

**BEFORE THE NATIONAL GREEN TRIBUNAL
SOUTHERN BENCH, CHENNAI**

Original Application No. 186 OF2023 (SZ)

IN THE MATTER OF

Ravindranath Shanbhogue : *Applicant*

Versus

Union of India, Through its Secretary, New Delhi and Ors : *Respondent (s)*

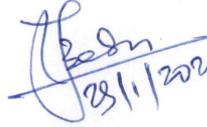
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Place: Bengaluru

Date: 29-01-2024


Counsel for 2nd Respondent


28/1/2024

DEPONENT

**J. Chandra Babu
REGIONAL DIRECTOR
CENTRAL POLLUTION CONTROL BOARD
REGIONAL DIRECTORATE - BENGALURU
(MIN. OF ENV, FOREST & CC, GOVT OF INDIA)
BENGALURU - 560 079. MOB: 9868278903**



**BEFORE THE NATIONAL GREEN TRIBUNAL
SOUTHERN BENCH CHENNAI**

Original Application No 186 of 2023(SZ)

IN THE MATTER OF

Ravindranath Shanbhogue, Karnataka : ***Applicant(s)***
Versus

Union of India, Through its Secretary, New Delhi and Ors : ***Respondent(s)***

**AFFIDAVIT OF RESPONDENT NO. 2, CENTRAL POLLUTION
CONTROL BOARD (CPCB) IN COMPLIANCE TO HON'BLE
NATIONAL GREEN TRIBUNAL (SOUTHERN ZONE) ORDER
DATED 02.01.2024**

I, Jathikartha Chandra Babu, Son of Late Sh. J Balaramaiah, aged 55 years, having office at the Regional Directorate - Bengaluru, Central Pollution Control Board, 1st and 2nd Floors, Nisarga Bhavan, A-Block, Thimmaiah Main Road, 7th D Cross, Shivanagar, Bengaluru, Karnataka – 560 079, do hereby solemnly affirm and declare as under:

I am presently working as Scientist 'E' & Regional Director, in the Central Pollution Control Board (CPCB). I am authorized to file the status report on behalf of the 19th Respondent, Central Pollution Control Board and I am well conversant with the facts of the case.

- 1. The Honourable National Green Tribunal, Southern Zone, Chennai, vide order dated 20.12.2023 in OA No. 186 of 2023 directed that "The authorities are directed to file their appropriate reports after making a spot inspection".



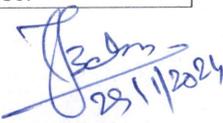
J. Chandra Babu
23/1/2024

J. Chandra Babu
REGIONAL DIRECTOR
CENTRAL POLLUTION CONTROL BOARD
REGIONAL DIRECTORATE - BENGALURU
(MIN.OF ENV,FOREST & CC, GOVT OF INDIA)
BENGALURU - 560 079. MOB: 9868278903

2. CPCB, the 2nd Respondent in compliance to the Hon'ble Tribunal order dated 20.12.2023, carried out spot inspection on 28.12.2023 and visited abandoned well situated in Minchinpadavu, Kasaragod District situated in cashew plantation area of M/s Plantation Corporation of Kerala Ltd. (M/s.PCK Ltd.). Also, CPCB team collected two soil samples (from abandoned well as well as chemical mixing area located within the M/s. PCK Ltd. Cashew plantation area) and three ground water samples which include two ground water samples from open wells located within the M/s. PCK Ltd. Cashew plantation area and one ground water sample from the open well located close to the Ishwaramangala Panchayat of Karnataka. During the visit, CPCB Team also visited Public Health Centre (PHC) located at Ishwaramangala, Karnataka as well as Family Health Centre (FHC) located at Bellur Kerala. The details of sampling locations and respective remarks during the sampling are provided as follows:

