



Maharashtra Pollution Control Board

महाराष्ट्र प्रदूषण नियंत्रण मंडळ

Request for Proposal

For

“Evaluation of Air Quality in different Indoor Environments in Mumbai Metropolitan Region (MMR) Representative of Maharashtra State with Special Reference to Non-Attainment Areas & critically / severely impacted areas and Formulation of Best Practices for better Indoor Air Quality (IAQ).”

RFP Reference No: MPCB/JD(APC)/IAQ/2023-24

Date of Issue:

RFP Price: INR 5,000/-

Issued By:

Member Secretary

Maharashtra Pollution Control Board,

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Disclaimer

This Request for Proposal (RFP) for “Evaluation of Air Quality in different Indoor Environments in Mumbai Metropolitan Region (MMR) Representative of Maharashtra State with Special Reference to Non-Attainment Areas & critically / severely impacted areas and Formulation of Best Practices for better IAQ” (Hereinafter referred to as “Project”), is issued by Maharashtra Pollution Control Board, GoM (herein referred to as ‘MPCB’).

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The information contained in this RFP is selective and is subject to updating, expansion, revision and amendment at the sole discretion of MPCB. It does not, and does not purport to, contain all the information that a recipient may require for the purposes for deciding to participate in this process. Each Party must conduct its own analysis of the information contained in this RFP, to correct any inaccuracies therein and is advised to carry out its own investigation into the proposed MPCB Project, the regulatory regime which applies thereto and by and all matters pertinent to the MPCB Project and to seek its own professional advice on the legal, financial and regulatory consequences of entering into any agreement or arrangement relating to the MPCB Project. MPCB shall not be responsible for any direct or indirect loss or damage arising out of or for use of any content of the RFP in any manner whatsoever.

MPCB shall be the sole and final authority with respect to qualifying a bidder through this RFP. The decision of MPCB in selecting the Service Provider who qualifies through this RFP shall be final and MPCB reserves the right to reject any or all the bids without assigning any reason thereof. MPCB further reserves the right to negotiate with the selected agency to enhance the value through this project and to create a more amicable environment for the smooth execution of the project.

MPCB may terminate the RFP process at any time without assigning any reason and upon such termination MPCB shall not be responsible for any direct or indirect loss or damage arising out of such a termination.

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Section I: Instruction to Bidders

Abbreviations

Abbreviation	Description
EnvCC	Department of Environment and Climate Change
DSC	Digital Signature Certificate
EMD	Earnest Money Deposit
GCC	General Contract Conditions
GST	Goods and Services Tax
GOM	Government of Maharashtra
MPCB	Maharashtra Pollution Control Board
NDA	Non-Disclosure Agreement
PDF	Portable Document Format
PKI	Public Key Infrastructure
RFP	Request for Proposal
PBG	Performance Bank Guarantee
SLA	Service Level Agreement
SSP	Selected Service Provider
TCV	Total Contract Value
TCS	Tax Collected at Source
TDS	Tax Deducted at Source
TEC	Tender Evaluation Committee

Definitions

Term	Definition
Authority /Purchaser	Means Maharashtra Pollution Control Board, Government of Maharashtra i.e. the issuer of this tender
Bidder(s)	Eligible, reputed, qualified entities with strong technical and financial capabilities for scope defined in this RFP
Bid/ Proposal	This means the documents in their entirety comprising of the Eligibility Proposal, and Commercial Proposal, clarifications to these, technical presentation/ demo submitted by the Bidder, the Bidder herein, in response to the RFP, and accepted by MPCB
Bidder's Representative	The person or the persons appointed by the Bidder from time to time to act on its behalf for overall co-ordination, supervision and execution of Project
Business Day	This means any day that is not a Sunday or a public holiday (as declared by Government of Maharashtra).
Contract / Project Period	The time period for completion of the entire project scope of work defined in the RFP
Certificate of Operation (CoOP)	A written documentation issued by MPCB evidencing the acceptance, approval or completion, as the case may be, of any Deliverable including any documentation of the Project such that may be required in terms of the Contract
Day	A period of 24 hours running from midnight to midnight. It means "calendar day" unless otherwise stated. Where, because of a difference in time zone, the calendar day in one country differs from another country then the calendar day shall be deemed to be the calendar day applicable to India.
Deliverables	The equipment, services and other documentation, milestones and activities related to complete the Scope of Work for the Project, as defined in the RFP.
EMD/ Bid Security	This refers to the amount to be deposited by the Bidders to MPCB to demonstrate commitment and intention to complete the bid process of this RFP
End of Contract	This refers to the time when the Contract Period shall end
RFP Portal	The web portal https://mahatenders.gov.in/ that is official portal for all details and submissions related to this RFP process
Letter of Intent / Letter of Award	This refers to the letter issued by MPCB to the Successful Bidder indicating its selection as the Bidder for implementation of the Project
Project	To Supply, Commissioning, Operation and Maintenance of Beach Cleaning Equipment for selected Beaches in Maharashtra
RFP/ Tender	Refers to Request for Proposal containing the technical, functional, commercial and operational specification and including all clarifications/addendums, explanations and amendments issued by MPCB in respect thereof
Successful Bidder	Refers to the bidder who has gone through the selection criteria as mentioned in the RFP and has been selected by the department for the mentioned work
Total Contract Value/ Contract Value	Value (Exclusive of all taxes, levies and duties) finally agreed between MPCB and the Bidder for the delivery of Equipment and Services mentioned in the RFP; which will be the maximum value payable to the Bidder for this Project.

1. Tender Notice

RFP reference No: MPCB/JD(APC)/IAQ/2023-24

Date:

Maharashtra Pollution Control Board (MPCB), Government of Maharashtra (GoM) invites sealed tenders from reputed experienced professional organizations for **“Evaluation of Air Quality in different Indoor Environments in Mumbai Metropolitan Region (MMR) Representative of Maharashtra State with Special Reference to Non-Attainment Areas & critically / severely impacted areas and Formulation of Best Practices for better Indoor Air Quality (IAQ).** The prospective firms may download the technical and commercial bid from the e-tendering portal <https://mahatenders.gov.in> and submission of bid maybe done as per details provided in RFP.

For complete details & formats of e-tender, the bidders can visit <https://mahatenders.gov.in> Tender Fee payment of **INR 5,000/-** (Non-Refundable) by payment gateway online /RTGS /NEFT /ECS. No brokers/intermediaries shall be entertained. MPCB reserves the right to reject any/all applications without assigning any reasons whatsoever.

Note:

1. The detailed timetable for the various activities to be performed in e-tendering process by the tenderer for quoting their offer is given in this tender document under "TENDER SCHEDULE". Bidder should carefully note down the cut-off dates for carrying out each e-tendering process/activity.
2. Every effort is being made to keep the website up to date and running smoothly 24 x 7 by the service provider. However, MPCB takes no responsibility, and will not be liable for the website being temporarily unavailable due to any technical issue at any point of time. Therefore, bidders are encouraged to submit their proposals and complete the process at least 3 days prior to the deadline. The tenders must follow the timetable of e-tendering process and get their activities of e-tendering process done well in advance to avoid any inconvenience due to unforeseen technical problems, if any.
3. In any event MPCB will not be liable and responsible for any damages or expenses arising from any difficulty, error, imperfection or inaccuracy with this website, including all associated services, or due to such unavailability of the website or any part thereof or any contents or any associated services.
4. MPCB will not be responsible for any incomplete activity of e-tendering process of the tenderer due to technical error / failure of website and it cannot be challenged by way of appeal, arbitration and in the court of law.

2. Invitation for Bids

1. MPCB hereby invites Proposals from reputed, competent and professional companies, who meet the minimum eligibility criteria as specified in this bidding document for the “Evaluation of Air Quality in different Indoor Environments in Mumbai Metropolitan Region (MMR) Representative of Maharashtra State with Special Reference to Non-Attainment Areas & critically / severely impacted areas and Formulation of Best Practices for better Indoor Air Quality (IAQ)” as detailed in this RFP document.
2. The complete bidding document shall be published on <https://mahatenders.gov.in> for the purpose of downloading. The downloaded bidding document shall be considered valid for participation in the electronic bidding process (e-Procurement/ e-Tendering) subject to the submission of required tender/ bidding document fee through e-Tendering Online Payment Gateway mode only.
3. To participate in online bidding process, Bidders must procure a Digital Signature Certificate (Class - III) as per Information Technology Act-2000 using which they can digitally sign and encrypt their electronic bids. Bidders can procure the same from any CCA approved certifying agency. Bidders who already have a valid Digital Signature Certificate (DSC) need not procure a new DSC.
4. Bidders are also advised to refer “Bidders Manual Kit” available in this document or at <https://mahatenders.gov.in> for further details about the e-tendering process.
5. Bidder is advised to study this RFP document carefully before submitting their proposals in response to the RFP Notice. Submission of a proposal in response to this notice shall be deemed to have been done after careful study and examination of this document with full understanding of its terms, conditions and implications.
6. Note-
 - a. Earnest Money Deposit: - can be paid through Online Payment mode or through Bank Guarantee as per details mentioned in the table given below.
 - b. All eligible/ interested Bidders are required to be enrolled on portal <https://mahatenders.gov.in> before downloading tender documents and participate in e-tender process for this Tender. Bidders are requested to contact the telephone numbers provided on maha-tenders portal in case of any doubts/ information/difficulty regarding online enrolment or e-tendering process.
 - c. Bidders should submit the document related to tender online. The bidders who wish to submit the payment of EMD by way of Bank Guarantee, physical instrument of the EMD (Bank Guarantee) should be submitted on the day of opening bids and the scanned copy should be uploaded along with the technical documents in the technical proposal envelope. Tender Fee of INR **5,000/-** (including taxes) should be credited in to MPCB fundaccount by online payment gateway, before submission of tender response otherwise Bidders cannot participate in tender process. Other instructions can be seen in the tenderform. All or any one of the tenders may be rejected by competent authority.
 - d. The Electronic tendering system for MPCB will be available on the URL <https://mahatenders.gov.in>.

Evaluation of Air Quality in different Indoor Environments in Mumbai Metropolitan Region (MMR) Representative of Maharashtra State with Special Reference to Non-Attainment Areas & critically/ severely impacted areas and Formulation of Best Practices for better Indoor Air Quality (IAQ)

7. The summary of details regarding this invitation of bids are listed in the table below:-

Sr.	Items	Description
1	RFP Reference Number	MPCB/JD(APC)/IAQ/2023-24
2	Name of the Project	"Evaluation of Air Quality in different Indoor Environments in Mumbai Metropolitan Region (MMR) Representative of Maharashtra State with Special Reference to Non-Attainment Areas & critically / severely impacted areas and Formulation of Best Practices for better Indoor Air Quality (IAQ)"
3	RFP Document Download Start / End Date & Time	Start:21/11/2023@ 11:00 Hrs End:05/12/2023@ 13:00 Hrs
4	Last date to send in requests for clarifications	All the queries should be received on or before 30/11/2023 @ 11:00 Hrs, through email only with subject line as follows: "Queries –Evaluation of Air Quality in different Indoor Environments in Mumbai Metropolitan Region (MMR) Representative of Maharashtra State with Special Reference to Non-Attainment Areas & critically / severely impacted areas and Formulation of Best Practices for better Indoor Air Quality (IAQ)" The Pre-Bid queries to be sent to the Email Id :- jdair@mpcb.gov.in
5	Date and Time pre bid Meeting	30/11/2023@ 14:30 Hrs at MPCB HQ / by Video Conferencing (depending on prevailing situation)
6	Last date for submission of Bids	05/12/2023@ 13:00 Hrs
7	Tender Fee to be paid via Online Payment Gateway mode only.	INR 5,000/- (Rs. Five Thousand INR)
8	Date Time and Place of opening of Technical Proposals	06/12/2023 @ 11:30 Hrs at MPCB HQ, Sion
9	Earnest Money Deposit (EMD) to be paid in form of Online Payment	INR 20,00,000 (Rs. Twenty Lakh Only)
10	Performance Bank Guarantee (PBG) from Nationalized Bank	10% of the contract value valid up to Twenty Four (24) months post end of contract. PBG should be only from Nationalized banks.
11	Last date for signing contract	As intimated in work order of MPCB
12	Bid Validity Period	180 days from the last date (deadline) for submission of bids.
13	Contract Period	Twelve (12) months from the date of LoA / Work Order /Contract
14	Contact Details Dr. V. M. Motghare, JD - APC Maharashtra Pollution Control Board, 3 rd Floor, Kalpataru Point, Opp. PVR Cinema, Sion Circle, Sion, Mumbai-400 022 Tel: 022-2401 4701 / 2402 4068 Email ID: jdair@mpcb.gov.in	

Note: Prospective Bidders may visit MPCB Office for any further information / clarification regarding this RFP on prior appointment during working hours till the date of technical bid submission.

2.1 Tender Schedule

Please Note: All bid related activities (Process) like Tender Document Download, Bid Preparation, and Bid Submission will be governed by the time schedule given under Key Dates below:

Sn	ACTIVITY	Date
1.	Release of E-Tender	21 November 2023
2.	Last date of E-Tender Download	05 December 2023
3.	Queries from Bidders	30 November 2023 upto 11.00 hrs
4.	Pre-bid Meeting	30 November 2023 at 14.30 hrs.
5.	Bid Submission	05 December 2023 upto 13:00Hrs
6.	Technical Bid Opening (Envelope – 1)	06 December 2023 @11:30 hrs
7.	Commercial Bid Opening (Envelope – 2)	To be announced later

Presentations from each of the Bidder complying to Minimum Eligibility Criteria will be published later on MPC Board's website. The detailed schedule and agenda for the same will be intimated in due course.

Dates mentioned here, are scheduled dates for Bid Opening Activities. Any changes in dates of opening of technical and commercial bids shall be notified in 'Press Notice / Corrigendum' section on the e-Tendering sub portal of the department before opening of the same.

