including beneficiaries of Bank loans), as well as bidders, suppliers, and contractors and their subcontractors under Bank-financed contracts, observe the highest standard of ethics during the procurement and execution of such contracts.¹ 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"² 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"³ is any act or omission, including a misrepresentation, that knowingly or

¹ In this context, any action taken by a bidder, supplier, contractor, or a sub-contractor to influence the procurement process or contract execution for undue advantage is improper.

² 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.

recklessly misleads, or attempts to mislead, a party to obtain a financial or other benefit or to avoid an obligation;

- (iii) “collusive practice”⁴ 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”⁵ 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 para. 1.16 (e) of the Bank’s Procurement Guidelines.
- (b) will reject a proposal for award if it determines that the Bidder recommended for award has, directly or through an agent, engaged in corrupt, fraudulent, collusive, coercive or obstructive practices in competing for the contract in question;
- (c) will cancel the portion of the loan allocated to a contract if it determines at any time that representatives of the Borrower or of a beneficiary of the loan engaged in corrupt, fraudulent, collusive, coercive or obstructive practices

³ 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.

⁴ For the purpose of this sub-paragraph, “parties” refers to participants in the procurement process (including public officials) attempting to establish bid prices at artificial, non competitive levels.

⁵ For the purpose of this sub-paragraph, “party” refers to a participant in the procurement process or contract execution.

during the procurement or the execution of that contract, without the Borrower having taken timely and appropriate action satisfactory to the Bank to remedy the situation;

- (d) will sanction a firm or individual, including declaring them ineligible, either indefinitely or for a stated period of time, to be awarded a Bank-financed contract if it at any time determines that they have, directly or through an agent, engaged in corrupt, fraudulent, collusive, coercive or obstructive practices in competing for, or in executing, a Bank-financed contract; and
- (e) will have the right to require that a provision be included in bidding documents and in contracts financed by a Bank Loan, requiring bidders, suppliers, contractors and consultants to permit the Bank to inspect their accounts and records and other documents relating to the Bid submission and contract performance and to have them audited by auditors appointed by the Bank.

3.2 Furthermore, Bidders shall be aware of the provision stated in Sub-Clauses 1.7 and 2.6.1 of the General Conditions of Contract.

4. Eligible Bidders

4.1 This Invitation for Bids is open to all bidders from eligible countries as defined in the Procurement Guidelines. Any materials, equipment, and Services to be used in the performance of the Contract shall have their origin in eligible source countries.

4.2 All bidders shall provide in Section III, Bidding Forms, a statement that the Bidder (including all members of a joint venture and subcontractors) is not associated, nor has been associated in the past, directly or indirectly, with the consultant or any other entity that has prepared the design, specifications, and other documents for the Project or being proposed as Project Manager for the Contract. A firm that has been engaged by the Borrower to provide Consultant Services for the preparation or supervision of the Services, and any of its affiliates, shall not be eligible to bid.

4.3 Government-owned enterprises in the Employer's country may only participate if they are legally and financially autonomous, operate under commercial law, and are not a dependent agency of the Employer.

4.4 The loan agreement prohibits a withdrawal from the loan 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 a decision of the United Nations Security Council, taken under Chapter VII of the Charter of the United Nations.

4.5 Bidders shall not be under a declaration of ineligibility for corrupt and fraudulent practices issued by the Bank in accordance with ITB Sub-Clause 3.1.

5. Qualification of the Bidder

5.1 All bidders shall provide in Section III, Bidding Forms, a preliminary description of the proposed work method and schedule, including drawings and charts, as necessary.

5.2 In the event that prequalification of potential bidders has been undertaken **as stated in the BDS**, only bids from prequalified bidders shall be considered for award of Contract, in which case the provisions of sub-clauses 5.3 to 5.6 hereafter shall not apply. These qualified bidders should submit with their bids any information updating their original prequalification applications or, alternatively, confirm in their bids that the originally submitted prequalification information remains essentially correct as of the date of bid submission. The update or confirmation should be provided in Section IV.

5.3 If the Employer has not undertaken prequalification of potential bidders, all bidders shall include the following information and documents with their bids in Section IV, unless otherwise **stated in the BDS**:

- (a) copies of original documents defining the constitution or legal status, place of registration, and principal place of business; written power of attorney of the signatory of the Bid to commit the Bidder;
- (b) total monetary value of Services performed for each of the last five years;
- (c) experience in Services of a similar nature and size for each of the last five years, and details of Services under way or contractually committed; and names and address of clients who may be contacted for further information on those contracts;
- (d) list of major items of equipment proposed to carry out the Contract;
- (e) qualifications and experience of key site management and technical personnel proposed for the Contract;
- (f) reports on the financial standing of the Bidder, such as

profit and loss statements and auditor's reports for the past five years;

- (g) evidence of adequacy of working capital for this Contract (access to line(s) of credit and availability of other financial resources);
 - (h) authority to the Employer to seek references from the Bidder's bankers;
 - (i) information regarding any litigation, current or during the last five years, in which the Bidder is involved, the parties concerned, and disputed amount; and
 - (j) proposals for subcontracting components of the Services amounting to more than 10 percent of the Contract Price.
- 5.4 Bids submitted by a joint venture of two or more firms as partners shall comply with the following requirements, unless otherwise stated in the **BDS**:
- (a) the Bid shall include all the information listed in ITB Sub-Clause 5.3 above for each joint venture partner;
 - (b) the Bid shall be signed so as to be legally binding on all partners;
 - (c) the Bid shall include a copy of the agreement entered into by the joint venture partners defining the division of assignments to each partner and establishing that all partners shall be jointly and severally liable for the execution of the Contract in accordance with the Contract terms; alternatively, a Letter of Intent to execute a joint venture agreement in the event of a successful bid shall be signed by all partners and submitted with the bid, together with a copy of the proposed agreement;
 - (d) one of the partners shall be nominated as being in charge, authorized to incur liabilities, and receive instructions for and on behalf of any and all partners of the joint venture; and
 - (e) the execution of the entire Contract, including payment, shall be done exclusively with the partner in charge.
- 5.5 To qualify for award of the Contract, bidders shall meet the following minimum qualifying criteria:
- (a) annual volume of Services of at least the amount **specified**

in the BDS;

- (b) experience as prime contractor in the provision of at least two service contracts of a nature and complexity equivalent to the Services over the last 5 years (to comply with this requirement, Services contracts cited should be at least 70 percent complete) **as specified in the BDS;**
- (c) proposals for the timely acquisition (own, lease, hire, etc.) of the essential equipment **listed in the BDS;**
- (d) a Contract Manager with five years' experience in Services of an equivalent nature and volume, including no less than three years as Manager; and
- (e) liquid assets and/or credit facilities, net of other contractual commitments and exclusive of any advance payments which may be made under the Contract, of no less than the amount specified in the **BDS.**

A consistent history of litigation or arbitration awards against the bidder or any partner of a Joint Venture may result in disqualification.

- 5.6 The figures for each of the partners of a joint venture shall be added together to determine the Bidder's compliance with the minimum qualifying criteria of ITB Sub-Clause 5.5(a), (b) and (e); however, for a joint venture to qualify the partner in charge must meet at least 50 percent of those minimum criteria for an individual Bidder and other partners at least 25% of the criteria. Failure to comply with this requirement will result in rejection of the joint venture's Bid.

Subcontractors' experience and resources will not be taken into account in determining the Bidder's compliance with the qualifying criteria, unless otherwise **stated in the BDS.**

- | | |
|------------------------------|---|
| 6. One Bid per Bidder | 6.1 Each Bidder shall submit only one Bid, either individually or as a partner in a joint venture. A Bidder who submits or participates in more than one Bid (other than as a subcontractor or in cases of alternatives that have been permitted or requested) will cause all the proposals with the Bidder's participation to be disqualified. |
| 7. Cost of Bidding | 7.1 The Bidder shall bear all costs associated with the preparation and submission of his Bid, and the Employer will in no case be responsible or liable for those costs. |
| 8. Site Visit | 8.1 The Bidder, at the Bidder's own responsibility and risk, is |

encouraged to visit and examine the Site of required Services and its surroundings and obtain all information that may be necessary for preparing the Bid and entering into a contract for the Services. The costs of visiting the Site shall be at the Bidder's own expense.

B. Bidding Documents

- 9. Content of Bidding Documents**
- 9.1 The set of bidding documents comprises the documents listed in the table below and addenda issued in accordance with ITB Clause 11:
- | | |
|--------------|--|
| Section I | Instructions to Bidders |
| Section II | Bidding Data Sheet |
| Section III | Bidding Forms |
| Section IV | Eligible Countries |
| Section V | Activity Schedule |
| Section VI | General Conditions of Contract |
| Section VII | Special Conditions of Contract |
| Section VIII | Performance Specifications (if Applicable) |
| Section IX | Contract Forms |
- 9.2 The Bidder is expected to examine all instructions, forms, terms, and specifications in the bidding documents. Failure to furnish all information required by the bidding documents or to submit a bid not substantially responsive to the bidding documents in every respect will be at the Bidder's risk and may result in the rejection of its bid. Sections III, V, and IX should be completed and returned with the Bid in the number of copies specified in the **BDS**.
- 10. Clarification of Bidding Documents**
- 10.1 A prospective Bidder requiring any clarification of the bidding documents may notify the Employer in writing or by cable ("cable" includes telex and facsimile) at the Employer's address indicated in the invitation to bid. The Employer will respond to any request for clarification received earlier than 14 days prior to the deadline for submission of bids. Copies of the Employer's response will be forwarded to all purchasers of the bidding documents, including a description of the inquiry, but without identifying its source.
- 11. Amendment of Bidding Documents**
- 11.1 Before the deadline for submission of bids, the Employer may modify the bidding documents by issuing addenda.
- 11.2 Any addendum thus issued shall be part of the bidding

documents and shall be communicated in writing or by cable to all purchasers of the bidding documents. Prospective bidders shall acknowledge receipt of each addendum by cable to the Employer.

- 11.3 To give prospective bidders reasonable time in which to take an addendum into account in preparing their bids, the Employer shall extend, as necessary, the deadline for submission of bids, in accordance with ITB Sub-Clause 21.2 below.

C. Preparation of Bids

12. Language of Bid

- 12.1 The bid prepared by the Bidder, as well as all correspondence and documents relating to the bid exchanged by the Bidder and the Employer shall be written in the language **specified in the BDS**. Supporting documents and printed literature furnished by the Bidder may be in another language provided they are accompanied by an accurate translation of the relevant passages in the language specified in the Bidding Data Sheet, in which case, for purposes of interpretation of the Bid, the translation shall govern.

13. Documents Comprising the Bid

- 13.1 The Bid submitted by the Bidder shall comprise the following:
- (a) The Form of Bid (in the format indicated in Section III);
 - (b) Bid Security;
 - (c) Priced Activity Schedule;
 - (d) Qualification Information Form and Documents;
 - (e) Alternative offers where invited;

and any other materials required to be completed and submitted by bidders, as **specified in the BDS**.

- 13.2 Bidders bidding for this contract together with other contracts stated in the IFB to form a package will so indicate in the bid together with any discounts offered for the award of more than one contract

14. Bid Prices

- 14.1 The Contract shall be for the Services, as described in Appendix A to the contract and in the Specifications, Section VIII, based on the priced Activity Schedule, Section V, submitted by the Bidder.
- 14.2 The Bidder shall fill in rates and prices for all items of the Services described in the in Specifications (or Terms of

Reference), Section VIII and listed in the Activity Schedule, Section V. Items for which no rate or price is entered by the Bidder will not be paid for by the Employer when executed and shall be deemed covered by the other rates and prices in the Activity Schedule.

- 14.3 All duties, taxes, and other levies payable by the Service Provider under the Contract, or for any other cause, as of the date 28 days prior to the deadline for submission of bids, shall be included in the total Bid price submitted by the Bidder.

Note: Bidders may like to ascertain availability of excise/custom duty exemption benefits available in India to the contracts financed under World Bank loan/credits. They are solely responsible for obtaining such benefits which they have considered in their bid and in case of failure to receive such benefits for reasons whatsoever, the Employer will not compensate the Service Provider. Where the bidder has quoted taking into account such benefits, he must give all information required for issue of certificates in terms of such notifications as per form attached to the Qualification Information in the bid. To the extent the Employer determines the quantity indicated therein are reasonable keeping in view the bill of quantities, construction programme and methodology, the certificates will be issued within 60 [sixty] days of signing of contract and no subsequent changes will be permitted. No certificate will be issued for items where no quantity/capacity of equipment is indicated in the statement. The bids which do not conform to the above provisions will be treated as non-responsive and rejected. Any delay in procurement of the construction equipment /machinery/goods as a result of the above shall not be a cause for granting any extension of time.

- 14.4 If **provided for in the BDS**, the rates and prices quoted by the Bidder shall be subject to adjustment during the performance of the Contract in accordance with and the provisions of Clause 6.6 of the General Conditions of Contract and/or Special Conditions of Contract. The Bidder shall submit with the Bid all the information required under the Special Conditions of Contract and of the General Conditions of Contract.

- 14.5 For the purpose of determining the remuneration due for additional Services, a breakdown of the lump-sum price shall be provided by the Bidder in the form of Appendices D and E to the Contract

15. Currencies of Bid and

- 15.1 The lump sum price shall be quoted by the Bidder separately in

Payment

the following currencies:

- (a) for those inputs to the Services which the Bidder expects to provide from within the Employer's country, the prices shall be quoted in the currency of the Employer's country, unless otherwise **specified in the BDS**; and
- (b) for those inputs to the Services which the Bidder expects to provide from outside the Employer's country, the prices shall be quoted in up to any three currencies of any member country of the Bank.

15.2 Bidders shall indicate details of their expected foreign currency requirements in the Bid.

15.3 Bidders may be required by the Employer to justify their foreign currency requirements and to substantiate that the amounts included in the Lump Sum are reasonable and responsive to ITB Sub-Clause 15.1.

16. Bid Validity

16.1 Bids shall remain valid for the period **specified in the BDS**.

16.2 In exceptional circumstances, the Employer may request that the bidders extend the period of validity for a specified additional period. The request and the bidders' responses shall be made in writing or by cable. A Bidder may refuse the request without forfeiting the Bid Security. A Bidder agreeing to the request will not be required or permitted to otherwise modify the Bid, but will be required to extend the validity of Bid Security for the period of the extension, and in compliance with ITB Clause 17 in all respects.

16.3 In the case of contracts in which the Contract Price is fixed (not subject to price adjustment), if the period of bid validity is extended by more than 60 days, the amounts payable in local and foreign currency to the Bidder selected for award, shall be increased by applying to both the local and the foreign currency component of the payments, respectively, the factors specified in the request for extension, for the period of delay beyond 60 days after the expiry of the initial bid validity, up to the notification of award. Bid evaluation will be based on the Bid prices without taking the above correction into consideration.

17. Bid Security

17.1 The Bidder shall furnish, as part of the Bid, a Bid Security or a Bid-Securing Declaration, if required, as **specified in the BDS**.

17.2 The Bid Security shall be in the amount **specified in the BDS** and denominated in the currency of the Employer's Country or a

freely convertible currency, and shall:

- (a) at the bidder's option, be in the form of either a letter of credit, or a bank guarantee from a banking institution, or a bond issued by a surety;
- (b) be issued by a reputable institution selected by the bidder and located in any eligible country. If the institution issuing the bond is located outside the Employer's Country, it shall have a correspondent financial institution located in the Employer's Country to make it enforceable.
- (c) be substantially in accordance with one of the forms of Bid Security included in Section IX, Contract Forms, or other form approved by the Employer prior to bid submission;
- (d) be payable promptly upon written demand by the Employer in case the conditions listed in ITB Sub-Clause 17.5 are invoked;
- (e) be submitted in its original form; copies will not be accepted;
- (f) remain valid for a period of 28 days beyond the validity period of the bids, as extended, if applicable, in accordance with ITB Sub-Clause 16.2;

17.3 If a Bid Security or a Bid- Securing Declaration is required in accordance with ITB Sub-Clause 17.1, any bid not accompanied by a substantially responsive Bid Security or Bid Securing Declaration in accordance with ITB Sub-Clause 17.1, shall be rejected by the Employer as non-responsive.