Sl. No.	Sampling Location	Co-ordinates of sampling point	Type of Sample collected	Remarks
1.	Open well located near the office building of Adhur Division, M/s PCK Ltd. premises	12° 34' 38.55" N 75° 12' 05.49" E	Water sample [General and Pesticide]	As informed by the field supervisor, this is the prime source of water for plantation activities
2.	Dilution pit	12° 34' 38.95" N 75° 12' 06.04" E	Soil sample	Historical location, used for dilution of endosulfan
3.	Open well located 1.5 km from the plantation area of M/s PCK Ltd. in Kasaragod estate.	12° 34' 46.60" N 75° 12' 02.40" E	Water sample [General and Pesticide]	As informed by the field supervisor, this is the secondary source of water for plantation activities
4.	Alleged Dump site	12° 34' 42.00" N 75° 12' 07.00" E	Soil sample	The location was previously an open well used as secondary source of water for plantation activities.
5.	Open well near the PHC, Ishwaramangala Panchayat (L-5)	12° 37' 19.68" N 75° 15' 15.88" E	Water sample [Pesticide]	The open well is used by household for drinking and bathing purpose.




 J. Chandra Babu
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 REGIONAL DIRECTORATE - BENGALURU
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3. The CPCB filed spot inspection report dated 01.12.2023 before Hon'ble National Green Tribunal Southern Zone, Chennai for consideration. While submitting the spot inspection report, it was informed that the collected samples are deposited in CPCB Regional Directorate Laboratory Bengaluru for analysis of pesticides and general parameters. The analysis report shall be submitted before Hon'ble NGT (SZ), Chennai within a time period of three weeks.
4. The Hon'ble Tribunal considered the spot inspection report of CPCB and passed order on 2.1.2024. A copy of Hon'ble NGT order is annexed as **Annexure: R2-1**.
5. The CPCB collected two soil samples and three Ground water samples that were analysed for Endosulfan (pesticide) and general parameters at Regional Directorate Laboratory, CPCB Bengaluru. Copies of analysis results of two Soil samples and three Ground Water Samples are enclosed as **Annexure: R2-2**.
6. The analysis results indicated that all the physico-chemical parameters except for pH in ground water samples collected from open well located near the office building of M/s. PCK Ltd, Adhur Division and open well located 1.5 Km from the plantation area of M/s. PCK Ltd., Kasaragod estate were within the limits prescribed in IS 10500:2012-Indian Standard for Drinking Water Specifications.
7. The mean annual rainfall in Kasaragod District is 3462 mm and three major soil types found in Kasaragod district are red sandy loam soil, laterite, and littoral sandy soil. Slightly lower pH values are a characteristic of groundwater in Kerala and due to Geogenic peculiarities. The low values of Total Suspended Solids (TSS), Total Dissolved Solids (TDS), Turbidity, Chemical Oxygen Demand (COD), Biochemical Oxygen Demand (BOD), Chloride, Sulphate, Ammoniacal Nitrogen(NH3-N) and Total Kjeldahl Nitrogen (TKN) indicated that the well water samples are not contaminated with organic or inorganic contaminants.




 28/1/2024
J. Chandra Babu
 REGIONAL DIRECTOR
 CENTRAL POLLUTION CONTROL BOARD
 REGIONAL DIRECTORATE - BENGALURU
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8. That the analysis of heavy metals [(i.e., Copper (Cu), Cadmium (Cd), Total Chromium(Cr), Iron (Fe), Manganese (Mn), Nickel (Ni), Lead (Pb), Zinc (Zn), Arsenic (As), and Cobalt (Co)] in the two groundwater samples indicated that the concentration of all analysed heavy metals were 'Below the Detection Limit (BDL) of the equipment available at the Regional Directorate Laboratory CPCB Bengaluru i.e., 0.1mg/L, except for Fe. The concentration of Fe was found to be 0.61mg/L and 0.64 mg/L in sample collected from open well located near the office building of M/s. PCK Ltd., Adhur Division and open well located 1.5 Km from the plantation area of M/s. PCK Ltd Kasaragod estate respectively. Presence of iron in groundwater samples is due to geological attributes with respect to laterite soil in which oxides of iron are abundant. The concentrations of Mn and Zn can be ascertained to be less than the acceptable limit prescribed in IS 10500:2012 - Indian Standard for Drinking Water Specifications. However, though the concentrations of other heavy metals viz., Cu, Cd, Total Cr, Ni, Pb, and As were found to be below detectable level (BDL), the compliance with the IS 10500:2012 cannot be ascertained since the instruments available at the analysing laboratory are having detection limits higher than the limits prescribed for these heavy metal parameters in drinking water.
9. From, the analysis results, it is observed that the concentration of Endosulfan I (Alpha) and Endosulfan II (Beta) in the collected water samples were 'BDL'. Concentration of Endosulfan I and Endosulfan II in the collected soil samples were also 'BDL'. Analysis report reveals that the concentration of Endosulfan I and Endosulfan II in all the collected samples (both ground water & soil) is observed as Below Detection Limit (BDL) of the analytical method / instrument i.e., below 0.01 mg/L. Therefore, analysis of all future sample is required to be performed using the instruments / methods having lower detection limits of Endosulfan in water (0.4µg/L) which is the prescribed limit of Endosulfan in drinking water; so as to conclusively ascertain the presence of Endosulfan if any.



