

BEFORE THE HON'BLE NATIONAL GREEN TRIBUNAL,

SOUTHERN ZONE AT CHENNAI

APPEAL No.28 of 2020

**IN THE MATTER OF:-**

Meenava Thanthai K.R.Selvaraj Kumar

Meenavar Nala Sangam

Registered under section 10 of the Tamil Nadu

Societies Act in Sl.No.205 of 2015 dated 26.06.2015

Rep by its President

M.R.Thiyagarajan

S/o.Late Rajalingam

Office at No/48, East Madha Chruch Street,

Royapuram, Chennai – 600013.

...Appellant

**Versus**

1. Tamil Nadu State Environmental

Impact Assessment Authority

Through the Member-Secretary

Ground Floor, Panagal Maligai

No.1 Jeenis Road, Saidapet, Chennai-600 015, Tamil Nadu

2. Department of Fisheries Tamil Nadu

Through the Assistant Director,

Fishing Harbour Project Division, No.11, Thiruvottriyur Division,

Near New Bus stand, Ponneri, Tiruvallur, Tamilnadu.

3. State of Tamilnadu,

Through the Chief Secretary,

Government of Tamilnadu, Secretariat,

Chennai – 600 009, Tamilnadu Pollution Control Board,

Through the Chairman, 76, Mount Salai,

Guindy, Chennai

... Respondents

Inspector of Fisheries  
(Head Quarters)  
Thiruvallur @ Ponneri

Assistant Director of Fisheries  
Thiruvallur @ Ponneri

**REPLY AFFIDAVIT FILED BY THE 2<sup>ND</sup> RESPONDENT TO REJOINDER**

**FILED BY THE APPELLANT**

I, G. Velan S/o Ganapathy, aged 51 years employing in the post of Assistant Director, Fishing Harbour Project Division, Department of Fisheries, Tiruvallur do hereby solemnly affirm and sincerely state as follows:-

1. It is respectfully submitted that I am 2nd respondent herein and well acquainted with the facts and circumstance of the case based on material facts available on the records.

2. It is respectfully submitted that the present appeal has been filed to quash the impugned Environmental Clearance dated 05.08.2020 issued by the Tamil Nadu SEIAA to the Tamilnadu Fisheries Department for proposed Tuna Fishing Harbour, Thiruvottriyur Kuppam Villag, Ennore Taluk, Tiruvallur District.

3) It is respectfully submitted that a detailed counter affidavit has been filed by the 2<sup>nd</sup> respondent during March, 2021. In response to it, the Appellant has filed a rejoinder.

4) It is respectfully submitted that the 2<sup>nd</sup> respondent denies all the averments made by the appellant except specifically admitted herein.

5) It is respectfully submitted that the proposed Tuna Fishing Harbour is primarily to de-congest the overcrowding of fishing boats and vessels in the existing Chennai Fishing Harbour. The proposed location is historically known for its fishery resource and benefit the fishing community of the project location, Thiruvottriyur Kuppam. In G.O. (D) No. 373 Animal Husbandry, Dairying and Fisheries Department dated 22.12.2014, sanction was accorded for preparation of Techno Economic Feasibility Report and conducting Model Studies for construction of the proposed Fishing Harbour i.e. Tuna Fishing Harbour at Thiruvottriyur Kuppam in Tiruvallur District.

6. It is respectfully submitted that the replies to the averments made under para 4 of the rejoinder of the Appellant are submitted as given below:

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A) No remarks

B) The Kamarajar port as mentioned by the Appellant is not under the control of the Department of Fisheries, Government of Tamilnadu and it is under the control of the Government of India. Moreover, it is not a fishing harbor and it is only for handling cargo.

C) The Appellant has accepted that the Chennai Fishing Harbour is congested. Further, the Appellant depends only on publication of a newspaper article regarding the modernization of existing infrastructures at Chennai Harbour but it is not extension of Chennai Harbour. It is important with his is only under proposal. Hence the contention of the Appellant that, the Chennai Harbour is now de-congested, is not correct.

D) All the required details under TOR had been fulfilled as mentioned in the Environmental Impact Assessment Report prepared by EIA Consultant, Centre for Environment, Health & Safety, and Annamalai University.

E) (i) to (iii) The Detailed Project Report ( DPR) was prepared by "**VIRGOAQUA Consulting Engineers**" during June 2015, in respect of the proposed Tuna Fishing Harbour which contains the details of Environmental Baseline Monitoring. The DPR is the primary document for the proposed Tuna Fishing Harbour and it is one of the basic documents for Environmental Impact Assessment (EIA) Report. However, this Environmental Impact Assessment Report was prepared only after the Terms of Reference (ToR) as stipulated by the Member-Secretary, State Level Environmental Impact Assessment Authority (SEIAA)-TN. In the above said EIA report, all the ToR were replied properly.

iv) No remarks

v) The contention of the Appellant is not correct. In Para 5.2 of the Environmental Impact Assessment Report, it has been clearly mentioned that it is important to ensure -4m draft in the water spread area of the Tuna Fishing Harbour to facilitate the navigation of boats and vessels. On the

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basis of real time bathymetry study, it was assessed that 25,460 cum of dredging is required. The proposed landside facilities require land to be reclaimed as it is not feasible to acquire from the existing stretches of land. Hence it is proposed to dredge sand mud from off shore area to reclaim the land for establishing the land side infrastructures. Furthermore, under Para 5.3.5 of the EIA report, it has been noted that there are no major impacts on under water marine biodiversity due to dredging activities. However, this change on the account of micro-organisms and benthic organism due to dredging will become acclimatized to the changed environment of physical strata. This will not, anyway cause damage to the biological attributes of the shoreline.

vi) The contention of the Appellant is not correct. In fact, it has been stated under Para 3.8 of EIA report that the study for biological environment was carried out independently and specifically for terrestrial and marine. The distribution of living organism in the study area represents largely the coastal Biological Environment. In Para 3.8.1 of the EIA report, it has been noted that, in the present survey, Belt transects of 10m length and 10m breadth was employed in order to record the name of the species and their numerical strength in a particular area. From this, data frequency, density and basal area can be calculated. Abundance, frequency and density are synthetic characters. Abundance is the number of individuals per quadrat of occurrence. Frequency expresses the distribution of various species in a community. Density is the number of individuals per quadrat. Relative Frequency (RF) is the percentage of frequency of number of units in which the species occur out of the total number of sampling unit studied. The RF values were calculated and compared to Raunkiaers Law of frequency. This law, states that the class A is greater than B. B is greater than C. C is greater than or less than or equal to D and D is less than E. It would be very helpful in providing the information as the heterogeneity and homogeneity of

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plants. Likewise, the Marine Environment for its biological attributes were surveyed in the project location and it is very clear to note that the biological environment of the project location has no rare or endangered species. The Coastal Phytoplankton and zooplankton in the study area is also enlisted in Table 3.23 of the above said EIA report. If the proposed Tuna Fishing Harbour supported with Shore Protection Structures primarily Groyne Field is important to optimally use the fishery resources in the project location and also protect the coastal population from the threat of erosion.

Vii) and Viii ) No remarks

ix) The contention of the Appellant is not correct. In respect of choice of Alternative sites, it has been discussed under para 6.2 of EIA report that three sites were considered for promoting the Tuna Fishing Harbour to decongest the Chennai Fishing Harbour by the Department of Fisheries. The proposed location was chosen on the basis of its physical status, direct access, shoreline contour, present use, availability of land, erosion with loss of beach, etc., In addition to it, the proposed location was identified and recommended for the proposed Tuna Fishing Harbour primarily by the major stakeholders - the nearby fishing community. The Site Analysis and Environmental advantage of the project locations is presented in Table 6.1 as given below:

Sl.No	Environmental Activities	Advantage - Proposed location
1.	Location	Thiruvottriyur Kuppam, Thiruvottiur Taluk, Thiruvallur District.
2.	Access	Direct Access is available from (SH 114)
3.	Coastal area	Historically a Tuna fishing harbor
4.	Erosion / Accretion	Stable / No Interface
5.	Dredging	1,75,240m <sup>3</sup> dredging is used to reclaim land of 15.63Ha for establishing the land

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		side infrastructures.
6.	Tourism	In Thiruvottriyur Kuppam Near to Chennai
7.	Socio Economic	Enhancing local fishing activities. Indirect benefits for value addition to their sell price of the fish catch.
8.	Air	AAQ is well within the prescribed levels
9.	Water	External source – 75- KLD
10.	Noise	Insignificant
11.	Marine Sensitivity	No Marine species of Importance. No interface No Mangrove will be cut or removed, as there is no plantation of Mangrove in the project location
12.	RR Plan	No displacement as the area has any settlement. No RR Plan is required
13.	Over all Environmental Compatibility	No Discharge/ Disposal, as there is no direct interface or interaction with sea.

x) The contention of the Appellant is not correct. It has been stated under para 4.6.3 of EIA report that it is observed that Cyclone modeling was conducted to determine the maximum wave height and surge levels associated with cyclones that have passed within the close proximity to the proposed Tuna Fishing Harbour at Thiruvettriyur Kuppam in Tiruvallur District. The study was conducted using the Delft3D package. For this study, the following four cyclone tracks were selected.

- a) Nilam 2012
- b) Thane 2011
- c) Laila 2010
- d) Jal 2010

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The Nilam 2012 cyclone passing close to the proposed Tuna Fishing Harbour induced the maximum wave height at 8.5 m at head of the breakwater. The table 4.1 presented the estimated cyclone wave heights during the four cyclone tracks. The extreme cyclone significant wave heights for the different return periods were estimate using the statistical methods such as Weibull and Gumbel distribution and are presented in the Table 4.2

**Table 4.1 : Cyclone Significant Wave Height for 4 tracks**

Cyclone Track	Cyclone Wave height (m CD)
	Head of the Tuna Fishing Harbour (8.5m)
Nilam 2012	4.71
Thane 2011	4.20
Jal 2010	4.35
Laila 2010	1.45

**Table 4.2 : Extreme Cyclone Significant Wave Height for different return periods**

Return period ( year )	Cyclone Wave height (m CD)
	Head of the Tuna Fishing Harbour (8.5m)
5	4.63
10	5.32
50	6.85
100	7.50

Similarly, the estimated surge levels for four cyclones are presented in Table 4.3 and extreme surge levels for four cyclones are presented in Table 4.3 and extreme surge levels for different return periods are presented in the Table 4.4

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**Table 4.3 : Cyclone Induced Surge Levels for four tracks**

Cyclone Track	Cyclone Wave height (m CD)
	Head of the Tuna Fishing Harbour (8.5m)
Nilam 2012	0.18
Thane 2011	0.12
Jal 2010	0.15
Laila 2010	0.10

**Table 4.4 : Extreme Cyclone Induced Surge Levels for different return periods**

Return period ( year )	Cyclone Wave height (m CD)
	Head of the Tuna Fishing Harbour (8.5m)
5	0.18
10	0.21
50	0.28
100	0.30

xi & xii) The contention of the Appellant is not correct. As per Para 5.3.1. of EIA report, the mechanized boats / Vessels / crafts will get parking area and discharge of emissions is little and short term. Also, the intermittent operation of the Diesel Generator set will pose a short term problem in the ambient air quality. Such emissions, however, are intermittent, insignificant and non-quantifiable as the boats or vessels are moving sources. The DG set emission is only intermittent and temporary only during the hours power break down.

xiii) The contention of the Appellant is not correct. Actually, EIA report has addressed the entire requirement made in the ToR as discussed below:

*[Signature]*  
 Inspector of Fisheries  
 (Head Quarters)  
 Thiruvallur @ Ponneri

*[Signature]*  
 ASSISTANT DIRECTOR OF FISHERIES  
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Standard ToR	Reply mentioned in EIA report
<p>Details of the land use breakup for the proposed project. Details of land use around 10km radius of the project site. Examine and submit detail of land use around 10km radius of the project site and map of the project area and 10km area from the boundary of the proposed/ existing project area, delineating project areas notified under wildlife (protection) act, 1972. Critically polluted areas as identified eco sensitive areas interstate boundaries and international boundaries. Analysis should be made based on latest satellite imagery for land use with raw images.</p>	<p>As per Para 3.7.1, the details of Land use pattern are mentioned. The land environment of impact area of project site is predominately agricultural activities in the project land. The project location is largely barren and unused. There are no significant agricultural activities in the project lands. Further no agricultural or Forests land is involved. No land acquisition is envisaged.</p>
<p>Examine and submit the water bodies including the seasonal ones within the corridor of impacts along with their status, volumetric capacity, and quality likely impacts on them due to the projects.</p>	<p>No water bodies are involved.</p>
<p>Submit the details of fishing activity and likely impacts on the fishing activity due to the project. Specific study on effects of construction activity and pile driving on marine</p>	<p>As per Para 5.3 of EIA report, the proposed Fishing Harbour will have net positive impacts as it is intended to provide fish handling, storage, and marketing, transfer system which</p>

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life.	<p>eventually will improve the socio economic status of the fishermen community of the project location. The fishermen will find it easy and safe to have parking of their fishing boats and catamarians. Principally, there could be only three significant negative impacts due to fish handling, breakwater construction and dredging. Moreover, there is no discharge of effluent or any emission from the activities in the proposed Fishing Harbour. Hence, no change in coastal biology is foreseen. The impact due to infrastructure developments like road and building and construction materials on biodiversity will also be negligible. There are no major impacts on under water marine biodiversity due to dredging activities. However, this change on account of microorganisms and benthic organisms due to dredging will become acclimatized to the changed environment of physical strata. This will not anyway spoil the biological attributes of the shoreline.</p>
Details of oil spill contingency plan	As stated earlier, project land is only

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(Head Quarters)  
Thiruvallur District

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	<p>for fish handling and not for cargo. Hence there is no oil handling in the proposed Fishing Harbour.</p>
<p>Details of rain water harvesting and utilization of rain water</p>	<p>As per Para 11.9g and h of EIA report, the entire boundary along the fence will be developed as " Green Corridor" 40m width with exclusive species of trees and plants. All along road side area along the entire inner roads, a width of green belt will be developed and also in the areas under the purview of common facilities. The area under green corridor will be provided with the rain water collection pits ( one in every 100m). The drainage pattern of the land will be made to have the run off towards the green corridor to facilitate the run off to charge these pits.</p>
<p>Submit details of a comprehensive risk assessment and Disaster Management Plan including emergency evacuation during natural and manmade disasters</p>	<p>In Para 8.2 of EIA report, it has been noted as the project location is known for its coastal vulnerability including erosion and to natural hazards like storm, a comprehensive coastal modeling exercise was carried out. Met oceanic data of long term and primary level short term data were generated for wind,</p>

  
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	<p>cyclones, rainfall, humidity, visibility, tide, current, littoral drift and shoreline oscillation were collected for modeling all coastal process towards designing the harbor infrastructure including break waters. The construction of Fishing Harbour will provide safe place for docking the boats and landside facilities to enhance the fish catch and to provide hygienic handling of fishes. The ammonia storage is understood to have only less quantity. It is much lesser to cause any risk. It has also been noted that the proposed activity will not have any cause and stand reason for any Disaster situation in the project location.</p>
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XIV) The contention of the Appellant is not correct. The Department of Fisheries has furnished replies to all required details under condition 31 as additional ToR as given below:

Sl.No	Additional ToR under Condition No.31	Replies in EIA report
1.	One of the major environmental issues concerning the project is that 2 Lakhs m <sup>3</sup> of sea bed material will be dredged and	The proposed landside facilities require land to be reclaimed as it is not feasible to acquire from the existing stretches of land. Hence it is proposed to dredge sand mud from

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	<p>proponent says that this will be used for shore line management. The characteristics of the dredged materials should be furnished along with the possible adverse impact of the dumping of the dredged material for shoreline management.</p>	<p>off shore area to reclaim the land for establishing the land side infrastructures.</p>
2.	<p>Another issue will be impact of diesel spillages from the boats on the sea water quality.</p>	<p>The proposed Fishing Harbour is only for fish handling and not intended to cargo. Hence the impact is only very minor which is negligible.</p>
3.	<p>The proponent should prepare a comprehensive line diagram in which all the facilities to be created should be marked. Then for each facility, the probable effluent generation and waste generation should be indicated with quantity and quality. Finally, the methodology for collection, treatment and reuse/disposal of the liquid and solid waste should be indicated. Specific attention should be paid to be the marine discharges.</p>	<p>The Sewage Treatment Plant is one of the components to be carried out by the project proponent in the proposed Fishing Harbour.</p>

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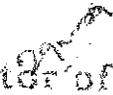
4.	The sampling should be done in grid pattern and every one kilometer the sample (air, water, sediment and biological samples) within the 10km of radius. At least 10 samples should be studied in detail.	It has been mentioned in EIA report that every sampling was done within 10 km radius and shown for every parameter in Chapter III
5.	Heavy metal studied in water and sea surface sediments can be studied	The Para 3.5 of EIA report enlists about the Water Environment of the proposed land. The analysis of various parameters including heavy metals like Aluminum / Sulphates / Calcium / Sodium / Iron etc., have been done and tabulated in Table No. 3.13 to 3.15

4. The contention of the Appellant is not correct. The Department of Fisheries has complied with all the conditions prescribed in ToR as elaborated in the EIA report.
5. The contention of the Appellant is not correct. The public hearing was conducted in letter and spirit, since the proposed project is essentially to enhance the fishing activities in the project location and also to provide fishery infrastructures to enable the fishermen to handle and market their harvest positively for higher price which will prosper their life. Further, it is also the demand of villagers to complete the project at the earliest.
6. For the reasons explained as stated above, the Environment Clearance issued to the project proponent is very valid and does not meet out any legal infirmity.

*[Signature]*  
**Inspector of Fisheries**  
 (Head Quarters)  
 Thiruvallur @ Ponnani

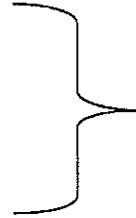
*[Signature]*  
**ASSISTANT DIRECTOR OF FISHERIES**  
 THIRUVALLUR @ PONNER

In view of the above said circumstances and reasons, it is humbly prayed that this Hon'ble Tribunal may be pleased to consider the above said facts and pass such order or orders as deemed fit and proper and thus render justice.

  
Inspector of Fisheries  
(Head Quarters)  
Thiruvallur @ Ponneri  
Solemnly affirmed at Chennai

On this 07 day of October, 2021  
and signed his name in my presence.

  
ASSISTANT DIRECTOR OF FISHERIES  
THIRUVALLUR @ PONNERI



Before me