17.4 The Bid Security of unsuccessful Bidders shall be returned as promptly as possible upon the successful Bidder's furnishing of the Performance Security pursuant to ITB Clause 35.

17.5 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 Bid Submission Form, except as provided in ITB Sub-Clause 16.2; or
- (b) if the successful Bidder fails to:
 - (i) sign the Contract in accordance with ITB Clause 34;

- (ii) furnish a Performance Security in accordance with ITB Clause 35.

17.6 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 at the time of bidding, the Bid Security or Bid-Securing Declaration shall be in the names of all future partners as named in the letter of intent to constitute the JV.

18. Alternative Proposals by Bidders

18.1 **Unless otherwise indicated in the BDS**, alternative bids shall not be considered.

18.2 When alternative times for completion are explicitly invited, a statement to that effect will be **included in the BDS**, as will the method of evaluating different times for completion.

18.3 Except as provided under ITB Sub-Clause 18.4 below, bidders wishing to offer technical alternatives to the requirements of the bidding documents must first submit a Bid that complies with the requirements of the bidding documents, including the scope, basic technical data, graphical documents and specifications. In addition to submitting the basic Bid, the Bidder shall provide all information necessary for a complete evaluation of the alternative by the Employer, including calculations, technical specifications, breakdown of prices, proposed work methods and other relevant details. Only the technical alternatives, if any, of the lowest evaluated Bidder conforming to the basic technical requirements shall be considered by the Employer. Alternatives to the specified performance levels shall not be accepted.

18.4 When bidders are **permitted in the BDS** to submit alternative technical solutions for specified parts of the Services, such parts shall be described in the Specifications (or Terms of Reference) , Section VIII. In such case, the method for evaluating such alternatives will be as **indicated in the BDS**.

19. Format and Signing of Bid

19.1 The Bidder shall prepare one original of the documents comprising the Bid as described in ITB Clause 11 of these Instructions to Bidders, bound with the volume containing the Form of Bid, and clearly marked "ORIGINAL." In addition, the Bidder shall submit copies of the Bid, in the number **specified in the BDS**, and clearly marked as "COPIES." In the event of discrepancy between them, the original shall prevail.

19.2 The original and all copies of the Bid shall be typed or written in indelible ink and shall be signed by a person or persons duly authorized to sign on behalf of the Bidder, pursuant to Sub-

Clauses 5.3(a) or 5.4(b), as the case may be. All pages of the Bid where entries or amendments have been made shall be initialed by the person or persons signing the Bid.

- 19.3 The Bid shall contain no alterations or additions, except those to comply with instructions issued by the Employer, or as necessary to correct errors made by the Bidder, in which case such corrections shall be initialed by the person or persons signing the Bid.

D. Submission of Bids

20. Sealing and Marking of Bids

- 20.1 The Bidder shall seal the original and all copies of the Bid in two inner envelopes and one outer envelope, duly marking the inner envelopes as “ORIGINAL” and “COPIES”.

- 20.2 The inner and outer envelopes shall

- (a) be addressed to the Employer at the address **provided in the BDS;**
- (b) bear the name and identification number of the Contract as **defined in the BDS** and Special Conditions of Contract; and
- (c) provide a warning not to open before the specified time and date for Bid opening as **defined in the BDS.**

- 20.3 In addition to the identification required in ITB Sub-Clause 20.2, the inner envelopes shall indicate the name and address of the Bidder to enable the Bid to be returned unopened in case it is declared late, pursuant to ITB Clause 22.

- 20.4 If the outer envelope is not sealed and marked as above, the Employer will assume no responsibility for the misplacement or premature opening of the Bid.

21. Deadline for Submission of Bids

- 21.1 Bids shall be delivered to the Employer at the address specified above no later than the time and date **specified in the BDS.**

- 21.2 The Employer may extend the deadline for submission of bids by issuing an amendment in accordance with ITB Clause 11, in which case all rights and obligations of the Employer and the bidders previously subject to the original deadline will then be subject to the new deadline.

22. Late Bids

- 22.1 Any Bid received by the Employer after the deadline prescribed in ITB Clause 21 will be returned unopened to the Bidder.

- 23. Modification and Withdrawal of Bids**
- 23.1 Bidders may modify or withdraw their bids by giving notice in writing before the deadline prescribed in ITB Clause 21.
- 23.2 Each Bidder's modification or withdrawal notice shall be prepared, sealed, marked, and delivered in accordance with ITB Clauses 19 and 20, with the outer and inner envelopes additionally marked "MODIFICATION" or "WITHDRAWAL," as appropriate.
- 23.3 No Bid may be modified after the deadline for submission of Bids.
- 23.4 Withdrawal of a Bid between the deadline for submission of bids and the expiration of the period of Bid validity specified in the BDS or as extended pursuant to ITB Sub-Clause 16.2 may result in the forfeiture of the Bid Security pursuant to ITB Clause 17.
- 23.5 Bidders may only offer discounts to, or otherwise modify the prices of their bids by submitting Bid modifications in accordance with this clause, or included in the original Bid submission.

E. Bid Opening and Evaluation

- 24. Bid Opening**
- 24.1 The Employer will open the bids, including modifications made pursuant to ITB Clause 23, in the presence of the bidders' representatives who choose to attend at the time and in the place **specified in the BDS.**
- 24.2 Envelopes marked "WITHDRAWAL" shall be opened and read out first. Bids for which an acceptable notice of withdrawal has been submitted pursuant to ITB Clause 23 shall not be opened.
- 24.3 The bidders' names, the Bid prices, the total amount of each Bid and of any alternative Bid (if alternatives have been requested or permitted), any discounts, Bid modifications and withdrawals, the presence or absence of Bid Security, and such other details as the Employer may consider appropriate, will be announced by the Employer at the opening. No bid shall be rejected at bid opening except for the late bids pursuant to ITB Clause 22; Bids, and modifications, sent pursuant to ITB Clause 23 that are not opened and read out at bid opening will not be considered for further evaluation regardless of the circumstances. Late and withdrawn bids will be returned unopened to the bidders.
- 24.4 The Employer will prepare minutes of the Bid opening,

including the information disclosed to those present in accordance with ITB Sub-Clause 24.3.

25. Process to Be Confidential

25.1 Information relating to the examination, clarification, evaluation, and comparison of bids and recommendations for the award of a contract shall not be disclosed to bidders or any other persons not officially concerned with such process until the award to the successful Bidder is notified of the award. Any effort by a Bidder to influence the Employer's processing of bids or award decisions may result in the rejection of his Bid.

25.2 If, after notification of award, a bidder wishes to ascertain the grounds on which its bid was not selected, it should address its request to the Employer, who will provide written explanation. Any request for explanation from one bidder should relate only to its own bid; information about the bid of competitors will not be addressed.

26. Clarification of Bids

26.1 To assist in the examination, evaluation, and comparison of bids, the Employer may, at the Employer's discretion, ask any Bidder for clarification of the Bidder's Bid, including breakdowns of the prices in the Activity Schedule, and other information that the Employer may require. The request for clarification and the response shall be in writing or by cable, telex, or facsimile, but no change in the price or substance of the Bid shall be sought, offered, or permitted except as required to confirm the correction of arithmetic errors discovered by the Employer in the evaluation of the bids in accordance with ITB Clause 28.

26.2 Subject to ITB Sub-Clause 26.1, no Bidder shall contact the Employer on any matter relating to its bid from the time of the bid opening to the time the contract is awarded. If the Bidder wishes to bring additional information to the notice of the Employer, he should do so in writing.

26.3 Any effort by the Bidder to influence the Employer in the Employer's bid evaluation or contract award decisions may result in the rejection of the Bidder's bid.

27. Examination of Bids and Determination of Responsiveness

27.1 Prior to the detailed evaluation of bids, the Employer will determine whether each Bid (a) meets the eligibility criteria defined in ITB Clause 4; (b) has been properly signed; (c) is accompanied by the required securities; and (d) is substantially responsive to the requirements of the bidding documents.

27.2 A substantially responsive Bid is one which conforms to all the terms, conditions, and specifications of the bidding documents, without material deviation or reservation. A material deviation

or reservation is one (a) which affects in any substantial way the scope, quality, or performance of the Services; (b) which limits in any substantial way, inconsistent with the bidding documents, the Employer's rights or the Bidder's obligations under the Contract; or (c) whose rectification would affect unfairly the competitive position of other bidders presenting substantially responsive bids.

27.3 If a Bid is not substantially responsive, it will be rejected by the Employer, and may not subsequently be made responsive by correction or withdrawal of the nonconforming deviation or reservation.

28. Correction of Errors

28.1 Bids determined to be substantially responsive will be checked by the Employer for any arithmetic errors. Arithmetical errors will be rectified by the Employer on the following basis: if there is a discrepancy between unit prices and the total price that is obtained by multiplying the unit price and quantity, the unit price shall prevail, and the total price shall be corrected; 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; if there is a discrepancy between the amounts in figures and in words, the amount in words will prevail.

28.2 The amount stated in the Bid will be adjusted by the Employer in accordance with the above procedure for the correction of errors and, with the concurrence of the Bidder, shall be considered as binding upon the Bidder. If the Bidder does not accept the corrected amount, the Bid will be rejected, and the Bid Security may be forfeited in accordance with ITB Sub-Clause 17.5(b).

29. Currency for Bid Evaluation

29.1 The Employer will convert the amounts in various currencies in which the Bid Price, corrected pursuant to ITB Clause 28, is payable (excluding Provisional Sums but including Daywork where priced competitively) to either:

(a) the currency of the Employer's country at the selling rates established for similar transactions by the authority **specified in the BDS** on the date **stipulated in the BDS**;

or

(b) a currency widely used in international trade, such as the U.S. dollar, **stipulated in the BDS**, at the selling rate of exchange published in the international press as **stipulated in the BDS** on the date **stipulated in the BDS**, for the amounts payable in foreign currency; and, at the selling exchange rate

established for similar transactions by the same authority specified in ITB Sub-Clause 29.1 (a) above on the date **specified in the BDS** for the amount payable in the currency of the Employer's country.

- 30. Evaluation and Comparison of Bids**
- 30.1 The Employer will evaluate and compare only the bids determined to be substantially responsive in accordance with ITB Clause 27.
- 30.2 In evaluating the bids, the Employer will determine for each Bid the evaluated Bid price by adjusting the Bid price as follows:
- (a) making any correction for errors pursuant to ITB Clause 28;
 - (b) excluding provisional sums and the provision, if any, for contingencies in the Activity Schedule, Section V, but including Day work, when requested in the Specifications (or Terms of Reference) Section VIII;
 - (c) making an appropriate adjustment for any other acceptable variations, deviations, or alternative offers submitted in accordance with ITB Clause 18; and
 - (d) making appropriate adjustments to reflect discounts or other price modifications offered in accordance with ITB Sub-Clause 23.5.
- 30.3 The Employer reserves the right to accept or reject any variation, deviation, or alternative offer. Variations, deviations, and alternative offers and other factors, which are in excess of the requirements of the bidding documents or otherwise result in unsolicited benefits for the Employer will not be taken into account in Bid evaluation.
- 30.4 The estimated effect of any price adjustment conditions under Sub-Clause 7.6 of the General Conditions of Contract, during the period of implementation of the Contract, will not be taken into account in Bid evaluation.
- 31. Preference for Domestic Bidders**
- 31.1 Domestic bidders shall not be eligible for any margin of preference in Bid evaluation.

F. Award of Contract

- 32. Award Criteria**
- 32.1 Subject to ITB Clause 33, the Employer will award the Contract to the Bidder whose Bid has been determined to be substantially responsive to the bidding documents and who has offered the

lowest evaluated Bid price, provided that such Bidder has been determined to be (a) eligible in accordance with the provisions of ITB Clause 4, and (b) qualified in accordance with the provisions of ITB Clause 5.

32.2 If, pursuant to ITB Sub-Clause 13.2 this contract is being let on a “slice and package” basis, the lowest evaluated Bid Price will be determined when evaluating this contract in conjunction with other contracts to be awarded concurrently. Taking into account any discounts offered by the bidders for the award of more than one contract.

**33. Employer’s
Right to
Accept any Bid
and to Reject
any or all Bids**

33.1 Notwithstanding ITB Clause 32, the Employer reserves the right to accept or reject any Bid, and to cancel the bidding process and reject all bids, at any time prior to the award of Contract, without thereby incurring any liability to the affected Bidder or bidders or any obligation to inform the affected Bidder or bidders of the grounds for the Employer’s action.

**34. Notification of
Award and
Signing of
Agreement**

34.1 The Bidder whose Bid has been accepted will be notified of the award by the Employer prior to expiration of the Bid validity period by cable, telex, or facsimile confirmed by registered letter from the Employer. This letter (hereinafter and in the Conditions of Contract called the “Letter of Acceptance”) will state the sum that the Employer will pay the Service provider in consideration of the execution, completion, and maintenance of the Services by the Service provider as prescribed by the Contract (hereinafter and in the Contract called the “Contract Price”).

34.2 The notification of award will constitute the formation of the Contract.

34.3 The Contract, in the form provided in the bidding documents, will incorporate all agreements between the Employer and the successful Bidder. It will be signed by the Employer and sent to the successful Bidder along with the Letter of Acceptance. Within 21 days of receipt of the Contract, the successful bidder shall sign the Contract and return it to the Employer, together with the required performance security pursuant to Clause 35.

34.4 Upon fulfillment of ITB Sub-Clause 34.3, the Employer will promptly notify the unsuccessful Bidders the name of the winning Bidder and that their bid security will be returned as promptly as possible.

34.5 If, after notification of award, a bidder wishes to ascertain the grounds on which its bid was not selected, it should address its request to the Employer. The Employer will promptly respond

in writing to the unsuccessful Bidder.

35. Performance Security

- 35.1 Within 21 days after receipt of the Letter of Acceptance, the successful Bidder shall deliver to the Employer a Performance Security in the amount and in the form (Bank Guarantee and/or Performance Bond) **stipulated in the BDS**, denominated in the type and proportions of currencies in the Letter of Acceptance and in accordance with the General Conditions of Contract.
- 35.2 If the Performance Security is provided by the successful Bidder in the form of a Bank Guarantee, it shall be issued either (a) at the Bidder's option, by a bank located in the country of the Employer or a foreign bank through a correspondent bank located in the country of the Employer, or (b) with the agreement of the Employer directly by a foreign bank acceptable to the Employer.
- 35.3 If the Performance Security is to be provided by the successful Bidder in the form of a Bond, it shall be issued by a surety which the Bidder has determined to be acceptable to the Employer.
- 35.4 Failure of the successful Bidder to comply with the requirements of ITB Sub-Clause 35.1 shall constitute sufficient grounds for cancellation of the award and forfeiture of the Bid Security.

36. Advance Payment and Security

- 36.1 The Employer will provide an Advance Payment on the Contract Price as stipulated in the Conditions of Contract, subject to the amount **stated in the BDS**.

37. Adjudicator

- 37.1 The Employer proposes the person **named in the BDS** to be appointed as Adjudicator under the Contract, at an hourly fee **specified in the BDS**, plus reimbursable expenses. If the Bidder disagrees with this proposal, the Bidder should so state in the Bid. If, in the Letter of Acceptance, the Employer has not agreed on the appointment of the Adjudicator, the Adjudicator shall be appointed by the Appointing Authority designated in the Special Conditions of Contract at the request of either party.

