

**BEFORE THE NATIONAL GREEN TRIBUNAL
SOUTHERN ZONE, CHENNAI
Original Application No.183 of 2020 (SZ)**

IN THE MATTER OF:

Tribunal on its own motion-SUO MOTU Based on the News item in Tamil Hindu E-Magazine, Chennai Edition dated: 07.09.2020, "Setting up on Ecological Park by destroying mangrove forests with Destruction of Environment?- Environmental activists torment".

... Applicant(s)

Versus

The Secretary to Govt. of Tamil Nadu,
Department of Environment,
Govt. Secretariat, Fort St. George
Chennai, Tamil Nadu - 600009 and Ors.

... Respondent(s)

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Date: 1-4-2021

Chennai



**(Dr. R. Sridhar)
Scientist 'D'
Regional Office, MoEF&CC,
Chennai**

Report of the Joint Committee in compliance of the Hon'ble NGT Order dated 28.09.2020 in OA No. 183 of 2020 (SZ)

1. Background

The Hon'ble NGT, Southern Bench in the matter of OA No. 183 of 2020 (SZ) vide order dated 28-09-2020 has constituted a Joint Committee to inspect the area in question and submit a factual as well as action taken report, if there is any violation found. The directions of NGT are reproduced below:

“in order to ascertain the present state of affairs and the manner in which eco-park has been established and if there any damage caused to mangroves etc., we feel it appropriate to appoint a joint committee comprising of 1) a Senior Officer from Ministry of Environment, Forest and Climate Change, (MoEF & CC), Regional Office, Chennai, 2) a Senior Scientist from National Institute of Ocean Technology (NIOT), Chennai, 3) the District Collector, Kanyakumari District, or a Senior Officer not below the rank of Assistant Collector or Sub Divisional Magistrate deputed by the District Collector 4) District Forest Officer, Kanyakumari District and 5) a Senior Officer from Fisheries Department of that District to inspect the area in question and submit a factual as well as action taken report, if there is any violation found”.

“The committee is directed to ascertain the previous position of this area with reference to the extent of mangroves which was available before starting the work of establishment of the eco-park and its present status using the satellite imageries available and if there is any destruction caused to the mangroves, assess the environmental damage and also environmental compensation to be realised from the person or the department who is responsible for the same and the remedial measures to restore the damage caused to the mangroves and submit a report to this Tribunal”.

The Hon'ble NGT vide order dated 3-3-2021 has directed the Committee as well as the official respondents to file the report and their independent statements before this Tribunal on or before 05.04.2021.

2. Joint Committee

The MoEF&CC, Regional Office, Chennai, as the nodal agency, requested all concerned authorities for the nomination of the officials for the Joint Committee and site inspection. As per the nominations received from concerned departments, the Joint Committee consists of the following members:

1. T.K. Ashok Kumar I.F.S, District Forest Officer, Kanniyakumari District.
2. Tmt. A. Mayil, Revenue Divisional Officer, Nagercoil, Kanniyakumari District.
3. Tmt. Virgil Cross, Assistant Director of Fisheries, Nagercoil, Kanniyakumari District.
4. Dr. Vijaya Ravichnadrán, Scientist-G, National Institute of Ocean Technology (NIOT), Chennai.
5. Dr. R. Sridhar, Scientist 'D', Regional Office, MoEF&CC, Chennai.

3. Inspection by the Joint Committee

The Joint Committee inspected the project site 'Eco-Conservation Park' at Manakudy, Agastheeswaram Taluk, Kanyakumari District on 23-03-2021. List of officials present during the site visit is given at **Annexure-1**.

4. Observations of the Joint Committee:

4.1. Proposal of the Fisheries Department:

The District Coastal Zone Management Authority, Kanyakumari district have forwarded a proposal for the Establishment of Eco-restoration Park in the existing fish farm at Manakudy, Agastheeswaram Taluk, Kanyakumari district proposed by the Fisheries Department for Clearance under CRZ Notification 2011. Under the proposal, the Fisheries Department had proposed to undertake the following major works besides some allied activities:

Sl.No.	Proposed Activities by Fisheries Department
i.	Landscaping at 850 sq.mts.
ii.	Construction of Interpretation Centre.
iii.	Conservation of Mangroves.
iv.	Conservation of existing Pond.
v.	Construction of Bridge having 12 metre Vent size (Two Bay) for connecting the two ponds.
vi.	Retaining Block for strengthening the bund at river side.
vii.	Concrete paver block along the road side berms between the bunds of ponds and road and the bunds and road side will be protected using concrete walls.
viii.	Deepening and strengthening the bund to increase water holding capacity
ix.	Energy conservation through solar power – providing 30 Nos. illumination lights.
x.	Walking Track over the bund for maintenance of the pond.
xi.	Fencing arrangements
xii.	Boat Jetty of 30 mts length.

