

**BEFORE THE HON'BLE NATIONAL GREEN TRIBUNAL
PRINCIPAL BENCH, NEW DELHI**

Original Application No. 693/2023

In the matter of:

News Item Appearing in Deccan Herald Dated 24.10.2023 titled "Pollution Control Boards are the Weak Link"

Index

S. No.	Particulars	Pg. No.
1.	Report on the Progress Reports of State Pollution Control Boards / Pollution Control Committees in accordance with the order dated 28.01.2025.	
2.	Annexure 1: Format circulated for obtaining information from SPCBs / PCCs regarding Vacancy details.	
3.	Annexure 2: Format circulated for obtaining information from SPCBs / PCCs regarding Laboratory Infrastructure, Analytical Quality Control (AQC) and Proficiency Testing (PT).	
4.	Annexure 3: Details of Laboratories Participated in PROFICIENCY TESTING (PT) Exercises	



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On behalf of Central Pollution Control Board

Place: Delhi

Date: 06.05.2025

BEFORE THE HON'BLE NATIONAL GREEN TRIBUNAL
PRINCIPAL BENCH, NEW DELHI
Original Application No. 693 of 2023

In Re: News Item Appearing in Deccan Herald Dated 24.10.2023 Titled "Pollution Control Boards are the weak link"

**REPORT ON THE PROGRESS REPORTS OF STATE POLLUTION CONTROL BOARDS /
POLLUTION CONTROL COMMITTEES IN ACCORDANCE WITH THE ORDER DATED
28.01.2025**

1.0 BACKGROUND

In the Suo Motu Matter of Original Application (O.A) No. 693 of 2023, the Hon'ble National Green Tribunal (NGT), Principal Bench, New Delhi – 110001 had taken note of the large number of posts lying vacant and the absence of accredited laboratories in State Pollution Control Boards (SPCBs) / Pollution Control Committees (PCCs).

In this matter, the Hon'ble NGT, through its order dated 28.01.2025, directed to all SPCBs/PCCs to file an affidavits disclosing the deficiencies in their laboratory infrastructure, particularly, disclosing analytical capabilities to monitor and analyse notified parameters under Schedule-I, Rule 3 of the Environment (Protection) Rules, 1986. In this regard, Central Pollution Control Board (CPCB) was directed to re-examine the disclosures made by SPCBs / PCCs concerning laboratory infrastructure and to assess the gaps / lack of facilities, including the recognition of Laboratories by the National Accreditation Board for Testing and Calibration Laboratories (NABL) and recognition as an Environment Protection Laboratory in next hearing i.e. on 08.05.2025.

2.0 PROGRESSS REPORT OF THE SPCBs / PCCs

To facilitate this process, CPCB developed a structured format in tabular form to obtain the status of vacancies and status of laboratories. These formats were circulated with all the SPCBs/PCCs and are enclosed as **Annexure 1 and Annexure 2**. Subsequently, meetings were convened with all SPCBs / PCCs on 19.02.2025 and 25.03.2025, to provide guidance on the formats and clarify the information required.

All 28 SPCBs and 8 PCCs have submitted the requested information to CPCB. This data has been compiled in to a comprehensive report.

3.0 STATUS OF FILLING VACANCY OF POSTS BY SPCBs/ PCCs

Section 12 (3) and Section 12 (3A) of the Water (Prevention and Control of Pollution) Act, 1974 stipulates as below:

Section 12 (3): *Subject to such rules as may be made by the Central Government or, as the case may be, the State Government in this behalf, a Board may appoint such officers and employees as it considers necessary for the efficient performance of its functions.*

Section 12 (3A): *The method of recruitment and the terms and conditions of service (including the scales of pay) of the officers (other than the member-secretary) and other employees of the Central Board or a State Board shall be such as may be determined by regulations made by the Central Board or, as the case may be, by the State Board:*

Provided that no regulation made under this sub-section shall take effect unless, -

(a) in the case of a regulation made by the Central Board, it is approved by the Central Government; and

(b) in the case of a regulation made by a State Board, it is approved by the State Government.

Similar provisions are also stipulated under Section 14(3) and Section 14(4) of the Air (Prevention and Control of Pollution) Act, 1981, about appointing such officers and employees as it considers necessary for the efficient performance of its functions and determining method of recruitment and terms and conditions of the service including the scale of pay of the officers (other than the Member Secretary) and employees by regulations made by the State Board under the Act.

In this matter, the Hon'ble NGT, through its order dated 28.01.2025, SPCBs/PCCs are directed to point out the order of the Hon'ble Supreme Court passed in WP (C) No. 13029 /1985 dated 27.05.2024 which required the Sates to fill up all the vacancies by 30.04.2025.

In view of above, the status of filling the vacancy of posts by 28 SPCBs and 08 PCCs are tabulated below at **Table 1A** and **Table 1B**

Table 1A: Status of filling the vacancy of posts by State Pollution Control Boards

S. No	Name of the SPCBs	Status of Sanctioned posts in Number					Will the vacancy be filled by 30.4.2025 ?	Remarks
		Sanctioned	Vacancy as on 11.09.2024	Filled after 11.09.2024	Current Vacancy	% of vacant posts		
1.	Andhra Pradesh	291	209	-	209	71.80	No	<ul style="list-style-type: none"> Exam was conducted for 36 Scientific and 61 Engineering direct vacancies (total 97 technical posts) on 25.03.2025 and 26.03.2025 in two phases; results are awaited. Out of 67 administrative vacancies, 02 Nos of Administration posts were filled through deputation, request has been sent to the Government for approval for 26 posts, which is awaited. 45 promotional posts are vacant due to no eligible candidates in the feeder cadre.
2.	Arunachal Pradesh	27	0	-	-	0	NA	<ul style="list-style-type: none"> No vacancy exists.
3.	Assam	264	28	0	32*	12.12	No	<ul style="list-style-type: none"> 74 posts were filled based on the merit list recommended by the Selection Committee on 07.02.2024 and the remaining vacancy was 32 Nos as on 11.09.2024. *3 employees are superannuated and 1 employee is removed from service. 21 promotional posts are vacant due to no eligible candidates in the feeder cadre.
4.	Bihar	63	57	0	57	90.47	No	<ul style="list-style-type: none"> Board is pursuing with Bihar Public Service Commission to fill all vacant posts, within 3 months.
5.	Chhattisgarh	328	136	-	136	41.46	No	<ul style="list-style-type: none"> Proposal have been submitted to Vyapam (Vyavsayik Pariksha Mandal) for recruitment of Laboratory Assistant Grade-1, Grade-2, and Laboratory Attendant, Assistant Engineer,

S.	Name of the	Status of Sanctioned posts in Number					Will the	Remarks
								<p>Stenographer and Assistant Grade-III. The recruitment is expected to complete within 6 months.</p> <ul style="list-style-type: none"> • Peon and Driver posts have been filled on contract basis. • 102 promotional posts remain vacant due to no eligible candidates in the feeder cadre.
6.	Goa	140	12	5	10*	7.14	No	<ul style="list-style-type: none"> • 5 posts were filled • Direct recruitment of 02 Scientific, 05 Engineering and 03 Administrative posts, is under process with the Goa Staff Selection Board. • * 3 no of vacancies increased due to retirement of employees.
7.	Gujarat	778	469	-	474*	60.92	No	<ul style="list-style-type: none"> • An advertisement for 144 posts of Assistant Environmental Engineer (AEE) and 3 posts of Assistant Law Officer (ALO) was published by Gujarat Public Service Commission (GPSC) on 14.11.2024 and Preliminary Exam held on 23/02/2025 and Subject-related Exam is scheduled on 11/05/2025. • Preliminary and subject related exam for 3 posts of Assistant Law Officer (ALO) was conducted on 23.02.2025 and 21.03.2025 respectively. • Requisition has been sent to GPSC for the recruitment of 113 posts of Senior Scientific Assistant (SSA). • 48 promotional posts are vacant due to no eligible candidates in the feeder cadre. • * 5 vacancies have been increased due to retirement /decease of the employees.
8.	Haryana	448	180	29	159*	35.49	No	<ul style="list-style-type: none"> • 29 posts were filled through direct recruitment. • Requisition for 65 posts sent to Haryana Staff Selection Commission (HSSC) for recruitment. • Service Rule 2021 amendment for 2 Laboratory Attendant posts is under process.

S.	Name of the	Status of Sanctioned posts in Number					Will the	Remarks
								<ul style="list-style-type: none"> • Deputation circulars were issued for Engineering posts and Administrative posts but no eligible applications received. • 1 Junior Environmental Engineer post recommended by HSSC, but candidate ineligible and replacement requested. • 94 promotional posts are vacant due to no eligible candidates in the feeder cadre. • *8 vacancies have been increased due to retirement of employees.
9.	Himachal Pradesh	375	150	9	143*	38.13	No	<ul style="list-style-type: none"> • 9 posts were filled through direct recruitment • Promotions in the scientific cadre delayed due to stay order by the Hon'ble High Court and ineligibility of feeder category candidates. • Requisition for 10 scientific posts, 18 Asst. Environmental Engineer (AEE) posts, 36 Administrative posts (total 54 posts) sent to the Rajya Chayan Aayog and ex-serviceman cell. • 38 promotional posts are vacant due to no eligible candidates in the feeder cadre • *2 vacancies have been increased due to retirement of employees.
10.	Jharkhand	271	198	-	247*	91.14	No	<ul style="list-style-type: none"> • Recruitment process pending despite advertisement dated 14.04.2022. • Recruitment and Service Rules rectifications is under process and the recruitment will be started after approval and notification by the State Government. • * vacancies have been increased due to retirement of employees.
11.	Karnataka	723	448	1	453*	62.65	No	<ul style="list-style-type: none"> • 01 deputation post of Law Officer filled as on 01.02.2025. • Recruitment process stalled due to direction from Government of Karnataka.

S.	Name of the	Status of Sanctioned posts in Number					Will the	Remarks
								<ul style="list-style-type: none"> • Letter sent to Ecology & Environment Department, GoK, requesting approval for amendment to Regulation 10 & 16 of KSPCB Cadre Recruitment and Service Regulations and for permission to continue recruitment. • Permission for holding Departmental Promotion Committee meeting for Senior Scale Group-A posts is awaited. • DPC meeting for Junior Scale Group A, B, C & D posts to be held after verification of backlog posts. • 138 promotional posts are vacant due to non-eligible candidates in the feeder cadre. • *6 vacancies have been increased due to resignation of employees.
12.	Kerala	425	29	1	41*	9.64	No	<ul style="list-style-type: none"> • 1 post in engineering cadre was filled. • 3 posts of engineering cadre will be filled after PSC appointments. • 14 promotional posts are vacant due to non-eligible candidates in the feeder cadre. • Timeline for filling direct recruitment posts is given as 6 months. • Government has been approached for permission to fill the vacancies through deputation. • * 13 vacancies have been increased due to retirement of employees.
13.	Madhya Pradesh	1228	780	6	774	63.02	No	<ul style="list-style-type: none"> • 6 posts were filled through direct recruitment. • Advertisement for recruitment of 18 Scientist, 34 Assistant Engineer, 02 Section Officer, 02 Assistant Law Officer, 05 Legal Assistant, and 02 Public Relation Assistant posts was issued on 25.02.2025 and the examination is likely to commence from 15.05.2025 through Staff Selection Board.

S.	Name of the	Status of Sanctioned posts in Number					Will the	Remarks
								<ul style="list-style-type: none"> • 282 promotional posts are vacant due to no eligible candidates in the feeder cadre. • Hon'ble High Court, Jabalpur passed an order on 30.04.2016 stating that the plea for prospective overruling of the reservation in promotion under the 2002 Rules is negative. The case concerning reservation in promotion is currently pending before the Supreme Court.
14.	Maharashtra	839	366	0	366	43.62	No	<ul style="list-style-type: none"> • The recruitment process for 64 direct posts is in the final stage and being carried out through a recruitment agency. • 69 promotional posts are vacant due to no eligible candidates in the feeder cadre. • Maharashtra Pollution Control Board (MPCB) submitted a revised staffing pattern of 1,310 posts to the Government of Maharashtra, which was approved by the High Power Committee in its meeting on 08.10.2024, the same was sanctioned by the Environment and Climate Change Department vide Government Resolution dated 29.01.2025.
15.	Manipur	119	75	0	79*	66.38	No	<ul style="list-style-type: none"> • Streamlining of Recruitment Rules by the State Government is currently in progress. • State Government approval is awaited for filling of direct vacant posts. • * 4 vacancies have been increased due to retirement of the employees. • 6 promotional posts are vacant due to no eligible candidates in the feeder cadre.
16.	Meghalaya	153	76	12	71*	46.40	No	<ul style="list-style-type: none"> • 12 posts were filled through direct recruitment and advertised for recruitment of 18 direct posts. • The proposal for amendment in the Meghalaya State Pollution Control Board Service Regulations, 2019 was submitted to the

S.	Name of the	Status of Sanctioned posts in Number					Will the	Remarks
								<p>State Government on 22.01.2025, and the approval on the same is awaited for filling remaining direct recruitment posts.</p> <ul style="list-style-type: none"> • 21 promotional posts are vacant due to non-eligible candidates in the feeder cadre. • * 7 vacancies have been increased due to retirement of employees.
17.	Mizoram	14	4	0	4	28.57	No	<ul style="list-style-type: none"> • Approval of State Government for filling the vacant post is awaited.
18.	Nagaland	17	0	0	0	0	NA	<ul style="list-style-type: none"> • All posts are filled.
19.	Odisha	463	276	2	278*	60.04	No	<ul style="list-style-type: none"> • 2 posts were filled through direct recruitment • Recruitment for various vacant posts has been suspended at the online application stage due to administrative reasons. • Advertisement for total 78 vacancies are currently under the consideration for approval by the Chairman. • Filling up of base-level Assistant Environmental Scientist (AES) posts will be taken up as per the decision of the Board. • 110 promotional posts are vacant due to no eligible candidates in the feeder cadre. • * 4 vacancies have been increased due to retirement of employees.
20.	Punjab	652	227	138	89	13.65	No	<ul style="list-style-type: none"> • 138 posts have been filled through direct recruitment. • 33 promotional posts are vacant due to no eligible candidates in the feeder cadre.
21.	Rajasthan	723	328	0	328	45.36	No	<ul style="list-style-type: none"> • Several scientific posts remain vacant due to legal and administrative reasons. 17 posts are subjudice, 8 posts reserved per High Court orders. • Recruitment exam for 50 Junior Assistant posts was held during October 2024 through the Rajasthan Staff Selection Board, further steps awaited for government approval.

S.	Name of the	Status of Sanctioned posts in Number					Will the	Remarks
								<ul style="list-style-type: none"> • 25 deputation posts in the administration cadre are currently managed through additional charge. • 182 promotional posts are vacant due to no eligible candidates in the feeder cadre.
22.	Sikkim	24	11	0	11	45.83	No	<ul style="list-style-type: none"> • The State Government has notified 10 newly created posts. Recruitment for these posts has been kept on hold due to the financial constraint. • One post of Scientist B became vacant due to the retirement of the incumbent officer.
23.	Tamil Nadu	1028	460	49	418*	40.66	No	<ul style="list-style-type: none"> • 49 posts were filled through direct recruitment. • Letters have been sent to TNPSC for recruitment of 43 Assistant Engineers, 55 Assistants, 17 Steno Typists (Grade III), 26 Typists, 11 Record Clerks, 2 Librarians (Grade II), and 4 Data Entry Operators, the recruitment expected to be completed before November 2025. • Recruitment of 10 Data Entry Operators and 5 Programmers is pending due to a recruitment ban, which requires lifting by the Government as per G.O. 108 dated 16.11.2021. • 160 promotional posts are vacant due to no eligible candidates in the feeder cadre. • * 7 vacancies have been increased due to retirement of the employees.
24.	Telangana	230	109	1	108	46.95	No	<ul style="list-style-type: none"> • The Govt. of Telangana accorded permission to fill 20 Assistant Scientists, 19 Assistant Environmental Engineers, 1 Accounts Officer, 1 Statistician, and 5 Junior Assistants posts through Telangana Public Service Commission vide G.O.Ms.No.115 dated 06.09.2023 and G.O.Ms.No.146 dated 30.08.2022. • Due to bifurcation of the State, seniority issues persist; the

S.	Name of the	Status of Sanctioned posts in Number					Will the	Remarks
								<p>posts will be filled after finalisation of seniority in the feeder categories.</p> <ul style="list-style-type: none"> • One Joint Chief Environmental Engineer post is vacant due to superannuation retirement in August 2024. • The Telangana Government constituted a committee and a one-man commission on SC sub-categorisation as per Supreme Court judgment in Civil Appeal No. 2317 of 2011. Owing to the ongoing SC categorisation study, TGPSC is awaiting Finance Department concurrence and indents from all participating departments before issuing a consolidated notification, since these are common recruitments. • TGPCB has repeatedly requested TGPSC (via letters dated 19.09.2024, 17.10.2024, 19.11.2024 & 01.02.2025) and the Government to expedite notification and recruitment in compliance with NGT and Supreme Court directions. • TGPSC reiterated on 27.11.2024 and 18.02.2025 that recruitment notifications will only be issued after receipt of all indents. • 16 promotional posts are vacant due to no eligible candidates in the feeder cadre.
25.	Tripura	28	4	0	8*	28.57	No	<ul style="list-style-type: none"> • The new Recruitment Rules have been prepared and submitted to State Government for approval, as per the new policy. • The vacant posts are expected to fill within 2025. • 2 promotional posts are vacant due to no eligible candidates in the feeder cadre. • *4 vacancies have been increased due to retirement of employees.
26.	Uttarakhand	91	67	0	67	73.62	No	<ul style="list-style-type: none"> • Finalization of Service Rules is under consideration by the State Government for all categories (Scientific, Engineering,

