



JHARKHAND STATE POLLUTION CONTROL BOARD

TOWNSHIP ADMINISTRATION BUILDING, HEC, Complex, Dhurwa, Ranchi 834004

Telephone: 0651- 2400850 (FAX)/2400851, 2400852, 2401847, 2400979, 2400139

Notice

“Inviting Expression of Interest (EOI) For Project on ‘Environmental Assessment of Polluted Industrial Areas (PIAs) of Jharkhand”

Expression of Interest is invited from eligible Expert Agencies for the execution of the project on ‘Environmental Assessment of Polluted Industrial Areas (PIAs) of Jharkhand’ during March-May 2026 on an MoU/Agreement basis.

Expert Laboratories /Agencies should have the following qualifications/ requisites:

1. The agency should have a similar type of work experience. It should have been awarded and completed 2 similar kinds of projects during the last two years, each costing not less than Rs. 05 Lakhs.
2. It should have its own laboratories and qualified technical & scientific personnel.
3. The laboratory of the agency should have a valid NABL Accreditation. Weightage will be accorded based on the number of parameters having valid NABL Accreditation during the evaluation of technical bids.

The interested Expert Agencies are required to submit the EOI along with the necessary documents related to the profile of the agency, work experience and NABL Accreditation. The details on Background, Objectives and Terms of Reference of the Project are attached.

The interested parties are required to submit the EOI to **“The Member Secretary, Jharkhand State Pollution Control Board, T.A Division Building, HEC Complex, Dhurwa, Ranchi-834004 (JH)”** and the last date of submission is within 21 days of the date of publication of the EOI.

Sd/-
(Rajeev Lochan Bakshi)
Member Secretary

Project on ‘Environmental Assessment of Polluted Industrial Areas (PIAs) of Jharkhand’

1. Background:

Environmental pollution arising from rapid industrialization and urbanization has reached critical levels. In 2009, the Central Pollution Control Board (CPCB), in collaboration with the Indian Institute of Technology (IIT) Delhi and 15 other reputed institutions, developed the Comprehensive Environmental Pollution Index (CEPI). CEPI is a numerical index ranging from 0 to 100, designed to characterise the environmental quality of an industrial area based on an algorithm that considers pollution sources, pathways, and receptors. The CEPI score enables the scientific classification of polluted industrial clusters and supports the formulation of appropriate action plans. Industrial areas with an aggregated CEPI score of 70 or above are categorized as Critically Polluted Areas (CPAs), those with scores between 60 and 70 as Severely Polluted Areas (SPAs), and those with scores below 60 as Other Polluted Areas (OPAs).

The CEPI framework was revised by CPCB in April 2016, with the concurrence of the Ministry of Environment, Forest and Climate Change (MoEF&CC), in response to representations from various stakeholders, State Governments, and State Pollution Control Boards (SPCBs). Using the CEPI-2016 methodology, CPCB carried out environmental quality monitoring in 100 polluted industrial areas across the country in 2018, in coordination with SPCBs and through recognized laboratories. This assessment led to the identification of 38 CPAs and 31 SPAs.

In accordance with directions from MoEF&CC, remedial action plans for the identified critically polluted areas were prepared by the respective SPCBs and Pollution Control Committees (PCCs) and are currently at different stages of implementation. Effective execution of these action plans is expected to contribute significantly to pollution control and improvements in environmental quality. To evaluate environmental conditions, CPCB conducts periodic monitoring through recognized environmental laboratories, and CEPI scores are assessed based on the collected monitoring data for the identified CPAs. The resulting CEPI values reflect the prevailing environmental quality and also serve as a benchmark for measuring progress in the implementation of remedial measures. To date, CPCB has completed three rounds of monitoring—in 2009, 2011, and 2013—based on which CEPI assessments were carried out.

Subsequently, it was recommended that environmental quality monitoring in CPAs be undertaken through third-party agencies for CEPI computation. In parallel, a revised concept of CEPI was developed. Accordingly, it was proposed to conduct environmental quality monitoring in approximately 100 polluted industrial areas, including the 43 CPAs, during the period 2016–17.

2. Objectives

Monitoring of identified Polluted Industrial Areas in terms of various environmental parameters, including air, surface water and ground water quality parameters and municipal solid waste characterization, which could be used for assessment of the environmental quality of the area.

3. Terms of Reference

Clause 1. Name of the Project:

The name of the project is ‘‘Environmental Assessment of Polluted Industrial Areas (PIAs) of Jharkhand’.

Clause 2. Sponsoring Agency:

The sponsoring agency is the Jharkhand State Pollution Control Board, Ranchi.