J. Chandra Babu
28/11/2024

J. Chandra Babu
REGIONAL DIRECTOR
CENTRAL POLLUTION CONTROL BOARD
REGIONAL DIRECTORATE - BENGALURU
(MIN. OF ENV, FOREST & CC, GOVT OF INDIA)
BENGALURU - 560 079. MOB: 9868278903

Hence, in view of above, it is humbly prayed that the report with annexures may please be taken on file. It is further submitted that CPCB shall abide by any order or directions passed by this Hon'ble Tribunal.

Dated at Bengaluru on this the 29th day of January, 2024.

Counsel for 2nd Respondent

DEPONENT

J. Chandra Babu
REGIONAL DIRECTOR
CENTRAL POLLUTION CONTROL BOARD
REGIONAL DIRECTORATE - BENGALURU
(MIN.OF ENV,FOREST & CC, GOVT OF INDIA)
BENGALURU - 560 079. MOB: 9868278903

VERIFICATION

I, Jathikartha Chandra Babu, working as Scientist 'E' and posted as Regional Director (Bengaluru), Central Pollution Control Board, the additional 19th respondent herein does hereby verify that the contents of the above paragraphs are true and correct to the best of my knowledge, information and belief.

Dated at Bengaluru on this the 29th day of January, 2024.

Counsel for 2nd Respondent

DEPONENT

J. Chandra Babu
REGIONAL DIRECTOR
CENTRAL POLLUTION CONTROL BOARD
REGIONAL DIRECTORATE - BENGALURU
(MIN.OF ENV,FOREST & CC, GOVT OF INDIA)
BENGALURU - 560 079. MOB: 9868278903



Item No.02:

**BEFORE THE NATIONAL GREEN TRIBUNAL
SOUTHERN ZONE, CHENNAI**

(Through Video Conference)

Original Application No.186 of 2023(SZ)

IN THE MATTER OF:

Ravindranath Shanbhogue,
Karnataka.

...Applicant(s)

Versus

Union of India,
Through its Secretary,
New Delhi and Ors.

...Respondent(s)

Date of hearing: 02.01.2024.

CORAM:

HON'BLE Smt. JUSTICE PUSHPA SATHYANARAYANA, JUDICIAL MEMBER

HON'BLE Dr. SATYAGOPAL KORLAPATI, EXPERT MEMBER

For Applicant(s): Mr. Gaurav Kumar Bansal.

For Respondent(s): Dr. Kuna. Suryanarayana for R1.
Mr. Thirunavukarasu for R2.
Ms. Mokshavathy represented
Mr. E.K. Kumaresan for R3.
Mr. Rajat Jonathan Shaw represented
Mr. K.M. Darpan for R4.
Mrs. Rema Smrithi for R5.
Mr. Mukesh Kumar for R6.
Mr. Abraham Markos for R7.

