

INSPECTION REPORT OF THE JOINT COMMITTEE CONSTITUTED BY THE HON'BLE NATIONAL GREEN TRIBUNAL (SOUTHERN ZONE) IN RESPECT OF O.A NO. 17 OF 2020 (SZ) SUOMOTU ON THE BASIS OF THE NEWS PAPER REPORT PUBLISHED IN "THE NEW INDIAN EXPRESS" CHENNAI EDITION DATED 23.01.2020 AUTHORED BY M/S. MADUMITHA VISWANATH UNDER THE CAPTION "CITY LAKES FILLED WITH SEWAGE AND GARBAGE"

1. ORDERS OF THE HON'BLE TRIBUNAL

It is respectfully submitted that the Hon'ble National Green Tribunal (SZ), Chennai in its order dated. 24.01.2020 in the matter of O.A.No.17 of 2020 inter alia stated that:

- 1. The above case has been taken Suo Motu by this Tribunal on the basis of the News Paper report published in "The New Indian Express", Chennai Edition dated: 23.01.2020 authored by M/s. Madumitha Viswanath under the caption "City Lakes filled with Sewage and Garbage". An express leg work reveals storm water drain do not serve the original purpose any more. Rains are directly carrying sewage into lakes.*
- 2. It is seen from the report that Sitheri, Chinna Eri and Periya Eri Lakes in Medavakkam area are acting as water bodies to cater the needs of drinking water of the people of the locality for long time. During summer it used to be dried and taking advantage of the same, the people as well as authorities are treating this as a dumping ground for garbage and discharging untreated sewage water. For the last ten years, there was no maintenance done and on account of encroachments, the extent of the water body has reduced.*
- 3. Further there has been no attempt on the part of the authorities to desilt the lake during summer so as to increase the water holding capacity and also to act as a water recharge unit during rainy season. The storm water drain is being converted in to sewage water drain, and the untreated sewage water is being discharged in the water body polluting the river bed. The people are also using this area for dumping garbage there by, affecting the purity of the water body. Though, it was brought to the notice of the authorities, no action was taken by the authorities.*
- 4. On going through the allegations made in the report, we feel that there is a substantial question of environmental arises requiring the intervention of this Tribunal to protect the water body. The local bodies are expected to maintain the water body properly, as these water bodies not only act as the resource for drinking and agricultural purpose, but also act as a water recharge in order to raise the ground water level and also as a habitat for birds and aquatic fauna.*
- 6. Accordingly, we feel it to appropriated to constitute a joint Committee comprising of District Collector of Chengalpattu District, Tamil Nadu Pollution Control Board, Secretary, Medavakkam Village Panchayat, Secretary Vengaivasal Village Panchayat and the Lake Protection authority if any constituted by the State Government in this regard to inspect the area in question and take appropriate action to remove action to remove the garbage and prevent untreated discharge of sewage in to the water body and submit a status and action taken report to this Tribunal within a period of two months. The committee is also directed to also trace out the violators and take action against those persons including initiating prosecution and imposing of environmental compensation etc.,*
- 7. They are also directed to mention in the report regarding the action plan if any, prepared by the local bodies for maintaining and restoring the water bodies in their area and what is its stage and also mention about the quality of water by conducting water analysis including the Bio Chemical Oxygen Demand (BOD), Chemical Oxygen*

Demand (COD), Potential of Hydrogen (PH), Total Coll Form (TC) and Faecal Coll Form (FC) and presence of harmful metals and the remedialion method adopted by them to purify the same and make it, at least a bathing level water for the time being.

9. The District Collector will act as the nodal officer for this purpose for complianc and coordination and also to provide logistic for this purpose. The committee is directed to submit this report to this tribunal by email at natszfiling@gmailmail.com before the date mentioned above."

And further in order dated 20.01.2021 directed inter alia that

"4. It is quite unfortunate that nearly one year have lapsed after forming the committee to go into the question of great importance concerning the environment but no report has been filed so far. Further, the allegations are regarding the dumping of the garbage and discharge of untreated sewage etc. but the Pollution Control Board also did not file any independent report regarding that aspect.

5. When this was pointed out, the learned counsel appearing for the Pollution Control Board submitted that if some time is granted, they will come with their independent report.

6. Considering the circumstances, we feel that one more opportunity can be given to the committee as well as to the Pollution Control Board to submit the report as well as independent report respectively".

