



JULY 2021

Illegal Immunity

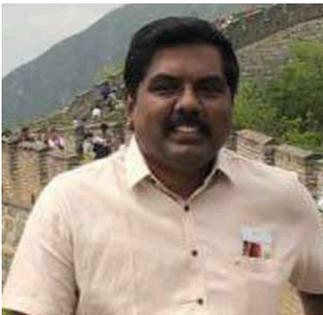
**TANGEDCO's Violations in Ennore Creek :
a Citizen Panel Inspection Report**

Save Ennore Creek Campaign

Panel Profile



Dr. S. Janakarajan is a retired Professor of Economics in the Madras Institute of Development Studies MIDS, Adyar, and currently, President, South Asia Consortium for Interdisciplinary Water Resources Studies (SaciWATERS)



G. Sundarrajan is an engineer and prominent environmentalist and commentator associated with Poovulagin Nanbargal. He works on eco-politics, organic farming and water issues. He is also part of the editorial team of the monthly Poovulagu magazine.



TM Krishna is a singer, writer and activist who is the voice and face of the Chennai Poromboke Paadal. The music video is set in Ennore and talks about the dangers of encroaching on waterbodies. He is part of the Save Ennore Creek Campaign.

Background

For more than six months, Ennore fishers have been complaining of illegal constructions by TANGEDCO inside the Kosasthalai River. Save Ennore Creek campaign and fisherfolk from Kattukuppam, Ennore, invited a three member panel including Dr. S. Janakarajan, G. Sundarrajan and TM Krishna (profiles above) to bear witness to the ongoing damage to the Ennore backwaters and submit a report to the State Government. All three panelists have visited this region separately and several times over the last six years.

Already, the wetlands in Ennore have lost more than 1500 acres of its water spread to industrial activities including coal yards, petroleum terminals, thermal power plant facilities and ash ponds. In addition to this, the Ennore Creek has also been victim to indiscriminate pollution due to coal ash from TANGEDCO's thermal power plants. Now, a new ash pipeline and a coal-seawater conveyor corridor are being constructed in the river illegally.

On 12 July, 2021, the panel visited Ennore and inspected two ongoing civil construction activities by TANGEDCO, namely:

- a) Construction of a bridge to carry coal ash slurry pipelines from NCTPS Stage III to an ash dyke in Sepakkam Village

b) Construction of a coal conveyor and seawater corridor from Kamarajar Port to the 2x660 MW Ennore SEZ project under construction in Voyalur.

The panel heard testimonies from local fishers and reviewed documents compiled by Save Ennore Creek Campaign on the legal status of the two projects.

The Panel Found That:

a) TANGEDCO has demonstrated a willful disregard for the law, and its operations are in violation of laws and license conditions, and in contempt of several orders of various courts.

b) the NCTPS ash pipeline bridge falls afoul of the EIA Notification, 2006, CRZ Notification, 2011, the Air Act, 1981, the Water Act, 1976, G.O. Ms No. 213 of 1989 and various other court orders. This project lacks an Environmental Clearance, CRZ clearance and Consents to Establish under Air and Water Acts.

c) the coal-seawater conveyor corridor for the Ennore SEZ project has deviated from its approved alignment to chart a course through the river and waterbodies encroaching on mangroves and critical fish habitat. This project lacks a valid Consent to Establish under Air and Water Acts, and is in violation of the EIA Notification, 2006, CRZ Notification, 2011, the Air Act, 1981, the Water Act, 1976, G.O. Ms No. 213 of 1989 and various other court orders.

d) TANGEDCO's operations have damaged the livelihood commons used by fishermen and women fishers. This harm to livelihoods appears to have resulted in significant

impoverishment of the fishing community and those dependent on the backwater for their livelihoods.

e) Industrial investments in this region have only impoverished communities, and local people have not even benefited in terms of secure jobs in the industries

f) TANGEDCO's exposure to liabilities in the form of clean-up costs, penalties and fines for legal violations and harm to ecology, compensation for lost livelihoods and damaged health and criminal action are substantial. Considering the financial state of the utility, these liabilities are likely to place a substantial burden on the exchequer.

Findings of the Site Visit

The Buckingham Canal, the Kosasthalai River and its backwaters that lie on either side of the Port Access Road are choked with fly ash, and severely marred by electrical transmission towers. Mangrove patches appear to have been cleared for the laying of these towers.