3. Instructions to Bidders

3.1 Introduction of MPCB

Maharashtra Pollution Control Board (MPCB) is implementing various environmental legislations in the state of Maharashtra, mainly including Water (Prevention and Control of Pollution) Act, 1974, Air (Prevention and Control of Pollution) Act, 1981, Water (Cess) Act, 1977 and some of the provisions under Environmental (Protection) Act, 1986 and the rules framed there under like, Biomedical Waste (M&H) Rules, 1998, Hazardous Waste (M&H) Rules, 2000, Municipal Solid Waste Rules, 2000 etc. MPCB is functioning under the administrative control of Environment Department, Government of Maharashtra

Some of the important functions of MPCB are:

1. To plan comprehensive program for the prevention, control or abatement of pollution and secure executions thereof,
2. To collect and disseminate information relating to pollution and the prevention, control or abatement thereof,
3. To inspect sewage or trade effluent treatment and disposal facilities, and air pollution control systems and to review plans, specification or any other data relating to the treatment plants, disposal systems and air pollution control systems in connection with the consent granted,
4. Supporting and encouraging developments in the fields of pollution control, waste recycle reuse, eco-friendly practices etc.
5. To educate and guide entrepreneurs in improving environment by suggesting appropriate pollution control technologies and techniques.
6. Creation of public awareness about the clean and healthy environment and attending the public complaints regarding pollution

3.2 Background

Air Pollution in India is a serious issue impacting environmental, economic and social well-being of the country. The air quality in most Indian cities is deteriorating drastically. The poor outdoor air quality is also impacting the air quality within the enclosed environments, be it the residential, commercial, school buildings or health care units. The deteriorated Indoor Air Quality (IAQ) with high levels of pollutants concentration can have much more severe impacts on the health of the people as almost 80-90% of our total time is spent in such buildings.

According to the existing body of published literature, Indoor Air Pollution (IAP) has been ranked among top 10 health risk factors in developing countries. This contributes ~2.6% of the global burden of diseases, 1.6 million pre-mature deaths per year, and ~1.0 million deaths below the age of 5 years according to the latest available estimates. Given the alarming health impacts associated with the IAP exposure, the World Health Organization (WHO) has declared this as one of the four most critical global environmental problems in developing countries. The latest WHO estimates suggest that India carries the largest burden of disease in developing world due to IAP exposure. This contributes ~28% (i.e. 2 million) of all deaths and 39 million disability adjusted life years each year due to unvented burning of biomass for heating and cooking purposes.

The above existing reports for India have mostly focused on IAP due to the burning of biomass fuels in unvented cook-stoves in rural, semi-urban areas or in urban slums and on their socio-economic status

(Balakrishnan.et al,2013). However, a far less attention has been paid to the IAP issues in urban areas which is an equally important problem. This is because multiple sources of IAPs, apart from biomass fuel burning, co-exist with sources such as burning of tobacco smoke in urban indoors. The IAP includes particulate matter (PM), gasses, biological aerosols, volatile organic compounds (VOCs) or any mass or energy stressor that can affect the health and comfort of occupants within the buildings. Some of the key factors affecting the IAQ include: (i) concentrations of outdoor air pollutants penetrating to the indoor environments, (ii) building materials such as asbestos, cement, wood preservatives, and volatile organic compounds released from paints, glues, resins, polishing materials, perfumes, spray propellants and cleaning agents, (iii) building characteristics such as the air tightness and ventilation, (iv) building occupancy and living space, (v) equipment used within the buildings (e.g. photocopiers, printers, heaters), (vi) the customs, habits and tradition of the residents, and (vii) the economic status of occupants.

Unfortunately, only a handful of studies have investigated the IAQ in urban indoor settings in India. Most of the so far conducted research is either limited to individual studies or based on short-term measurements that suffer from a small sample size. The scarcity of such studies is due to complex nature and types of indoor environments. Every indoor environment may have its unique IAQ related issues and concerns on the basis of the key factors mentioned above. Therefore, it is not feasible and viable to conduct the IAQ base line studies for different types of buildings all together to come up with their problem statements and further to develop the guidelines for improving their IAQs.

Therefore, the main aim of this proposed study is to assess the quality of indoor air in different types of buildings in MMR and formulating the best practices for breathable IAQ which can further lead to preparation of the IAQ guidelines for the selected indoor environments in urban areas. Recently, it has been observed in areas where industrial areas are adjacent to residential area or in mixed land use pattern areas; various complaints of pollution are received e.g. Odor problem in Taloja, dust problem in Dombivli, Odour & Pollution issues in Mahul, air pollution issues in Chandrapur, etc. The Process of identification of at least 5 – 7 such critically / severely impacted areas shall be such that it is representative of all other such critically / severely impacted areas to represent entire Maharashtra. Also, it has to be considered while selecting such locations that they shall be representative of different problems based on the pollutant types and complaints received in specific areas.

Literature supports the selection of Prioritized Indoor Environments in Proposed Study

International perspective:

Studies have shown that air pollutants originate from two sources such as human activities inside buildings and transportation from outside sources (Tran, park and Lee, 2020). Evidence shows that the sources of IAPs are strongly dependent on outdoor processes except for the ones affected by independent sources like cooking etc. By simultaneously considering the large differences in I/O ratio with their correlation patterns, the researchers conclude that indoor PM_{2.5} (and its elemental concentrations) was significantly influenced by both indoor activities (such as cooking, etc.) and by particle infiltration from the outdoor microenvironment (Lim et al., 2011).

IAQ study in schools is important because children have greater susceptibility to environmental pollutants than adults, because they breathe higher volumes of air relative to their body weights and their tissues and organs are actively growing (Landrigan, 1998; Faustman et al., 2000).

According to a study by Chen et al., 2016, most of the shopping malls/ retail stores exceed the most stringent formaldehyde, acetaldehyde and PM_{2.5} guidelines, at current ventilation rates. The overall health burden on workers and shoppers in grocery and other retail stores is comparable in magnitude to the health burden from exposure in offices. The highest lifetime cancer risks of retail workers from exposure to formaldehyde, and the highest disease incidence from PM_{2.5} exposure were also estimated

and has found to be 50–100 per million and between 2 (non-fatal stroke) and 20 (mortality) per 100000 persons per year. As PM_{2.5} and formaldehyde were the two dominant risk drivers, the total DALYs per year associated with exposure in retail and grocery stores are only modestly lower than that calculated for offices and schools.

With a focus on VOCs only, Loh et al. (2009) also concluded that stores (and restaurants) can be large contributors to personal exposure for workers and for a subset of people who visit those spaces. Apart from PM_{2.5} and Formaldehyde, the bacteria present in abundance in the indoor communities in retail stores, which are mainly from Streptophyta, Bacillus, Corynebacterium, Pseudomonas, and Acinetobacter genera and are generally associated with outdoor environments (Hoisington et al (2016). Coleman and Meggers (2018) stated that occupied space of a building's fabrication shop and an open-plan office had higher levels of volatile organic compounds (VOCs) than outside air. This indicates that both buildings' ventilation systems are unable to supply enough fresh air to dilute VOCs generated inside those spaces.

Another study in two retail malls in Singapore showed the highest percentage of sequences detected were in the Proteobacteria phylum and approximately 60% of the sequences were classified to the taxonomic order Caulobacterales within the class Alphaproteobacteria. The indoor bacterial community was not the same as that observed in the adjacent soil and water samples, suggesting that the indoor environment provided a unique niche for the microbial community. Outdoor bacterial communities have been shown to influence the indoor community observed in residences (Dunn et al., 2013) and classrooms (Hospodsky et al., 2012; Meadow et al., 2013).

Additionally, the hospitals are the areas with the most vulnerable group of population and may develop severe impacts if IAQ is not good. The results of the most recent exploratory study done by Pereira et al, 2017 to demonstrate the ability of UVAPS to characterize indoor particle concentration, size distribution and fluorescence in hospitals clearly showed that there is a need for further work in complex hospital environments, to ensure good indoor air quality and to protect patients and healthcare workers against hospital-acquired infections and occupational diseases. Due to the budget limitations and the requirement of special protocols to conduct sampling in hospitals, the current proposal is not considering indoor spaces in hospitals for the study.

National Perspective:

Many studies were performed in India to understand the status of indoor air quality in India. Studies conducted by Goyal and Khare (2009) have shown that the indoor air quality is significantly influenced by the particle infiltration from the outdoors and by the indoor activities like cooking etc.

A recent study by SIE in collaboration with CERCA (Center of excellence for research on clean air) in 2020 monitored IAPs (PM₁₀, PM_{2.5}, TVOC, CO₂ with temperature and relative humidity) in 37 public spaces comprising colleges, schools, restaurants, offices, shopping malls and cinema halls spanning across NCT-Delhi (The Indian Express, 20th Feb 2021). The microenvironment of prime importance in terms of IAQ were schools, colleges, and offices, where the vulnerable population like young kids and old diseased population are exposed to such high concentration of pollutants regularly. The concentration of PM₁₀ and PM_{2.5} were crossing the permissible limits set by WHO, 2016 by more than 6-8 times. The CO₂ levels, which are not given prime importance in research studies done in India, need to be monitored more consistently to study the spatial and seasonal variations in the indoor microenvironment. Widespread use of wooden furniture adhesives, chemical cleaning agents, varnishes, floor cleaners, paints in the present urban built environment is giving rise to high TVOC levels which needs to be prevented as some of these sources also contain carcinogenic substances.

Children also spend more time in school than in any indoor environment other than the home. Adverse environmental conditions affect the learning and performance of students in schools which could have immediate and lifelong detrimental consequences, on both students and society at large. Besides, most of the schools in urban India are near to roadways and naturally ventilated, where infiltration of outdoor air pollution is one of the major contributors to indoor air pollutants. PM_{2.5} along with significantly high CO concentrations are the most important IAP concern with schools in urban India (Goyal and Khare, 2009; Chitra and Nagendra, 2014).

CO₂ concentration also acts as an important indicator of quality of air inside school classrooms. Its concentration above 1000 ppm inside a classroom reflects insufficient ventilation, which may affect the health of students and impair their concentration and performance. Research studies have indicated that CO₂ inside air-conditioned classrooms often exceed the recommended limit of 1000 ppm and affect concentration scores of students (Singh, P., Arora, R., & Goyal, R., 2020). In their study, comparisons were made in concentration scores of students exposed to CO₂ levels above and below 1000 ppm. The study provided strong linkages between decreased ventilation rates to increased concentration scores of students and vice versa.

The evidence exists for higher PM_{2.5} concentrations in households of Delhi city and a direct correlation with outdoor particulate concentration (Kulshreshtha and Khare, 2011). Apart from PM_{2.5}, VOCs are another important pollutant parameter, which needs to be investigated in Indian urban homes as plenty of indoor sources, such as carpets, furniture's, paints, cleaning materials contribute to the VOCs (Kumaret al., 2014).

It is evident that the IAQ problem is well studied in the developed world covering a wide spectrum related to IAPs. Limited research studies are available on the Indoor air quality problems and some of them are conducted in schools, colleges, shopping malls/stores and households which are having sensitive occupants. The IAQ studies conducted in India are scarce and mainly focus on specific regions of the country where outdoor air pollution is a major issue like Delhi NCR. Non-availability of country specific IAQ guidelines is one of the reasons for less study in India. Literature review highlights the gap in the previous research and provides a pathway to explore more about the IAQ problem in different geography.

In a recent study, Rumchev et al (2017) demonstrates the significant health impact of housing, poor indoor air quality and socio-economic characteristics on the burden of respiratory illness among women and children in urban south India. Increased respiratory symptoms were recorded among women and children from low-income households.

3.3 Completeness of Response

1. The response to this RFP should be full and complete in all respects.
2. Failure to furnish all information required by the RFP document or submission of a proposal not substantially responsive to the RFP document in every respect will be at the Bidder's risk and may result in rejection of its Proposal and forfeiture of the EMD.

3.4 Proposal Preparation Costs

1. The bidder shall submit the bid at its cost and MPCB shall not be held responsible for any cost incurred by the bidder.
2. Submission of a bid does not entitle the bidder to claim any cost and rights over MPCB and MPCB shall be at liberty to cancel any or all bids without giving any notice.
3. All materials submitted by the bidder shall be the absolute property of MPCB and no copyright. /patent etc. shall be entertained by MPCB.

3.5 Bidder Inquiries

1. Bidder should E-Mail their queries, as per details in the format as prescribed in the Annexure 1.
2. The response to the queries will be published on <https://mahatenders.gov.in>. No telephonic /queries will be entertained thereafter.
3. This response of MPCB shall become an integral part of RFP document. MPCB shall not make any warranty as to the accuracy and completeness of responses.

3.6 Amendment of RFP Document

1. All the amendments made in the document would be published on the e-Tendering Portal and shall be part of RFP.
2. The Bidders are advised to visit the aforementioned websites/portal on a regular basis to check for necessary updates. The MPCB also reserves the right to amend the dates mentioned in this RFP.

3.7 Supplementary Information to the RFP

1. If MPCB deems it appropriate to revise any part of this RFP or to issue additional data to clarify an interpretation of provisions of this RFP, it may issue supplements to this RFP.
2. Any such corrigendum shall be deemed to be incorporated by this reference into this RFP.

3.8 MPCB's right to terminate the process

1. MPCB may terminate the RFP process at any point of time and without assigning any reason.
2. MPCB reserves the right to amend/edit/add/delete any clause of this Bid Document.
3. This will be informed to all and will become part of the bid /RFP and information for the same would be published on the e-Tendering portal.

3.9 Earnest Money Deposit (EMD)

1. Bidders shall submit, EMD as defined in this RFP.
2. Bidders are required to submit an Earnest Money deposit (EMD) online for an amount of **INR 20,00,000/- (Rs. Twenty Lakh only)**. Please refer **Annexure 5** for the payment of the same. Bids of the bidders who have not paid the EMD as stipulated in this RFP, will be rejected by MPCB as non-responsive. No exemptions to this clause will be allowed.
3. Unsuccessful Bidders' EMD will be returned within 60 days from the date of finalization of the tender. EMD of successful bidder will be returned only after submission of Performance Bank Guarantee.
4. No interest will be paid by MPCB on the EMD amount and EMD will be refunded to all Bidders (including the Successful Bidder(s)) without any accrued interest on it.
5. The Bid submitted without EMD or with EMD which does not conform to RFP clauses, mentioned in this document, will be summarily rejected.
6. The EMD may be forfeited:
 - a. If a Bidder withdraws his bid or increases his quoted prices during the period of bid validity or its extended period, if any.
 - b. In case of a Successful Bidder(s), if the Bidder fails to sign the contract in accordance with the terms and conditions.
 - c. If during the bid process, a bidder indulges in any such deliberate act as would jeopardize or unnecessarily delay the process of bid evaluation and finalization.

- d. If, during the bid process, any information is found false/fraudulent/mala fide, and then MPCB shall reject the bid and, if necessary, initiate action.
7. The decision of the MPCB regarding forfeiture of the EMD shall be final and binding upon bidders.