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Section II. Bidding Data Sheet

Instructions to Bidders Clause Reference

A. General	
1.1	<p>The Employer is Central Pollution Control Board.</p> <p>The name and identification number of the Contract is</p> <p><i>Procurement of: Continuous Real Time Water Quality Monitoring Data</i></p> <p>NGRBA/PP14-15/CPCB/W/01</p>
1.2	<p>The Intended Completion Date is 5 years 8 months from the date of signing the contract. This period comprises (a) 8 months for placing all the required equipments and other resources in position for commencing supply of required data on water quality from all the specified locations, and (b) 5 years for providing the aforesaid data in the manners specified in the bidding documents.</p>
2.1	<p>The Borrower is Government of India (GOI)</p> <p>The Project is: National Ganga River Basin Project</p> <p>The loan/credit number is : <i>Ln. 8065-IN/Cr. 4955-IN</i></p>
5.2	<p>Prequalification has not been undertaken.</p>
5.3 (c)	<p>Period “five years” may be amended to read as “seven years”- from FY 2008-09 to FY 2014-15.</p>
5.5	<p>The qualification criteria in Sub-clause 5.4 are amended as follows:</p>
5.5(a)	<p>The minimum average annual turnover in Supply, Installation, commissioning, operation and maintenance of environmental monitoring equipment in the last five years (2010-11, 2011-12, 2012-13, 2013-14 and 2014-15) shall be US \$2 million or INR 130 million.</p>
5.5(b)	<p>The experience required to be demonstrated by the Bidder should include as a minimum that he has successfully executed at least one contract of value US\$ 1.5 million or INR 100 million or two contracts aggregating to US\$ 1.5 million or INR 100 million for supply of Real Time Water Quality or Hydrological or Metrological (which must include precipitation data) Monitoring Data during the last 7 years.</p>
5.5(c)	<p>The Service Provider shall furnish proposal for timely acquisition of major items of equipments proposed by him for carrying out the contract in reference</p>

	to ITB 5.3 (d), along with respective specifications of such equipment.
5.5(d)	Manager having a degree in engineering, science or management with 5 years' experience in managing contracts of volume specified in 5.5(b) and having minimum one year's experience in monitoring environmental data.
5.5(e)	The minimum amount of liquid assets and/or credit facilities net of other contractual commitments of the successful Bidder shall be US\$2 million or INR 130 million.
5.6	Subcontractors' experience shall not be taken into account.
B. Bidding Data	
9.2 and 19.1	The number of copies of the Bid to be completed and returned shall be one original and 5 copies.
10.1	The following text is added at the end of ITB 10.1: The Employer shall also promptly publish its response at the web page http://cpcb.nic.in/Tenders.php . Should the clarification result in changes to the essential elements of the Bidding Documents, the Employer shall amend the Bidding Documents following the procedure under ITB 11 and ITB 21.2.
10.2 (New clause)	The Bidder's designated representative is invited to attend a pre-bid meeting on 30th September, 2015 at Central Pollution Control Board, 2nd Floor Conference Hall, Parivesh Bhawan, East Arjun Nagar, Shahdara, Delhi, 110032 at 11.00AM . The purpose of the meeting will be to clarify issues and to answer questions on any matter that may be raised at that stage. <i>Interested bidders may kindly confirm their participation through email or telephonically by September 23, 2015 in order to organize the meeting successfully.</i>
10.3 (New clause)	The Bidder is requested to submit any questions in writing, to reach the Employer not later than one week before the pre-bid meeting.
10.4 (New clause)	Minutes of the pre-bid meeting, if applicable, including the text of the questions asked by Bidders, without identifying the source, and the responses given, together with any responses prepared after the meeting, will be transmitted promptly to all Bidders who have acquired the Bidding Documents. Any modification to the Bidding Documents that may become necessary as a result of the pre-bid meeting shall be made by the Employer exclusively through the issue of an Addendum pursuant to ITB 11 and not through the minutes of the pre-bid meeting. Nonattendance at the pre-bid meeting will not be a cause for disqualification of a Bidder.

C. Preparation of Bids	
12.1	Language of the bid: English
13.1	The additional materials required to be completed and submitted are: a) Documents listed in ITB 5.3 b) In the case of JV the documents listed ITB 5.4
14.4	Contract Price would be subjected to adjustment in accordance with GC 6.6 read with corresponding provision in SCC.
14.5	Not applicable
16.1	The period of Bid validity shall be 120 days after the deadline for Bid submission specified in the BDS.
17.1	The Bidder shall provide: Bid security
17.2	The amount of Bid Security shall be rupees US\$ 60,000 or INR 4 million.
18.1	Alternative bids not permitted.
18.2	Alternative times for completion not permitted.
18.4	Alternative technical solutions shall be permitted for the following parts of the Services: not applicable.
D. Submission of Bids	
20.2	The Employer's address for the purpose of Bid submission is: Central Pollution Control Board Attn: Suneel Dave, Additional Director & Incharge NGRBA Cell "Parvesh Bhavan", East Arjun Nagar, Delhi-110032, India Tel: +91 11 43102030 Fax: + 91-11-22307078/22384025 E-mail: ngrba.cpcb@gmail.com & ngrba.cpcb@nic.in For identification of the bid the envelopes should indicate: Contract: RTWQM data under NGRBA Bid / Contract Number: NGRBA/PP14-15/CPCB/W/01
21.1	The deadline for submission of bids shall be 29 th October, 2015 at 15.00 hrs (IST).
E. Bid Opening and Evaluation	
24.1	Bids will be opened at 15.30 hrs (IST) on 29 th October, 2015 at the address mentioned in BDS 20.2.

29.1	<p>Currency chosen for the purpose of converting to a common currency: INR</p> <p>Source of exchange rate: BC Selling exchange rate as prevailing on the last date of bid submission</p> <p>State Bank of India</p>
F. Award of Contract	
35.0	<p>The Performance Security acceptable to the Employer shall be the in the Standard Form of Bank guarantee for an amount equivalent to 10% of contract value in Currency /Currencies stipulated in letter of acceptance/contract.</p>
36.1	<p>The Employer shall make Advance Payment for 10% of contract value.</p>
37.1	<p>The Adjudicator proposed by the Employer is Shri Neeraj Kumar Gupta, District and Session Judge, (retired). The Daily fee for this proposed Adjudicator shall be INR 10,000 exclusive of boarding, lodging and transportation expenses which shall be reimbursed. The CV of the proposed Adjudicator is attached.</p>

Section III. Bidding Forms

Table of Forms

Service Provider's Bid	30
Qualification Information	32
Declaration format for customs /excise duty exemption for materials/ equipment bought for providing services	35
Letter of Acceptance	37
Form of Contract	38
Bid Security (Bank Guarantee)	41

Service Provider's Bid

[date]

To: *[name and address of Employer]*

Having examined the bidding documents including addenda No, we offer to execute the *[name and identification number of Contract]* in accordance with the Conditions of Contract, specifications and activity schedule accompanying this Bid for the Contract Price of *[amount in numbers]*, *[amount in words]* *[names of currencies]*.

The Contract shall be paid in the following currencies:

Currency	Amount payable in currency	Inputs for which foreign currency is required
(a)		
(b)		

We accept the appointment of *[name proposed in the Bidding Data Sheet]* as the Adjudicator.

[or]

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

This Bid and your written acceptance of it shall constitute a binding Contract between us. We understand that you are not bound to accept the lowest or any Bid you receive.

We hereby confirm that this Bid complies with the Bid validity and Bid Security required by the bidding documents and specified in the Bidding Data Sheet.

Commissions or gratuities, if any, paid or to be paid by us to agents relating to this Bid, and to contract execution if we are awarded the contract, are listed below:

Name and address of agent	Amount and Currency	Purpose of Commission or gratuity
_____	_____	_____
_____	_____	_____
_____	_____	_____
(if none, state "none")		

Authorized Signature: _____

Name and Title of Signatory: _____

Name of Bidder: _____

Address: _____

Qualification Information

- 1. Individual Bidders or Individual Members of Joint Ventures**
- 1.1 Constitution or legal status of Bidder: *[attach copy]*
 Place of registration: *[insert]*
 Principal place of business: *[insert]*
 Power of attorney of signatory of Bid: *[attach]*
- 1.2 Total annual volume of Services performed in five years, in the internationally traded currency specified in the BDS: *[insert]*
- 1.3 Services performed as prime Service Provider on the provision of Services of a similar nature and volume over the last five years. The values should be indicated in the same currency used for Item 1.2 above. Also list details of work under way or committed, including expected completion date.

Project name and country	Name of Employer and contact person	Type of Services provided and year of completion	Value of contract
(a)			
(b)			

- 1.4 Major items of Service Provider's Equipment proposed for carrying out the Services. List all information requested below. Refer also to ITB Sub-Clause 5.4(c).

Item of equipment	Description, make, and age (years)	Condition (new, good, poor) and number available	Owned, leased (from whom?), or to be purchased (from whom?)
(a)			
(b)			

- 1.5 Qualifications and experience of key personnel proposed for administration and execution of the Contract. Attach biographical data. Refer also to ITB Sub-Clause 5.4(e) and GCC Clause 9.1.

Position	Name	Years of experience (general)	Years of experience in proposed

position
(a)
(b)

- 1.6 Proposed subcontracts and firms involved. Refer to GCC Clause 7.

Sections of the Services	Value of subcontract	Subcontractor (name and address)	Experience in providing similar Services
(a)			
(b)			

- 1.7 Financial reports for the last five years: balance sheets, profit and loss statements, auditors' reports, etc. List below and attach copies.

- 1.8 Evidence of access to financial resources to meet the qualification requirements: cash in hand, lines of credit, etc. List below and attach copies of support documents. We certify/confirm that we comply with eligibility requirements as per ITB Clause 4.

- 1.9 Name, address, and telephone, telex, and facsimile numbers of banks that may provide references if contacted by the Employer.

- 1.10 Information regarding any litigation, current or within the last five years, in which the Bidder is or has been involved.

Other party(ies)	Cause of dispute	Details of litigation award	Amount involved
(a)			
(b)			

- 1.11 Statement of compliance with the requirements of ITB Sub-Clause 4.2.

- 1.12 Proposed Program (service work method and schedule). Descriptions and charts, as necessary, to comply with the

requirements of the bidding documents.

- 2. Joint Ventures**
- 2.1 The information listed in 1.1 - 1.11 above shall be provided for each partner of the joint venture.
 - 2.2 The information in 1.12 above shall be provided for the joint venture.
 - 2.3 Attach the power of attorney of the signatory(ies) of the Bid authorizing signature of the Bid on behalf of the joint venture.
 - 2.4 Attach the Agreement among all partners of the joint venture (and which is legally binding on all partners), which shows that
 - (a) all partners shall be jointly and severally liable for the execution of the Contract in accordance with the Contract terms;
 - (b) one of the partners will be nominated as being in charge, authorized to incur liabilities, and receive instructions for and on behalf of any and all partners of the joint venture; and
 - (c) the execution of the entire Contract, including payment, shall be done exclusively with the partner in charge.
- 3. Additional Requirements**
- 3.1 Bidders should provide any additional information required in the BDS and to fulfill the requirements of ITB Sub-Clause 5.1, if applicable.

Declaration format for customs /excise duty exemption for materials/ equipment bought for providing services

(Bidder's Name and Address)

To:
(Name of the Employer)

Dear Sir:

Re: *[Name of Services]* -
Certificate for Import/Procurement of Goods/ Equipment

1. We confirm that we are solely responsible for obtaining customs/excise duty waivers which we have considered in our bid and in case of failure to receive such waivers for reasons whatsoever, the Employer will not compensate us.
2. We are furnishing below the information required by the Employer for issue of the necessary certificates in terms of the Government of India Central Excise Notification No. 108/95 along with all subsequent amendments including amendment dated 01.03.2008 and Customs Notification No. 85/99.
3. The goods/construction equipment for which certificates are required are as under:

Items	Make/ Brand Name	Capacity [where applicable]	Quantity	Value	State whether it will be procured locally or imported [if so from which country]	Remarks regarding justification for the quantity and their usage in works
Goods						
[a]						
[b]						
Equipment						
[a]						
[b]						
[c]						
[d]						

4. We agree that no modification to the above list is permitted after bids are opened.
5. We agree that the certificate will be issued only to the extent considered reasonable by the Employer for the work, based on the Bill of Quantities and the construction programme and methodology as furnished by us along with the bid.
6. We confirm that the above goods will be exclusively used for the construction of the above work and construction equipment will not be sold or otherwise disposed of in any manner for a period of five years from the date of acquisition.

Date: _____

Place: _____

(Signature) _____

(Printed Name) _____

(Designation) _____

(Common Seal) _____

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

Letter of Acceptance

[letter head paper of the Employer]

[date]

To: *[name and address of the Service provider]*

This is to notify you that your Bid dated *[date]* for execution of the *[name of the Contract and identification number, as given in the Special Conditions of Contract]* for the Contract Price of the equivalent of *[amount in numbers and words]* *[name of currency]*, as corrected and modified in accordance with the Instructions to Bidders is hereby accepted by our Agency.

Note: Insert one of the 3 options for the second paragraph. The first option should be used if the Bidder has not objected the name proposed for Adjudicator. The second option if the Bidder has objected the proposed Adjudicator and proposed a name for a substitute, who was accepted by the Employer. And the third option if the Bidder has objected the proposed Adjudicator and proposed a name for a substitute, who was not accepted by the Employer.

We confirm that *[insert name proposed by Employer in the Bidding Data]*,

or

We accept that *[name proposed by bidder]* be appointed as the Adjudicator

or

We do not accept that *[name proposed by bidder]* be appointed as Adjudicator, and by sending a copy of this letter of acceptance to *[insert the name of the Appointing Authority]*, we are hereby requesting *[name]*, the Appointing Authority, to appoint the Adjudicator in accordance with Clause 37.1 of the Instructions to Bidders

You are hereby instructed to proceed with the execution of the said contract for the provision of Services in accordance with the Contract documents.

Please return the attached Contract dully signed

Authorized Signature: _____
 Name and Title of Signatory: _____
 Name of Agency: _____

Attachment: Contract

Form of Contract

[letter head paper of the Employer]

This CONTRACT (hereinafter called the “Contract”) is made the *[day]* day of the month of *[month]*, *[year]*, between, on the one hand, *[name of Employer]* (hereinafter called the “Employer”) and, on the other hand, *[name of Service Provider]* (hereinafter called the “Service Provider”).

[Note: In the text below text in brackets is optional; all notes should be deleted in final text. If the Service Provider consist of more than one entity, the above should be partially amended to read as follows: “...(hereinafter called the “Employer”) and, on the other hand, a joint venture consisting of the following entities, each of which will be jointly and severally liable to the Employer for all the Service Provider’s obligations under this Contract, namely, [name of Service Provider] and [name of Service Provider] (hereinafter called the “Service Provider”).]

WHEREAS

- (a) the Employer has requested the Service Provider to provide certain Services as defined in the General Conditions of Contract attached to this Contract (hereinafter called the “Services”);
- (b) the Service Provider, having represented to the Employer that they have the required professional skills, and personnel and technical resources, have agreed to provide the Services on the terms and conditions set forth in this Contract at a contract price of.....;
- (c) the Employer has received *[or has applied for]* a loan from the International Bank for Reconstruction and Development (hereinafter called the “Bank”) *[or a credit from the International Development Association (hereinafter called the “Association”)]* towards the cost of the Services and intends to apply a portion of the proceeds of this loan *[or credit]* to eligible payments under this Contract, it being understood (i) that payments by the Bank *[or Association]* will be made only at the request of the Employer and upon approval by the Bank *[or Association]*, (ii) that such payments will be subject, in all respects, to the terms and conditions of the agreement providing for the loan *[or credit]*, and (iii) that no party other than the Employer shall derive any rights from the agreement providing for the loan *[or credit]* or have any claim to the loan *[or credit]* proceeds;

NOW THEREFORE the parties hereto hereby agree as follows:

1. The following documents shall be deemed to form and be read and construed as part of this Agreement, and the priority of the documents shall be as follows:
 - (a) the Letter of Acceptance;
 - (b) the Service Provider’s Bid
 - (c) the Special Conditions of Contract;

- (d) the General Conditions of Contract;
- (e) the Specifications;
- (f) the Priced Activity Schedule; and
- (g) The following Appendices: [**Note:** *If any of these Appendices are not used, the words "Not Used" should be inserted below next to the title of the Appendix and on the sheet attached hereto carrying the title of that Appendix.*]

Appendix A: Description of the Services

Appendix B: Schedule of Payments – Not used

Appendix C: Key Personnel and Subcontractors

Appendix D: Breakdown of Contract Price in Foreign Currency – Not used

Appendix E: Breakdown of Contract Price in Local Currency – Not used

Appendix F: Services and Facilities Provided by the Employer

Appendix G: Performance Incentive Compensation – Not used

2. The mutual rights and obligations of the Employer and the Service Provider shall be as set forth in the Contract, in particular:
 - (a) the Service Provider shall carry out the Services in accordance with the provisions of the Contract; and
 - (b) the Employer shall make payments to the Service Provider in accordance with the provisions of the Contract.