As per the approved Coastal Zone Management Plan of Tamil Nadu under the CRZ Notification 2011, the part of the Project Area is falling in CRZ-IA (Ecological Sensitive Area) due to the presence of Mangroves and another part of the Project Area is falling in the inter tidal zone CRZ-IB categorization.

4.2. CRZ Clearance:

The Tamil Nadu State Coastal Zone Management Authority (TNSCZMA) has granted Clearance, under the CRZ Notification, 2011 to the Fisheries Department of Kanniyakumari District for establishment of Eco- Conservation Park in the existing estuarine fish farm at R.S.No.807 (P), South Thamaraiikulam Village, Manakudy, Agastheeswaram Taluk, Kanniyakumari District vide Proceedings No.P1/1741/2019 dated 31-10-2019 with below mentioned certain specific conditions:

Sl. No	Conditions given in the CRZ Clearance issued dt 31-10-2019
a)	The existing features of the project site should be conserved as a Eco-nature park and should not be converted/ used for the recreational or entertainment activities.
b)	No activity shall be carried out in CRZ – I – Eco Sensitive area and in the 50 mts buffer zone around the Mangrove area except activities directly relate to the Conservation of Mangroves.
c)	The Project Proponent should not construct any new concrete structures such as Boat Jetty, Bridge, Laying of Paver Block, Constructing of Concrete Walls, Walking Track, interpretation centre, in CRZ-IA and CRZ-IB areas.
d)	Landscaping is not allowed in CRZ area. Planting of native species may be done in consultation with Forest Department in CRZ area.
e)	No drawal of ground water in CRZ area
f)	Deepening of pond and excavation of sand/ dredging should not be carried out.
g)	Live fencing is only allowed.
h)	New Road should not be formed. The existing road may be strengthened.
i)	The walkway for maintenance of pond should be made with natural stones and the walkway should not be allowed for public utilities/ entertainment/ recreational activities.
j)	Strengthening of bund shall be carried out without putting concrete walls/ retaining walls.
k)	Bridge may be constructed, if necessary, but without affecting free flow of water and shall be constructed only outside CRZ-IA Eco Sensitive area.
l)	Food court, canteen, restaurant, and the like are not allowed in CRZ area.
m)	Dressing shall not be carried out for providing Car parking.
n)	Existing boat jetty may be strengthened / repaired without any expansion.

As per the information provided by the Project implementing Agency (Fisheries Department), the Eco-conservation park project was commenced on 20-12-2019 and completed on 8-6-2020. A map

indicating the project area superimposed on the approved Coastal Zone Management Plan Map as per the CRZ, Notification, 2011 is shown in **Annexure-2**.

4.3. Earlier inspection conducted by the District Administration on 15-2-2020:

The Joint Committee was informed that the District Administration, through a team of officials (comprising 1. District Environmental Engineer, TNPCB, Nagercoil, 2. Deputy Director, Town and Country planning, Tirunelveli, 3. Forest Ranger, Boothapandy Range, 4. Inspector of Fisheries, Fisheries Department, Nagercoil) had conducted an inspection on 15-2-2020 based on a complaint regarding dumping of soil and damaging in the existing mangroves in the project site. A copy of the inspection note is enclosed at **Annexure-3**. The inspection team made following remarks in their inspection note dated 17-02-2020.

- 1) The Project proponent may be directed to remove the embankments provided on the Eastern Side of both ponds (Northern Pond and Southern Pond) which runs through the CRZ IA area (mangroves buffer zone)
- 2) The project proponent may also be directed to remove the gravel dumping for the strengthening of the roadside berms, and to restore the area in CRZ IA without any changes in the existing land use, land cover or topography etc.,
- 3) The project proponent shall ensure the complete rehabilitation of the affected mangroves in the South east and Eastern Embankments of Pond 2 (Northern Pond). The project proponent shall also ensure that the mangroves in the Northern side of Pond 1 (Southern Pond) shall not be affected due to the dumping of gravel.
- 4) The project proponent has to plant native species of mangroves at the project site in consultation with the Forest Department with full effective utilization of the funds allocated for the said purpose.
- 5) The project proponent has to provide red soil with alluvial soil for the turfing of the existing gravel embankments in the area not covered under CRZ IA.

