

IL&FS TAMILNADU POWER PLANT SITE VISIT

Introduction:

The ITPCL plant in Cuddalore- is a project by M/s IL&FS Tamil Nadu Power Company Limited. The company has commissioned a 2x600 MW plant in Kothattai, Ariyagoshti and Villianallur revenue villages of Chidambaram Taluk, Cuddalore District.

The public hearing for the plant, and the captive port proposed for it, was conducted on February 5, 2010. The main concerns raised in the public hearing were about the proposed project's impact on marine environment caused by change in seawater temperature due to discharge of cooling water from the power plant, impact of the plant on the air quality and its health implications, adverse impact on Mangroves of Pichavaram. Even after strong declination for the plant during public hearing, project has been granted Environmental clearance by MoEF.

After constant oppositions by the activist and environmental lawyers, on May 23, 2012, [NGT](#) quashed the EC granted for IL&FS power plant and directed MoEF & CC to review its EC based on cumulative impact assessment study. On February 04, 2014, MoEF & CC granted Amended EC after verifying rapid cumulative impact assessment (RCIE) report presented by the project proponent.

Chronology of IL&FS power plant, cuddalore:

EVENT	DATE
<u>Public Hearing</u> for 3600 MW IL&FS plant was held at cuddalore	February 5, 2010
Applied for EC (Env and CRZ clearance of captive port)	May 12, 2010
Applied for EC (Thermal power plant)	March 19, 2010
<u>EC granted for thermal power plant</u> by MoEF	May 31, 2010
EC granted for Captive Port and desalination plant by MoEF	October 29, 2010
<u>NGT quashed the EC</u> granted for plant	May 23, 2012
Additional conditions to EC for thermal power plant	August 14, 2012
<u>Amendment to EC for thermal power plant</u>	February 04, 2014
Unit -1 600 MW started commercial operation	September 29, 2015
Unit -2 600 MW started commercial operation	April 30, 2016

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[Extension of Environmental and CRZ clearance for proposed Captive port at Cuddalore](#)

October 28, 2020

Reasons for the Site Visit:

After the plant was set up, villagers reported some inconvenience

[1] in the areas surrounding the plant, causing illness to the people. Villagers around the IL&FS plant have reported that there is a visible thin layer of black dust particles, which can be seen on the surface of leaves in shrubs & trees around the plant premises. After commissioning of the plant, the yield from the trees reportedly been reduced, particularly Mangos.

[2] Also the discharge released from the plant into the Buckingham canal, when come in contact with human it causes rashes in the skin and when animals drank the water from the canal, they are dead. It is believed that this plant is responsible for the adverse impact in the area.

[3] Now there is ongoing construction of captive jetty is started, which the villagers believe that affects the turtle movement as the eastern coast of India is nesting ground for olive ridley and there are possible violation of rules and regulations.

Near the plant there are 18 villages; Samiyarpettai, Karikuppam, Manjakuppam, Pudupattai, Kothatai, Vadakuthur, Vanjakupam, Panjangkupam, Chinoor, Velingarayan Pettai, Silambimangalam, Puduchitiram, Chinandipuli, Periyandipuli, Sripudhupettai, Indiranagar, Pudhukupam which affected the most.

In order to investigate the current status of the plant and area around it, CAG's team working on EIA process with specific focus on thermal power plants went on a field visit to Kothattai village on March 15, 2018. Along with two activists Mr. Kalaiselvan and Mr. Nagalingam, the team interacted with some of the villagers and tried to collect enough information for the investigation.

Primary observation:

IL&FS Plant

The team entered Pudhukupam where the IL&FS power plant is located. The team noticed some changes made to the natural water course. It has been widened to a man-made canal, presumably created by IL&FS Plant. Currently, around 90 local fishermen were making use of the widened canal, facilitated by temporary crane for pick-up of boat from seashore and leaving it on to the canal.

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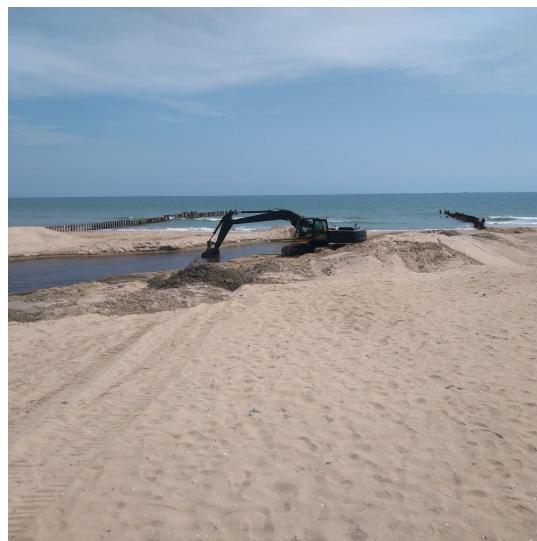
As the captive port is coming up, this arrangement perhaps is to secure on-shore developmental activities without any nuisance from Fishermen community.



(Image: Boats parking inside the stream)



(Image: Mouth of the stream)



(Image: widening of stream mouth)

This captive port project starts right behind the power plant area and extends till Cuddalore and Bhuvanagiri border.