S.	Name of the	Status of Sanctioned posts in Number					Will the	Remarks
								Administration). <ul style="list-style-type: none"> • Direct recruitment for 26 scientific, 13 engineering, and 5 administrative posts is pending; vacancies are expected to be filled by December 2025 after Service Rules are finalized (expected by May 31, 2025). • 23 promotional posts are vacant due to no eligible candidates in the feeder cadre.
27.	Uttar Pradesh	732	346	27	335*	45.76	No	<ul style="list-style-type: none"> • As per recommendation of the Uttar Pradesh Subordinate Services Selection Commission (UPSSSC), appointment orders were issued to 42 Junior Engineer, only 27 have joined/ filled through direct recruitment. • The requisition for selection on 101 Group-C posts through direct recruitment is under process with UPSSSC. • Amendment of the Uttar Pradesh Pollution Control Board (UPPCB) Service Regulations, 1995, is under process. • For other Group-B posts, permission has been sought from the U.P. Government to amend the UPPCB Service Regulations, 1995, allowing for direct recruitment through the Public Service Commission or competitive exams conducted by institutions such as IIT Kanpur, IIT Delhi, or IBPS. The Board is currently awaiting the State Government's approval. • For Group-C posts, the e-requisition has already been sent to UPSSSC. As soon as the list of selected candidates is received, the posts will be filled accordingly. • 27 promotional posts are vacant due to no eligible candidates in the feeder cadre. • *16 vacancies have been increased due to retirement of employees
28.	West Bengal	309	130	1	130*	42.07	No	<ul style="list-style-type: none"> • Recruitment process for multiple direct posts have been

S.	Name of the	Status of Sanctioned posts in Number					Will the	Remarks
								<p>initiated and timeline for filling will be 10 months.</p> <ul style="list-style-type: none"> • Initiatives have been taken to surrender redundant posts, including 1 Draftsman, 1 Tracer, 5 Drivers, 4 Typists, 6 Typist-cum-Clerks, 3 Stenographers, and 3 Record Suppliers. • 27 promotional posts are vacant due to no eligible candidates in the feeder cadre. • * 1 vacancy have been increased due to retirement of employees.
Sub Total (A)		10783	5175	281	5027	46.62		

Table 1B: Status of filling the vacancy of posts by Pollution Control Committees

S. No	Name of the PCCs	Status of Sanctioned posts in Number					Will the vacancy be filled by 30.4.2025?	Remarks
		Sanctioned	Vacancy as on 11.09.'24	Filled after 11.09.'24	Current Vacancy	% of vacant posts		
1	Andaman and Nicobar	5	1	0	1	20	Yes	<ul style="list-style-type: none"> • The post of Environmental Engineer is expected to be filled by April 2025.
2	Chandigarh	8	1	0	1	12.50	Yes	<ul style="list-style-type: none"> • Process of DPC for filling 01 promotional post has been initiated.
3	Dadra Nagar Haveli and Daman & Diu	2	0	-	-	0	NA	<ul style="list-style-type: none"> • The sanctioned posts remained vacant for over five years, have been abolished. • The department is in the process of creating new posts on a regular basis to address this gap. • Currently, the Pollution Control Committee, DNH&DD is depend on short term contractual staff.
4	Delhi	344	206	18	189	54.94	No	<ul style="list-style-type: none"> • 18 posts were filled. • Appointment offers issued for Junior Lab Assistants and AEEs

S.	Name of the	Status of Sanctioned posts in Number					Will the	Remarks
								<p>via UPSC, indicating partial completion.</p> <ul style="list-style-type: none"> 73 promotional posts are vacant and where promotion isn't feasible, posts are being filled through deputation. The same has advertised since July 2024, with recruitment expected in 2 to 3 months. Direct recruitment takes 2 to 6 months, subject to approvals from AR and Finance Departments, GNCTD. DSSSB is processing 84 Group-B/C posts, out of which exam held for 77 and recruitment expected to be completed within 2 months of receiving e-dossiers. Recruitment/revival of posts like Account Officer, Environmental Engineers, and Senior Scientist is underway, with 3 to 6 month timelines. Some UDC/LDC candidates become eligible by April 2025 and others may be filled through deputation/contract and RRs for the same are under review.
5	Jammu & Kashmir	445	196	16	180	40.45	No	<ul style="list-style-type: none"> 16 posts were filled through direct recruitment. The Recruitment Rules have been submitted for approval and notification, the direct recruitment posts will be referred to the recruiting agencies without delay. 68 promotional posts are vacant due to no eligible candidates in the feeder cadre. The promotion quota posts will be filled within 0 months from the date of notification, based on recommendations of the Departmental Promotion Committee.
6	Ladakh	4	0	0	0	0	No	<ul style="list-style-type: none"> Vacant posts referred to Ladakh Sub-ordinate Service Selection Staff Board (LSSSSB) in December 2024 Only 1 Scientific Officer is serving in LPCC and proposal for creation of scientific/technical posts submitted to MoEF&CC for their concurrence in December 2024. 14 outsourced technical/skilled personnel currently engaged with LPCC
7	Lakshadweep	5	0	0	0	0	NA	<ul style="list-style-type: none"> All posts are filled.
8	Puducherry	10	3	0	3	30	Yes	<ul style="list-style-type: none"> Approval has been obtained for filling the promotional

S.	Name of the	Status of Sanctioned posts in Number					Will the	Remarks
								vacancy and the Departmental Promotion Committee meeting will be conducted shortly. <ul style="list-style-type: none"> An advertisement for the Engineering deputation post was published on 28.12.2024, and the advertisement for the Scientific deputation post is expected to be published shortly. 1 promotional post is vacant due to no eligible candidates in the feeder cadre.
	Subtotal (B)	823	407	34	374	45.44		
	Total (A+B)	11,606	5,582	315	5,401	46.53		

3.1 SUMMARY OF THE PROGRESS ON FILLING OF VACANCIES

Based on information provided at Table 1a and 1b, the overall summary of the progress of filling of Vacancies by 28 State Pollution Control Boards (SPCBs) and 8 Pollution Control Committees (PCCs) by 30.04.2025 is as follows:

A. State Pollution Control Boards (SPCBs):

- a) Out of 10,783 sanctioned posts, 5,027 posts remain vacant, accounting for 46.62% of the total employees sanctioned. 13 SPCBs have collectively filled 281 vacant positions.
- b) Among the 28 SPCBs, Arunachal Pradesh, Nagaland SPCBs have no vacancies. However, the remaining 26 SPCBs are facing delays and extended timelines stretching beyond April 30, 2025 due to following reasons:
 - Pending government approvals (Andhra Pradesh, Assam, Mizoram, Manipur, Meghalaya, Rajasthan).
 - Legal disputes/court cases (Himachal Pradesh, Madhya Pradesh).
 - Recruitment bans for certain posts (Tamil Nadu SPCB).
 - Delay in Departmental Promotion Committees (Tamil Nadu and Haryana)
 - Updation of Recruitment Rules (Maharashtra, Manipur, Tripura) and service rules (Haryana, Uttarakhand).
- c) Significant vacancies have been observed in the SPCBs namely Bihar (90.47%), Uttarakhand (73.62%), Andhra Pradesh (71.8%), Manipur (66.38%), Chhattisgarh (63.71%), Madhya Pradesh (63%), Karnataka (62.65%), Gujarat (60.92%) and Odisha (60%).
- d) SPCBs in Goa, Kerala, Meghalaya, and Rajasthan are relying on Contractual / Outsourced staff to meet their operational needs.
- e) Promotional Posts remain vacant due to the absence of eligible candidates in the feeder cadre.
- f) The state recruitment agencies, such as the Kerala PSC, Goa SSB, Gujarat Subordinate Service Selection Board and Karnataka KPSC, are overburdened and require government approvals to proceed with recruitment, further delaying the process.

B. Pollution Control Committees (PCCs):

- a) Out of 823 sanctioned posts, 374 posts remain vacant, accounting for 45.44% of the total employees sanctioned. 02 PCCs have collectively filled 34 vacant positions. Among 08 PCCs, Lakshadweep is the only one with no vacancies.
- b) All the posts in Dadra Nagar Haveli, Daman & Diu have been abolished, and is operated with contractual staff. Similarly, Ladakh PCC functions with outsourced employees.
- c) Significant vacancies have been observed in PCCs namely Delhi (54.94%) and J&K (40.4%).
- d) The Chandigarh, Andaman & Nicobar, and Puducherry have indicated that they expect to fill their vacancies by April 2025.

In view of above, the overall vacancies across SPCBs and PCCs remain 5,401 posts, accounting for 46.53%.

4.0 LABORATORIES ESTABLISHED UNDER THE WATER ACT AND THE AIR ACT AND RECOGNITION AS “ENVIRONMENT LABORATORY” UNDER ENVIRONMENT (PROTECTION) ACT, 1986

In order to enable the State Boards to perform their functions under the Water (Prevention and Control of Pollution) Act, 1974 (herein after called as Water Act, 1974) and the Air (Prevention and Control of Pollution) Act, 1981 (hereinafter called as Air Act, 1981), the SPCBs / PCCs are required to establish or recognize a laboratory or laboratories as defined in sub-section (2) of Section 17 of the Water Act, 1974 and sub-section (2) of Section 17 of the Air Act 1981.

Further, as per sub-section (1) of Section 52 of the Water Act, 1974, the State Government may, by notification in the Official Gazette (a) establish a State Water Laboratory; or (b) specify any laboratory or institute as a State Water Laboratory to carry out the functions entrusted to the State Water Laboratory, and as per similar provisions stipulated under sub-section (1) of Section 28 of the Air Act, 1981, the State Government may, by notification in the Official Gazette, (a) establish one or more State Air Laboratories; or (b) specify one or more laboratories or institutes as State Air Laboratories to carry out the functions entrusted to the State Air Laboratory and to meet the requirements defined in sub-sections (3) (d) and (e) of Section 21 of the Water Act, 1974 and sub-section (3) (d) of Section 26 of the Air Act, 1981 respectively.

The provisions about taking samples and procedures to be followed in connection therein have been stipulated under Section 11 of the Environment (Protection) Act, 1986 (hereafter called as E (P) Act, 1986). Further, as per the provisions of Section 12 (1) of the Environment (Protection) Act, 1986, *The Central Govt. may, by notification in the official Gazette, -*

(a) Establish one or more environmental laboratories,

(b) Recognize one or more laboratories or institute as environmental laboratories to carry out the functions entrusted to an environmental laboratory under this Act.

CPCB has been delegated with powers to recognize Environmental Laboratories vide Gazette Notification S.O. No. 2340(E) dated 16-06-2021 and subsequent amendment vide Notification No. S O 2409 (E) dated 19-06-2024. CPCB has prepared Guidelines for Recognition of Environmental Laboratories under the E (P) Act, 1986 and online portal (<https://cpcbepalab.in/epalab/>) for receiving and processing of applications has also been developed by CPCB.

The status of the laboratories established, number of laboratories specified and notified as per Section 17(2) of Water Act, 1974, number of laboratories notified as State Water Laboratory / State Air Laboratory as per Section 52 (1) of Water Act, 1974 and Section 28(1) of Air Act, 1981 respectively, laboratories planned for notification and timeline for notification submitted by the SPCBs / PCCs is tabulated in **Table 2a and 2b** respectively.

Table 2a: Details of Laboratories Established Under the Water Act, 1974

Name of SPCB / PCC	Established by the Board, as per Section 17 (2) of Water Act				Laboratories / Institutes specified by State Govt., as State Water Laboratory as per Section 52 (1) of Water Act (other than those set up by Board)								NABL Accreditation				EPA Recognition			
	No. of Laboratories established / recognised	No. of Laboratories notified in Official Gazette	No. of remaining Laboratories Planned for Notification	Time line required for notification of Laboratories (in months)	No. of Laboratories established / specified		No. of Laboratories notified in Official Gazette		No. of remaining Laboratories Planned for Notification		Time line required for notification of Laboratories (months)		No. of Board's Laboratories 17 (2)	No. of State Water Laboratories 52(1)		No. of Board's Laboratories 17 (2)	No. of State Water Laboratories 52(1)			
					Govt	Pvt	Govt	Pvt	Govt	Pvt	Govt	Pvt		Govt	Pvt		Govt	Pvt		
A	State Pollution Control Boards																			
Andhra Pradesh	5	0	5	2	-	-	-	-	-	-	-	-	3	-	-	-	-	-		
Arunachal Pradesh	2	0	2	18	0	0	0	0	0	0	0	0	2	0	0	2	0	0		
Assam	5	0	5	6	-	-	-	-	-	-	-	-	1	1		1				
Bihar	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Chhattisgarh	7	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Goa	1	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0		
Gujarat	9	9	-	-	1	-	1	-	NA	-	NA	-	6	1	-	1	0	-		
Haryana	4	0	4	6	1	0	1	0	1	0	6	0	3	0	0	0	0	0		
Himachal Pradesh	6	4	2	3	1	-	1	-	-	-	-	-	3	1	-	0	-	-		
Jharkhand	16	0	16	36	5	16	0	0	0	0	-	36	0	0	16	0	0	2		
Karnataka	9	1	8	24	9	-	1	-	8	-	24	-	1	1	-	1	1	-		
Kerala	16	-	-	-	-	-	-	-	-	-	-	-	1	-	-	1	-	-		

Name of SPCB / PCC	Established by the Board, as per Section 17 (2) of Water Act				Laboratories / Institutes specified by State Govt., as State Water Laboratory as per Section 52 (1) of Water Act (other than those set up by Board)								NABL Accreditation			EPA Recognition		
	No. of Laboratories established / recognised	No. of Laboratories notified in Official Gazette	No. of remaining Laboratories Planned for Notification	Time line required for notification of Laboratories (in months)	No. of Laboratories established / specified		No. of Laboratories notified in Official Gazette		No. of remaining Laboratories Planned for Notification		Time line required for notification of Laboratories (months)		No. of Board's Laboratories 17 (2)	No. of State Water Laboratories 52(1)		No. of Board's Laboratories 17 (2)	No. of State Water Laboratories 52(1)	
Madhya Pradesh	11	11	-	-	-	-	-	-	-	-	-	-	6	-	-	1	-	-
Maharashtra	8	8	0	0	8	0	8	0	0	0	0	-	8	8	-	8	6	-
Manipur	1	0	1	24	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Meghalaya	4	1	3	6	1	-	1	-	-	-	-	-	4	1	-	0	0	-
Mizoram	1	0	0	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Nagaland	1	0	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Odisha	12	0	12	12	1	0	1	0	0	0	0	0	1	1	0	0	1	0
Punjab	3	0	3	12	-	-	-	-	-	-	-	-	1	-	-	0	-	-
Rajasthan	25	-	25	11	1	-	1	-	-	-	-	-	14	1	-	-	-	-
Sikkim	1	1	0	NA	0	0	0	0	0	0	0	NA	1	0	0	0	0	0
Tamil Nadu	18	0	18	6	18	0	0	0	18	0	6	0	5	0	0	1	0	0
Telangana	3	1	2	6	2	-	2	-	-	-	-	-	1	2	-	1	1	-
Tripura	3	0	3	12	3	0	0	0	0	0	12	0	0	21	0	0	0	0
Uttarakhand	4	0	4	12	-	-	-	-	-	-	-	-	1	-	-	0	-	-
Uttar Pradesh	23	1	0	0	1	0	0	0	0	0	0	0	18	1	0	1	1	0
West Bengal	6	6	0	NA	6	NA	6	NA	NA	NA	NA	NA	2	2	NA	1	1	NA

Name of SPCB / PCC	Established by the Board, as per Section 17 (2) of Water Act				Laboratories / Institutes specified by State Govt., as State Water Laboratory as per Section 52 (1) of Water Act (other than those set up by Board)								NABL Accreditation			EPA Recognition			
	No. of Laboratories established / recognised	No. of Laboratories notified in Official Gazette	No. of remaining Laboratories Planned for Notification	Time line required for notification of Laboratories (in months)	No. of Laboratories established / specified		No. of Laboratories notified in Official Gazette		No. of remaining Laboratories Planned for Notification		Time line required for notification of Laboratories (months)		No. of Board's Laboratories 17 (2)	No. of State Water Laboratories 52(1)		No. of Board's Laboratories 17 (2)	No. of State Water Laboratories 52(1)		
Sub Total (A)	205	50	113	202	60	16	23	0	27	0	48	36	83	41	16	19	11	2	
B	Pollution Control Committees																		
Andaman & Nicobar	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	
Chandigarh	1	0	1	6	1	0	1	NA	NA	NA	NA	NA	1	1	0	0	1	0	
DNH D&D	1	0	1	6	0	0	0	0	0	0	0	0	1	0	0	0	0	0	
Delhi	1	1	NA	NA	0	0	0	0	0	0	NA	NA	0	NA	NA	0	NA	NA	
Jammu and Kashmir	2	0	2	6	2	0	0	0	2	0	6	0	0	0	0	0	0	0	
Ladakh	0	NA	NA	NA	0	0	NA	NA	NA	NA	NA	NA	0	0	0	0	0	0	
Lakshadweep	2	1	0	NA	0	0	1	0	0	0	NA	0	0	0	0	0	0	0	
Puducherry	1	-	-	-	1	-	-	-	-	-	-	-	1	1	-	-	-	-	
Sub Total (B)	8	2	4	18	4	3	2	0	2	0	6	0	3	2	0	0	1	0	
Total (A+B)	213	52	117	220	64	19	25	0	29	0	54	36	86	43	16	19	12	2	

Table 2b: Details of Laboratories Established Under the Air Act, 1981

Name of SPCB / PCC	Established by the Board, as per Section 17 (2) of Air Act				Laboratories / Institutes specified by State Govt., as State Air Laboratory as per Section 28 (1) of Air Act (other than those set up by Board)								NABL Accreditation		EPA Recognition				
	No. of Laboratories established / recognised	No. of Laboratories notified in Official Gazette	No. of remaining Laboratories Planned for Notification	Time line required for notification of Laboratories (in months)	No. of Laboratories established / specified		No. of Laboratories notified in Official Gazette		No. of remaining Laboratories Planned for Notification		Time line required for notification of Laboratories (months)		No. of Board's Laboratories 17 (2)	No. of State Air Laboratories 28(1)		No. of Board's Laboratories 17 (2)	No. of State Air Laboratories 28(1)		
					Govt	Pvt	Govt	Pvt	Govt	Pvt	Govt	Pvt		Govt	Pvt		Govt	Pvt	
A	State Pollution Control Boards																		
Andhra Pradesh	5	0	5	2	-	-	-	-	-	-	-	-	3	-	-	-	-	-	
Arunachal Pradesh	2	0	2	18	0	0	0	0	0	0	0	0	2	0	0	2	0	0	
Assam	5	0	5	6	-	-	-	-	-	-	-	-	1	1		1			
Bihar	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Chhattisgarh	7	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Goa	1	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	
Gujarat	9	9	-	-	1	-	1	-	NA		NA		6	1		1	0		
Haryana	4	0	4	6	1	0	1	0	1	0	6	0	3	0	0	0	0	0	
Himachal Pradesh	6	4	2	3	1	-	1	-	-	-	-	-	3	1	-	0	-	-	
Jharkhand	16	0	16	36	5	16	0	0	NA	0		36	0	0	16	0	0	2	
Karnataka	9	1	8	24	9	-	1	-	8	-	24	-	1	1	-	1	1	-	
Kerala	16	-	-	-	-	-	-	-	-	-	-	-	1	-	-	1	-	-	

