

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 Hon'ble 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 Hon'ble National Green Tribunal (SZ)

The Hon'ble 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 Hon'ble 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 (TNPCB) designated by its Chairman and (5) a Senior Officer from the Ministry of Environment, Forests and Climate Change (MoEF&CC), 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 Hon'ble 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 No92 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 Hon'ble 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 Hon'ble National Green Tribunal, the Joint Committee is constituted and conducted field inspection on 20th September, 2021.

The following are the findings of the Joint Committee which conducted the field inspection on 20th September, 2021

- (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 Act, 2005, its rules and Guidelines. 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 Hon'ble 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.
- c) 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.
- d) shrimp hatcheries to establish sewage treatment plant as per the norms of the Tamil Nadu Pollution Control Board.
- e) 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.
- f) 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.
- g) Coastal Aquaculture Authority and Ground Water Department periodically monitor soil and ground water quality at the point where effluent is discharged.
- h) Coastal Aquaculture Authority to take action against the hatcheries that have not registered/ renewed the registration with CAA in accordance with CAA Rules, 2005.

- i) 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.

It is submitted that the Hon'ble NGT had during the subsequent hearing issued further directions. The directions of the Hon'ble NGT Vide Order dated 08.07.2021 and the observations of the Joint Committee are submitted as follows:

- 1. The Tamil Nadu Pollution Control Board, is also directed while submitting their reports, to examine the allegations made by the applicant in O.A. No. 09/2021 regarding the hatcheries that are being run by the respondents 7 (SurejNaik No. 107, Kanathur village, Cheyyur taluk, Chengalpattu District) and respondent 8 (Manikavel No.107, Kanathur Village Cheyyur taluk Chengalpattu District) in another place to ascertain whether on account of their operations pollution is caused and if so, action is being taken against them as per rules in force.**

It is respectfully submitted that the joint committee including the representatives of the Tamil Nadu Pollution Control Board of the Chengalpat and Villupuram districts visited M/S.AR Shrimp Hatchery located (at PanichameduKuppam, Komuttichavadi revenue village, Marakkanam Taluk, Villupuram District which is jointly owned by the respondents 7 and 8. The committee observed that the said facility is operating with the approval of the Coastal Aquaculture Authority and is not causing any pollution on the account of their operations due to the fact that the said facility has an insitu Effluent Treatment System which treats the water before its discharge. The officials of the Tamil Nadu Pollution Control Board had during the earlier inspection collected samples from different hatcheries and found no deviations in the quality of the water being let out of the ETS onto the Sea. The committee also

observed that there is no discharge of either the treated or untreated seawater on the land either inside or outside the premises. The water duly treated at the Effluent Treatment System designed and built in accordance with the regulations of the Coastal Aquaculture Authority is let into the sea after the treatment.

2. The Tamil Nadu Pollution Control Board is also directed to file a detailed report as to whether any of the hatcheries are now functioning or earlier function which resulted in any soil or ground water pollution on account of their operations while submitting their reports.

It is respectfully submitted that the joint committee including the representatives of the Tamil Nadu Pollution Control Board did not find any such pollution or possibility for such pollution caused on to the soil or ground water. Further it is respectfully submitted that there is no such incidents of pollution caused due to the functioning of the hatcheries along the coast of Chengalpattu and Villupuram Districts.

3. The committee as well as the pollution control board and also the other officials' respondents are directed to file their independent statements.

The Coastal Aquaculture Authority had filed the detailed independent report on the matter and the report of Joint Committee is furnished herein. The report of the Tamil Nadu pollution Control Board on the analysis of samples collected is appended herewith as **Annexure II**

The directions of the Hon'ble NGT Vide Order dated 16.07.2021 and the observations of the Joint Committee are submitted as follows:

1. The Joint committee report said to have been filed without any signature

The updated Report of the Joint Committee after the field visit on 20th September 2021 and duly signed by all the members of the Committee is submitted herewith.

2. The District Collector of Chengalpattu and Villupuram are directed to designate the representatives or attend the inspection and cooperate with the committee.

It is respectfully submitted that District Collector of Chengalpattu and Villupuram had nominated the respective District pollution Control Board officials to represent the respective District Collectors. The representatives of both the District Collectors have participated in the field visit on 20th September 2021 and duly signed the Joint Committee Report for the submission to the Hon'ble NGT.

3. Though it was mentioned in the Joint Committee report that there are annexures, no such annexures seen produced.

The annexures were inadvertently misplaced while filing the Joint Committee report earlier. Updated annexures are enclosed with the report.

4. The committee is directed to conduct further inspection in respect of these areas in the presence of the District Collectors or their nominees and furnish details.

In tandem with the directions of the Hon'ble NGT, the Joint Committee had undertaken the filed visit with the representatives of the District Collector of Chengalpattu and Villupuram. The interaction and the field inspection with the petitioner Shri G.Velu revealed that the petitioner is placing his apprehensions on the hatcheries based on shrimp farms. The committee did not find any substantiative evidences of pollution from hatcheries as alleged by the petitioner.

5. The Tamil Nadu Coastal Zone Management Authority directed to file their independent statement regarding the requirement of the any permission from the coastal zone management authority under the CRZ notification for such activities. If, so, if such permission has been given to any of the shrimp hatcheries within the CRZ areas as required under the notification.

The independent statement of the Tamil Nadu Coastal Zone Management Authority is placed in **Annexure III**

6. The coastal aquaculture authority is also directed to produce notification (if any relied on by them, exempting from obtaining the CRZ Clearance for such activities, if the area falls within their (CRZ) jurisdiction.

It is submitted that majority of the Hatcheries are located within the CRZ Zone as they are waterfront activity requiring access to pristine sea water for their operations. It is respectfully submitted that the committee observed from the report of the Coastal Aquaculture Authority that as provided under **Section 27 of Coastal Aquaculture Authority Act, 2005**, the Coastal Aquaculture does not come under the purview of CRZ notification issued under Section 3(1) and Section 3(2)(v) of the Environment (Protection) Act, 1986 and Rule 5(3)(d) of Environment (Protection) Rule, 1986 declaring Coastal Stretches as Coastal Regulation Zone (CRZ) and Regulating activities in the CRZ.

It is respectfully further submitted that Section 27 of Coastal Aquaculture Authority Act 2005 under the heading of Validation provides as follows:

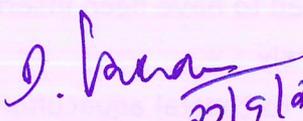
“ Notwithstanding anything contained in clause (v) of sub-section (2) of Section 3 of the Environment (Protection) Act, 1986 or clause (d) of sub-rule (3) of Rule 5 of the Environment (Protection) Rules, 1986 (29 of 1986), in the notification of the Government of India in the Ministry of Environment and Forests (Department of Environment, Forests and Wildlife) No. S.O.114(E), dated the 19th February, 1991 (hereafter referred to in this section as the said notification), in paragraph 2 after sub-paragraph (xiii), the following sub-paragraph shall be inserted and shall always be deemed to have been inserted with effect from the 19th day of February, 1991, namely : –
“(xiv) Nothing contained in this paragraph shall apply to coastal aquaculture”.

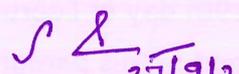
It is further submitted that establishment and operation of hatcheries does not come under the purview of CRZ regulations ever since, the notification of Coastal Regulation Zone in 1991 under Section 36 of Environmental (Protection) Act, 1986 (Act No. 29 of 1986). The recent CRZ Notification of the Ministry of Environment, Forest and Climate Change, Govt. of India GSR 37 (E) dated the 18th January, 2019 has also classified the hatchery under the activities regulated or permissible in the CRZ -1B areas vide item no. (vii) Under Subsection 5.1.2, Section 5 under the heading of Regulation of permissible activities in CRZ. The CRZ Notifications 1991, 2011 and 2019 are appended as **Annexure IV**

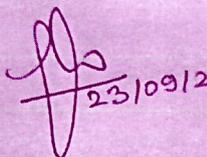
7. The Committee is directed to comply the NGT 's previous orders dated 08.07.2021 and 16.07.2021.

It is respectfully submitted that the directions of the Hon'ble NGT issued vide its order dated 08.07.2021 and 16.07.2021 have been complied as reported above.

It is respectfully submitted that the Coastal Aquaculture Authority on the recommendations of this Joint Committee had developed "Guidelines for solid waste management in the coastal aquaculture establishments" and notified the same for implementation. The copy of the same is appended as **Annexure V**.

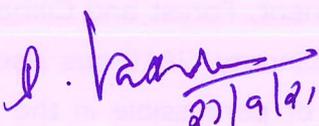

27/9/21
for District Collector
Chengalpattu District

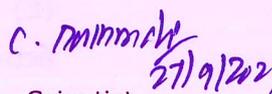

27/9/21
for District Collector
Villupuram District


23/09/21

Member
Tamil Nadu Coastal Zone
Management Authority


Director (Technical)
Coastal Aquaculture Authority
Government of India


27/9/21
District Environmental Engineer
Maraimalainagar
Tamil Nadu Pollution Control Board


27/9/21
Scientist
Ministry of Environment,
Forests and Climate Change,
Government of India