IN WITNESS WHEREOF, the Parties hereto have caused this Contract to be signed in their respective names as of the day and year first above written.

For and on behalf of *[name of Employer]*

[Authorized Representative]

For and on behalf of *[name of Service Provider]*

[Authorized Representative]

[Note: *If the Service Provider consists of more than one entity, all these entities should appear as signatories, e.g., in the following manner:]*

For and on behalf of each of the Members of the Service Provider

[name of member]

[Authorized Representative]

[name of member]

[Authorized Representative]

Bid Security (Bank Guarantee)

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

Beneficiary: _____

Date: _____

BID GUARANTEE No.: _____

We have been informed that _____ (hereinafter called "the Bidder") has submitted to you its bid dated (hereinafter called "the Bid") for the execution of _____ under Invitation for Bids No. _____ ("the IFB").

Furthermore, we understand that, according to your conditions, bids must be supported by a bid guarantee.

At the request of the Bidder, we _____ hereby irrevocably undertake to pay you any sum or sums not exceeding in total an amount of _____ (_____) upon receipt by us of your first demand in writing accompanied by a written statement stating that the Bidder is in breach of its obligation(s) under the bid conditions, because the Bidder:

- (a) has withdrawn its Bid during the period of bid validity specified by the Bidder in the Form of Bid; or
- (b) having been notified of the acceptance of its Bid by the Purchaser during the period of bid validity, (i) fails or refuses to execute the Contract Form; or (ii) fails or refuses to furnish the performance security, if required, in accordance with the Instructions to Bidders.

This guarantee will expire: (a) if the Bidder is the successful bidder, upon our receipt of copies of the contract signed by the Bidder and the performance security issued to you upon the instruction of the Bidder; or (b) if the Bidder is not the successful bidder, upon the earlier of (i) our receipt of a copy of your notification to the Bidder of the name of the successful bidder; or (ii) twenty-eight days after the expiration of the Bidder's Bid.

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

This guarantee is subject to the Uniform Rules for Demand Guarantees, ICC Publication No. 458.

[signature(s)]

Section IV. Eligible Countries

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

1. In accordance with Para 1.8 of the Guidelines: Procurement under IBRD Loans and IDA Credits, dated May 2004, the Bank permits firms and individuals from all countries to offer goods, works and services for Bank-financed projects. As an exception, firms of a Country or goods manufactured in a Country may be excluded if:

Para 1.8 (a) (i): as a matter of law or official regulation, 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 the Goods or Works required, or

Para 1.8 (a) (ii): 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 persons or entities in that Country.

2. For the information of borrowers and bidders, at the present time firms, goods and services from the following countries are excluded from this bidding:

(a) With reference to paragraph 1.8 (a) (i) of the Guidelines:
Nil_____

(b) With reference to paragraph 1.8 (a) (ii) of the Guidelines:
_Nil_____

Part II – Activity Schedule

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Section V- Activity Schedule

The Service Provider is required to supply hourly real-time water quality data from 34 locations and 24 hourly real-time cross-section measurements from 2 locations. The details of these locations are provided in **Annexure I** of Appendix A of the bidding documents.

Based on different requirements of quality measurements at various locations, Service Provider would install different types of equipments referred to as “Sensors” in this bidding document for measuring all the parameters at various locations as specified in **Annexure II** of Appendix A. Various parameters of water quality have been assigned different weightages for the purpose of payment, as detailed in paragraph 3.7 of Section VIII. Parameters having a weightage of 10 are placed in category A. Similarly, other parameters having weightages of 5, 3 and 2 are placed in categories B, C and D respectively.

Total parameters to be measured in each category at different locations are tabulated below for reference of the bidders.

Table: Parameters to be measured category wise at different locations

Sl. No.	Locations code	Locations	No. of parameters of Water Quality to be measured				Total No. of Parameters
			Under A Category Sensor	Under B Category Sensor	Under C Category Sensor	Under D Category Sensor	
A. FIXED STATIONS (For supplying hourly data)							
Uttarakhand							
1.	UK8	Haridwar Nallah	5	4	4	2	15
Uttar Pradesh							
2.	UP2	Madhya Ganga barrage	5	4	2	2	13
3.	UP3	Sukartal Ghat	5	3	1	0	9
4.	UP8	Barrage at Narora (Ganga)	5	3	1	2	11
5.	UP9	Kachla Ghat Bridge Badaun	5	4	1	3	13
6.	UP10	Ranganga (d/s of Moradabad)	5	5	3	2	15
7.	UP13	Bridge on kali River at kanpur-Farrukhabad Road	5	5	4	3	17
8.	UP14	Bridge at ghatia Ghat Farrukabad	5	5	3	3	16
9.	UP16	Bridge SH21 down-stream of kannauj	5	5	3	3	16
10.	UP17	Bridge SH40 down-stream of kannauj	5	5	3	3	16
11.	UP18	Bridge in Bithur	5	5	3	3	16
12.	UP19	Barrage up-stream Kanpur	5	5	3	3	16
13.	UP26	Bridge at Kanpur 1	5	5	4	3	17
14.	UP29	Bridge 2 at Kanpur NH25	5	5	4	2	16
15.	UP32	Bridge near Fatepur	5	3	1	0	9
16.	UP40	Brudge DS of tributary near Sirsa	5	5	3	2	15
17.	UP46	Nalla at allahabad 4	5	4	4	1	14

Sl. No.	Locations code	Locations	No. of parameters of Water Quality to be measured				Total No. of Parameters
			Under A Category Sensor	Under B Category Sensor	Under C Category Sensor	Under D Category Sensor	
18.	UP54	Varanasi at Bathing Ghat 1	5	5	3	3	16
19.	UP55	Bridge on Tributary in Varanasi	5	3	1	0	9
20.	UP56	Tributary @ Rahwari	5	3	1	0	9
	Bihar		0	0	0	0	0
21.	Bh7	Nalla in Patna 2	5	4	3	1	13
22.	Bh9	Rajapul Nalla	5	4	3	1	13
23.	Bh10	Nalla in Patna 3a	5	4	3	1	13
24.	Bh11	Nalla in Patna 3b	5	4	3	1	13
	West Bengal				0	0	0
25.	WB5	1 River u/s of Ganga Nallah	5	4	3	1	13
26.	WB6	2 River u/s Ganga -Nallah	5	4	3	1	13
27.	WB10	Ganga River d/s Murshidabad (u/s Berhampore)	5	5	3	3	16
28.	WB11	Ganga River d/s of Murshidabad (d/s Berhampore)	5	3	1	0	9
29.	WB12	4 River u/s Ganga-Nallah	5	4	3	1	13
30.	WB21	Ghat d/s of srirampore	5	3	1	0	9
31.	WB23	Ganga River near Belgharia	5	3	1	0	9
32.	WB24	Nalla @ ballykhal	5	4	3	1	13
33.	WB26	Nalla @Chitpur	5	4	3	1	13
34.	WB27	Ganga River @ Howrah Bridge	5	5	3	2	15
	Sub-Total (A)		170	141	88	54	453
B. Cross section stations (For supply of 24 hourly data)							
1.	UP6	Bridge at Anupshahr	4	3	1	0	8
2.	UP24	U/s Bathing Ghat Kanpur	4	3	1	0	8
		Total 24 hourly data	8	6	2	0	16
		Equivalence in terms of hourly data for purpose of payment (Sub- Total (B))	192	144	48	0	384
	Grand Total (A +B)		362	285	136	54	837

Note: "Nalla/ Nallah" is a local terminology which means a "drain".

Bidder's attention is drawn to Section VIII-Performance Specifications which provide in details the methodology for supply of data of real time water quality measurement to the Employer and validation of the data for determining eligibility of data for payment.

The Bidder is required to quote a lump-sum price in the bid form provided in Section III for supply of real time water quality data in accordance with Section VIII- Performance

Specification and contract conditions for a period of 5 years from the date of commencement of data supply from all 36 locations.

Payments will be made for data validated by Data Qualification Consultant. Bidder may refer to payment schedule stipulated in SCC 6.4. Bidder's attention is drawn to GCC 6.6 read with corresponding provision in SCC in regard to price adjustment applicable to contract price.

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Part III – Conditions of Contract and Contract Forms

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Section VI. General Conditions of Contract

Table of Clauses

A.	General Provisions	53
1.1	Definitions.....	53
1.2	Applicable Law	54
1.3	Language.....	54
1.4	Notices	54
1.5	Location	55
1.6	Authorized Representatives	55
1.7	Inspection and Audit by the Bank.....	55
1.8	Taxes and Duties.....	55
2.	Commencement, Completion, Modification, and Termination of Contract	55
2.1	Effectiveness of Contract.....	55
2.3	Intended Completion Date	55
2.4	Modification.....	56
2.5	Force Majeure	56
2.6	Termination.....	56
3.	Obligations of the Service Provider.....	59
3.1	General.....	59
3.2	Conflict of Interests.....	59
3.3	Confidentiality	60
3.4	Insurance to be Taken Out by the Service Provider	60
3.5	Service Provider's Actions Requiring Employer's Prior Approval.....	60
3.6	Reporting Obligations	60
3.7	Documents Prepared by the Service Provider to Be the Property of the Employer.....	60
3.8	Liquidated Damages	61
3.9	Performance Security.....	61
4.	Service Provider's Personnel	61
4.1	Description of Personnel.....	61
4.2	Removal and/or Replacement of Personnel.....	62
5.	Obligations of the Employer	62
5.1	Assistance and Exemptions.....	62
5.2	Change in the Applicable Law.....	62
5.3	Services and Facilities.....	62
6.	Payments to the Service Provider.....	62
6.1	Lump-Sum Remuneration.....	62
6.2	Contract Price.....	63

6.3	Payment for Additional Services, and Performance Incentive Compensation	63
6.4	Terms and Conditions of Payment.....	63
6.5	Interest on Delayed Payments.....	63
6.6	Price Adjustment.....	63
6.7	Dayworks	64
7.	Quality Control	64
7.1	Identifying Defects.....	64
7.2	Correction of Defects, and	65
8.	Settlement of Disputes	65
8.1	Amicable Settlement.....	65
8.2	Dispute Settlement	65

Section VI. General Conditions of Contract

A. General Provisions

1.1 Definitions

Unless the context otherwise requires, the following terms whenever used in this Contract have the following meanings:

- (a) The Adjudicator is the person appointed jointly by the Employer and the Contractor to resolve disputes in the first instance, as provided for in Sub-Clause 8.2 hereunder.
- (b) “Activity Schedule” is the priced and completed list of items of Services to be performed by the Service Provider forming part of his Bid;
- (c) “Bank” means the International Bank for Reconstruction and Development, Washington, D.C., U.S.A.;

or

- (c) “Association” means the International Development Association, Washington, D.C., U.S.A.;
- (d) “Completion Date” means the date of completion of the Services by the Service Provider as certified by the Employer
- (e) “Contract” means the Contract signed by the Parties, to which these General Conditions of Contract (GCC) are attached, together with all the documents listed in Clause 1 of such signed Contract;
- (f) “Contract Price” means the price to be paid for the performance of the Services, in accordance with Clause 6;
- (g) “Dayworks” means varied work inputs subject to payment on a time basis for the Service Provider’s employees and equipment, in addition to payments for associated materials and administration.
- (h) “Employer” means the party who employs the Service Provider
- (i) “Foreign Currency” means any currency other than the currency of the country of the Employer;
- (j) “GCC” means these General Conditions of Contract;
- (k) “Government” means the Government of the Employer’s country;
- (l) “Local Currency” means the currency of the country of the

Employer;

- (m) “Member,” in case the Service Provider consist of a joint venture of more than one entity, means any of these entities; “Members” means all these entities, and “Member in Charge” means the entity specified in the SC to act on their behalf in exercising all the Service Provider’ rights and obligations towards the Employer under this Contract;
- (n) “Party” means the Employer or the Service Provider, as the case may be, and “Parties” means both of them;
- (o) “Personnel” means persons hired by the Service Provider or by any Subcontractor as employees and assigned to the performance of the Services or any part thereof;
- (p) “Service Provider” is a person or corporate body whose Bid to provide the Services has been accepted by the Employer;
- (q) “Service Provider’s Bid” means the completed bidding document submitted by the Service Provider to the Employer
- (r) “SCC” means the Special Conditions of Contract by which the GCC may be amended or supplemented;
- (s) “Specifications” means the specifications of the service included in the bidding document submitted by the Service Provider to the Employer
- (t) “Services” means the work to be performed by the Service Provider pursuant to this Contract, as described in Appendix A; and in the Specifications and Schedule of Activities included in the Service Provider’s Bid.
- (u) “Subcontractor” means any entity to which the Service Provider subcontracts any part of the Services in accordance with the provisions of Sub-Clauses 3.5 and 4.

1.2 Applicable Law The Contract shall be interpreted in accordance with the laws of the Employer’s country, unless otherwise **specified in the Special Conditions of Contract (SCC).**

1.3 Language This Contract has been executed in the language **specified in the SCC**, which shall be the binding and controlling language for all matters relating to the meaning or interpretation of this Contract.

1.4 Notices Any notice, request, or consent made pursuant to this Contract shall be in writing and shall be deemed to have been made when delivered in person to an authorized representative of the Party to whom the communication is addressed, or when sent by registered mail, telex,

telegram, or facsimile to such Party at the address **specified in the SCC.**

1.5 Location

The Services shall be performed at such locations as are specified in Appendix A, in the specifications and, where the location of a particular task is not so specified, at such locations, whether in the Government's country or elsewhere, as the Employer may approve.

1.6 Authorized Representatives

Any action required or permitted to be taken, and any document required or permitted to be executed, under this Contract by the Employer or the Service Provider may be taken or executed by the officials **specified in the SCC.**

1.7 Inspection and Audit by the Bank

The Service Provider shall permit the Bank to inspect its accounts and records relating to the performance of the Services and to have them audited by auditors appointed by the Bank, if so required by the Bank.

1.8 Taxes and Duties

The Service Provider, Subcontractors, and their Personnel shall pay such taxes, duties, fees, and other impositions as may be levied under the Applicable Law, the amount of which is deemed to have been included in the Contract Price.

2. Commencement, Completion, Modification, and Termination of Contract

2.1 Effectiveness of Contract

This Contract shall come into effect on the date the Contract is signed by both parties and such other later date as may be **stated in the SCC.**

2.2 Commencement of Services

2.2.1 Program

Before commencement of the Services, the Service Provider shall submit to the Employer for approval a Program showing the general methods, arrangements, order and timing for all activities. The Services shall be carried out in accordance with the approved Program as updated.

2.2.2 Starting Date

The Service Provider shall start carrying out the Services thirty (30) days after the date the Contract becomes effective, or at such other date as may be **specified in the SCC.**

2.3 Intended Completion Date

Unless terminated earlier pursuant to Sub-Clause 2.6, the Service Provider shall complete the activities by the Intended Completion Date, as is **specified in the SCC.** If the Service Provider does not complete the activities by the Intended Completion Date, it shall be liable to pay liquidated damage as per Sub-Clause 3.8. In this case,

the Completion Date will be the date of completion of all activities.

2.4 Modification

Modification of the terms and conditions of this Contract, including any modification of the scope of the Services or of the Contract Price, may only be made by written agreement between the Parties and shall not be effective until the consent of the Bank or of the Association, as the case may be, has been obtained.

2.5 Force Majeure

2.5.1 Definition

For the purposes of this Contract, “Force Majeure” means an event which is beyond the reasonable control of a Party and which makes a Party’s performance of its obligations under the Contract impossible or so impractical as to be considered impossible under the circumstances.

2.5.2 No Breach of Contract

The failure of a Party to fulfill any of its obligations under the contract shall not be considered to be a breach of, or default under, this Contract insofar as such inability arises from an event of Force Majeure, provided that the Party affected by such an event (a) has taken all reasonable precautions, due care and reasonable alternative measures in order to carry out the terms and conditions of this Contract, and (b) has informed the other Party as soon as possible about the occurrence of such an event.