3.10 Authentication of Bid

1. Authorized person of the bidder who signs the bid shall obtain the Power of Attorney from the bidder, which shall be submitted with the Bid.
2. All pages of the bid and its annexures, etc. shall be signed and stamped by the person or persons signing the bid.

3.11 Language of Bids

1. This bid should be submitted in English language only.
2. If any supporting documents submitted are in any language other than English, then the translation of the same in English language is to be duly attested by the bidder and submit with the bid, and English translation shall be validated at MPCB's discretion.

3.12 Patent Claim

1. In the event of any claim asserted by a third party of infringement of copyright, patent, trademark or industrial design rights arising from the use of the Goods or any part thereof, the bidder shall expeditiously extinguish such claim.
2. If the Successful Bidder fails to comply and MPCB is required to pay compensation to a third party resulting from such Infringement, the Successful Bidder shall be responsible for such compensation, including all expenses, court costs, lawyer fees etc.
3. MPCB shall give notice to the Successful Bidder(s) of any such claim and recover it from the bidder.

3.13 Submission of bids

The bidding process will be a TWO (2) bid system, comprising of the following two bids viz.

1. Envelope – 1 Technical Bid

The information to be submitted by the bidders as Envelope 1 (Cover 1) are mentioned in **Annexure 5**

2. Envelope – 2 Commercial Bid / Price Bid

The information to be submitted by the bidders as Envelope 2 (Cover 2) are mentioned in Section 6.2 and in the given BOQ Format

The bidders are requested to follow the Bid Submission process as detailed in **Annexure 5**

3.14 Bid Submission Instructions

14. Complete bidding process will be online (e-Tendering) in two (2) envelope system. Submission of bids shall be in accordance to the instructions given in the Table below:

Table: Documents Required			
Sr. No.	Document Type	Document Format	Online Submission
Tender Fee & EMD and Eligibility Details - Envelope –A			
1.	Tender Fee	Online Payment of INR 5,000/- & scanned copy of the receipt to be submitted online with the proposal	Yes
2.	EMD	Online Payment of INR 20,00,000/- & receipt/scanned copy to be submitted online with the proposal	Yes
3.	Technical Proposal	Eligibility criteria Proposal shall be prepared in accordance with the requirements specified in Section 3.22 and 3.23 The Technical Proposal shall be prepared in accordance with the requirements specified in this RFP.	Yes
Financial Bid– Envelope –B			
4.	Financial Proposal	The Financial Proposal shall be prepared in accordance with the requirements specified in this RFP.	Yes

15. The following points shall be kept in mind for submission of bids;
16. MPCB shall not accept delivery of proposal in any manner other than that specified in this RFP. Proposal delivered in any other manner shall be treated as defective, invalid and rejected. Non-submission of the required documents or submission of the documents in a different format/ contents may lead to the rejections of the bid proposal submitted by the bidder.
17. The bidder should ensure that all the required documents, as mentioned in this RFP/ bidding document, are submitted along with the bid and in the prescribed format only.
18. The prices should be quoted in Indian Rupees only.
19. The Bidder is expected to price all the items and services sought in the RFP and proposed in the technical proposal. The Bid should be comprehensive and inclusive of all the services to be provided by the Bidder as per the scope of his work and must cover the entire Contract Period.
20. MPCB may seek clarifications from the Bidder on the technical proposal. Any of the clarifications by the Bidder on the technical proposal should not have any commercial implications. The Financial Proposal submitted by the Bidder should be inclusive of all the items in the technical proposal and should incorporate all the clarifications provided by the Bidder on the technical proposal during the evaluation of the technical offer.
21. Financial Proposal shall not contain any technical information. Similarly, technical proposal with any financial cost related information shall be summarily rejected and the bidder shall be disqualified from the tender process.
22. It is required that the all the proposals submitted in response to this RFP should be unconditional in all respects, failing which MPCB reserves the right to reject the proposal.
23. Proposals sent by fax/ post/ courier shall be rejected.
24. It shall be the sole responsibility of the bidder to ensure that all the documents required for the Eligibility criteria and the Technical Evaluation of the bid are uploaded on the portal well within time and MPCB shall not entertain any re- presentation from any bidder, who fails to upload the

requisite documents within the stipulated time and date on account of any technical issues related to low internet connectivity, size of the files to be uploaded etc. Therefore, the bidders are notified that they must read the instructions / information given on the homepage of the e-tender portal and must understand all the nuances of technology in advance.

3.15 Late Proposal

Proposals received after the due date and the specified time (including the extended period if any) for any reason whatsoever, shall not be entertained and shall not be opened in the e-Tendering system.

3.16 Modification and Withdrawal of Proposals

1. No Proposal shall be withdrawn in the interval between the deadline for submission of proposals and the expiration of the validity period specified by MPCB in the RFP.
2. Entire EMD shall be forfeited if any of the Bidders withdraw their proposal during the validity period.

3.17 Non-conforming Proposals

A Proposal may be construed as a non-conforming proposal and ineligible for consideration:

1. If it does not comply with the requirements of this RFP.
2. If the Proposal does not follow the format requested in this RFP or does not appear to address the particular requirements of the MPCB.

3.18 Acknowledgement of Understanding of Terms

By submitting a Proposal, each Bidder shall be deemed to acknowledge that he has carefully read all sections of this RFP, including all forms, schedules, annexure, corrigendum and addendums (if any) hereto, and has fully informed itself as to all existing conditions and limitations.

3.19 Bid Opening and Evaluation Process

1. Total transparency shall be observed and ensured while opening the Proposals/Bids. All Bids shall be opened in the presence of Bidder's representatives who choose to attend the Bid opening sessions on the specified date, time and address.
2. MPCB reserves rights at all times to postpone or cancel a scheduled Bid opening.
3. The Bidder's representatives who are present shall sign a register evidencing their attendance. In the event of the specified date of Bid opening being declared a holiday for MPCB, the bids shall be opened at the same time and location on the next working day. In addition to that, if the representative of the Bidder remains absent, MPCB will continue process and open the bids of the all bidders.
4. During Bid opening, preliminary scrutiny of the Bid documents shall be made to determine whether they are complete, whether required Bid Security has been furnished, whether the Documents have been properly signed, and whether the bids are generally in order. Bids not conforming to such preliminary requirements shall be prima facie rejected. MPCB has the right to reject the bid after due diligence is done.

3.20 Tender Evaluation Committee

1. MPCB shall form a Tender Evaluation Committee (hereinafter referred to as “TEC”) to evaluate the bids.
2. The TEC shall evaluate the responses to the RFP and all supporting documents/ documentary evidence. Inability to submit requisite supporting documents / documentary evidence, may lead to rejection.
3. The decision of the TEC in the evaluation of responses to the RFP shall be final. No correspondence will be entertained outside the process of negotiation/ discussion with the Committee.
4. The TEC may ask for meetings with the bidders to seek clarifications on their proposals. The bidder shall submit requisite supporting documents/ certificates on the credentials. The committee may visit bidder’s client site to validate the credentials/ citations claimed by the bidder.
5. The TEC reserves the right to reject any or all proposals entails the basis of any deviations.
6. Each of the responses shall be evaluated as per the criteria and requirements specified in this RFP.
7. The TEC would submit its decision to the competent authority whose decision would be final and binding upon the bidders.

3.21 Evaluation Process

1. TEC shall review the proposal of the Bidders to determine whether the requirements as mentioned in Section 3.22 of the RFP are met. Incomplete or partial Proposals are liable for disqualification.
2. Bid Evaluation shall be conducted following **Quality Cum Cost Based Selection (QCBS)** methodology
 - A. In the first stage, Technical Proposals shall be opened and evaluated as per the Minimum Eligibility criteria mentioned in Section 3.22 of the RFP. Bids not meeting the Minimum Eligibility Criteria will be summarily rejected.
 - B. Bids qualifying through the Minimum Eligibility Criteria will be further evaluated for their objective evaluation based on the Criteria mentioned in section 3.23. A cut off for the Technical score will be defined. The Technical scoring for respective bidders will be worked out as elaborated in Section 3.25.
 - C. In the Second stage, Financial Proposal of those Bidders who qualify in Eligibility Criteria, shall be opened. All Bids shall be opened in the presence of Bidder’s representatives who choose to attend the Bid opening sessions on the specified date, time and address. The Commercial / Price Bids, of those bidders who do not achieve the cut off / minimum Technical qualification score, will not be opened.
 - D. At the end of two stages, Weighted Technical and Commercial bid scores (only of those bidders who qualify as per the minimum Technical Score) will be added to arrive at a Composite score of each of the bidder. The Bidder with the highest Composite score will be declared as the Successful Bidder, subject to all supporting documentation being in order.
3. Evaluation and award of Contract shall be done as per provisions of Maharashtra State Government Rules and rules defined in this RFP.
4. Please note that TEC may seek inputs from their professional, external experts in the bid evaluation process.

3.22 Minimum Eligibility Criteria

Minimum Eligibility Criteria is a set of PASS / FAIL criteria. Not complying to even one of the listed criteria will render a bid to be unresponsive. The Bidders must comply with each of the criteria listed below and should submit sufficient documentary proof as mentioned in the table.

S. N.	Minimum Eligibility Criteria	Document to be submitted
EC 1	The bidder must be Private Limited, Partnership, Proprietary or Limited Company. A Company registered in India under the Companies Act 1956 or 2013 or The LLP Act 2008 since last 3 years.	<ul style="list-style-type: none"> ▪ Certificate of Incorporation ▪ Copy of PAN Card ▪ Copy of GST Certificate with GST Number ▪ Copy of Power of Attorney Annexure 1 – Document 1 to 6
EC 2	The bidder should have an experience of executing similar work as defined below: One similar work \geq Rs. 1 Core For the purposes of evaluation of responses to this RFP, similar work shall mean assignments in India (can be within the past 7 years or ongoing engagements)	<ul style="list-style-type: none"> ▪ Copy of Work Order / Purchase Order Annexure 1 – Document 10
EC 3	The Bidder should have on its payroll or associated with it through proper binding agreement minimum 22 employees Minimum One Senior Scientists as Team Leader (SS 1) of qualification and experience. Minimum Four Mid-level Professional (PF 4) qualification and experience Minimum Two Local Scientific Coordinator (SC 2) qualification and experience Minimum Eight Ground Technical Staff (GTS 8) Minimum Two Data Analysts (DA 2) Minimum One Communication / Creative Expert (CE 1) Minimum Four Support Backend Staff (SS 4)	<ul style="list-style-type: none"> ▪ Self – Certification signed by the HR Department, on the company letter head as per format provided in Annexure 1 – Document 9
EC 4	The bidder must have at least one full-fledged /tie up/MoU with Laboratory approved by NABET / NABL for all the parameters to be tested under the scope of this project.	<ul style="list-style-type: none"> ▪ Details of the Laboratory along with equipment and NABET certification ▪ Registered/Notarized copy of tie up / MoU document
EC 5	The bidder should not have been blacklisted/ banned / debarred by any Government (State / Central) / Semi Government / Corporation / PSU in India in last 3 years for unsatisfactory past performance, corrupt, fraudulent or any other unethical business practices	<ul style="list-style-type: none"> ▪ Affidavit signed by the Authorized Signatory, on non-judicial stamp paper of Rs. 100/- Annexure 1 – Document 11
EC 6	The Bidder should have paid the Tender Fees & EMD by Online mode	<ul style="list-style-type: none"> ▪ Copy Of Receipt
EC 7	Bidder should be profitable for the past 3 financial year ending March – 2023	<ul style="list-style-type: none"> ▪ CA Certificate

3.23 Technical Bid Evaluation – Scoring:

The Bids qualifying through the Minimum Eligibility Criteria will be graded as per the criteria mentioned in the table below.

Sr	Criteria	Graded Marks	Max. Marks	Testimonial to be presented
1	Organization's Capability		45	
A	Financial Capability (Average Turnover for last three Audited financial years)		5	CA Certificate
i.	A.T. > Rs. 6 Cr	5		
ii.	A.T. ≤ Rs. 6 Cr but ≥ 3 Cr	3		
iii.	Turnover ≤ Rs. 3 Cr but > 2 Cr	1		
B	Qualification and Experience of Key Technical Resources (For details, pls refer Note and table below**)		30	Declaration from HR department of Bidder on Letterhead in given format (Refer Section 5.5 and 5.6)
i.	Senior Scientists as team Leader (SS 1)	3		
ii.	Mid-level Professional (PF 4)	8		
iii.	Local Scientific Coordinator (SC 2)	4		
iv.	Ground Technical Staff (GTS 8)	8		
v.	Data Analysts (DA 2)	2		
vi.	Communication / Creative Expert (CE 1)	1		
vii.	Support Backend Staff (SS 4)	4		
C	Organization Certification/ Empanelment in Environmental services domain		5	Certificate Valid on the date of Bidding
i.	NABET Certification	2		
ii.	Any Government body Empanelment	3		
D	Number Of Offices in Maharashtra		5	Leave and License Agreement – Notary attested
i.	Offices ≥5	5		
ii.	Offices ≥3	3		
iii.	Offices ≥2	1		
2	Past Performance (can be within the past 7 years or ongoing engagements)			
A.	Order for Indoor Air Quality related Projects		30	Work Orders/ Purchase Orders
i	By Value > 1 Cr. (5 Marks each Project)	10		
B.	Number of Projects in multiple city in air quality domain (2.5 Marks each project)	10		
C.	Experience of work with the SPCB/CPCB/ MoEF&CC in consultative capacity for air quality domain (Min.2 Orders)	10		
3	Presentation on methodology of executing the project		25	Presentation by the Bidder
TOTAL MARKS			100	

** The percentage distribution of points for qualifications and competence of the key professional staff for the assignment are:

Evaluation of Air Quality in different Indoor Environments in Mumbai Metropolitan Region (MMR) Representative of Maharashtra State with Special Reference to Non-Attainment Areas & critically/ severely impacted areas and Formulation of Best Practices for better Indoor Air Quality (IAQ)

The minimum required resources and their respective experience of proposed key professional staff is:

Sr. No.	Key professional (Min Resources)	Qualifications	Area of Specific Expertise
1.	Senior Scientists as team Leader (SS 1)	Postgraduate in Environmental Science / Engineering /similar field with 18 years' experience in air quality domain	Experience in Air Quality related projects, Environmental Footprint / Emissions inventory, Data Analytics, Project Management, Environment Management Planning (EMP) with leadership qualities to lead the team effectively.
2.	Mid-level Professional (PF 4)	Postgraduate / Graduate in Engineering with 8 years' experience	Experience in air quality sector particularly Environment Assessment, Data Management and Development of task specific action plans.
	Local Scientific Coordinator (SC 2)	Postgraduate / Graduate in Engineering with 8 years' experience	Experience in environmental sector particularly Environment assessment, data management, Coordination
3.	Ground Technical Staff (GTS 8)	Graduate in Statistics / IT, Environment / Science with 1 Year Experience	Experience in field survey and collection of field data and analysis of field survey data of cities/town at local level, projections creations of urban data base using primary sources.
4.	Data Analysts (DA 2)	Graduate in Statistics / IT, Environment /Science with 1 Year Experience	Experience in developing and managing data bases is essential.
5.	Communication / Creative Expert (CE 1)	Media / Mass Communications / Commercial Artist degree / Equivalent degree with 5-year experience	<u>Language:</u> Proficiency in English, Hindi & Marathi language <u>General professional experience:</u> At least 5 years of creativity, commercial arts, magazine, media, digital creativity <u>Specific professional experience:</u> At least 3 years' experience in developing methods, customized planning solutions, illustrations, design concepts, visualizations of solutions, advertisement in print media, magazines, social media etc. <u>Regional experience:</u> Experience of working in Maharashtra. Creativity experience in Environmental Field shall be preferred
6.	Support Backend Staff (SS 4)	Graduate in Statistics / Environment / Science with 1 year experience	Experience in project management and coordination is essential

3.24 Commercial Bid Evaluation

- The selection of successful Bidders will be done on Quality cum Cost Based Selection (QCBS) methodology. The methodology and respective weightages are mentioned in the Section 3.25 below.
- The Bidders complying with the Eligibility Criteria mentioned in Section 3.21 and who have paid the Tender Fees and EMD Fees as specified in the RFP, shall be considered as "substantially responsive" bids.
- The Commercial Bids will be opened on the prescribed date in the presence of bidder representatives or as decided by MPCB.
- The bidders should necessarily give the commercial details in the format given in this RFP. The commercial proposals should be given in the prescribed format only and in accordance to the details, terms and conditions as mentioned in the RFP (hence the bidder is expected to understand the RFP in all respects).
- In case the selected bidder does not quote for or provision for cost/expenses required to meet the requirements of the RFP, the selected bidder shall be solely responsible for those and shall provide them, without any additional cost to MPCB.
- The bidder is expected to price all the items and services sought in the RFP and proposed

the Technical Proposal. In case a Bidder fails to mention the cost of a line item, the bidder will be disqualified from further evaluation. The Bid should be comprehensive and inclusive of all the services to be provided by the bidder as per the scope of its work and must cover the entire Contract Period.

7. The Commercial Bids of non-qualified Bidders shall be rejected and EMD shall be refunded only after work order is awarded against this tender to the Successful Bidder.
8. If any successful bidder withdraws or is not ready for engagement for any reason, MPCB may invite the Bidder with the Bidder having the second-best composite score.
9. MPCB may extend the validity of this contract based on mutual consent with the successful Consultant.
10. The detailed roles and responsibilities of the Selected Agency are mentioned in Scope of work.
11. The Bid Evaluation Committee reserves the right to accept or reject any or all bids without giving any reasons thereof.
12. MPCB does not guarantee that all line items from Commercial Format shall be utilized by MPCB. The actual line items used may be more or less. The payment shall be made for only those line items which are used based on unit cost quoted for the particular item on actual work is undertaken. MPCB can vary the quantity by $\pm 25\%$ during the tenure of the contract and the successful bidder will have to undertake the deliverables at the rates mentioned in the bid.
13. The Bidder needs to account for all expenses in the Financial Bid including transport, insurance, consumables, etc. along with out-of-Pocket expenses due to Boarding, Travelling, Lodging and other related items. MPCB shall not be liable to pay any additional cost apart from that mentioned in the Commercial Bid Format filled by the bidder and as specified in the RFP.
14. MPCB may seek clarifications from the bidder on the Technical Proposal. Any of the clarifications by the bidder on the Technical Proposal should not have any commercial implications. The Commercial Proposal submitted by the bidder should be inclusive of all the items in the Technical Proposal and should incorporate all the clarifications provided by the bidder on the Technical Proposal during the Technical Evaluation.
15. The bidder shall fill rates for all the line items. If rate for any item is not provided by the bidder or provided in format other than defined in this RFP, then MPCB reserves the right to reject the bid.
16. The rates specified by the Bidder in this RFP for all line items shall be valid for entire duration of contract.
17. The Commercial Proposal shall not contain any technical information.

3.25 Quality cum Cost based Selection Methodology for Evaluation of this RFP

The following methodology and weightages will be used for objective evaluation of each of the bids.

A. Technical Bid Evaluation

Based on the documentation submitted by each of the bids, the bids will be given a score out of Maximum 100. Each responsive Bid will be attributed a technical score denoted by symbol "S(t)". The technical score shall be out of a maximum of 100 marks.

If in MPCB's opinion, the Technical Bid does not meet the minimum technical specifications & service requirements or is otherwise materially deficient / inconsistent in any other aspect; the Bid shall be declared Technically Evaluated & Non-Responsive and shall not be considered for further evaluation.

After technical evaluation, MPCB will rank the bidders in descending order of their technical scores with the top ranked bidder having the highest technical score. If any bidder is found to be technically inadequate to the requirements of MPCB, i.e. if $S(t) < 70$, then that bidder's bid would be deemed non-responsive for further evaluation and would not be considered further in the bidding process.

If in case, after technical evaluation, only one bidder is found to be responsive & eligible, i.e. if the technical marks of only one bidder are more than or equal to **70**, the Board will decide an acceptable price band and open Commercial Bid of the only eligible bidder. If the Commercial bid of the bidder falls within the price band specified by the Board, the bidder will be declared as the **SUCCESSFUL BIDDER**.

B. Commercial Bid Evaluation

The Commercial bids of only technically successful bidders whose technical Bids have been awarded 75 or more marks will be opened.

The evaluation will be carried out if Commercial bids are complete and computationally correct.

Lowest Commercial bid denoted by symbol "P (m)" will be allotted a Price score of 100 marks. The Price score of all the bidders will be denoted by the symbol "S (p)". The Price score of other bidders will be computed by measuring the respective weighted Commercial bids against the lowest bid i.e. P (m)

These Price scores will be computed as: $S(p) = 100 * (P(m) / P(b))$ where P(b) is the weighted Commercial bid of the bidder whose Price score is being calculated. The Price score shall be out of a maximum of 100 marks.

C. Computation of Composite score

The composite score is a weighted average of the Technical and Price Scores. The weightages of the Technical vis-à-vis the Price score is 0.70 of the Technical score and 0.30 of the Price score. The composite score (S) will be derived using following formula:

$$S = (S(t) * 0.70) + (S(p) * 0.30).$$

Thus, the composite score shall be out of a maximum of 100 marks and will be computed up to TWO (2) decimal points.

The responsive bidders will be ranked in descending order according to the composite score as calculated based on the above formula. The highest-ranking vendor as per the composite score will be selected. However, in order to ensure that MPCB gets best solution in technical terms, MPCB reserves the right to enter into negotiation with bidder having highest technical score and place order with this bidder at a suitable price.

D. Award Criteria

Final choice of MPCB to award this project to a suitable bidder to execute this project shall be made on the basis of composite scoring arrived as per formula mentioned above.

The Bidder having the highest Composite Score will be termed as the Successful Bidder.

In case, two or more bidders have the same composite scores, the Bidder with the highest technical score will be declared as the successful bidder. In case, two or more bidders have the same composite scores & technical scores, MPCB will decide further criteria of evaluation, which will be binding on all bidders to accept without contest.

3.26 RFP Selection Process

1. MPCB through this Request for Proposal (RFP) intends to get quote only from reputed technically qualified bidders.
2. All the bidders will be assessed against the Eligibility criteria mentioned in Section 3.21
3. The financial offer of the bidders fulfilling the Eligibility criteria shall be opened for further evaluation. Bidders are also requested to submit their financial quotation in the format provided in the RFP.
4. In case of discrepancies between rates quoted in amounts and in words by the bidder, the lower of the two will prevail and will be used to determine the Successful Bidders as per criteria provided in the RFP.
5. If any information provided by the Bidder is found to be inaccurate at any stage of the RFP process, MPCB may, at its discretion, reject the offer and no correspondence will be entertained in this regard. Submission of wrong and / or false information may also disqualify the Bidder from any future work from MPCB.
6. MPCB reserves the right to negotiate with the Successful Bidders as per CVC guidelines or any equivalent norms. If the negotiation becomes unsuccessful then MPCB may negotiate with the next qualified bidder.

3.27 Bid Validity

1. The offer/proposals submitted by the Bidders shall be valid for a minimum period of 180 days after the last date of bid submission prescribed by the department.
2. In exceptional circumstances, prior to the expiration of the bid validity period, the department may request bidders to extend the period of validity of their bids.
3. The request and the responses shall be made in writing. In event of such extension, department shall request Bidder for extension of bid validity and submit new bid security to cover the extended period of validity of their bids.
4. In event of such extension, Bidders shall submit new Bank Guarantee submitted as EMD to cover the extended period of validity of their bids.
5. A bidder may refuse the request without forfeiting its bid security. A bidder granting the request shall not be required or permitted to modify its bid.
6. If the date up to which the bid is to remain valid happens to be a holiday for the department, the bid shall automatically remain valid up to the next working day.

3.28 Price and Information

1. The bidder shall quote for this project as per the requirements of the RFP and in the format mentioned in Section 6.2.
2. All the prices will be in Indian Rupees.
3. The bidder should quote the fee considering all costs including the costs for insurance for the Contract Period, travel / stay, daily allowance or any other allowances with respect to their staff deployed for the execution of this project before or after the award of the Contract. The bidders should study the Scope of Work as per Section 4, to have understanding of all the associated costs of the project.

4. The bidder should indicate the GST currently applicable and the same will be reimbursed at actuals as applicable from time to time.
5. The prices, once offered, must remain fixed and must not be subject to change for any reason whatsoever within the period of the validity of the proposal and the contract. No revision of the fee shall be made on account of any variations in costs of labour and materials, currency exchange fluctuations with international currency or any other cost component affecting the total cost in fulfilling the obligations under the contract. A proposal submitted with an adjustable price quotation or conditional proposal may be rejected as non-responsive.
6. All costs incurred due to delay of any sort, which is attributable to the bidder, shall be borne by the bidder.

3.29 Payment Terms

The following payment terms will be offered to the Successful Bidders upon completing the necessary formalities and rendering deliverables as mentioned in Section 4 (Scope of Work).

1. Within 15 days of MPCB issuing the LoI / LoA / Work Order, the Successful Bidder, at its cost, charges and expenses will submit a PBG for an amount equivalent to 10% of the value of the contract in favour of MPCB. The PBG shall be in the form of a guarantee/s of a Nationalized Bank acceptable to MPCB and shall be valid for TWENTY FOUR (24) months from the date of LoA /Work Order / Contract OR THREE (3) months after end of the project, whichever is later.
2. The Board will release the payment in a phased manner, based on the timely completion of the Milestones achieved by the Successful Bidder. The Milestones and corresponding payment schedule is mentioned in the table below.
3. All the payments at each stage will be made after deducting penalties for the stage, if applicable. The penalties applicable at various stages are mentioned in Section 3.30

Sr. No.	Target, Milestone, or Reporting Deliverable	Percentage of Total Order / Contract value to be released in INR
1	Submission of mutually acceptable Project Schedule, reporting formats and methodology	25%
2	All activities as per Scope of Work defined in the RFP in MMR regions for Season 1 (i.e. Pre-monsoon)	30%
3	All activities as per Scope of Work defined in the RFP in MMR regions for Season 2 (i.e. Post-monsoon)	30%
4	Final Report submission, presentations, and project Handover	15%

4. All payments will be made vide a crossed cheque payable in Mumbai, within 30 days of submission of invoice, after deducting applicable TDS, if any.

3.30 Penalties

It is expected that the Successful Bidder will complete all the deliverables as per the given timelines and as per the expected and defined performance norms. In case there are any defaults / delays from the Successful Bidder during the various phases of execution, MPCB will levy penalties. The same will be recovered from the next stage payment or in the extreme case, by invoking the Performance Bank Guarantee.

In case of any delays on part of the Successful Bidder during the execution period, a penalty of 0.5% of total contract value will be levied on the Successful Bidder and the same will be recovered from the next stage payment due. The overall penalty will be capped at 10% of the order value and in case the delays are more, MPCB can terminate the contract. In such case MPCB reserves the right to invoke the Bank Guarantee citing non-performance as a reason.

MPCB will consider genuine request for extension of time, if so made by the Successful Bidder immediately upon sensing the delay, taking into account the reasons for such extension and grant extension of time at their discretion.

MPCB shall record the reason in such action with facts and figures. The grace period will not be granted if the extension is necessitated due to the default on the part of the Successful Bidder.

3.31 Indemnification

The bidder, if selected as Successful Bidder, will agree and undertake that, during the Term of the Contract, it shall indemnify and keep indemnified and otherwise save harmless, MPCB from any third-party suits instituted against MPCB which are proved to be because of a direct consequence of the installation and / or use of equipment & services provided by the successful bidder.

The Successful Bidder shall indemnify MPCB against all losses and claims in respect of death or injury to any of their personnel, which may arise out of or in consequence of the execution of the project and remedying of any defects therein, and against all claims, proceedings, damages, costs whatsoever in respect thereof or in relation thereto.

3.32 Signature

1. A representative of the bidder with a valid Power of Attorney from the Bidding organisation, who is authorized to commit the bidder to contractual obligations, must sign with the bidder's name and seal on all pages of the Bid, including the tender/bid document.
2. All obligations committed by such signatories must be fulfilled.

3.33 Conditions under which RFP is issued

1. This RFP is not an offer and is issued with no commitment. MPCB reserves the right to withdraw the RFP and change or vary any part thereof, at any stage. MPCB also reserves the right to disqualify any bidder should it be so necessary at any stage.
2. Timing and sequence of events resulting from this RFP shall ultimately be determined by MPCB.
3. No verbal conversations or agreements with any official, agent, or employee of MPCB shall affect or modify any terms of this RFP and any alleged verbal agreement or arrangement made by a bidder with any agency, official or employee of MPCB shall be superseded by the definitive agreement that results from this RFP process. Verbal communications by MPCB to bidders shall not be considered binding on it, nor shall any written materials provided by any person other than MPCB.
4. Neither the bidder nor any of the bidder's representatives shall have any claims whatsoever against MPCB or any of their respective officials, agents, or employees arising out of or relating to this RFP or these procedures (other than those arising under a definitive service agreement with the bidder in accordance with the terms thereof).
5. Until the Contract is awarded and during the validity of the Contract, bidders shall not, directly, or indirectly, solicit any employee of MPCB to leave the department or any other officials.

involved in this RFP process in order to accept employment with the bidder, or any person acting in collusion with the bidder, without prior written approval of MPCB.

