



केन्द्रीय प्रदूषण नियंत्रण बोर्ड
CENTRAL POLLUTION CONTROL BOARD
पर्यावरण, वन एवं जलवायु परिवर्तन मंत्रालय, भारत सरकार
MINISTRY OF ENVIRONMENT, FOREST & CLIMATE CHANGE, GOVT. OF INDIA

By Speed Post/Email

F.No.Tech/39/Legal/RDS/NGT/2023-24/
621

17th February, 2025

To

Smt. M Revathi
No.78, 3rd floor, Sukhsagar Building, Marshalls Enclave
Egmore, Chennai -600008
Mob: 7448350555
Email: attorneyrevathi@gmail.com

Sub: Application No. 14 of 2024 (Earlier OA No. 685 of 2023 (PB)) "Suo-moto on News item appearing in One India dated 25.10.2023 titled "Vegetables Across Bengaluru Contaminated with Heavy Metals, Warns Study" Vs Central Pollution Control Board and others

Madam,

In continuation to this office letter^{df} even no. dated 13th February, 2024, please find enclosed herewith duly signed affidavit along with necessary annexures for filing before Hon'ble Tribunal, please.

The case is listed for hearing on 18.02.2025. Kindly ensure to appear in all hearings and protect the interest of CPCB on the afore-said matter.

Yours faithfully


(J. Chandra Babu)
Regional Director

Encl: As above

क्षेत्रीय निदेशालय (बेंगलूरु) : निसर्ग भवन, ए-ब्लॉक, प्रथम एवं द्वितीय तल, तिम्मय्या रोड, 7-डी मैन, शिवनगर, बेंगलूरु - ५६० ०७९.

Regional Directorate (Bengaluru) : " Nisarga Bhawan ", A-Block, 1st & 2nd Floors, Thimmaiah Road, 7th D - Main, Shivanagar, Bengaluru - 560 079.

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प्रधान कार्यालय : परिवेश भवन, पूर्वी अर्जुन नगर, दिल्ली- ११० ०३२.

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BEFORE THE HON'BLE NATIONAL GREEN TRIBUNAL
(SOUTHERN ZONE BENCH), CHENNAI

ORIGINAL APPLICATION NO. 14 OF 2024 (SZ)
[EARLIER OA NO. 685 OF 2023 (PB)]

IN THE MATTER OF

Suo-moto on News item appearing in One India dated 25.10.2023 titled
"Vegetables Across Bengaluru Contaminated with Heavy Metals, Warns Study"


Versus

Central Pollution Control Board & Others

.....RESPONDENT(S)

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DEPONENT

Date: 17-02-2025

Place: Bengaluru

COUNSEL FOR RESPONDENT NO.1

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 HON'BLE NATIONAL GREEN TRIBUNAL
(SOUTHERN ZONE BENCH), CHENNAI**

ORIGINAL APPLICATION NO. 14 OF 2024 (SZ)

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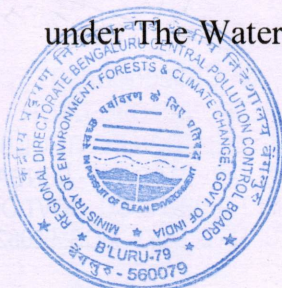
Versus

Central Pollution Control Board & Others

RESPONDENT(S)

**REPLY ON BEHALF OF THE RESPONDENT NO. 1: CENTRAL
POLLUTION CONTROL BOARD (CPCB)**

1. That, Hon'ble National Green Tribunal (NGT) South Zonal (SZ) Chennai vide order dated 15.10.2024 in the instant case has sought the reply from this answering Respondent No.1 i.e., Central Pollution Control Board (CPCB) over the instant matter. Thereby, the reply is made in succeeding paragraphs.
2. That, CPCB is a statutory Board constituted under Section 3 of The Water (Prevention and Control of Pollution) Act, 1974. It performs the functions under The Water (Prevention and Control of Pollution) Act, 1974. The Air



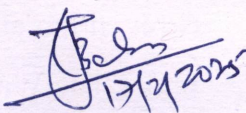

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(Prevention and Control of Pollution) Act, 1981 and The Environment (Protection) Act, 1986.

REPLY

3. That, Hon'ble NGT (PB) registered Original Application No. 685/2023 as *Suo motu* on the basis of news item published in 'One India' on 25.10.2023, titled 'Vegetables Across Bengaluru Contaminated with Heavy Metals, Warns Study'. The news item referred to the study carried out by the Researchers from Environmental Management and Policy Research Institute (EMPRI), wherein 400 samples of 10 different vegetables were analysed and reported that the level of contamination by heavy metals exceeding the permissible limits set by the Food and Agricultural Organization (FAO). As per the news article, vegetables cultivated with wastewater have shown presence of heavy metals. The concentration of Iron and Cadmium in coriander and spinach, and Nickel in vegetables exceeded the permissible limits set by FAO.
4. That, in the aforesaid matter, the Hon'ble NGT (PB) vide order dated 21.11.2023 deemed it proper to implead the following organizations as respondents in the said OA:
 - a. Central Pollution Control Board (CPCB) through its Member Secretary.
 - b. Karnataka State Pollution Control Board (KSPCB) through its Member Secretary




17/11/2025

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c. Environmental Management and Policy Research Institute (EMPRI) through its Director General.

5. That, Hon'ble NGT vide order dated 21.11.2023 gave directions to this answering Respondent No. 1 i.e., Central Pollution Control Board (here after referred as CPCB)) and relevant portion of the order dated 21.11.2023 is reproduced below;

"....8. Respondent No.1 is directed to ascertain the correct ground situation and also duly examine the report of EMPRI and submit the factual status as also factual action taken report before the Southern Zone Bench of the Tribunal. Let the samples of vegetables be collected and analysed for the individual heavy metals and pesticides parameter in the Central Laboratory of CPCB, Delhi as per standard methods and let their report be furnished...."

A copy of the Hon'ble NGT (PB) order dated 21.11.2023 is annexed as **Annexure-1.**

6. That, it is humbly submitted that OA No. 685/2023(PB) was transferred to the NGT Southern Zone Bench, Chennai and aforesaid matter is renumbered as Original Application No. 14 of 2024 (SZ). Thereafter, in pursuance to the Hon'ble NGT (PB) order dated 21.11.2023, this answering respondent i.e., CPCB (Respondent No.1) submitted a status report dated 19.03.2024 on the action taken, wherein the actions initiated by CPCB including comments based on the examination of study report of EMPRI and proposing the methodology for ascertaining the ground reality based on the discussions held during the meeting held on 26.12.2023 (~~Respondent No.3~~) with the



J. Chandra Babu
13/12/2024

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officials of EMPRI, KSPCB, FSSAI and CPCB Delhi were submitted. In view of the requirement of a comprehensive study to ascertain the correct ground situation with regard to the heavy metals and pesticides in vegetables, following proposed actions were submitted to the Hon'ble NGT (SZ) in the form of a status report dated 19.03.2024 for perusal and consideration as detailed below:

a. *"...A committee comprising a member from the following organizations may be constituted by CPCB (i) Regional Director, Central Pollution Control Board, Bengaluru. (ii) Member of Karnataka State Pollution Control Board. (iii) Member of Central Licensing Authority, Food Safety and Standards Association of India, Chennai. (iv) Member of Indian Institute of Soil Science, Bhopal. And (v) Member of University of Agricultural Sciences, Bengaluru.*

b. *EMPRI shall explore feasibility of analysis of vegetable samples preserved with EMPRI since March 2022 at FSSAI approved laboratory and to share the analysis results with CPCB.'*

c. *To conduct a survey, for deciding the sampling locations, sampling size, FSSAI approved laboratory to be chosen for analysis of collected samples (vegetables, water/ground water and soil) to be decided by the Committee to be constituted by CPCB.*

d. *Analysis of the collected vegetable samples from the selected locations through FSSAI approved laboratory to be carried out following the due procedures under the overall supervision of the Committee.*

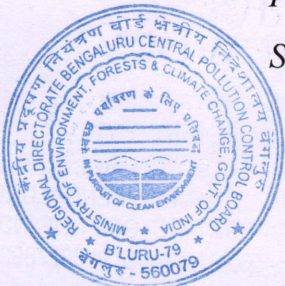



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- e. *Collation of analysis results, preparation and finalization of the report to be filed before the Hon'ble NGT, shall be completed by CPCB within a period of four months...".*
7. That, it is humbly submitted that, as the issue under consideration does not fall under the domain of this answering Respondent No.1 and to ensure compliance to the Hon'ble NGT (PB) order dated 21.11.2023, CPCB submitted a methodology for carrying out the comprehensive study for ascertaining the ground reality before Hon'ble NGT (SZ) vide reply affidavit dated 19.03.2024 for consideration and seeking concurrence from Hon'ble NGT (SZ), intending to initiate action upon concurrence by the Hon'ble NGT (SZ) to complete the study within 4 months, depending upon the availability of expert members and resources.
8. That, it is humbly submitted that, the Hon'ble NGT (SZ) vide order dated 15.10.2024 sought final report from CPCB. Relevant paragraphs of the said order is reproduced below;

"... Today, the report dated 19.03.2024 of the Central Pollution Control Board (CPCB) is filed.

- a. *The report states about the actions initiated by the CPCB and also the comments on the project report submitted by the ^{3rd} Respondent/Environmental Management and Policy Research Institute (EMPRI).*
- b. *The CPCB has proposed for a comprehensive study and constituted a Committee comprising members from CPCB, Karnataka State Pollution Control Board (KSPCB), Central Licensing Authority, Food Safety and Standards Association of India (FSSAI), Indian Institute of*



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13/10/2024
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Soil Science, Bhopal, and also University of Agricultural Sciences, Bangalore. They are yet to come up with the final report and their research is based on the samples collected from various places.

- c. *The CPCB has sought for 4 months' time in the report filed in March 2024. By now, the final report should be ready. Let the CPCB file the final report before the next date of hearing...". A copy of the Hon'ble NGT (SZ) order dated 15.10.2024 is annexed as **Annexure-2**.*
9. That, it is humbly submitted that CPCB initiated the study as per the proposed methodology. In pursuant to the Hon'ble NGT (SZ) order dated 15.10.2024, CPCB, Regional Directorate, Bengaluru (RDB), vide letter dated 20.12.2024 sought nominations from Karnataka State Pollution Control Board (KSPCB), Food Safety and Standards Authority of India (FSSAI)-Regional Office (RO), Chennai, ICAR Indian Institute of Soil Science (IISS)-Bhopal, and the University of Agricultural Sciences (UAS)-Bengaluru, for the constitution of Joint Committee so as to conduct a comprehensive study to ascertain the ground situation of contamination of vegetables with heavy metals and pesticides, in and around Bengaluru. A copy of the CPCB letter dated 20.12.2024 is given at **Annexure-3**. Subsequently, CPCB Regional Directorate, Bengaluru received nominations from KSPCB, FSSAI-RO Chennai, ICAR-IISS-Bhopal, and UAS- GKVK Bengaluru, along with special invitees from EMPRI, and CPCB-Delhi. The composition of the Joint Committee constituted by CPCB is given at **Annexure-4**.
10. That, it is humbly submitted that as CPCB laboratories are equipped with the facilities and expertise only for the analysis of environmental samples



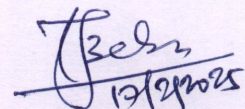
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(i.e., water, air, and soil/sludge), but not for the analysis of vegetable samples. CPCB Regional Directorate, Bengaluru vide letter dated 5.12.2024 requested FSSAI for providing information relating to the FSSAI approved laboratories in the States of Karnataka, Tamil Nadu, Andhra Pradesh & Telangana and to confirm the availability of facilities for analysis of heavy metals and pesticide residues in vegetables. Based on the responses, few laboratories approved by FSSAI located in Bengaluru were shortlisted so as to seek the views of the Joint Committee constituted by CPCB.

11. That, it is humbly submitted that first meeting of the Joint Committee was held on 23.01.2025 at 4:00 PM through video conference and discussed the course of action on the comprehensive study on 'Vegetables Across Bengaluru Contaminated with Heavy Metals'. Committee members discussed issues including (i) Directions passed by Hon'ble NGT in the matter, (ii) Study Report of EMPRI, (iii) Agricultural areas in and around Bengaluru where vegetables are grown using treated sewage, ground water, type of samples to be collected, standard methods to be followed for analysis of collected samples, laboratory facilities available at CPCB RD Bengaluru and Karnataka SPCB, and FSSAI approved laboratories available in Bengaluru. The minutes of the Joint Committee meeting was circulated to all the committee members and special invitees vide CPCB letter dated 04.02.2025. A copy of the letter dated 04.02.2025 along with minutes of the Joint Committee meeting is given at **Annexure-5**. Upon deliberating the issue, the Committee arrived at the following course of actions;

A. **Field survey:** Committee shall carry out field survey in three/four areas in the vicinity of Bengaluru like Chikkaballapura, Kolar,



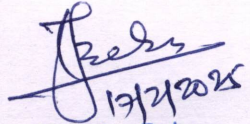


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Nelamangala, Ramanagara where vegetables are grown using both fresh water and treated/untreated sewage. During field survey, specific vegetable fields will be identified in above mentioned areas and Geo-mapped so as to do the vegetable sampling. In each given area, three fields to be identified for sampling of vegetables; i) fields using treated sewage water; ii) fields using fresh water/ground water contaminated with sewage water; iii) fields using uncontaminated ground water/fresh water (Reference sample). During field survey sampling locations shall be finalized.

- B. **Sampling Strategy:** Different vegetable samples shall be collected randomly from the local markets in and around Bengaluru. Vegetable samples to be collected from the identified fields following the protocols of FSSAI. The vegetable that is grown/ available in the field at the time of sampling will only be collected in presence of the representatives of CPCB, KSPCB, and FSSAI. Vegetable samples shall get analysed at the identified FSSAI approved laboratory in Bengaluru (to be confirmed by member representative of FSSAI) at the notified analysis rates and analysis protocols for presence of heavy metals & pesticides.
- C. **Soil profiling:** Soil profiling shall be carried out up to 90 cm to 1 m depth on all identified fields. Soil samples and water samples (ground water/ surface water/ treated sewage water) shall be collected from fields. Water and soil samples shall be analysed for heavy metals and pesticide residues at the laboratories of KSPCB, Bengaluru, and CPCB, Regional Directorate, Bengaluru.




13/11/2025
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D. **Actions assigned:** All the members of the committee shall be present during the site selection for sampling (Vegetable Samples, Soil, Ground Water, Water/Treated Sewage used for growing of vegetables).

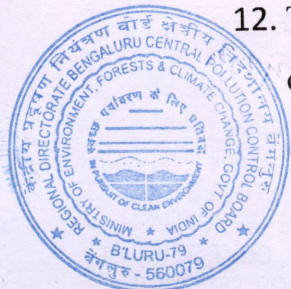
Dr. Tina K J, Central Food Safety Officer and Member: May arrange the details of the FSSAI approved laboratory located in Bengaluru with the scope for the analysis of heavy metals and pesticides as per FSSAI notified parameters and approved rates of analysis.

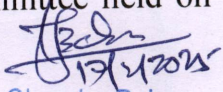
Dr. B G Vasanthi, Senior Scientist, University of Agricultural Sciences and Member: To confirm about the agricultural areas where vegetables are grown using treated sewage/ground water. Also, to arrange to provide the equipment and procedures for soil profiling/sampling.

CPCB, RD Bengaluru, to circulate a copy of the EMPRI report as well as the standard methods followed for the analysis of soil/ground water/ water/ sewage samples to the committee members.

Dr. Vassanda Coumar, Senior Scientist, Indian Institute of Soil Sciences, Bhopal and Member of the committee required to review and suggest the standard methods to be followed for soil analysis suitable for the comprehensive study, if required.

12. That, it is humbly submitted that CPCB vide letter dated 04.02.2025 communicated minutes of first meeting of the Joint Committee held on




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REGIONAL DIRECTORATE - BENGALURU
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23.01.2025 and also requested all the members of the Joint Committee to confirm about the availability and convenient date to CPCB RD Bengaluru preferably on or before 07.02.2025 to carry out field survey for selection of agricultural areas for conducting the study preferably in third or fourth week of February, 2025, to enable to make necessary arrangements for site visit. Response is awaited from the members. The members were again requested to communicate convenient date for field survey vide e-mail dated 07-02-2025. Consequently, *Dr. Vassanda Coumar, Senior Scientist, Indian Institute of Soil Sciences, Bhopal and Member of the Committee confirmed his availability for carrying out field survey in last week of February.2025.*

13. That, it is respectfully submitted that based on the deliberations in the first Joint Committee meeting held on 23.01.2025, following course of action is proposed for conducting the comprehensive study to ascertain the correct ground situation with regard to contamination of vegetables with regard to the heavy metals and pesticide residues:

- A. That, upon confirmation from the Committee member and the representative of FSSAI, regarding FSSAI approved Laboratory in Bengaluru, vegetable samples from the local markets in and around Bengaluru will be collected randomly and analysed for relevant parameters through FSSAI approved laboratory.
- B. That, upon confirmation from Dr. B G Vasanthi, Senior Scientist, University of Agricultural Sciences and Committee member regarding the agricultural fields wherein vegetables are grown using ground



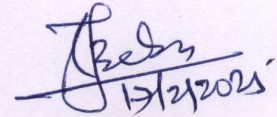

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water/ treated sewage water/ water, the committee shall visit and select the study area and thereafter, samples (vegetables/ soil/ ground water/treated sewage water) will be collected and analysed for relevant parameters through FSSAI approved laboratory / KSPCB/ CPCB as the case may be.

c. That, based on the analysis results, report of the Joint Committee will be prepared by comparing the results with relevant standards and findings of the comprehensive study shall be presented before the Hon'ble NGT (SZ) within next 4 months' time after receipt of analyses results from the FSSAI laboratory.

D. That, the anticipated expenditure towards the study involves field survey by the Committee, sampling costs, analysis costs, TA/DA, logistics, soil profiling, report preparation & finalization, meetings of the Joint Committee and other miscellaneous expenditures, it is humbly submitted that Hon'ble NGT (SZ) may permit CPCB for utilization of NGT-EC funds to carry out the comprehensive study.

14. That in light of the above submission, it is respectfully submitted that this Answering Respondent No. 1 i.e. CPCB, shall abide by any order(s) or direction(s) passed by this Hon'ble Tribunal in the instant OA and render justice.



DEPONENT

COUNSEL FOR RESPONDENT NO. 1

J. Chandra Babu
REGIONAL DIRECTOR
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REGIONAL DIRECTORATE - BENGALURU
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**BEFORE THE HON'BLE NATIONAL GREEN TRIBUNAL
(SOUTHERN ZONE BENCH), CHENNAI**

**ORIGINAL APPLICATION NO. 14 OF 2024 (SZ)
[EARLIER OA NO. 685 OF 2023 (PB)]**

IN THE MATTER OF

Suo-moto on News item appearing in One India dated 25.10.2023 titled
"Vegetables Across Bengaluru Contaminated with Heavy Metals, Warns Study"

Versus

Central Pollution Control Board & Others....

RESPONDENT(S)

AFFIDAVIT

I, J Chandra Babu, son of late Shri. J Balaramaiah, aged 57 years, having office at the Regional Directorate (Bengaluru), Central Pollution Control Board, 1st & 2nd Floors, Nisarga Bhavan, A- Block, Thimmaiah Main Road, 7th D Cross, Shivanagar, Bengaluru – 560 079, Karnataka, do hereby solemnly affirm, declare on oath and state as under: -

1. That I, the deponent herein is authorized representative to represent the Respondent Central Pollution Control Board (hereinafter referred to as CPCB) in the present case, and as such, I am well conversant with the facts and circumstances of the present case on the basis of the information derived from the official records, and hence, I am competent to verify, sign and swear this affidavit on behalf of the Respondent CPCB.

2. That the accompanying reply may be read part and parcel of the present affidavit.
3. That the accompanying reply has been drafted and filed under my instructions and Authority, the contents thereof are true and correct on the basis of the record maintained during ordinary course of business of CPCB and available records and documents and the contents of the same are read over and explained to me and are not repeated herein for the sake of brevity.

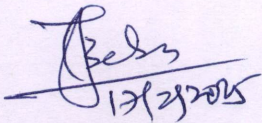

DEPONENT

J. Chandra Babu
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REGIONAL DIRECTORATE - BENGALURU
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VERIFICATION

Verified at Bengaluru on this day of SEVENTEENTH February, 2025 that the contents of the above reply are correct and true on the basis of the record of the cases as mentioned in the day to day affairs of the CPCB. Nothing has been concealed therefrom or mis-stated.

Signed and Verified at Bengaluru on this day of
17th February, 2025.


DEPONENT

COUNSEL FOR RESPONDENT NO.1

J. Chandra Babu
REGIONAL DIRECTOR
CENTRAL POLLUTION CONTROL BOARD
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Item No. 01

Court No. 1

**BEFORE THE NATIONAL GREEN TRIBUNAL
PRINCIPAL BENCH, NEW DELHI**

Original Application No. 685/2023

In re: News item appearing in One India dated 25.10.2023 titled
**“Vegetables Across Bengaluru Contaminated with Heavy Metals,
Warns Study”**

Date of hearing: 21.11.2023

**CORAM: HON’BLE MR. JUSTICE PRAKASH SHRIVASTAVA, CHAIRPERSON
HON’BLE DR. A. SENTHIL VEL, EXPERT MEMBER**

Respondent: Mr. Mukesh Kumar, Adv. for KSPCB (Through VC)
Mr. Rajat Jonathan Shaw, Adv. for the State of Karnataka (Through VC)

ORDER

1. This Original Application is registered *suo motu* on the basis of the news item published in “One India” on 25.10.2023 titled **“Vegetables Across Bengaluru Contaminated with Heavy Metals, Warns Study”**. The news item refers to a study by Researchers from Environment Management and Policy Research Institute (EMPRI), who had analysed 400 samples of 10 different vegetables and had found the level of contamination exceeding the permissible limits set by the Food and Agricultural Organization (FAO). As per the news article, vegetables cultivated with wastewater have shown presence of heavy metals. The concentration of iron was almost two times and in coriander and spinach, Cadmium which is a toxic heavy metal was found to be 52.30 mg/kg as against 0.2 mg/kg. Nickel exceeded 67.9 mg/kg in vegetables. The consumption of such vegetables is highly toxic and hazardous and can lead to various health complications.

2. On advance notice, a brief report has been filed on behalf of the Karnataka State Pollution Control Board (KSPCB) referring to the study report of EMPRI and its findings.

3. The report by KSPCB mentions that to understand the extent of contamination in vegetables, a more comprehensive and in-depth investigation/study involving its sources is necessary at State level.

4. The OA involves a serious issue relating to environment and compliance of the provisions of the scheduled Act.

5. Power of the Tribunal to take up the matter in *suo-motu* exercise of power has been recognized by the Hon'ble Supreme Court in the matter of "*Municipal Corporation of Greater Mumbai vs. Ankita Sinha & Ors.*" reported in 2021 SCC Online SC 897.

6. Hence, at this stage, we deem it proper to implead the following as respondents in this OA:

- i. Central Pollution Control Board through its Member Secretary.
- ii. Karnataka State Pollution Control Board through its Member Secretary.
- iii. Environmental Management and Policy Research Institute through its Director General.

7. Let the notice be served upon the Respondents No. 1 and 3 who are not represented today.

8. Respondent No. 1 is directed to ascertain the correct ground situation and also duly examine the report of EMPRI and submit the factual status as also factual action taken report before the Southern Zone Bench of the Tribunal. Let the samples of vegetables be collected and analysed for the individual heavy metals and pesticides parameters

in the Central Laboratory of CPCB, Delhi as per standard methods and let their report be furnished.

9. Since the matter relates to Southern Zone Bench, Chennai, therefore, the OA is transferred to the Southern Zone Bench, Chennai for further necessary action. Let the record of this OA be transferred to the Southern Zone Bench, Chennai.

10. List on 10.01.2024 before the Southern Zone Bench, Chennai.

Prakash Shrivastava, CP

Dr. A. Senthil Vel, EM

November 21, 2023
Original Application No. 685/2023
DV

Item No.06:-**BEFORE THE NATIONAL GREEN TRIBUNAL
SOUTHERN ZONE, CHENNAI**

(Through Video Conference)

Original Application No.14 of 2024 (SZ)

Earlier O.A. No. 685/2023 (PB)

IN THE MATTER OF:

Tribunal on its own motion SUO MOTU
based on the news item in One India Dt.
25.10.2023 titled "**Vegetables Across
Bengaluru Contaminated with Heavy
Metal, Warns Study**".

Central Pollution Control Board
Through its Member Secretary
New Delhi and Ors.



...Respondent(s)

Date of hearing: 15.10.2024.

CORAM:

HON'BLE Smt. JUSTICE PUSHPA SATHYANARAYANA, JUDICIAL MEMBER

HON'BLE Dr. SATYAGOPAL KORLAPATI, EXPERT MEMBER

For Applicant(s): Suo Motu.

For Respondent(s): Mrs. Revathi Manivannan for R1.
Mr. Devraj Ashok for R2.
Mr. Mukesh Kumar for R3.
Mr. Rajat Jonathan Shaw represented
Mr. K.M. Darpan for R4.

ORDER

1. Today, the report dated 19.03.2024 of the Central Pollution Control Board (CPCB) is filed.

2. The report states about the actions initiated by the CPCB and also the comments on the project report submitted by the 3rd Respondent/Environmental Management and Policy Research Institute (EMPRI).

3. The CPCB has proposed for a comprehensive study and constituted a Committee comprising members from CPCB, Karnataka State Pollution Control Board (KSPCB), Central Licensing Authority, Food Safety and Standards Association of India (FSSAI), Indian Institute of Soil Science, Bhopal and also University of Agricultural Sciences, Bangalore. They are yet to come up with the final report and their research is based on the samples collected from various places.

4. The CPCB has sought for 4 months time in the report filed in March 2024. By now, the final report should be ready. Let the CPCB file the final report before the next date of hearing.

5. As the Department of Agriculture, State of Karnataka is a necessary party to this proceeding, we Suo Motu implead them as additional Respondent No.4, who is also directed to file a report after getting appropriate inputs from the various stakeholders in this regard.

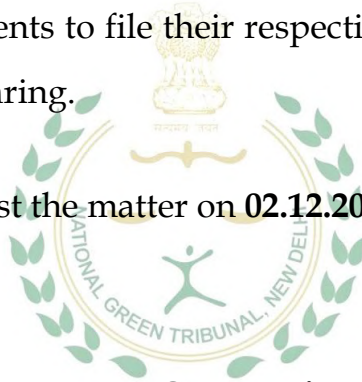
6. Let notice be issued to the newly added Respondent No.4 through the Tribunal.

7. The learned counsel Mr. Rajat Jonathan Shaw representing Mr. K.M. Darpan accepts notice on behalf of Respondent No.4.

8. The 3rd Respondent and the Karnataka SPCB are yet to file their reports.

9. As the matter involves food safety and standards, it has to be taken up as expeditiously as possible. Hence, we direct all the respondents to file their respective reports on or before the next date of hearing.

10. Post the matter on **02.12.2024**.



Sd/-

Smt. Justice Pushpa Sathyanarayana, JM

Sd/-

Dr. Satyagopal Korlapati, EM

**O.A. No.14/2024 (SZ),
15th October, 2024. AD.**



केन्द्रीय प्रदूषण नियंत्रण बोर्ड
CENTRAL POLLUTION CONTROL BOARD

पर्यावरण, वन एवं जलवायु परिवर्तन मंत्रालय, भारत सरकार
MINISTRY OF ENVIRONMENT, FOREST & CLIMATE CHANGE, GOVT. OF INDIA

NGT Matter- Urgent

By Speed Post/E.mail

F.No. Tech/ 39/ NGTSZ/ RDB/2024-25

December 20, 2024

To
The Member Secretary
Karnataka State Pollution Control Board
No. 49, Parisara Bhavan, Church street
Bengaluru-560001

The Director
ICAR-Indian Institute of Soil Science,
Nabibagh, Berasia Road, Bhopal - 462038

The Regional Director
Food Safety and Standards Authority of
India, 2nd floor, Central documentation
Complex South wing, North Beach road,
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The Registrar
University of Agricultural Sciences,
GKVK, Bangalore – 560 065.

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Yours faithfully

(J. Chandra Babu)

Regional Director

9868278903, jcb.cpcb@nic.in

Encl: Copy of Hon'ble NGT Order dated 15-10-2024

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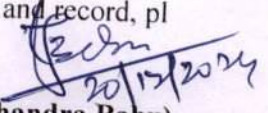
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3 DH, WQM-I Division : For information and record, pl


20/12/2024
(J. Chandra Babu)



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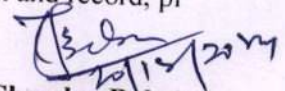
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Nabibagh, Berasia Road, Bhopal - 462038

The Regional Director
Food Safety and Standards Authority of
India, 2nd floor, Central documentation
Complex South wing, North Beach road,
Chennai Port Trust, Rajaji Salai, George
town, Chennai, TamilNadu-600001

The Registrar
University of Agricultural Sciences,
GKVK, Bangalore – 560 065.

Sub: Nomination of an official for the Joint Committee to be constituted for ensuring compliance to the Hon'ble NGT Southern Zone, Chennai order dated 15.10.2024 in O.A.No. 14/2024 (SZ)

Sir,

This is to inform that the Hon'ble NGT, Southern Bench, Chennai, in Original Application No. 14/2024(SZ) in the matter of the Tribunal's own SUO MOTU, based on the news item in "One India" dated 25-10-2023 titled "Vegetables across Bengaluru contaminated with Heavy Metals, warns Study," has issued an order dated 15-10-2024 (copy of the order enclosed as Annexure). As a part of ensuring compliance to Hon'ble NGT order dated 15.10.2024, a Joint Committee comprising the Regional Director of the Central Pollution Control Board (CPCB), Karnataka State Pollution Control Board, Food Safety and Standards Authority of India-Regional Office Chennai, Indian Institute of Soil Science-Bhopal, and the University of Agricultural Sciences is to be constituted so as to conduct a comprehensive study on analysis of heavy metals and pesticides in vegetables from the selected locations in and around Bengaluru and the findings of the study need to be filed before the Hon'ble NGT (SZ).

In view of the above, it is requested to nominate a suitable official from your Department who is familiar with the afore-said aspects to CPCB RD Bengaluru positively by 28.12.2024 either by Speed Post or by Email at jcb.cpcb@nic.in and zobangalore.cpcb@nic.in. For further details, you may please contact the undersigned.

Yours faithfully

(J. Chandra Babu)

Regional Director

9868278903, jcb.cpcb@nic.in

Encl: Copy of Hon'ble NGT Order dated 15-10-2024

क्षेत्रीय निदेशालय (बेंगलूरु) : निसर्ग भवन, ए-ब्लॉक, प्रथम एवं द्वितीय तल, तिममय्या रोड, 7-डी मैन, शिवनगर, बेंगलूरु - ५६० ०७९.

Regional Directorate (Bengaluru) : " Nisarga Bhawan ", A-Block, 1st & 2nd Floors, Thimmaiah Road, 7th D - Main, Shivanagar, Bengaluru - 560 079.

दूरभाष / Telephone : 080-23233739, 23233827, 23222539, Fax : 080-23234059

ई-मेल / E-mail : zobangalore.cpcb@nic.in

प्रधान कार्यालय : परिवेश भवन, पूर्वी अर्जुन नगर, दिल्ली- ११० ०३२.

Head Office : Parivesh Bhawan, East Arjun Nagar, Delhi - 110 032.

दूरभाष / Telephone : 011-43102030, Fax : 22305793, 22307078, 22307079, 22301932, 22304948

ई-मेल / E-mail : cpcb@nic.in वेबसाइट / Website : www.cpcb.nic.in



केन्द्रीय प्रदूषण नियंत्रण बोर्ड
CENTRAL POLLUTION CONTROL BOARD

पर्यावरण, वन एवं जलवायु परिवर्तन मंत्रालय, भारत सरकार
MINISTRY OF ENVIRONMENT, FOREST & CLIMATE CHANGE, GOVT. OF INDIA

NGT Matter- Urgent

By Speed Post/E.mail

F.No. Tech/ 39/ NGTSZ/ RDB/2024-25

December 20, 2024

To

The Member Secretary
Karnataka State Pollution Control Board
No. 49, Parisara Bhavan, Church street
Bengaluru-560001

The Director

ICAR-Indian Institute of Soil Science,
Nabibagh, Berasia Road, Bhopal - 462038

The Regional Director

Food Safety and Standards Authority of
India, 2nd floor, Central documentation
Complex South wing, North Beach road,
Chennai Port Trust, Rajaji Salai, George
town, Chennai, TamilNadu-600001

The Registrar

University of Agricultural Sciences,
GKVK, Bangalore – 560 065.

Sub: Nomination of an official for the Joint Committee to be constituted for ensuring compliance to the Hon'ble NGT Southern Zone, Chennai order dated 15.10.2024 in O.A.No. 14/2024 (SZ)

Sir,

This is to inform that the Hon'ble NGT, Southern Bench, Chennai, in Original Application No. 14/2024(SZ) in the matter of the Tribunal's own SUO MOTU, based on the news item in "One India" dated 25-10-2023 titled "Vegetables across Bengaluru contaminated with Heavy Metals, warns Study," has issued an order dated 15-10-2024 (copy of the order enclosed as Annexure). As a part of ensuring compliance to Hon'ble NGT order dated 15.10.2024, a Joint Committee comprising the Regional Director of the Central Pollution Control Board (CPCB), Karnataka State Pollution Control Board, Food Safety and Standards Authority of India-Regional Office Chennai, Indian Institute of Soil Science-Bhopal, and the University of Agricultural Sciences is to be constituted so as to conduct a comprehensive study on analysis of heavy metals and pesticides in vegetables from the selected locations in and around Bengaluru and the findings of the study need to be filed before the Hon'ble NGT (SZ).

In view of the above, it is requested to nominate a suitable official from your Department who is familiar with the afore-said aspects to CPCB RD Bengaluru positively by 28.12.2024 either by Speed Post or by Email at jcb.cpcb@nic.in and zobangalore.cpcb@nic.in. For further details, you may please contact the undersigned.

Yours faithfully

(J. Chandra Babu)

Regional Director

9868278903, jcb.cpcb@nic.in

Encl: Copy of Hon'ble NGT Order dated 15-10-2024

क्षेत्रीय निदेशालय (बेंगलूरु) : निसर्ग भवन, ए-ब्लॉक, प्रथम एवं द्वितीय तल, तिम्मय्या रोड, 7-डी मैन, शिवनगर, बेंगलूरु - ५६० ०७९.

Regional Directorate (Bengaluru) : " Nisarga Bhawan ", A-Block, 1st & 2nd Floors, Thimmaiah Road, 7th D - Main, Shivanagar, Bengaluru - 560 079.

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ई-मेल / E-mail : zobangalore.cpcb@nic.in

प्रधान कार्यालय : परिवेश भवन, पूर्वी अर्जुन नगर, दिल्ली- ११० ०३२.

Head Office : Parivesh Bhawan, East Arjun Nagar, Delhi - 110 032.

दूरभाष / Telephone : 011-43102030, Fax : 22305793, 22307078, 22307079, 22301932, 22304948

ई-मेल / E-mail : cpcb@nic.in वेबसाइट / Website : www.cpcb.nic.in

Item No.06:-

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

(Through Video Conference)

Original Application No.14 of 2024 (SZ)

Earlier O.A. No. 685/2023 (PB)

IN THE MATTER OF:

Tribunal on its own motion SUO MOTU
based on the news item in One India Dt.
25.10.2023 titled "**Vegetables Across
Bengaluru Contaminated with Heavy
Metal, Warns Study**".

Central Pollution Control Board
Through its Member Secretary
New Delhi and Ors.



...Respondent(s)

Date of hearing: 15.10.2024.

CORAM:

HON'BLE Smt. JUSTICE PUSHPA SATHYANARAYANA, JUDICIAL MEMBER

HON'BLE Dr. SATYAGOPAL KORLAPATI, EXPERT MEMBER

For Applicant(s): Suo Motu.

For Respondent(s):
Mrs. Revathi Manivannan for R1.
Mr. Devraj Ashok for R2.
Mr. Mukesh Kumar for R3.
Mr. Rajat Jonathan Shaw represented
Mr. K.M. Darpan for R4.

ORDER

1. Today, the report dated 19.03.2024 of the Central Pollution Control Board (CPCB) is filed.

2. The report states about the actions initiated by the CPCB and also the comments on the project report submitted by the 3rd Respondent/Environmental Management and Policy Research Institute (EMPRI).

3. The CPCB has proposed for a comprehensive study and constituted a Committee comprising members from CPCB, Karnataka State Pollution Control Board (KSPCB), Central Licensing Authority, Food Safety and Standards Association of India (FSSAI), Indian Institute of Soil Science, Bhopal and also University of Agricultural Sciences, Bangalore. They are yet to come up with the final report and their research is based on the samples collected from various places.

4. The CPCB has sought for 4 months time in the report filed in March 2024. By now, the final report should be ready. Let the CPCB file the final report before the next date of hearing.

5. As the Department of Agriculture, State of Karnataka is a necessary party to this proceeding, we Suo Motu implead them as additional Respondent No.4, who is also directed to file a report after getting appropriate inputs from the various stakeholders in this regard.

6. Let notice be issued to the newly added Respondent No.4 through the Tribunal.

7. The learned counsel Mr. Rajat Jonathan Shaw representing Mr. K.M. Darpan accepts notice on behalf of Respondent No.4.

8. The 3rd Respondent and the Karnataka SPCB are yet to file their reports.

9. As the matter involves food safety and standards, it has to be taken up as expeditiously as possible. Hence, we direct all the respondents to file their respective reports on or before the next date of hearing.

10. Post the matter on **02.12.2024**.



Sd/-

Smt. Justice Pushpa Sathyanarayana, JM

Sd/-

Dr. Satyagopal Korlapati, EM

**O.A. No.14/2024 (SZ),
15th October, 2024. AD.**

F.No. Tech/ 39/ NGTSZ (14 of 2024)/ RDB/2024-25

February 14, 2025

OFFICE MEMORANDUM**Sub: Constitution of Joint Committee in OA No. 14 of 2024 (SZ).****Ref: Hon'ble NGT (SZ) order dated 15.10.2024**

This is to inform that the Hon'ble NGT, Southern Bench, Chennai, in Original Application No. 14/2024(SZ) regarding the matter of the Tribunal's own SUO MOTU, based on the news item in "One India dated 25-10-2023 titled "Vegetables across Bengaluru contaminated with Heavy Metals, warns Study," has issued an order dated 15-10-2024 (copy of the order enclosed as Annexure). In the order, the Hon'ble NGT has constituted a Joint Committee comprising the Regional Director of the Central Pollution Control Board (CPCB), Karnataka State Pollution Control Board, Food Safety and Standards Authority of India-Regional Office Chennai, Indian Institute of Soil Science-Bhopal, and the University of Agricultural Sciences.

In view of above, a Joint Committee, with the following members is being composed herewith based on the nominations received from the respective institutions/Departments:

Composition of the Joint Committee

Sl.No.	Name and Address	Office	Email id and Mobile No.
1.	Shri M. G. Yathish, Senior Environmental Officer	Waste Management Cell-1 Karnataka State Pollution Control Board No. 49, Parisara Bhavan, Church street Bengaluru-560001	wmc1.kspcb@gmail.com 9845311406
2	Dr. M. Vassanda Coumar, Sr. Scientist, Division of Environmental Soil Science	ICAR-Indian Institute of Soil Science, Nabibagh, Berasia Road, Bhopal - 462038 Madhya Pradesh, India	vassanda.coumar@gmail.com 9893050019
3	Dr. Tina KJ Central Food Safety Officer	Food Safety and Standards Authority of India 2 nd floor, Central documentation Complex	tinakj.2021@fssai.gov.in 9846630839

...Contd

		South wing, North Beach road, Chennai Port Trust, Rajaji Salai, George town, Chennai, TamilNadu-6000001	
4	Dr. B G Vasanthi Professor (SS& AC) AICRP on Dryland Agriculture Project UAS, GKVK, Bengaluru	University of Agricultural Sciences, GKVK, Bangalore – 560 065	vasubgkvk@gmail.com 9986989269
5	Shri. J Chandra Babu, Regional Director, Member	Central Pollution Control Board, Nisarga Bhawan, A-Block, 1 st & 2 nd floors, Thimmaiah Road, 7 th D main, Shivanagar, Bengaluru-560079	jcb.cpcb@nic.in 98682 78903
6	Special Invitees	Representatives/ officials of EMPRI	
7		Representative/ official from CPCB, Delhi	

Scope of the Committee:

1. To conduct a comprehensive study, which will include collection of vegetable samples from selected locations including markets and agricultural areas and analysis of these samples at an FSSAI-approved laboratory under the committee's supervision.
2. Collection of soil, ground water/ sewage treated water from the selected Agricultural fields and its analysis in CPCB/ KSPCB Labs in Bengaluru.
3. To ascertain whether heavy metals are present in vegetable samples in concentration more than standards stipulated by FSSAI and to assess contribution of contaminants by soil/ ground water/ sewage/ treated sewage water
4. To collate and compile the findings into a committee report and its submissions to the Hon'ble NGT

J. Chandra Babu
Regional Director



केन्द्रीय प्रदूषण नियंत्रण बोर्ड
CENTRAL POLLUTION CONTROL BOARD

पर्यावरण, वन एवं जलवायु परिवर्तन मंत्रालय, भारत सरकार
MINISTRY OF ENVIRONMENT, FOREST & CLIMATE CHANGE, GOVT. OF INDIA

Hon'ble NGT Matter

By Speed Post/E.mail

F.No. Tech/ 39/ NGTSZ (14 of 2024)/ RDB/2024-25

February 04, 2025

To

Dr. M. Vassanda Coumar,
Sr. Scientist and Member
Division of Environmental Soil Science
ICAR-Indian Institute of Soil Science,
Nabibagh, Berasia Road,
Bhopal - 462038

Dr. Tina KJ
Central Food Safety Officer and Member
Food Safety and Standards Authority of India, 2nd
floor, Central documentation Complex South wing,
North Beach road, Chennai Port Trust, Rajaji Salai,
George town, Chennai, TamilNadu-600001

Dr. B G Vasanthi
Professor (SS& AC) and Member
AICRP on Dryland Agriculture Project
University of Agricultural Sciences,
GKVK, Bangalore – 560 065.

Shri M. G. Yathish,
Senior Envi. Officer & Member
WM Cell-1, Karnataka State Pollution Control Board
No. 49, Parisara Bhavan, Church street
Bengaluru-560001

Sh.T.Mahesh,
Special Invitee
EMPRI, Bengaluru, Karnataka

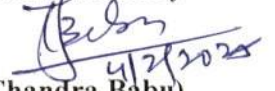
Sub: Minutes of the Meeting of the Joint Committee held on 23.01.2024 for ensuring compliance to the Hon'ble NGT Southern Zone, Chennai order dated 15.10.2024 in O.A.No. 14/2024 (SZ)

Madam/Sir,

This has reference to the meeting of the Joint Committee held on 23.01.2025 at 4:00 PM through video conferencing to discuss the course of action to be taken in compliance to the Hon'ble NGT order dated 15.10.2024 in OA No. 14/2024 (SZ) regarding Comprehensive Study for ascertaining the "Vegetables across Bengaluru contaminated with Heavy Metals", The minutes of the Joint Committee meeting prepared in light of the discussions held in the said meeting is enclosed, for kind information and record and for further action please.

Also, it is requested to communicate availability and convenient date preferably during third or fourth week of February, 2025 to carry out field survey for selection of agricultural areas for conducting the study, preferably on or before 7.2.2025 to enable to make necessary arrangements for the site visit.

Yours faithfully


(J. Chandra Babu)

Regional Director

M.9868278903, jcb.cpcb@nic.in

क्षेत्रीय निदेशालय (बेंगलूरु) : निसर्ग भवन, ए-ब्लॉक, प्रथम एवं द्वितीय तल, तिम्मय्या रोड, 7-डी मैन, शिवनगर, बेंगलूरु - ५६० ०७९.

Regional Directorate (Bengaluru) : " Nisarga Bhawan ", A-Block, 1st & 2nd Floors, Thimmaiah Road, 7th D - Main, Shivanagar, Bengaluru - 560 079.

दूरभाष / Telephone : 080-23233739, 23233827, 23222539, Fax : 080-23234059

ई-मेल / E-mail : zobangalore.cpcb@nic.in

प्रधान कार्यालय : परिवेश भवन, पूर्वी अर्जुन नगर, दिल्ली- ११० ०३२.

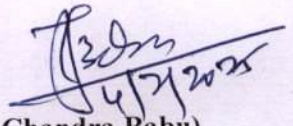
Head Office : Parivesh Bhawan, East Arjun Nagar, Delhi - 110 032.

दूरभाष / Telephone : 011-43102030, Fax : 22305793, 22307078, 22307079, 22301932, 22304948

ई-मेल / E-mail : cpcb@nic.in वेबसाईट / Website : www.cpcb.nic.in

Encl: As above
Copy to:

1. AO to MS, CPCB, Delhi : for kind formation of MS, pl.
2. DH, WQM-I, CPCB, Delhi : For information and record, pl


(J. Chandra Babu)

Draft as on 29.01.2025



Central Pollution Control Board

(Ministry of Environment, Forests and Climate Change)

REGIONAL DIRECTORATE, BENGALURU

Nisarga Bhavan, 1 & 2 Floors, Thimmaiah Road, Shivanagar
BENGALURU-560079, KARNATAKA

MINUTES OF THE JOINT COMMITTEE MEETING FOR ENSURING COMPLIANCE TO HON'BLE NGT ORDER DATED 15.10.2024 IN THE MATTER OF ORIGINAL APPLICATION NO. 14/2024 (SZ) (EARLIER O.A NO. 685/2023(PB)) TITLED 'VEGETABLES ACROSS BENGALURU CONTAMINATED WITH HEAVY METAL, WARNS STUDY'

A meeting of the Joint Committee to discuss the course of action on the comprehensive study on 'VEGETABLES ACROSS BENGALURU CONTAMINATED WITH HEAVY METAL' was held on 23.01.2025 at 4:00 pm through video conference. Details of the officials participated in the said Joint Committee meeting is given in **Annexure-1**.

Sh. J Chandra Babu, Regional Director, CPCB, Regional Directorate, Bengaluru welcomed all the participants and briefed the participants about the background of the matter and tasks assigned to the committee by the Hon'ble NGT vide orders dated 21.11.2023 and 15.10.2024. Details of orders passed by Hon'ble NGT (PB) and Hon'ble NGT (SZ) enclosed as **Annexure-II and Annexure-III** respectively for reference of the Committee.

After self-introduction of the participants, Regional Director, CPCB, Regional Directorate, Bengaluru briefed background of the matter, wherein he explained that Hon'ble National Green Tribunal (NGT) (PB) registered Original Application No.685/2023 as *Suo-motu* on the basis of the news item published in "One India" on 25.10.2023, titled "Vegetables Across Bengaluru Contaminated with Heavy Metals, Warns Study". The news item referred to the project report titled "Study of heavy metal contamination in vegetables obtained from markets of Bengaluru city" conducted by the researchers from EMPRI, wherein 400 samples of 10 different vegetables were analysed and found the level of contamination by heavy metals exceeding the permissible limits prescribed by the Food and Agricultural Organization (FAO). Vide order dated 21.11.2023, Hon'ble NGT deemed it proper to implead CPCB, KSPCB, and EMPRI as respondents in the said OA and passed directions to Respondent No.1 (CPCB) to ascertain the correct ground situation. Subsequently, a meeting was convened by CPCB, Regional Directorate, Bengaluru on 26.12.2023 with the representatives from CPCB-Delhi, EMPRI, KSPCB, and Food Safety and Standards Association of India (FSSAI). He also highlighted that the representative from EMPRI could not ascertain the areas of origin of collected vegetables samples, source of water used for growing vegetables; the methodology used for heavy metal analysis in vegetables is not as per the FSSAI - Manual of Methods for Analysis of Food - Metals published in 2016; and during the course of the said research work, EMPRI Laboratory was also not recognized by FSSAI.

In order to ascertain the correct ground situation with regard to contamination of vegetables with heavy metals and pesticides and in March 2024, CPCB submitted a methodology for carrying out the study in compliance to the Hon'ble NGT order dated 21.11.2023 along with the comments on the EMPRI study report, before the Hon'ble NGT (SZ), for consideration and concurrence of the Hon'ble NGT. As per the proposal, it was proposed for constitution of the committee comprising representative from CPCB, KSPCB, FSSAI, Indian Institute of Soil Sciences (IISS), and University of Agricultural Sciences and the committee shall survey, identify the sampling locations, sampling size, FSSAI approved laboratory for analysis of collected samples (vegetables, water/ground water, and soil) under the overall supervision of the committee. Also, it was proposed that collation of analysis results, preparation and finalization of the report to be filed before Hon'ble NGT (SZ), shall be completed by CPCB within a period of four months. However, as per Hon'ble NGT (SZ) order dated 15.10.2024, the Hon'ble NGT (SZ) expected that as CPCB sought 4 months' time in the report filed in March 2024, the final report should be ready and the same is expected to be filed before the next date of hearing.

In view of the above, the objective of the Joint Committee meeting is to take decision on the course of action for carrying out comprehensive study to ascertain the correct ground situation with regard to heavy metals and pesticides in vegetables and he proposed following action points i.e., i) collection of vegetable samples from the local markets in and around Bengaluru; ii) identification of agricultural fields that use treated sewage water and ground water for growing vegetables; iii) collection of vegetables, sources of water/treated sewage, ground water, and soil samples from the selected fields along with vegetables grown in these fields at the time of visit.

He also informed that CPCB laboratories are equipped with the facilities and expertise for the analysis of environmental samples (water, air, and soil/sludge), but not for the analysis of vegetable samples. Therefore, CPCB, RD Bengaluru, communicated to the FSSAI approved laboratories in Karnataka, Tamil Nadu, and Andhra Pradesh, to confirm availability of facilities for analysis of heavy metals and pesticide residues in vegetables. Based on the responses, few laboratories in Bengaluru have been shortlisted which agreed to analyse the vegetable samples at the rates and methods notified by FSSAI. Thereafter, he asked views of the members and special invitee from EMPRI.

Sh. T Mahesh, Director Research, EMPRI, suggested that reference samples (water/ground water, vegetables, soil) should be collected wherein uncontaminated ground water is used for growing vegetables. Sh. T Mahesh also reiterated that the treated sewage from Bengaluru is discharged to Kolar and Chikkaballapura regions for recharging the ground water and the ground water is used for growing vegetables in these regions.

Dr. B G Vasanthi, Dry Land Agriculture Project University of Agriculture, Bengaluru suggested that the local markets of Bengaluru receive vegetables grown outside the city of Bengaluru. The vegetables, especially tomatoes, in Kolar region are grown using treated sewage water. Further, she informed that ground water is used for growing vegetables in Nelamangala and parts of Kolar region. Dr. B G Vasanthi informed that she will confirm the locations to the committee where untreated/treated sewage and ground waters are used for growing vegetables to enable finalizing the areas for sampling.

Dr. Vassanda Coumar, Senior Scientist, Indian Institute of Soil Science (ICAR-IISS), Bhopal requested a copy of the project report of EMPRI to familiarize with the findings in the report. He also suggested that for the comprehensive understanding of the source of heavy metals and pesticides in vegetable samples, the soil matrix or profile up to the depth of 90 cm to 100 cm should be analysed in the study areas to understand the uptake of heavy metals/pesticides by the vegetables. Dr. Coumar suggested to ensure that the USEPA standard methods are followed for analysis of heavy metals in the soil samples. He also requested CPCB to share methods followed for analysis of soil, ground water, treated sewage /water used for growing of vegetables from the study areas.

Sh. M G Yathish, SEO, KSPCB, acknowledged the requirement of sampling of source of water, ground water, and soil profiling and suggested that the analysis of water (surface/ ground/ sewage) for heavy metals and pesticides shall be carried out by the laboratories of KSPCB and CPCB and the vegetable samples shall be analysed by the FSSAI approved laboratory. Sh. M G Yathish suggested to include Chief Scientific Officer from KSPCB, Bengaluru as a part of the sampling team.

Dr. Tina K J, Central Food Safety Officer, FSSAI, informed that the FSSAI approved laboratories use FSSAI approved limits and protocols for the analysis of vegetable samples for heavy metals and pesticide residue analysis. She also referred to the 'List of FSSAI Notified Laboratories having scope of testing Vegetables' and informed that there are 7 notified laboratories in Bengaluru with the scope for analysis of heavy metals and pesticide residues in vegetable samples as per FSSAI protocols. Based on the scope of the laboratory, the name of the FSSAI notified laboratory which can analyse the samples for relevant parameters at the notified rates will be informed to the committee at the earliest.

After detailed discussion, the following decisions were taken:

Field Survey: Committee shall carry out field survey in three/four areas in the vicinity of Bengaluru like Chikkaballapura, Kolar, Nelamangala, Ramanagara where vegetables are grown using both fresh water and treated/untreated sewage. During field survey specific vegetable fields will be identified in above mentioned areas and Geo-mapped so as to do the vegetable sampling. In a each given area, three fields to be identified for sampling of vegetables; i) fields using untreated/treated sewage water; ii) fields using fresh water/ground water contaminated with sewage water; iii) fields using uncontaminated ground water/fresh water (Reference sample). During field survey sampling locations shall be finalized.

Sampling Strategy:

- Different vegetable samples shall be collected randomly from the local markets in and around Bengaluru
- Vegetable samples to be collected from the identified fields following the protocols of FSSAI. The vegetables that is grown/ available in the field at the time of sampling will only be collected in presence of the representatives of CPCB, KSPCB and FSSAI
- Vegetable samples shall be got analyzed at the identified FSSAI approved laboratory in Bengaluru (to be confirmed by member representative of FSSAI) at the notified analysis rates and analysis protocols for presence of heavy metals & pesticides.

Soil profiling: soil profiling to be carried out up to 90 cm to 1m depth on all identified fields. Soil samples and water samples (groundwater/surface water/treated sewage) to be collected

from fields. Water and soil samples shall be analysed for heavy metals and pesticide residues at the laboratories of KSPCB, Bengaluru and CPCB, Regional Directorate, Bengaluru.

Actions assigned:

- All the members of the committee to be present during the site selection for sampling (vegetable samples, Soil, Ground Water, Water/Treated Sewage used for growing of vegetables).
- Dr. Tina K J, Central Food Safety Officer, may arrange the details of the FSSAI approved laboratory located in Bengaluru with the scope for the analysis of heavy metals and pesticides as per FSSAI notified parameters and approved rates of analysis.
- Dr. B G Vasanthi, Senior Scientist, may arrange to provide the equipment and procedures for soil profiling/sampling.
- CPCB, RD Bengaluru, to circulate the standard methods used for the analysis of soil/ground water/water/sewage samples to the committee members and a copy of EMPRI report.
- Dr. Vassanda Coumar, Senior Scientist, may review and suggest the standard method to be used for soil analysis suitable for the comprehensive study.
- Dr. Yathish, SEO, KSPCB to request The Chief Scientific Officer from KSPCB, Bengaluru to participate during the sampling and to arrange to carry out the analysis of soil, treated sewage and water samples at Central Environmental Laboratory, KSPCB, Shivanagara, Bengaluru under the supervision of the RD, CPCB Bengaluru laboratory officials

The meeting ended with vote of thanks to all the participants.

-- OO --

Annexure-I

List of Participants

S. No.	Name and Designation of the official	Organization	Remarks
1.	Sh. J Chandra Babu Sc.E & Regional Director	Central Pollution Control Board, Regional Directorate, Bengaluru	Member
2.	Sh. M G Yathish Senior Envi. Officer	Karnataka State Pollution Control Board (KSPCB), Bengaluru	Member
3.	Dr. Tina K J Central Food Safety Officer	Central Licensing Authority, Food Safety and Standards Association of India (FSSAI), Regional Office, Chennai	Member
4.	Dr. Vassanda Coumar Senior Scientist	ICAR-Indian Institute of Soil Science (ICAR-IISS), Bhopal	Member
5.	Dr. B G Vasanthi Senior Scientist	Dry Land Agriculture Project University of Agriculture, Bengaluru	Member
6.	Dr. T. Mahesh Director Research	Environmental Management and Policy Research Institute (EMPRI), Bengaluru	Special Invitee
7.	Mrs. Mahima T, Sc.E	CPCB, Regional Directorate, Bengaluru	Invitee
8.	Dr. Anantha N S Senior Scientific Assistant	CPCB, Regional Directorate, Bengaluru	Invitee
9.	Ms. Deepa Kumari Senior Scientific Assistant	Central Pollution Control Board, Delhi	Invitee

Hon'ble National Green Tribunal (NGT) Orders

Hon'ble NGT PB order dated 21.11.2023:

Hon'ble National Green Tribunal (NGT) (PB) registered the Original Application No.685/2023 as *Suo motu* on the basis of the news item published in "One India" on 25.10.2023, titled "Vegetables Across Bengaluru Contaminated with Heavy Metals, Warns Study". The news item referred to the study conducted by the researchers from Environmental Management and Policy Research Institute (EMPRI), wherein 400 samples of 10 different vegetables were analysed and found the level of contamination by heavy metals exceeding the permissible limits set by the Food and Agricultural Organization (FAO). Vide order dated 21.11.2023, Hon'ble NGT gave directions to Respondent No.1 (CPCB) and relevant paragraph from the order is reproduced below;

"...8. Respondent No.1 is directed to ascertain the correct ground situation and also duly examine the report of EMPRI and submit the factual status as also factual action taken report before the Southern Zone Bench of the Tribunal. Let the samples of vegetables be collected and analysed for the individual heavy metals and pesticides parameter in the Central Laboratory of CPCB, Delhi as per standard methods and let their report be furnished..."

Subsequently, CPCB (Respondent No.1) submitted the status report on the action taken in compliance to Hon'ble NGT order dated 21.11.2023, wherein the actions initiated by CPCB, comments on the project report submitted by EMPRI, and actions proposed for comprehensive study to ascertain the correct ground situation with regard to the heavy metals and pesticides in vegetables were submitted to the Hon'ble NGT.

Hon'ble NGT SZ Chennai order dated 15.10.2024:

Vide order dated 15.10.2024, the Hon'ble NGT directed CPCB to file the final report before the next date of hearing. Relevant paragraphs of the said order is reproduced below;

"...1. Today, the report dated 19.03.2024 of the Central Pollution Control Board (CPCB) is filed.

2. The report states about the actions initiated by the CPCB and also the comments on the project report submitted by the 3rd Respondent/Environmental Management and Policy Research Institute (EMPRI).

3. The CPCB has proposed for a comprehensive study and constituted a Committee comprising members from CPCB, Karnataka State Pollution Control Board (KSPCB), Central Licensing Authority, Food Safety and Standards Association of India (FSSAI), Indian Institute of Soil Science, Bhopal, and also University of Agricultural Sciences, Bangalore. They are yet to come up with the final report and their research is based on the samples collected from various places.

4. The CPCB has sought for 4 months' time in the report filed in March 2024. By now, the final report should be ready. Let the CPCB file the final report before the next date of hearing..."

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Annexure-III**Composition of the Joint Committee Constituted by CPCB**

In order to comply with the Hon'ble NGT order dated 15.10.2024, a Joint Committee comprising of the Regional Director of the CPCB, Karnataka State Pollution Control Board (KSPCB), FSSAI-Regional Office Chennai, Indian Institute of Soil Science (IISS) Bhopal, and the University of Agricultural Sciences (UAS) was constituted so as to conduct a comprehensive study including ground situation of contamination of vegetables with heavy metals and pesticides, in and around Bengaluru. The composition of the Joint Committee is as given below;

S. No.	Name and Designation of the official	Organization
1.	Sh. J Chandra Babu Sc.E & Regional Director	Central Pollution Control Board Regional Directorate, Bengaluru
2.	Sh. M G Yathish Senior Environmental Officer	Karnataka State Pollution Control Board (KSPCB) Bengaluru
3.	Dr. Tina K J Central Food Safety Officer	Central Licensing Authority, Food Safety and Standards Association of India (FSSAI), Regional Office, Chennai
4.	Dr. Vassanda Coumar Senior Scientist	ICAR-Indian Institute of Soil Science (ICAR-IISS) Bhopal
5.	Dr. B G Vasanthi Senior Scientist	Dry Land Agriculture Project University of Agriculture
6.	Special Invitees	From the concerned Departments/Organisations for taking views/suggestions if required

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