Name of SPCB / PCC	Established by the Board, as per Section 17 (2) of Air Act				Laboratories / Institutes specified by State Govt., as State Air Laboratory as per Section 28 (1) of Air Act (other than those set up by Board)								NABL Accreditation		EPA Recognition			
	No. of Laboratories established / recognised	No. of Laboratories notified in Official Gazette	No. of remaining Laboratories Planned for Notification	Time line required for notification of Laboratories (in months)	No. of Laboratories established / specified	No. of Laboratories notified in Official Gazette	No. of remaining Laboratories Planned for Notification	Time line required for notification of Laboratories (months)	No. of Board's Laboratories 17 (2)	No. of State Air Laboratories 28(1)	No. of Board's Laboratories 17 (2)	No. of State Air Laboratories 28(1)						
Madhya Pradesh	11	11	-	-	-	-	-	-	-	-	-	-	6	-	-	1	-	-
Maharashtra	8	8	0	0	8	0	8	0	0	0	0	-	8	8		8	6	-
Manipur	1	0	1	24	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Meghalaya	4	1	3	6	1	-	1	-	-	-	-	-	4	1	-	0	0	-
Mizoram	1	0	0	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Nagaland	1	0	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Odisha	12	0	12	12	1	0	1	0	0	0	0	0	1	1	0	0	1	0
Punjab	3	0	3	12	-	-	-	-	-	-	-	-	1	-	-	0	-	-
Rajasthan	25	-	25	11	1	-	1	-	-	-	-	-	14	1	-	-	-	-
Sikkim	1	1	0	NA	0	0	0	0	0	0	NA	NA	1	0	0	0	0	0
Tamil Nadu	18	0	18	6	18	0	0	0	18	0	6	0	5	0	0	1	0	0
Telangana	3	1	2	6	2	-	2	-	-	-	-	-	1	2	-	1	1	-
Tripura	3	0	3	12	3	0	0	0	0	0	12	0	0	21	0	0	0	0
Uttarakhand	4	0	4	12	-	-	-	-	-	-	-	-	1	-	-	0	-	-
Uttar Pradesh	23	1	0	0	1	0	0	0	0	0	0	0	18	1	0	1	1	0
West Bengal	6	6	0	NA	6	NA	6	NA	NA	NA	NA	NA	2	2	NA	1	1	NA
Sub Total (A)	205	50	113	202	60	16	23	0	27	0	48	36	83	41	16	19	11	2

Name of SPCB / PCC	Established by the Board, as per Section 17 (2) of Air Act				Laboratories / Institutes specified by State Govt., as State Air Laboratory as per Section 28 (1) of Air Act (other than those set up by Board)								NABL Accreditation		EPA Recognition				
	No. of Laboratories established / recognised	No. of Laboratories notified in Official Gazette	No. of remaining Laboratories Planned for Notification	Time line required for notification of Laboratories (in months)	No. of Laboratories established / specified	No. of Laboratories notified in Official Gazette	No. of remaining Laboratories Planned for Notification	Time line required for notification of Laboratories (months)	No. of Board's Laboratories 17 (2)	No. of State Air Laboratories 28(1)	No. of Board's Laboratories 17 (2)	No. of State Air Laboratories 28(1)							
B	Pollution Control Committees																		
Andaman & Nicobar	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	
Chandigarh	1	0	1	6	1	0	1	NA	NA	NA	NA	NA	1	1	0	0	1	0	
DNH D&D	1	0	1	6	0	0	0	0	0	0	0	0	1	0	0	0	0	0	
Delhi	1	1	NA	NA	0	0	0	0	0	0	NA	NA	0	NA	NA	0	NA	NA	
Jammu and Kashmir	2	0	2	6	2	0	0	0	2	0	6	0	0	0	0	0	0	0	
Ladakh	0	NA	NA	NA	0	0	NA	NA	NA	NA	NA	NA	0	0	0	0	0	0	
Lakshadweep	2	1	0	NA	0	0	1	0	0	0	NA	0	0	0	0	0	0	0	
Puducherry	1	-	-	-	1	-	-	-	-	-	-	-	1	1	-	-	-	-	
Sub Total (B)	8	2	4	18	4	3	2	0	2	0	6	0	3	2	0	0	1	0	
Total (A+B)	213	52	117	220	64	19	25	0	29	0	54	36	86	43	16	19	12	2	

4.1 SUMMARY OF THE LABORATORY ESTABLISHMENT UNDER THE WATER ACT AND AIR ACT

Based on the information provided at Table 2a and Table 2b, the overall summary of the progress of establishment and notifications of State laboratories (Water & Air), its NABL accreditation and EPA recognition obtained by SPCBs and PCCs are as follow:

- a) All 28 State Pollution Control Boards (SPCBs) and 6 out of 8 Pollution Control Committees (PCCs), excluding Andaman & Nicobar and Ladakh, have 213 laboratories established/ recognized under Section 17(2) of the Water Act, 1974 and under Section 17(2) of the Air Act, 1981.
- b) 11 SPCBs and 02 PCCs have notified 52 of these laboratories in their respective State Gazettes. Additionally, 16 SPCBs/ PCCs have been planning to notify 117 laboratories under the Water Act, 1974 and 20 SPCBs/ PCCs have been planning to notify 117 laboratories under the Air Act, 1981.
- c) 64 Government laboratories and 19 Private laboratories have been established under Section 52(1) of the Water Act, 1974 and under Section 28(1) of the Air Act, 1981 by 20 SPCBs / PCCs. Out of the 64 government laboratories, 25 (39%) have been notified in the official gazette and 29 Government laboratories are planned for notification in the state gazette.
- d) 86 laboratories under Section 17(2) of the Water Act, 1974 and under Section 17(2) of the Air Act, 1981, across 21 SPCBs and 03 PCCs have NABL accreditation. Additionally, 43 government laboratories from 12 SPCBs and 02 PCCs under Section 52(1) of the Water Act, 1974 and under 28(1) of the Air Act, 1981 are NABL accredited.
- e) 16 private laboratories under the Section 52(1) of the Water Act and 16 private laboratories recognized under the Section 28 (1) of Air Act have NABL accreditation.
- f) The SPCBs namely Uttar Pradesh (18 Board labs and 1 State water lab), Maharashtra (8 Board labs), Gujarat (6 Board lab and 1 State water lab), and Rajasthan (14 Board lab and 1 State water lab) are having NABL accredited laboratory whereas other SPCBs i.e. Bihar, Chhattisgarh, Jharkhand, Manipur, Mizoram, Nagaland, Tripura do not have laboratory accreditation.

- g) None of the PCCs which have laboratories have accreditation from NABL, which is a pre-requisite for EPA recognition.
- h) Further, 19 laboratories under Section 17(2) of the Water Act, 1974 and the Air Act 1981 from 11 SPCBs have received EPA recognition, while 12 government laboratories of 06 SPCB and 01 PCCs and all 2 private laboratories under Section 52(1) of Water Act and Section 28(1) of the Air Act have EPA recognition.
- i) The Goa PCC and Punjab SPCB are in the process of obtaining recognition. Remaining 16 SPCBs and all PCCs do not have recognition of their laboratories as per EP Act.

5.0 SAMPLING AND MONITORING FACILITIES FOR NOTIFIED PARAMETERS

Subject to the provisions of the Section 25 of the Water Act, 1974 and the Section 21 of the Air Act, 1981, no person shall, without the previous consent of the SPCB / PCC, establish or operate any industrial plant respectively. The standards for emission or discharge of environment pollutants from the industries, operations or process are specified taking into account Schedule I of the Environment (Protection) Rules, 1986 by SPCBs / PCCs while granting consents. The State Board may specify more stringent standards from those provided in Schedule I in respect of any specific industry, operation or process.

The Ministry of Environment, Forest and Climate Change (MoEF&CC) notifies standards for emission or discharge of environmental pollutants under Schedule I as per Section 3 of the Environment (Protection) Rules, 1986. Schedule I stipulates about 100 parameters for the various industrial sectors. The State / UT may not have all such industrial sectors, as specified under the Schedule I, in their jurisdiction. SPCBs / PCCs prescribe limits for emission or discharge of parameters under Consent to Operate (CTO) issued under the Section 25 of Water Act, 1974 and under Section 21 of the Air Act, 1981.

The laboratory infrastructure available with SPCBs / PCCs for analyzing environmental parameters prescribed in consents by them also taking into account parameters notified in Schedule I of the Environment (Protection) Rules, 1986 are assessed based on Guidelines for Recognition of Environmental Laboratories Under the Environment (Protection) Act, 1986. The infrastructure facility available with SPCBs/PCCs for monitoring environmental parameters and the summary is tabulated in **Table 3a & Table 3b**

Table 3a: List of Parameters and Laboratory Instruments/Equipment for Environmental Monitoring

I. Environmental Parameters	
A. Sample Matrix / Group of Water and Wastewater (67 Parameters)	
(a) Physical Tests	<ol style="list-style-type: none"> 1. Temperature 2. Colour 3. pH 4. Turbidity 5. Conductivity 6. Total Solids 7. Total Dissolved Solids (TDS) 8. Total Suspended Solids (TSS)
(b) Inorganic Tests	
(i) General & Non-metallic	<ol style="list-style-type: none"> 1. Alkalinity 2. Chloride 3. Cyanide 4. Dissolved oxygen 5. Nitrite nitrogen 6. Nitrate nitrogen 7. Ammonical nitrogen 8. Fluoride 9. Hardness (Total) 10. Calcium 11. Magnesium 12. Phosphate 13. Sulphate 14. Sulphide 15. Total Residual chlorine (TRC)
(ii) Trace Metals Tests	<ol style="list-style-type: none"> 1. Aluminium (Al) 2. Arsenic (As) 3. Total Barium 4. Boron 5. Chromium (Cr) Hexavalent 6. Chromium (Cr) Total 7. Cadmium (Cd) 8. Cobalt (Co) 9. Copper (Cu) 10. Iron (Fe) 11. Lead (Pb) 12. Manganese (Mn) 13. Mercury (Hg) 14. Nickel (Ni) 15. Potassium (K) 16. Sodium (Na) 17. Vanadium (V) 18. Zinc (Zn) 19. Selenium (Se)

(c) Organics (General) and Trace Organics Tests	<ol style="list-style-type: none"> 1. Biological Oxygen Demand (BOD) 2. Chemical oxygen demand (COD) 3. Oil & Grease 4. Phenolic Compounds as C₆H₅OH 5. Benzopyrene 6. Pesticides <ol style="list-style-type: none"> a) Organochlorine Pesticides (OCPs) Tests <ol style="list-style-type: none"> i. Aldrin ii. Alpha Endosulphan iii. p,p'-DDT iv. Alpha-HCH v. Beta HCH vi. Beta Endosulphan vii. Gama-HCH viii. o,p'-DDT ix. p,p'-DDE b) Organophosphorus Pesticides <ol style="list-style-type: none"> i. Malathion ii. Methyl parathion iii. Chlorpyriphos iv. Dimethoate v. Dieldrin vi. Ethion (OPPs)
(d) Microbiological Tests	<ol style="list-style-type: none"> 1. Total Coliform 2. Faecal Coliform 3. Coli 4. Faecal Streptococci
(e) Toxicological Tests	<ol style="list-style-type: none"> 1. Bioassay method for evaluation of toxicity using fish (90% survival of fish after 96 hrs in 100% effluent)
B. Sample Matrix / Group of Solid / Solid Waste (15 Parameters)	
(a) Soil / Sediment / Compost Tests	<ol style="list-style-type: none"> 1. Cation Exchange Capacity (CEC) 2. Electrical Conductivity (EC) 3. Organic carbon (Chemical Method) 4. pH 5. Soil moisture 6. Total nitrogen 7. Metals by digestion (As, Cd, Cr, Pb, Ni etc.)
(b) Hazardous Waste (Liquid / Slurry / Sludge / Solid / Semi-Solid) Tests	<ol style="list-style-type: none"> 1. Corrosivity 2. Ignitability (Flash Point) 3. Loss on Drying at 1050C (% Moisture Content) 4. Loss on Drying at 5500C (% Organic Content) 5. pH 6. Organic carbon/matter (Chemical Method) 7. Calorific Value 8. Toxicity Characteristics leaching procedure (TCLP) Leachate and Metals in Leachate (As,Cd,Cr, Pb, Ni)
C. Sample Matrix / Group of Analytes: Air (28 Parameters)	
(a) Ambient Air	<ol style="list-style-type: none"> 1. Nitrogen dioxide as NO₂ 2. Sulphur dioxide (SO₂) 3. Particulate matter (PM₁₀)

	<ol style="list-style-type: none"> 4. Particulate matter (PM2.5) 5. Carbon Monoxide 6. Ozone 7. Benzene 8. Ammonia 9. Metals in Particulate Matter Pb 10. Metals in Particulate Matter, As 11. Metals in Particulate Matter, Ni 12. Particulate Benzo-a-Pyrene (BaP)
(b) Stack Gas / Stationary Source Emission	<ol style="list-style-type: none"> 1. Particulate Matter 2. Sulphur Dioxide 3. Carbon Dioxide 4. Carbon Monoxide (NDIR based Method) 5. Temperature 6. Moisture 7. Oxygen 8. Oxides of Nitrogen 9. Halides (HCL/HF)
(c) Noise Level	<ol style="list-style-type: none"> 1. Ambient Noise level measurement (20 to 140 dB) 2. Source Noise Level Measurement (Industrial process, DG set- 20 to 140dB)
(d) Meteorological Monitoring	<ol style="list-style-type: none"> 1. Ambient Temperature 2. Wind direction 3. Wind speed 4. Relative Humidity 5. Mixing Height
II List of Instruments/Equipment for Environmental Monitoring	
Category	Name of Instrument / Equipment
A. List of Instruments / Equipment for Sampling of Water, Wastewater and Soil / Hazardous Wastes	<ol style="list-style-type: none"> 1. Portable / Pen type pH meter / pH strip 2. Portable Dissolved Oxygen Meter / Field Fixing using chemicals 3. Electrical Conductivity meter pen type 4. Flow meter / Physical flow measuring 5. GPS / Mobile with GPS app 6. Ice Box (2 nos.) (150 litre & 100 litre capacities) 7. Thermometer 8. Stainless steel bucket with nylon rope and mug 9. Ground water level measuring device 10. Scoop / shovel 11. Auger / core sampler
B. List of Instruments / Equipment for Sampling of Ambient Air and Source Emission monitoring	<ol style="list-style-type: none"> 1. Fine dust samplers PM2.5 (*4 Nos) 2. Respirable Dust Sampler PM 10 (* 4 Nos) 3. High Volume Sampler (SPM) (4 Nos) 4. Handy Sampler with set of glass impingers (*2 Nos) 5. Low Volume Sampler (LVS) 6. Tedler bags different sizes 7. Meteorological tower (All in one telescopic Mast) with sensors comprising wind speed, wind direction, ambient temp., Relative humidity, Solar radiation, rainfall etc. 8. Nitrogen Cylinder portable

	<ol style="list-style-type: none"> 9. Activated Charcoal tubes/ Tenex 10. Barometer (Digital) 11. Isokinetic Stack Monitoring Kit complete with Stack monitoring instrument panel with inclined cum vertical manometer, Cold Box, Vacuum pump, Glass assembly impingers 12. Modified S Type Stainless steel Pitot tube (Standard length) with Assembly 13. Monoblock type, rotary design vacuum pump 14. Orsat Apparatus 15. Source emission monitoring Impingers train set with spare impingers 100 ml & 225 ml capacity 16. Stainless steel heated Sampling Probes with thimble holders short and long 17. Flue Gas analyzer 18. Thermometer/ Thermocouple 19. Calibrator for Noise Meters 20. Digital Sound level (Noise) Metres 21. Portable TOC Analyzer for emission monitoring. 22. Polyurethane Foam PUF Sampler
<p>C. List of Equipment required for processing of Environmental Samples:</p>	<ol style="list-style-type: none"> 1. Accelerated Solvent Extraction (ASE) System 2. Ammonia distillation assembly/TKN Analyzer 3. Analytical Balance 4/5 digit & 6 digit (Digital) 4. Aquarium for Toxicity bioassay test with complete accessories (*4 Nos) 5. Autoclave (*2 Nos) 6. Bacteriological Incubators Stainless steel (*2 Nos) 7. Bio safety cabinets 8. BOD Incubators (2 nos.) 9. Centrifuge 10. COD Digestion heated Blocks (2) with capacity 16 nos. or more 11. Cyanide Distillation Assembly (3) 12. Deep Freezer- Capacity 500 litre 13. Laboratory Ball Mill Grinder 14. Laboratory Grinder 15. Laminar Flow bench for Microbiological analysis 16. Magnetic Stirrer with heating system (*2 Nos) 17. Mechanical Shaker 18. Membrane Filtration assembly with vacuum pump (2 nos.) 19. Microbial culture refrigerator 20. Microwave Digester with 16 vessels/ Hot Plate 21. Muffle Furnace (*1 Nos), Range 1200 C 22. Phenol distillation assembly (3) 23. Plate counter, Manual/Automatic 24. Digestion Chambers/ Fume hood 25. Digital Thermometer & Humidity meter- All lab area 26. Dispensers (Various capacities) up to 5, 10, 25 & 50 ml 27. Filtration Assembly with vacuum pump 28. Fluoride Distillation Assembly (3) 29. Arsenic / Fluoride Glass Distillation assemblies