Clause 3. Terms and Conditions:

- i. The Expert Agency shall carry out the monitoring, sampling and analysis work for Ambient Air Quality, Surface Water Quality, Ground Water Quality Monitoring and Municipal Solid Waste Characterization in 12 selected Polluted Industrial Areas (PIAs) during March-May 2026 or during the period as per agreed TOR and monitoring & analytical protocols.
- ii. The list of identified industrial clusters for which monitoring, sampling and analysis work shall be carried out by the laboratory is placed at **Annexure-1**.
- iii. The Expert Agency may submit the proposal to cover either all 12 PIAs (nos. may likely increase or decrease) or selected PIAs. However, in each of the proposed PIAs, complete monitoring (air quality, surface water quality, groundwater quality and solid waste characterization) for all the designated parameters shall be performed.
- iv. It shall be at the sole discretion of the Competent Authority, JSPCB, to award the work either in parts or as a whole.
- v. The total number of samples and tentative list of the parameters for ambient air quality monitoring, surface water quality monitoring, groundwater quality monitoring and solid waste characteristics are given in **Annexure 2**.
- vi. At the time of submission of technical & financial bids by the short-listed

agencies, the rates for monitoring, sampling and analysis (including transportation & other miscellaneous charges) shall be required to be quoted for the following items-

- A. Charges per sample per location for ambient air quality monitoring.
- B. Charges per sample per location for surface water monitoring.
- C. Charges per sample per location for groundwater quality monitoring.
- D. Charges per sample per location for the characterization of municipal solid waste.

vii. Service tax shall be paid as per the applicable norms, and TDS shall be made as per the rules applicable.

viii. **Details of Project Team suitability & experience.** The offer/proposal should contain the details of the infrastructure/laboratory facilities available with the interested party and also provide a list of personnel proposed to be deployed for the assignment, outlining specifically the qualifications & experience of each person relevant to this project and each member's role and responsibility.

ix. Evaluation Criteria

The evaluation of the 'Expression of Interests' shall be undertaken based on the following criteria-		
i.	NABL Certification of the laboratory: ✓ (The laboratory of the Agency should have valid NABL Certification.)	20 marks
ii.	Work Experience: ✓ (No. of Marks per project: - 4 marks)	20 marks
iii.	Nos. of technical / scientific staff & their qualifications: ✓ (Marks to be awarded as per the no. of Authorized Scientific/ technical personnel employed with the agency and their respective qualifications)	15 marks
iv.	Infrastructure Facilities available with the Laboratory of the Agency: ✓ (Marks to be awarded based on parameter-wise facilities available for sampling / monitoring / in- house analysis) ✓ (Air monitoring / analysis -7.5 Marks, Water monitoring / analysis – 7.5 Marks)	15 marks
v.	Nos. of parameters having NABL Accreditation: ✓ (Marks to be awarded proportionately depending upon the no. of parameters having NABL accreditation) ✓ Marks – Air Parameters- 5, Water Parameters -5	10 marks
vi.	Detailed Presentation on the Methodology and Approach for the proposed study	20 marks
Total Marks – 100 marks		

The shortlisting of agency to become eligible for submission of the 'Technical and Financial Bids' shall be based on the following criteria:

- The laboratory of the Agency should have valid NABL certification.
- To qualify for the submission of technical and financial bid, the score of an agency should be at least 70 against a total score of 100.

- x. No EMD (earnest money deposit) is required at the time of submission of 'Expression of Interest'. However, the shortlisted & qualified bidders shall be requested to submit the proposal (technical & financial bids) accompanied with an EMD (earnest money deposit) of Rs. 10,000 (Rupees Ten Thousand only) in the form of a Demand Draft in favour of the **Member Secretary, Jharkhand State Pollution Control Board, Ranchi**. That EMD should be valid for six months. The EMD of unsuccessful bidders shall be returned after the award of work to the successful bidder. The EMD of the successful bidder shall be returned after completion of the project & submission of a satisfactory report; however, no interest will be paid. Any proposal received without EMD will be rejected summarily.
- xi. The Executing agency shall carry out the monitoring, sampling and analysis works as per the procedure and norms stipulated in 'Standard Methods'.
- xii. At each of the PIAs, three rounds of monitoring shall be carried out, and the tentative no. of samples to be collected by the monitoring agency will be as per the details provided in Annexure-1. The Regional Officers of SPCB, in coordination with concerned officials from JSPCB (HQ), will review and update the existing monitoring locations in PIAs (if any) along with identification of new monitoring locations in remaining polluted industrial areas **in accordance with the CPCB guidelines for ambient air quality monitoring (NAAQMS/25/2003-04) and water quality monitoring (MINARS/27/2007-08)**.
- xiii. During the process of identification of monitoring locations, a field visit to the selected PIAs will be conducted by officers and the Regional Officers of SPCB and will submit a field verification report with justification for the selection of each monitoring location under each PIA. Finally, the exact no. of samples and the sampling locations in each of the PIAs will be finalized in a joint meeting of ROs, concerned officials from JSPCB (HQ) and the monitoring agency. In view of the above, there may be changes (either increase or decrease) to the total no. of samples to be collected and as such, may also alter the total cost of the project.
- xiv. At each of the PIAs, 24-hourly ambient air quality monitoring (excluding rainy days) shall be carried out for parameters specified in Annexure-2. Also,