2. COMPLIANCE OF THE DIRECTION

In due compliance of the orders of the Hon'ble National Green Tribunal, water samples were collected by the officials of Tamil Nadu Pollution Control Board along with Revenue Divisional Officer, Tambaram and Block Development Officer, St.Thomas Mount Panchayat Union (Medavakkam and Vengaivasal Panchayat) from the Medavakkam Periya Eir, Medavakkam Chinna Eri and Medavakkam Sitheri Lakes situated in Medavakkam and Vengaivasal Eri in Vengaivasal on 12/09/2020.

Collection of water sample to ascertain the quality of water in the Medavakkam Periya Eir, Medavakkam Chinna Eri and Medavakkam Sitheri Lakes situated in Medavakkam



Medavakkam Periya Eri Lake



Medavakkam Periya Eri Lake



Statement showing the value of the Physico chemical parameters analyzed

Sl. No	Parameters	Units	Point of Collection			TNPCB Standards (Inland Surface Water)
			Medavakkam Periya Eri Lake	Medavakkam Chinna Eri Lake	Medavakkam Sitheri Lake	
1	pH @ 25°C	No.	8.84	6.84	6.98	5.5-9
2	Total Suspended Solids @ 105°C	mg/L	4	124	150	100
3	Total Dissolved Solids @ 180°C	mg/L	275	698	773	2100
4	BOD @ 27°C	mg/L	4	23	23	30
5	COD	mg/L	24	200	240	250
6	Copper as Cu	mg/L	<0.033	<0.033	<0.033	3
7	Zinc as Zn.	mg/L	<0.01	<0.01	<0.01	1
8	Cadmium as Cd	mg/L	<0.013	<0.013	<0.013	2
9	Lead as Pb	mg/L	<0.07	<0.07	<0.07	0.1
10	Nickel as Ni	mg/L	<0.05	<0.05	<0.05	3
11	Total Chromium Cr	mg/L	<0.01	<0.01	<0.01	2
12	Hexavalent Chromium Cr ^{VI}	mg/L	<0.01	<0.01	<0.01	0.1
13	D.O	mg/L	5.5	Nil	Nil	5mg/l and above

Statement showing the value of the Bacteriological parameters analyzed

Sl. No	Parameters	Units	Point of Collection			Primary Water Quality Criteria for Bathing Waters prescribed by Central Pollution Control Board
			Medavakkam Periya Eri Lake	Medavakkam Chinna Eri Lake	Medavakkam Sithori Lake	
1	Total Coliform	MPN/100 ml	16000	390	2200	500 or less.
2	Faecal Coliform	MPN/100 ml	1700	68	470	500 (desirable) 2500 (Maximum Permissible)

Collection of water sample to ascertain the quality of water in the Vengalvasal Eri situated in Vengalvasal



Vengalvasal Eri



Vengalvasal Eri

Statement showing the value of the Physico chemical parameters analysed

Sl. No	Parameters	Units	Point of Collection	TNPCB Standards (Inland Surface Water)
			Vengalvasal Eri	
1	pH @ 25°C	No.	8.42	5.5-9
2	Total Suspended Solids @ 105°C	mg/L	79	100
3	Total Dissolved Solids @ 180°C	mg/L	629	2100
4	BOD @ 27°C	mg/L	25	30
5	COD	mg/L	240	250
6	Copper as Cu	mg/L	<0.033	3
7	Zinc as Zn	mg/L	<0.01	1
8	Cadmium as Cd	mg/L	<0.013	2
9	Lead as Pb	mg/L	<0.07	0.1
10	Nickel as Ni	mg/L	<0.05	3
11	Total Chromium Cr	mg/L	<0.01	2
12	Hexavalent Chromium Cr ¹⁶	mg/L	<0.01	0.1
13	D.O	mg/L	7	5mg/l and above

statement showing the value of the Bacteriological parameters analysed

Sl. No	Parameters	Units	Point of Collection	Primary Water Quality Criteria for Bathing Waters prescribed by Central Pollution Control Board
			Vengaivasal Eri	
1	Total Coliform	MPN/100 ml	16000	500 or less.
2	Faecal Coliform	MPN/100 ml	3500	500 (desirable) 2500 (Maximum Permissible)

The Report of analysis of the water samples collected from the said water body reveals that the Physico chemical parameters analyzed satisfy the Inland surface water standards prescribed by the Board.

Furthermore water sample collected from the Medavakkam Periya Eir, Medavakkam Chinna Eri, Medavakkam Sitheri and Vengaivasal Eri analysed for Bacteriological parameter reveals Total Coliform in Medavakkam Periya Eir, Medavakkam Sitheri Lake and vengaiwasal Eri and Faecal Coliform in Medavakkam Periya Eir and in Vengaivasal Eri exceeds the Primary Water Quality Criteria for Bathing Waters prescribed by Central Pollution Control Board.

3. REPORT FROM THE BLOCK DEVELOPMENT OFFICER, ST. THOMAS MOUNT PANCHAYAT UNION (MEDAVAKKAM AND VENGAIVASAL VILLAGE PANCHAYAT)

In due compliance of the said Hon'ble National Green Tribunal direction, the Block Development Officer, St. Thomas Mount Panchayat Union (Medavakkam & Vengaivasal Village Panchayat) furnishes the following detailed report:

MEDAVAKKAM VILLAGE PANCHAYAT:

- 1. Total Area of the Medavakkam Panchayat : 12.00 Sq Km**
- 2. Total Population of the Panchayat : 75000**
- 3. Total Household of the Panchayat : 18000**
- 4. No of Wards: 12 Nos**
- 5. Generation of total Solid Waste in the panchayat: 20.00 MT/day (Biodegradable waste - 10 MT and Non Biodegradable waste - 10 MT)**
- 6. Collection Mechanism: 13 E-Card Tricycles, 9 Tractors and with 42 sanitary Workers.**
- 7. Location of the Solid waste dumping yard: Medavakkam - Survey No 416/2 (12.916887, 80.195076)**
- 8. Quantity of Legacy Waste at dumping Yard: 300.00 MT**

SOLID WASTE MANAGEMENT

Generation of total Solid Waste in the village panchayat area: 20.00 MT/day (Biodegradable waste - 10 MT and Non Biodegradable waste - 10 MT)

Present status of collection and disposal of solid waste:

- Presently the waste collected from the Village Panchayat area is being collected from dustbins located in the streets by Panchayat sanitary workers using 13 E-Card Tricycles, 9 Tractors and with 42 sanitary workers and

dumped in the dump yard at S.F.No. 416/2 of Medavakkam Village which is owned by Medavakkam Village Panchayat

- Construction of Micro composting centre in the said site is in progress. and same will be expected to be completed and commissioned within one month



Door to Door Collection



Door to Door Collection

Proposals

1. 100% collection of solid waste being generated within its jurisdiction with proper segregation, door to door collection will be carried out by complying with the provisions of the Solid Waste Management Rules 2016 **within a month time.**
2. Micro composting centre will be completed and commissioned **within one month** to compost the segregated Biodegradable wastes of 10 MT/day and non degradable waste of 10 MT/day including plastic waste will be collected and will be disposed through recycling facilities/through co processing in the cement factories.

SEWAGE GENERATION AND SEWERAGE SYSTEM:

Present method of collection and mode of disposal of sewage:

The households and commercial establishments in the above said village panchayat area have their own individual septic tank and soak pit arrangements for the treatment and disposal of the sewage. However certain households/ commercial establishments dispose the sewage/sullage through storm water drains which reach the said water bodies.

Action Plan for Sewage Management

The Village panchayat has proposed to identify vulnerable locations and proposed to provide decentralized community soak pit arrangements within three month time.

VENGAIVASAL VILLAGE PANCHAYAT:

1. **Total Area of the Vengaivasal Village Panchayat : 538.86Ha**
2. **Total Population of the Panchayat : 29465**
3. **Total Household of the Panchayat : 8161**
4. **No of Wards: 12 Nos**
5. **Generation of total Solid Waste In the panchayat: 12.00 MT/day (Biodegradable waste - 6 MT and Non Biodegradable waste - 6 MT)**
6. **Collection Mechanism: 5 E-Cart, 15 Tricycles and with 32 sanitary Workers.**

SOLID WASTE MANAGEMENT

Generation of total Solid Waste in the Village Panchayat: 12 MT/day (Biodegradable waste -6 MT and Non Biodegradable waste – 6 MT)

Present status of collection and disposal of solid waste:

Presently the waste collected from the Village Panchayat area is being collected from dustbins located in the streets by the Panchayat sanitary workers using 5 E-Cart, 15 Tricycles and with 32 sanitary workers and the same is transported and dumped in the dump site located at Medavakkam Village. Establishment of Micro composting center is nearing completion for handling the segregated biodegradable waste.

Proposals

1. 100% collection of solid waste being generated within its jurisdiction with proper segregation, door to door collection will be carried out by complying with the provisions of the Solid Waste Management Rules 2016 **within a month time.**
2. Micro composting centre will be completed and commissioned **within one month** to compost the segregated Biodegradable wastes of 10 MT/day and non degradable waste of 10 MT/day including plastic waste will be collected and will be disposed through recycling facilities/through co processing in the cement factories.

SEWAGE GENERATION AND SEWERAGE SYSTEM:

Present method of collection and mode of disposal of sewage:

The households and commercial establishments in the above said village panchayat area have their own individual septic tank and soak pit arrangements for the treatment and disposal of the sewage. However certain households/ commercial establishments dispose the sewage/sullage through storm water drains which reach the water bodies.

Action Plan for Sewage Management

The Village panchayat has proposed to identify vulnerable locations and proposed to provide decentralized community soak pit arrangements within three month time.

REPORT OF THE PUBLIC WORKS DEPARTMENT:

Medavakkam Periya Eri:

Medavakkam tank is located at SF. No.261 of Medavakkam Village, Tamabaram Taluk of Chengalpet District which has the capacity to store 10 MCFT water to feed intended original ayacut of 80.57 Ha with a catchment of 0.68 sq miles. The water spread area of the tank is 58.32 Ha. As per the enumeration during the year 2009 by the revenue department, it was found 204 encroachments in the Tank bund and water spread area.

Vengaivasal Tank:

Vengaivasal tank is located at SF. No.95 of Vengaivasal Village, Tamabaram Taluk of Chengalpet District which has the capacity to store 12.46 MCFT water to feed intended original ayacut of 78.28 Ha with a catchment of 0.92 sq miles. The water spread area of the tank is 41.2 Ha. As per the enumeration during the year 2009 by the revenue department, it was found 142 encroachments in the Tank bund and water spread area.

There are plans for rehabilitation and restoration of all tanks including Medavakkam tank & Vengaivasal Tank in the overall Kovalam basin (comes under Chengalpattu and Chennai District) under Comprehensive Flood Mitigation Project with an amount of Rs.2000 crore which also involves creating biodiversity parks/ tree-planting around the banks of the water body protecting the lake against the future encroachment. Detailed Project Report has been sent to Government and after approval from the World Bank, the said project scheme will be executed and the repairs/renewal of shutters and all other component works to rehabilitate the Medavakkam tank & Vengaivasal Tank will be taken up including eviction of any encroachment in the survey to be made.

Medavakkam Chinna Eri & Medavakkam Sitheri:

It is respectfully submitted that the Public Works Department/ Water Resources Department, has submitted that the said Medavakkam Chinna Eri & Medavakkam Sitheri, located at Medavakkam Village are being controlled and monitored by the Block Development Office of St. Thomas Mount.

4. JOINT INSPECTION OF THE COMMITTEE

The members of the joint committee have carried out the inspection in the area in question on 12.09.2020.

5. OBSERVATIONS BY THE COMMITTEE

During the time of inspection, the committee observed the following

Medavakkam Periya Eri:-

1. Medavakkam Periya Eri is located at Survey No.261 of Medavakkam Village, Tambaram Taluk, Chengalpattu District.
2. Medavakkam Periya Eri is a PWD Tank. It has lost its irrigation potential long back due to agglomeration of Chennai City and its suburb over the period of time. Now, the tank serves mostly as a natural aquifer.
3. It is bounded by residences of Vadakkupattu Village in the Eastern and Northern side, Medavakkam- Madipakkam road & Nanmangalam Reserved Forest in the Western side and residences of Bell Nagar in the Southern side.
4. Medavakkam Periya Eri has a water spread area in an extent of 58.32 hectares and storage capacity of 10 MCFT.
5. Medavakkam Periya Eri is receiving water from its own catchment area. The overflow of this tank leads to Pallikaranai Lake and finally joins Pallikaranai Marsh land.
6. There is no dumping of solid waste but noticed disposal of sewage from the Medavakkam Village Panchayat area.
7. Encroachments in the form of residences and commercial shops in the Western, Northern and southern side of the said water body.

Medavakkam Chinna Eri:-

1. Medavakkam Chinna Eri is located at Survey No.174 of Medavakkam Village, Tambaram Taluk, Chengalpattu District.
2. Medavakkam Chinna Eri is a Panchayat Union Tank. It has lost its irrigation potential long back due to agglomeration of Chennai City and its suburb over the period of time. Now, the water body serves mostly as a natural aquifer.

3. It is bounded by Pallikarani Eri in the Northern side, residences in the Southern side, Medavakkam-Pallikaranai road in the Eastern side and residences in the Western side.
4. Medavakkam Chinna Eri has a water spread area in an extent of 5.13.5 hectares.
5. Medavakkam Chinna Eri is receiving water from the Medavakkam Periya Eri. The overflow of this tank leads to Pallikaranai Lake and finally joins Pallikaranai Marsh land.
6. The sewage generated from the Medavakkam Village Panchayat area pollutes the water body. Water hyacinth were found fully occupying the entire area and there is no dumping of solid waste in the water body.
7. Encroachments were found in the form of residences and commercial shops in the Eastern side of the said water body.

Medavakkam Sitheri:-

1. Medavakkam Sitheri is located at Survey No.380 of Medavakkam Village, Tambaram Taluk, Chengalpattu District.
2. Medavakkam Sitheri is a Panchayat Union Tank. It has lost its irrigation potential long back due to agglomeration of Chennai City and its suburb over the period of time. Now, the water body serves mostly as a natural aquifer.
3. Medavakkam Sitheri has a water spread area in an extent of 14.05 hectares.
4. Medavakkam Sitheri is receiving water from its own catchment area. The overflow of this tank leads to Perumbakkam Lake through road side drain and agricultural land.
5. There is no dumping of solid waste, but noticed discharge of sewage from the near by residential areas of Ranganathapuram and Vijayanagaram of Medavakkam Village Panchayat.
6. Encroachments were found in the form of residences in the East and Western side of the said water body.

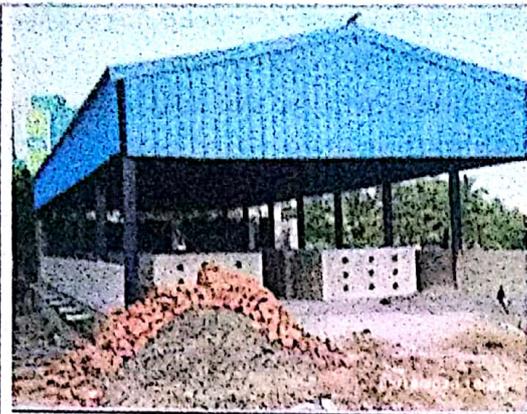
Vengaivasal Eri:-

1. Vengaivasal Eri is located at Survey No. 95 of Vengaivasal Village, Tamabaram Taluk, Chengalpattu District.
2. Vengaivasal Eri is a PWD Tank which has the capacity to store 12.46 MCFT water to feed intended original ayacut of 78.28 Ha with a catchment of 0.92 sq miles. The water spread area of the tank is 41.2 Ha.
3. As per the enumeration during the year 2009 by the revenue department, it was found 142 encroachments in the Tank bund and water spread area.
4. It is bounded by residences in three sides the agricultural lands in the Eastern side.
5. Vengaivasal Eri is receiving water from the surplus water course of Rajakilpakkam Eri and the overflow of this tank leads to Perumbakkam Lake.
6. There is no dumping of solid waste, but noticed discharge of sewage from the residential areas of Vengaivasal Village Panchayat.
7. Encroachments in the form of residences and commercial shops in the South and Western side of the said water body.

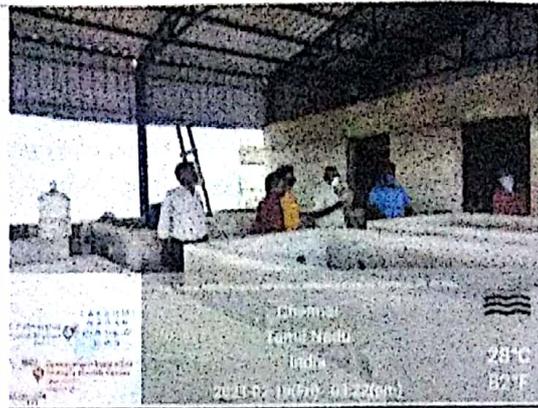
Medavakkam Village Panchayat:-

1. Medavakkam Village Panchayat is carrying out the establishment of Micro Composting Center(MCC) about 90% of the work is completed and it was ascertained from the Village Panchayat that the MCC will be completed and commissioned within one month.
2. The households and commercial establishments in the village panchayat area have their own individual septic tank and soak pit arrangements for the treatment and

disposal of the sewage. However certain households/ commercial establishments in the village panchayat area dispose the sewage/sullage through storm water drains which reach nearby water bodies.



Medavakkam Village Panchayat MCC



Medavakkam Village Panchayat MCC



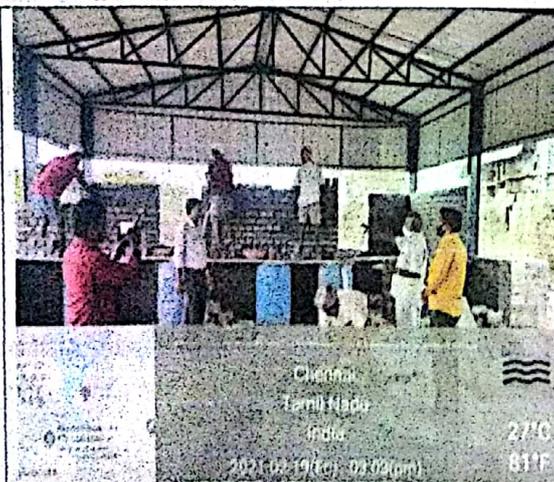
Medavakkam Village Panchayat MCC



Medavakkam Village Panchayat dump site

Vengalvasal Village Panchayat:-

1. Vengalvasal Village Panchayat is carrying out the establishment of Micro Composting Center(MCC) about 70% of the work is completed and it was ascertained from the Village Panchayat that the MCC will be completed and commissioned within one month.
2. The households and commercial establishments in the village panchayat area have their own individual septic tank and soak pit arrangements for the treatment and disposal of the sewage.



Vengalvasal Village Panchayat MCC

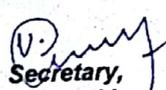


Vengalvasal Village Panchayat MCC

6. RECOMMENDATIONS:

Based on the above observation, the joint committee submits the following recommendation before the Hon'ble National Green Tribunal (Southern Zone)

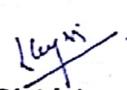
01. Medavakkam Village Panchayat and Vengaivasal Village Panchayat shall ensure 100% collection of solid waste being generated within its jurisdiction with proper segregation, door to door collection, processing and disposal by complying with the provisions of the Solid Waste Management Rules 2016 within six months time.
02. The said Village Panchayats shall not dump solid waste under any circumstances in the said area in question i.e. at Medavakkam Periya Eri, Chinna Eri, Sitheri and Vengaivasal Eri.
03. The said Village Panchayats shall complete and commission the Micro composting centre within three months within the village panchayat areas to compost the segregated Biodegradable wastes and to take steps to dispose the non degradable waste including plastic waste to the recycling facility complying with the provisions of the Solid Waste Management Rules, 2016.
04. Medavakkam Village Panchayat shall take steps to carry out Bio-Mining of the legacy waste dumped in the Survey No 416/2 of Medavakkam Village within six months.
05. The said Village panchayats shall identify and provide decentralized community soak pit arrangement at vulnerable locations within three months time to prevent the discharge of sewage/sullage into water bodies.
06. The said Village panchayats shall levy fine on the violators found dumping solid waste and disposing sewage into the water bodies under Local body Acts.
07. The said Village panchayats shall create awareness among the public with the help of associations in the local body area for proper segregation of solid waste.
08. The PWD with the help of Revenue Authorities shall make fresh survey to identify the exact number of encroachment in the Medavakkam Periya Eri and Vengaivasal Eri and to evict them within six months.
09. Medavakkam Village Panchayat with the help of Revenue Authorities shall make fresh survey to identify the exact number of encroachment in the Medavakkam Chinna Eri and Medavakkam Sitheri and to evict them within six months.


Secretary,
Medavakkam
Village
Panchayat


Secretary
Vengaivasal
Village
Panchayat


District Environmental
Engineer,
Tamil Nadu Pollution
Control Board,
Maraimalai Nagar


Revenue
Divisional Officer,
Tambaram,
Chengalpattu
District.


District
Collector,
Chengalpattu
District