	<ol style="list-style-type: none"> 30. Glass Double Distillation Assembly /Water Purification System 31. Heating mantles (2 nos.) 32. Hot plates (small, Medium and Large) (*2 nos.) 33. Thermo Hygrometer 34. Imhoff Cone 35. Top loading Precision Digital Balance (minimum detection 0.001mg/0.01 mg) with anti-vibration facility- 3 nos. i.e 4/5 Digit (2 nos), - 6 Digit (1 no) 36. Refrigerators Big Size 300 litres or more, double door- 2no 37. Rotary Evaporator (Buchi type) with water recirculating chiller 38. Separating funnel shaker 39. Soxhlet Apparatus 40. Solid Phase Extraction (SPE) /SPME Extraction system 41. Thermometer (Alcohol) 42. Dry & wet bulb Thermometer 43. Toxicity characteristic leaching procedure (TCLP) Extractors (Zero head and Bottle) 44. Ultra sonic water bath- Capacity 3 litre 45. Water Bath with temperature control (*2 Nos) 46. Water Bath with temp. for mercury sample digestion- 20 BOD Bottles
<p>D. Analytical Instruments at Environmental Laboratories</p>	<ol style="list-style-type: none"> 1. Atomic Absorption spectrometer (AAS)- Flame, Hydride & Graphite Tube Atomizer (GTA) 2. Binocular Stereo Zoom Microscope 3. Bomb Calorimeter 4. BTX Analyzer with BTX calibrator 5. Colony counter 6. Conductivity meter- 2 nos. 7. Environment conditioning chamber 8. Digital Burettes- 50 ml*2, 100 ml*2 9. Dissolved Oxygen Meter (Bench model) 10. Flame Photometer 11. Flash Point Apparatus 12. Gas Chromatograph Mass Spectrometer 13. High Performance Liquid Chromatograph (HPLC) 14. Inductively Coupled Plasma (ICP) Spectrometer-OES 15. Ion Chromatograph Anion & Cations 16. Methane and Non Methane (NMHC) Analyzer 17. Microscope – 100x 18. Microscope Binocular Research 19. CO (NDIR based) Analyzer 20. Nephelometer (Turbidity Meter) 21. pH-Meter with combined electrode (3 point)- 2 nos. 22. Specific ion Analyzer with ion selective electrodes 23. Spectrophotometer Visible (Portable) 24. TKN Analyzer semi-automatic with aluminum block digester 25. UV-Vis Spectrophotometer 26. Moisture Content Analyzer

Table 3b: Infrastructure facility available for monitoring of environmental parameters

Name of the SPCBs /PCCs	Available Parameters			Available Instruments & Equipment			
	Water & Waste Water	Solid & Solid Waste	Meteorology, Air, Noise & Emission	For Sampling of Water, Wastewater and Soil / Haz. wastes	For Sampling of Ambient Air & Source Emission monitoring	For processing of Environmental Samples	Analytical Instruments
A. State Pollution Control Board							
1. Andhra Pradesh	66	14	28	9	20	37	21
2. Arunachal Pradesh	12	0	6	2	3	10	5
3. Assam PCB	66	7	26	9	18	39	21
4. Bihar SPCB	34	0	18	9	15	21	7
5. Chhattisgarh ECB	25	4	23	9	19	18	7
6. Goa SPCB	62	8	21	9	13	36	13
7. Gujarat SPCB	67	15	28	11	19	46	23
8. Haryana SPCB	65	6	19	3	8	24	13
9. Himachal Pradesh SPCB	48	12	24	7	9	32	10
10. Jharkhand SPCB	6	1	7	2	7	3	0
11. Karnataka SPCB	67	15	28	11	19	44	20
12. Kerala SPCB	66	14	27	10	18	37	19
13. Madhya Pradesh SPCB	67	15	28	10	18	42	21
14. Maharashtra SPCB	67	11	24	7	17	38	17
15. Manipur SPCB	24	4	13	7	9	16	5
16. Meghalaya SPCB	49	14	23	11	19	37	22
17. Mizoram SPCB	45	0	17	5	9	25	13
18. Nagaland SPCB	23	0	10	7	3	13	6
19. Odisha SPCB	60	15	27	10	19	41	19
20. Punjab SPCB	65	7	24	9	18	36	14
21. Rajasthan SPCB	49	8	23	7	14	30	10
22. Sikkim SPCB	26	0	19	8	12	31	10
23. Tamil Nadu SPCB	64	12	25	6	12	31	10
24. Telangana SPCB	67	15	26	10	21	43	21
25. Tripura SPCB	46	0	17	10	9	30	16
26. Uttarakhand SPCB	39	0	7	6	5	14	5
27. Uttar Pradesh SPCB	61	10	26	10	14	34	17

Name of the SPCBs /PCCs	Available Parameters			Available Instruments & Equipment			
	Water & Waste Water	Solid & Solid Waste	Meteorology, Air, Noise & Emission	For Sampling of Water, Wastewater and Soil / Haz. wastes	For Sampling of Ambient Air & Source Emission monitoring	For processing of Environmental Samples	Analytical Instruments
28. West Bengal SPCB	63	15	12	9	4	39	16
B. Pollution Control Committees							
1. Andaman & Nicobar PCC	47	6	10	8	9	31	10
2. Chandigarh PCC	44	8	23	8	13	20	6
3. Dadra, Nagar Haveli, Daman and Diu PCC	33	0	2	7	1	19	4
4. Delhi PCC	39	0	23	7	19	31	13
5. Jammu & Kashmir PCC	31	0	17	8	16	25	10
6. Ladakh PCC	2	0	7	0	2	13	4
7. Lakshadweep PCC	27	0	1	9	1	13	9
8. Puducherry PCC	42	0	20	9	12	20	6

5.1 OVERALL SUMMARY OF INFRASTRUCTURE FACILITY AVAILABLE FOR MONITORING OF ENVIRONMENTAL PARAMETERS

Based on the information provided at Table 3, the overall summary of infrastructure facility available with SPCBs and PCCs for monitoring of environmental parameters and instrument & equipment required for monitoring are as follow:

ENVIRONMENTAL PARAMETERS:

a) Water & Wastewater Monitoring - 67 Parameters

- 1) **Fully covered:** Gujarat, Karnataka, Madhya Pradesh, Maharashtra and Telangana.
- 2) **Mostly covered:** Andhra Pradesh (66), Assam (66), Goa (62), Haryana (65), Kerala (66), Punjab (65), Tamil Nadu (64), Uttar Pradesh (61) and West Bengal (63).
- 3) **Sparsely covered:** Bihar (34), Himachal Pradesh (48), Meghalaya (49), Mizoram (45), Odisha (60), Rajasthan (49), Tripura (46), Uttarakhand (39), Andaman & Nicobar (47), Chandigarh (44), Delhi (39) and Puducherry (42).

- 4) **Inadequately covered:** Arunachal Pradesh (12), Chhattisgarh (25), Jharkhand (6), Manipur (24), Nagaland (23), Sikkim (26), Dadra Nagar Haveli Daman and Diu (33), Jammu and Kashmir (31), Ladakh (2) and Lakshadweep (27).

b) Solid & Solid Waste Monitoring - 15 Parameters

- 1) **Fully covered:** Gujarat, Karnataka, Madhya Pradesh, Odisha, Telangana and West Bengal.
- 2) **Mostly covered:** Andhra Pradesh (14), Kerala (14) and Meghalaya (14).
- 3) **Sparsely covered:** Assam (7), Chhattisgarh (4), Goa (8), Haryana (6), Himachal Pradesh (12), Jharkhand (1), Maharashtra (11), Manipur (4), Punjab (7), Rajasthan (8), Tamil Nadu (12), Uttar Pradesh (10), Andaman & Nicobar (6) and Chandigarh (8)
- 4) **Not covered:** Arunachal Pradesh, Bihar, Mizoram, Nagaland, Sikkim, Tripura, Uttarakhand, Dadra Nagar Haveli Daman and Diu, Delhi, Jammu & Kashmir, Ladakh, Lakshadweep and Puducherry.

c) Meteorology, Air, Noise, and Emissions - 28 Parameters

- 1) **Fully covered:** Andhra Pradesh, Gujarat, Karnataka and Madhya Pradesh.
- 2) **Mostly covered:** Assam (26), Kerala (27), Odisha (27), Telangana (26) and Uttar Pradesh (26).
- 3) **Sparsely covered:** Bihar (18), Chhattisgarh (23), Goa (21), Haryana (19), Himachal Pradesh (24), Maharashtra (24), Meghalaya (23), Mizoram (17), Punjab (24), Rajasthan (23), Sikkim (19), Tamil Nadu (25), Tripura (17), Chandigarh (23), Delhi (23), Jammu & Kashmir (17) and Puducherry (20).
- 4) **Inadequately covered:** Arunachal Pradesh (6), Jharkhand (7), Manipur (13), Nagaland (10), Uttarakhand (7), West Bengal (12), Andaman & Nicobar (10), Dadra Nagar Haveli Daman and Diu (2), Ladakh (7) and Lakshadweep (1).

INSTRUMENTS & EQUIPMENT:

a) Sampling (Water, Wastewater, Soil / Hazardous Wastes – Requirement 11 nos.

- 1) **Fully available:** Gujarat, Karnataka and Meghalaya.
- 2) **Mostly available:** Kerala (10), Madhya Pradesh (10), Odisha (10), Telangana (10), Tripura (10) and Uttar Pradesh (10).

- 3) **Sparsely available:** Andhra Pradesh (9), Assam (9), Bihar (9), Chhattisgarh (9), Goa (9), Himachal Pradesh (7), Maharashtra (7), Manipur (7), Nagaland (7), Punjab (9), Rajasthan (7), Sikkim (8), Tamil Nadu (6), Uttarakhand (6), West Bengal (9), Andaman & Nicobar (8), Chandigarh (8), Dadra Nagar Haveli Daman and Diu (7), Delhi (7), Jammu & Kashmir (8), Lakshadweep (9) and Puducherry (9).
- 4) **Inadequate:** Arunachal Pradesh (2), Haryana (3), Jharkhand (2), Mizoram (5), Ladakh (0).

b) Sampling (Ambient Air and Source Emission) – Requirement 22 nos.

- 1) **Fully Available:** Nil
- 2) **Mostly available:** Telangana (21).
- 3) **Sparsely available:** Andhra Pradesh (20), Assam (18), Bihar (15), Chhattisgarh (19), Goa (13), Gujarat (19), Karnataka (19), Kerala (18), Madhya Pradesh (18), Maharashtra (17), Meghalaya (19), Odisha (19), Punjab (18), Rajasthan (14), Sikkim (12), Tamil Nadu (12), Uttar Pradesh (14), Chandigarh (13), Delhi (19), Jammu & Kashmir (16) and Puducherry (12).
- 4) **Inadequate (<12):** Arunachal Pradesh (3), Haryana (8), Himachal Pradesh (9), Jharkhand (7), Manipur (9), Mizoram (9), Nagaland (3), Tripura (9), Uttarakhand (5), West Bengal (4), Andaman & Nicobar (9), Dadra Nagar Haveli Daman and Diu (1), Ladakh (2), Lakshadweep (1).

a) Processing of Environmental Samples: Requirement 46 Nos.

- 1) **Fully available:** Gujarat (46).
- 2) **Mostly available:** Karnataka (44), Madhya Pradesh (42) and Telangana (43).
- 3) **Sparsely available:** Andhra Pradesh (37), Assam (39), Goa (36), Haryana (24), Himachal Pradesh (32), Kerala (37), Maharashtra (38), Meghalaya (37), Mizoram (25), Odisha (41), Punjab (36), Rajasthan (30), Sikkim (31), Tamil Nadu (31), Tripura (30), Uttar Pradesh (34), West Bengal (39), Andaman & Nicobar (31), Delhi (31) and Jammu & Kashmir (25).
- 4) **Inadequate (<24):** Arunachal Pradesh (10), Bihar (21), Chhattisgarh (18), Jharkhand (3), Manipur (16), Nagaland (13), Uttarakhand (14), Chandigarh (20), Dadra Nagar Haveli Daman and Diu (19), Ladakh (13), Lakshadweep (13) and Puducherry (20).

b) Analytical Instruments: Requirement - 26 nos.

- 1) **Fully Available:** Nil
- 2) **Mostly adequate:** Gujarat (23).
- 3) **Sparsely available:** Andhra Pradesh (21), Assam (21), Karnataka (20), Kerala (19), Madhya Pradesh (21), Maharashtra (17), Meghalaya (22), Odisha (19), Punjab (14), Telangana (21), Tripura (16), Uttar Pradesh (17) and West Bengal (16).
- 4) **Inadequate (<14):** Arunachal Pradesh (5), Bihar (7), Chhattisgarh (7), Goa (13), Haryana (13), Himachal Pradesh (10), Jharkhand (0), Manipur (5), Mizoram (13), Nagaland (6), Rajasthan (10), Sikkim (10), Tamil Nadu (10), Uttarakhand (5), Andaman & Nicobar (10), Chandigarh (6), Dadra Nagar Haveli Daman and Diu (4), Delhi (13), Jammu & Kashmir (10), Ladakh (4), Lakshadweep (9) and Puducherry (6).

The brief summary of above adequacy of facility are as follow:

- **Adequate:** Gujarat, Karnataka, Madhya Pradesh, Telangana
- **Average:** Andhra Pradesh, Assam, Goa, Kerala, Maharashtra, Meghalaya, Odisha, Uttar Pradesh and West Bengal.
- **Poor:** Bihar, Chhattisgarh, Haryana, Himachal Pradesh, Manipur, Mizoram, Punjab, Rajasthan, Sikkim, Tamil Nadu, Tripura, Uttarakhand, Andaman & Nicobar, Chandigarh, Delhi, Jammu & Kashmir, and Puducherry.
- **Inadequate:** Arunachal Pradesh, Jharkhand, Nagaland, Dadra Nagar Haveli Daman and Diu, Ladakh and Lakshadweep.

6.0 ANALYTICAL QUALITY CONTROL (AQC)

Analytical Quality Control (AQC) is one of the main components of a quality assurance (QA) system, wherein the quality of analytical data being generated in the laboratory is controlled through minimizing or controlling errors to achieve a target accuracy. CPCB conducts AQC exercises annually for environmental laboratories recognised as per provisions of EP Act, 1986 and Proficiency Testing (PT) exercises conducted by accredited PT providers. The performance of participating laboratories is evaluated with reference values and laboratories achieving more than 60% satisfactory results are treated as satisfactory performance. Over the past 3 years participation was used for assessment of Quality Control in Analytical activities.

The participation in AQC exercises provided by SPCBs / PCCs are tabulated in **Table 4**.

Table 4: Details of Laboratories Participated On Analytical Quality Control conducted in Respect of Water Quality Parameters by CPCB

S. No.	Name of the Laboratory of SPCBs /PCCs	No. of Parameters in AQC Exercise				Number of Parameters Attempted				% Parameters Successful			
		33 rd	34 th	35 th	36 th	33 rd	34 th	35 th	36 th	33 rd	34 th	35 th	36 th
1.	Andhra Pradesh												
i	Zonal Laboratory – Visakhapatnam	18	11	11	18	9	2	-	2	88.8	100	-	100
ii	Zonal Laboratory – Vijayawada	18	11	11	18	-	11	-	-	-	100	-	-
iii	Zonal Laboratory – Kurnool	18	11	11	18	-	2	-	2	-	100	-	*
2	Arunachal Pradesh	Not Participated											
3	Assam												
i	Central Laboratory, Guwahati	18	11	11	18	-	11	-	14	-	81.81	-	83.33
4	Bihar												
i.	Central Laboratory, Patna	18	11	11	18	-	-	-	15	-	-	-	80
5	Chhattisgarh ECB	Not Participated											
6	Goa												
i.	Central Lab, Saligao-Bardez	18	11	11	18	-	-	-	18	-	-	-	77.78
7	Gujarat												
i	Central Laboratory, Gandhinagar	18	11	11	18	9	11	-	-	#	100	-	-
ii	Regional Laboratory, Surat	18	11	11	18	-	10	-	-	-	100	-	-
iii	Regional Laboratory, Vapi	18	11	11	18	-	11	-	-	-	81.82	-	-
iv	Regional Laboratory, Bharuch	18	11	11	18	-	11	-	-	-	100	-	-
v	Regional Laboratory-Vadodara	18	11	11	18	-	11	-	-	-	95.45	-	-

S. No.	Name of the Laboratory of SPCBs /PCCs	No. of Parameters in AQC Exercise				Number of Parameters Attempted				% Parameters Successful			
		33 rd	34 th	35 th	36 th	33 rd	34 th	35 th	36 th	33 rd	34 th	35 th	36 th
vi	Regional Laboratory, Rajkot	18	11	11	18	-	11	-	-	-	86.36	-	-
vii	Gujarat Environment Management Institute, Gandhinagar	18	11	11	18	9	11	-	18	100	68.18	-	88.89
8	Haryana	Not Participated											
9	Himachal Pradesh												
i	Central Laboratory, Parwanoo	18	11	11	18	9	10	-	-	61.11	50	-	-
ii	Regional Laboratory, Dharamshala	18	11	11	18	9	10	-	-	61.11	40.91	-	-
iii	Regional Laboratory, Paonta Sahib	18	11	11	18	8	11	-	-	83.33	95.45	-	-
iv	Regional Laboratory, Shimla	18	11	11	18	18	-	-	-	77.78	-	-	-
v	Regional Laboratory, Sundernagar	18	11	11	18	9	11	-	-	66.67	90.91	-	-
vi	Regional Laborator, Una	18	11	11	18	-	-	-	-	-	-	-	-
10	Jharkhand												
i.	Vision Earth Consultancy (OPC) Pvt Ltd. ,Ashok Nagar	18	11	11	18	-	-	-	18	-	-	-	83.33
11	Karnataka												
i	Central Environmental Laboratory, Bengaluru	18	11	11	18	9	-	7	18	50	-	87.5	77.7
ii	Central Environmental Laboratory-2, Davanagere	18	11	11	18	-	-	-	18	-	-	-	72.22
iii	Regional Laboratory, Dharwad	18	11	11	18	-	11	-	18	-	77.27	-	88.89
iv	Regional Laboratory, Mysore	18	11	11	18	-	11	-	18	-	86	-	100
v	Regional laboratory-Hassan	18	11	11	18	-	-	-	18	-	-	-	94.44
vi	Regional laboratory, Mangaluru	18	11	11	18	-	-	-	18	-	-	-	44.4

