

**BEFORE THE HON'BLE NATIONAL GREEN TRIBUNAL**  
**SOUTHERN ZONE, CHENNAI**  
**Original Application No. 140/2020(SZ)**

Tribunal on its own motion  
Suo Moto based on the news item in  
Dinamalar Newspaper  
Chennai Edition dated 30.07.2020,  
"Will Perungudi Lake become an Ecological Park?"

.....Applicant(s)

Versus

The Principal Secretary / Commissioner  
The Greater Chennai Corporation & Others

....Respondent(s)

**STATUS REPORT FILED BY**  
**THE PRINCIPAL SECRETARY/COMMISSIONER,**  
**GREATER CHENNAI CORPORATION**

I, Gagandeep Singh Bedi, I.A.S., S/o. Dr. Tarlochan Singh Bedi, Sikh, aged about 53 years, the Principal Secretary/Commissioner, Greater Chennai Corporation, having an office at Ripon Buildings, Chennai 600 003, do solemnly affirm and sincerely state as follows:-

I am the Principal Secretary / Commissioner, Greater Chennai Corporation, and as such I am well acquainted with the facts and circumstances of the case.

1. I submit that, in regard to the directions of National Green Tribunal, the Centre for Environmental Studies, Anna University the Project Management Consultant (PMC) of the bio-mining operation at Perungudi processing centre was requested to study and furnish a report.

Accordingly, Anna University has furnished the report on 13.05.2022, which is as follows;

"The potential reasons for the pink color of the water body may be due to fast multiplication of pink pigment bearing microorganisms (bacteria or algae) as listed below.

<b>S. No.</b>	<b>Possible pigmented microorganisms</b>	<b>Reference</b>
1	Blooming of algal species belonging to the group of <b>dinoflagellates</b>	Genitsarius et al., 2019
2	Growth of <b>halophilicarchaesa</b>	Benlloch et., 2002
3	Distribution of <b>methanotrophs</b>	Martin et., 2021
4	Presence of <b>purple sulfur bacteria</b>	Diao et al., 2018

A set of water samples from the location was collected on 13th May 2022, and analysis is in progress to identify the presence of the above pigmented microorganisms and the possible reason for their multiplication. Preliminary analysis indicates presence of methanotrophs. Leachate with high biodegradable organics from the dumpsite released into the water body could be reason for multiplication of methanotrophs which are methane oxidizing bacteria.

2. I submit that, the Anna University, Centre for Environmental Studies (CES), was requested to furnish a detailed report after conducting the tests by lifting the samples of the pink coloured water and from the surrounding area. The investigation of the samples is still going on at Anna University. After getting the report, further action will be taken to protect the water body at Perungudi processing centre.
3. In this connection, a letter was sent to Anna University requesting to further study the issue and furnish a report for preventing water pollution in the area.

4. I submit that, the Greater Chennai Corporation has taken up the Bio-Mining project for land reclamation for Perungudi processing centre, at an estimated cost of Rs.350.65 Crores under Swachh Bharat Mission, Government of India. The Bio-Mining of legacy waste is under progress and the project is progressing with good pace. The said project is expected to be completed within the contract period of three years by September-2024.
  
5. I submit that, the process of Bio-Mining of legacy waste consists of pre-stabilisation of the old waste through formation of Windrow and then separation of various waste fractions as Refuse Derived Fuel (RDF), recyclable materials, inert and bio-soil through mechanical sieving, wherein multiple trammel (rotating sieving system) and various electro-mechanical apparatus are deployed in a continuous process. The above steps are in tune with the guidelines prescribed by the Government of India's Solid Waste Management Rules 2016.
  
6. I submit that, the ongoing Bio-Mining project, including disposal of various fractions, is being monitored by the Professors and faculty of Center for Environmental Studies Department, Anna University (which is also the Project Management Consultant) on a continuous

basis. They conduct in person monitoring on a daily basis and also do real time monitoring through web - enabled services.

7. I submit that, as on date, on an average, daily 2,300 MT of waste is being processed / deposited at Perungudi processing centre. Greater Chennai Corporation is striving hard to segregate the waste at source itself. The percentage of segregation has already increased to above 75%. Since the waste is segregated in a larger manner now, the segregated waste is being processed through 206 Micro Composting Centres, six Biomethanation plants, one big Bio-CNG plant (100MT capacity), two Windrow Composting Centres of 100 TPD capacity and four Garden and Coconut waste shell processing plants of 320 TPD capacity etc. The balance waste is placed at Perungudi processing centre and Kodungaiyur processing centre.

8. I submit that, the Pallikaranai solid waste processing centre site was used by erstwhile Alandur Municipality for dumping garbage collected in the municipality. After merger with Greater Chennai Corporation, the dumping of garbage was completely stopped here and action had been initiated to reclaim the dump yard upto ground level through Bio-Mining and the same was completed in the year

2021. "Pallikaranai dump yard" is given the name due to its proximity to Pallikaranai and it is located in the western side of the Pallikaranai marsh land across the Highways Road and adjacent to the Commercial / Residential areas and it is not a marsh land. The Bio-Mining has been completed upto Ground level and the area has been reclaimed and leveled. However, it is submitted that the legacy waste is also available to a depth of 5-8 meter on an average, which, though covered now by earth, needs to be monitored for the next decade as it may still be vulnerable for very low methane formation in small pockets. This has to be continuously monitored by the Greater Chennai Corporation's Solid Waste Management officials and Anna University Technical and Environmental Experts and hence the site can only be utilized for Tree Planting and Solid Waste Management related projects etc. Hence, in the recovered land, at present only two Micro compost centers of 26MT capacity, a baling centre to handle plastic waste and a BOV parking station are functioning in compliance with the SWM Rule 2016. Chennai Metro Water Supply and Sewerage Board (CMWSSB) is also constructing an overhead tank of 50 lakh liters capacity for the Madipakkam area water supply.

9. I submit that, the officials of Greater Chennai Corporation and Anna University are also proposing to put up monitoring mechanism to ascertain the underground methane formation in this predominantly vacant land at the biomined Pallikaranai yard. It will not be feasible to handover the site to any other department in view of the prevalent levelled legacy waste below the ground level. The above legacy waste is also not preferred to be biomined as it will cause water-incursion and environmental hazard in this area which, as already submitted, lies in the midst of commercial / residential locality. The best option is to monitor for the environmental parameters and create the green belt / Solid Waste Management processing units alone over here. In order to conserve the nature and put up a green belt in the area, the Greater Chennai Corporation has also proposed to construct a Material Recovery Facility of 500 TPD capacity plant and also a massive Green belt in the remaining area, in compliance with the SWM Rules 2016. Hence, Greater Chennai Corporation is not in a position to handover the recovered land to the Forest Department in view of the Environmental monitoring requirement as explained above.

10. I submit that, it is pertinent to mention that the Metropolitan city like Chennai cannot be deprived of major garbage handling and

processing facilities sites. If there is no land for handling and processing of garbage in a metropolitan city, then it will be an Environmental disaster and detrimental to the environment as such. The Greater Chennai Corporation is continuously taking all efforts to establish decentralized micro composting centers, Bio-CNG plants, Windrow Compost Centers, Garden Waste Processing facilities, Construction and Demolition waste processing facilities in the available lands in the landfill sites for last few years to scientifically handle the wet and dry waste.

11. I submit that, in order to completely stop the dumping of fresh waste at landfill sites, 100% processing of fresh garbage is essential and to achieve this milestone, the Greater Chennai Corporation has also proposed Integrated solid waste processing facilities at Kodungaiyur and Perungudi processing centers. The Government of Tamil Nadu has already announced in the floor of Tamil Nadu Legislative Assembly that the Kodungaiyur processing center will have Waste to Energy plant in order to produce electricity by incineration of dry waste. This site is also proposed to have an Automated Material Recovery Facility plants, Mega Bio-CNG plants in line of such facilities in cities like Indore. Similarly at Perungudi dump yard, Bio-CNG plants (White category

industry), Windrow Composting plant and Automated Material Recovery Facility plants are proposed. The Bio-CNG plant is used to convert the wet waste to Bio-methane gas and this is a step recommended by Government of India also to usefully digest the fresh wet waste. The windrow composting units also are useful to convert the wet waste to manure for the use of farmers in producing organic agriculture. Automated Material Recovery facility units have segregation machinery and conveyor / processing units to segregate the dry garbage (fresh garbage), which can then be sent to recycling industry and the balance dry waste sent for incinerator as Refuse Derived Fuel in cement / other industries. Hence, it is submitted that though Bio-mining will take care of the legacy waste, the dump yard does essentially and compulsorily need concurrent wet and dry waste processing facilities as explained above to process the current and daily oncoming wet and dry waste.

I hence submit that, in order to cater to the 2300 MT waste of the city daily, Greater Chennai Corporation has proposed to construct a Bio-CNG plant of 500 TPD capacity and windrow composting Centre of 600 TPD capacity to handle the wet organic waste at Perungudi landfill site. It is also proposed to setup an

automated material recovery facility of 500 TPD capacity to handle the dry waste.

12. It is further submitted that, Bio-Mining project is under implementation at Perungudi processing centre upto ground level. Similarly to the Pallikaranai site, legacy waste will also be available in Perungudi processing centre below ground level to a depth of 10m on an average which also needs to be monitored for the next decade as it may still be vulnerable for low methane formation in small pockets. This site has also to be continuously monitored by the Greater Chennai Corporation's Solid Waste Management officials and Anna University Technical and Environmental Experts. It is proposed to put up a monitoring mechanism to ascertain the underground formation of methane gas and water quality in this land as same as at Pallikaranai site. The area needed for Bio-CNG plant, Windrow composting units and Material Recovery facility units will, of course, be lesser. The major Perungudi area is also being converted to an eco-belt by massive tree planting which will be done in consultation with the experts of Forest department.

I again wish to submit that, for setting up the integrated processing facilities, availability of land is of prime importance to

process the concurrent wet / dry waste. Perungudi processing centre is the only available land with Greater Chennai Corporation in South Chennai of a larger extent for the proposed solid waste management projects. Such projects are also available in a city like Indore, which is an ideal city in Solid Waste Management. After completion of Bio-Mining operation, the reclaimed land will be utilized effectively with these facilities, green-eco-belt and Eco park and monitoring units to monitor methane formation of sub-ground legacy waste.

13. I submit that, currently Construction and Demolition waste and Garden Waste processing plant are established in an area of 16 acres in the Perungudi processing centre. They are currently operational. For establishing the Bio-CNG Plant Windrow Composting Centre, and Automated Material Recovery Center, around 75 acres is required, in addition to the existing processing facilities. Further, as already submitted in the previous paragraphs, the Greater Chennai Corporation has proposed to develop Eco park / Miyawaki forest to an extent of 50 Acres to enhance the environmental aspects. The methane gas monitoring mechanism will be put up in the entire area as explained earlier.

14. I submit that, the Greater Chennai Corporation has further proposed to appoint a Consultancy Agency who shall demarcate the total land at Perungudi landfill site under possession of Greater Chennai Corporation and shall prepare the Master plan of land usage indicating the existing and proposed solid waste management facilities, in compliance with various Environmental Laws and Solid Waste Management Rules 2016. I submit that, in this regard, TNUIFSL has been requested to take up the appointment of Consultancy Agency, who shall prepare Detailed Project Report (DPR).

15. I submit that, as detailed above, the Greater Chennai Corporation has proposed to implement integrated environmental friendly White Category projects such as Bio-CNG Plant, Windrow composting and Mega Material Recovery Facility and also development of Eco park after land reclamation.

I respectfully submit that, as elaborated above, the only available land in South Chennai to process solid waste in Greater Chennai Corporation is in the Perungudi area, where the Perungudi landfill site is situated.

  
Principal Secretary / Commissioner  
Greater Chennai Corporation.

Hence, the Greater Chennai Corporation is not in a position to handover the land. Nevertheless, the Greater Chennai Corporation will continue to maintain the land in an environment friendly manner by creating an Eco Park and other Environmentally friendly processing projects besides continuously monitoring the landfill site.

It is therefore prayed that this Hon'ble National Green Tribunal may be pleased to consider the above facts and pass suitable orders as this Hon'ble Tribunal may deem fit and proper under the circumstances of the case and thus render justice.

Solemnly affirmed at Chennai on this the 27<sup>th</sup> day of July 2022 and signed his name in my presence.

  
Principal Secretary / Commissioner  
Greater Chennai Corporation.

) Before Me  
) ASRA 22/7/2022

) Advocate : Chennai  
119, Addl. Law Chambers,  
High Court, Ch-104.

**NATIONAL GREEN TRIBUNAL  
CHENNAI:: (SOUTHERN ZONE)**

**O. A. No. 140 of 2020**

**STATUS REPORT**

**M/s. P.T. Ramadevi**

**Enroll No.1732/2000**

**COUNSEL FOR RESPONDENT**