

BEFORE THE NATIONAL GREEN TRIBUNAL (SOUTHER ZONE)

AT CHENNAI

(Special Original Jurisdiction)

Original Application No.05 of 2021

And Application No. 09 of 2021 (SZ)

In the matter of:

Tribunal on its own motion,
Suo Motu based on the news item in
The Indian Express Newspaper Edition
dated: 20/12/2020, "Shrimp hatcheries along
ECR have no clearance"

... Applicant(s)

Versus

1. The Chief Secretary to Govt. of Tamil Nadu,
Govt. Secretariat, Fort St. George,
Chennai, Tamil Nadu – 600 009.
2. The Secretary to Govt.of Tamil Nadu,
Department of Environment & Forests,
Govt. Secretariat,
Fort St. George, Chennai,
3. The Chairman,
Tamil Nadu Pollution Control Board,
No,76, Anna Salai, Guindy,
Chennai, Tamil Nadu – 600032
4. The Member Secretary,
Tamil Nadu Coastal Zone Management Authority,
Department of Environment and Forests,
First Floor, Panagal Building,
Saidapet, Chennai – 600015,
Tamil Nadu.
5. Member Secretary,
Coastal Aquaculture Authority,
5th Floor, Fanepet, Nandanam,
Chennai – 600035, Tamil Nadu, India.
6. The Chief Engineer,
State Ground and Surface Water Resource Data Center,
Tharamani, Chennai – 600113

Before Me

Accounts Officer
Department of Environment
Chennai - 15

Director
Department of Environment
Chennai - 15.

7. The District Collector,
Chengalpattu District,
Collector Office, GST Road,
Chengalpattu - 603 001

8. The District Collector,
Villupuram District,
Collector Office Road,
Moovendar Nagar,
Vulliupuram,
Tamil Nadu - 605602

9. The Block Development Officer,
Lathur Panchayat,
Chengalpet District.

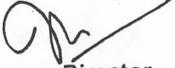
REPLY AFFIDAVIT FILED BY THE 4th RESPONDENT

I, K.V. Giridhar, I.F.S, S/o K. Seetharama Rao about 57 years and having office at Ground Floor, Panagal Buildings, Saidapet, Chennai - 600 015 solemnly affirm and sincerely state as follows.

1. I humbly submit that I am the Director, Department of Environment and also the Member Secretary, Tamil Nadu State Coastal Zone Management Authority and I am well acquainted with the facts of the case from the records available and I am filing this reply in my official capacity on behalf of 4th respondent.
2. I humbly submit that the Hon'ble NGT (SZ) constituted a joint committee comprising (1) The District Collectors of Chengalpet District and Villupuram District (2) a Senior Officer from Tamil Nadu Coastal Zone Management Authority (TNCZMA) (3) a Senior officer from Coastal Aquaculture Authority (CAA) (4) a Senior officer from Tamil Nadu State Pollution Control Board (TNSPCB) as designated by its Chairman and (5) a Senior officer from Ministry of Environment, Forests and Climate Change (MoEF&CC), Regional Office, Chennai to inspect the field visit "Shrimp hatcheries along ECR and construction of Shrimp farm in Keelarkollai village in Chengalapttu district".

Before me

Accounts Officer
Department of Environment
Chennai - 15


Director
Department of Environment
Chennai - 15.

3. I humbly submit that the joint committee carried out the field visit on 29/03/2021, and the Joint Committee report on the inspection on the area, signed by the joint committee members attended the field visit (1) a Senior officer from Coastal Aquaculture Authority (2) A senior officer from Tamil Nadu Coastal Zone Management Authority (3) a senior officer from Tamil Nadu State Pollution Control Board (4) a Senior officer from Ministry of Environment, Forest and Climate Change, Regional Office, Chennai has been attached in the annexure.
4. I humbly submit that the District Collectors of Chengalpattu and Villupuram did not nominate the Senior officers from their respective office for the joint committee and also not attended the inspection of sites carried out on 29/03/2021, through reminder letters were send to them.
5. I humbly submit that the Coastal Aquaculture Authority (CAA) has informed that as per the Coastal Aquaculture Act 2005, all the hatcheries are fall under the jurisdiction of Coastal Aquaculture Authority.