S. No.	Name of the Laboratory of SPCBs /PCCs	No. of Parameters in AQC Exercise				Number of Parameters Attempted				% Parameters Successful			
		33 rd	34 th	35 th	36 th	33 rd	34 th	35 th	36 th	33 rd	34 th	35 th	36 th
12	Kerala												
i	Central Lab – Ernakulum	18	11	11	18	9	11	7	-	77.78	63.64	85.71	#
13	Madhya Pradesh												
i	Central Laboratory, Bhopal	18	11	11	18	9	11	6	18	77.78	86.36	54.54	83.33
ii	Regional Lab, Ujjain	18	11	11	18	8	11	-	-	88.88	9.91	-	-
iii	Regional Lab, Indore	18	11	11	18	-	11	-	18	--	77.27	-	77.22
14	Maharashtra												
i	Central Laboratory, Mumbai	18	11	11	18	-	11	-	18	-	95.45	-	100
ii	Regional Laboratory, Pune	18	11	11	18	9	11	-	18	100%	95.45	-	77.78
iii	Regional Laboratory, Thane	18	11	11	18	-	-	-	19	-	-	-	89.47
iv	Regional Laboratory, Nagpur	18	11	11	18	12	-	-	18	66.67	-	-	83.33
v	Regional Laboratory, Nashik	18	11	11	18	9	11	-	-	61	100	-	-
vi	Regional Laboratory, Chhatrapati Sambhajnagar	18	11	11	18	-	-	-	19	-	-	-	*
vii	Regional Laboratory, Ratnagiri	18	11	11	18	9	11	-	-	*	68.18	-	-
viii	Regional Laboratory, Chandrapur	18	11	11	18	-	-	-	1	-	-	-	100
15	Manipur	Not Participated											
16	Meghalaya												
i	Central Lab	18	11	11	18	9	11	-	18	44.94	59.09	-	72.22
17	Mizoram												

S. No.	Name of the Laboratory of SPCBs /PCCs	No. of Parameters in AQC Exercise				Number of Parameters Attempted				% Parameters Successful			
		33 rd	34 th	35 th	36 th	33 rd	34 th	35 th	36 th	33 rd	34 th	35 th	36 th
i	Central Laboratory, Khatla, Aizawl	18	11	11	18	-	11	-	-	-	11	-	-
18	Nagaland												
i	Central Laboratory, Dimapur	18	11	11	18	-	-	-	13	-	-	-	33.33
19	Odisha												
i	Central Laboratory, Odisha	18	11	11	18	8	11	-	19	50	77.27	-	78.95
20	Punjab SPCB												
i	Head Office Water lab, Patiala	18	11	11	18	-	-	-	18	-	-	-	100
21	Rajasthan SPCB												
i	Central Laboratory, Jaipur	18	11	11	18	-	11	-	-	-	68.18	-	-
ii	Regional Laboratory, Alwar	18	11	11	18	-	11	-	-	-	95.45	-	-
iii	Regional Laboratory, Kota	18	11	11	18	-	11	-	-	-	54.55	-	-
iv	Regional laboratory, Jodhpur	18	11	11	18	-	11	-	-	-	63.64	-	-
v	Regional laboratory, Udaipur	18	11	11	18	-	11	-	-	-	*	-	-
22	Sikkim SPCB	Not Participated											
23	Tamil Nadu SPCB												
i.	Advanced Environmental Laboratory, Chennai	18	11	11	18	9	9	-	19	77.78	63.64	-	57.89
ii.	Advanced Environmental Laboratory, Coimbatore	18	11	11	18	8	-	-	18	50.00	-	-	50.00
iii.	Advanced Environmental Laboratory, Cuddalore	18	11	11	18	6	-	-	18	33.33	-	-	94.44
iv.	Advanced Environmental Laboratory, Madurai	18	11	11	18	8	11	-	18	44.44	18.18	-	72.22

S. No.	Name of the Laboratory of SPCBs /PCCs	No. of Parameters in AQC Exercise				Number of Parameters Attempted				% Parameters Successful			
		33 rd	34 th	35 th	36 th	33 rd	34 th	35 th	36 th	33 rd	34 th	35 th	36 th
v.	Advanced Environmental Laboratory, Salem	18	11	11	18	9	11	-	18	77.78	50	-	72.22
vi.	Advanced Environmental Laboratory, Tirunelveli	18	11	11	18	-	-	-	18	-	-	-	66.67
vii.	Advanced Environmental Laboratory, Trichy	18	11	11	18	9	11	-	17	83.33	45.45	-	94.44
viii.	Advanced Environmental Laboratory, Vellore	18	11	11	18	9	11	-	18	55.56	27.27	-	72.22
ix.	District Environmental Laboratory, Ambattur	18	11	11	18	-	-	-	18	-	-	-	66.67
x.	District Environmental Laboratory, Dindigul	18	11	11	18	-	-	-	18	-	-	-	83.33
xi.	District Environmental Laboratory, Hosur.	18	11	11	18	-	-	-	18	-	-	-	44.44
xii.	District Environmental Laboratory, Arumbakkam	18	11	11	18	-	-	-	17	-	-	-	61.11
xiii.	District Environmental Laboratory, Chengalpattu	18	11	11	18	-	-	-	18	-	-	-	61.11
xiv.	District Environmental Laboratory, Perundurai	18	11	11	18	-	-	-	18	-	-	-	72.22
xv.	District Environmental Laboratory, Thoothukudi	18	11	11	18	-	-	-	18	-	-	-	72.22
xvi.	District Environmental Laboratory, Tiruppur	18	11	11	18	-	-	-	18	-	-	-	77.78
24	Telangana SPCB												
i.	Central Laboratory, Hyderabad	18	11	11	18	13	11	-	18	100	100	-	94.4
ii.	Zonal Laboratory, Warangal	18	11	11	18	-	10	-	-	-	72.72	-	-
iii.	Zonal Laboratory, RC Puram	18	11	11	-	-	11	-	-	-	50	-	-

S. No.	Name of the Laboratory of SPCBs /PCCs	No. of Parameters in AQC Exercise				Number of Parameters Attempted				% Parameters Successful			
		33 rd	34 th	35 th	36 th	33 rd	34 th	35 th	36 th	33 rd	34 th	35 th	36 th
25	Tripura SPCB	Not Participated											
26	Uttarakhand SPCB	Not Participated											
27	Uttar Pradesh SPCB												
i.	Central Laboratory, Lucknow	18	11	11	18	8	-	-	18	68.75	-	-	100
28	West Bengal SPCB												
i.	Central Laboratory, Kolkata	18	11	11	18	9	11	-	18	55.56	63.64	-	83.33
ii.	Barrackpur Regional Laboratory, 24-Parganas	18	11	11	18	9	11	-	18	100	86.36	-	94.44
29	Andaman and Nicobar PCC	Not Participated											
30	Chandigarh PCC	Not Participated											
31	Dadra, Nagar Haveli, Daman and Diu PCC	Not Participated											
32	Delhi PCC	Not Participated											
33	Jammu & Kashmir PCC												
i.	Regional Water Lab, Jammu	18	11	11	18	-	-	-	17	-	-	-	72.22
34	Ladakh PCC	Not Participated											
35	Lakshadweep PCC	Not Participated											
36	Puducherry PCC	Not Participated											

Note: '-' means Not Participated, '*' means Result Awaited, '#' means sample not received.

6.1 SUMMARY OF ANALYTICAL QUALITY CONTROL PARTICIPATION

Based on the information provided at Table 4, the overall summary of the Analytical Quality Control (AQC) participation in the AQC exercises of 33rd, 34th, 35th, and 36th conducted by CPCB during 2020 – 2024 by the environmental laboratories recognised as per provisions of EP Act, 1986 of SPCBs / PCCs are as follow:

a) AQC Participation

- A total of 70 laboratories across 21 SPCBs and 1 PCC took part in Analytical Quality Control exercise.
- 7 SPCBs i.e. Arunachal Pradesh, Chhattisgarh, Haryana, Manipur, Tripura, Sikkim, Uttarakhand SPCBs did not participate.
- 7 PCCs i.e. Andaman & Nicobar, Chandigarh, Dadra & Nagar Haveli & Daman & Diu, Delhi, Ladakh, Lakshadweep, Puducherry did not participate.

b) Performance Status

- **High Performers (≥ 90% success):**
 - Telangana SPCB Central Lab: 100% (33rd & 34th), 94.4% (36th)
 - Gujarat SPCB Central & Surat Regional Labs: 100% (34th)
 - Punjab SPCB Central Lab: 100% (36th)
 - Maharashtra SPCB Pune Regional Lab: 95.45% (34th), 77.78% (36th)
- **Average Performers (60–89% success)**
 - Assam SPCB Central Lab, Guwahati: 81.81% (33rd), 83.33% (35th)
 - GEMI Laboratory, Gandhinagar: 68.18% (34th), 88.89% (36th)
 - Odisha SPCB Central Lab, Bhubaneswar: 50% (33rd), 77.27% (34th), 78.95% (36th)
 - Kerala SPCB Central Lab, Ernakulum: 77.78% (33rd), 63.64% (34th), 85.71% (35th)
 - Karnataka SPCB Central Lab, Bengaluru: 50% (33rd), 87.5% (35th), 77.7% (36th)
 - Tamil Nadu SPCB Advanced Lab, Salem: 77.78% (33rd), 50% (34th), 72.22% (36th)
- **Low Performers (< 60% success)**
 - Karnataka SPCB Central Lab: 50% (33rd)
 - Meghalaya SPCB: 44.94% (33rd), 59.09% (34th)
 - Odisha SPCB Central Lab: 50% (33rd)

c) Improvement & Decline Trends

- **Notable Improvement:** Several laboratories have demonstrated significant improvement. The Zonal Laboratory in Cuddalore, Tamil Nadu SPCB, increased its satisfactory results from 33.3% to 94.4%. Similarly, the Central Laboratory of Meghalaya SPCB improved from 44.9% to 72.2%, while the Regional Laboratory in Mysore, Karnataka SPCB, achieved a full 100% after progressing from 86%.
- **Significant Declines:** Some laboratories experienced a decline in performance. The Dharamshala Laboratory of Himachal Pradesh SPCB saw its satisfactory results drop from 61.1% to 40.9%, while the Advanced Environmental Lab in Chennai, Tamil Nadu SPCB, decreased from 77.8% to 57.9%.
- **Consistently High Performers (≥ 90 percent):** Some laboratories have consistently maintained exceptionally high performance across all rounds, including the Central Lab in Hyderabad, Telangana SPCB, and the Central Lab of Maharashtra SPCB.
- **Persistent Low Performers:** Some laboratories consistently recorded a lower number of satisfactory results. The Central Laboratory in Aizawl, Mizoram SPCB, achieved only 11% of the evaluated parameters, while the Central Laboratory in Dimapur, Nagaland SPCB, recorded 33.3%.
- **Inconsistent performances:** Several laboratories have demonstrated inconsistent performance over multiple rounds. Madhya Pradesh's central lab initially improved from 77.8% to 86.4%, then declined to 54.5 % before rebounding to 83.3%. Bengaluru's central lab started at 50 % and improved to 87.5% but later dropped to 77.7%. Meanwhile, the GEMI laboratory in Gandhinagar dropped from a perfect 100 percent to 68.2 percent before recovering to 88.89 percent.

7.0 PROFICIENCY TESTING (PT)

Proficiency Testing (PT) evaluates the performance of the environmental laboratories against pre-established criteria through inter laboratory comparisons. Laboratories seeking accreditation under ISO 17025:2017 must participate in scheduled Proficiency Testing exercises conducted by accredited PT sample providers, who themselves meet the requirements of ISO 17043: 2023. The PT provider assess the performance of each participating laboratory within a larger pool of laboratories. The comprehensive details on participation in PT exercises by various laboratories of SPCBs / PCCs over the past 3 years is given as **Annexure 3**, with a summary tabulated at **Table 5**.

Table 5: Details of Laboratories Participated on PT Performance

S. No.	SPCB / PCC	No of Laboratories	Year of participation	No. of Lab participated	% participation
1.	Andhra Pradesh	5	2022	1	20
			2023	3	60
			2024	2	40
2.	Arunachal Pradesh	2	2022	0	0
			2023	0	0
			2024	0	0
3.	Assam	5	2022	2	40
			2023	2	40
			2024	2	40
4.	Bihar	1	2022	0	0
			2023	0	0
			2024	1	100
5.	Chhattisgarh	7	2022	0	0
			2023	0	0
			2024	0	0
6.	Goa	1	2022	1	100
			2023	1	100
			2024	1	100
7.	Gujarat	9	2022	5	55.55
			2023	6	66.67
			2024	5	55.55
8.	Haryana	4	2022	3	75
			2023	3	75
			2024	3	75
9.	Himachal Pradesh	6	2022	3	50
			2023	2	33.33
			2024	5	83.33
10.	Jharkhand	16	2022	4	25
			2023	6	37.5
			2024	8	50
11.	Karnataka	9	2022	1	11.11
			2023	1	11.11
			2024	2	22.22
12.	Kerala	16	2022	1	6.25
			2023	1	6.25
			2024	1	6.25
13.	Madhya Pradesh	11	2022	6	54.54
			2023	5	45.45
			2024	6	54.54
14.	Maharashtra	8	2022	8	100
			2023	5	62.5
			2024	6	75
15.	Manipur	1	2022	0	0
			2023	0	0
			2024	0	0
16.	Meghalaya	4	2022	1	25
			2023	1	25
			2024	1	25

17.	Mizoram	1	2022	0	0
			2023	0	0
			2024	1	100
18.	Nagaland	1	2022	0	0
			2023	0	0
			2024	0	0
19.	Odisha	12	2022	1	8.33
			2023	1	8.33
			2024	1	8.33
20.	Punjab	3	2022	0	0
			2023	0	0
			2024	1	33.33
21.	Rajasthan	25	2022	2	8
			2023	4	16
			2024	12	48
22.	Sikkim	1	2022	0	0
			2023	0	0
			2024	1	100
23.	Tamil Nadu	18	2022	2	11.11
			2023	3	16.67
			2024	4	22.22
24.	Telangana	3	2022	1	33.33
			2023	1	33.33
			2024	1	33.33
25.	Tripura	3	2022	0	0
			2023	0	0
			2024	0	0
26.	Uttarakhand	4	2022	1	25
			2023	0	0
			2024	1	25
27.	Uttar Pradesh	23	2022	5	21.73
			2023	4	17.39
			2024	5	21.73
28.	West Bengal	6	2022	2	33.33
			2023	2	33.33
			2024	2	33.33
29.	Andaman & Nicobar	0	2022	0	0
			2023	0	0
			2024	0	0
30.	Chandigarh	1	2022	0	0
			2023	0	0
			2024	1	100
31.	Dadra Nagar Haveli & Daman & Diu	1	2022	0	0
			2023	0	0
			2024	0	0
32.	Delhi	1	2022	0	0
			2023	0	0
			2024	0	0
33.	Jammu & Kashmir	2	2022	0	0
			2023	0	0
			2024	0	0
34.	Ladakh	0	2022	0	0
			2023	0	0
			2024	0	0

35.	Lakshadweep	2	2022	0	0
			2023	0	0
			2024	0	0
36.	Puducherry	1	2022	1	100
			2023	1	100
			2024	1	100

7.1 SUMMARY OF PROFICIENCY TESTING PARTICIPATION

Based on the information provided at Table 5, the overall summary of the Proficiency Participation during 2022 – 2024 by the environmental laboratories recognised as per provisions of EP Act, 1986 of SPCBs / PCCs are as follow:

a) PT Participation Trends

- **High Participation (>7 times):** Environmental Laboratories in Gujarat, Haryana, Himachal Pradesh, Jharkhand, Madhya Pradesh, Maharashtra, Rajasthan, Tamil Nadu, Uttar Pradesh SPCBs took part more than 7 times, showing strong quality commitment.
- **Medium Participation (4-7 times):** Environmental Laboratories in Andhra Pradesh, Assam, Karnataka, West Bengal SPCBs participated moderate level.
- **Low Participation (1-3 times):** Environmental Laboratories in, Bihar, Goa, Kerala, Meghalaya, Mizoram, Odisha, Punjab, Sikkim, Telangana, Uttarakhand SPCBs, and Chandigarh, Puducherry PCCs participated infrequently.
- **No Participation:** Environmental Laboratories in Arunachal Pradesh, Chhattisgarh, Manipur, Nagaland, Tripura SPCBs and Andaman & Nicobar, Dadra Nagar Haveli & Daman and Diu, Delhi, Jammu & Kashmir, Ladakh, Lakshadweep PCCs, did not participated in the past 3 years.

b) Parameter Diversity

- **Broad Scope:** These accredited environmental laboratories actively participate in PT exercises, covering a wide range of environmental parameters such as water, air, noise, soil, and wastewater. They demonstrate strong analytical skills, technical expertise, and comprehensive environmental monitoring abilities. The example includes:
 - a) GEMI Laboratory, Gandhinagar collaborated with Gujarat SPCB: 343 parameters, 82 in PT in 2024
 - b) Environmental Laboratories, Jharkhand: 459 parameters, 36 in PT in 2024
 - c) Advanced Environmental Labs, Tamil Nadu: 76–119 parameters, 11–27 in PT

d) Central Laboratory, Maharashtra: 35 parameters, 35 in PT in 2024

- **Narrow Scope:** These environmental laboratories handle smaller set of parameters, either due to accreditation limits or PT participation. They usually focus on a single environmental medium such as water or air. This limited scope may be due to infrastructure constraints, operational restrictions or early-stage development. The examples include (i) Central Lab, Punjab (11 PT parameters in 2024), (ii) Regional Lab, Vadodara, Gujarat (less PT parameters despite broader accreditation), and (iii) Central Lab, Sikkim (20 PT parameters across three media in 2024).

c) **Performance Outcomes**

- **High performance:** Some laboratories, like Karnataka (Central lab) achieved 100% satisfactory outcomes over multiple years. Himachal Pradesh maintained near-perfect participation and performance across all regional labs.
- **Low Performance:** Jharkhand and Mizoram SPCBs had around 50% satisfactory results.