Here, we also observed trucks carrying rock boulders for the construction of the port and the construction activity was already in progress with the help of cranes and construction of conveyor system was also in process.

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(Image: construction of the port)

We could also observe dead and decaying Olive Ridley turtles on the shore, which indicates that this location may be part of “the migratory route” for Olive Ridley. In the EIA report there is no mention of olive ridley which clearly shows that project proponent completely ignored the fact of olive ridley’s migratory route.



(Image: Dead and decayed olive ridley turtle)

We could see the desalination plant of IL&FS power plant and its pressure discharge point.



(Image: Desalination plant)

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Pipelines were laid underground for water intake and outlet for the plant. The underground area was marked with small yellow pillars for indication of pipeline.



(Image: Small yellow pillars indicates the Pipeline of plant for intake and outlet)

The intake valve structure and the overflow outlet structure were outside the boundary of the plant.



(Image: Intake valve structure)

According to the [daily generation report](#) by National power portal shows generation of 27.37MU (1140MW) for 15/3/2018. But during our visit on the same day around 10am to 2am, we couldn't notice any plume at the stack.

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(Image: IL&FS power plant)

Outside the boundary, we could see the coal storage area with screens and conveyor belt system, that which was partially covered. According to EC conditions, project proponent should use shelterbelts/greenbelts/trees which will act as buffer against strong wind to avoid ground level pollution.



(Image: Coal conveyor belt)



(Image: Screen at coal dumping yard)

There was a wagon unloading station. The plant currently receives coal from Karaikal port through train. The power transmission area is located inside the plant.



(Image: wagon unloading center)

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The plant also had an “Outlet drainage pipe” originating from Plant premises and letting it to Buckingham Canal. Though it was claimed to be a storm water drain, the local people had complained that the water exiting that drain inflicts rashes on the skin on few villagers after washing hands from the canal in the downstream side. They also reported that few goats are dead after consuming the water.



(Image: stormwater drain)

At the entrance of the plant we could see trucks waiting to enter the plant for fly ash collection. And we spoke with the driver to get some information regarding disposal of fly ash. As per the driver he collects fly ash from silo and direct it to the nearest cement industries.



(Image: Trucks carrying fly ash)

Cooling system structures along with water storage tanks and chemical storage tanks are also noticed. The plant have taken over the two burial ground areas of the nearby villages and converted the same into a guarded area.

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(Image: Top of the cooling tower)



(Image: Chemical storage tank (small green tanks))

During a conversation with the local farmers, they showed their concern regarding the deposition of ash and coal particulate matter on plant leaves, though very few traces have been found. The farmers claimed that the unobservability was due to the rain that happened two days back.



(Image: Ash deposition on leaves)

A farmer stated that the leaves of the mango tree were getting burnt and the yield from the tree has also reduced by more than half. Although we don't have enough evidence regarding the same.

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(Image: Burning mark on leaves)

The major concern of the visit is that we could not spot the ash pond near the plant. As per RCIA report, it is mentioned to be having 107 acres with 129 acres of green belt around the ash pond. Green belt is necessary to avoid air dispersion of ash from the ash pond. This information can be furnished by another field visit to the concern locality.

Additional observation:

The team had a look on the abandoned port of [Nagarjuna oil refinery](#). The refinery was said to be destroyed by the Thane cyclone. From a few kilometers distance into the sea, the Island Jetty for boat landing is provided for [Chemplast sanmar](#) and [Marine Terminal Facility \(MTF\)](#) for import of Vinyl Chloride monomer is present there. According to the local activists, [Allied Silica Ltd](#) is also using the same MTF for unloading and loading of chemicals.



(Image: Jetty like structure of chemplast sanmar and Allied silica ltd)

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In Badapallam, we noticed the underground effluent pipeline(small blue pillars) from the SIMA project, exiting into the sea. The SIMA project plant has been closed due to the pressure from the local community .



(Image: Small blue pillars represents the underground effluent pipeline for SIMA project)

After talking to local people, we got the information that the government has promoting Samiyarpettai as silver beach and developed the beach with infrastructure - light and roads. This silver beaches are major tourism spot along the coastal zone. Due to last tsunami villages have faced a lot of losses and according to them beach is polluted because of pesticides, agricultural chemicals and industrial effluent.



(Image: Silver beach of Samiyarpettai)

Brief Preliminary Analysis:

Preliminary Observation	Preliminary Analysis
Change in natural water course by widening work for man made canal for parking of fishing boats.	❖ This work is done by IL&FS plant, to avoid conflict with fisher community as a captive port work is going on.