The new ash pipeline bridge is being constructed along the northern edge of the Ash Pipeline Road. The stilts for the bridge has been laid on the backwaters on both sides of the main channel. demolition debris including pieces of tiled walls from residential buildings were found dumped deep inside the channel on both sides. All that remains is for several more stilts to be laid inside the channel



The river bottom and its banks at this point were full of ash. A fisherman displayed his catch that included an ash-coloured prawn with grotesque eyes and mottled

exoskeleton. He referred to it as “*Sambal Era*” or “Prawn Ash” - a diseased variety of the *Vellra* or white prawn.



The ash-filled river bed is the habitat for the *sambal era*, according to K. Veeramani, the fisherman from Sivanpadaiveethi Kuppam who netted this individual using his hand-cast net (*Visiru valai*).

Demolition debris, solidified concrete and construction wastes including steel rods litter the alignment where stilts have already been constructed. The lands between the stilts have not been restored to enable the tidal mudflats that existed here to recover.

At the site of Ennore SEZ’s coal conveyor project, dredged sea sand was found dumped nearly 2 meters high over an area of more than 1 acre. This entire dumpsite falls inside the main channel of the Kosasthalaiyar, known locally as the Konamudakku Pazhankaalvai. A 100 meter Chanel has been reduced to a width of less than 5 meters.

The local fisherfolk complained that the dumping has already buried the mangroves on the rivers edge. The Konamudakku mangrove patch is reportedly among the last remaining patches of healthy mangroves in the Ennore Region. Fisherfolk educated us that mangroves were a nursery for prawns, fish and crabs.

The entire landscape is either caked with ash, or littered with construction debris from this and previous or other ongoing projects like the burying of a hydrocarbon pipeline or double-tracking of a railway line for the Kamarajar Port. A dynamic biologically productive habitat appears as though it has been attacked by vandals. Tidal water flow has been severely disrupted.



Photo: Palani Kumar

Findings of the review of documents - TANGEDCO's North Chennai Thermal Power Station

1) Ongoing Construction of Ash Pipeline - Kosasthalai River -

- Environment and CRZ clearance obtained on 20.01.2016 by TANGEDCO is limited only to foreshore facilities (coal and seawater) and not for ash pipeline conveyor. The EC/CRZ clearly describes the facilities within CRZ Area as:
 - a) Coal Conveyor
 - b) Supporting Trestles for Coal Conveyor
 - c) Seawater intake from forebay
 - d) Glass Reinforced Plastic pipes for cooling water intake and coolant water outlet.
- Consent to Establish dated 13/04/2017 under Water Act does not cover handling or discharge of coal ash slurry. "Trade effluent" mentioned in the Water Act includes only Cooling Water Blowdown, Desalination plant reject, DM plant reject, waste water from service water system. The ongoing construction is thus illegal as it is being carried out without a valid Consent to Establish under the Water Act and Air Act also.
- Specific Condition xxiii of EC/CRZ clearance dated 20.01.2016 states that "No water bodies including natural drainage system in the area shall be disturbed due to activities associated with the setting up and operation of the power plant." The ongoing activities not only

permanently alter the drainage and natural flow of water but are entirely unlicensed and illegal.

- Condition (h) contained in Tamilnadu Coastal Zone Management Authority (TNSCZMA) recommendation for CRZ Clearance dated 19.05.2015 states: “The Project should not in any way affect the fishing activities and also should not hinder the livelihood of the Fishermen.”

2) Fly Ash Contamination of Ennore Creek: Contempt of Madras High Court and NGT orders -

- Flyash spills from TANGEDCO's North Chennai Thermal Power Station's existing ash pipelines have silted up deep water areas of the creek. The creek is only ankle-deep during low tide in several stretches, including particularly the stretch near the *Manja machine kalvai* - a natural stream that now carries ash-tainted supernatant discharged from NCTPS' fly ash dyke.
- A joint committee formed by the National Green Tribunal to look into the fly ash pollution in the Ennore Creek estimates that at least 344.39 Ha of river, canal, waterbodies and salt pans have been contaminated by fly ash mis-management.¹
- In April 1996, in the case *South India Salt Manufacturers' Association v. TNEB*, the Madras High Court prohibited TNEB from discharging flyash into the Creek and directed it to remove flyash already dumped.²
- On 18 January, 2016 in OA 08 of 2016, the NGT restrained TANGEDCO from dumping flyash, soil and debris into Buckingham Canal.