2.5.3 Extension of Time

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

2.5.4 Payments

During the period of their inability to perform the Services as a result of an event of Force Majeure, the Service Provider shall be entitled to continue to be paid under the terms of this Contract, as well as to be reimbursed for additional costs reasonably and necessarily incurred by them during such period for the purposes of the Services and in reactivating the Service after the end of such period.

2.6 Termination

2.6.1 By the Employer

The Employer may terminate this Contract, by not less than thirty (30) days’ written notice of termination to the Service Provider, to be given after the occurrence of any of the events specified in paragraphs (a) through (d) of this Sub-Clause 2.6.1:

- (a) if the Service Provider does not remedy a failure in the performance of its obligations under the Contract, within thirty (30) days after being notified or within any further period as the Employer may have subsequently approved in

writing;

- (b) if the Service Provider become insolvent or bankrupt;
- (c) if, as the result of Force Majeure, the Service Provider is unable to perform a material portion of the Services for a period of not less than sixty (60) days; or
- (d) if the Service Provider, in the judgment of the Employer has engaged in corrupt or fraudulent practices in competing for or in executing the Contract.

For the purposes of this Sub-Clause:

- (i) “corrupt practice”⁶ 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”⁷ 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”⁸ 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”⁹ 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,

⁶ For the purpose of this Contract, “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.

⁷ For the purpose of this Contract, “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.

⁸ For the purpose of this Contract, “parties” refers to participants in the procurement process (including public officials) attempting to establish bid prices at artificial, non competitive levels.

⁹ For the purpose of this Contract, “party” refers to a participant in the procurement process or contract execution.

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 para. 1.14 (e) of the Bank's Procurement Guidelines.

2.6.2 By the Service Provider

The Service Provider may terminate this Contract, by not less than thirty (30) days' written notice to the Employer, such notice to be given after the occurrence of any of the events specified in paragraphs (a) and (b) of this Sub-Clause 2.6.2:

- (a) if the Employer fails to pay any monies due to the Service Provider pursuant to this Contract and not subject to dispute pursuant to Clause 7 within forty-five (45) days after receiving written notice from the Service Provider that such payment is overdue; or
- (b) if, as the result of Force Majeure, the Service Provider is unable to perform a material portion of the Services for a period of not less than sixty (60) days.

2.6.3 Suspension of Loan or Credit

In the event that the World Bank suspends the loan or Credit to the Employer, from which part of the payments to the Service Provider are being made:

- (a) The Employer is obligated to notify the Service Provider of such suspension within 7 days of having received the World Bank's suspension notice.
- (b) If the Service Provider has not received sums due to by the due date stated in the SCC in accordance with Sub-Clause 6.5 the Service Provider may immediately issue a 14 day termination notice.

2.6.4 Payment upon Termination

Upon termination of this Contract pursuant to Sub-Clauses 2.6.1 or 2.6.2, the Employer shall make the following payments to the Service Provider:

- (a) remuneration pursuant to Clause 6 for Services satisfactorily performed prior to the effective date of termination;
- (b) except in the case of termination pursuant to paragraphs (a), (b), (d) of Sub-Clause 2.6.1, reimbursement of any reasonable cost incident to the prompt and orderly termination of the

Contract, including the cost of the return travel of the Personnel.

3. Obligations of the Service Provider

3.1 General

The Service Provider shall perform the Services in accordance with the Specifications and the Activity Schedule, and carry out its obligations with all due diligence, efficiency, and economy, in accordance with generally accepted professional techniques and practices, and shall observe sound management practices, and employ appropriate advanced technology and safe methods. The Service Provider shall always act, in respect of any matter relating to this Contract or to the Services, as faithful adviser to the Employer, and shall at all times support and safeguard the Employer's legitimate interests in any dealings with Subcontractors or third parties.

3.2 Conflict of Interests

3.2.1 Service Provider Not to Benefit from Commissions and Discounts.

The remuneration of the Service Provider pursuant to Clause 6 shall constitute the Service Provider's sole remuneration in connection with this Contract or the Services, and the Service Provider shall not accept for their own benefit any trade commission, discount, or similar payment in connection with activities pursuant to this Contract or to the Services or in the discharge of their obligations under the Contract, and the Service Provider shall use their best efforts to ensure that the Personnel, any Subcontractors, and agents of either of them similarly shall not receive any such additional remuneration.

3.2.2 Service Provider and Affiliates Not to be Otherwise Interested in Project

The Service Provider agree that, during the term of this Contract and after its termination, the Service Provider and its affiliates, as well as any Subcontractor and any of its affiliates, shall be disqualified from providing goods, works, or Services (other than the Services and any continuation thereof) for any project resulting from or closely related to the Services.

3.2.3 Prohibition of Conflicting Activities

Neither the Service Provider nor its Subcontractors nor the Personnel shall engage, either directly or indirectly, in any of the following activities:

- (a) during the term of this Contract, any business or professional activities in the Government's country which would conflict

with the activities assigned to them under this Contract;

- (b) during the term of this Contract, neither the Service Provider nor their Subcontractors shall hire public employees in active duty or on any type of leave, to perform any activity under this Contract;
- (c) after the termination of this Contract, such other activities as may be **specified in the SCC**.

3.3 Confidentiality

The Service Provider, its Subcontractors, and the Personnel of either of them shall not, either during the term or within two (2) years after the expiration of this Contract, disclose any proprietary or confidential information relating to the Project, the Services, this Contract, or the Employer's business or operations without the prior written consent of the Employer.

3.4 Insurance to be Taken Out by the Service Provider

The Service Provider (a) shall take out and maintain, and shall cause any Subcontractors to take out and maintain, at its (or the Subcontractors', as the case may be) own cost but on terms and conditions approved by the Employer, insurance against the risks, and for the coverage, as shall be **specified in the SCC**; and (b) at the Employer's request, shall provide evidence to the Employer showing that such insurance has been taken out and maintained and that the current premiums have been paid.

3.5 Service Provider's Actions Requiring Employer's Prior Approval

The Service Provider shall obtain the Employer's prior approval in writing before taking any of the following actions:

- (a) entering into a subcontract for the performance of any part of the Services,
- (b) appointing such members of the Personnel not listed by name in Appendix C ("Key Personnel and Subcontractors"),
- (c) changing the Program of activities; and
- (d) any other action that may be **specified in the SCC**.

3.6 Reporting Obligations

The Service Provider shall submit to the Employer the reports and documents specified in Appendix B in the form, in the numbers, and within the periods set forth in the said Appendix.

3.7 Documents Prepared by the Service Provider to Be the Property of the Employer

All plans, drawings, specifications, designs, reports, and other documents and software submitted by the Service Provider in accordance with Sub-Clause 3.6 shall become and remain the property of the Employer, and the Service Provider shall, not later than upon termination or expiration of this Contract, deliver all such documents and software to the Employer, together with a

detailed inventory thereof. The Service Provider may retain a copy of such documents and software. Restrictions about the future use of these documents, if any, shall be **specified in the SCC**.

3.8 Liquidated Damages

3.8.1 Payments of Liquidated Damages The Service Provider shall pay liquidated damages to the Employer at the rate per day **stated in the SCC** for each day that the Completion Date is later than the Intended Completion Date. The total amount of liquidated damages shall not exceed the amount **defined in the SCC**. The Employer may deduct liquidated damages from payments due to the Service Provider. Payment of liquidated damages shall not affect the Service Provider's liabilities.

3.8.2 Correction for Over-payment If the Intended Completion Date is extended after liquidated damages have been paid, the Employer shall correct any overpayment of liquidated damages by the Service Provider by adjusting the next payment certificate. The Service Provider shall be paid interest on the overpayment, calculated from the date of payment to the date of repayment, at the rates specified in Sub-Clause 6.5.

3.8.3 Lack of performance penalty If the Service Provider has not corrected a Defect within the time specified in the Employer's notice, a penalty for Lack of performance will be paid by the Service Provider. The amount to be paid will be calculated as a percentage of the cost of having the Defect corrected, assessed as described in Sub-Clause 7.2 and **specified in the SCC**.

3.9 Performance Security The Service Provider shall provide the Performance Security to the Employer no later than the date specified in the Letter of acceptance. The Performance Security shall be issued in an amount and form and by a bank or surety acceptable to the Employer, and denominated in the types and proportions of the currencies in which the Contract Price is payable. The performance Security shall be valid until a date 28 days from the Completion Date of the Contract in case of a bank guarantee, and until one year from the Completion Date of the Contract in the case of a Performance Bond.

4. Service Provider's Personnel

4.1 Description of Personnel The titles, agreed job descriptions, minimum qualifications, and estimated periods of engagement in the carrying out of the Services of the Service Provider's Key Personnel are described in Appendix C. The Key Personnel and Subcontractors listed by title as well as

by name in Appendix C are hereby approved by the Employer.

4.2 Removal and/or Replacement of Personnel

- (a) Except as the Employer may otherwise agree, no changes shall be made in the Key Personnel. If, for any reason beyond the reasonable control of the Service Provider, it becomes necessary to replace any of the Key Personnel, the Service Provider shall provide as a replacement a person of equivalent or better qualifications.
- (b) If the Employer finds that any of the Personnel have (i) committed serious misconduct or have been charged with having committed a criminal action, or (ii) have reasonable cause to be dissatisfied with the performance of any of the Personnel, then the Service Provider shall, at the Employer's written request specifying the grounds thereof, provide as a replacement a person with qualifications and experience acceptable to the Employer.
- (c) The Service Provider shall have no claim for additional costs arising out of or incidental to any removal and/or replacement of Personnel.

5. Obligations of the Employer

5.1 Assistance and Exemptions

The Employer shall use its best efforts to ensure that the Government shall provide the Service Provider such assistance and exemptions as **specified in the SCC.**

5.2 Change in the Applicable Law

If, after the date of this Contract, there is any change in the Applicable Law with respect to taxes and duties which increases or decreases the cost of the Services rendered by the Service Provider, then the remuneration and reimbursable expenses otherwise payable to the Service Provider under this Contract shall be increased or decreased accordingly by agreement between the Parties, and corresponding adjustments shall be made to the amounts referred to in Sub-Clauses 6.2 (a) or (b), as the case may be.

5.3 Services and Facilities

The Employer shall make available to the Service Provider the Services and Facilities listed under Appendix F.

6. Payments to the Service Provider

6.1 Lump-Sum Remuneration

The Service Provider's remuneration shall not exceed the Contract Price and shall be a fixed lump-sum including all Subcontractors' costs, and all other costs incurred by the Service Provider in carrying out the Services described in Appendix A. Except as provided in Sub-Clause 5.2, the Contract Price may only be increased above the

amounts stated in Sub-Clause 6.2 if the Parties have agreed to additional payments in accordance with Sub-Clauses 2.4 and 6.3.

- 6.2 Contract Price**
- (a) The price payable in local currency is **set forth in the SCC**.
- (b) The price payable in foreign currency is **set forth in the SCC**.
- 6.3 Payment for Additional Services, and Performance Incentive Compensation**
- 6.3.1 For the purpose of determining the remuneration due for additional Services as may be agreed under Sub-Clause 2.4, a breakdown of the lump-sum price is provided in Appendices D and E.
- 6.3.2 **If the SCC so specify**, the Service Provider shall be paid performance incentive compensation as set out in the Performance Incentive Compensation appendix.
- 6.4 Terms and Conditions of Payment**
- Payments will be made to the Service Provider according to the payment schedule **stated in the SCC**. **Unless otherwise stated in the SCC**, the advance payment (Advance for Mobilization, Materials and Supplies) shall be made against the provision by the Service Provider of a bank guarantee for the same amount, and shall be valid for the period **stated in the SCC**. Any other payment shall be made after the conditions **listed in the SCC** for such payment have been met, and the Service Provider have submitted an invoice to the Employer specifying the amount due.
- 6.5 Interest on Delayed Payments**
- If the Employer has delayed payments beyond fifteen (15) days after the due date stated in the SCC, interest shall be paid to the Service Provider for each day of delay at the rate stated in the SCC.
- 6.6 Price Adjustment**
- 6.6.1 Prices shall be adjusted for fluctuations in the cost of inputs only if **provided for in the SCC**. If so provided, the amounts certified in each payment certificate, after deducting for Advance Payment, shall be adjusted by applying the respective price adjustment factor to the payment amounts due in each currency. A separate formula of the type indicated below applies to each Contract currency:
- $$P_c = A_c + B_c \frac{L_{mc}/L_{oc}}{L_{mc}/L_{oc}} + C_c \frac{I_{mc}/I_{oc}}{I_{mc}/I_{oc}}$$
- Where:
- P_c is the adjustment factor for the portion of the Contract Price payable in a specific currency “c”.
- A_c , B_c and C_c are coefficients specified in the SCC, representing: A_c the nonadjustable portion; B_c the adjustable portion relative to labor costs and C_c the adjustable portion for other inputs, of the Contract Price payable in that specific currency “c”; and

Lmc is the index prevailing at the first day of the month of the corresponding invoice date and Loc is the index prevailing 28 days before Bid opening for labor; both in the specific currency “c”.

Imc is the index prevailing at the first day of the month of the corresponding invoice date and Ioc is the index prevailing 28 days before Bid opening for other inputs payable; both in the specific currency “c”.

If a price adjustment factor is applied to payments made in a currency other than the currency of the source of the index for a particular indexed input, a correction factor Z_o/Z_n will be applied to the respective component factor of pn for the formula of the relevant currency. Z_o is the number of units of currency of the country of the index, equivalent to one unit of the currency payment on the date of the base index, and Z_n is the corresponding number of such currency units on the date of the current index.

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

6.7 Dayworks

6.7.1 If applicable, the Daywork rates in the Service Provider’s Bid shall be used for small additional amounts of Services only when the Employer has given written instructions in advance for additional services to be paid in that way.

6.7.2 All work to be paid for as Dayworks shall be recorded by the Service Provider on forms approved by the Employer. Each completed form shall be verified and signed by the Employer representative as indicated in Sub-Clause 1.6 within two days of the Services being performed.

6.7.3 The Service Provider shall be paid for Dayworks subject to obtaining signed Dayworks forms as indicated in Sub-Clause 6.7.2

7. Quality Control

7.1 Identifying Defects

The principle and modalities of Inspection of the Services by the Employer shall be as **indicated in the SCC**. The Employer shall check the Service Provider’s performance and notify him of any Defects that are found. Such checking shall not affect the Service

Provider's responsibilities. The Employer may instruct the Service Provider to search for a Defect and to uncover and test any service that the Employer considers may have a Defect. Defect Liability Period is as **defined in the SCC**.

7.2 Correction of Defects, and Lack of Performance Penalty

- (a) The Employer shall give notice to the Service Provider of any Defects before the end of the Contract. The Defects liability period shall be extended for as long as Defects remain to be corrected.
- (b) Every time notice a Defect is given, the Service Provider shall correct the notified Defect within the length of time specified by the Employer's notice.
- (c) If the Service Provider has not corrected a Defect within the time specified in the Employer's notice, the Employer will assess the cost of having the Defect corrected, the Service Provider will pay this amount, and a Penalty for Lack of Performance calculated as described in Sub-Clause 3.8.

8. Settlement of Disputes

8.1 Amicable Settlement

The Parties shall use their best efforts to settle amicably all disputes arising out of or in connection with this Contract or its interpretation.

8.2 Dispute Settlement

8.2.1 If any dispute arises between the Employer and the Service Provider in connection with, or arising out of, the Contract or the provision of the Services, whether during carrying out the Services or after their completion, the matter shall be referred to the Adjudicator within 14 days of the notification of disagreement of one party to the other.

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

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

8.2.4 The arbitration shall be conducted in accordance with the arbitration procedure published by the institution named and in

the place **shown in the SCC**.