3.34 Right to the content of Proposal

1. All proposals and accompanying documentation of the Technical Proposal will become the property of MPCB and will not be returned after opening of the Technical Proposals.
2. MPCB is not restricted in its rights, to use or disclose any or all of the information contained in the proposal and can do so without compensation to the bidders.
3. MPCB shall not be bound by any language in the proposal indicating the confidentiality of the proposal, or any other restriction on its use or disclosure.

3.35 Non-Conforming Proposal

A proposal may be construed as a non-conforming proposal and ineligible for consideration if:

1. It does not comply with the requirements of this RFP.
2. It does not follow the format requested in this RFP or does not appear to address the requirements as specified by the directorate.

3.36 Correction of errors

1. The bidder is advised to take adequate care while quoting the rates. No excuse for corrections in the quoted rate will be entertained afterwards.
2. The corrections or overwriting in bid document should be initialed by person signing the Bid form.

3.37 Corrections to Arithmetic errors

1. In case of discrepancies between Commercial Bid calculated by the bidder in numbers and words, the lower of the two will prevail and will be used to determine the Successful bidders as per criteria provided in RFP.
2. Bidders shall accept correction of arithmetical errors. Failure to accept the correction in accordance with the same shall result in the rejection of the Bid.

3.38 Disqualification

The Bid from the bidders is liable to be disqualified in the following cases:

1. Bid not submitted in accordance with the bid document.
2. The Technical Proposal contains details related to cost.
3. The bidder qualifies the bid with its own conditions.
4. During validity of the Bid, or its extended period, if any, the bidder increases his quoted prices.
5. The bid is received in incomplete form and / or received after due date and time.
6. The bid is not accompanied by all requisite supporting documents.
7. Information submitted in technical Bid is found to be misrepresented, incorrect or false, accidentally, unwittingly, or otherwise, at any time during the processing of the contract (no matter at what stage) or during the tenure of the contract including the extension period if any.
8. Non - fulfilment of any condition / term by bidder.

3.39 Acknowledgement of Understanding

By submitting the proposal, each bidder shall be deemed to acknowledge that he has carefully read all sections of this RFP, including all forms, scope of work, schedules, annexure, corrigendum and

addendums (if any) hereto, and has fully informed itself as to all existing conditions and limitations.

3.40 Site visit by Bidder

1. The bidder may visit the relevant Section(s) / Departments at MPCB at any time to be agreed with MPCB and obtain for itself on his own responsibility all information related to any specific process.
2. The visit may not be used to raise questions or seek clarification on the RFP. All such queries or clarifications must be submitted in writing.
3. The cost of such visits to the site(s) shall be at the bidder's own expense.

3.41 Award Criteria

Post the evaluation process indicated in Section above, MPCB will award the Contract to the Selected Agency as defined in this RFP Section 3.25(4).

3.42 MPCB's Right to accept any Bid and to reject any or All Bids

MPCB reserves the right to accept or reject any Bid, and to annul the bidding process and reject any or all Bids at any time prior to 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 MPCB's action.

3.43 Letter of Intent / Letter of Award

1. Prior to the expiration of the period of bid validity, MPCB will notify the Successful Bidder(s) in writing or by fax or email, to be confirmed in writing by letter, that its bid has been accepted.
2. The Letter of Intent will constitute the formation of the contract. Upon the Successful Bidder's furnishing of Performance Bank Guarantee, MPCB will promptly notify each unsuccessful bidder(s).

3.44 Signing of Contract

MPCB shall notify the Successful Bidder that its bid has been accepted. The Successful Bidder shall enter into a contract agreement with MPCB within the time frame mentioned in the Letter of acceptance to be issued to the Successful Bidder by MPCB.

3.45 Term of Contract Agreement

1. The term of this Contract shall be a period of TWELVE (12) months OR Completion of the project whichever is earlier from the date of issue of Letter of Award / Work Order / Contract, extension will be subjected to the mutual consent of both the parties and on the basis of the performance of the bidder.
2. In case MPCB is not satisfied with the performance of the selected agency, MPCB reserves the right to terminate the contract with such agency.

3.46 Failure to agree with the Terms & Conditions of the RFP / Contract

Failure of the Successful Bidder(s) to agree with the Terms & Conditions of the RFP / Contract shall constitute sufficient grounds for the annulment of the award, in which event MPCB may invite the next best bidder for negotiations or may call for fresh RFP.

3.47 Non-Disclosure Agreement (NDA)

The Successful Bidder(s) has to sign the Non- Disclosure Agreement with MPCB.

3.48 Performance Bank Guarantee (PBG)

1. Performance Bank Guarantee is governed for supplies and services as follows:
 - a. The bidder shall carry out the supply and services in conformity with the requirements of the RFP, generally accepted professional and technically accepted norms relevant to such projects and to the satisfaction of MPCB.
 - b. The Earnest Money deposited at the time of bid submission would be given back to the Successful Bidder on payment of Performance Bank Guarantee in the form of a Bank Guarantee.
2. The selected bidder shall deposit the Performance Security as follows:
 - a. The Successful Bidder shall at his own expense, deposit with MPCB, and Performance Bank Guarantee from a Nationalized Bank, of value and valid for TWENTY FOUR (24) months from the date of LoA / Work Order / Contract OR THREE (3) months after end of the project, whichever is later, as defined in this tender document.
 - b. The Performance Bank Guarantee should be furnished within 15 Working Days from the date of issue of Letter of Intent / Award OR Work Order OR CONTRACT.
 - c. The Performance Bank Guarantee may be discharged/returned by MPCB upon being satisfied that there has been due performance of the obligations of the successful bidder under the contract. However, no interest shall be payable on the Performance Bank Guarantee.
3. MPCB shall also be entitled to make recoveries from the Performance Bank Guarantee on the following grounds:
 - a. Any amount imposed as a fine by MPCB for irregularities committed by the bidder.
 - b. Any amount which MPCB becomes liable to the Government /Third party on behalf of any default of the bidder or any of his/her/their agent/ employees or staff.
 - c. Any payment/fine made under the order/judgment of any court/consumer forum or law enforcing agency or any person working on his behalf.
 - d. Any other outstanding amount.
4. Once the amount under this clause is debited, the bidder shall reimburse the Performance Bank Guarantee to the extent the amount is debited within 15 days of such debit by MPCB failing which it will be treated as breach of agreement and may lead to termination of agreement with forfeiture of all amounts including interest free Performance Bank Guarantee in favour of MPCB.

3.49 Right to Vary the Scope of Work at the time of Award

1. MPCB reserves its right to make changes to the scope of the work at the time of execution of the resultant Agreement.
2. If any such change causes an increase or decrease in the total value of contract, or the time required for the Bidder's performance of any part of the work under the resultant Agreement, whether changed or not changed by the order, it shall be based on the unit prices quoted by the Bidder or on pro-rata basis. Based on the revised scope, payment shall be calculated based on unit prices OR the pro-rata basis in proportion of the efforts already made and MPCB shall be liable to pay only the revised amount, irrespective of the Total Cost mentioned in the Contract.
3. Payment to the Successful Bidder shall be made as per the schedule given on the basis of the

Evaluation of Air Quality in different Indoor Environments in Mumbai Metropolitan Region (MMR) Representative of Maharashtra State with Special Reference to Non-Attainment Areas & critically/ severely impacted areas and Formulation of Best Practices for better Indoor Air Quality (IAQ)

actual completion of scope of work and deliverables by the Successful Bidder to MPCB's satisfaction.

4. The decision of MPCB shall be final and binding upon the Successful Bidder.

3.50 Governing Laws

The contract shall be governed by the laws and procedures established by Govt. of India and Government of Maharashtra, within the framework of applicable legislation and enactment made from time to time concerning such commercial dealings/processing. Any disputes will be subject to the Courts in Jurisdiction of Mumbai

Section II: Scope of Work

4. Scope of Work

4.1 Detailed Scope of Work

To evaluate indoor air quality in various settings of urban & semi urban divide in MMR & study interventions therein. To assess the indoor air quality in selected schools, shopping malls, office building and households in MMR Region reflecting of whole of Maharashtra & Chandrapur area to formulate best practices for improvement in the Indoor Air Quality in reflective of the State aligned with non-attainment areas as well as critically / severely impacted areas. Recently, it has been observed in areas where industrial areas are adjacent to residential area or in mixed land use pattern areas; various complaints of pollution are received e.g. Odor problem in Taloja, dust problem in Dombivli, Odour & Pollution issues in Mahul, air pollution issues in Chandrapur, etc. The Process of identification of at least 5 – 7 such critically / severely impacted areas shall be such that it is representative of all other such critically / severely impacted areas to represent entire Maharashtra. Also, it must be considered while selecting such locations that they shall be representative of different problems based on the pollutant types and complaints received in specific areas.

The objectives of the proposed study are:

Phase I

- Assessment IAQ status in selected indoor micro-environments i.e., School, cinema halls, shopping malls, Office Building and Residential Building to represent physical & micro environmental features of entire Maharashtra as well as critically / severely impacted areas & if need be extend the same to representative areas
- Special relevance & detailed study for Chandrapur IAQ
- Identification of the major sources in selected Indoor Environment by analyzing the monitored IAPs and other physical determinants and indoor activities

Phase II

- An empirical assessment of health risk of occupants due to IAPs exposure in different Indoor Environment settings
- Elemental [SA] related receptor modeling for assessment of most relevant parameter of health risk through elemental analysis & heal end points

Phase III

- Evaluation of interventions & Formulation of best practices for breathable air quality in selected Indoor Environment in MMR

Phase IV

- Planning a longitudinal study in coming future for better understanding of IAQ and health dynamics

4.1.1 The scope of work includes:

To execute the project, following minimum activities should be conducted:

Scope of Work	Proposed Methodology
Literature review	Guidelines of CPCB published for IAQ shall be the prima facie document mainly reviewed and study shall be aligned to that. However, WHO, international, and nationally reputed publications along with similar study referencing shall be done initially to refine the study plan & execution

Geographical Domain Stratification	The study shall be limited to sampling in MMR region wherein it shall be virtually divided into 6-7 zones based on various physical determinants such as land use, population mix, generic type of sources, exposure potential, etc. to have a thorough representative outlook. The sampling protocol shall consider IAQ features representative of whole of Maharashtra in all respects and if need be extended to other areas to qualify for the representativeness including those which have potentially been referred as critically / severely impacted areas having known complaints of air pollution issues
Time of Study	In order to understand the dynamics of meteorological parameters and indoor air pollutants in various microenvironments, it is advisable to conduct a year long monitoring study to assess the seasonal variations in both MMR region separately. Expected to be completed in 12 months
Sampling Mix	At least 5-6 representative types of indoors shall be selected in each of the zones as stated above based on determinant criteria to have effective sampling adequacy such as schools, commercial establishments – shops / offices, shopping malls, residential / slums, cinema halls, restaurants, banquet halls, etc.
Sampling Nos.	A cross-sectional study needs to be designed by stratifying study area in 10-12 areas representing whole of Maharashtra and thereby collecting at least 50-60 samples from each area Around > 700 samples to be collected across MMR area (including non-attainment area & critically / severely impacted areas for both seasons) stratifying each category further to represent all respective end points representative of entire Maharashtra.
Sampling Parameters	PM ₁₀ , PM _{2.5} , Bioaerosols, VOCs and ventilation characteristics (CO ₂ monitoring) and thermal comfort parameters (Temperature and Rh), Air flow, etc. Additional residual parameters such as Formaldehyde, NO ₂ -NO _x , O ₃ / secondary O ₃ , secondary pollutants, organic / inorganic markers of relevance, heavy metals, ions for source apportionment [SA] study, etc. <i>Approved Methods of Measurement shall be used for analysis</i>
Sampling Methodology	Ideally sensor based digital measurements are preferable, but a mix of conventional sampling shall also be carried out so as to generate confidence in the data produced during the study. Dust trek for PM measurements, TVOC analyzer for VOC's, CO ₂ analyzer & other thermal comfort indicator analyzer shall be deployed. Attempt shall be made first to validate each of the instruments & if required MPCB's & other national / international past experience & research shall also be used in order to determine the use of equipment's for this study. The IAQ monitoring protocol produced for CPCB will be followed for sampling period in different indoor settings For all SA related inputs, gravimetric, adsorption & relevant methods to be deployed
Analysis	Since the equipment used shall provide real time outputs, it would be appropriate that any wet chemical analysis be done at NABL/MoEFCC approved laboratory for only purposes of validations or a hybrid sampling with digital analyzers & conventional wet chemistry can also be adopted during study. For all SA related inputs, wet chemistry & non-destructive methods shall be applied

Health Surveys & Physical Setting Assessment	BOLD or similar type of questionnaire customized for different indoor settings shall be administered for assessment of physical setting of the indoors such as ventilation, size of room, light, outdoor air impact, etc.
Primary Health Assessment	Spirometry and/or Lung Function Tests forms one of the most appropriate methods for health assessment. However, this shall require approvals from Ethics committee of respective areas and thereby may take time & efforts. These aspects shall be evolved during the course of study. However, if at all these are to be done, empirical health assessment can be done by analysis of records of MC/Government hospitals, if made available.
Interpretation of Data	Regression & statistical assessment of data gathered from sampling & analysis of air quality, health endpoint either through questionnaire or otherwise & physical environmental setting of indoors shall be carried out. All such correlations between individual & multi parameters will be studied & interpreted for contribution of sources
Intervention Studies	Some of the most impactful interventions such as need of ventilation, air circulation needs, outdoor to indoor air restrictions, etc. shall be studied and SoP to be developed for each of the category of sample mix studied
Capacity Building & Information Dissemination	Experts in Indoor Air Quality along with reputed Health professional's shall build capacity for MPCB as well as other stakeholders as deputed by MPCB on the entire methodology & SoP to take up similar studies in Maharashtra with a view to feed the larger objective of creating baseline for setting up IAQ standards System & institutionalization of the data as well as follow-up methods / feedback mechanism for similar studies shall also be part of this project & infographic systems of information dissemination shall be created for ease of understanding of the project & data so collated