¹ <https://storyofennore.files.wordpress.com/2021/07/interim-report.pdf>

² <https://indiankanoon.org/doc/735171/>

- On 18 November, 2016 in OA 08 of 2016, the NGT directed TNPCB to take action against the authorities responsible for damaging the waterbody by dumping flyash.
- On 1 May, 2017 in OA 08 of 2016, the NGT directed the TNPCB to “launch immediate criminal prosecution against TANGEDCO officers for continued dumping of flyash into the waterbody. “In case if such officials are transferred, such officials are also to be implicated in the prosecution,” the Tribunal ordered.
- On May 30, 2017 in OA 08 of 2016 , the NGT also directed TANGEDCO and KPL to remove flyash and dredged sand dumped on the Creek.
- TNPCB and TANGEDCO have willfully ignored the court’s orders. The Creek has not been restored. Instead, NCTPS has begun construction of a new ash pipeline illegally.

3) Irregularities in Clean up and Removal of Flyash

In the name of flyash removal, more than Rs. 35 crores have reportedly been spent with little to show for it.

- On 13.12.2019, Rs. 28.5³ crore was transferred by TANGEDCO to PWD for dredging of Kosasthalai River for a quantity of 325,000 tonnes. The money has been used up. Local fisherfolk say that only a fraction of the work was done. As evidence, they point to sections of the river south of the Ash Pipeline Road where there is so much ash that water is less than knee deep during low-tide. Frequent leaks of flyash from the aged ash pipelines

³ Source: Page 25 of Reference [1]

quickly re-deposit ash even in dredged areas. Meanwhile, because dredged material has been deposited in the backwaters, it is returned to the main channel by rains or tidal flow.

- In 2016 and 2017, after OA 8 of 2016 was filed in NGT, about Rs. 7 crores was spent by TANGEDCO for removal and disposal of flyash. The state of the creek is evidence of corruption and siphoning of funds from a bankrupt entity.

4) Failure to Comply with Green Belt Requirements

- NCTPS has failed to comply with mandatory greenbelt conditions, aggravating the problem of poor air quality in surrounding areas. This is visible to any casual visitor.
- The following table specifies the following statutory conditions that has been violated

CLEARANCE / CONSENT	Condition relating to greenbelt
Consent order No. 7882 dated 07/12/1993 - Issued under Air Act - For NCTPS Stage 1	Condition No. 8 - The Industry has to ensure that minimum three varieties (Eucalyptus, Subabul and any other suitable variety) are planned at the density of not less than 1000 trees per acre of land. The plantation is stipulated over and above the bulk plantation of trees in that area and maintains them.

<p>Consent order No. 5553 dated 08/08/2011 - Issued under Air Act - For NCTPS Stage II</p>	<p>Condition No. 8 - The unit shall develop green belt of adequate width around the premises.</p> <p>Condition No. 16 - 33% of the land area acquired by the unit shall be developed as greenbelt for adequate width with trees having thick canopy at the rate of 400 trees / hectare in consultation with local DFO</p>
<p>Consent order No. 5613 dated 08/08/2011 - Issued under Water Act - For NCTPS Stage II</p>	<p>Condition No. 20 - 33% of the land area acquired by the unit shall be developed as greenbelt for adequate width with trees having thick canopy at the rate of 400 trees / hectare in consultation with local DFO</p>

Consent order No.
22839 dated 19/03/2013 -
Issued under Water Act -
For NCTPS Stage II

Condition No. 16 - The
Industry has to ensure that
minimum three varieties
(Eucalyptus, Subabul and any
other suitable variety) are
planned at the density of not
less than 1000 trees per acre
of land. The trees may be
planted along the boundaries
o the industry or industrial
premises. The plantation is
stipulated over and above the
bulk plantation of trees in that
area and maintains them.

<p>Consent order No. 18875 dated 19/03/2013 - Issued under Air Act - For NCTPS Stage II</p>	<p>Condition No. 7 - The Industry has to ensure that minimum three varieties (Eucalyptus, Subabul and any other suitable variety) are planned at the density of not less than 1000 trees per acre of land. The plantation is stipulated over and above the bulk plantation of trees in that area and maintains them.</p> <p>Condition No. 38 - 33% of the land area acquired by the unit shall be developed as greenbelt for adequate width with trees having thick canopy at the rate of 400 trees / hectare in consultation with local DFO</p>
<p>Proc No. T4/F.25860/RL-17C/TNPCB/TVLR/A/2013-IV dated 26.12.2013 and Proc No. 25860 issued under the Water Act</p>	<p>After inspection of the unit on 29/08/2013 and 07/11/2013, the TNPCB issued these directions under Section 31 A of the Air Act and 33 A of the Water Act and at direction No. 8 - The unit shall develop greenbelt in and around the unit premises at the rate of 400 trees/ hectare.</p>