8.0 OVERALL SUMMARY OF THE PROGRESS OF SPCBs / PCCs

The overall summary of SPCBs/PCCs progress of in complying sates to fill up all the vacancies by 30.04.2025 and improve laboratory infrastructure are as follow:

1. Progress on filling of vacancies

- a) Out of 11,606 sanctioned posts, 5,401 posts remain vacant, accounting for 46.53% of total. This includes 5,027 vacant posts out of 10,783 in SPCBs and 374 post out of 823 in PCCs.
- b) Among the 28 SPCBs, Arunachal Pradesh, Nagaland SPCBs have no vacancies. However, the remaining 26 SPCBs are facing delays and extended timelines stretching beyond April 30, 2025 due to various reasons.
- c) SPCBs in Goa, Kerala, Meghalaya, and Rajasthan are relying on Contractual / Outsourced staff to meet their operational needs. Among the 8 PCCs, all the posts in Dadra Nagar Haveli, Daman & Diu have been abolished, and is operated with contractual staff. Similarly, Ladakh PCC functions with outsourced employees.

- d) Promotional Posts remain vacant due to the absence of eligible candidates in the feeder cadre in SPCBs/PCCs.
- e) The Chandigarh, Andaman & Nicobar, and Puducherry have indicated that they expect to fill their vacancies by April 2025.
- f) SPCBs such as Goa (5), Haryana (29), Himachal Pradesh (9), Karnataka (1), Kerala (1), Madhya Pradesh (6), Meghalaya (12), Odisha (2), Punjab (138), Tamil Nadu (49), Telangana (1), Uttar Pradesh (27), West Bengal (1) have filled total number of 281 vacancies and PCCs such as Delhi (18), Jammu & Kashmir (16) have filled total number of 34 vacancies.

2. Progress on Laboratories Established and Infrastructure

- a) All 28 SPCBs and 6 PCCs, excluding Andaman & Nicobar and Ladakh PCC, have 213 laboratories established / recognized under Section 17(2) of the Water Act, 1974 and under Section 17(2) of the Air Act, 1981.
- b) 11 SPCBs and 02 PCCs have notified 52 of these laboratories in their respective State Gazettes. Additionally, 16 SPCBs/ PCCs have been planning to notify 121 laboratories under the Water Act, 1974 and 20 SPCBs/ PCCs have been planning to notify 121 laboratories under the Air Act, 1981.
- c) 64 Government laboratories and 19 Private laboratories have been established under Section 52(1) of the Water Act, 1974 and under Section 28(1) of the Air Act, 1981 by 20 SPCBs / PCCs. Out of the 64 government laboratories, 25 (39%) have been notified in the official gazette and 29 Government laboratories are planned for notification in the state gazette.
- d) 86 laboratories under Section 17(2) of the Water Act, 1974 and under Section 17(2) of the Air Act, 1981, across 21 SPCBs and 03 PCCs have NABL accreditation. Additionally, 43 government laboratories from 12 SPCBs and 02 PCCs under Section 52(1) of the Water Act, 1974 and under 28(1) of the Air Act, 1981 are NABL accredited.
- a) SPCBs in Gujarat, Telangana, Madhya Pradesh, and Karnataka have nearly sufficient infrastructure, while SPCBs such as Jharkhand, Chandigarh, Delhi, Ladakh, struggle to meet even basic environmental monitoring needs.

- b) 12 SPCBs / PCCs, including Arunachal Pradesh, Bihar, Chhattisgarh, Jharkhand, Manipur, Nagaland, Uttarakhand, Chandigarh, DNH-DD, Ladakh, Lakshadweep and Puducherry, have fewer than 10 analytical instruments, while 26 are required.
- c) Uttarakhand SPCBs, Lakshadweep, Ladakh, and DNH-DD PCCs do not have enough instruments and equipment for sampling of both water and ambient air. Similarly, PCCs in Ladakh, Lakshadweep and DNH-DD have also lack in enough instruments & equipment.

3. Progress on AQC and PT

- a) Most of the SPCBs (21) and PCCs (3) have their laboratories accredited from NABL indicating absence of standard practices of quality control, quality assurance of their analytical results and control of documents.
- b) The absence of NABL accreditation and EPA recognition undermines the reliability and legal standing of water-quality data, potentially delaying enforcement actions and judicial proceedings that depend on quality of results.
- c) There is no consistent participation in AQC and PT across SPCBs, leading to inconsistencies in quality assurance.
- d) Although, many laboratories have accreditation, however they are not consistently participating in PT exercises with all the parameters in their accreditation scope.



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SCIENTIST 'E'

Central Pollution Control Board

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Central Pollution Control Board
(पर्यावरण, वन एवं जलवायु परिवर्तन मंत्रालय, भारत सरकार)
(M/o Environment, Forest & Climate Change, Govt. of India)
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PART A: STATUS OF FILLING OF VACANT POSTS

Name of the Board / Committee:

Category of post	Status of Sanctioned posts in Number				Details of current vacancies in number	Action Taken (Approval of the Govt. , Engagement agency, Advertisement, Exam date etc.)	Will the vacancy be filled by 30.4.2025?, (say Yes or No)	If not, the time line and reason for delay may be mentioned.
	Sanctioned	Vacancy as on 11.09.'24	Filled after 11.09.'24	Current Vacancy				
a) Scientific					a) Direct			
					b) Promotion			
					c) Deputation			
b) Engineering					a) Direct			
					b) Promotion			
					c) Deputation			
c) Administration					a) Direct			
					b) Promotion			
					c) Deputation			

Specific remarks, if any:

LABORATORY ANALYTICAL FACILITIES

Name of the Board / Committee:

PART I: Facility available for monitoring of environmental parameters:

S. No.	Parameters	Facilities Available (Yes / No)	If facility is not available, Specify Timeline for addition of this parameter. (in months)	Action Taken for addition of this parameter (Specification finalized / procurement initiated / work awarded / outsourced)
A. Sample Matrix / Group of Water and Wastewater				
(a) Physical Tests				
1	Temperature			
2	Colour			
3	pH			
4	Turbidity			
5	Conductivity			
6	Total Solids			
7	Total Dissolved Solids (TDS)			
8	Total Suspended Solids (TSS)			
(b) Inorganic Tests				
(i) General & Non-metallic				
1	Alkalinity			
2	Chloride			
3	Cyanide			
4	Dissolved oxygen			
5	Nitrite nitrogen			
6	Nitrate nitrogen			
7	Ammonical nitrogen			
8	Fluoride			
9	Hardness (Total)			
10	Calcium			

S. No.	Parameters	Facilities Available (Yes / No)	If facility is not available, Specify Timeline for addition of this parameter. (in months)	Action Taken for addition of this parameter (Specification finalized / procurement initiated / work awarded / outsourced)
11	Magnesium			
12	Phosphate			
13	Sulphate			
14	Sulphide			
15	Total Residual chlorine (TRC)			
(ii) Trace Metals Tests				
1	Aluminium (Al)			
2	Arsenic (As) Total			
3	Barium			
4	Boron			
5	Chromium (Cr) Hexavalent			
6	Chromium (Cr) Total			
7	Cadmium (Cd)			
8	Cobalt (Co)			
9	Copper (Cu)			
10	Iron (Fe)			
11	Lead (Pb)			
12	Manganese (Mn)			
13	Mercury (Hg)			
14	Nickel (Ni)			
15	Potassium (K)			
16	Sodium (Na)			
17	Vanadium (V)			
18	Zinc (Zn)			
19	Selenium (Se)			
(c) Organics (General) and Trace Organics Tests				
1	Biological Oxygen Demand (BOD)			
2	Chemical oxygen demand (COD)			
3	Oil & Grease			
4	Phenolic Compounds as C ₆ H ₅ OH			

S. No.	Parameters	Facilities Available (Yes / No)	If facility is not available, Specify Timeline for addition of this parameter. (in months)	Action Taken for addition of this parameter (Specification finalized / procurement initiated / work awarded / outsourced)
5	Benzopyrene			
6	Pesticides			
6.a	Organochlorine Pesticides (OCPs) Tests			
i	Aldrin			
ii	Alpha Endosulphan			
iii	p,p'-DDT			
iv	Alpha-HCH			
v	Beta HCH			
vi	Beta Endosulphan			
vii	Gama-HCH			
viii	o,p'-DDT			
ix	p,p'-DDE			
6.b	Organophosphorus Pesticides (OPPs) Tests			
i	Malathion			
ii	Methyl parathion			
iii	Chlorpyrifos			
iv	Dimethoate			
v	Dieldrin			
vi	Ethion			
(d)	Microbiological Tests			
1	Total Coliform			
2	Faecal Coliform			
3	E. Coli			
4	Faecal Streptococci			
(e)	Toxicological Tests			
1	Bioassay method for evaluation of toxicity using fish (90% survival of fish after 96 hrs in 100% effluent)			
B. Sample Matrix / Group of Solid / Solid Waste				
(a) Soil / Sediment / Compost Tests				

S. No.	Parameters	Facilities Available (Yes / No)	If facility is not available, Specify Timeline for addition of this parameter. (in months)	Action Taken for addition of this parameter (Specification finalized / procurement initiated / work awarded / outsourced)
1	Cation Exchange Capacity (CEC)			
2	Electrical Conductivity (EC)			
3	Organic carbon (Chemical Method)			
4	pH			
5	Soil moisture			
6	Total nitrogen			
7	Metals by digestion (As, Cd, Cr, Pb, Ni etc.)			
(b) Hazardous Waste (Liquid / Slurry / Sludge / Solid / Semi-Solid) Tests				
1	Corrosivity			
2	Ignitability (Flash Point)			
3	Loss on Drying at 105 ⁰ C (% Moisture Content)			
4	Loss on Drying at 550 ⁰ C (% Organic Content)			
5	pH			
6	Organic carbon/matter (Chemical Method)			
7	Calorific Value			
8	Toxicity Characteristics leaching procedure (TCLP) Leachate and Metals in Leachate (As,Cd,Cr, Pb, Ni)			
C. Sample Matrix / Group of Analytes: Air				
(a) Ambient Air				
1	Nitrogen dioxide as NO ₂			
2	Sulphur dioxide (SO ₂)			
3	Particulate matter (PM ₁₀)			
4	Particulate matter (PM _{2.5})			
5	Carbon Monoxide			
6	Ozone			
7	Benzene			
8	Ammonia			
9	Metals in Particulate Matter, Pb			
10	Metals in Particulate Matter, As			
11	Metals in Particulate Matter, Ni			

S. No.	Parameters	Facilities Available (Yes / No)	If facility is not available, Specify Timeline for addition of this parameter. (in months)	Action Taken for addition of this parameter (Specification finalized / procurement initiated / work awarded / outsourced)
12	Particulate Benzo-a-Pyrene (BaP)			
(b) Stack Gas / Stationary Source Emission				
1	Particulate Matter			
2	Sulphur Dioxide			
3	Carbon Dioxide			
4	Carbon Monoxide (NDIR based Method)			
5	Temperature			
6	Moisture			
7	Oxygen			
8	Oxides of Nitrogen			
9	Halides (HCL/HF)			
(c) Noise Level				
1	Ambient Noise level measurement (20 to 140 dB)			
2	Source Noise Level Measurement (Industrial process, DG set- 20 to 140dB)			
(d) Meteorological Monitoring				
1	Ambient Temperature			
2	Wind direction			
3	Wind speed			
4	Relative Humidity			
5	Mixing Height			

PART II: Details of Laboratory Infrastructure (Instruments and Equipment)

S. No.	Name of Instrument / Equipments	Available Yes / No	If the Instrument / Equipment is not available, Specify Timeline for procurement of this instrument (in months)	Action Taken for procurement of this Instrument / Equipment (Specification finalized / procurement initiated / work awarded / outsourced)
A. List of Instruments / Equipment for Sampling of Water, Wastewater and Soil / Hazardous Wastes				
a) Mandatory Requirements				
1.	Portable / Pen type pH meter / pH strip			
2.	Portable Dissolved Oxygen Meter / Field Fixing using chemicals			
3.	Electrical Conductivity meter pen type			
4.	Flow meter / Physical flow measuring			
5.	GPS / Mobile with GPS app			
6.	Ice Box (2 nos.) (150 litre & 100 litre capacities)			
7.	Thermometer			
8.	Stainless steel bucket with nylon rope and mug			
9.	Ground water level measuring device			
10.	Scoop / shovel			
11.	Auger / core sampler			
b) Optional Requirements				
1.	Bottom Sampler / Depth sampler			
2.	Chloroscope for residual chlorine			
3.	Vandorn or equivalent water sampler (Automatic sampler when composite sampling to be done)			
4.	Ekman Dredge			
B. List of Instruments / Equipment for Sampling of Ambient Air and Source Emission monitoring				
a) Mandatory Requirements				
1	Fine dust samplers PM _{2.5} (*4 Nos)			
2	Respirable Dust Sampler PM 10 (* 4 Nos)			

S. No.	Name of Instrument / Equipments	Available Yes / No	If the Instrument / Equipment is not available, Specify Timeline for procurement of this instrument (in months)	Action Taken for procurement of this Instrument / Equipment (Specification finalized / procurement initiated / work awarded / outsourced)
3	High Volume Sampler (SPM) (4 Nos)			
4	Handy Sampler with set of glass impingers (*2 Nos)			
5	Low Volume Sampler (LVS)			
6	Tedler bags different sizes			
7	Meteorological tower (All in one telescopic Mast) with sensors comprising wind speed, wind direction, ambient temp., Relative humidity, Solar radiation, rainfall etc.			
8	Nitrogen Cylinder portable			
9	Activated Charcoal tubes/ Tenex			
10	Barometer (Digital)			
11	Isokinetic Stack Monitoring Kit complete with Stack monitoring instrument panel with inclined cum vertical manometer, Cold Box, Vacuum pump, Glass assembly impingers			
12	Modified S type Stainless steel Pitot tube (Standard length) with Assembly			
13	Monoblock type, rotary design vacuum pump			
14	Orsat Apparatus			
15	Source emission monitoring Impingers train set with spare impingers 100 ml & 225 ml capacity			
16	Stainless steel heated Sampling Probes with thimble holders short and long			
17	Flue Gas analyzer			
18	Thermometer/ Thermocouple			
19	Calibrator for Noise Meters			
20	Digital Sound level (Noise) Metres			

S. No.	Name of Instrument / Equipments	Available Yes / No	If the Instrument / Equipment is not available, Specify Timeline for procurement of this instrument (in months)	Action Taken for procurement of this Instrument / Equipment (Specification finalized / procurement initiated / work awarded / outsourced)
21	Portable TOC Analyzer for emission monitoring.			
22	Polyurethane Foam PUF Sampler			
b) Optional Requirements				
1	Anemometer			
2	Weather Monitoring system			
3	Wind speed/wind direction monitor			
4	Continuous Ambient Air Monitoring System, Fixed			
5	Continuous PM ₁₀ Analyzer			
6	Continuous Ambient Air Monitoring System, Mobile			
7	Continuous PM _{2.5} analyzer			
8	Ambient Nitrogen Oxides (NO-NO ₂ -NO _x Analyzer			
9	Ambient Ozone Analyzer			
10	Ambient BTEX Analyzer			
11	Multipoint Gas Calibration system			
12	Ambient Sulphur Dioxide analyzer			
13	Ambient Carbon Monoxide & Carbon dioxide analyzer			
14	Total Hydrocarbon analyzer			
15	Ambient Ammonia analyzer			
16	Zero Gas Generator			
17	Synthetic Air Cylinder			
18	Calibration Gas Cylinders, SO ₂ , NO, CO, NH ₃ , Benzene and Toluene One each with stainless steel Regulators			
19	Continuous emission monitoring equipment			
20	19 inch Rack mounting system for air analyzers			
21	Dry Gas Meter			
22	Diesel Exhaust analyzer			

S. No.	Name of Instrument / Equipments	Available Yes / No	If the Instrument / Equipment is not available, Specify Timeline for procurement of this instrument (in months)	Action Taken for procurement of this Instrument / Equipment (Specification finalized / procurement initiated / work awarded / outsourced)
23	Exhaust CO/HC analyzer with Sampling Probe			
24	Automated Noise Monitoring System			
25	Integrating Sound level meter			
26	Continuous PM ₁₀ & PM _{2.5} Monitoring Analyzer TEOM system			
27	Top loading orifice kit for calibration of HVS			
28	Permeation tubes (SO ₂ , NO-NO ₂ -NO _x , NH ₃ , BTX)			
C. List of Equipment required for processing of Environmental Samples:				
a) Mandatory Requirements				
1	Accelerated Solvent Extraction (ASE) System			
2	Ammonia distillation assembly/TKN Analyzer			
3	Analytical Balance 4/5 digit & 6 digit (Digital)			
4	Aquarium for Toxicity bioassay test with complete accessories (*4 Nos)			
5	Autoclave (*2 Nos)			
6	Bacteriological Incubators Stainless steel (*2 Nos)			
7	Bio safety cabinets			
8	BOD Incubators (2 nos.)			
9	Centrifuge			
10	COD Digestion heated Blocks (2) with capacity 16 nos. or more			
11	Cyanide Distillation Assembly (3)			
12	Deep Freezer- Capacity 500 litre			
13	Laboratory Ball Mill Grinder			
14	Laboratory Grinder			
15	Laminar Flow bench for Microbiological analysis			

S. No.	Name of Instrument / Equipments	Available Yes / No	If the Instrument / Equipment is not available, Specify Timeline for procurement of this instrument (in months)	Action Taken for procurement of this Instrument / Equipment (Specification finalized / procurement initiated / work awarded / outsourced)
16	Magnetic Stirrer with heating system (*2 Nos)			
17	Mechanical Shaker			
18	Membrane Filtration assembly with vacuum pump (2 nos.)			
19	Microbial culture refrigerator			
20	Microwave Digester with 16 vessels/ Hot Plate			
21	Muffle Furnace (*1 Nos), Range 1200 C			
22	Phenol distillation assembly (3)			
23	Plate counter, Manual/Automatic			
24	Digestion Chambers/ Fume hood			
25	Digital Thermometer & Humidity meter- All lab area			
26	Dispensers (Various capacities) up to 5, 10, 25 & 50 ml			
27	Filtration Assembly with vacuum pump			
28	Fluoride Distillation Assembly (3)			
29	Arsenic / Fluoride Glass Distillation assemblies			
30	Glass Double Distillation Assembly /Water Purification System			
31	Heating mantles (2 nos.)			
32	Hot plates (small, Medium and Large) (*2 nos.)			
33	Thermo Hygrometer			
34	Imhoff Cone			
35	Top loading Precision Digital Balance (minimum detection 0.001mg/0.01 mg) with anti-vibration facility- 3 nos. i.e 4/5 Digit (2 nos), - 6 Digit (1 no)			
36	Refrigerators Big Size 300 litres or more, double door- 2 nos.			