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

Section VII. Special Conditions of Contract

Number of GC Clause	Amendments of, and Supplements to, Clauses in the General Conditions of Contract
1.1	The words “in the Government’s country” are amended to read “in India.”
1.1(a)	The Adjudicator is [Will be filled in at the time of contract signing]
1.1(e)	The contract name is: Continuous Real time water quality monitoring data.
1.1(h)	The Employer is Central Pollution Control Board (CPCB)
1.1(m)	The Member in Charge is _____
1.1(p)	The Service Provider is _____
1.2	The Applicable Law is: Law of Union of India.
1.3	The language is English
1.4	<p>The addresses are:</p> <p>Central Pollution Control Board Attn: Suneel Dave, Additional Director & Incharge NGRBA Cell “Parvesh Bhavan”, East Arjun Nagar, Delhi-110032, India Tel: +91 11 43102030 Fax: + 91-11-22307078/22384025 E-mail: ngrba.cpcb@gmail.com & ngrba.cpcb@nic.in</p> <p>Service Provider: _____</p> <p>Attention: _____</p> <p>Telex: _____</p> <p>Facsimile: _____</p>
1.6	<p>The Authorized Representatives are:</p> <p>For the Employer: _____</p> <p>For the Service Provider: _____</p>
2.1	The date on which this Contract shall come into effect is date of signing of contract.
2.2.2	The Service Provider shall complete installation and commissioning of the equipment required for data supply for all the 36 locations named in the contract within 8 months

Number of GC Clause	Amendments of, and Supplements to, Clauses in the General Conditions of Contract
	<p>from the date of the contract. The Service Provider shall ensure installation and commissioning of such installation for minimum 5 locations in 6 months and continue these activities at other location so as to achieve completion of commissioning of equipment within 8 months from the date of the contract.</p> <p>The Service Provider shall commence supply of data in the manner specified in Appendix A to the contract from such locations where the equipment becomes operational and the scope of data supply shall be extended progressively to remaining locations so as to ensure commencement of data supply from all 36 locations on completion of 8 months from the date of the contract.</p>
2.3	<p>The Intended Completion Date is 5 years 8 months from the date of signing the contract. This period comprises (a) 8 months for placing all the required equipments and other resources in position for commencing supply of required data on water quality from all the specified locations, and (b) 5 years for providing the aforesaid data in the manners specified in the bidding documents.</p> <p>This date is accordingly fixed as dd/mm/yyyy [<i>5 years 8 months from the date of signing the contract</i>]</p>
2.5.4	<p>GCC 2.5.4 is deleted. However, in case of Force Majeure situation prevailing in any of the locations where water quality is to be measured, provisions of para 3.6.2 of Section VIII-Performance Specification shall also apply.</p>
3.2.3	<p>Activities prohibited after termination of this Contract are: Selling and/or reporting on data, results, and/or findings from the project. Any reporting on data/results outside of what is stipulated in this contract is strictly prohibited.</p>
3.4	<p>The risks and coverage by insurance shall be:</p> <ul style="list-style-type: none"> a) Third Party motor vehicle liability insurance in respect of motor vehicle operated in the Employer's country by the Service Provider or its personnel or sub-consultants, with a minimum coverage as per motor vehicle act 1938 and as amended to date. b) Employer's liability and workmen's compensation insurance in respect of the experts/personnel and sub-consultants in accordance with the relevant provisions of the applicable law in the Employer's country, as well as, with respect to such Experts, any such life, health, accident, travel or other insurance as may be appropriate: c) Professional liability insurance , with a minimum coverage of total ceiling amount of the contract

Number of GC Clause	Amendments of, and Supplements to, Clauses in the General Conditions of Contract
	Insurance against loss of or damage to (i) equipment purchased in whole or part with funds provided under this contract (ii) the Service provider's property used in the performance of the services and (iii) any documents prepared by the Service Provider in the performance of the services are properly covered under the total ceiling amount of the contract.
3.5(d)	The other actions are notification prior to moving stations, changing sensor technologies, changing procedures for calibration.
3.7	Restrictions on the use of documents prepared by the Service Provider are: all data and documents will be the exclusive property of CPCB, during the course of the project and after termination or the end of the contract.
3.8.1	<p>If supply of water quality data from all 36 locations is not commenced by the Service Provider within 8 months from the date of contract, liquidated damages shall be levied as under:</p> <p>Liquidated damages will apply at the rate of 0.05% of the contract price per day of delay in case Service Provider delays commissioning in all 36 stations for commencing supply of aforesaid data.</p> <p>However, in case commissioning is delayed in lesser number of stations, amount of Liquidated damages referred to above shall be reduced on Pro-rata basis in proportion to the number of stations which are still to be commissioned.</p> <p>Maximum amount of liquidated damages shall be 10% of the contract price.</p>
3.8.2 & 3.8.3	These clauses are not applicable.
5.1	Certificate for availing exemption benefits as referred to in the note below ITB 14.3 will be issued by the Employer however, the Service Provider shall be solely responsible obtaining such benefits.
6.2(a)	The amount in local currency is _____.
6.2(b)	The amount in foreign currency or currencies is _____.
6.4	<p>6.4.1 Payments shall be made according to the following schedule:</p> <ul style="list-style-type: none"> • Advance for Mobilization, Equipment and Supplies: 10 percent of the Contract Price shall be paid as interest free advance after signing of the contract, within 30 days from the date the submission of a bank guarantee for the same of the same amount. • The advance payment will be set off by the Employer by deduction at the rate of 25% from each bill certified for payment by the Data Qualification Consultant to

Number of GC Clause	Amendments of, and Supplements to, Clauses in the General Conditions of Contract																				
	<p>the Service Provider. The deduction from payments will commence 6 months after the Service Provider started data supply and will continue so as to complete recovery of full amount of advance payment within 30 months from the date of the contract. The amount of deduction will be suitably revised/ raised by the Employer, if necessary, so as to complete the recovery of full amount of advance payment within said period of 30 months.</p> <ul style="list-style-type: none"> • The bank guarantee for the advance payment shall remain valid until entire amount of the advance payment has been repaid from the Service Provider’s bills, after which the Bank guarantee will be returned by the Employer. • At the end of each calendar month Service Provider shall submit its bill for the data validated by the Data Qualification Consultant on the basis of rates determined in the manner provided in SCC 6.4.2 below, to the said Consultant who after verification and indicating deductions due from the payment will forward the certified bill to the Employer for arranging payment. The Employer shall make payment within 30 days of the date of receipt of bill by the Data Qualification Consultant. <p>Service Provider shall submit its bills for payments for price adjustment on quarterly basis. The amount of price adjustment will be determined in accordance with SCC 6.6.1.</p> <p>6.4.2 Method for calculating price for data supply:</p> <p>A. Price for hourly data supplied from Fixed Stations:</p> <p>Price payable for data supplied from Fixed Stations will be determined from the contract price as under:</p> <p>Contract Price =(Assumed P)</p> <table border="1" data-bbox="427 1392 1490 1774"> <thead> <tr> <th>Category of parameter</th> <th>Weight of Parameter</th> <th>Quantity of Parameters</th> <th>Price for hourly data under each category of parameter</th> </tr> </thead> <tbody> <tr> <td>A</td> <td>10</td> <td>Qa</td> <td>$P \cdot 10/5 \cdot 365 \cdot 24 \cdot (Qa \cdot 10 + Qb \cdot 5 + Qc \cdot 3 + Qd \cdot 2)$</td> </tr> <tr> <td>B</td> <td>5</td> <td>Qb</td> <td>$P \cdot 5/5 \cdot 365 \cdot 24 \cdot (Qa \cdot 10 + Qb \cdot 5 + Qc \cdot 3 + Qd \cdot 2)$</td> </tr> <tr> <td>C</td> <td>3</td> <td>Qc</td> <td>$P \cdot 3/5 \cdot 365 \cdot 24 \cdot (Qa \cdot 10 + Qb \cdot 5 + Qc \cdot 3 + Qd \cdot 2)$</td> </tr> <tr> <td>D</td> <td>2</td> <td>Qd</td> <td>$P \cdot 2/5 \cdot 365 \cdot 24 \cdot (Qa \cdot 10 + Qb \cdot 5 + Qc \cdot 3 + Qd \cdot 2)$</td> </tr> </tbody> </table> <p>As per Section V- Activity Schedule, total no. of parameters for 36 locations are as under;</p>	Category of parameter	Weight of Parameter	Quantity of Parameters	Price for hourly data under each category of parameter	A	10	Qa	$P \cdot 10/5 \cdot 365 \cdot 24 \cdot (Qa \cdot 10 + Qb \cdot 5 + Qc \cdot 3 + Qd \cdot 2)$	B	5	Qb	$P \cdot 5/5 \cdot 365 \cdot 24 \cdot (Qa \cdot 10 + Qb \cdot 5 + Qc \cdot 3 + Qd \cdot 2)$	C	3	Qc	$P \cdot 3/5 \cdot 365 \cdot 24 \cdot (Qa \cdot 10 + Qb \cdot 5 + Qc \cdot 3 + Qd \cdot 2)$	D	2	Qd	$P \cdot 2/5 \cdot 365 \cdot 24 \cdot (Qa \cdot 10 + Qb \cdot 5 + Qc \cdot 3 + Qd \cdot 2)$
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A	10	Qa	$P \cdot 10/5 \cdot 365 \cdot 24 \cdot (Qa \cdot 10 + Qb \cdot 5 + Qc \cdot 3 + Qd \cdot 2)$																		
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C	3	Qc	$P \cdot 3/5 \cdot 365 \cdot 24 \cdot (Qa \cdot 10 + Qb \cdot 5 + Qc \cdot 3 + Qd \cdot 2)$																		
D	2	Qd	$P \cdot 2/5 \cdot 365 \cdot 24 \cdot (Qa \cdot 10 + Qb \cdot 5 + Qc \cdot 3 + Qd \cdot 2)$																		

Number of GC Clause	Amendments of, and Supplements to, Clauses in the General Conditions of Contract											
	<table border="1" data-bbox="630 331 1240 520"> <thead> <tr> <th data-bbox="636 331 1029 365">Quantity of Parameters</th> <th data-bbox="1029 331 1234 365">No.s (A+B)</th> </tr> </thead> <tbody> <tr> <td data-bbox="636 365 1029 399">Qa</td> <td data-bbox="1029 365 1234 399">362</td> </tr> <tr> <td data-bbox="636 399 1029 432">Qb</td> <td data-bbox="1029 399 1234 432">285</td> </tr> <tr> <td data-bbox="636 432 1029 466">Qc</td> <td data-bbox="1029 432 1234 466">136</td> </tr> <tr> <td data-bbox="636 466 1029 499">Qd</td> <td data-bbox="1029 466 1234 499">54</td> </tr> </tbody> </table> <p data-bbox="428 592 1321 625">B. Price for 24 hourly data supplied from Cross-Section Stations:</p> <p data-bbox="474 651 1507 756">Payments for 24 hourly data for a particular parameter supplied from cross section stations will be made at the rate of 24 times the corresponding “Price for hourly data” as per table in 6.4.2 A above.</p>		Quantity of Parameters	No.s (A+B)	Qa	362	Qb	285	Qc	136	Qd	54
Quantity of Parameters	No.s (A+B)											
Qa	362											
Qb	285											
Qc	136											
Qd	54											
6.5	<p data-bbox="380 785 1507 856">Payment shall be made within 30 days of receipt of the bill for the validated by the Data Qualification Consultant and within 45 days in the case of the final payment.</p> <p data-bbox="380 882 1205 915">In case of delayed payments following interest rates shall apply:</p> <p data-bbox="380 940 899 974">6% per annum for payments in INR; and</p> <p data-bbox="380 999 1114 1033">LIBOR +2% per annum for payments in other currencies.</p>											
6.6.1	<p data-bbox="380 1062 760 1096">GC6.6.1 is revised as under:</p> <p data-bbox="380 1096 1458 1167">Following formula will be applicable for adjustment of contract price irrespective of the currency/currencies of the price:</p> $P_s = 0.8 + 0.2 L_i/L_o$ <p data-bbox="380 1293 474 1327">Where</p> <p data-bbox="380 1356 1507 1461">P_s is the adjustment factor to be applied to the amount certified for payment for the Data relating to a month that was supplied from the locations in a State. This factor will be determined separately for each State in which Data measurement locations fall.</p> <p data-bbox="380 1491 1507 1596">L_o = Consumer Price Index for industrial workers for the State in which sites are located for the month preceding the date of opening of Bids as published by Labour Bureau, Ministry of Labour and Employment, Government of India.</p> <p data-bbox="380 1608 1507 1713">L_i = Consumer Price Index for industrial workers for the State in which sites are located for the month under consideration as published by Labour Bureau, Ministry of Labour and Employment, Government of India.</p>											
7.1	<p data-bbox="380 1747 1507 1885">The principle and modalities of inspection of the Services by the Employer are as follows: Data supplied by the Service Provider shall be subjected to validation by the Employer as per procedure stipulated in Section VIII- Performance Specifications and only the data validated by the Data Qualification Consultant will qualify for payment.</p>											

Number of GC Clause	Amendments of, and Supplements to, Clauses in the General Conditions of Contract
8.1	During the process of amicable settlement of dispute, official/Scientist nominated by the Employer shall hold discussion with the representative nominated by the Service Provider.
8.2.3	The Adjudicator will be paid a rate of 10,000/- per effective day of hearing exclusive of boarding, lodging and transport which reimbursed as per actual.
8.2.4	Disputes shall be settled by arbitration in accordance with the following provisions:
8.2.5	<p>1. <u>Selection of Arbitrators.</u> Each dispute submitted by a Party to arbitration shall be heard by a sole arbitrator or an arbitration panel composed of three (3) arbitrators, in accordance with the following provisions:</p> <p>(a) Where the Parties agree that the dispute concerns a technical matter, they may agree to appoint a sole arbitrator or, failing agreement on the identity of such sole arbitrator within thirty (30) days after receipt by the other Party of the proposal of a name for such an appointment by the Party who initiated the proceedings, either Party may apply to <i>Federation Internationale des Ingenieurs-Conseil (FIDIC) of Lausanne, Switzerland</i> for a list of not fewer than five (5) nominees and, on receipt of such list, the Parties shall alternately strike names therefrom, and the last remaining nominee on the list shall be the sole arbitrator for the matter in dispute. If the last remaining nominee has not been determined in this manner within sixty (60) days of the date of the list, <i>Federation Internationale des Ingenieurs-Conseil (FIDIC) of Lausanne, Switzerland</i> shall appoint, upon the request of either Party and from such list or otherwise, a sole arbitrator for the matter in dispute.</p> <p>(b) Where the Parties do not agree that the dispute concerns a technical matter, the Client and the Consultant shall each appoint one (1) arbitrator, and these two arbitrators shall jointly appoint a third arbitrator, who shall chair the arbitration panel. If the arbitrators named by the Parties do not succeed in appointing a third arbitrator within thirty (30) days after the latter of the two (2) arbitrators named by the Parties has been appointed, the third arbitrator shall, at the request of either Party, be appointed by Indian Council of Arbitration.</p> <p>(c) If, in a dispute subject to paragraph (b) above, one Party fails to appoint its arbitrator within thirty (30) days after the other Party has appointed its arbitrator, the Party which has named an arbitrator may apply to the Indian Council of Arbitration to appoint a sole arbitrator for the matter in dispute, and the arbitrator appointed pursuant to such application shall be the sole arbitrator for that dispute.</p>

Number of GC Clause	Amendments of, and Supplements to, Clauses in the General Conditions of Contract
	<p>2. <u>Rules of Procedure</u>. Arbitration proceedings shall be conducted in accordance with procedure of the Arbitration & Conciliation Act 1996, of India unless the Consultant is a foreign national/firm, in which case arbitration proceedings shall be conducted in accordance with the rules of procedure for arbitration of the United Nations Commission on International Trade Law (UNCITRAL) as in force on the date of this Contract</p> <p>3. <u>Substitute Arbitrators</u>. If for any reason an arbitrator is unable to perform his/her function, a substitute shall be appointed in the same manner as the original arbitrator.</p> <p>4. <u>Nationality and Qualifications of Arbitrators</u>. The sole arbitrator or the third arbitrator appointed pursuant to paragraphs 1(a) through 1(c) above shall be an internationally recognized legal or technical expert with extensive experience in relation to the matter in dispute</p> <p>5. <u>Miscellaneous</u>. In any arbitration proceeding hereunder:</p> <ul style="list-style-type: none"> (a) proceedings shall, unless otherwise agreed by the Parties, be held in <i>[select a country which is neither the Employer's country nor the Service Provider's country]</i>; (b) the English language shall be the official language for all purposes; and (c) the decision of the sole arbitrator or of a majority of the arbitrators (or of the third arbitrator if there is no such majority) shall be final and binding and shall be enforceable in any court of competent jurisdiction, and the Parties hereby waive any objections to or claims of immunity in respect of such enforcement.