ORDER

1. Today, the learned counsel Mr. Abraham Markos entered appearance on behalf of M/s. The Plantation Corporation of Kerala (PCK) Limited/Respondent No.7.
2. Pursuant to our last order, the Central Pollution Control Board (CPCB) has filed its report dated 01.01.2024 after elaborating the particulars and furnishing photographs.
3. It is now stated that the CPCB had collected 2 soil samples and 2 groundwater samples from the open well located within the PCK Limited. They have taken a groundwater samples from the open well located close to the Ishwarmangala Panchayat of Karnataka. The samples are with the CPCB's laboratory at Bengaluru for analysis of pesticides and the general parameters. Once the report is ready, we may analyse the stands and draw our inference.
4. The CPCB also has produced the letter addressed by the PCK Limited dated 26.12.2023, wherein it is admitted by them that after 2000-2001, the PCK is not able to use the entire Endosulfan purchased for spraying due to the public resistance. Further to that the unused Endosulfan was jointly sealed by both PCK and Pollution Control Board and kept in PCK Estate godown.
5. It is also stated that the PCK Ltd. made several attempts to dispose of the stocks with the help of technical experts from Defence Research and Development Organisation (DRDO) and Kerala Agricultural University. However, due to public

agitation, it could not be proceeded with for further action. The stocks are said to be kept under the lock and key and control of district administration.

6. The Kerala State Pollution Control Board has filed its report dated 01.01.2024, wherein it is stated that the well alleged is located in the middle of the plantation area. It is almost filled with earth and left with only a depression of about 2 feet. However, soil and water samples were collected near the area. The samples of sediments and water have been collected and analysed for more than 10 years on a monthly basis to study the presence of Endosulfan. The analysis report shows that they are Below Detectable Levels of Alpha and Beta Endosulfan. However, we may have to await the report of the CPCB.
7. The learned counsel appearing for the 7th Respondent is also directed to file a report.
8. The learned counsel appearing for the Karnataka State Pollution Control Board also has stated that there are directions given by the Hon'ble High Court of Karnataka in this regard.
9. Let the Karnataka State Pollution Control Board file a report along with the relevant orders passed by the Hon'ble High Court of Karnataka in this regard.
10. If the applicant wants to file any objection or reply to the reports of the Kerala SPCB and CPCB, he may file it before the date of next hearing.

15
11. Post the matter on 31.01.2024.

Sd/-
Smt. Justice Pushpa Sathyanarayana, JM

Sd/-
Dr. Satyagopal Korlapati, EM

O.A. No.186/2023(SZ)
02nd January, 2024. AD.





Recognised under E(P) Act, 1986
(Legal 42(3)/87, dated 6th March, 2017)

REGIONAL LABORATORY CENTRAL POLLUTION CONTROL BOARD

(Ministry of Environment, Forest & Climate Change)
Regional Directorate, Bengaluru, "Nisarga Bhawan", A-
Block, 1st& 2nd Floors, 7th D Main, Thimmaiah Road,
Shivanagar, Bengaluru - 560 079

TEST REPORT

Name & Details of the customer: Shri.J. Chandra Babu Sci -E, CPCB, Bengaluru.	Sampling Location: Sampling and Monitoring at Kasarkode dist and Dakshina kannada dist.
Nature of sample: Open well water	Sampling plan & Type: As per CPCB/RLB/QSP/7.3/1 & Grab
Date of sampling: 28.12.2023.	Date of receipt: 29.12.23
Place, Date of commencement and completion of analysis: Bengaluru, 28.12.23 - 16.01.24.	Date of report issue: 16.01.2024
Code no. of sample: FW/12/23/198-200	Req. slip no. / Date: 50W /29.12.2023.
Page No: 01/02	Report issue no.: WW/12/2023 /50
Remarks: ---	