1. Identification of buildings in priority indoor environments based on criteria developed for selection of buildings, seeking permissions from authorities to conduct the baseline survey and monitoring. Minimum 50 buildings will be selected under each category of indoor environment
2. An observational study of the buildings will be conducted through standard questionnaire customized for different indoor environments in India, which will include the building characteristics, occupants' information related to their activities, location of the building etc.
3. Monitoring of air pollutants of concern (PM₁₀, PM_{2.5}, and VOCs) and ventilation characteristics (CO₂ monitoring) and thermal comfort parameters (Temperature and Rh)
4. Monitoring of SA related inputs
5. Data analysis to identify the pollutants/ parameters of concern, their sources indoors and establishing I/O relationships.
6. Results and analysis of questionnaire survey to assess the health risks to occupants of the buildings w.r.t. their exposure to indoor air pollutants
7. Analysis of data available from literature and questionnaire survey to evaluate the pollutants released from different construction materials used in selected buildings for study
8. Quantification of health risk due to indoor air pollutant exposure using USEPA approved model customized for Indian Conditions and its correlation with questionnaire data
9. Proposing the best practices for selected building types to reduce the health risks caused due to exposure to indoor air pollutants
10. Suggestive guidelines for selected building types for MMR
11. Stakeholder consultation workshop to review the suggestive formative guidelines
12. Integration of all the above components to develop the final project report
13. Suggestive analysis of elemental fraction of IAQ with health endpoints validated through Receptor Modelling

Total Proposed number of monitoring locations

Types of Building / Indoor Space	Number of Building & their characteristic Feature	Duration of Monitoring in Each building	Frequency of Monitoring	Total micro-environments
School	1. Mechanically Ventilated School 2. Naturally Ventilated School 3. School in Slum Area	At least, 2- 4 working hours for each school type in 10% classrooms. If possible, for all working hours	3 working days	50 micro-environments at schools inclusive of each type
Cinema Halls	Mechanically ventilated	At least, Morning and evening for 2-4 hours each, both on weekdays and weekends	3 days including a weekend	50 micro-environments
Restaurants	Naturally ventilated Mechanically ventilated In kitchens	2-4 hours in the evening, both on weekdays and weekends	3 days including a weekend	50 micro-environments
Shopping Malls	In common lobby areas In the food court	2 hours in the evening at each location	3 days including a weekend	50 locations
Offices	1.Low Rise 2.High Rise	2 working hours for each type, 5% of offices in each type	3 working days	at least 100 micro-environments in offices
Residential units	1.Mechanically Ventilated House 2.Naturally Ventilated House 3.House in Slum Area	1 hour in morning and evening, 10% of residential units in each location.	3 days including a weekend	at least 300 micro-environments
Local trains/Buses	AC coaches Non-AC coaches	One trip in the morning and Evening in top two longest stretches	3 days including a weekend	50 Microenvironment
Critically / severely impacted areas	Areas where various pollution related specific episodes / complaints are registered especially in mixed land use pattern areas	One in the morning and Evening in top two longest stretches	3 days including a weekend	50 locations
Total number of monitoring locations				700-710

Proposed Criteria for selection of Buildings (may be improved after survey of building)

a. School Buildings

The school building should have specific indoor environments including classrooms, Library and canteen where the exposure of the children in various indoor environments can be investigated.

b. Office Buildings

The office buildings with various seating arrangements including partitions in a big hall, partitions with files and rakes, tables and chairs without partitions, completely partitioned rooms with and without ventilation and air conditioning etc.

c. Cinema Halls

The cinema halls with multiple screens with both large and small seating arrangements with cushioned chairs including food and beverage arrangements.

d. Shopping malls

The shopping mall should have an HVAC system and enough provisions to investigate the stack effect etc. The shopping mall with the parking area below the mall will be preferred so that the transfer of the pollutants from the underground parking lots to the shopping mall through lifts etc may be investigated.

e. Residential Buildings

Based on their size (1BHK to 4 BHK), ventilation, height (single story, multi-story), location (urban, sub urban, slum areas)

f. Local trains/Buses

The longest route Local trains/Buses both AC/non AC may be considered and the exposure to pollutants may be monitored.

4.1.2 Deliverables:

Quarterly deliverables and outcomes are as follows:

Quarters I and II –

1. Literature review
2. Identification of buildings based on selection criteria for respective indoor environment
3. getting permissions to conduct the IAQ monitoring and assessment study
4. Procurements of instruments
5. Recruitment of staff
6. Training of staff for SOP of the project

III Quarter

1. Observational data for naturally ventilated schools/ colleges (**Monitoring + Questionnaire survey**)
2. Observational data for mechanically ventilated schools/ colleges
3. Observational data for slum area schools
4. Observational IAQ data for food courts at malls
5. Observational data for movie theaters at malls
6. I/O relationships for selected IAPs of concern in school and shopping malls micro- environment
7. Observational data for low rise office buildings
8. Observational for high rise office buildings
9. Observational data for > or = 3 BHK households/Independent Bungalow
10. Observational for 2 BHK households/Independent Bungalow
11. Observational for 1BHK households/slum residences
12. I/O relationships for selected IAPs of concern in different residential and hospital micro-environments

IV Quarter

1. I/O relationships for selected IAPs of concern
2. Analysis of questionnaire and monitoring data to identify the pollutants of concern and their sources indoors

V Quarter

1. Quantification of health risk due to indoor air pollutant exposure using USEPA approved model customized for Indian conditions and its correlation with questionnaire data
2. Proposing the best practices for selected building types to reduce the health risks caused due to exposure to indoor air pollutants
3. Suggestive guidelines for selected building types for MMR

VI Quarter

1. Stakeholder consultation workshop to review the suggestive formative guidelines
- Integration of all the above components to develop the final project report

The scope is to devise deliverables for one typical Non-attainment Area but also to include representativeness of whole of Maharashtra State including specific MMR areas in all environmental & physical environment / micro environmental regimes that can be replicated in all such including additional industrial areas that are supposed to influence non-attainment areas due to its strategic spatial / geographical vicinity-based impacts. Several of the scope defined in **Table 1**

Table 1: Deliverables

S. No	Deliverables	Description
1.	<ol style="list-style-type: none"> 1. Literature review 2. Identification of buildings based on selection criteria for respective indoor environment. 3. Getting permissions to conduct the IAQ monitoring and assessment study 4. Procurements of instruments 5. Validation of Equipment with Demo Sampling 6. Sampling of 1st Season 7. Recruitment of staff 8. Training of staff for SOP of the project 	<ul style="list-style-type: none"> • 2 seasons sampling • Minimum 6 each of Dust Trek, TOC, Low Volume Samplers
2.	Sampling for 1 st Season	>350 Locations
3.	Analysis of Samples from 1 st season for SA inputs	Elemental, Ionic, EC / OC, Markers
4.	Sampling for 2 nd Season	>350 Locations
5.	Analysis for 2 nd Season	Elemental, Ionic, EC / OC, Markers
6.	Observational data for selected domains of study (Questionnaire survey)	Interim Report
7.	I/O relationships for selected IAPs of concern Analysis of questionnaire and monitoring data to identify the pollutants of concern and their sources indoors	Interim Report
S. No	Deliverables	Description
8.	Quantification of health risk due to indoor air pollutant exposure using USEPA approved model customized for Indian conditions and its correlation with questionnaire data	Interim Report

9.	Proposing the best practices for selected building types to reduce the health risks caused due to exposure to indoor air pollutants	Draft Report
	Suggestive guidelines for selected building types for MMR & reflecting for entire Maharashtra State Special relevance to non-attainment areas Special regards to Critically / severely impacted area	Draft Report
10.	Stake holder consultation workshop to review the suggestive formative guidelines Integration of all the above components to develop the final project report	2 Nos

4.2 Required Team Structure

The successful Bidder will set up a project office and deploy the required manpower for the project to complete all the deliverables in the given timeframe. Following table will give the various manpower resources that will be required and their proposed roles in the Project Organization. Pls note that this is the minimum resource structure and Bidders may deploy additional resources as per their own assessment of the project outlay and time bound deliverables.

4.3 MPCB Responsibilities

As the Project Sponsor, Maharashtra Pollution Control Board will have following responsibilities towards the project,

1. Appointing Nodal Officer/s for coordinating all the activities with the Successful Bidder and / or external agencies, as the case may be
2. Reviewing and fine-tuning various project templates prepared by Successful Bidder
3. Provide space for having an on-site project office for the duration of the project, if the Successful Bidder requests so. Provide electrical power supply and power outlets for Successful Bidders' IT infrastructure in such case. However, all the IT infrastructure including laptops, PCs, Printers, Servers along with relevant licensed software would be deployed by Successful Bidder at their own cost.
4. Provide hosting space along with necessary associated infrastructure (bandwidth, backup, etc.) for the Portal developed
5. Conducting regular reviews with the Successful Bidder.

4.4 Handover

1. Successful Bidder shall hand over the entire project asset created during the Implementation for successful handover of the project. This process will be initiated 15 days before the ending of the project contract.
 - Detailed inventory of all the assets, Infrastructure, source code, its location, condition, licenses, documents, manuals, etc. created under the Project. The IPR of software developed, databases created and data collected will be exclusive property of MPCB and the Successful Bidder will not have any right on the same whatsoever.
 - Method of Transition including roles and responsibilities of both the parties to handover and takeover the charge of project regular activities and support system (if any)
 - Proposal for necessary setup or institution structure required at MPCB level to effectively maintain the project after contract ending (if any)
2. Training and handholding of MPCB Staff or designated officers for maintenance of project after contract ending. MPCB will approve this plan after necessary consultation and start preparation for transition.

Annexures

Document No.	Description
Annexure 1	Documents for Eligibility Criteria
Annexure 2	Documents for Financial Proposal
Annexure 3	Other Documents/Formats
Annexure 4	Draft Conditions of Contract
Annexure 5	Details about e-Tendering process

5. Annexure -1: Documents for Eligibility Criteria

Document No.	Description	Submitted (Yes/No)	Pg No.
Document 1	Format for Bid Submission Covering Letter		
Document 2	Format for Bidder Details		
Document 3	Certificate of Incorporation / Partnership Deed		
Document 4	Copy of PAN Card		
Document 5	Copy of GST Certificate with GST Number		
Document 6	Power of Attorney in the name of Signatory		
Document 7	Format for CA Letter about Profitability		
Document 8	Format for Proposed resource deployment		
Document 9	Format for Declaration from HR department		
Document 10	Format to Project Citation		
Document 11	Format for Non-Blacklisting		
Document 12	Copy of Online Tender Fee payment receipt		
Document 13	Copy of Online EMD Payment acknowledgement from Maharashtra e-Tender portal		
Document 14	Technical Proposal comprising of Company profile, Capabilities, Strengths Proposed Delivery / Execution methodology		

*** Bidders are to consider this document as a Checklist and Index. The same should be included as a part of Technical Bid**

5.1 Format for Bid Submission Covering Letter

(To be submitted on the letterhead of the bidder)

{Place, Date}

To,

Member Secretary

Maharashtra Pollution Control Board,
Kalpataru Point, 3rd floor, Opp. PVR Cinema,
Sion Circle, Sion, Mumbai-400 022

Subject: Bid Submission Cover Letter for- Request for Proposal (RFP) for Evaluation of Air Quality in different Indoor Environments in Mumbai Metropolitan Region (MMR) Representative of Maharashtra State with Special Reference to Non-Attainment Areas & critically / severely impacted areas and Formulation of Best Practices for better Indoor Air Quality (IAQ)

RFP Reference No: MPCB/

Dear Sir,

We, the undersigned bidders, having read and examined in detail all the bidding documents for <<Name of the RFP>>, do hereby propose to provide our services as specified in the RFP.

We attach hereto our responses to the requirements and commercial proposals as required by the RFP. We confirm that the information contained in these responses or any part thereof, including the exhibits, and other documents and instruments delivered or to be delivered to MPCB, Govt. of Maharashtra is true, accurate, verifiable and complete. This response includes all information necessary to ensure that the statements therein do not in whole or in part mislead the department in its shortlisting process.

We fully understand and agree to comply that on verification, if any of the information provided here is found to be misleading the selection process, we are liable to be dismissed from the selection process or termination of the contract during the project, if selected to do so.

We agree for unconditional acceptance of all the terms and conditions set out in the RFP document and also agree to abide by this tender response for a period of bid validity as defined in this RFP. We hereby declare that in case the contract is awarded to us, we shall submit the contract performance guarantee bond in the form prescribed in the RFP. We also herewith express our willingness to subject to MPCB's conditionality regarding manpower recruitments (required for the project), change of hands of management and declaring upfront the source of funding for the project.

We agree that you are not bound to accept any tender response you may receive. We also agree that you reserve the right in absolute sense to reject all or any of the products/ services specified in the tender response.

It is hereby confirmed that I/We are entitled to act on behalf of our company/ corporation/ firm/

Evaluation of Air Quality in different Indoor Environments in Mumbai Metropolitan Region (MMR) Representative of Maharashtra State with Special Reference to Non-Attainment Areas & critically/ severely impacted areas and Formulation of Best Practices for better Indoor Air Quality (IAQ)

organization and empowered to sign this document as well as such other documents, which maybe required in this connection.

Dated this _____ Day of _____ 202

Thanking you,
Yours faithfully

(Signature of the Authorized Signatory of the Bidder)
(In the capacity of)

(Name)

Duly authorized to sign the Tender Response for and on behalf of:

(Name and Address of Company) Seal/Stamp of bidder

5.2 Format for Bidder Details.

<< To be printed on Bidder's Company's Letter Head, Signed by Authorized Signatory >>

TO WHOMSOEVER IT MAY CONCERN

Bidder Information (Sole Bidder)

Sr.	Particulars	Information
1.	Name of the Agency	
2.	Address of the Agency	
3.	Telephone Nos.	
4.	Fax	
5.	E-mail	
6.	Website (If available)	
7.	Year of Establishment	
8.	Date of registration	
9.	ROC Reference No. (with supporting document) for Pvt. Ltd and LLP organizations	
10.	PAN No:(with supporting document)	
11.	GST Number (with supporting document)	

Thanking you,

(Name and Designation of the Authorized signatory of the Bidder)

Name:

Designation:

Seal:

Date:

Place:

Business Address:

5.3 Format for Turnover details and Profitability

(To be submitted on the letterhead of the Chartered Accountant)

{Place, Date}

To,

Member Secretary

Maharashtra Pollution Control Board,
Kalpataru Point, 3rd floor, Opp. PVR Cinema,
Sion Circle, Sion, Mumbai-400 022

Subject: Turnover details for Request for Proposal for Request for Proposal (RFP) for Evaluation of Air Quality in different Indoor Environments in Mumbai Metropolitan Region (MMR) Representative of Maharashtra State with Special Reference to Non-Attainment Areas & critically / severely impacted areas and Formulation of Best Practices for better Indoor Air Quality (IAQ)

RFP Reference No: MPCB/

Dear Sir,

Please find below profitability status of <Bidder's Name>.