S. No.	Name of Instrument / Equipments	Available Yes / No	If the Instrument / Equipment is not available, Specify Timeline for procurement of this instrument (in months)	Action Taken for procurement of this Instrument / Equipment (Specification finalized / procurement initiated / work awarded / outsourced)
37	Rotary Evaporator (Buchi type) with water recirculating chiller			
38	Separating funnel shaker			
39	Soxhlet Apparatus			
40	Solid Phase Extraction (SPE) /SPME Extraction system			
41	Thermometer (Alcohol)			
42	Dry & wet bulb Thermometer			
43	Toxicity characteristic leaching procedure (TCLP) Extractors (Zero head and Bottle)			
44	Ultra sonic water bath- Capacity 3 litre			
45	Water Bath with temperature control (*2 Nos)			
46	Water Bath with temp. for mercury sample digestion- 20 BOD Bottles			
D. Analytical Instruments at Environmental Laboratories				
a) Mandatory Requirements				
1.	Atomic Absorption spectrometer (AAS)- Flame, Hydride & Graphite Tube Atomizer (GTA)			
2.	Binocular Stereo Zoom Microscope			
3.	Bomb Calorimeter			
4.	BTX Analyzer with BTX calibrator			
5.	Colony counter			
6.	Conductivity meter- 2 nos.			
7.	Environment conditioning chamber			
8.	Digital Burettes- 50 ml*2, 100 ml*2			
9.	Dissolved Oxygen Meter (Bench model)			
10.	Flame Photometer			

S. No.	Name of Instrument / Equipments	Available Yes / No	If the Instrument / Equipment is not available, Specify Timeline for procurement of this instrument (in months)	Action Taken for procurement of this Instrument / Equipment (Specification finalized / procurement initiated / work awarded / outsourced)
11.	Flash Point Apparatus			
12.	Gas Chromatograph Mass Spectrometer			
13.	High Performance Liquid Chromatograph (HPLC)			
14.	Inductively Coupled Plasma (ICP) Spectrometer-OES			
15.	Ion Chromatograph Anion & Cations			
16.	Methane and Non Methane (NMHC) Analyzer			
17.	Microscope – 100x			
18.	Microscope Binocular Research			
19.	CO (NDIR based) Analyzer			
20.	Nephelometer (Turbidity Meter)			
21.	pH-Meter with combined electrode (3 point)- 2 nos.			
22.	Specific ion Analyzer with ion selective electrodes			
23.	Spectrophotometer Visible (Portable)			
24.	TKN Analyzer semi-automatic with aluminum block digester			
25.	UV-Vis Spectrophotometer			
26.	Moisture Content Analyzer			
b) Optional Requirements				
1	Automatic Titration Assembly			
2	Carbon, Hydrogen, Nitrogen and Sulphur (CHNS) Elemental Analyzer			
3	EDXRF Analyzer/WDXRF Analyzer			
4	Fourier-transform infrared Spectrometer (FTIR)			
5	Flocculator (Jar testing apparatus)			
6	Toxic Gas Analyzer			
7	Organic Halogen (AOX/TOX) Analyzer			

S. No.	Name of Instrument / Equipments	Available Yes / No	If the Instrument / Equipment is not available, Specify Timeline for procurement of this instrument (in months)	Action Taken for procurement of this Instrument / Equipment (Specification finalized / procurement initiated / work awarded / outsourced)
8	TOC Analyzer			
9	High Resolution Mass Spectrometer (HRGC-HRMS)			
10	Inductively Coupled Plasma Mass Spectrometer (ICP-MS)			
11	X Ray Fluorescence (XRF) Spectrometer (Portable)			

PART III: DETAILS OF LABORATORIES ESTABLISHED UNDER THE WATER (P & CP) ACT, 1974

Laboratory established by the Board, as per Section 17 (2) of Water Act – Nos.				Laboratories / Institutes specified by State Govt., as State Water Laboratory as per Section 52 (1) of Water Act (other than those set up by Board) - Nos								NABL Accreditation		EPA Recognition			
No. of Laboratories established / recognised	No. of Laboratories (out of those given in column No. (1)) notified in Official Gazette	No. of remaining Laboratories planned for Notification (out of those laboratories given in column No. (1))	Time line required for notification of Laboratories given in column No. (3) (in months)	No. of Laboratories established / specified		No. of Laboratories (out of those given in column No. (5 & 6)) notified in Official Gazette		No. of remaining Laboratories Planned for Notification (out of those laboratories given in column No. (5 & 6)).		Time line required for notification of Laboratories given in column No. (9 & 10) (in months)		No. of Board's Laboratories 17 (2)	No. of State Water Laboratories 52(1)		No. of Board's Laboratories 17 (2)	No. of State Water Laboratories 52(1)	
				Govt.	Pvt.	Govt.	Pvt.	Govt.	Pvt.	Govt.	Pvt.		Govt.	Pvt.		Govt.	Pvt.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)

Note: The list of the laboratory may be attached separately (Board, State Govt. and Private)

PART IV: DETAILS OF LABORATORIES ESTABLISHED UNDER THE AIR (P & CP) ACT, 1981

Laboratory established by the Board, as per Section 17 (2) of Air Act – Nos.				Laboratories / Institutes specified by State Govt., as State Air Laboratory as per Section 28 (1) of Ait Act (other than those set up by Board) - Nos								NABL Accreditation		EPA Recognition			
No. of Laboratories established / recognised	No. of Laboratories (out of those given in column No. (1)) notified in Official Gazette	No. of remaining Laboratories Planned for Notification (out of those laboratories given in column No.(1)).	Time line required for notification of Laboratories given in column No. (3) (in months)	No. of Laboratories established / specified		No. of Laboratories (out of those given in column No. (5 & 6)) notified in Official Gazette		No. of remaining Laboratories Planned for Notification (out of those laboratories given in column No. (5 & 6)).		Time line required for notification of Laboratories given in column No. (9 & 10) (in months)		No. of Board's Laboratories 17 (2)	No. of State Water Laboratories 28(1)		No. of Board's Laboratories 17 (2)	No. of State Water Laboratories 28(1)	
				Govt.	Pvt.	Govt.	Pvt.	Govt.	Pvt.	Govt.	Pvt.		Govt.	Pvt.		Govt.	Pvt.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)

Note: The list of the laboratory may be attached separately (Board, State Govt. and Private)

**PART V: DETAILS OF LABORATORIES PARTICIPATED ON ANALYTICAL QUALITY CONTROL AND QUALITY ASSURANCE
CONDUCTED BY CPCB IN RESPECT OF WATER QUALITY PARAMETERS**

S. No.	Name of the Laboratory with address	No. of Parameters in AQC Exercise				Number of Parameters Attempted				% Parameters Successful			
		33 rd Exercise	34 th Exercise	35 th Exercise	36 th Exercise	33 rd Exercise	34 th Exercise	35 th Exercise	36 th Exercise	33 rd Exercise	34 th Exercise	35 th Exercise	36 th Exercise
1													
2													
3													
4													
5													
6													

Note: 33rd Exercise (Metals) held in 2020-2021,
 34th Exercise (General and Physico-Chemical parameters) held in 2021-2022
 35th Exercise (Pesticides) held in 2023
 36th Exercise (General and Physico-Chemical parameters) held in 2023-2024

Provide details of each Laboratories (Central, Regional/Zonal, District) in separate Row

PART VI: DETAILS OF LABORATORIES PARTICIPATED ON PROFICIENCY TESTING (PT) PERFORMANCE
(Information to be given for last 3 years)

S. No.	Name of Laboratory with address	Year of PT participation	PT Sample Provider (Name and Address)	Number of Parameters in Accreditation Scope	Number of Parameters for which Laboratory participated in PT exercise	Number of Parameter with Satisfactory Results
1.		2022				
		2023				
		2024				
2.		2022				
		2023				
		2024				
3.		2022				
		2023				
		2024				

Note: Provide details of each Laboratories (Central, Regional/Zonal, District) in separate Row

Annexure-3

Details of Laboratories Participated on PROFICIENCY TESTING (PT) Performance

S. No.	Name of Laboratory	Year of PT participation	PT Sample Provider (Name and Address)	Number of Parameters in Accreditation Scope	Number of Parameters for which Laboratory participated in PT exercise	Number of Parameter with Satisfactory Results	
Andhra Pradesh SPCB							
1	Zonal Laboratory - Visakhapatnam	2022	Green Economy Initiative Private Limited, Mohali, Punjab	-	-	-	
		2023		39	39	39	
		2024		-	-	-	
2	Zonal Laboratory - Vijayawada	2022		62		11	11
		2023				23	22
		2024				29	21
3	Zonal Laboratory - Kurnool	2022		60		-	-
		2023				11	10
		2024				2	Result awaited
Arunachal Pradesh SPCB							
1	-	2022	-	-	-	-	
		2023	-	-	-	-	
		2024	-	-	-	-	
Assam PCB							
1	Central Laboratory, Guwahati	2022	Global PT Provider Pvt. Ltd.	69	9	9	
		2023		69	8	8	
		2024		69	18	15	
2		Green Economy Initiatives Pvt. Ltd	2022	69	2	2	
			2023	69	3	2	
			2024	69	3	3	
Bihar PCB							
1	Central Laboratory, Patna.	2022	-	-	-	-	
		2023	-	-	-	-	
		2024	CSIR- National Physical Laboratory, New Delhi	10	10	Result awaited.	

S. No.	Name of Laboratory	Year of PT participation	PT Sample Provider (Name and Address)	Number of Parameters in Accreditation Scope	Number of Parameters for which Laboratory participated in PT exercise	Number of Parameter with Satisfactory Results
Chhattisgarh ECB						
1	-	2022	-	-	-	-
		2023	-	-	-	-
		2024	-	-	-	-
Goa SPCB						
1	Goa State Pollution Control Board, Goa	2022	SCS Enviro Services Pvt. Ltd.	76	8	7
		2023	Green Economy Initiatives Pvt. Ltd.	76	9	8
		2024		76	29	29
Gujarat SPCB						
1	Central Laboratory Gandhinagar	2022	-	-	-	-
		Jun -2023	Horizon Analytical Laboratory Pvt. Ltd.	128	23	21
		2023	Envirocare Labs Pvt. Ltd.	3	3	3
		2024	Crystal Quality PT Provider	63	4	3
2	Regional Laboratory, Vapi	2022	Global PT Provider Privet Limited, New Delhi	58	5	5
		2023	Green Economy initiatives Privet Limited (Air) Mohali, Punjab	58	2	2
		2024	Horizon Analytical Lab Pvt. Ltd Pune, Maharashtra	58	9	9
3	Regional Laboratory, Surat.	2022	----	----	----	----
		2023	Green Economy Initiatives Pvt. Ltd. Mohali, Panjab	2	2	2
		2024	--	--	--	--
4	Regional Laboratory, Bharuch.	2022	Green Economy Initiatives Pvt.Ltd, Mohali, Punjab	67	2	2
				67	9	9
		2023		67	3	3

S. No.	Name of Laboratory	Year of PT participation	PT Sample Provider (Name and Address)	Number of Parameters in Accreditation Scope	Number of Parameters for which Laboratory participated in PT exercise	Number of Parameter with Satisfactory Results
				67	9	9
		2024			2	Results Awaited
					9	Results Awaited
5	Regional Laboratory, Vadodara.	March-2022	Aashvi PT & Analytical services pvt ltd	83	1	1
		February-2023	Global PT Provider PTW/AQC-I/88/2022	83	14	14
		May-2023	Global PT Provider PTW/BIOL/103/2023	83	2	2
		April-2023	Green Economy Initiative Pvt ltd 23EM02P1	83	6	6
		April-2023	Green Economy Initiative Pvt Ltd 23EM01P1	83	1	1
		April-2024	Horizon Analytical Laboratory Pvt Ltd.	83	14	14
6	Regional Laboratory Rajkot.	2022	Green Economy Initiative Pvt. Ltd. Panjab.	24	9	9
		2023		24	8	8
		2024		24	12	12
7	Gujarat Environment Management Institute (GEMI) Laboratory, Gandhinagar	2022	Green Economy Initiatives Private Limited Mohali, Punjab	195	44	44
		2023		343	15	15
		2024		343	82	82
Haryana SPCB						
1	HSPCB Laboratory, Hisar	2022	Green Economy Initiatives Private Limited, Zirakpur, Mohali, Punjab	15	8	8
		2023		15	8	8
		2024		15	8	8
2	HSPCB Laboratory, Gurugram	2022	-	-	-	-
		2023	-	-	-	-
		2024	-	-	-	-

S. No.	Name of Laboratory	Year of PT participation	PT Sample Provider (Name and Address)	Number of Parameters in Accreditation Scope	Number of Parameters for which Laboratory participated in PT exercise	Number of Parameter with Satisfactory Results
3	HSPCB, Laboratory, Faridabad	2022	Green Economy Initiatives Private Limited, Zirakpur, Mohali, Punjab	8	8	8
		2023		8	8	8
		2024		13	13	13
4	HSPCB Laboratory, Panchkula	2022	Green Economy Initiatives Private Limited, Zirakpur, Mohali, Punjab	15	8	8
		2023		17	8	8
		2024		17	12	12
Himachal Pradesh SPCB						
1	Central Laboratory, Parwanoo	2022	Green Economy Initiative Pvt. Ltd. Mohali, Punjab	9	9	7
		2023		9	9	9
		2024		10	10	10
2	Regional Laboratory, Dharamshala	2022	-	-	-	-
		2023	-	-	-	-
		2024	M/S Green Economy Initiatives Private Limited, Mohali	20	20	20
3	Regional Laboratory, Paonta Sahib	2022	M/s Green Economy Initiative Pvt. Ltd., Mohali	--	8	7
		2023		21	17	17
		2024		21	13	Result Awaited
4	Regional Laboratory, Shimla.	2022	-	-	-	-
		2023	Green Economy Initiatives Pvt Ltd.	26	25	25
		2024		26	25	25
5	Regional Laboratory, Sundernagar.	2022	-	-	-	-
		2023	-	-	-	-
		2024	Green Economy Initiatives Private Limited Mohali,	34	29	29
6	Regional Laboratory, UNA	2022	-	-	-	-
		2023	-	-	-	-
		2024	Green Economy Initiatives Private Limited, Mohali	10	10	10

S. No.	Name of Laboratory	Year of PT participation	PT Sample Provider (Name and Address)	Number of Parameters in Accreditation Scope	Number of Parameters for which Laboratory participated in PT exercise	Number of Parameter with Satisfactory Results
Jharkhand SPCB						
1	Biocrat Environmental Services(Biocrat Environmental Lab), Ranchi.	2022	Green Economy Initiatives Pvt. Ltd.	NA	9	9
		2022	Horizon Analytical Lab Pvt. Ltd.	NA	7	7
		2023		1	1	1
		2023		4	3	3
		2023		3	2	2
		2024		8	17	17
		2024		13	17	17
		2024	Global PT Provider Pvt Ltd.	4	1	1
		2024		3	3	3
		2025	Green Economy Initiatives Pvt Ltd	13	12	Pending
		2025	Global PT Provider Pvt Ltd.	8	12	Pending
		2025		4	9	Pending
2	Envirostruct Solutions Pvt. Ltd. Ranchi,	2024	Global PT Provider Pvt Ltd.	112	14	14
		2024	Fare Labs Pvt. Ltd.	112	3	Result awaited
		2024	Horizon Analytical Lab Pvt. Ltd.	112	68	68
3	Gems Project Pvt.	2022	-	-	-	-

S. No.	Name of Laboratory	Year of PT participation	PT Sample Provider (Name and Address)	Number of Parameters in Accreditation Scope	Number of Parameters for which Laboratory participated in PT exercise	Number of Parameter with Satisfactory Results
	Ltd.(Environmental Lab Division), Ranchi	2023	Horizon Analytical Lab Pvt. Ltd.	12	0	12
		2024	Global PT Provider Pvt Ltd.	11 18	0 1	11 17
4	TSC Lab(A unit of Technology Solutions Consultants LLP), Ranchi	2024	Horizon Analytical Lab Pvt. Ltd.	106	48	45
			Fare Labs Pvt. Ltd.	106	48	45
			Landmark Material Testig and Research Lab Pvt. Ltd	106	48	45
5	Vision Earth Consultancy(OPC) Pvt Ltd Jharkhand	2023	Green Economy Initiatives Pvt Ltd	152	21	18
		2024		152	21	2 19 results awaited
6	Yugantar Bhartati Analytical and Environmental Engg Lab, Ranchi.	2022	Envirocare Labs Pvt. Ltd	119	-	-
		2023	Green Economy Initiatives Pvt Ltd	119	-	-
		2024		205	-	-
7	Sri Sai Enviro Analytica; Laboratories LLP, Dhanbad	2022	Green Economy Initiatives Pvt Ltd	NA	28	26
		2023		NA	10	10
		2024		132	27	27
8	Environmental Laboratories & Engineering Services PVT. LTD, Ranchi.	2022	Green Economy Initiatives Pvt Ltd. Envirocare Labs Pvt Ltd.	335	37	35
		2023		335	11	10
		2024	Aashvi Proficiency Testing & Analytical Services 2. Fare Labs Pvt Ltd. 3. Green Economy Initiatives Pvt. Ltd.	459	36	22 14 results awaited