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Section VIII. Performance Specifications

1.0 Background

The Ganga basin covers nearly one-fourth (26.3 per cent) of the country's total geographical area, and is the largest river basin with a catchment area of 760,407 km². In India, the basin covers the whole of Uttarakhand, Uttar Pradesh, Bihar and the Union Territory of Delhi and parts of Punjab, Haryana, Himachal Pradesh, Rajasthan, Madhya Pradesh and West Bengal.

Ganga, rising in the northern most part of Uttarakhand (Gomukh), flows through Uttar Pradesh, Bihar and West Bengal and finally falls into the Bay of Bengal (Sagar dweep). After traversing a length of 1450 km in Uttarakhand and Uttar Pradesh and 110 km in the boundary between U.P. and Bihar the river then enters Bihar and flows 445 km more or less through the middle of the State. The length of the river measured along the Bhagirathi and the Hugli during its course in West Bengal is about 520 km. The total length of Ganga is approximately 2525 km.



Figure 1-1 The Ganges Basin

The Ganga Basin has an area of approx. 8,61,404 km². Ganga has a large number of tributaries. Some of these are of Himalayan origin having considerably large water wealth. The important tributaries within India are the Kali-east, the Ramganga, the Yamuna, the Gomti, the Ghaghara, the Gandak and the Kosi. The Yamuna although a tributary of the

Ganga, is virtually a river by itself. Its major tributaries are the Chambal, the Sind, the Betwa and the Ken. The main plateau tributaries of the Ganga are the Tons, the Son, the Damodar and the Kasai-Haldi.

This Project will focus on the Ganga main as well as tributaries and nalla's that flow immediately into the River Ganga.

2.0 Scope of Service

The CPCB has a requirement for measurement and delivery of real-time water quality data from numerous points along the River Ganga. Measurement points include select tributaries and nalla's that impact the River Ganga water quality. The measurements will occur in the States of Uttarakhand, Uttar Pradesh, Bihar and West Bengal.

The Appendix A of the Contract provides details of services to be provided by the Service Provider.

2.1 Validation of data

Data that is delivered to the Employer by the Service Provider as part of this contract will be subjected to a data validation process. The data validation process, handled under a separate contract, will use the Service Provider's self-audit (calibration) process to qualify the data for purchase in addition to inspecting the data for artifacts and irregularities. The results of data validation will be advised by the Data Qualification Consultant to the Service Provider within 24 hours of receipt of data at the Employer's Data Center except in cases where Employer wishes to examine the result before sending the communication to the Service Provider.

3.0 Description, Requirement and Specification of Services

3.1 Data Collection

Data will be collected from 36 locations which will comprise 34 fixed stations for measurement of hourly data and 2 cross section stations for measurement of 24 hourly data.

3.1.1 Station Locations, Parameters and Measurement Specifications

Different parameters of water quality will be measured at various locations. List of locations and details of parameters to be measured at each location are given respectively in **Annexure I and II** at Appendix A.

The Employer has obtained No Objection Certificates (NOCs) from the Owners/Agencies of all locations. Copies of NOCs obtained from the Agencies and photographs of all locations can be viewed at Employer's website at <http://cpcb.nic.in/ngrba/LocationsNOCsLinked.pdf>.

3.1.2 General Information Regarding Measurement Types

3.1.2.1 Fixed Stations

Fixed station sites are points along the waterway reach which are indicated in Annexure I of Appendix A where measurements of water quality are required on

hourly basis. Measurements will be made at or near the portion of the stream where maximum flow is experienced. Sensor packages can utilize bridge piers or other structures keeping in view the need for protecting the sensor package as also ensuring unobstructed flow of water in the vicinity of the sensor package as far possible.

If the flow regime changes over a period of time, the instruments/equipment must be relocated to a point where maximum flow is experienced. On an average, such relocations may not be required more than twice per year.

The fixed stations will be equipped to relay the data automatically to the Employer's Data Center within 5 minutes of taking the observations so as to qualify for payment.

3.1.2.2 Cross-Section stations

The cross-section stations, which are indicated in Annexure I of Appendix A, will use a floating platform to measure water quality along the cross section of the river, from one bank to other. Service provider is free to decide the type of means and technology.

Data measured at Cross-section stations will be received at the Employer's data center within 60 minutes of the completion of the cross-section measurement. The measurement of cross-section data will be made between the hours of 10am and 2pm local time. The measurement and collection of data shall be continuous throughout the measurement at a time interval no greater than every 2 seconds. The speed of the measurement platform shall be less than or equal to 5 km/hr.

Server time of the Data Center will be the basis for determining whether the data was transferred within the specified time limit, so as to be qualified for payment.

3.2 Data Collection and Delivery

All hourly and 24 hourly water quality data from all locations will be delivered initially to the Service Provider's dedicated server set up in the Employer's Data Center on real time basis. Such server shall be set up and maintained by the Service Provider at his cost throughout the duration of the contract, as stipulated at **Appendix A**. The data will immediately on receipt be transferred from the Service Provider's server to the Employer's server housed in the same Data Center on real time basis. The Service Provider shall provide the data as text files, one file for each transmission and the data will be placed in a directory as indicated by the Employer /Data Qualification Consultant.

The data transfer will be implemented using the SFTP service or other open communication standard as mutually agreed between the Service Provider and the Employer.

3.2.1 Data Collection

The fixed stations will measure water quality parameters once per hour ± 5 five minutes and transfer all log data within 5 minutes of measurement.

The cross-section measurements will be performed once per day throughout the duration of the contract. In addition to the parameters required for cross-section stations, the Service Provider will also supply the location of the measurement. The measurement data will include the latitude and longitude of the locations as well as its distance from the left bank while looking downstream. If the river is braided, measurements will be made within each braid.

3.2.2 Data Storage

The Service Provider shall store all real-time data collected during the duration of the contract. This storage shall be 100% online. This means that any data values can be called up instantaneously through the duration of the contract. In the event of any contingency, the Service Provider will provide access on the Employer's request for downloading any part or the entire database maintained in the Service Provider's server.

3.3 Quality Assurance and Control through Sensor Calibration

The Service Provider is required to perform regular calibration and adjustment of instruments using traceable standards as available.

3.3.1 Calibration Frequency

1. All instruments shall be calibrated at frequencies no longer than once every 14 days. If the instruments are not calibrated within the 14 days since the previous calibration, then any data delivered will not be taken up for validation and hence the same shall not qualify for payment. However, after the calibration is done and the same is witness by the Data Qualification Consultant, data will then be considered for validation/payment.

2. To enable Data Qualification Consultant to be present for witnessing the calibration of instruments, the Service Provider shall submit quarterly schedule and method of calibration to the Employer. The schedule for calibration will be approved by the Employer and the Data Qualification Consultant will present himself for witnessing the calibration on the date, time and locations specified in the schedule.

3.3.2 Traceable Standards

The Service Provider will use portable meters for calibration of the sensors and the calibration be traceable to NIST standards. In case of two consecutive calibrations the "drift" is found more than double of the accuracy ranges indicated in the table at para 3.8 of this section, the Service Provider will require to replace the instrument. The meters will be used to the extent possible; otherwise samples will be taken and subjected to laboratory analysis by the Service Provider. The laboratory process may be audited at any time by the Employer or the Data Qualification Consultant.

For BOD, the Service Provider is to have a portable facility to process water samples immediately. The analysis BOD in laboratory of the samples collected for calibration

will be carried out by the Service Provider in accordance to the procedure provided by the Employer.

3.3.3 Calibration Results

Upon completing field calibration, the station parameters will be set to match the calibration results.

3.3.4 Documentation

The results of the sensor calibration will be documented and made available in real-time on Employer's Data Center. The calibration entry must include the date, time, station, sensor initial reading, sensor adjustment through calibration, sensor final reading, comments on general station/sensor observations, and names of person(s) present during the calibration.

3.4 Mandatory Measurement Conditions

Mandatory measurement conditions will be used to qualify the data for payment. The Service Provider must assure the following conditions are in place. It is expected that the Service Provider will confirm these measurement conditions at the time of the 14-day calibration visits. The Data Qualification Consultant will confirm the measurement conditions during the same calibration visits.

3.4.1 Representativeness of Data

Measurement representativeness will be determined by self-audit in the presence of the Data Qualification Consultant at a minimum, with the Employer joining at times. If the minimum measurement conditions cannot be met, all data from the respective station will not qualified for payment.

3.4.1.1 Minimum Flow

In order to qualify for payment, the measurement must be representative of water conditions in the main channel of the river within two meters of the surface of the water. The main channel is defined as the portion of the river where the velocity of water is at a maximum. The measurement will be deemed non-representative if the velocity at the measurement point is less than 10% of that of the main channel.

3.4.1.2 Measurement Depth

The continuous monitoring sensors shall perform measurements not closer than 0.5m of the surface and not closer than 0.5 m of the bottom of the channel. However, if such requirements cannot be met fully at any stage for any of the specified stations, the Service Provider shall obtain required relaxation from the Employer through the Data Qualification Consultant.

3.6 Completeness of Data Requirement for Payment

3.6.1 The Service Provider shall maintain the equipments and sensors are in good working order throughout the period of contract. Data supplied for any hour shall be considered for validation and payment provided following conditions are satisfied:

- a) Measurements must be received from at least 90% of the total locations (namely 31 locations); and
- b) The measurements received from each such location shall not be less than 90% of the measurements specified for it.

3.6.2. If a station is vandalized, or otherwise is unavailable/non-operational due to Force Majeure conditions provided a notice under GCC 2.5 has been given to the Employer, that station will be excluded in determining 90% of the total locations from which data must be received by the Employer. However, the Service Provider shall take necessary remedial measures to make the said station(s) operational for recommencing supply of data within such period as may be agreed with the Employer and on expiry of said period the total no. of locations shall include the said station(s) for the purpose of paragraph 3.6.1(a).

3.7 Weightage of parameters for purpose of payment

Payments for the data supplied by the Service Provider shall be determined in the manner stipulated in SCC 6.4. For this purpose various parameters of water quality have been classified under 4 categories, A, B, C and D. Each category of parameters of water quality has been assigned different weightage depending upon the relative importance of the parameters, as given in the table below: as in the table below.

Sl. No.	Parameters of water quality	Category of parameters	Relative weight of each category
1.	BOD	A	10
2.	DO	A	10
3.	EC	A	10
4.	pH	A	10
5.	Temperature	A	10
6.	Ammonia	B	5
7.	Chloride	B	5
8.	COD	B	5
9.	TSS	B	5
10.	Turbidity	B	5
11.	Color	C	3
12.	Fluoride	C	3
13.	Nitrate	C	3
14.	Potassium	C	3
15.	BTX	D	2
16.	TOC	D	2
17.	Water level	D	2

3.8 Parameters to be measured and Specifications

The parameters wise Ranges, Accuracy and the Resolution are given below:

PARAMETER	Required	Range*	Accuracy (the greater of)*	Resolution*
Ammonia	X	0.0 to 100 mg/L	± 10%	≤ 0.1 mg/L
BOD	X	0.0 to 50 mg/L (river Ganga) 0.0 to 500mg/l (drain or tributaries)	± 10%	≤ 1 mg/L
BTX	X		± 10%	
Chloride	X	0.0 to 100 mg/L	± 10%	≤ 0.1 mg/L
COD	X	0.0 to 500 mg/L (in river Ganga) 0.0 to 1500mg/L (drain or tributaries)	±10%	≤ 1 mg/L
Color	X	0 – 500 Hazen	± 10%	10 hazen
DO	X	0 to 20 mg/L	± 10%	≤ 0.01 mg/L
EC	X	0.0 to 5000 µS/cm	± 10%	≤ 0.01 µS/cm
Fluoride	X	0.1	± 10%	
Nitrate	X	1 to 50 mg/L	± 10%	≤ 0.1 mg/L
pH	X	0.0 to 14 units of pH	± 0.2	≤ 0.01 units of pH
Potassium	X		± 10%	
Temperature	X	-5 to 50° C	± .5 C	0.1° C
TOC	X		± 10%	≤ 1 mg/L
TSS	X		± 10%	≤ 0.1 mg/L
Turbidity	X	0 to 2000 NTU	± 10%	≤ 0.1 NTU
Water Level	X	0 to 5 m	± .005 m	0.001 m

*Available information has been given above. However, the same will be finalised based on the inputs of the bidders during the pre-bid meeting.

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Section IX. Contract Forms

Table of Forms

Performance Bank Guarantee (Conditional)	84
Performance Bank Guarantee (Unconditional)	85
Performance Bond	86
Bank Guarantee for Advance Payment	88

Performance Bank Guarantee (Conditional)

This Agreement is made on the _____ day of _____, _____ between _____ of _____ (hereinafter called "the Guarantor") of the one part and _____ of _____ (hereinafter called "the Employer") of the other part.

Whereas

(1) This Agreement is supplemental to a contract (hereinafter called the Contract) made between _____ of _____ (hereinafter called the Service Provider) of the one part and the Employer of the other part whereby the Service Provider agreed and undertook to execute the Services of _____ for the sum of _____ being the Contract Price; and

(2) The Guarantor has agreed to guarantee the due performance of the Contract in the manner hereinafter appearing.

Now therefore the Guarantor hereby agrees with the Employer that upon receipt of

- (1) a written notice to the Guarantor from the Service Provider, or
- (2) a written notice to the Guarantor from the Adjudicator, or
- (3) a binding arbitration or Court award confirming that the amount of the Guarantee is payable to the Employer,

the Guarantor will indemnify and pay the Employer the sum of _____, _____ such sum being payable in the types and proportions of currencies in which the Contract Price is payable, provided that the Employer or his authorized representative has notified the Guarantor to that effect and has made a claim against the Guarantor not later than the date of issue of the Defects Liability Certificate.

The Guarantor shall not be discharged or released from his Guarantee by an arrangement between the Service Provider and the Employer, with or without the consent of the Guarantor, or by any alteration in the obligations undertaken by the Service Provider, or by any forbearance on the part of the Service Provider, whether as to the payment, time, performance or otherwise, and any notice to the Guarantor of any such arrangement, alteration, or forbearance is hereby expressly waived.

Given under our hand on the date first mentioned above.

Signed by _____
for and on behalf of the Guarantor in the presence of _____

Signed by _____
for and on behalf of the Employer in the presence of _____

Performance Bank Guarantee (Unconditional)

To: _____

Whereas _____ (hereinafter called "the Service Provider") has undertaken, in pursuance of Contract No. _____ dated _____ to execute _____ (hereinafter called "the Contract");

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

And whereas we have agreed to give the Service Provider such a Bank Guarantee;

Now therefore we hereby affirm that we are the Guarantor and responsible to you, on behalf of the Service Provider, up to a total of _____, _____, such sum being payable in the types and proportions of currencies in which the Contract Price is payable, and we undertake to pay you, upon your first written demand and without cavil or argument, any sum or sums within the limits of _____/ as aforesaid without your needing to prove or to show grounds or reasons for your demand for the sum specified therein.

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

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

This Guarantee shall be valid until a date 28 days from the date of issue of the Certificate of Completion.

Signature and seal of the Guarantor _____

Name of Bank _____

Address _____

Date _____

Performance Bond

By this Bond, _____ as Principal (hereinafter called “the Service Provider”) and _____ as Surety (hereinafter called “the Surety”), are held and firmly bound unto _____ as Obligee (hereinafter called “the Employer”) in the amount of _____/ 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 Service Provider and the Surety bind themselves, their heirs, executors, administrators, successors, and assigns, jointly and severally, firmly by these presents.