Sr.	Financial Year	Turn Over	Profitable (YES / NO)
1			
2			
3			
Average Turn Over			

Thanking you,

(Signature, Name and Designation of the
Authorized signatory of the Bidder)

(Signature and Name of the
Chartered Accountant with Seal)

5.4 Format for Project Citation

Project Title: (Attach separate sheet for each Order)	
Order date	
Name of Client	
Address	
Order Value in INR	
Type of Client (Government (State or Central) or Semi Government or Corporation or PSU or ULB)	
Brief Description of Work:	
Work Start Date	
Work Completion Date	
Referrals (Client side): Provide one referral only.	
Name	
Designation	
Role in the Project:	
Contact Number	

Note:

1. *The Bidder is required to use the above formats for all the projects referenced by the bidder.*
2. *“Completion Certificate from Client” OR “Work Order/Purchase Order” shall be provided as supporting document for each project.*

(Name and Designation of the Authorized signatory of the Bidder)

Name:

Designation:

Seal:

Date:

Place:

Business Address:

Evaluation of Air Quality in different Indoor Environments in Mumbai Metropolitan Region (MMR) Representative of Maharashtra State with Special Reference to Non-Attainment Areas & critically/ severely impacted areas and Formulation of Best Practices for better Indoor Air Quality (IAQ)

5.5 Format for Proposed Resource Deployment

<< To be printed on Bidder Company's Letter Head and Signed by Authorized Signatory/HR Head>>

To,

Member Secretary

Maharashtra Pollution Control Board,
Kalpataru Point, 3rd floor, Opp. PVR Cinema,
Sion Circle, Sion, Mumbai-400 022

Dear Sir,

Subject: Proposed Resource Deployment - Request for Proposal for Request for Proposal (RFP) for Evaluation of Air Quality in different Indoor Environments in Mumbai Metropolitan Region (MMR) Representative of Maharashtra State with Special Reference to Non-Attainment Areas & critically / severely impacted areas and Formulation of Best Practices for better Indoor Air Quality (IAQ)

RFP Reference No: MPCB/

With reference to the subject RFP, we hereby declare that we will deploy the following Team Members as our project team, if awarded the contract. We understand that MPCB has already mentioned the minimum resource requirement as per Section 4.3 and Section 3.23. However, we have done our internal assessment and propose the following Team structure, which is in line with Team Structure given by MPCB and meets the minimum resource requirement in terms of No. of resources, Qualifications and Experience.

Sr. No.	Project Designation	Role /	Proposed Resource Name	Experience in Years	Highest Qualification	Projects Handled in past

We also accept that, if it is found that any of the information provided by us is proved wrong/ falsified/ deviated/ incorrect/ concealed from facts, our bid will be summarily rejected along with the blacklisting of our firm and forfeiture of our EMD/ PBG, as the case may be.

Yours sincerely,

Authorized Signatory/ HR Head

(Authorized person shall attach a copy of Authorization for signing on behalf of Bidding Company)

5.6 Format for Declaration from HR department of the Bidder

<< To be printed on Bidder Company's Letter Head and Signed by Authorized Signatory/HR Head>>

To,

Member Secretary

Maharashtra Pollution Control Board,
Kalpataru Point, 3rd floor, Opp. PVR Cinema,
Sion Circle, Sion, Mumbai-400 022

Dear Sir,

Subject: HR Department Declaration - Request for Proposal (RFP) for Evaluation of Air Quality in different Indoor Environments in Mumbai Metropolitan Region (MMR) Representative of Maharashtra State with Special Reference to Non-Attainment Areas & critically / severely impacted areas and Formulation of Best Practices for better Indoor Air Quality (IAQ)

RFP Reference No: MPCB/

With reference to the subject RFP, we hereby declare that we have_employees working on our payroll or associated with us through proper binding agreement having minimum qualification as graduate in any stream and having minimum experience in the domains required to execute this assignment as per the requirements of the RFP, specifically Section 4.3 and Section 3.23. We are attaching herewith the Bio Data of each of the proposed team members highlighting their Educational Qualification, Relevant Experience and major assignments handled in relevant field.

We also accept that, if it is found that any of the information provided by us is proved wrong/ falsified/ deviated/ incorrect/ concealed from facts, our bid will be summarily rejected along with the blacklisting of our firm and forfeiture of our EMD/ PBG, as the case may be.

Yours sincerely,

Authorized Signatory/ HR Head

(Authorized person shall attach a copy of Authorization for signing on behalf of Bidding Company)

Encl: Bio Data of Key members of the Proposed team

5.8 Format for Affidavit of “Non-Blacklisting”

(To be submitted on the non-judicial stamp paper of Rs. 100/-)

{Place, Date}

To,

Member Secretary

Maharashtra Pollution Control Board,
Kalpataru Point, 3rd floor, Opp. PVR Cinema,
Sion Circle, Sion, Mumbai-400 022

Subject: Affidavit of Non-Blacklisting for – Request for Proposal (RFP) for Evaluation of Air Quality in different Indoor Environments in Mumbai Metropolitan Region (MMR) Representative of Maharashtra State with Special Reference to Non-Attainment Areas & critically / severely impacted areas and Formulation of Best Practices for better Indoor Air Quality (IAQ)

RFP Reference No: MPCB/

We, the undersigned, hereby declare that We are not under a declaration of ineligibility / banned / blacklisted by any State or Central Government / any other Government institutions in India for any reason as on last date of submission of the Bid or convicted of economic offence in India for any reason as on last date of submission of the Bid.

We hereby declare that,

1. We have examined and have no reservations to the Bidding Documents, including Addenda issued, if any, in accordance with Instructions to Bidders.
2. We offer to execute in conformity with the Bidding Documents for providing consulting services at GPs working under MPCB, Maharashtra State, Pune.
3. Our bid shall be valid for a period of 180 days from the date fixed for the bid submission deadline in accordance with the Bidding Documents and it shall remain binding upon us and may be accepted at any time before the expiration of that period.
4. If our bid is accepted, we commit to submit a performance security in accordance with the Bidding Documents.

We hereby also declare that,

1. We are not convicted for any of the following offenses under the Prevention of Corruption Act, 1988; Or We have not been convicted under any Indian Penal Code or any law in force, for creating public injury to person or property or risk to public health as a part of execution of public procurement contract ; We have not been blacklisted/banned/debarred by any Government (State/Central) / Semi Government/ Corporation / PSU in India in last 3 years;
2. We have not violated the code of integrity in last 2 years;
3. Our Security Deposit or EMD or performance security deposit or any other deposit was not withheld (fully or partly) by the purchaser during any procurement process or contract execution undertaken by purchaser in last 2 years;

4. We have not withdrawn our bids post submission of the same. (maximum incidents are limited to 3)
5. If Owner / Partner / Director / Trustee of the organization is Owner / Partner / Director / Trustee of any other organization: We hereby declare that Our Owner / Partner / Director / Trustee are not Owner / Partner / Director / Trustee of any other organization which is presently blacklisted. / Banned / Suspended by the Government / Semi-Government / PSUs, and any other organization to which the provisions of GoM GR dated 01.12.2016 are applicable.
6. We declare that we comply with all clauses mentioned under section 5.8.5 of Government of Maharashtra Government Resolution dated 01.12.2016.
7. We accept that in case of any irregularity, lapses, non-compliances, MPCBs decision shall be final and binding on us.
8. We accept all the terms and conditions of this bidding document and undertake to abide by them, including the condition that you are not bound to accept highest ranked bid / lowest bid or any other bid that you may receive.
9. We also accept that, if it is found that any of the information provided by us is proved wrong/ falsified/ deviated/ incorrect/ concealed from facts, our bid will be summarily rejected along with the blacklisting of our firm and forfeiture of our EMD/ PBG, as the case may be.

Yours sincerely, Authorized Signatory (Authorized person shall attach a copy of Authorization for signing on behalf of Bidding Company)

Full Name and Designation

Signature of Notary (with official seal)

Name:

Designation:

Seal:

Business Address:

6. Annexure-2: Documents for Financial Proposal

Format No.	Description	Submitted (Yes/No)
Format 1	Commercial bid covering Letter	
Format 2	Commercial bid	

6.1 Commercial Proposal Cover Letter

(To be submitted on the letterhead of the bidder)

{Place, Date}

To,

Member Secretary

Maharashtra Pollution Control Board,
Kalpataru Point, 3rd floor, Opp. PVR Cinema,
Sion Circle, Sion, Mumbai-400 022

Tel:

Mail id:

Subject: Commercial Proposal Cover Letter for- Request for Proposal (RFP) for Evaluation of Air Quality in different Indoor Environments in Mumbai Metropolitan Region (MMR) Representative of Maharashtra State with Special Reference to Non-Attainment Areas & critically / severely impacted areas and Formulation of Best Practices for better Indoor Air Quality (IAQ)

RFP Reference No:

Dear Sir,

We, the undersigned Bidders, having read and examined in detail all the bidding documents in respect of **Request for Proposal (RFP) for Evaluation of Air Quality in different Indoor Environments in Mumbai Metropolitan Region (MMR) Representative of Maharashtra State with Special Reference to Non-Attainment Areas & critically / severely impacted areas and Formulation of Best Practices for better Indoor Air Quality (IAQ)** do hereby propose to provide Services as specified in the bidding documents.

1. Price and Validity: All the prices mentioned in our Bid are in accordance with the terms as specified in the bidding documents. All the prices and other terms and conditions of this Bid are valid for a period of 180 days from the last date of submission of the Bids. The prices we have offered, will remain fixed and subject to price escalation mention in the RFP during the period of Contract.
2. Taxes: We are an entity registered in India and do hereby confirm that our bid price is exclusive of all applicable taxes (i.e. GST). All relevant/ applicable taxes would be considered for reimbursement on actuals as per MPCB's discretion and prevailing Government laws
3. Deviations: We hereby declare that all terms and conditions mentioned in the RFP (all volumes, annexures and corrigendum's) are acceptable to us without any deviations and all the services shall be performed strictly in accordance with the bid documents
4. Unit Rates: We have indicated in the relevant Annexures enclosed the unit rates for the purpose of an account of payment as well as for price adjustment, in case of any increase / decrease from the scope of work under the contract.
5. Bid Price: We declare that our Bid Prices, exclusive of all applicable taxes, duties, and GST are for the entire scope of the work and requirements as specified in the Bid documents.

6. Contract Performance Bank Guarantee: We hereby declare that in case the Contract / Order is awarded to us, we shall submit the Contract Performance Bank Guarantee in the form prescribed in the RFP.
7. We hereby declare that our Bid is made in good faith, without collusion or fraud and the information contained in the Bid is true and correct to the best of our knowledge and belief. We also understand that if our bid is conditional in any way, it shall be summarily rejected.
8. We understand that our Bid is binding on us and that you are not bound to accept a bid you receive.
9. We confirm that no technical information or deviations are attached here with this Commercial offer.

Yours faithfully,

(Name and Designation of the Authorized signatory of the Bidder)

Name:

Designation:

Seal:

Date:

Place:

Business Address:

6.2 Format for Commercial Bid

Sr	Description	Qty	Basic Rate in Rs.	GST Amount	Amount in Rs.
			A	B	C = A+B
1	Cost of Project Execution for Evaluation of Air Quality in different Indoor Environments in Mumbai Metropolitan Region (MMR) Representative of Maharashtra State with Special Reference to Non-Attainment Areas & critically / severely impacted areas and Formulation of Best Practices for better Indoor Air Quality (IAQ) as per the scope of Work mentioned in Section 4,	Lumpsum			
TOTAL COST OF THE BID IN FIGURES					

TOTAL COST OF THE BID IN WORDS:

Rs. _____

Note:

1. The Bidder shall provision for all costs required for the entire duration of the contract. MPCB shall not be liable to pay any additional costs, apart from that mentioned in the table above.
2. The rate quoted by bidder shall include all costs associated with fulfilling the project deliverables, Out of Pocket Expenses including but not limited to Travelling, Lodging, Food, insurance, etc. MPCB shall not pay any additional cost to bidder.
3. All costs shall remain valid for the entire duration of the contract.

BIDDERS ARE REQUESTED TO SUBMIT ONLINE COMMERCIAL BID FORMAT

A COPY OF COMMERCIAL BID PRINTED ON LETTERHEAD TO BE UPLOADED AS PART OF ENVELOPE 2

7. Annexure-3: Other Documents/Formats

Document 1	Format for Pre-Bid Queries
Document 2	Performance Bank Guarantee

7.1 Format for Pre-Bid Queries

<< To be printed on Bidder Company's Letter Head and Signed by Authorized Signatory)To,
Member Secretary

Maharashtra Pollution Control Board,
Kalpataru Point, 3rd floor, Opp. PVR Cinema,
Sion Circle, Sion, Mumbai-400 022

Dear Sir,

Subject: Pre-bid queries for- Request for Proposal (RFP) for Evaluation of Air Quality in different Indoor Environments in Mumbai Metropolitan Region (MMR) Representative of Maharashtra State with Special Reference to Non-Attainment Areas & critically / severely impacted areas and Formulation of Best Practices for better Indoor Air Quality (IAQ)

RFP Reference No: MPCB/

With reference to the subject RFP, please find below pre-bid clarifications request.

Clarification Requested by:

Name	
Designation	
Company	
Address	
Contact Number	
e-mail ID	
Date	

Clarifications Requested:

Sr.	RFP Document Reference(s) (Clause No.)	Pg. No.	Content of RFP requiring Clarification(s)	Points of clarification
1.				

Note: Bidders are requested to provide the queries in MS Excel format

Thanking you,

(Name and Designation of the Authorized signatory of the Bidder)

Name:

Designation:

Seal:

Date:

Place:

Business Address:

7.2 Format for Bank Guarantee

<< To be executed on Stamp Paper as mandated by the Bank issuing the PBG>>>

No.