Sl. No	Name of the Parameter with unit	Range of testing / Limit of Detection	Sampling location			Test Method Specification
			L1	L2	L3	
1.	pH at 25°C	1-14	5.8	6.1	---	APHA, 4500-H ⁺ B, 24 th Ed., 2023
2.	Turbidity, NTU	4-400 NTU	BDL	BDL	---	APHA (24 th Ed.): 2023 2130-B
3.	TSS at 103-105°C, mg/L	5 - 2000 mg/L	BDL	BDL	---	APHA, 2540-D, 24 th Ed., 2023
4.	TDS at 180°C, mg/L	5 - 100000 mg/L	26	33	---	APHA(24 th Ed.):20232540-C
5.	BOD _{3d} , 27°C, mg/L	2 - 75000 mg/L	BDL	---	---	IS: 3025, Part 44-1993, Reaffirmed 2009
6.	COD, mg/L	4 - 150000 mg/L	2.6	---	---	IS 3025 (part 58):2006
7.	Chloride as Cl, mg/L	2 - 4000 mg/L	4.8	---	---	APHA (24 th Ed.): 20234500-Cl-B.
8.	Sulphate as SO ₄ , mg/L	4-500 mg/L	BDL	BDL	---	APHA (24 th Ed.): 2023 4500-SO ₄ - E.
9.	Ammonical Nitrogen as mg/L	1-500 mg/L	BDL	---	---	APHA (24 th Ed.): 2023 4500-NH ₃ , B and F.
10.	TKN as mg/L	2-1000 mg/L	BDL	---	---	APHA (24 th Ed.): 2023 4500-NH ₃ , Org
11.	*Endosulfan I	---	BDL	BDL	BDL	APHA (24 th Ed.): 2023 6630-B
12.	*Endosulfan II	---	BDL	BDL	BDL	APHA (24 th Ed.): 2023 6630-B

Note: BDL for Endosulfan I and II - 0.01 mg/L

- L1 Open well located near the office building of Adtur Division, M/s, PCK LTD Premises
L2 Open well located 1.5 Km from the plantation area of M/s, PCK LTD, Kasargode estate
L3 Open well near Iswaramangal panchayat.

A. Gnanavelu
Authorised Signatory

A. GNANA VELU

SCIENTIST - C / LAB INCHARGE
CENTRAL POLLUTION CONTROL BOARD
REGIONAL DIRECTORATE
MIN. OF ENV. FOREST & CC, GOVT. OF INDIA
BENGALURU-560 079, PH: 080-23233739

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- Compliance/non-compliance opinion not sought by customer
- Samples will be stored for a period of 15 days from the date of issue of this report.
- Parameters marked * are not under NABL scope.
- The above results pertain only to sample tested

Regional Directorate (South), Nisarga Bhawan, A-Block, 1st& 2nd floors, Thimmaiah Road, 7th D main, Shivanagar, Bengaluru - 560079. (Telephone: 080-23233739, 23222539, FAX: 080-23234059) (E-Mail: cpcbso@yahoo.com, zobangalore.cpcb@nic.in.

---End of Report---



Recognised under E(P) Act, 1986
(Legal 42(3)/87, dated 6th March, 2017)

REGIONAL LABORATORY CENTRAL POLLUTION CONTROL BOARD

(Ministry of Environment, Forest & Climate Change)
Regional Directorate, Bengaluru, "Nisarga Bhawan", A-Block, 1st & 2nd Floors, 7th D Main, Thimmaiah Road, Shivanagar, Bengaluru – 560 079

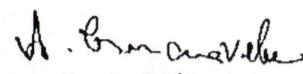
TEST REPORT

Name & Details of the customer: Shri.J. Chandra Babu Sci -E, CPCB, Bengaluru.	Sampling Location: Sampling and Monitoring at Kasarkode dist and Dakshina kannada dist.
Nature of sample: Open well water	Sampling plan & Type: As per CPCB/RLB/QSP/7.3/1 & Grab
Date of sampling: 28.12.2023.	Date of receipt: 29.12.23
Place, Date of commencement and completion of analysis: Bengaluru, 28.12.23 - 16.01.24.	Date of report issue:16.01.2024
Code no. of sample: FW/12/23/198-200	Req. slip no. / Date: 50W /29.12.2023.
Page No: 02/02	Report issue no.: WW/12/2023 /50
Remarks: ---	