representative samples each for surface water quality, ground water quality and Municipal Solid Waste shall be collected from prominent surface and ground water bodies located in and around the clusters/ areas, and the collected samples shall be analyzed for the parameters specified in Annexure-2.

- xv. The Executing agency shall inform JSPCB (Head Office Ranchi) and the concerned Regional Office of JSPCBs about the constitution of the teams, names and contact nos. of team leaders and their visit schedule to the allocated PIAs for the monitoring and sampling works.
- xvi. The Executing agency shall coordinate with the Head Office, Ranchi and the Regional Office of JSPCB officials for efficient monitoring and sampling works.
- xvii. The Executing Agency shall also provide the monitoring schedule to the Regional Office of JSPCB and the Head Office, Ranchi, seeking their participation in the monitoring & sampling works.
- xviii. Payment shall be made in 2 parts as follows-
 - a. First instalment shall be made after completion of the monitoring, sampling and analysis work and on submission of satisfactory reports in respect of 50% of the PIA allocated/covered. The amount to be paid shall be commensurate with the total number of samples analysed in the said PIAs.
 - b. Final instalment shall be made after completion of the monitoring, sampling and analysis work and on submission of satisfactory reports in respect of the remaining 50% of the PIAs allocated/covered. The amount to be paid shall be commensurate with the total number of samples analysed in the said PIAs.
- xix. All the information and data generated or collected during the execution of the work shall be treated as confidential and the sole property of JSPCB, and the findings of the study shall not be published without prior permission of JSPCB.
- xx. The Agreement between the selected Expert Agency and JSPCB shall be operative until the completion of the project and acceptance of the final report by JSPCB.
- xxi. The project shall be implemented as per the rates finalized, and JSPCB will not provide any additional funds on account of any further cost escalation due to delay in project implementation or due to any other reasons.
- xxii. JSPCB shall not bear any responsibility for the personnel engaged under the project.
- xxiii. During the course of implementation of the project, the executing agency

shall conduct the monitoring and analysis strictly as per methodologies/ techniques prescribed in Standard Methods by APHA / EPA / BIS / CPCB manuals (as the case may be). The executing agency shall provide the information in this regard to the participating SPCB officials.

- xxiv. The Executing agency shall coordinate with the concerned JSPCB (HQ) official and the Regional Office of JSPCBs for efficient monitoring and sampling works. The JSPCB (HQ) may depute officer(s) to selected PIAs and verify the progress of monitoring work. The JSPCB (HQ) may submit a field verification report certifying the execution of monitoring work as per the norms in each of the PIAs falling under their jurisdiction. Further, JSPCB may also depute officers from the Head Office / Regional Office to verify the progress of monitoring work and check the analytical work at the reference laboratory of the Agency(ies) and in the process, may undertake surprise visits to the analytical laboratory of the agency/monitoring locations in any of the 12 PIAs.
- xxv. The executing agency shall collect duplicate samples (3% of the total samples under each zone) for selected parameters to be specified by the Regional Office of JSPCB and submit the same in sealed condition to JSPCB HQ.
- xxvi. The Executing agency shall submit the complete monitoring, sampling and analysis reports, including a summary of the parameters exceeding the prescribed standards/norms for each of the PIAs within a period of 3 weeks from the day of completion of the monitoring in all the assigned PIAs.
- xxvii. The Executing Agency shall submit 5 copies of the final report, along with a Soft copy on completion of the project. The final report shall be submitted within 3 weeks from the day of completion of the monitoring in all the assigned PIAs. The executing agency shall provide the analysis data in MS Excel as well as in MS Word (Area-wise). For any delay in submission of the final report beyond the specified period, a penalty @ 1% per week of the project cost shall be charged, maximum up to 15% of the project cost. However, the Member Secretary, JSPCB may condone the delay in sampling, monitoring and submission of reports for justified and genuine reasons which are beyond the control of SPCB and executing agency. Such reasons shall be recorded.
- xxviii. It shall be at the sole discretion of the Competent Authority, CPCB, either to defer the entire project or part of the project or reject any proposal without assigning reasons thereof.
- xxix. Applicable Taxes shall be deducted at source.
- xxx. The proposal being submitted must be signed by an authorised person representing the company/ firm.

