

**BEFORE THE HON'BLE NATIONAL GREEN TRIBUNAL SOUTHERN ZONE BENCH
AT CHENNAI**

**OA No 259 OF 2020
With
OA No 02 OF 2021**

IN THE MATTER OF:

NATIONAL GREEN TRIBUNAL SOUTHERN ZONE

..... Applicant

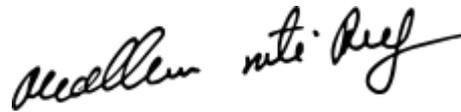
Vs

THE CHIEF SECRETARY TO GOVERNMENT OF ANDHRA PRADESH

.... Respondents

REPORT FILED BY THE APPCB 4th RESPONDENT

DATE - 23.03.2024



**M/s MADHURI DONTI REDDY
ADVOCATE**

STANDING COUNSEL FOR GOVERNMENT OF ANDHRA PRADESH

A.P. POLLUTION CONTROL BOARD

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

ORIGINAL APPLICATION No. 259 OF 2020 & 02 OF 2021 (SZ)

With

Original Application No.02 of 2021 (SZ)

In The Matter of:

Tribunal on its own motion Suo Motu based on the news item in The Indian Express, Newspaper dt. 09.12.2020, "Andhra town Eluru hit by „mystery“ illness, Traces of lead, nickel in blood samples", News item in The Time of India, Newspaper Dt. 08.12.2020, "Heavy metal content in water Caused mysterious disease in Andhra Pradesh" & News item in NDTV, dt. 09.12.2020, "Lead, Nickel found in blood of people with Mystery illness in Andhra".

.....Applicant (s)

Verses

The Chief Secretary of Govt. of Andhra Pradesh And Ors.

....Respondent (s)

With

Tribunal on its own motion Suo Motu based on the news item in The Hindu, edition dated 15.12.2020, "Kolleru (West Godavari Dt.) "Mystery illness raises Concerns over Kolleru Pollution".

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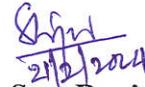
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The Chief Secretary to Govt. of Andhra Pradesh, Andhra Pradesh and Ors.

....Respondent (s)

Index

| S. No. | Particulars | Page Nos. |
|--------|--|-----------|
| 1 | Progress report on Kolleru lake in the matter of O. A. No. 259 / 2020 (SZ) with O. A. No. 02 / 2021 (SZ) in compliance with the Hon'ble NGT, Chennai orders dated 24.03.2023 & 05.02.2024. | 1 – 10 |
| 2 | Annexure – 1: Copy of the Hon'ble NGT Order, dated 24.03.2023. | 1 - 3 |
| 3 | Annexure – 2: Copy of the Hon'ble NGT Order, dated 05.02.2024. | 1 - 2 |



M. Sree Ranjani

Joint Chief Environmental Scientist (FAC)
Andhra Pradesh Pollution Control Board
Vijayawada.

Fifth Progress Report on “Comprehensive Scientific Study to save Kolleru Wildlife Sanctuary and Wetland of Kolleru”

Andhra Pradesh Pollution Control Board (APPCB) has awarded the study to carry out the “Comprehensive scientific study to save Kolleru Wildlife Sanctuary and wetland of Kolleru” to CSIR-National Environmental Engineering Research Institute (NEERI) vide notification of award no. APPCB-12023/2/2021-SS-CL-APPCB-569 dated 09.11.2022 and amendment No. APPCB-12023/2/2021-SS-CL-APPCB-762 dated 07.12.2022. Accordingly, after acceptance of the work order, the reconnaissance survey was carried out from December 21-23, 2022 within the Kolleru Wildlife Sanctuary. Based on the reconnaissance, a detailed sampling plan has been prepared. The details of the phase-I and phase-II sampling are presented in Table 1.

Table 1: Details of the sampling

| Parameter | Sampling period | |
|---------------|--|--|
| | Phase-I | Phase-II |
| Period | Feb 4 to April 2 | May 21 to June 14 |
| Drain Samples | Notified: 60 Non-Notified: 18 Additional: 12 | Notified: 10 Non-Notified: 2 Additional: 3 |
| Sediment | Notified: 54 Non-Notified: 16 Additional: 12 | Notified: 6 Non-Notified: 2 Additional: 3 |
| Lake Water | 54 | 32 |
| Lake sediment | 49 | 23 |
| Soil | Not collected | 14 |
| Groundwater | Not collected | 7 |

During the field survey, it was observed that some drains become dry during the summer during the second phase of sampling. The samples were collected from those locations which had proper accessibility. It has been observed most of the drains are dry during the second phase of sampling. During the second phase of the sampling period, the groundwater and soil samples also have been collected within the +5 contour wildlife sanctuary of the study area.

Biological Environment:

- The analysis of the microbiological parameters of all the water samples collected during the phase-I and phase-II sampling period has been completed. The report writing is in progress

- The analysis of phytoplankton, zooplankton, and benthic diversity in the collected samples during both phases has been completed and the report writing is in progress.

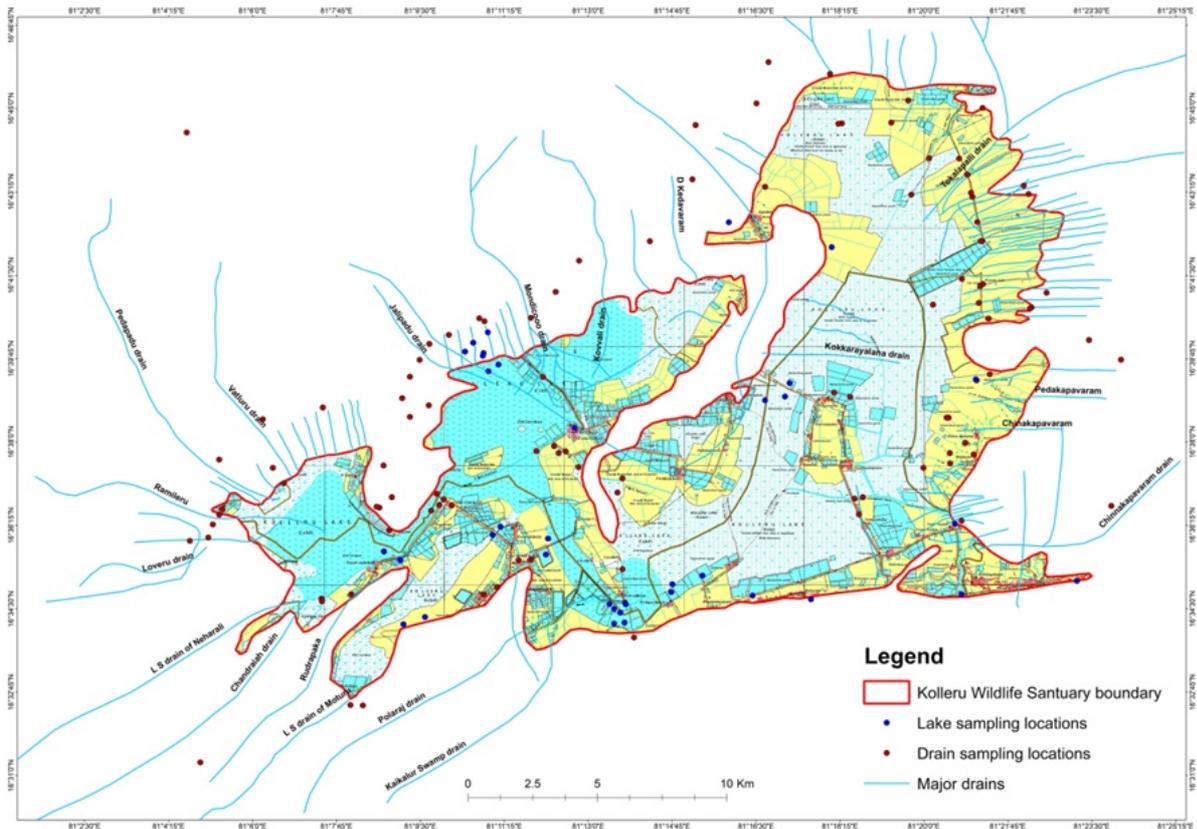


Figure 1: Map showing the drain and lake sampling locations

Table 2: Status of the sampling for Phase-II

| S.No | Name of the drain/lake | Name of the village | Status | Remarks |
|------|--|---------------------|------------------|--|
| 1. | Seshaiahkodu Major Drain | Mondikodu | Visited | Sample not collected due to heavy water hyacinth growth and water available in patches |
| 2. | Pedakodu Minor Drain | - | Sample Collected | - |
| 3. | Mondikodu of veranda kunta Minor Drain | - | Visited | Sample was not collected as the drain was dried |
| 4. | Chandraiah Kodu minor drain | - | Visited | Sample was not collected as the drain was dried |
| 5. | Racha kodu Minor Drain | - | Visited | Sample was not collected as the drain was dried |
| 6. | Ramileru Major Drain | - | Visited | Sample was not collected as the drain was dried |
| 7. | Loyeru Drain | - | Visited | Sample was not collected as the drain was dried |
| 8. | Mundikodu Minor drain | Pathamuppuru | Sample Collected | - |

| | | | | |
|-----|-------------------------------|----------------------|---------|--|
| 9. | Thadicheruvu Minor drain | Jalipudi village | Visited | Sample not collected as the drain was dried |
| 10. | Sathyannarayana kodu | Jalipudi village | Visited | Sample not collected as the drain was dried |
| 11. | Rayaletikaluva | Koteswaradurga puram | Visited | Sample not collected as the drain was dried |
| 12. | Kondepati minor drain | Jalipudi village | Visited | Sample not collected as the drain was dried |
| 13. | Kolleti Road Punthakodu drain | Pedanindrakolanu | Visited | Sample not collected as the drain was dried |
| 14. | Gangadevi kodu drain | Adavikodu | Visited | Sample not collected due to low water level and dense Salvinia growth |
| 15. | Kothakodu drain | Adavikolanu | Visited | Sample not collected due to heavy water hyacinth growth and no accessibility |
| 16. | Mondipunthakodu Drain | Pedanindrakolanu | Visited | Sample not collected as the drain was dried |
| 17. | Varlacodu Drain | Adavikolanu | Visited | Sample not collected due to low water level and dense Salvinia growth |
| 18. | Veepukudu minor Drain | Pedanindrakolanu | Visited | Sample not collected as the drain was dried |
| 19. | Gongaraladoku minor Drain | Pedanindrakolanu | Visited | Sample not collected as the drain was dried |
| 20. | Urakodu Minor Drain | Chinamillipadu | Visited | Sample was not collected as the drain was dried |
| 21. | Deepamkodu Minor Drain | Kalegudem | Visited | Sample was not collected as the drain was dried |

Third progress report on "Comprehensive scientific study to save Kolleru wildlife sanctuary and wetland of Kolleru"



| S.No | Name of the drain/lake | Name of the village | Status | Remarks |
|------|---|--------------------------------|------------------|---|
| 22. | Nadumukodu Drain | Kalegudem | Visited | Sample was not collected as the drain was dried |
| 23. | Kantrirajukodu minor Drain | Chinamillipadu | Visited | Sample was not collected as the drain was dried |
| 24. | Panchayat Cheruvu | Manugunu | Visited | Sample not collected as the drain was dried |
| 25. | Siddapuram Minor Drain | Kuripaka | Visited | Sample was not collected as the drain was dried |
| 26. | Chinakapavaram Medium Drain | Kolaparru | Visited | Sample was not collected as the water level was low and dense growth of water hyacinth. |
| 27. | Budameru Connectivity | Gudivakalanka | Visited | Sample was not collected due to growth of water hyacinth hence no boat access available |
| 28. | Gudivakalanka Boat Point | Gudivakalanka | Visited | Sample was not collected due to growth of water hyacinth hence no boat access available |
| 29. | Buddameru Connectivity at Gudivakalanka | Yaganamelli | Visited | Sample was not collected due to growth of water hyacinth |
| 30. | Koteshwaradurgapuram drain | Koteshwaradurgapuram | Visited | Sample not collected as the drain was dried |
| 31. | Pedacodu drain | Gudivakalanka | Visited | Sample was not collected due to growth of water hyacinth |
| 32. | Patha vaiyaru drain Non notified | Sidhapuram | Visited | Sample not collected as the drain was dried |
| 33. | Upputeru | Kurapaka | Visited | Sample not collected due to heavy water hyacinth growth |
| 34. | Uracodu drain in kolleru (Paddy cultivation area) | Chinimilipadu | Sample Collected | - |
| 35. | Kolleru Lake Near Peddaedla Bridge | Manugunuru | Visited | Sample was not collected as there was huge growth of water hyacinth |
| 36. | Kolleru lake | At Madhavapuram Bird Sanctuary | Sample Collected | - |
| 37. | Kolleru lake | At Madhavapuram Bird Sanctuary | Sample Collected | - |
| 38. | Kolleru lake | At Madhavapuram Bird Sanctuary | Visited | Sample not collected due to low water level and hence no boat accessibility |
| 39. | Kolleru lake | At Madhavapuram Bird Sanctuary | Sample Collected | - |

| S.No | Name of the drain/lake | Name of the village | Status | Remarks |
|------|--------------------------|--------------------------------|------------------|---|
| 40. | Kolleru lake | At Madhavapuram Bird Sanctuary | Visited | Sample not collected due to low water level and hence no boat accessibility |
| 41. | Village Pond at Chruch | Gudivakalan ka | Sample Collected | - |
| 42. | Kolleru lake | At Madhavapuram Bird Sanctuary | Visited | Sample not collected due to low water level and hence no boat accessibility |
| 43. | Kolleru lake | At Madhavapuram Bird Sanctuary | Visited | Sample not collected due to low water level and hence no boat accessibility |
| 44. | Kolleru outlet- upputeru | In between Alapadu and Akividu | Sample Collected | Sediment not collected in Grab even after multiple trials |
| 45. | Ralla cheruvu | Akividu | Sample Collected | - |

Floral Diversity:

The field survey for floral diversity was carried out during first week of March 2023. The places near Kolleru Lake such as Madhavpuram (Kolleru Wildlife Sanctuary), Atapaka Bird Sanctuary, Gudivakalana, Chettunnnapadu, Prathikolanka, Kovvalanka, Uppeteru Bridge, Kolletikota, Siddapuram, Adavikolanu, Kaikuluru, Denduluru, Akiveedu, Bhimadhole, Nidamaruru, and Pedapadu were visited. The team member went through various places to conduct the study of biodiversity, riparian zone, catchment area, and assessment of aquaculture and its related impact on the lake. During the survey, teams visited local people and fishermen to know the real conditions and livelihoods dependent on Kolleru Lake. The second visit conducted on June 5, 2023.



(A)



(B)

Survey during field visit at various places near Kolleru Lake by Project team (A & B)

Faunal Diversity:

CSIR-NEERI's team visited Kolleru Wild life sanctuary (WLS) to assess avifauna, herpetofauna and wildlife diversity in the study area during 25th - 28th May 2023.



- Sarkar canal
- Kovadalanka



In order to assess the faunal biodiversity prevailing in the study area, CSIR-NEERI Team reached Elluru on 24th May, 2023 in the evening and discussed the field visit plans with Forest officials. On 25th May 2023, a site visit was initiated with the help of officials of Forest department at Kolleru Lake with the objective of assessing the abundance and diversity of bird species, particularly resident species, during the summer season. Kolleru Lake, known for its rich avian population, provided an ideal setting for this observation. The study ended on 28th May, 2023.

WLS/Wetland Sites visited:

- Madhavapuram and nearby area
- Bobbillilanka
- Chettannapadu
- Paidichinthapadu
- Attapakka
- Pelleveda
- Pedhayeddlagdi

- Nidamannurru , Vijayawada (Sarkar canal)

Third progress report on “Comprehensive scientific study to save Kolleru wildlife sanctuary and wetland of Kolleru”

Observation Details:



The observation took place during two sessions: morning and evening. During these sessions, more than 50 bird species were recorded which included water and terrestrial birds.

Findings:

1. Abundance and Diversity:

- **Water Birds:** Among the recorded species, water birds were more showcasing the lake's importance as a habitat for aquatic avifauna. **Spot-billed pelican** and **Paintedstorks** two **near threatened** species were found to be the most abundant birds alongwith **Glossy ibis** and **lesser whistling teals** in the study area.

- **Terrestrial Birds:** Additionally, significant number of terrestrial bird species were observed, highlighting the diverse range of habitats within the vicinity of Kolleru Lake. Interestingly there were numerous nesting sites of **Baya weaver** found in the peripheryof the lake.

2. Resident Species:

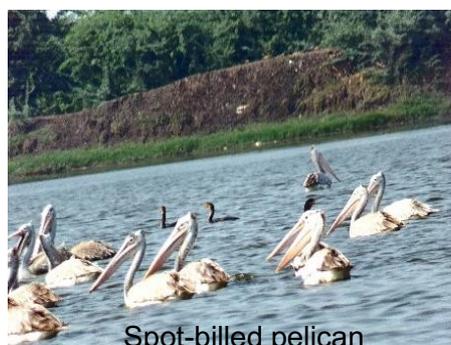
- The focus of this observation was primarily on resident bird species. By analyzing the collected data, it was evident that a significant number of resident bird species were present, indicating the lake's ability to sustain avian populations throughout the year.

Disclaimer:

Please note that the observations made during this site visit are based on the data collected during 25-28 May, 2023 and may not reflect the current status of the avian population at Kolleru Lake.

Photoplates

Glossy ibis



Spot-billed pelican

**Way Forward:**

The samples analysis has been completed and the maps preparation is in progress. The draft report is under preparation and will be submitted by the end of February 2024.

Item No. 08(i) & (ii):-**BEFORE THE NATIONAL GREEN TRIBUNAL
SOUTHERN ZONE, CHENNAI**

(Through Video Conference)

**Original Application No. 259 of 2020 (SZ)
WITH
Original Application No. 02 of 2021(SZ)****IN THE MATTER OF:**

Tribunal on its own motion SUO MOTU based on the News Item in The Indian Express, Newspaper dt: 09.12.2020, "Andhra town Eluru hit by 'mystery' illness, traces of lead, nickel in blood samples", News Item in The Times of India, Newspaper dt: 08.12.2020, "Heavy metal content in water caused mysterious disease in AP", & News Item in NDTV, dt: 09.12.2020, "Lead, Nickel found in blood of people with mystery illness in Andhra Pradesh.

And

The Chief Secretary of Govt. of Andhra Pradesh and Ors.

...Respondent(s)

WITH

Tribunal on its own motion - SUO MOTU based on the News item in The Hindu, edition dated 15.12.2020, Kolleru (West Godavari Dt.) "Mystery illness raises concerns over Kolleru pollution".

And

The Chief Secretary to Govt. of Andhra Pradesh & Ors.

...Respondent(s)

Date of hearing: 24.03.2023.

CORAM:

HON'BLE Smt. JUSTICE PUSHPA SATHYANARAYANA, JUDICIAL MEMBER

HON'BLE Dr. SATYAGOPAL KORLAPATI, EXPERT MEMBER

O.A. No. 259/2020(SZ):

For Applicant(s): Suo Motu.

For Respondent(s): Mrs. Madhuri Donti Reddy for R1 to R7.

O.A. No. 02/2021(SZ):

For Applicant(s): Suo Motu.

For Respondent(s): Mrs. Madhuri Donti Reddy for R1 to R8.

ORDER

1. The report of the Andhra Pradesh Pollution Control Board is filed wherein, they have attached the progress report on the comprehensive scientific study to save the Kolleru Wildlife Sanctuary and the wetland of Kolleru.
2. The Andhra Pradesh Pollution Control Board awarded the above study to the NEERI on 09.11.2022 and 07.12.2022. After accepting the work order, the NEERI has taken samples from various places, and the particulars of which are given in the report.

3. The result of the report is awaited. Though it is stated that the report of the final analysis would take more than a year, it is submitted by the learned Government Pleader that they would get interim analysis report from the NEERI periodically.
4. Post the matter on 08.05.2023.

Sd/-

Smt. Justice Pushpa Sathyanarayana, JM

Sd/-

Dr. Satyagopal Korlapati, EM

O.A. No.259/2020(SZ) &
O.A. No.02/2021(SZ)
24th March 2023. Mn.



Item No. 07(i) & (ii):-**BEFORE THE NATIONAL GREEN TRIBUNAL
SOUTHERN ZONE, CHENNAI***(Through Video Conference)***Original Application No. 259 of 2020 (SZ)****With****Original Application No. 02 of 2021(SZ)****IN THE MATTER OF:**

Tribunal on its own motion SUO MOTU based on the News Item in The Indian Express, Newspaper dt: 09.12.2020, "Andhra town Eluru hit by 'mystery' illness, traces of lead, nickel in blood samples", News Item in The Times of India, Newspaper dt: 08.12.2020, "Heavy metal content in water caused mysterious disease in AP", & News Item in NDTV, dt: 09.12.2020, "Lead, Nickel found in blood of people with mystery illness in Andhra Pradesh.

And

The Chief Secretary of Govt. of Andhra Pradesh and Ors.

...Respondent(s)

WITH

Tribunal on its own motion - SUO MOTU based on the News item in The Hindu, edition dated 15.12.2020, Kolleru (West Godavari Dt.) "Mystery illness raises concerns over Kolleru pollution".

And

The Chief Secretary to Govt.of Andhra Pradesh & Ors.

...Respondent(s)

Date of hearing: 05.02.2024.

CORAM:

HON'BLE Smt. JUSTICE PUSHPA SATHYANARAYANA, JUDICIAL MEMBER

HON'BLE Dr. SATYAGOPAL KORLAPATI, EXPERT MEMBER

O.A. No. 259/2020(SZ):

For Applicant(s): Suo Motu.

For Respondent(s): Mrs. Madhuri Donti Reddy for R1 to R7.

O.A. No. 02/2021(SZ):

For Applicant(s): Suo Motu.

For Respondent(s): Mrs. Madhuri Donti Reddy for R1 to R8.

ORDER

1. For filing the report of the District Collector, the learned Government Pleader - Andhra Pradesh seeks time.
2. Post the matter on **11.03.2024**.

Sd/-
Smt. Justice Pushpa Sathyanarayana, JM

Sd/-
Dr. Satyagopal Korlapati, EM

**O.A. No.259/2020(SZ) &
O.A. No.02/2021(SZ) &
05th February, 2024. AD.**