S. No.	Name of Laboratory	Year of PT participation	PT Sample Provider (Name and Address)	Number of Parameters in Accreditation Scope	Number of Parameters for which Laboratory participated in PT exercise	Number of Parameter with Satisfactory Results
Karnataka SPCB						
1	Central Environmental Laboratory-1, Bengaluru.	2022	M/s Green Economy Initiative Private Limited, Mohali	35	35	35
			M/s SCS ENVIRO SERVICE PVT.LTD,PT Division, ,Jaipur-Rajasthan	14	14	13
		2023	M/s Green Economy Initiative Private Limited, Mohali Punjab	35	35	35
			M/s SCS ENVIRO SERVICE PVT.LTD,PT Division, Jaipur, Rajasthan	49	49	46
			M/s Envirocare Labs Pvt Ltd, Thane, Maharashtra	4	4	4
			Crystal Quality PT Provider , Palanpor, Surat	6	6	6
		2024	M/s Green Economy Initiative Private Limited, Mohali, Punjab	43	43	43
			Envirocare Labs Pvt Ltd, Thane, Maharashtra	3	3	3
			Horizon Analytical Laboratory Private Limited	6	6	6
		2	Regional Laboratory, Mysuru.	2024	M/s Green Economy Initiative Private Limited, Mohali, Punjab	13
Kerala SPCB						
1	Central Lab - Ernakulam	2022	1. M/s. Green Economy Initiatives	61	32	30
		2023		61	56	46

S. No.	Name of Laboratory	Year of PT participation	PT Sample Provider (Name and Address)	Number of Parameters in Accreditation Scope	Number of Parameters for which Laboratory participated in PT exercise	Number of Parameter with Satisfactory Results
			Pvt. Ltd, Mohali, Punjab. 2. M/s. Envirocare Labs Pvt. Ltd, Thane Mumbai.			
		2024	1. M/s. Green Economy Initiatives Pvt. Ltd, Mohali, Punjab. 2. M/s. Envirocare Labs Pvt. Ltd, Thane Mumbai. 3. Aashvi Proficiency testing & analytical Service Ahmedabad, Gujarat 4. Fare labs Pvt.Ltd ,Haryana	63	45	35
Madhya Pradesh SPCB						
1	Central Laboratory	2022	GEIL, Mohali	108	20	20
		2023		108	26	25
		2024		108	22	22
2	Regional Lab Indore	2022		121	11	11
		2023		121	9	9
		2024		121	14	14
3	Regional Lab Ujjain	2022		59		
		2023		59		
		2024		59	20	18
4	Regional Lab Sagar	2022	APTA		10	9
		2023	--	-	-	-
		2024		43	10	3
5	Regional Lab, Satna	2022	GEIL, Mohali		3	
		2023			12	12
		2024		65	4	2
6	Regional Lab,	2022		-	-	-

S. No.	Name of Laboratory	Year of PT participation	PT Sample Provider (Name and Address)	Number of Parameters in Accreditation Scope	Number of Parameters for which Laboratory participated in PT exercise	Number of Parameter with Satisfactory Results
	Jabalpur	2023		67	19	14
		2024			18	16
Maharashtra SPCB						
1	Central Laboratory, Navi Mumbai.	2022	M/s. Global PT Providers (P) Ltd. New Delhi	35	13	13
		2023	M/s. Horizon Analytical Laboratory Pvt Ltd, Pune	35	35	35
		2024		35	35	35
2	Regional Laboratory, Nagpur.	2022	Global PT Provider (P) LTD. New Delhi	11	13	13
		2023		4	21	21
		2024		12	16	16
3	Regional Laboratory Nashik	2022	Global PT Provider, New Delhi	10	14	100
		2023	-	-	-	-
		2024	Global PT Provider, New Delhi,	8	18	100
4	Regional Laboratory, Pune.	2022	Global Pt Provider Ltd, New Delhi	11	11	11
		2023	Horizon Analytical Pvt Ltd, Pune	9	9	9
		2023		12	12	12
		2023		3	3	3
		2023		6	6	6
		2023		12	12	12
5	Regional Laboratory, Chhatrapati Sambhajanagar.	2022	Global PT Provider(P) limited, New Delhi	8	8	8
		2023		8	8	8
		2024	-	-	-	-
6	Regional Laboratory Ratnagiri.	2022	Global PT provider	24	24	24
		2023	--	--	--	--

S. No.	Name of Laboratory	Year of PT participation	PT Sample Provider (Name and Address)	Number of Parameters in Accreditation Scope	Number of Parameters for which Laboratory participated in PT exercise	Number of Parameter with Satisfactory Results
		2024	Horizon Analytical Laboratory, Pune	25	25	25
7	Regional Laboratory, Chandrapur.	2022	Global PT Provider Pvt. Ltd., New Delhi	4	4	4
		2023	-	-	-	-
		2024	Global PT Provider Pvt. Ltd., New Delhi	16	16	16
8	Regional Laboratory, Thane.	2022	Global PT Provider, New Delhi (Water)	15	12	12
				4	4	3
		2023	Envirocare Labs Pvt. Ltd., Thane	2	2	2
		2022	Global PT Provider, New Delhi (Metals)	8	8	8
Manipur SPCB						
1	Not Participated.	2022	-	-	-	-
		2023	-	-	-	-
		2024	-	-	-	-
Meghalaya SPCB						
1		2022	Green Economy Initiative Pvt Ltd	7	5	5
			Enviro Care Pvt Ltd	2	2	2
			Global PT Provider Pvt Ltd	13	13	10
				12	12	12
		2023	Green Economy Initiative Pvt Ltd & Global PT Provider Pvt Ltd	7	5	5
				13	13	11
		2024	Global PT Provider Pvt Ltd	7	5	5
				18	18	15
Mizoram SPCB						

S. No.	Name of Laboratory	Year of PT participation	PT Sample Provider (Name and Address)	Number of Parameters in Accreditation Scope	Number of Parameters for which Laboratory participated in PT exercise	Number of Parameter with Satisfactory Results
1	Central Laboratory, Aizawl.	2022	-	-	-	-
		2023	-	-	-	-
		2024	M/S Green Economy Initiative Pvt Ltd, Punjab	13	13	12
Nagaland SPCB						
1	Not Participated.	2022	-	-	-	-
		2023	-	-	-	-
		2024	-	-	-	-
Odisha SPCB						
1	Central Laboratory, Odisha	2022	Green Economy Initiatives Private Limited, Mohali Punjab	57	48	48
			M/s. SCS Enviro Services Pvt. Ltd. Jaipur Rajasthan			
		2023	Green Economy Initiatives Private Limited, Mohali Punjab	42	42	42
			M/s. SCS Enviro Services Pvt. Ltd. Jaipur Rajasthan			
		2024	Green Economy Initiatives Private Limited, Mohali, Punjab	41	40	40
			M/S. SCS Enviro Services Pvt. Ltd. Jaipur, Rajasthan			
Punjab SPCB						
1	Head Office Water Lab	2022	-	-	-	-
		2023	-	-	-	-

S. No.	Name of Laboratory	Year of PT participation	PT Sample Provider (Name and Address)	Number of Parameters in Accreditation Scope	Number of Parameters for which Laboratory participated in PT exercise	Number of Parameter with Satisfactory Results
		2024	Global PT Provider Pvt Ltd., Delhi	7	7	7
2	Zonal Lab, Jalandhar	2022	-	-	-	-
		2023	-	-	-	-
		2024	-	-	-	-
Rajasthan SPCB						
1	Central laboratory, Jaipur.	2022	M/s Green Economy Initiatives Pvt. Ltd, Mohali, Punjab	46	46	46
		2023		265	68	68
		2024			86	72
2	Regional Laboratory, Alwar.	2022	-	-	-	-
		2023	-	-	-	-
		2024	SCS Enviro Services Private Limited, Jaipur	58	21	21
3	Regional Laboratory, Bhiwadi.	2022	M/s Green Economy Initiatives Pvt. Ltd, Mohali, Punjab	11	11	8
		2023			3	3
		2024	-	-	-	-
4	Regional Laboratory, Bharatpur.	2022	-	-	-	-
		2023	-	-	-	-
		2024	Fare Labs Pvt. Ltd, Gurugram 1Haryana	64	5	3
SCS Enviro Services Private Limited Jaipur-	11		11			
5	Regional laboratory, Chittorgarh.	2022	-	-	-	-
		2023	-	-	-	-
		2024	SCS Enviro Services Private Limited, Jaipur	58	14	14
					8	8
			M/s Green Economy Initiatives Pvt. Ltd, Mohali, Punjab		4	4
6	Regional laboratory,	2022	-	-	-	-
		2023	-	-	-	-

S. No.	Name of Laboratory	Year of PT participation	PT Sample Provider (Name and Address)	Number of Parameters in Accreditation Scope	Number of Parameters for which Laboratory participated in PT exercise	Number of Parameter with Satisfactory Results
	Bhilwara.	2024	SCS Enviro Services Private Limited, Jaipur	106	44	44
			Fare Labs Pvt. Ltd, Gurugram, Haryana		7	7
7	Regional Laboratory, Bikaner.	2022	-	-	-	-
		2023	-	-	-	-
		2024	M/s Green Economy Initiatives Pvt. Ltd, Mohali, (Punjab)	55	41	19
8	Regional Laboratory, Kota.	2022	-	-	-	-
		2023	SCS Enviro Services Private Limited, Jaipur	106	22	22
		2024	M/s Green Economy Initiatives Pvt. Ltd, Mohali, Punjab		3	3
			SCS Enviro Services Private Limited, Jaipur		6	6
9	Regional laboratory, Jodhpur.	2022	-		-	-
		2023	-	-	-	-
		2024	Fare Labs Pvt. Ltd, Gurugram, Haryana	91	18	18
10	Regional laboratory, Pali.	2022	-	-	-	-
		2023	-	-	-	-
		2024	SCS Enviro Services Private Limited, Jaipur	65	10	10
11	Regional Laboratory, Kishangarh.	2022	-	-	-	-
		2023	-	-	-	-
		2024	M/s Green Economy Initiatives Pvt. Ltd, Mohali, Punjab	117	67	66
			SCS Enviro Services Private Limited, Jaipur		18	18
12	Regional Laboratory, Sikar.	2022	-	-	-	-
		2023	-	-	-	-
		2024	M/s Green Economy Initiatives Pvt. Ltd,	126	15	15

S. No.	Name of Laboratory	Year of PT participation	PT Sample Provider (Name and Address)	Number of Parameters in Accreditation Scope	Number of Parameters for which Laboratory participated in PT exercise	Number of Parameter with Satisfactory Results
			Mohali, (Punjab)			
13	Regional Laboratory, Udaipur.	2022	-	-	-	-
		2023	M/s Green Economy Initiatives Pvt. Ltd, Mohali, (Punjab)	134	4	4
			SCS Enviro Services Private Limited, Jaipur		69	69
		2024	M/s Green Economy Initiatives Pvt. Ltd, Mohali, (Punjab)		16	Results Awaited
			SCS Enviro Services Private Limited, Jaipur		27	27
Sikkim SPCB						
1	State Air and Water Laboratory, Gangtok	2022	0	0	0	0
		2023	0	0	0	0
		2024	Green Economy Initiatives Pvt. Ltd.	20	20	20
Tamil Nadu SPCB						
1	Advanced Environmental Laboratory, Chennai	2022	M/s. Horizon Analytical Laboratory Pvt. Ltd., Pune	114	13	13
		2023	M/s. Global PT Provider Pvt. Ltd., New Delhi	114	13	13
				114	11	11
		2024	-	-	-	-
2	Advanced Environmental Laboratory, Coimbatore.	2022	-	-	-	-
		2023	M/s. Green Economy Initiatives (P) Ltd., Mohali, Punjab	69	20	20
		2024		69	22	22
3	Advanced Environmental Laboratory, Salem.	2022	M/s. Horizon Analytical Laboratory Pvt. Ltd., Pune	83	27	27
		2023		83	22	22
		2024	-	-	-	-
4	Advanced Environmental	2022	-	-	-	-
		2023	-	-	-	-

S. No.	Name of Laboratory	Year of PT participation	PT Sample Provider (Name and Address)	Number of Parameters in Accreditation Scope	Number of Parameters for which Laboratory participated in PT exercise	Number of Parameter with Satisfactory Results
	Laboratory, Tirunelveli.	2024	M/s. Green Economy Initiatives (P) Ltd., Mohali, Punjab.	119	21	21
5	Advanced Environmental Laboratory, Trichy.	2022	-	-	-	-
		2023	-	-	-	-
		2024	M/s. Green Economy Initiatives (P) Ltd., Mohali, Punjab	119	35	35
6	Advanced Environmental Laboratory, Vellore.	2022	-	-	-	-
		2023	-	-	-	-
		2024	M/s. Green Economy Initiatives (P) Ltd., Mohali, Punjab	76	21	19 2-Result awaited
Telangana SPCB						
1	Central Laboratory, Hyderabad.	2022	M/s.Green Economy Initiatives Pvt. Ltd.	98	21	21
		2023		98	29	29
		2024		98	15	8 7-Result awaited
Tripura SPCB						
1	Not Participated.	2022	-	-	-	-
		2023	-	-	-	-
		2024	-	-	-	-
Uttarakhand SPCB						
1		2022	Green Economy Initiatives Pvt. Ltd., Mohali	22	20	20
		2023	-	-	-	-
		2024	CSIR NPL	22	9	Results awaited

S. No.	Name of Laboratory	Year of PT participation	PT Sample Provider (Name and Address)	Number of Parameters in Accreditation Scope	Number of Parameters for which Laboratory participated in PT exercise	Number of Parameter with Satisfactory Results
Uttar Pradesh SPCB						
1	Central Laboratory, Lucknow.	2022	Green Economy Initiatives Pvt Ltd, Mohali (Chemical) Envirocare Lab Pvt Ltd, Pune (Biological)	61	51	49
		2023		61	56	52
		2024		61	56	55
2	Regional Laboratory, Raebareli.	2022	SCS Enviro Serviced Pvt Ltd, Jaipur, Rajasthan	43	9	7
		2023		43	14	10
		2024	CSIR National Physical Laboratory, New Delhi	43	10	RA
3	Regional Office, Bijnor.	2022	-	-	-	-
		2023	Green Economy Initiatives Pvt Ltd, Mohali (Chemical)	13	8	5
		2024	Global Pt Provider Pvt. Ltd., New Delhi	13	13	13
4	Regional Office,	2022	Green Economy	13	13	12

S. No.	Name of Laboratory	Year of PT participation	PT Sample Provider (Name and Address)	Number of Parameters in Accreditation Scope	Number of Parameters for which Laboratory participated in PT exercise	Number of Parameter with Satisfactory Results
	Moradabad	2023	Initiatives Pvt Ltd, Mohali (Chemical)	13	13	12
		2024		-	-	-
5	Regional Office, Ghaziabad.	2022	SCS Enviro Services Private Limited & Global Pt Provider	13	13	13
		2023	-	-	-	-
		2024	SCS Enviro Services Private Limited &	13	13	13
Green Economy Initiatives Pvt Ltd, Mohali (Chemical), Punjab						
6	Regional Laboratory, Bulandshahar.	2022	Green Economy Initiatives Pvt Ltd, Mohali (Wastewater)	19	13	11
			SCS Enviro Pvt. Ltd. , Rajasthan (Water)			
		2023	-	-	-	-
		2024	Green Economy Initiatives Pvt Ltd, Mohali (Water And Wastewater)	19	12	11
West Bengal SPCB						
1	Central Laboratory, Kolkata.	2022	Global Lab Solutions, Mayur Vihar, Delhi		3	3
		2023	1. Green Economy Initiative Pvt.Ltd. Punjab	50	50	50
			2. Global Lab Solutions, Delhi	3	3	3
		2024	Green Economy Initiative Pvt. Ltd. Punjab	20	20	20
2	Regional Laboratory, 24-	2022	1. Green Economy Initiative Pvt.Ltd., Punjab	-	-	-
		2023		39	51	51

S. No.	Name of Laboratory	Year of PT participation	PT Sample Provider (Name and Address)	Number of Parameters in Accreditation Scope	Number of Parameters for which Laboratory participated in PT exercise	Number of Parameter with Satisfactory Results
	Parganas (N).	2024	2. Global Lab Solutions, Delhi	39	5	4
		2022		2	4	4
		2023		2	4	4
		2024		2	4	3
Andaman & Nicobar PCC						
1	Not Participated	2022	-	-	-	-
		2023	-	-	-	-
		2024	-	-	-	-
Chandigarh PCC						
1	Chandigarh Pollution Control Committee – Laboratory, Paryavaran Bhawan, Madhya Marg, Sec- 19 B, Chandigarh	2022	-	-	-	-
		2023	-	-	-	-
		2024	Green Economy Initiatives Pvt. Ltd	30	9	9
Dadra, Nagar Haveli, Daman and Diu PCC						
1	Not Participated	2022	-	-	-	-
		2023	-	-	-	-
		2024	-	-	-	-
Delhi PCC						
1	Not Participated	2022	-	-	-	-
		2023	-	-	-	-
		2024	-	-	-	-
Jammu and Kashmir PCC						
1	Not Participated	2022	-	-	-	-
		2023	-	-	-	-
		2024	-	-	-	-
Ladakh PCC						
1	Not Participated	2022	-	-	-	-

S. No.	Name of Laboratory	Year of PT participation	PT Sample Provider (Name and Address)	Number of Parameters in Accreditation Scope	Number of Parameters for which Laboratory participated in PT exercise	Number of Parameter with Satisfactory Results
		2023	-	-	-	
		2024	-	-	-	-
Lakshadweep PCC						
1	Not Participated	2022	-	-	-	-
		2023	-	-	-	-
		2024	-	-	-	-
Puducherry PCC						
1	Environmental Analytical Laboratory, Marie Oulgaret, Puducherry.	2022	Green Economy Initiatives Private Limited, Mohali, Punjab	132	4	4
			FARE Labs Pvt. Ltd., Gurgaon-Haryana		6	6
		2023	Green Economy Initiatives Private Limited, Mohali, Punjab	131	10	10
		2024	Green Economy Initiatives Private Limited, Mohali, Punjab	131	13	13

Note: ‘-’ means Not Participated.