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	<ul style="list-style-type: none"> ❖ As Cuddalore is tsunami prone area, this widening of canal may affect the villages around this canal.
Captive port project starts right behind the plant.	<ul style="list-style-type: none"> ❖ As per reports MoEF had granted the EC for the port on October 29, 2010. ❖ Public hearing of port was conducted on February 5, 2010. ❖ Construction work is going on at the location for port. ❖ Extension of EC for port has given till October 28, 2020.
Desalination plant	<ul style="list-style-type: none"> ❖ EC for the desalination plant was granted on 29th oct 2010 along with the EC of captive port.
Coal transportation	<ul style="list-style-type: none"> ❖ Coal imported from Indonesia and unloaded at Karaikal port then rail transported to thermal power plant.
Coal storage Area	<ul style="list-style-type: none"> ❖ As per the EC granted the plant should provide a thick green belt/shelterbelt around coal storage area. ❖ During our visit to plant area we could noticed a thin green belt around the storage area and a screen for eliminating air pollution.
Outlet drainage pipe	<ul style="list-style-type: none"> ❖ We could notice the outfall of outlet drainage pipe in to the Buckingham canal. ❖ This pipeline discharge stormwater into the canal from the plant.

- As mentioned in amended EC, incorporation of operating FGD (Flue Gas Desulphurization) system has been one of the major change in the TPP. This impacts the Techno-economic viability of the project.
- The Detailed Project Report must indicate the change in capital, recurring and enhanced Environmental Mitigation cost.
- The rapid cumulative impact assessment study report or Updated Form-1 does not include any further data regarding the project cost or Environmental Mitigation cost.

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- Necessary to raise the question as to how an “Accredited Environmental Consultant Organization” or the “Project Proponent” has incorporated such change and MOEF&CC has not bothered to get “Revised PFR” before making any amendment to the original EC.

CAG's Investigation:

- 1) Get a copy of the original CTE & CTO issued to IL&FS Plant for the operating 2 X 600 MW plant, and compare against EC & amended EC conditions
- 2) Get a copy of the annual “Fly Ash Utilization” declaration submitted to CEA, CPCB and TNPCB. It is important to note the annual coal consumption, power production, average ash content in coal, fly ash generated and bottom ash managed in ash pond
- 3) Get a copy of the “Environmental Statement” – recent one
- 4) Review Final EIA report (before NGT) and consolidated EIA report (after NGT) for key observations.
- 5) Get a copy of three consecutive months Water Cess return submitted, immediately after commercial production achieved close to the installed capacity
- 6) As per compliance monitoring protocol with TNPCB (Monthly or quarterly), get a copy of stack monitoring report, AAQ data, Ambient Noise survey data
- 7) Verify CTO condition for the “Electrical meter” installed for ID/FD Fan of FGD system to get operational aspects of installed FGD system
- 8) Port Infrastructure: As such from first Final EIA report, there is no mention about 15 MTPA Cargo handling port & its description; also EC issued had no mention about Port
- 9) How then subsequently in the amended EC, there is EC for TPP & Port?. For Port clearance, besides CRZ clearance the routine reports like a) Form1 & PFR b) Draft EIA c) PH/PC d) Final EIA and e) EAC meeting under separate “Infrastructure Projects” category. These were not there and hence one has to question the validity of such EC issued in the amended EC

RTI Tracking:

RTI About	Date of filed	Date of receiving reply
Draft EIA and Final EIA report submitted by the plant before 31 may 2010	April 6, 2018	19/04/2018 RTI is transferred to CPIO thermal sector of impact assessment division, MoEF & CC, New Delhi 24/5/2018 RTI is transferred to TNPCB Final EIA report is not available and could not be traced in the File No-

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		J-13021/34/2008-1A. II(T). Pp has been requested to provide the final EIA report
CTO and CTE of plant	April 6, 2018	3.07.2018
CTE and CTO of Port	April 9, 2018	Not available
Environmental statement for unit-1 and unit-2	April 9, 2018	3.07.2018 For year 2016-17
Monitoring report of heavy metals and ground water level near ash pond	April 6, 2018	DD sent on 2/5/2018 Information received
Monitoring report of Ground level conc. of So ₂ , No _x , Pm2.5, Pm10 and Hg	April 6, 2018	DD sent on 2/5/2018 Information received
Sea water quality monitoring report submitted by the plant	April 6, 2018	Requisite information is NIL
Quarterly, annual and half-yearly compliance reports of the plant	April 6, 2018	(Annual and quarterly compliance reports of the plant are not done.) Only Half- yearly compliance reports are present in Environment clearance website. <u>September 17</u> <u>March 17</u>

Documents already present with CAG:

1. Executive summary of the EIA report of Plant
2. TOR of the plant
3. Minutes of Public hearing
4. Environmental Clearance letter for plant
5. Amended EC letter for plant
6. Updated Form-1 for the plant
7. RCIA report by plant
8. Environment statement 2016-17

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9. Form-1 for port
10. Environmental clearance letter for port
11. Marine report

Investigation guidance for CAN members:

1. Enquiries about frequency of coal train for IL&FS plant (which can be collected from station master for one month)
2. No. of wagons per train of coal.
3. Collection of coal sample at least half kg for testing (moisture, mercury, ash content, Sulphur content)
4. Station someone at stormwater discharge point for at least two consecutive days for monitoring of any discharge.
5. Note the time of discharge started and the time of discharge stopped.
6. Locate the ash pond for the plant and collect pictures of it. (notice if there is any overflow or not)