<p>Proc No. T4/F.25860/ RL-17C/TNPCB/TVLR/W/ 2013-IV dated 25.06.2014 issued under the Water Act and Air Act</p>	<p>After inspection on 13/05/2014, Directions were issued and Direction No. 9 (Condition 8 in the Air Act directions) - The unit shall develop greenbelt in and around the unit premises at the rate of 400 trees/ hectare.</p>
<p>Environmental clearance in J-13012/14/2012 - IA.II (T) dated 20/01/2016 - Expansion by addition of 1x 800 MW - For NCTPS Stage II</p>	<p>Condition No. 37 - Green Belt consisting of three tires of plantations of native species all around plant and at least 40 m width shall be raised. Wherever 50 m width is not feasible a 20 m width shall be raised and adequate justification shall be submitted to the Ministry. Tree density shall not be less than 2500 per Ha with survival rate of not less than 80%.</p> <p>Condition No. 38 - Green Belt shall also be developed around the ash pond over and above the Green Belt around the plant boundary</p>

5) Stack Emission Norms for Thermal Power Plants -

- In 2015, the Ministry of Environment, Forest and Climate Change (MOEFCC) made amendments to the regulatory measures given in Environment Protection Rules, 1986 and established a new set of emission norms for the thermal power plants. More than 6 years later, NCTPS has failed to comply with the emission norms mandated.

- NCTPS Stage I and II were non-compliant with emission norms for 53% and 51% of the year in 2019 and 2020 respectively, according to an analysis of stack emission data from TNPCB.⁴

6) Non Compliance with requirement of an impervious ash pond -

- Consent to Operate granted to NCTPS Stage I dated 7/12/1993 mandates the need for creating an impervious ash pond, to prevent leachate of trace metals from the fly ash from contaminating the ground water.

- NCTPS has operated an un-lined ash pond for the last three decades with no protection to groundwater.

- The report of an expert committee set up by the Hon'ble NGT has found that percolation of hazardous material from the ash pond had severely contaminated the ground water, at levels many times higher than Indian standards.⁵ Heavy metals like copper, manganese, cadmium, mercury, selenium, lead, chromium, nickel and

⁴ <https://storyofennore.files.wordpress.com/2021/05/permit-to-pollute-v1.pdf>

⁵ <https://storyofennore.files.wordpress.com/2021/07/interim-report.pdf>

molybdenum were found in groundwater indicating toxic contamination due to seepage from the fly ash pond.

- In addition to this TANGEDCO has also failed to comply with the direction of the Hon'ble NGT to construct new adhoc ash pond fully lined with HDPE lining to dump the ash removed from the river. Instead, removed ash is dumped on the side of the waterbodies and finds its way back to the river.

Findings of the review of documents - TANGEDCO's Ennore SEZ TPP

The site visited lies on the southern side of the road built by Kamarajar Port to the Chettinad Coal Yard. Separately, a coal conveyor corridor for the coal yard runs alongside the road. This road, constructed in 2008, was the first to cut across the river and damage the mangroves.

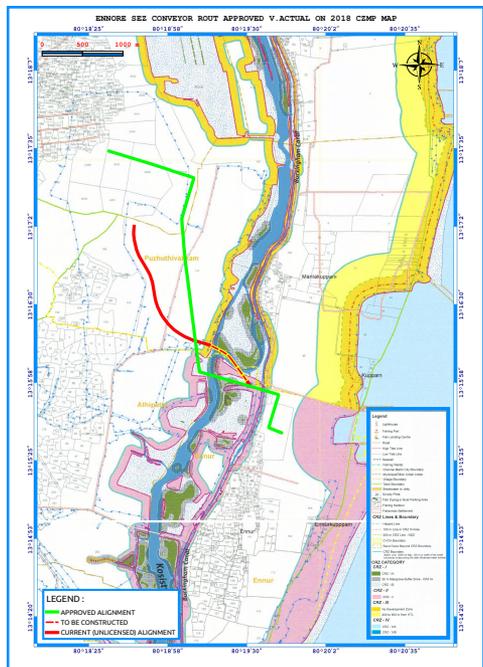
The ongoing construction is being carried out by dumping dredged sea sand onto tidal mudflats, mangroves at the edge of the river and the river. If allowed to continue, the current alignment will run through the healthiest patch of mangroves in the Ennore Pulicat tidal wetlands damaging one of the last remaining nurseries for prawn and fish in this beleaguered river.

The dumping has reduced the width of the river channel from 100 metres to less than 5 metres. This is dangerous considering that this channel carries the floodwater discharge from Ponneri catchment to the Ennore estuary.

Besides damaging the environment and fisher livelihoods and exposing people in Ponneri taluk to increased risk of flooding, the construction of the coal-seawater conveyor corridor across the Kosasthalai River is also illegal for the following reasons:

- The unit does not have a valid Consent to Establish, as its earlier CTE expired on 6 January, 2021. TNPCB does not appear to be playing the role of a regulator.

- G.O. Ms. 213 of 1989 (E&F) prohibits the setting up of Thermal Power Plant within 1 km of notified rivers, including the Kosasthalai River. The ongoing construction and the power plant fall afoul of this G.O.
- TANGEDCO applied to Union Ministry of Environment, Forests and Climate Change for extension of Environment and CRZ Clearance for the Ennore SEZ project in September 2020. This application was based on an averment that the project had complied with all conditions contained in the original EC dated January 7, 2014 and CRZ dated January 1, 2014.
- In January, 2021, Tamil Nadu State Coastal Zone Management Authority recommended an extension of CRZ clearance to the project without conducting any site visit or verifying TANGEDCO's claims of compliance.
- In April 2021, MoEFCC granted extension of Environmental and CRZ Clearance without verifying claims of compliance and based solely on the applicant's oath. The foundation work for the coal conveyor and seawater corridor is almost completed. The alignment of the corridor is entirely different from the alignment approved in the Environmental and CRZ clearances. (See map).



- While the approved corridor avoids areas with water, the current unapproved alignment has already encroached on more than 15 acres of water body, including more than 1 acre of river. Based on ground truthing with a handheld GPS to track the edges of the dumped area, it was estimated that more than 1 acre of the river has been encroached upon.



- If work continues unchecked, the corridor will run through a protected mangrove and its buffer area as identified in the approved Coastal Zone Management Plan of Tamilnadu in 2018.
- Reclamation of waterbodies is being carried out by dumping dredged sea sand supplied by nearby ports. This is illegal, as ports are required to dispose of dredged sand only at notified locations. Further, the Hon'ble National Green Tribunal has prohibited dumping of dredged sea sand in the creek and intertidal areas as dredged sand was found to contain dangerous levels of toxic metals like nickel, chromium, copper and zinc.

- Currently work is ongoing at Konamudukku Kalvai, which is one of the most biologically active segments in the Ennore Creek because of the presence of mangroves and deep water habitat. Reclaiming this section of the river will deliver a death-blow to the river's life support system.

Conclusion

TANGEDCO is misleading the government on its illegalities and the actual extent of liability. The administration should not underestimate the extent to which the ongoing activities aggravate disaster risks for the region.

The government also needs to note that the already substantial liability, in terms of penalties, compensation for fisher livelihoods and harm to health, remediation costs and criminal prosecution of TANGEDCO officials will be magnified if corrective action is not taken immediately. This can be debilitating, especially for a financially ailing discom.

We urge the Government to step in, verify our claims and remedy the situation. We request you to do the following:

1. Ensure that TANGEDCO stops all work on the construction of the conveyor belt for the Ennore SEZ, removes all dumped material and restore the river to its original state.
2. Ensure that TANGEDCO pays for a scientific remediation of the Ennore Creek by removing all flyash and debris dumped in the Buckingham Canal, the river, its backwaters and flood plains and abandoned salt pans.
3. Compensate fisherfolk, including Irular and SC women and men who handpick prawns and crabs, for

loss of livelihood due to contamination of the Ennore Creek.

4. Compensate local residents for loss of health and quality of life due to air pollution from NCTPS and associated impacts.
5. Provide permanent jobs for affected people.
6. Relocate residents of Seppakkam hamlet near the ash dyke to a safe site and provide them with adequate freshwater in the interim.
7. Cease operation of the unlined ash pond in Sepakkam village and shift to 100% dry collection of fly ash.
8. Comply with Hon'ble NGT's order directing prosecution of TANGEDCO officials responsible for continued violations in contempt of High Court and NGT orders for cessation of flyash discharge and removal of contaminated material from riverbed.
9. Take action against errant TANGEDCO officials for having signed a false declaration regarding compliance to EC/CRZ clearance.

For More Details, Contact -

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