4.4. Compliance status of conditions given under CRZ Clearance

The Joint Committee reviewed compliance status of the all the conditions given under CRZ Clearance and suggestions given by the District Administration. Based on the field observation carried out at Eco-conservation Park, Manakudy on 23-3-2021 and inputs provided by the Fisheries Department, the compliance status of the all the conditions is given below:

Sl. No	Conditions given in the CRZ Clearance issued dt 31-10-2019	Compliance Status
a)	The existing features of the project site should be conserved as a Eco-nature park and should not be converted/ used for the recreational or entertainment activities.	<p>Complied.</p> <p>As per this condition, the project site is treated as Eco- Nature Park. Further, provisions given for conservation of mangroves by planting additional mangroves.</p> <p>It was informed by the project implementing agency that excess <i>Prosopis</i> which was creating hindrance to the movement of monitoring team of Eco - Conservation park, was removed.</p>
b)	No activity shall be carried out in CRZ - I - Eco-Sensitive Area and in the 50 mts buffer zone around the mangrove area except activities directly relate to the conservation of mangroves.	<p>Complied.</p> <p>Fisheries Department informed that no activities are planned with in the 50m buffer area earmarked by SCZMA and IRS Map (Annexure-2) and embankment strengthening done within the buffer zone was altered.</p>
c)	The Project Proponent should not construct any new concrete structures such as Boat Jetty, Bridge, Laying of Paver Block, Constructing of Concrete Walls, Walking Track,	<p>Complied.</p> <p>The construction of new concrete structure was not carried out, except the activities given in the condition no. (k) and (n).</p>

	interpretation centre, in CRZ-IA and CRZ-IB areas.	
d)	Landscaping is not allowed in CRZ area. Planting of native species may be done in consultation with Forest Department in CRZ area.	Complied. Landscaping was not done and provisions are given for planting of native plants such as Rhizophora, portia tree, Bamboo etc with the consultation of Forest Department. As informed by the Fisheries department, an amount of Rs.4.02 Lakhs was earmarked in the project for the above work.
e)	No drawl of ground water in CRZ area	Complied. As informed by the Fisheries Department, ground water was not drawn and good quality of water was used from nearby river source.
f)	Deepening of pond and excavation of sand/dredging should not be carried out.	Complied. As informed by the Fisheries Department, no deepening and dredging activities were done.
g)	Live fencing is only allowed.	Complied.
h)	New Road should not be formed. The existing road may be strengthened.	Complied. Existing road was strengthened using natural stone as per the guidance and direction of SCZMA. However, the strengthening of embankment with 1332m ³ of Chisel dressed stone was used for strengthening the existing road and walkway arrangement as per SCZMA conditions.
i)	The walkway for maintenance of pond should be made with natural stones and the walkway should not be allowed for public utilities/	Complied. Walkway for maintenance of pond was done using natural stones. 1332m ³ of Chisel dressed stone was utilized. Fisheries Department informed

	entertainment/ recreational activities.	that the public utility is prevented using Bamboo fencing and the same was observed by the Committee on date of visit.
j)	Strengthening of bund shall be carried out without putting concrete walls/retaining walls.	Complied. Fisheries department informed that the strengthening of bund was done using conveyed earth and natural stone pitching was done as additional strength to the bund. No concrete wall (or) retaining wall was carried out. Red earth was used at the inner slope of pond and subsequently turfed with alluvial soil to encourage mangrove plantation.
k)	Bridge may be constructed, if necessary, but without affecting free flow of water and shall be constructed only outside CRZ-IA Eco Sensitive area.	Complied. Culvert (Bridge) was constructed without affecting free flow of water and was constructed outside of CRZ – IA Eco sensitive area. (Map indicating project area superimposed on the approved Coastal Zone Management Plan Map as per the CRZ, Notification, 2011 is shown in Annexure-2)
l)	Food court, canteen, restaurant, and the like are not allowed in CRZ area.	Complied. Mentioned activities were not carried out.
m)	Dressing shall not be carried out for providing Car parking.	Complied. No provisions were given for car parking.
n)	Existing boat jetty may be strengthened / repaired without any expansion.	Complied. Existing boat jetty of 30m length was repaired and renovated without further expansion.

4.5. Compliance status of suggestions given by the District Administration:

Sl. No	Suggestions given by the inspection team from Dist. Admin.	Compliance Status
1)	The project proponent may be directed to remove the embankments provided on the eastern side of both ponds (Northern Pond and Southern Pond) which runs through the CRZ IA area (mangroves buffer zone)	<p>The following status provided by the Fisheries Department:</p> <p>Originally the embankment was proposed for 5m top width. During the work progress, four mangrove trees got affected. Further it was taken to the notice of the District Collector and as instructed by the District Collector the following members inspected to the said site.</p> <p>i).District Environment Engineer, TNPCB, Nagercoil. ii).Deputy Director, Town and Country Planning, Tirunelveli. iii)Forest Ranger, Boothapandy Range (Representative of District Forest Officer, Nagercoil) iv)Inspector of Fisheries, Fisheries Department, Nagercoil (Representative of Assistant Director, Fisheries Department, Nagercoil)</p> <p>By the observation of the committee and direction, the bund was reduced to 2.80m width. Meanwhile the villagers represented to strengthen and raise for the existing bund to avoid submerge of village due to flood water.</p>
2)	The project proponent may also be directed to remove the gravel dumping for the strengthening of the	The gravel dumped for the strengthening of road side berms were removed and turfed with

	roadside berms, and to restore the area in CRZ IA without any changes in the existing land use, land cover or topography etc.,	red and alluvial soil to encourage mangrove plantation.
3)	The project proponent shall ensure the complete rehabilitation of the affected mangroves in the South east and Eastern Embankments of Pond 2 (Northern Pond). The project proponent shall also ensure that the mangroves in the Northern side of Pond 1 (Southern Pond) shall not be affected due to the dumping of gravel.	It was informed by the Fisheries Department that during execution, due to dumping of gravel on eastern side of South & North ponds, four mangrove trees got affected. As per the observations made by the inspection team from the District Administration, the dumped gravel was removed for the width of 2.20m and 50 Nos. of Rhizophora mangroves sapling were planted and at present 28 Nos of mangrove plants survived.
4)	The project proponent has to plant native species of mangroves at the project site in consultation with the Forest Department with full effective utilization of the funds allocated for the said purpose.	Native species of Rhizophora mangrove and native trees such as Portia trees, Bamboo were planted in consultation with then District Forest Officer as a partial fulfilment of plantation of trees.
5)	The project proponent has to provide red soil with alluvial soil for the turfing of the existing gravel embankments in the area not covered under CRZ IA.	As informed by the Fisheries Department, the red and alluvial soil were utilized for a purpose of turfing over the bund.

4.6 Impact on Mangroves

During the site inspection, the Committee noted that there is no significant changes in the mangrove patches located in the project site, except a small portion of the mangrove (four mangrove trees as informed by Fisheries Department) which was disturbed/destroyed during the bund formation work in Northern Pond (Pond No-2) of the project site by the project implementing agency (Fisheries Department). Photos taken during the site visit by the Joint Committee are shown at **Annexure-4**.

From the comparison of Google Earth Images for different time periods, before and after project implementation, it was also revealed the mangrove patches were not destructed significantly. The status of mangrove patches existing in the project site before and after project implementation is shown below:



Mangrove patch during 2018 before commencement of the project

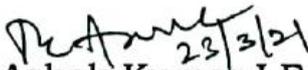


Mangrove patch during 2020 after completion of the project

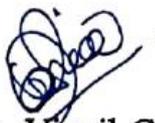
4.7 Action taken by the Fisheries Department

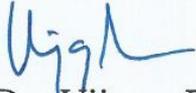
During the site inspection, the Committee noted that the Fisheries Department has already carried out mangrove plantation in the project site (Norther Pond) as compensatory plantation of mangroves (as informed by the Fisheries Department 50 Nos. of saplings of Rhizophora mangrove were planted and at present 28 Nos of mangrove plants survived). However, in accordance with the CRZ Notification, 2011, the project implementing authority i.e., Fisheries Department has been asked to ensure minimum three times the mangrove area affected or destroyed or cut during the bund development process, for compensatory plantation of mangroves, under the supervision of Forest Department.

By considering the action taken report of the Joint Committee, the Hon'ble Tribunal may pass appropriate Order (s)/Direction (s) as deemed fit.


T.K. Ashok Kumar I.F.S,
District Forest Officer,
Kanniyakumari District.


Tmt. A. Mayil,
Revenue
Divisional
Officer,
Nagercoil


Tmt. Virgil Cross,
Assistant Director
Fisheries, Nagerco
Kanniyakumari
District.

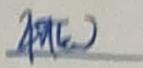
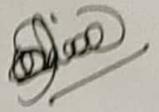
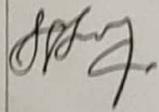
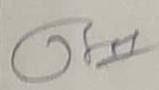
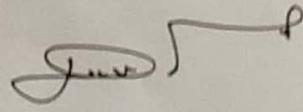
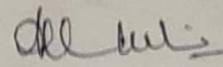
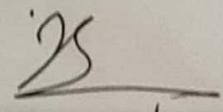
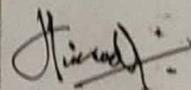
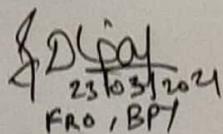

Dr. Vijaya Ravichnadrans,
Scientist-G, National
Institute of Ocean
Technology (NIOT),
Chennai.


Dr. R. Sridhar,
Scientist 'D', Regional
Office, MoEF&CC,
Chennai.

Joint committee inspection related to
OA No. 183 of 2020 (52)

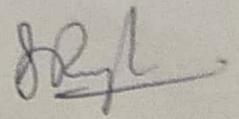
Annexure-1

Date: 23/3/21 Time: 10:30 AM,
Manakuli village, Kanniyakumari Dt.

Sl No	Name	Designation	Signature
1.	Dr. R. Sridhar	Scientist 'D' MCFCC, Chennai	
2.	M. VIRJIL CROSS	Assistant Director of Fisheries, Nagercoil.	
3.	KARFHIKEYA.V.	Inspector of Fisheries, Chittoor (P.O).	
4.	Syed Ibrahim RI, Kanniyakumari	RI, Kanniyakumari	
5.	N. Chithambaram Marthandam	Executive Engineer Fishing Harbour project Division Nagercoil	
6.	A. Venkateswari	Assistant Executive Engineer FHPD, Nagercoil	
7.	A. Mayil.	Revenue Divisional officer Nagercoil.	
8.	M. Hari Prasath	Assistant Engineer. FHPD, Nagercoil	
9.	T. K. Ashok Kumar IFS	District Forest Officer and Wildlife Warden Kanniyakumari Division	The Annual 23/3/21
10.	G.K. Deelipam.	Forest Range officer Boothampally Range @ Aralvazhi	 23/3/2021 FRO, BPT

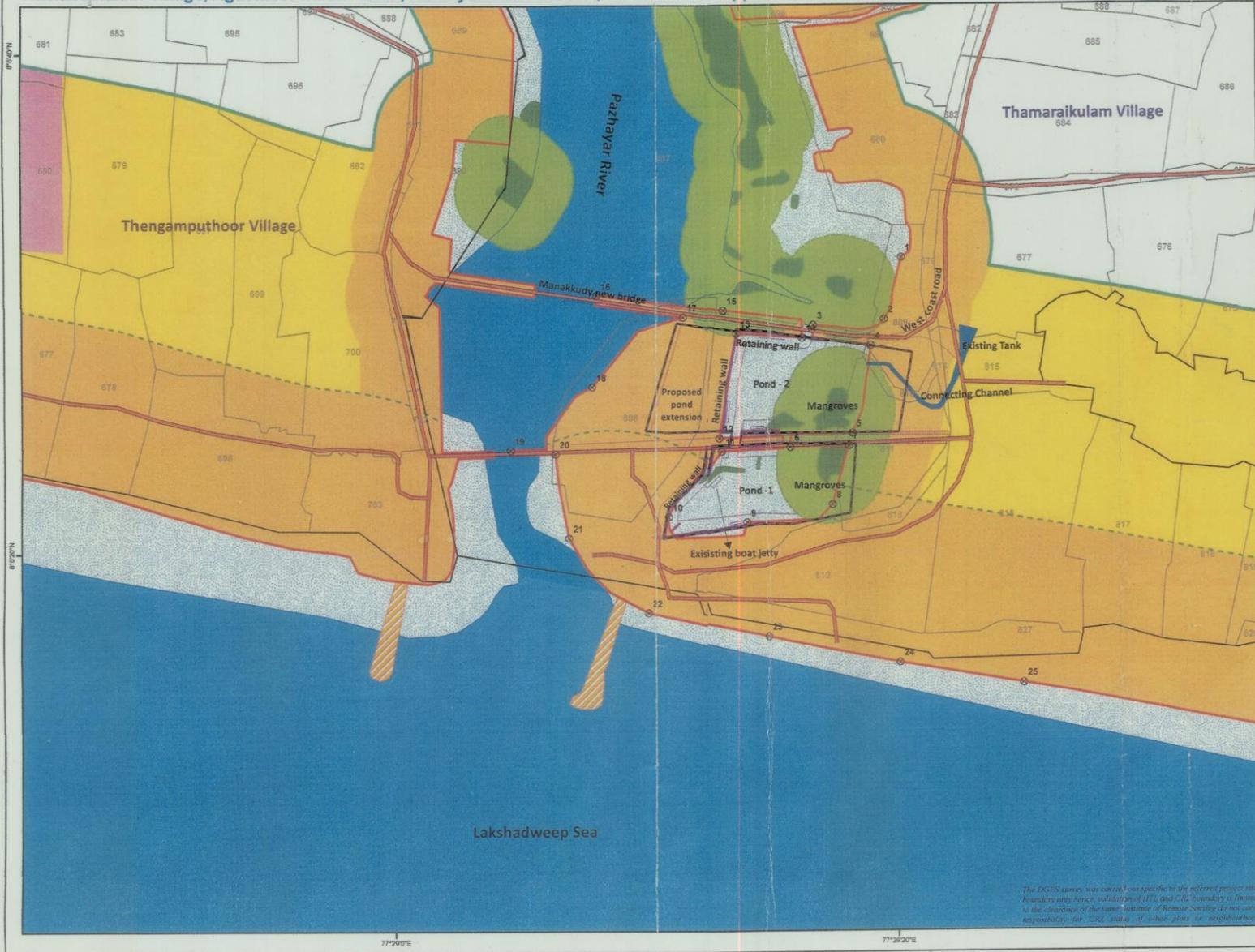
11. S. Ragunathan

Scientist-B
NEERI - Chennai.



Annexure-2

Superimposing the Proposed project establishment of Eco conservation park in the existing Estuarine fish farm at Keela Manakkudy, Thamaraikulam Village, Agastheeswaram Taluk, Kanniyakumari District, TamilNadu on approved CZMP as per CRZ 2011 Notification of MoEF & CC, Gol



LEGEND

SOURCE : Approved CZMP (As per CRZ 2011 Notification)

- ⊙ HTL Reference Point
- Low Tide Line (LTL)
- High Tide Line (HTL)
- - - 200m CRZ line - NDZ
- CRZ Boundary
- (500m Line, 100m for Bay, 100m or Width of the creek whichever is less along the tidal influenced waterbodies)
- Road

Zonation

- CRZ I A
- 50m Buffer from Mangroves (CRZ IA)
- CRZ IB
- CRZ II
- CRZ III
- No Development Zone (CRZ - III)
- CRZ IVB
- CRZ IVA
- Jetty / Breakwater

Source : Client

- Survey Boundary
- Proposed project boundary
- Proposed project details
- Waterbody

SCALE 1 : 4,000

0 100 200 400

REF.No. AU/RS/KSPJ 194 - 2019 Dated 18.10.2019

PREPARED BY
Institute of Remote Sensing
Anna University
Chennai - 600 025

FOR
The Executive Engineer
Fishing harbour project division - Nagercoil
Dept. of Fisheries
Government of Tamil Nadu

Prepared By	<i>[Signature]</i>
Verified By	<i>[Signature]</i>
Approved By	<i>[Signature]</i> 21/10

21 Oct 2019 (BANGRETHA - RS)

The DGIS survey was carried out specific to the referred project site boundaries only hence, validation of HTL and CRZ boundary is limited to the closeness of the survey, Institute of Remote Sensing do not carry responsibility for CRZ status of other places or neighbourhood.

INSPECTION NOTE ON THE COMPLIANCE OF CONDITIONS ISSUED IN THE ENVIRONMENTAL CLEARANCE FOR THE ESTABLISHMENT OF ECO-CONSERVATION PARK IN THE EXISTING ESTUARINE FISH FARM AT R.S.NO.807 (P), SOUTH THAMARAIKULAM VILLAGE, MANAKUDY, AGASTHEESWARAM TALUK, KANYAKUMARI DISTRICT.

Application for Environmental Clearance under CRZ Notification, 2011, for the Establishment of Eco-conservation Park in the existing estuarine Fish Farm at R.S.No.807 (P), South Thamaraiikulam Village, Manakudy, Agastheeswaram Taluk, Kanyakumari District was received from the Assistant Director, Fisheries Department, Nagercoil to the District Coastal Zone Management Authority, Nagercoil. The subject was placed before the 83rd District Coastal Zone Management Committee meeting and the committee recommended for Environmental Clearance under CRZ Notification 2011, to State Coastal Zone Management Authority, Chennai.

The SCZMA issued Environmental Clearance for the Establishment of Eco-conservation Park in the existing Estuarine Fish Farm at R.S.No. 807(P), South Thamaraiikulam Village, Manakudy, Agastheeswaram Taluk, Kanyakumari District vide Proceedings No.P1/1741/2019, dated 31.10.2019 subject to the following conditions:

1. The existing features of the project site should be conserved as a Eco-nature park and should not be converted / used for the recreational or entertainment activities.
2. No activity shall be carried out in CRZ - I Eco-sensitive area and in the 50 mts. buffer zone around the Mangrove area except activities directly relate to the Conservation of Mangroves.
3. The Project proponent should not construct any new concrete structures such as Boat Jetty, Bridge, Laying of Paver Block, constructing of Concrete Walls, Walking Track, interpretation Centre, in CRZ-I A and CRZ -I B areas.
4. Landscaping is not allowed in CRZ area, Planting of native species may be done in consultation with Forest Department in CRZ area.
5. No drawal of ground water in CRZ area.
6. Deepening of pond and excavation of sand / dredging should not be carried out.
7. Live fencing is only allowed.
8. New Road should not be formed. The existing road may be strengthened.

9. The walkway for maintenance of pond should be made with natural stones and the walkway should not be allowed for public utilities / entertainment / recreational activities.
10. Strengthening of bund shall be carried out without putting concrete walls / retaining walls.
11. Bridge may be constructed if necessary, but without affecting free flow of water and shall be constructed only outside CRZ I A Eco sensitive area.
12. Food Court, Canteen, Restaurant and the like are not allowed in CRZ area.
13. Dressing shall not be carried out for providing Car parking.
14. Existing boat jetty may be strengthened / repaired without any expansion.

In the meantime a complaint was received regarding dumping of soil, damaging in the existing mangroves etc. during the execution of the project and as desired by the District Collector, Nagercoil, the following members of DCZMA – Kanyakumari District made an inspection at the said site on 15.02.2020:

- i) District Environmental Engineer, TNPCB, Nagercoil,
- ii) Deputy Director, Town and Country Planning, Tirunelveli.
- iii) Forest Ranger, Boothapandy Range (representative of District Forest Officer, Nagercoil).
- iv) Inspector of Fisheries, Fisheries Department, Nagercoil (representative of Assistant Director, Fisheries Department, Nagercoil)

During the inspection, the following officials are also present.

- i) Executive Engineer, Fishing Harbour Project Division, Fisheries Department, Nagercoil
- ii) Zonal Deputy Tahsildar, Agastheeswaram Taluk, Nagercoil.

During inspection, the following observations are made:

- 1) The Establishment of Eco-conservation Park in the existing Estuarine Fish Farm at R.S.No.807 (P), South Thamaraiikulam Village, Manakudy, Agastheeswaram Taluk, Kanyakumari District is under process.

- 
- 2) Mangroves, Pelican birds etc. are found in the estuarine ponds.
 - 3) The earth filling of the embankments, the strengthening of the existing road berms of the site by the gravel is almost completed.
 - 4) The other construction including construction of the bridge (culvert) is under process.
 - 5) During the strengthening of embankments, it is observed that the mangroves are affected by the gravel soil in the South East and East portion of embankments of ponds (Northern pond).
 - 6) The strengthening of the existing boat jetty for a length of 30 metres is completed.
 - 7) It is observed that the project proponent has generally complied the conditions No.1 & 3 – 14 prescribed in Environmental Clearance issued vide Proc. No.P1/1741/2019, dated 31.10.2019. The Executive Engineer, Fishing Harbour Project Division, Fisheries Department, Nagercoil has furnished the compliance of Environmental Clearance conditions. (Copy enclosed)
 - 8) The laying of embankments provided in the Eastern boundary (Both in Pond I and II i.e. South and Northern ponds) runs through the buffer zone as prescribed as CRZ IA and marked in the IRS Map of Anna University, Chennai and the strengthening of the existing roadside berms in the mangrove buffer zone for a length of about 100 meters, are in non-compliance of the condition No.2 prescribed in the Environmental Clearance which reads as follows:

“2. No activity shall be carried out in CRZ - I Eco-sensitive area and in the 50 mts. buffer zone around the Mangrove area except activities directly relate to the Conservation of Mangroves.”

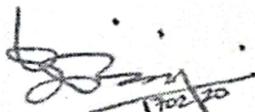
- 9) The Fisheries Department officials has informed the following:
 - a) The gravel from the nearby Tirunelveli District is received and used for the strengthening of embankments / roadside berms.
 - b) The present mangroves mentioned in the approved CRZ Map is manmade during the Post Tsunami period in 2004.

- c) The Prosopis along the roadside are removed / cleaned and so, the width of the road seems bigger and only lesser quantity of gravel is used for the strengthening of the roadside berms.
 - d) Rs.4.02 Lakhs is allocated for the conservation / re-plantation of mangroves in the project using fish bone method.
 - e) The bridge (culvert) is under construction which is away from the CRZ IA area as the same is to be completed early, as the construction of the same breaks the pedestrian pathway connectivity of the existing older road connecting Keezha Manakudy and Mela Manakudy residences.
 - f) The ponds receive surplus fresh water from the Thalaikulam channel, during the irrigation period.
 - g) The Fisheries Department has also confirmed that the salinity in the pond is around 5 ppt and the same is around 10 ppt in the backwaters of the Palayar River.
 - h) The Fisheries Department officials has expressed that ponds are under their possession since 1958's and the latest document with respect to the fish farming auction was carried in the year 2003 in Pre-Tsunami period.
9. The public of Keezha Manakudy has informed that the strengthening of the Eastern bund both in Northern and Southern ponds will ensure the stoppage of flow of water from both the pond towards the residences of the Keezha Manakudy Village during heavy monsoon period.

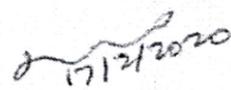
At this juncture, the following are submitted:

1. The Project proponent may be directed to remove the embankments provided on the Eastern Side of both ponds (Northern Pond and Southern Pond) which runs through the CRZ IA area (mangroves buffer zone)
2. The project proponent may also be directed to remove the gravel dumping for the strengthening of the roadside berms, and to restore the area in CRZ IA without any changes in the existing land use, land cover or topography etc.

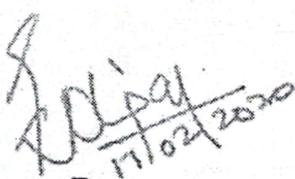
3. The project proponent shall ensure the complete rehabilitation of the affected mangroves in the South east and Eastern Embankments of Pond 2 (Northern Pond). The project proponent shall also ensure that the mangroves in the Northern side of Pond 1 (Southern Pond) shall not be affected due to the dumping of gravel.
4. The project proponent has to plant native species of mangroves at the project site in consultation with the Forest Department with full effective utilization of the funds allocated for the said purpose.
5. The project proponent has to provide red soil with alluvial soil for the turfing of the existing gravel embankments in the area not covered under CRZ IA.



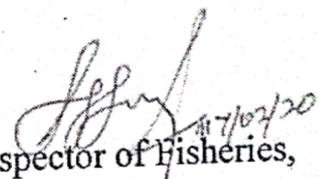
District Environmental Engineer,
TNPCCB, Nagercoil



Deputy Director
Town & Country Planning, (M/C)
Tirunelveli.



Forest Ranger,
Boothapandy Range,
(Representative of DFO,
Nagercoil)



Inspector of Fisheries,
Fisheries Department
(representative of Assistant
Director, Fisheries Department,
Nagercoil)

Annexure-4

Photos taken during the site visit at Eco-Conservation Park, (Manakudy, Kanniyakumari) on 23-3-2021 by the Joint Committee