Whereas the Service Provider has entered into a Contract with the Employer dated the _____ day of _____, _____ for _____ 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 Service Provider 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 Service Provider shall be, and declared by the Employer to be, in default under the Contract, the Employer having performed the Employer’s obligations there under, 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 Employer for completing the Contract in accordance with its terms and conditions, and upon determination by the Employer and the Surety of the lowest responsive Bidder, arrange for a Contract between such Bidder and Employer 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 the Employer to the Service Provider under the Contract, less the amount properly paid by the Employer to the Service Provider; or
- (3) pay the Employer the amount required by the Employer 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 issuance of the Certificate of Completion.

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

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

Signed by _____
on behalf of _____
In the capacity of _____
In the presence of _____
Date _____

Signed by _____
on behalf of _____
In the capacity of _____
In the presence of _____
Date _____

Bank Guarantee for Advance Payment

To: _____

Gentlemen:

In accordance with the provisions of the Conditions of Contract, Sub-Clause 6.4 (“Terms and Conditions of Payment”) of the above-mentioned Contract, _____ (hereinafter called “the Service Provider”) shall deposit with _____ a Bank Guarantee to guarantee his proper and faithful performance under the said Clause of the Contract in an amount of _____

We, the _____, as instructed by the Service Provider, agree unconditionally and irrevocably to guarantee as primary obligator and not as Surety merely, the payment to _____ on his first demand without whatsoever right of objection on our part and without his first claim to the Service Provider, in the amount not exceeding _____

We further agree that no change or addition to or other modification of the terms of the Contract or of Services to be performed there under or of any of the Contract documents which may be made between _____ and the Service Provider, shall in any way release us from any liability under this Guarantee, and we hereby waive notice of any such change, addition, or modification.

This Guarantee shall remain valid and in full effect from the date of the advance payment under the Contract until _____ receives full repayment of the same amount from the Service Provider.

Yours truly,

Signature and seal: _____

Name of Bank/Financial Institution: _____

Address: _____

Date: _____

Appendices

Appendix A—Description of the Services

1. The Service Provider shall supply real-time water quality data from 34 fixed stations on hourly basis and from 2 cross-section stations on 24 hourly basis. Payments shall be made by the Employer for the said data after it has been validated by the Data Qualification Consultant, subject to conditions of the contract. Excepting advance payment and payment for validated data, the Service Provider shall not be entitled to any other payments.
2. The Employer has obtained No Objection Certificates from the concerned authorities/agencies under whose control the said 36 locations lie to enable the Service Provider to install the required equipment/sensors for measuring the water quality.
3. The detailed of 36 locations and various parameters of water quality to be measured from each location are provided in **Annexure I** and **Annexure II** respectively in this Appendix.
4. The Service Provider shall undertake the following activities for successfully discharging its obligations under the contract:
 - i. Visits to the identified sites for finalizing exact locations for carrying out civil works (if any) and or mounting the equipment/sensors.
 - ii. Execute an agreement, if required, at Service Provider's cost with the owner/agencies of the sites associating representative of Employer / Data Qualification Consultant before starting any civil works.
 - iii. Finalization of the specification of instruments /sensors for each location and procurement.
 - iv. Finalizing arrangement for requirements of power supply and communication network for each location.
 - v. Development of facility to calibrate the instruments periodically as specified in Section VIII.
 - vi. Installation of a dedicated server or computer system and its maintenance at the Service Provider's cost, for receiving data from 36 locations for onward transmission to the Employer. The dedicated server shall be housed at the Employer's Data Center for which necessary space and power supply will be made available free of cost.
 - vii. Commissioning the equipment/instruments and making all arrangement at Service Provider's cost for the safety and security of the equipment and personnel.
 - viii. Maintenance of the equipment and instruments and periodic calibration of instruments as specified in Section VIII- Performance Specification.

Annexure I – Location of Stations, Parameters and Parameter Specifications

List of RTWQM Station locations						
Sr. No	Location Code	Site	As per site Survey			Agencies Concerned
			Latitude	Longitude	Location	
Uttarakhand						
1	UK8	Hardwar Nallah	-	-	Jagjeet STP outlet drain within campus	Jagjeet STP Authority
Uttar Pradesh						
2	UP2	Madhya Ganga barrage	29°22'26"	78°02'27"	Madhya Ganga barrage, Bijnor	Madhya Ganga Nahar Nirman Authority, Bijnor, U.P
3	UP3	Sukartal Ghat	29°29'31"	77°59'25"	Bridge on Sukartal Ghat at Ban Ganga after confluence (a/c) Saloni river and before confluence (b/c) to River Ganga	UP Public Works Department (UP PWD)
4	UP6	Bridge at Anupshahr	28.36452°	78.27184°	Road Bridge on River Ganga at Anupshahr about 1 km u/s of bathing Ghat	UP Public Works Department (UP PWD)
5	UP8	Barrage at Narora (Ganga)	28.190361°	78.395345°	Barrage at Narora on River Ganga	State Irrigation Department
6	UP9	Kachla Ghat Bridge Badaun	27.931056°	78.855289°	Road bridge on River Ganga near Kachla Ghat, Badaun	UP Public Works Department (UP PWD)
7	UP10	Ramganga (d/s of Moradabad)	28.5535°	79.04748°	Bridge on Ramganga (d/s of Moradabad) at Shahbad on MDR53W	UP Public Works Department (UP PWD)
8	UP13	Bridge on Kali River at Kanpur-Farrukhabad Road	27.108614°	79.883556°	Bridge at Khudaganj, Kannauj d/s of River kali on bridge at Khudaganj, Kannauj	UP Public Works Department (UP PWD)
9	UP14	Bridge at Ghatia Ghat Farrukhabad	27.398842°	79.627522°	Ghatiya ghat bridge, Farrukhabad on River Ganga	UP Public Works Department (UP PWD)
10	UP16	Bridge SH21 DS of Kannauj	27°00'45.06"	79°59'19.47"	Manimau bridge (Mehendi ghat), Kannauj on River Ganga a/c Ram Ganga & River Garra	UP Public Works Department (UP PWD)
11	UP17	Bridge SH40 DS Kannauj	27.497972°	79.696139°	Allahganj bridge, Farrukhabad on River ramganga	UP Public Works Department (UP PWD)
12	UP18	Bridge in Bithur	26°36.010'	80°16.446'	Pariyal bridge on River Ganga b/w Laxshman ghat & Hnuman ghat near Dhruv Teela, Bithoor, Kanpur	UP Public Works Department (UP PWD)
13	UP19	Barrage U/s Kanpur	26°30.482'	80°18.991'	Ganga Barrage bridge, Kanpur on River Ganga	State Irrigation Department
14	UP24	U/s Bathing Ghat Kanpur	26°22.568'	80°29.549'	River Ganga d/s Kanpur; Deorighat (Maharajpur)	State Irrigation Department
15	UP26	Bridge at Kanpur 1	26°27'42.01" / 26°28.339'	80°12'34.73" / 80°22.719'	Railway bridge culvert at Bhauti on river Pandu / New Road-bridge on R. Ganga b/w Shuklaganj & Kanpur	UP Public Works Department (UP PWD)

16	UP29	Bridge 2 at Kanpur NH25	26°22'14.1"	80°18'25.08"	Bridge on River Pandu (d/s of Kanpur), Bhingave (Hamirpur Road), Kanpur.	National Highway Authority of India (NHAI)
17	UP32	Bridge near Fatepur	26.05487° / 26.19909°	80.90952° / 80.53726°	Bridge on River Ganga at Ansi, Fatehpur / Bridge on river Pandu, Fatehpur	UP Public Works Department (UP PWD)
18	UP40	Bridge DS of tributary near Sirsa	25.271°	82.093°	Pontoon bridge, Sirsa (Allahbad) on River Ganga	UP Public Works Department (UP PWD)
19	UP46	Nalla at Allahabad 4	25.3899°	81.90133°	Mawaiya nala (2.5mx0.5m) at Allahabad	UP Public Works Department (UP PWD)
20	UP54	Varanasi at Bathing Ghat 1	25°20'31.5"	83°01'22.5"	Barrage on river Varuna 5-6 Km up stream/before confluence with River Ganga.	State Irrigation Department
21	UP55	Bridge on Tributary in Varanasi	25°30'24.6"	83°08'27.5"	Bridge on river Gomati b/c to Ganga at Rajwari, Varanasi U/s of River Gomati b/c to River Ganga	UP Public Works Department (UP PWD)
22	UP56	Tributary @ Rajwari	25°03'21.72"	83°11'57.6"	Bridge on Devkali Pump canal (Chaudhary Charan Singh Pump Canal), Jauhar ganj, Saidpur, Ghazipur D/s of River Ganga a/c River Gomati	State Irrigation Department
Bihar						
23	Bh7	Nalla in Patna 2	25°38'26.35"	85° 6'19.31"	Kurzi Nalla @ MPS	Bihar Rajya Jal Parishad
24	Bh9	Rajapul Nalla	25°37'24.66"	85° 7'28.59"	Rajapur old pump house near pantaloon	Bihar Rajya Jal Parishad
25	Bh10	Nalla in Patna 3a	25°37'19.81"	85° 8'1.11"	Mandiri Nalla near pumping station	Bihar Rajya Jal Parishad
26	Bh11	Nalla in Patna 3b	25°37'19.60"	85° 9'1.59"	Anta Ghat, drainage pumping Station	Bihar Rajya Jal Parishad
West Bengal						
27	WB5	1 River u/s of Ganga- Nallah	24.505353°	88.030081°	First Influent Stream from Weast on Bridge over NH34	Irrigation Department
28	WB6	2 River u/s Ganga- Nallah	24.482371°	88.055535°	Second influence stream from West	Irrigation Department
29	WB10	Ganga River d/s Murshidabad (u/s Behrampore)	24.100378°	88.244281°	Road Bridge after Murshidabad, at Behrampore	Irrigation Department
30	WB11	Ganga River d/s of Murshidabad (d/s behrampore)	24.061719°	88.227575°	Ganga watercourse d/s of Murshidabad /Bridge if construction get completed	Irrigation Department
31	WB12	River u/s Ganga- Nallah	23.738086°	88.181159°	River Ganga	Irrigation Department
32	WB21	Ghat d/s of Srirampore	22.725772°	88.356118°	Ghat d/s of Srirampore	M/s Hastings Jute Mill, Rishra, W.B

33	WB23	Ganga River near Belgharia	22.670951°	88.359732°	Intake pumping Station of KMDA at Belgharia	Kolkata Metropolitan Development Authority (KMDA)
34	WB24	Nalla @ Ballykhal	22.655029°	88.347635°	Bally Khal Bridge	Irrigation Department
35	WB26	Nalla @ Chitpur	22.607483°	88.369767°	Nullah (Circular canal) at Chitpur	Irrigation Department
36	WB27	Ganga R @ Howrah Bridge	22.585092°	88.346954°	Millennium Park	Kolkata Port Trust

Sr No	Station Code	Locations	Parameters																
			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
			Category A					Category B					Category C				Category D		
			BOD	DO	EC	pH	Temperatur	Ammonia	Chloride	COD	TSS	Turbidity	Colour	Flouride	Nitrate	Potassium	BTX	TOC	Water level
16	UP40	Brudge DS of tributary near Sirsa	√	√	√	√	√	√	√	√	√	√		√	√	√		√	√
17	UP46	Nalla at allahabad 4	√	√	√	√	√	√	√	√	√		√	√	√	√			√
18	UP54	Varanasi at Bathing Ghat 1	√	√	√	√	√	√	√	√	√	√		√	√	√	√	√	√
19	UP55	Bridge on Tributary in Varanasi	√	√	√	√	√	√		√	√				√				
20	UP56	Tributary @ Rahwari	√	√	√	√	√	√		√	√				√				
	Bihar																		
21	Bh7	Nalla in Patna 2	√	√	√	√	√	√	√	√	√		√		√	√			√
22	Bh9	Rajapul Nalla	√	√	√	√	√	√	√	√	√		√		√	√			√
23	Bh10	Nalla in Patna 3a	√	√	√	√	√	√	√	√	√		√		√	√			√
24	Bh11	Nalla in Patna 3b	√	√	√	√	√	√	√	√	√		√		√	√			√
	West Bengal																		
25	WB5	1 River u/s of Ganga Nallah	√	√	√	√	√	√	√	√	√		√		√	√			√
26	WB6	2 River u/s Ganga -Nallah	√	√	√	√	√	√	√	√	√		√		√	√			√
27	WB10	Ganga River d/s Murshidabad (u/s Berhampore)	√	√	√	√	√	√	√	√	√	√		√	√	√	√	√	√
28	WB11	Ganga River d/s of Murshidabad (d/s berhampore)	√	√			√		√	√		√	√		√		√		
29	WB12	4 River u/s Ganga-Nallah	√	√	√	√	√	√	√	√	√		√		√	√			√
30	WB21	Ghat d/s of srirampore	√	√	√	√	√	√		√	√				√				
31	WB23	Ganga River near Belgharia	√	√	√	√	√	√		√	√				√				
32	WB24	Nalla @ ballykhal	√	√	√	√	√	√	√	√	√		√		√	√			√

Sr No	Station Code	Locations	Parameters																
			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
			Category A					Category B					Category C				Category D		
			BOD	DO	EC	pH	Temperatur	Ammonia	Chloride	COD	TSS	Turbidity	Colour	Flouride	Nitrate	Potassium	BTX	TOC	Water level
33	WB26	Nalla @Chitpur	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√
34	WB27	Ganga River @ Howrah Bridge	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√

List of Cross-section stations

Sr No	Station Code	Locations	Parameters																
			17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33
			Category A					Category B					Category C				Category D		
			BOD	DO	EC	pH	Temperatur	Ammonia	Chloride	COD	TSS	Turbidity	Colour	Flouride	Nitrate	Potassium	BTX	TOC	Water level
1	UP6	Bridge at Anupshahr	√	√		√	√	√		√		√	√						
2	UP24	U/s Bathing Ghat Kanpur	√	√		√	√	√		√		√	√						

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Appendix C—Key Personnel and Subcontractors

- List under:*
- C-1 Titles [and names, if already available], detailed job descriptions and minimum qualifications of foreign Personnel to be assigned to work in the Government's country, and staff-months for each.*
 - C-2 Same as C-1 for Key foreign Personnel to be assigned to work outside the Government's country.*
 - C-3 List of approved Subcontractors (if already available); same information with respect to their Personnel as in C-1 or C-2.*
 - C-4 Same information as C-1 for Key local Personnel.*

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Appendix F—Services and Facilities Provided by the Employer

CPCB will provide necessary permission to the Service Provider for access to the site and construction of station for each location named in Appendix A – Performance Specifications.

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NEERAJ KUMAR GUPTA
District & Session Judge (Retd.)
E-mail: adsjnkg@gmail.com Tel: +91-9910384632

Education:

B.Sc; LL.B. (1977-Fist Division)

Bar Status:

Enrolled as an advocate with Bar Council of Delhi since 1977,
Member, Delhi Bar Association; Member, New Delhi Bar Association.

Member Delhi High Court Bar Association since year 1993

Training:

Trained Mediator duly certified by Hon'ble Supreme Court of India.

Participated in various seminars and workshops on various legal disciplines

Experience:

Over 21 years of experience as practicing lawyer before District Courts and High Court of Delhi. Practiced mainly on commercial, civil, Writ jurisdictions and the cases handled involved appearances before debt recovery tribunal, national and state consumer redressal forums, arbitrations apart from other nature of litigation including banking, finance and insurance, administrative law, real-estate, contract, rent, partnership law.

Around 17 of experience as a Judicial Officer, Delhi (DHJS) in the capacity of a judge set over most jurisdictions including civil, criminal industrial tribunal, SEBI, NDPS and contributed to development of law. As a judicial officer held various administrative positions including as a Vigilance Officer, held departmental enquiries and as a District & Session Judge, entire administration of Dwarka District Court was looked after.

Other Official positions:

Secretary General/ Coordinator, Delhi INTERNATIONAL ARBITRATION CENTRE, DELHI HIGH COURT, DELHI, a centre having world class facilities for conducting Domestic and International Arbitration, under its rules, which were in consonance with the Arbitration Act and the International Rules.

(Neeraj Kumar Gupta)

New Delhi

DATED: