

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

Original Application No. 99 of 2017

**R. Dinesh,
S/o. M.S. Ramasamy,
No.6, Parvathi Nagar,
Pudupalayam,
Gobichettypalayam Taluk,
Erode District.**

...Applicant

Vs

**1. Gobichettypalayam Municipality,
Re. by its Commissioner,
Municipal Office, Cutcherimedu,
Erode Main Road,
Gobichettypalayam, Erode & 2 others**

...Respondents

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Filed by
Tmt. Shanmugavalli Sekar,
Advocate



Report of the Joint Chief Environmental Engineer (Monitoring), TNPCB, Salem in connection with O.A. No. 99 of 2017 filed before the Hon'ble NGT (SZ) by Mr. R. Dinesh regarding the dumping of Municipal Solid Waste by the Gobichettipalayam Municipality, Erode District, Tamil Nadu.

1. Background

It is submitted that an application was filed before the Hon'ble National Green Tribunal (SZ) vide O.A. No. 99 of 2017 by Mr. R. Dinesh residing at No. 6, Parvathy Nagar, Pudukalayam, Gobichettipalayam Taluk, Erode District stating that the dumping of Municipal Solid Waste by the Gobichettipalayam Municipality of Erode District was carried out at the adjacent site of T. S. No. 2, Block 5, Ward D of Gobichettipalayam Municipality, Erode District resulted in complete contamination of Ground water and also prayed before the Hon'ble NGT (SZ)

- a) To cease the dumping of waste at the site, T.S.No.2, Block 5, Ward D of Gobichettipalayam Municipality, Erode District
- b) To remediate the said site, restore it to its previous pristine state including remediation of ground water and soil.
- c) To Direct the 3rd Respondent, District Environmental Engineer, TNPCB, Perundurai to initiate prosecution under the Environment (Protection) Act, 1986, the Water (Prevention and Control of Pollution) Act, 1974 and the Air (Prevention and Control of Pollution) Act, 1981 for violations committed by them.

In this connection, the Hon'ble National Green Tribunal in its orders dated 19.12.2019, 27.01.2020, 30.06.2020, 30.09.2020, 07.01.2021, 14.06.2021, 31.08.2021, 24.11.2021 and 09.12.2021 has given various directions to the Gobichettipalayam Municipality, Tamil Nadu pollution Control Board and the Joint Committee comprising of officials from Central Pollution Control Board (CPCB), Regional Office, Ministry of Environment,

Forest and Climate Change (MoEF&CC), Chennai and Tamil Nadu State Pollution Control Board (TNPCB). Accordingly, the Joint Committee has submitted Reports before the Hon'ble National Green Tribunal in compliance with the orders issued.

The Hon'ble National Green Tribunal (SZ) in its latest order dated 15.02.2022 has issued various Directions to the Joint Committee. In this connection, the said site was inspected by the Joint Committee along with the officials of TNPCB on 10.03.2022 in the presence of Municipal Engineer, Gobichettipalayam Municipality and the report is submitted as below.

2. Status of Biomining:

Earlier, the Centre of Environmental Studies, Anna University has estimated the quantity of legacy waste to be processed by the Gobichettipalayam Municipality as 40,000 m³. In this connection, the Municipality has reported that they have processed the estimated quantity of 40,000 m³ and the same is to be certified by the Centre of Environmental Studies, Anna University.

Further, there is around 2682 m³ of buffer quantity of legacy waste in the said biomining site in addition to the already estimated 40,000 m³ of legacy waste. In this connection, a tender was already floated by the Gobichettipalayam Municipality for biomining of this buffer quantity of 2682 m³ of legacy waste and a work order has been issued vide ROC No. 2152/2021/E1, dt. 29.10.2021 to M/s. Explosive Enterprises, Gobichettiplayam.

During inspection, it was observed that the said biomining work was not yet completed and the Recovered materials were stored inside the premises of the dumpsite.

3. Previous Soil Analysis carried out by the Municipality:

As directed by the Hon'ble NGT (SZ) in its order dated 14.06.2021, the Gobichettipalayam Municipality has earlier conducted the soil test through the Tamil Nadu Agricultural University, Coimbatore on 16.08.2021. The representative samples (3 Nos) were collected by the Tamil Nadu

Agricultural University, Coimbatore from the biomining completed site as directed by the Hon'ble NGT. The Report of Analysis reveals the following.

Parameters	Sample-1	Sample-2	Sample-3
pH	9.23	9.01	9.02
EC (ds/m)	0.95	0.90	0.89
Total Arsenic (mg/Kg)	172	199	185
Total Cadmium (mg/Kg)	BDL	BDL	BDL
Total Chromium (mg/Kg)	14.0	13.5	13.0
Total Lead (mg/Kg)	6.0	1.0	2.5
Total Mercury (mg/Kg)	BDL	BDL	BDL
Total Nickel (mg/Kg)	BDL	BDL	BDL
Total Copper (mg/Kg)	BDL	BDL	BDL
Total Zinc (mg/Kg)	6.0	19.5	17.5

BLD – Below Detectable Limit

The Report of Analysis has concluded that all the heavy metals except Arsenic are within the permissible limit. Further, it was stated that Maximum Permissible Limit for Arsenic in Soil is 20 mg/Kg.

4. Present Collection of Soil and Bio compost samples by the Joint Committee:

Now, the Joint Committee has collected the soil samples from the legacy waste site during inspection on 10.03.2022. The details of sample collected, and the Lat-long coordinates of the sample collection points are submitted below.

S. No	Details of Sample Collection Point	Details of samples collected
1	Location 1: Point at which Biomining was already completed Lat- Long Coordinates: 11°27'23.8"N, 77°26'46.1"E	3 Nos of Soil samples were collected at a 1. Depth of 0 – 0.5 m 2. Depth of 1 – 1.5 m 3. Depth of 2.0 – 2.5 m
2	Location 2: Adjacent land at 50 m away from the Biomining site Lat- Long Coordinates: 11°27'25.0"N, 77°26'45.3"E	3 Nos of Soil samples were collected at a 1. Depth of 0 – 0.5 m 2. Depth of 1 – 1.5 m 3. Depth of 2.0 – 2.5 m
3	Location 3: Point at which legacy waste was levelled. Lat- Long Coordinates: 11°27'22.4"N 77°26'45.3"E	2 Nos of Soil samples were collected at a 1. Depth of 2 m (Mixture of Legacy waste and Soil) 2. Depth of 4.0 m (soil)
4	Location 4: Dumped Legacy waste Lat- Long Coordinates: 11°27'22.7"N 77°26'43.8"E	1 No of legacy waste sample collected at 2 m from the top level.
5.	Location 5: At the entrance of the legacy waste dump site Lat- Long Coordinates: 11°27'21.5"N 77°26'45.2"E	2 Nos of Soil samples were collected at 1. Top layer (Mixture of Legacy waste and Soil) 2. Depth of 1.0 m (soil)
6	Bio compost sample	Sample from the Bio compost from the Biomining site

Two sets of samples were collected at the above locations. One set of samples were handed over to the Gobichettipalayam Municipality to analyze through Tamil Nadu Agricultural University, Coimbatore and another set of samples were handed over to a NABL Accredited third party laboratory for analysis. The Reports of Analysis are awaited.

5. Status of Ground Water Quality

In compliance of the earlier orders passed by the Hon'ble NGT(SZ), the ground water samples were collected in and around the dumpsite area and the report was submitted to the tribunal on 09.09.2020. **The analysis results reveal that concentration of Arsenic, Cadmium, Chromium (as Cr6+), Copper, Cyanide, Lead, Mercury, Nickel, Nitrate, Iron as Fe, Phenolic Compound, Zinc are Below Detectable Limit / Below Limit of Quantification, i.e., within the desirable limits in all the 10 sample locations.** The Reports of analysis are submitted vide Annexure 1. The details of the sampling locations are given below;

Sample Code No.	Sampling Points	Nature of Sample
GM - 1	Mr. Thirunavakarasu, S/o. Ramanandhan, Durai Bore Well Near Karattur Municipal Compost Yard, Gobichettipalayam (SC. No. 302 – 002 – 750)	Bore Well water
GM - 2	Municipal Bore Well Karattadipalayam Main Road, KaratturPillayarkovil Street, Gobichettipalayam (SC. No. 302 – 002 – 1088)	Bore Well water
GM - 3	Mr. Sreenivasan, M/s. Premier Modular Woodcrafts Co., No. 44/76, Pillayarkovil Street, Gobichettipalayam (SC. No. 302 – 002 – 0049)	Bore Well water
GM - 4	Municipal Bore Well SakthiVinayagar Temple, Children's Park, TRR Nagar, Gobichettipalayam (SC. No. 302 – 002 – 518)	Bore Well water
GM - 5	Ms. K. R. Sudhandira, W/o. M. Ravichandran, 2E, TRR Nagar Main Road, Parvathy Nagar, Gobichettipalayam (SC. No. 302 – 002 – 906)	Bore Well water

GM - 6	Emerald House Lodge, Erode Main Road, Gobichettipalayam (SC. No. 302 – 002 – 122)	Open Well water
GM - 7	Ms. M. Vijayalakshmi, W/o. Murugan, 7, PillayarKovil Street, Karattur, Gobichettipalayam (SC. No. 302 – 002 – 208)	Bore Well water
GM - 8	Mr. A. Arumugam, No. 74, PillayarKovil Street, Karattur, Gobichettipalayam (SC. No. 302 – 002 – 0029)	Open Well water
GM - 9	Mr. Sengottaiyan, (M/s. Raj Motors) No. 1F, Pariyur Main Road, Gobichettipalayam (SC. No. 302 – 002 – 528)	Bore Well water
GM - 10	Municipal Bore Well, Erode Main Road, Mariamman Kovil Street, Gobichettipalayam (SC. No. 302 – 002 – 524)	Bore Well water

6. Conclusion & Recommendations:

Based on the analysis report of Ground Water samples, it is confirmed that the ground water quality around the dump site of Gobichettipalayam Municipality is not contaminated by Heavy metals such as Arsenic, Cadmium, Chromium (as Cr6+), Copper, Cyanide, Lead, Mercury, Nickel, Nitrate, Iron as Fe, Phenolic Compound, Zinc and it was observed that there is no impact on the surrounding groundwater quality due to the legacy waste dumpsite.

Earlier, the presence of arsenic contamination is identified based on the soil samples collected at the area where biomining is completed. Now, the soil samples are collected from the Biomining site and its adjacent site as well at different depths from the Ground level so as to ascertain the extent to which the soil is contaminated with Arsenic and other pollutants, if any.

The Bio compost sample was also collected for analysis to ascertain its conformity to the standards prescribed.

Based on the awaited Reports of Analysis, assessing the contamination and remedial measures required, if any for the bio mined area are to be carried out by Gobichettipalayam municipality after obtaining expert opinion and technical guidance through Tamil Nadu Agricultural University / Anna University or any other reputed organization.



District Environmental Engineer
TNPCB, Perundurai



Joint Chief Environmental Engineer (M),
TNPCB, Salem

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REPORT OF THE JOINT CHIEF
ENVIRONMENTAL ENGINEER
(MONITORING), TNPCB, SALEM

Advocate for Respondent No. 3
Tmt. Shanmugavalli Sekar,
Advocate, Chennai.

Date:07.04.2022.

Date of hearing on:08.04.2022