It is therefore humbly prayed that this Hon'ble Tribunal may be pleased to pass appropriate orders as this Hon'ble Tribunal may deem fit and thus render justice.

Solemnly affirmed at Chennai
This the 06 day of July 2021
and Signed his name in presence


Director
Department of Environment
Chennai - 15.

BEFORE ME


Accounts Officer ^{1/2}
Department of Environment
Chennai - 15

MEMORANDUM OF APPLICATION

(UNDER ARTICLE 226 OF THE
CONSTITUTION OF INDIA)

IN THE HON'BLE NGT (SZ)

Original Application No.05 of 2021 and
09 of 2021 (SZ)

In the matter of:
Tribunal on its own motion,
Suo Motu based on the news item
in The Indian Express Newspaper
Edition dated: 20/12/2020,
"Shrimp hatcheries along
ECR have no clearance
.... Applicant

Vs

1. The Chief Secretary to Govt. of
Tamil Nadu,
Govt. Secretariat, Fort St. George,
Chennai, Tamil Nadu – 600 009.
..... and 9 others

STATUS REPORT FILED BY THE 4th
RESPONDENT

STANDING COUNSEL FOR GOVT. OF
TAMIL NADU FOR THE RESPONDENT

JOINT COMMITTEE REPORT

in respect of Original Application No. 5 of 2021 taken up as *suo motu* on the basis of the news item published in the Indian Express newspaper edition dated 20/12/2020 “Shrimp hatcheries along ECR have no CRZ clearance” by the Honourable National Green Tribunal (SZ) and Original Application No. 9 of 2021 filed by S Velu in respect of construction of shrimp farms in Keelarkollai village in Chengalpattu district to the Honourable National Green Tribunal (SZ)

The Honourable National Green Tribunal (NGT), Southern Zone (SZ), Chennai has taken up *suo motu* case on the basis of the news item published in the Indian Express newspaper edition dated 20/12/2020 “Shrimp hatcheries along ECR have no CRZ clearance”

The Honourable National Green Tribunal (NGT) in its order dated 7th January 2021 in respect of Original Application No.5 of 2021 has given direction to constitute a Joint Committee comprising of (1) The District Collectors of Chengalpattu District and Villupuram District, (2) a Senior Officer from Tamil Nadu Coastal Zone Management Authority, (3) a Senior Officer from Coastal Aquaculture Authority (CAA), (4) a Senior Officer from Tamil Nadu Pollution Control Board (TNSPCB) designated by its Chairman and (5) a Senior Officer from the Ministry of Environment, Forests and Climate Change (MoEFCC), Regional Office, Chennai to inspect the areas in question and submit a factual as well as action taken report, if there is any violation found. The Joint Committee is also directed to assess the environmental compensations for the violations by the shrimp culture units which were operating illegally and to assess the damage caused to the ground water as well as the soil and the remedial measures to be taken for rectifying the same.

The Honourable National Green Tribunal (NGT) in its order dated 12th January 2021 in respect of Original Application No.9 of 2021 in the matter of Mr. Velu vs the District Collector, Chengalpattu district and others, in which Mr. Velu alleged that prawn farms are being constructed illegally in Survey No 92 and 93 in Keelarkollai in Kannathur village, Cheyyer taluk, Chengalpattu district also directed the above mentioned committee to inspect the areas in question and submit a factual as well as action taken report, if there is any violation found. The Honourable National Green Tribunal (NGT) in its order dated 12th January 2021 in respect of Original Application No.9 of 2021 directed the joint committee to submit the report along with the report of Original Application No.5 of 2021 since allegations in both the Original Application are similar.

Accordingly, in due compliance of the orders of the Honourable National Green Tribunal, the Joint Committee is constituted and conducted field inspection on 29th March 2021 and water samples from the shrimp hatcheries were collected by the Tamil Nadu Pollution Control Board to ascertain the water quality of the effluents discharged.

The following are the findings of the Joint Committee

- (a) All the shrimp hatcheries mentioned in the news item in the Indian Express are located within 2 km of high tide line (HTL). All these hatcheries are fall under the jurisdiction of Coastal Aquaculture Authority (CAA). The CAA regulates all the activity of the hatcheries starting from construction to monitoring their operation. The hatcheries that violate or contravene the provisions of the CAA, 2005 and its rules and regulations are deregistered and closed by the CAA. The submission made by CAA in this regard is enclosed as **Annexure I**.
- (b) These shrimp hatcheries have to be registered with CAA as per the Coastal Aquaculture Authority Act, 2005. The registration has to be renewed once in five years. The hatcheries that are not registered with CAA or which have not renewed the registration are considered as illegal. As shown in Annexure I, which is the submission of the CAA, 13 shrimp hatcheries that operated without permission have already been closed.
- (c) It is reported in the news item in the Indian Express that hatcheries are discharging untreated effluents which contain pharmaceutical wastes that were used as medicine to treat infection in the cultured animals. The Committee found that no antibiotics or any other medicines are used to treat the infection of the cultured animals. It was found by the Committee that the hatcheries use natural seawater for three purposes i) to grow brooder (parent) shrimp that produces millions of eggs, (ii) to grow larvae of the shrimp in different stages, which are microscopic in size and (iii) to culture microscopic algae that are used as feed to certain stages of larvae. Once the larvae reached post-larval stage, which are visible to naked eye but very small in size (less than 10mm), they are fed with another microscopic organism namely, *Artemia*. Since the brooder, larvae, post larvae and algae are very sensitive to changes in water quality it was informed by the hatchery operators that they could not afford to use any chemicals including antibiotics. Only natural seawater is used for cultural operations, which is treated by hatcheries using a series of filtration system and UV treatment to remove the infectious organisms in the natural seawater,
- (d) The seawater thus used for culture operations contains fecal matters excreted by the larvae and also unused feed. To remove these as well as to avoid escaping any other microscopic organism from the hatchery each hatchery has an Effluent Treatment System (ETS), wherein effluents are treated with chlorine and de-chlorinated water is discharged into the sea. The Member from CAA informed that the structure and function of the effluent treatment plant and quality of the effluent are periodically monitored by the CAA. During the field inspection, the Tamil Nadu Pollution Control Board collected treated effluents and analysis of the quality of these effluents are given below (**Annexure II**). The value of all the parameters analyzed in the effluents are within permissible limit.

S. No	Parameter	Unit	Analysis report		Permissible limit
			Effluent 1	Effluent 2	
1.0	pH@25°C		7.68	6.88	5.5 to 9
2.0	Total Suspended Solid@105°C	mg/l	2	2	100
3.0	Total Dissolved Solids@180°C	mg/l	68627	34536	-
4.0	Chloride as Cl	mg/l	14872	12426	
5.0	Sulphates as SO ₄ ²⁻	mg/l	508	519	1000
6.0	BOD@27°C for 3 days	mg/l	8	7	100
7.0	COD	mg/l	88	64	250
8.0	Total Kjeldhal Nitrogen as N	mg/l	<2	<2	100
9.0	Dissolved Phosphate as PO ₄ ³⁻	mg/l	0.97	0.88	-
10.0	Ammonia Nitrogen as N	mg/l	<2	<2	50
11.0	Nitrate as NO ₃ ⁻	mg/l	2.09	1.52	-

- (e) The Joint Committee noticed sludge in the ETS and the quantity of sludge produced varies depending on the quantity of shrimp larvae produced. For example, a hatchery with a production capacity of 300 million larvae per year produces about 5 to 7 metric tons of sludge. The sludge contains organic matter produced due to degradation of fecal matter produced by the larvae and dead algal cells, and also sand particles driven from sand filter. Some hatcheries mentioned that the sludge is scrapped and dumped in nearby areas. Some others mentioned that the sludge is removed by mobile sewage removal tanks by private sewage transporters and then disposed in some other place. Thus, no proper mechanism exists with regard to collection and disposal of this sludge. This sludge cannot be used as manure or landfill since it contains salt. Hence, a proper system should be evolved for safe handling and disposal of this sludge.
- (f) The Joint Committee also noticed that solid waste generated in the hatcheries such as packing materials, plastic containers, filters used in desalinization systems etc are not properly handled and disposed off. In some of the hatcheries they are sold for recycling but in other hatcheries they are dumped adjacent to the or outside the campus of the hatcheries. Hence, a proper system should be evolved for safe handling and disposal of solid waste generated in shrimp hatcheries.
- (g) All the hatcheries employ permanent staff and also daily wage labourers. The number of staff and wage labourers employed depends on the production capacity of the hatchery. Irrespective of the numbers, sewage generated are stored in septic tanks and disposed periodically by private sewage transporters. The shrimp hatcheries may be mandated to establish a sewage treat plant if the quantity of sewage generated exceeded as per the norms of the Tamil Nadu Pollution Control Board.
- (h) All the shrimp hatcheries are operating without Consent to Establish and also without Consent to Operate from the Tamil Nadu Pollution Control Board. However, the CAA informed that as per the Coastal Aquaculture Authority Act, 2005 construction of hatcheries and its commissioning require prior permission of the CAA.

- (i) With respect to Original Application 9 of 2021, the Joint Committee found that no shrimp farms are being illegally constructed in Survey No 92 and 93 in Keelarkollai in Kannathur village, Cheyyer taluk, Chengalpattu district. In these plots shrimp hatchery is being constructed as per the permission given by the Coastal Aquaculture Authority.

Recommendation of the Joint Committee

The committee humbly submits Honourable National Green Tribunal to direct

- a) shrimp hatcheries should maintain records on the quantity of seawater used and quantity of effluent generated along with the quality of the effluents discharged, which should be periodically monitored by the CAA.
- b) shrimp hatcheries to get permission from the Tamil Nadu Maritime Board to withdraw seawater for the operation of the hatcheries.
- j) shrimp hatcheries to obtain Consent for Establishment (CFE) and Consent for Operation (CFO) from the State Pollution Control Board. However, the CAA informed that as per the Coastal Aquaculture Authority Act, 2005 construction of hatcheries and its commissioning require prior permission of the CAA.
- c) shrimp hatcheries to establish sewage treatment plant as per the norms of the Tamil Nadu Pollution Control Board.
- d) shrimp hatcheries to develop and implement Corporate Social Responsibility (CSR) programme as per the Companies Act 2013 and as per the provisions of the Companies (Corporate Social Responsibility) Rules, 2014.
- e) Coastal Aquaculture Authority to evolve and enforce guidelines for disposal of sludge generated in the treatment plant as well as solid waste generated in the hatcheries.
- f) Coastal Aquaculture Authority and Ground Water Department periodically monitor soil and ground water quality at the point where effluent is discharged.
- g) Coastal Aquaculture Authority to take action against the hatcheries that have not registered/ renewed the registration with CAA in accordance with CAA Rules, 2005.
- h) Coastal Aquaculture Authority to create awareness about the Coastal Aquaculture Authority Act, 2005 and roles and operation of the shrimp hatcheries among public, Panchayat Raj Institutions, District Collectorates and all concerned Departments.

District Collector
Chengalpattu District

District Collector
Villupuram District

Sd/- V.Selvam
Member
Tamil Nadu State Coastal
Zone Management Authority

Sd/- A.Antony Xavier
Director (Technical)
Coastal Aquaculture
Authority of India
Government of India

Sd/- D.Vasudevan
District Environment Engineer
Tamil Nadu State Pollution
Control Board

Sd/- C.Palpandi
Scientist C
Ministry of Environment
Forests and Climate Change
Government of India