- xxxi. The parties submitting the proposal are requested not to erase or mutilate any word(s) or figures occurring in the quotation. Overwriting is not allowed.
- xxxii. It may be noted that merely quoting the lowest rates will not entitle any firm to get the work order.
- xxxiii. The tenders shall be valid for a period of 06 months from the date of their opening.
- xxxiv. In case of any dispute, the decision of the Member Secretary, JSPCB, will be final and binding on both parties.
- xxxv. The work order shall be valid for a period of 01 year from the date of issue extendable further for a maximum period of 02 years and the monitoring agency shall undertake monitoring at the approved rates, in any of the PIAs to be assigned by JSPCB at any later date. However, the approved rates of monitoring shall be revised at the rate of 10% annually.

Annexure 1

State-wise distribution of 12 polluted industrial areas to be studied

S.No	Polluted Industrial Areas	No. of Ambient Air Quality Samples	No. of Groundwater Samples	No. of Surface Water Samples	No. of Samples of Municipal Solid Waste
1	Palamau	08	08	08	08
2	Chatra	08	08	08	08
3	Hazaribagh	08	08	08	08
4	Koderma	08	08	08	08
5	Giridih	08	08	08	08
6	Ramgarh	08	08	08	08
7	Bokaro Industrial Area	08	08	08	08
8	Dhanbad	08	08	08	08
9	Sarai Kela Kharsawa	08	08	08	08
10	West Singhbhum	08	08	08	08
11	Jamshedpur	08	08	08	08
12	Pakur	08	08	08	08

- A minimum of 3 rounds of samples must be collected from each PIA.
- The sampling must be done uniformly over a complete season.

i. Ambient Air Quality Monitoring for following parameters:

1. SO₂ , NO₂ , PM₁₀ , PM_{2.5}, Lead and Ammonia (for 24 hourly average monitoring values)
2. O₃ , CO (for 1 hrly average and 8 hrly average)
3. Benzene, Benzo(a) Pyrene, Arsenic & Nickel (for 24 hrly average value)

ii. Water Quality data of –

- (a) **Prominent Surface Water bodies** such as outfalls of CETPs, ETPs, FETP, treated effluent drainage, river, canal, ponds, lakes and other such water supply resources flowing through the area or flowing adjoining the PIA.
- (b) **Ground Water** Quality data of prominent ground water resources such as observation wells of Central Ground Water Board, drinking water wells, hand pumps, bore wells and other such water supply resources located in the industrial cluster/ area under consideration or in the peripheral areas.

Note :

Basic water quality requirements (for surface water and ground water both) are as follows-

(i) Simple Parameters -

Sanitary Survey, General Appearance, Color, Smell, Transparency and Ecological* (presence of animals like fish, insects etc. only in case of surface water bodies)

(ii) Regular Monitoring Parameters -

pH, O&G, Suspended Solids in mg/l, DO(% saturation), COD in mg/l , BOD in mg/l, Electrical Conductivity in μ mhos/cm, Total Dissolved Solids, Nitrite–Nitrogen , Nitrate- Nitrogen, (NO₂+NO₃) Total Nitrogen in mg/l, Free Ammonia, Total Residual Chlorine, Cyanide, Fluoride, **Chloride**, **Sulphate**, Sulphides, Total Hardness, Dissolved Phosphates, SAR, Total Coliforms, Fecal Coliform (MPN/100 ml),

(iii) Special Parameters -

Total phosphorus, TKN, Total Ammonia (NH₄+NH₃)-Nitrogen, Phenols, Surface Active Agents, Anionic detergents, Organo-chlorine pesticides, PAH, PCB and PCT, Zinc, Nickel, Copper, Hexavalent Chromium, Chromium (Total), Arsenic (Total), Lead, Cadmium, Mercury, Manganese, Iron, Vanadium, Selenium, Boron.

(iv) Bio-assay (zebra Fish) Test – For specified samples only.