S.No	Metal	L1	L2	Detection limit	Reference Method
1.	Copper, mg/L	BDL	BDL	0.1	APHA 3120-B 24 th Edition 2023
2.	Cadmium, mg/L	BDL	BDL	0.1	
3.	Total chromium, mg/L	BDL	BDL	0.1	
4.	Iron, mg/L	0.61	0.64	0.1	
5.	Manganese, mg/L	BDL	BDL	0.1	
6.	Nickel, mg/L	BDL	BDL	0.1	
7.	Lead ,mg/L	BDL	BDL	0.1	
8.	Zinc, mg/L	BDL	BDL	0.1	
9.	Arsenic, mg/L	BDL	BDL	0.1	
10.	Cobalt, mg/L	BDL	BDL	0.1	

Note:

- L1 Open well located near the office building of Adtur Division, M/s, PCK LTD Premises
- L2 Open well located 1.5 Km from the plantation area of M/s, PCK LTD, Kasargode estate


 Authorised Signatory
A. GNANA VELU
 SCIENTIST-C/LAB INCHARGE
 CENTRAL POLLUTION CONTROL BOARD
 REGIONAL DIRECTORATE
 MIN. OF ENV. FOREST & CC, GOVT. OF INDIA
 BENGALURU-560 079, PH: 080-23233739

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- Compliance/non-compliance opinion not sought by customer
- Samples will be stored for a period of 15 days from the date of issue of test report.
- Parameters marked * are not under NABL scope.
- The above results pertain only to sample tested

Regional Directorate (South), Nisarga Bhawan, A-Block, 1st & 2nd floors, Thimmaiah Road, 7th D main, Shivanagar, Bengaluru – 560079. {Telephone: 080-23233739, 23222539, FAX: 080-23234059} (E-Mail: cpcbso@yahoo.com, zobangalore.cpcb@nic.in).



REGIONAL LABORATORY CENTRAL POLLUTION CONTROL BOARD

(Ministry of Environment, Forest & Climate Change)
Regional Directorate, Bengaluru, "Nisarga Bhawan", A-Block, 1st & 2nd Floors, 7th D Main, Thimmaiah Road, Shivanagar, Bengaluru – 560 079

Recognised under E(P) Act, 1986
(Legal 42(3)/87, dated 6th March, 2017)

TEST REPORT

Name & Details of the customer: Shri.J. Chandra Babu Sci -E, CPCB, Bengaluru.	Sampling Location: Adhur Division, M/s, PCK LTD, Kasargode Estate.
Nature of sample: Soil sample	Sampling plan & Type: As per CPCB/RLB/QSP/7.3/1 & Grab
Date of sampling: 28.12.2023.	Date of receipt: 29.12.23
Place, Date of commencement and completion of analysis: Bengaluru, 28.12.23 - 16.01.24.	Date of report issue: 18.01.2024
Code no. of sample: HW/01/24/25-26	Req. slip no. / Date: 06W /29.12.2023.
Page No: 02/02	Report issue no.: HW/01/2023 /06
Remarks: ---	

Sl. No	Name of the Parameter with unit	Range of testing / Limit of Detection	Sampling location		Test Method Specification
			Pit Historical location used for Endosulfan Dilution	Alleged Dumpsite	
1.	*Endosulfan I in mg/Kg	---	BDL	BDL	APHA (24th Ed.): 2023 6630-B
2.	*Endosulfan II in mg/Kg	---	BDL	BDL	APHA (24th Ed.): 2023 6630-B

Note: BDL for Endosulfan I and II – 0.01 mg/L

Authorised Signatory

Dr. DEEPESH V.
SCIENTIST 'C'

CENTRAL POLLUTION CONTROL BOARD
REGIONAL DIRECTORATE
MIN. OF ENV, FORESTS & CC, GOVT. OF INDIA
BENGALURU - 560 079. Ph: 080 - 2323 3739

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- Compliance/non-compliance opinion not sought by customer
- Samples will be stored for a period of 15 days from the date of issue of test report.
- Parameters marked * are not under NABL scope.
- The above results pertain only to sample tested