Date:

To,

Member Secretary

Maharashtra Pollution Control Board,
Kalpataru Point, 3rd floor, Opp. PVR Cinema,
Sion Circle, Sion, Mumbai-400 022

Tel:

Mail id:

Against Contract covering “Request for Proposal for **Request for Proposal (RFP) for Evaluation of Air Quality in different Indoor Environments in Mumbai Metropolitan Region (MMR) Representative of Maharashtra State with Special Reference to Non-Attainment Areas & critically / severely impacted areas and Formulation of Best Practices for better Indoor Air Quality (IAQ)**” (hereinafter called the said 'Contract') entered into between the Maharashtra Pollution Control Board - (hereinafter called the Purchaser) and

_____ (hereinafter called the Bidder) this is to certify that at the request of the Bidder we _____ Bank Ltd., are holding in trust in favor of the Purchaser, the amount of _____ (write the sum here in words) to indemnify and keep indemnified the Purchaser against any loss or damage that may be caused to or suffered by the Purchaser by reason of any breach by the Bidder of any of the terms and conditions of the said contract and/or in the performance thereof. We agree that the decision of the Purchaser, whether any breach of any of the terms and conditions of the said contract and/or in the performance thereof has been committed by the Bidder and the amount of loss or damage that has been caused or suffered by the Purchaser shall be final and binding on us and the amount of the said loss or damage shall be paid by us forthwith on demand and without demur to the Purchaser.

We _____ Bank Ltd, further agree that the guarantee herein contained shall remain in full force and effect during the period that shall be taken for satisfactory performance and fulfillment in all respects of the said contract by the Bidder i.e. till _____ hereinafter called the said date and that if any claim accrues or arises against us _____ Bank Ltd, by virtue of this guarantee before the said date, the same shall be enforceable against us _____ Bank Ltd, notwithstanding the fact that the same is enforced within six months after the said date, provided that notice of any such claim has been given to us _____ Bank Ltd, by the Purchaser before the said date. Payment under this letter of guarantee shall be made promptly upon our receipt of notice to that effect from the Purchaser.

The Performance Bank Guarantee shall be valid from the date of acceptance of the Letter of Intent and shall continue till Ninety (90) days after the completion of all contractual liabilities including

warranty obligations and defect liability period as per CVC guidelines. It is fully understood that this guarantee is effective from the date of the said contract and that we _____ Bank Ltd, undertake not to revoke this guarantee during its currency without the consent in writing of the Purchaser.

We undertake to pay to the Purchaser any money so demanded notwithstanding any dispute or disputes raised by the Bidder in any suit or proceeding pending before any court or Tribunal relating thereto our liability under this present bond being absolute and unequivocal.

The payment so made by us under this bond shall be a valid discharge of our liability for payment there under and the Bidder shall have no claim against us for making such payment.

The provisions relating to Sanctions for Violations specified in the Integrity Pact, entered into by the Bidder with the purchaser shall be applicable for forfeiture of Performance Bank guarantee incase of a decision by purchaser to forfeiture the same without assigning any reason for imposing sanction for violation for the Pact.

We _____ Bank Ltd, further agree that the Purchaser shall have the fullest liberty, without affecting in any manner our obligations hereunder to vary any of the terms and conditions of the said contract or to extend time of performance by the Bidder from time to time or to postpone for any time from time to time any of the powers exercisable by the Purchaser against the said Bidder and to forebear or enforce any of the terms and conditions relating to the said contract and we, _____ Bank Ltd., shall not be released from our liability under this guarantee by reason of any such variation or extension being granted to the said Bidder or for any forbearance by the Purchaser to the said Bidder or for any forbearance and or omission on the part of the Purchaser or any other matter or thing whatsoever, which under the law relating to sureties, shall, but for this provision have the effect of so releasing us from our liability under this guarantee.

This guarantee shall not be discharged due to the change in the constitution of the Bank or the Bidder.

Date _____

Place _____ Signature _____

Witness _____ Printed name _____

(Bank's common seal)

Section III- Other Information

8. Annexure-4: Draft Conditions of Contract

This AGREEMENT is made at _____, Maharashtra, on this ____ day of, ____ 2023,
BETWEEN

<<Insert Designation of Authorized Signatory>> Maharashtra Pollution Control Board, Government of Maharashtra, having its office at Kalpataru Point, 3rd Floor, opposite PVR Cinema, Sion Circle, Sion, Mumbai -400022, Maharashtra India hereinafter referred to as 'MPCB' or "FirstPart" which expression shall, unless the context otherwise requires, include its permitted successors and assigns

And

<<***>>, a Company incorporated under the *Companies Act, 1956*, having its registered office at <<***>> (hereinafter referred to as "Party" or "Second Part" which expression shall, unless the context otherwise requires, include its permitted successors and assigns).

Each of the parties mentioned above are collectively referred to as the 'Parties' and individually as a 'Party'

Whereas:

Whereas MPCB has envisaged Request for Proposal (RFP) for "Evaluation of Air Quality in different Indoor Environments in Mumbai Metropolitan Region (MMR) Representative of Maharashtra State with Special Reference to Non-Attainment Areas & critically / severely impacted areas and Formulation of Best Practices for better Indoor Air Quality (IAQ) (hereinafter referred to as the "said Project");

And whereas MPCB has published the RFP to seek services of a reputed Agency for Request for Proposal for Selection of Agency for Supply, Commissioning, Operation and Maintenance of Beach Cleaning Equipment for selected Beaches in Maharashtra;

And whereas M/s----- has submitted its proposal for Request for Proposal (RFP) for "Evaluation of Air Quality in different Indoor Environments in Mumbai Metropolitan Region (MMR) Representative of Maharashtra State with Special Reference to Non-Attainment Areas & critically / severely impacted areas and Formulation of Best Practices for better Indoor Air Quality (IAQ)

And whereas MPCB and M/s ----- have decided to enter into this Agreement on the terms and conditions stipulated hereinafter.

NOW, THEREFORE, THIS AGREEMENT WITNESSETH and the parties hereto hereby mutually agree as follows:-

The Agreement shall consist of this Contract Form and the following documents, and the exhibits, drawings, specifications and other documents referred to therein (hereinafter the 'Contract Documents'), all of which by this reference are incorporated herein and made part hereof:

1. Notification of Award / Work Order
2. RFP / Tender Form
3. Scope of Work as given in the RFP / Tender Document.

Evaluation of Air Quality in different Indoor Environments in Mumbai Metropolitan Region (MMR) Representative of Maharashtra State with Special Reference to Non-Attainment Areas & critically/ severely impacted areas and Formulation of Best Practices for better Indoor Air Quality (IAQ)

4. Project & Payment schedule as given in the RFP / Tender Document.
5. Terms & Conditions of Contract as given in the RFP / Tender Document.
6. Service Level Agreement (SLA) as given in the RFP / Tender Document.
7. Technical proposal of Tenderer.
8. Financial Proposal

This Agreement sets forth the entire contract and agreement between the parties pertaining to “Request for Proposal (RFP) for “Evaluation of Air Quality in different Indoor Environments in Mumbai Metropolitan Region (MMR) Representative of Maharashtra State with Special Reference to Non-Attainment Areas & critically / severely impacted areas and Formulation of Best Practices for better Indoor Air Quality (IAQ)” and supersedes any and all earlier verbal or written agreements. This agreement shall prevail over all other Contract Documents. In the event of any discrepancy or inconsistency within the contract documents, then the documents shall prevail in the order listed above.

In consideration of the payments to be made by the Corporation to the Agency as hereinafter mentioned, the Agency hereby covenants with the Purchaser to maintain and operate the entire proposed solution and to remedy defects therein in conformity in all respects with the provisions of the Contract. The Contract Price or such other sum as may become payable under the provisions of the agreement shall be at the times and in the manner prescribed in the Agreement.

Any notice under this agreement shall be in the form of letter, fax. Notices to either party will be given at such address/addresses as such party shall specify from time to time by written notice to the other. In the absence of such notice to the contrary, notice to the Purchaser shall be properly addressed to:

To,
Member Secretary
Maharashtra Pollution Control Board,
Kalpataru Point, 3rd floor, Opp. PVR Cinema,
Sion Circle, Sion, Mumbai-400 022

and notice to the Agency shall be properly addressed to:

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

IN WITNESS WHEREOF the parties hereto have caused this agreement to be executed in accordance with their respective laws the day and year first above written.

Signed, sealed and delivered.

By.....
Member Secretary

Evaluation of Air Quality in different Indoor Environments in Mumbai Metropolitan Region (MMR) Representative of Maharashtra State with Special Reference to Non-Attainment Areas & critically/ severely impacted areas and Formulation of Best Practices for better Indoor Air Quality (IAQ)

For and on behalf of MPCB

Signed, sealed and delivered

By

For and on behalf of the "Agency",

Witnesses:

(1)

(2)

NOW THEREFORE, in consideration of the mutual covenants, promises, assurances, representations and provisions set forth herein, the Parties hereto agree as follows:

<< Scope of Work, Solution Overview, Project & Payment Schedule, Terms & Conditions as specified above in the RFP document>>

Note:

- 1.The stamp duty payable for the contract shall be borne by the Agency.
- 2.The above Draft Master Service Agreement is only an indicative description of the contract agreement.However, the actual contract agreement shall be finalized and notified by the Purchaser after final selection of the Agency.

Annexure-5: Information about e-tendering process

INSTRUCTIONS TO BIDDERS FOR e-Tendering

1. The complete bidding document shall be published on <https://mahatenders.gov.in> for the purpose of downloading. The downloaded bidding document shall be considered valid for participation in the electronic bidding process (e-Procurement/ e-Tendering) subject to the submission of required tender/ bidding document fee through e-Tendering Online Payment Gateway mode only.
2. To participate in online bidding process, Bidders must procure a Digital Signature Certificate (Class - II) as per Information Technology Act-2000 using which they can digitally sign and encrypt their electronic bids. Bidders can procure the same from any CCA approved certifying agency. Bidders who already have a valid Digital Signature Certificate (DSC) need not procure a new DSC.
3. Bidders are also advised to refer "Bidders Manual Kit" available in this document or at <https://mahatenders.gov.in> for further details about the e-tendering process.
4. Bidders are advised to study this RFP document carefully before submitting their proposals in response to the RFP Notice. Submission of a proposal in response to this notice shall be deemed to have been done after careful study and examination of this document with full understanding of its terms, conditions, and implications.
5. Note-
 - a. Earnest Money Deposit: - can be paid through Online Payment mode only.
 - b. All eligible/ interested Bidders are required to be enrolled on portal <https://mahatenders.gov.in> before downloading tender documents and participate in e-tender process for this Tender. Bidders are requested to contact the telephone numbers provided on maha-tenders portal in case of any doubts/ information/difficulty regarding online enrolment or e-tendering process.
 - c. Bidders should submit the document related to tender online. Tender Fee of INR **5,000/-** (including taxes) and Earnest Money Deposit (EMD) should be credited in to MPCB fund account by online payment gateway, before submission of tender response otherwise Bidders cannot participate in tender process. Other instructions can be seen in the tender form. All or any one of the tenders may be rejected by competent authority.
 - d. The Electronic tendering system for MPCB will be available on the URL <https://mahatenders.gov.in>.

Note: Prospective Bidders may visit MPCB Office for any further information / clarification regarding this RFP on prior appointment during working hours till the date of bid submission

PREPARATION & SUBMISSION OF BIDS

Both the Bids (Technical as well as Commercial) shall have to be prepared and subsequently submitted online only. Bids not submitted online will not be entertained.

EARNEST MONEY DEPOSIT (EMD)

Bidders are required to pay Tender Fees and Earnest Money Deposit through Online Payment modes i.e. **Net Banking** during Bid Preparation Stage.

This payment will not be accepted by the department through any offline modes such as Cash, Cheque or Demand Draft.

If for any reason a bidder fails to make this payment through online modes, system won't allow the bidder to complete Bid Preparation stage resulting in his/her elimination from Online Bidding Process.

In case EMD is mandatory to all the bidders for a tender, offers made without EMD shall be rejected.

In Bid Preparation stage, bidders get access to Online Technical and Commercial Envelopes where they require uploading documents related to technical eligibility criteria and quote commercial offer for the work / item in respective online envelopes.

TECHNICAL BID

The following documents should be uploaded in Online Technical Envelope (T1) in PDF format. The list of documents for Technical Envelope is as follows:

Sr. No.	List of Documents	Compulsory / Additional
1	Covering Letter along with its annexure as per Format in EXHIBIT 1	Compulsory
2	Attested copy of Power of Attorney	Compulsory
3	Proof of Purchase of RFP	Compulsory
4	Proof of EMD	Compulsory
5	Certificate of incorporation / Registration	Compulsory
6	GST Registration certificate	Compulsory
7	Copies of documents in compliance of Minimum Eligibility Section 3.24	Compulsory
8	Documentary Proofs as testimony for Evaluation of Technical bids as per criteria listed in Section 3.25	Compulsory
9	Technical Proposal	Compulsory
10	Details of Resources to be deployed	Compulsory
11	Covering Letter As per Format in EXHIBIT 2	Compulsory
12		
13	ANYTHING ELSE	
14		
15		

COMMERCIAL BID

All commercial offers must be prepared online (An online form will be provided for this)

Any bidder should not quote his offer anywhere directly or indirectly in Technical Envelope (T1), failing which the Commercial Envelope (C1) shall not be opened and his tender shall stand rejected.

Online Bid Submission

In this stage, bidders who have successfully completed their Bid Preparation stage are required to transfer the data, already uploaded by them during Bid Preparation stage, from their custody to department's custody.

OPENING OF BIDS:

The bids that are submitted online successfully shall be opened online as per date and time given in detailed tender schedule (if possible), through e-Tendering procedure only in the presence of bidders (if possible).

Bids shall be opened either in the presence of bidders or it's duly authorized representatives. The bidder representatives who are present shall sign a register evidencing their attendance. Only one representative per applicant shall be permitted to be present at the time of opening the tender.

TECHNICAL ENVELOPE (1):

First of all, the Technical Envelope of the tenderer will be opened online through e-Tendering procedure to verify its contents as per requirements.

The decision of the tender opening authority shall be final in this regard.

The right to accept or reject any or all tenders in part or whole without assigning any reason thereof is reserved with Tender Opening Authority and his decision(s) on the matter will be final and binding to all.

The commercial bids shall not be opened till the completion of evaluation of technical bids. The commercial Bids of only technically qualified Bidders as mentioned above will be opened.

COMMERCIAL ENVELOPE (2):

This envelope shall be opened online as per the date and time which will be announced in due course of time, through e-Tendering procedure only.