- DO is not applicable in the case of groundwater.
- DO in eutrophicated waters should include measurements for diurnal variations.
- The SS limit is applicable only during the non-monsoon period.
- Faecal Coliform values should meet for 90 % time.
- Static Bio-assay method may be adopted.

iii. Physico-chemical characterization of municipal solid waste and associated leachate shall include the following parameters:

bulk density, moisture content, particle size distribution, total solids, volatile solids, fixed carbon, ash content, calorific value, pH of waste extract, total organic carbon (TOC), carbon–nitrogen (C/N) ratio, total nitrogen, total phosphorus, total potassium, sulphur, chloride, pH, electrical conductivity, total dissolved solids (TDS), total suspended solids (TSS), biochemical oxygen demand (BOD), chemical oxygen demand (COD), ammoniacal nitrogen, nitrate, phosphate, chloride, sulphate, oil and grease, iron, manganese, lead, cadmium, chromium (total), nickel, copper, zinc, mercury, arsenic, phenolic compounds, cyanide, sulphide, polycyclic aromatic hydrocarbons (PAHs), and dioxins and furans.

FORMAT OF THE COVERING LETTER

(The covering letter is to be submitted by the Party on Company Letterhead)

Date:

Place:

To,

The Member Secretary,

Jharkhand State Pollution Control Board

T.A. Division Building, H.E.C. Complex, Dhurwa,

Ranchi-834004, Jharkhand

Dear Sir,

Sub: EoI for “Environmental Assessment of Polluted Industrial Areas (PIAs) of Jharkhand”

Please find enclosed our EoI for “Environmental Assessment of Polluted Industrial Areas (PIAs) of Jharkhand” in response to the invitation for the Expression of Interest (EOI) Document issued by JSPCB dated

We hereby confirm the following:

1. The EoI is being submitted by (name of the Party), who is the Party in accordance with the conditions stipulated in the EOI.
2. We have examined in detail and have understood the terms and conditions stipulated in the EOI Document issued by JSPCB and in any subsequent communication sent by JSPCB. We agree and undertake to abide by all these terms and conditions. Our EoI is consistent with all the requirements of submission as stated in the EOI or in any of the subsequent communications from JSPCB. We agree to unconditional acceptance of all the terms and conditions set out in the EoI document.
3. The information submitted in our EoI is complete, is strictly as per the requirements as stipulated in the EOI, and is correct to the best of our knowledge and understanding. We would be solely responsible for any errors or omissions in our EoI.
4. We, as the Party (Please strike out whichever is not applicable), designate Mr/Ms. (mention name, designation, contact address, phone no., fax no., etc.), as our Authorized Representative and Signatory who is authorized to perform all tasks, including, but not limited to, providing information, responding to enquiries, and entering into contractual commitments, etc., on behalf of us in respect of the Project.

For and on behalf of:

Signature:

(Authorized Representative and Signatory)

Name & Designation of the Person:

FORMAT FOR SUBMITTING GENERAL INFORMATION OF THE COMPANY
(To be submitted on Company Letterhead along with supporting documents)

Date:

Place:

Details of the Organization:

1. Name of organization
2. Nature of the legal status in India
3. Legal status reference details
4. Nature of business in India
5. Date of Incorporation
6. Date of Commencement of Business
7. Address of the Headquarters
8. Address of the Registered Office in India
9. Number of Branch offices and a list of the same with addresses (Pls use additional sheets if required)
10. Organisation Certifications (List of certifications for the organizations that are relevant to the work defined in EoI)
11. Technical and management resources available (categorized by roles, relevant certifications, and experience)

Other Relevant Information

Mandatory Supporting Documents:

- a) Certificate of Incorporation from Registrar Of Companies(ROC)
- b) Relevant sections of the Memorandum of Association of the company or filings to the stock exchanges to indicate the nature of the business of the company

For and on behalf of:

Signature (Authorized Representative and Signatory of the Party):

Name of the Person:

Designation:

FORMAT FOR SUBMITTING FINANCIAL INFORMATION OF THE COMPANY
(To be submitted on Company Letterhead along with supporting documents)

Date:

Place:

Financial Information

	FY 2023-24	FY 2024-25	FY 2025-26
Turnover (in INR crores)			
Other Relevant Information			

Mandatory Supporting Documents:

Certificate from the Company Auditor certifying the Turnover and Profit Before Tax for the last three financial years: 2023-24, 2024-25, and 2025-26.

For and on behalf of:

Signature (Authorized Representative and Signatory of the Party):

Name of the Person:

Designation:

FORMAT FOR SUBMITTING PAST EXPERIENCE OF COMPANY / ORGANISATION
(To be submitted on Company / Organisation Letterhead along with supporting documents)
(Parties may use additional sheets to describe the assignment)

Date:

Place:

Information about relevant experience in past with BMW / HCE inventorisation/related work

S.No	Name of client	Brief Description of Assignment	Duration of Assignment	Year of Execution

For and on behalf of:

Signature (Authorized Representative and Signatory of the Party):

Name of the Person:

Designation: