

**BEFORE THE HONOURABLE NATIONAL GREEN TRIBUNAL  
SOUTHERN ZONE, CHENNAI**

In

Appeal No.14 of 2022(SZ)

IN THE MATTER OF:

Sri.M. Yuvadeeban, Chennai

....Applicant(s)

Vs

Department of Fisheries,  
Govt. of Tamil Nadu and Ors.

...Respondent(s)



**S.Sasikumar**  
**Nodal Officer to the JC/ DIGF(C)**  
**MoEFCC, Chennai**

## Joint Committee Report

Joint Committee Report

In  
Appeal No.14 of 2022 (SZ)

### Index

Sl.No	Particular	Page No.
1	Joint Committee Report	1-8
2	Annexure-I Hon'ble NGT (SZ) Order dated 04.03.2022	9-15
3	Annexure –II The photos take during the site visit	16-18
4	Annexure-III Representation to the Joint committee by the appellant	19-23
5	Annexure-IV The Location map	24-24
6	Annexure-V <i>CRZ Map prepared based on approved CZMP Maps of Tamil Nadu (CRZ Notification, 2011) by the NCSCM</i>	25-25
7	Annexure-VI The areal distance calculated based on Google earth	26-26
8	Annexure-VII Images showing mouth behavior with seasons	27-28

**BEFORE THE HONOURABLE NATIONAL GREEN TRIBUNAL  
SOUTHERN ZONE, CHENNAI**

In  
Appeal No.14 of 2022 (SZ)

**Joint Committee Report on Appeal No.14 of 2022 (SZ) filed before  
the Hon'ble National Green Tribunal, Southern Zone, Chennai.**

**1. Introduction**

Vide Order dated 04.03.2022 in Appeal No.14 of 2022 (SZ), the Hon'ble NGT (SZ) has constituted a Joint Committee comprising of (1) Senior Officer from the Regional Office of MoEF & CC, Chennai (2) 2)an Officer from the Forest Department, not below the rank of Conservator of Forest as nominated by the PCCF and Chief Wildlife Warden and 3)a Senior Scientist having expertise in shoreline dynamics and marine biology from National Institute of Ocean Technology (NIOT), Chennai to inspect the area in question and submit factual report to the Hon'ble Tribunal on the following aspects:

- i) Whether the area falls under the CRZ – IA and whether the area has been notified as Olive Ridley turtle nesting
- ii) Whether establishment of the project will have any impact on the Kaluveli Bird Sanctuary.
- iii) Whether that area is rich in biological diversity including active mudflats, sea grass beds, sand dunes, salt marshes etc.
- iv) Even if the project is a permissible activity and if it has to come up, what are the necessary further conditions to be imposed to mitigate the impact on the eco-sensitive zones mentioned above.

The copy of the Hon'ble NGT (SZ) Order dated 04.03.2022 in Appeal No.14 of 2022 is at **Annexure-I**.

Accordingly, the Joint committee members and the complainant have visited the site along with officials from Forest Department, Government of Tamil Nadu and Fisheries Department, Government of Tamil Nadu on 15.03.2022. During the visit the local people were also shared their concern in this matter.

The photos taken during the site visit is at **Annexure-II**.

Thereafter vide email dated 17.3.2022 the counsel to the complainant submitted a representation to the Joint committee, which is also examined and copy of the same is at **Annexure-III**.

## **2. Background**

The project in question comprises of two fishing harbors in Kaluveli backwaters each at Azhagankuppam in Villupuram District and Alamparaikuppam in Kancheepuram District, associated roads and two training walls at the mouth of the estuary.

The Location map is at **Annexure-IV**

During the visit there was no construction work. However, it is noted that site leveling works were just started for Azhagankuppam harbor and for training wall. New Roads to the site are constructed and Construction equipments were also seen at the site for erection.

## **3. Observation of the Committee on the following major 4 questions raised by the Hon'ble NGT is as follows.**

***3.1 Whether the area falls under the CRZ – IA and whether the area has been notified as Olive Ridley turtle nesting.***

As per CRZ Notification, 2011, **CRZ-IA** areas are ecologically sensitive and the geomorphologic features which play a role in the maintaining the integrity of the coast,- (a) Mangroves, in case mangrove area is more than 1000 sq mts, a buffer of 50meters along the mangroves shall be provided; (b) Corals and coral reefs and associated biodiversity; (c) Sand Dunes; (d) Mudflats which are biologically active; (e) National parks, marine parks, sanctuaries, reserve forests, wildlife habitats and other protected areas under the provisions of Wild Life (Protection) Act, 1972 (53 of 1972), the Forest (Conservation) Act, 1980 (69 of 1980) or Environment (Protection) Act, 1986 (29 of 1986); including Biosphere Reserves; (f) Salt Marshes; (g) Turtle nesting grounds; (h) Horse shoe crabs habitats; (i) Sea grass beds; (j) Nesting grounds of birds; (k) Areas or structures of archaeological importance and heritage sites.

*According to a book titled, 'Marine Turtles of the Indian Subcontinent' a Wildlife Institute of India publication, Chapter on Marine turtles of Tamil Nadu, Table 3, the number of nests observed per km stretch is 3.5 between Puducherry and Mamallapuram. The data is based on sampling carried out in 2001 during January-February along coastal Tamil Nadu.*

*It is observed that the project is being executed in the specified area as mentioned in the EC and as per the project level CRZ Map prepared based on approved CZMP Maps of Tamil Nadu(CRZ Notification, 2011) by the NCSCM for the purpose of getting EC to this project, it is also noticed that, the project area is not falling in CRZ-1A category.*

*The project level CRZ Map prepared based on approved CZMP Maps of Tamil Nadu (CRZ Notification, 2011) by the NCSCM is at **Annexure-V**.*

*During the site visit the committee has not seen any live Olive Ridley turtle nesting area in the proposed project sites. However noticed some old nesting sites at sand dunes area, which are located outside the project*

*implementing area and is already marked as CRZ-1A category in the CRZ Map, which is about 500m away from the project site. It is also noticed that as such no disturbance has been made to the sand dunes due to the project implementation. The project implementing area is not falling in CRZ-1A and not an Olive Ridley turtle nesting area as observed by the Joint Committee during the visit.*

### ***3.2 Whether establishment of the project will have any impact on the Kaluveli Bird Sanctuary.***

*Kaluveli Bird Sanctuary is located about 12 km of areal distance from project site at Azhagankuppam village in Villupuram District and about 14 km of areal distance from project site at Alamparaikuppam village in Kancheepuram District. In addition to the native species, this Bird sanctuary also attracts migratory birds from various places. Since the project site is not falling within the default Eco Sensitive Zone of Kaluveli Bird Sanctuary, possibility of any impact to the Bird Sanctuary can be nullified. The areal distance calculated based on Google earth is at **Annexure-VI**.*

*Since, it is outside the eco sensitive zone, the present project may not have any significant impact on the Kaluveli Bird Sanctuary.*

### ***3.3 Whether that area is rich in biological diversity including active mudflats, seagrass beds, sand dunes, salt marshes etc.***

*As per the CRZ, Map 2011, the area in question/project implementing area is not falling in CRZ-IA.*

*At the proposed area of the harbor at Alamparaikuppama few mangrove plants were noticed and the density may be not enough for classifying the area as CRZ-IA category.*

Opposite to the proposed area of *the harbor at Azhagankuppam* some dense mangrove plants were observed by the committee and the committee noticed that these mangrove areas are already classified as CRZ-IA category. No damages were made to these mangroves since it is not falling in the project implementing area.

The shoreline change along the Alamparaikuppam to Azhagankuppam stretch is analyzed. The behavior of creek mouth is compared across different months using satellite imageries taken from Google Earth. In general, the mouth remains open during October to March and closed during the remaining months. The freshwater flow during the monsoon season from October to December helps in keeping the mouth open. The shoreline is devoid of any coastal structures presently which implies that any behavior is due to natural phenomena and images showing mouth behavior with seasons in a year is provided in **Annexure-VII**

*Other than this nothing like active mudflats, seagrass beds, sand dunes and salt marshes were not noticed at the proposed construction site.*

*However, sand dunes and mangroves having area greater than 1000 square meters with buffer zone are seen outside the project implementing area which is marked as CRZ-1A category in the CRZ Map.*

*No damages were made to these sand dunes and mud flats by the project proponent at present.*

**3.4 Even if the project is a permissible activity and if it has to come up, what are the necessary further conditions to be imposed to mitigate the impact on the eco-sensitive zones mentioned above?**

*a) During construction phase of training walls, construction materials should not be kept in the beach area.*

*b) No disturbance should be made to the existing mangrove area and its 50 m buffer zone seen at opposite side to the proposed Azhagankuppam harbor as marked in the CRZ Map.*

*c) No disturbance should be made to the existing sand dunes as marked in the CRZ Map.*

*d) While dredging/ dumping the dredging material, care should be taken to protect the existing Mangroves by allowing in flow of sea water to the estuary and vice versa. Otherwise, this in turn prevents the flow of sea water and sediment supply; which may affect nutrient supply which is needed for the growth of the mangroves.*

*e) Local restoration of the mangrove eco-system will assist the local populace in getting better fish catches and also protect against coastal erosion and during extreme climate events such as cyclones. In compensation to the expected damage to the scattered mangroves at the proposed area of the harbor at Alamparaikuppam Village, 1:10 times mangroves to be planted in areas around the project site as much as possible, at the cost of project proponent which is in addition to the green belt development as agreed earlier.*

*f) More awareness to be generated among the local fishing community and youth about the importance of marine biodiversity conservation especially Olive Ridley Turtles and the economic importance of turtles, estuarine biodiversity conservation and especially mangroves for their livelihood. This has to be carried out jointly by Forest as well as Fisheries Department, Tamil Nadu. Necessary financial support may be given by the project proponent.*

*g) Tamil Nadu Forest Department should explore the possibility of extending the service of newly established sea Turtle Conservation Centre to*

strengthen the conservation of sea Turtle. A task force to strengthen this effort may be considered by Forest Department, Tami Nadu.

h) It may be made mandatory for trawls to use Turtle Excluder Devices (TEDs), a net specially designed with an exit cover which allows the turtles to escape while retaining the catch as it is done other States like Odisha.

i) A local turtle protection committee comprising of local people, NGO working in the area and representatives from Government Department may be formed. Local people and youth are to be educated through pamphlets, videos and slideshows on the ways to protect beaches including night time patrolling.

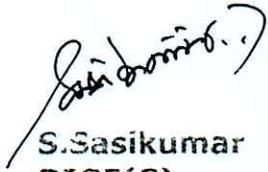
J) The construction labourers need to be housed away from mangrove areas and monitored so that mangroves are not removed for firewood. No sewage / solid wastes shall be discharged within the creek or adjoining areas.

k) Post construction monitoring of the fisheries harbor to maintain the water quality to SW-1 standards within the harbor is essential.

l) Solid waste management / monitoring to ensure that used nets, plastics, batteries. Paints, electronic items, spent oils etc., are not discharged within the harbor. A detailed monitoring plan shall be prepared and bi-annual reports shall be submitted to the PCB.

m) Every effort is required to be made so that activities of a fishing harbor and boat docking and movement is done away from muddy area. At present it was found that debris had been put over part of the muddy area instead of on landward side which should be avoided at all cost and all concerned advised suitably.

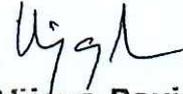
n) Structure overhanging the ecologically sensitive areas (such as through use of columns and pillars supporting platform for the harbour) and minimum construction at site Alamparaikuppam in Kancheepuram District is advised in the interest of conservation of all biodiversity including fish on which depends the livelihoods of the fishermen for whom the harbours are purported to be constructed.



**S.Sasikumar**  
**DIGF(C)**  
**MoEFCC, Chennai**



**Mita Banerjee**  
**Addl PCCF**  
**Tamil Nadu**



**Dr Vijaya Ravichandran**  
**Scientist G**  
**NIOT, Chennai**

**Item No.5:****BEFORE THE NATIONAL GREEN TRIBUNAL  
SOUTHERN ZONE, CHENNAI****Appeal No. 14 of 2022 (SZ)***(Through Video Conference)*

IN THE MATTER OF:

M. Yuvadeeban, Chennai.



... Appellant(s)

*Versus*

Department of Fisheries,  
Govt. of Tamil Nadu  
Rep. by its Executive Engineer,  
Chennai and Ors.

...Respondent(s)

**Date of hearing: 04.03.2022.****CORAM:**

**HON'BLE Mr. JUSTICE K. RAMAKRISHNAN, JUDICIAL MEMBER**  
**HON'BLE Dr. SATYAGOPAL KORLAPATI, EXPERT MEMBER**

For Appellant(s):

Mr. A. Yogeshwaran.

For Respondent(s):

Mr. G.M. Syed Nurullah Sheriff for R2 and R4  
Dr. Shanmuganathan for R1, R2 and R5

**ORDER****I.A. No. 45 of 2022**

1. The Interlocutory Application is filed by the applicant to implead Union of India represented by Secretary to Government, Ministry of

Environment, Forest and Climate Change and also Tamil Nadu Coastal Zone Management Authority represented by its Member Secretary, Chennai as additional respondents 4 and 5.

2. The above respondents were sought to be impleaded as directed by this Tribunal as necessary parties considering the nature of allegations made in the appeal memorandum regarding the violations in granting the Environmental Clearance and also the authority of the State Coastal Zone Management Authority, who is to grant the CRZ clearance. So the application is allowed and the above officials are impleaded as additional respondents 4 and 5. With the above direction and observation I.A. No. 45 of 2022 is allowed and disposed of.

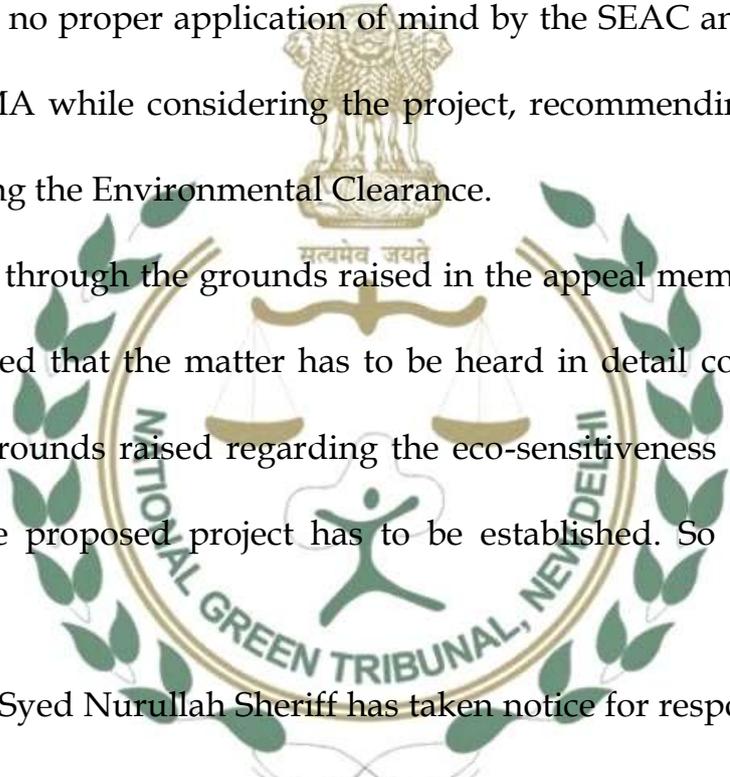
Appeal No. 14 of 2022

3. Additional respondents 4 and 5 were impleaded as per order in I.A. No. 45 of 2022. Registry is directed to carry out amendment in the cause title. Learned Counsel for the appellant is directed to produce the amended copy of the appeal memorandum within a week.
4. Learned Counsel appearing for the State Departments submitted that the 3<sup>rd</sup> respondent, namely, Principal Chief Conservator of Forests and Chief Wildlife Warden is not a necessary party to the proceedings. But there were certain allegations made in the appeal memorandum, in the ground that declared Olive Ridley turtle nesting sites are situated very

near to the proposed fishing harbour and whether it is a permissible activity within that area is also a matter to be considered. So the 3<sup>rd</sup> respondent is a necessary party to the proceedings and there is no necessity to delete them from the party array as requested by the Learned standing counsel appearing for the state Departments.

5. The above appeal has been filed by the appellant challenging the Environmental Clearance (EC) granted to the 1<sup>st</sup> Respondent by the 2<sup>nd</sup> Respondent for the purpose of establishment of fishing harbour in Alamparaikuppam Village, Chengalpattu District and another harbour in Azhagankuppam Village, Villupuram District having a capacity of 12,000 Tonnes/Annum each, totalling to 24,000 Tonnes/Annum.
6. According to the appellant, it is an eco-sensitive zone and it falls under CRZ - IA. Further, it is also situated near the Kazhuveli Bird Sanctuary which was declared as a protected area under the Wildlife (Protection) Act, 1972. Though it was mentioned that the CRZ Clearance was granted by the Tamil Nadu Coastal Zone Management Authority, that was not discussed by the SEIAA - Tamil Nadu while granting the Environmental Clearance (EC). In fact, under the CRZ Notification, the CRZ Clearance also will have to be granted either by the MoEF&CC or by the SEIAA depending upon the nature of category as provided under the EIA Notification read with CRZ

Notification. There was a gross violation of the EIA Notification as well as CRZ Notification committed while granting the Environmental Clearance (EC). Further there was suppression of material facts made by the project proponent in Form-I application. Further, the draft EIA report produced at the time of public hearing is entirely different from the EIA report produced before SEIAA for consideration. Further, there was no proper application of mind by the SEAC and SEIAA and the SCZMA while considering the project, recommending the project and issuing the Environmental Clearance.

- 
7. On going through the grounds raised in the appeal memorandum, we are satisfied that the matter has to be heard in detail considering the various grounds raised regarding the eco-sensitiveness of the area in which the proposed project has to be established. So the appeal is admitted.
  8. Mr. G.M. Syed Nurullah Sheriff has taken notice for respondents 2 and additional 4<sup>th</sup> respondent and Dr. D. Shanmuganathan takes notice for respondents 1, 3 and additional 5<sup>th</sup> respondent.
  9. However, the Learned Counsel for the appellant is directed to serve notice to the respondents and also to the Learned standing Counsel for the respondents within a week and produce proof of service. The appellant is also directed to send notice by speed post and produce necessary requisite with amended copy of appeal memorandum along

with postal cover and postal stamp before this Tribunal within three days to issue notice to respondents through Tribunal by speed post to ensure service on them and proceed against them in their absence, if they did not appear, in accordance with law.

10. In the meantime, the Learned Counsel appearing for the appellant wanted interim order restraining the authorities from proceeding with the ongoing project. The Learned Counsel appearing for the Fisheries Department submitted that they will not do any further work in that area until permitted by this Tribunal. The above submission is recorded. In view of the undertaking given by the Learned standing Counsel for the project proponent, we feel that there is no necessity to issue any interim order as prayed by the Learned Counsel for the appellant.

11. In the meantime, in order to ascertain the eco-sensitiveness of the area, where the proposed project is expected to come and its impact, we feel it appropriate to appoint a Joint Committee consists of 1) Senior Officer from MoEF&CC, Integrated Regional Office, Chennai, 2) a Officer from the Forest Department, not below the rank of Conservator of Forest as nominated by the PCCF and Chief Wildlife Warden and 3) a Senior Scientist having expertise in shoreline dynamics and marine biology from National Institute of Ocean Technology (NIOT), Chennai

to inspect the area in question and submit factual report to this Tribunal on the following aspects:

- i) Whether the area falls under the CRZ - IA and whether the area has been notified as Olive Ridley turtle nesting
- ii) Whether establishment of the project will have any impact on the Kaluveli Bird Sanctuary.
- iii) Whether that area is rich in biological diversity including active mudflats, seagrass beds, sand dunes, salt marshes etc.
- iv) Even if the project is a permissible activity and if it has to come up, what are the necessary further conditions to be imposed to mitigate the impact on the eco-sensitive zones mentioned above.

12. MoEF&CC, Chennai will be the nodal agency for coordination and also for providing necessary logistic for this purpose.

13. The appellant is directed to serve a set of papers including the documents relied on by them to the members of the Committee within three days.

14. Considering the importance and urgency of the matter that the project will be likely to be delayed on account of the undertaking given by the project proponent, which was accepted by this Tribunal, the Committee is directed to inspect the area immediately without delay and submit a report to this Tribunal before the next hearing date. If they are not able to complete the study, they are directed to give

an interim report showing the details of the area mentioning about its eco-sensitive nature mentioned above.

15. The Committee is directed to give notice to the appellant so that he may also be present at time of inspection.

16. SEIAA as well as Coastal Zone Management Authority are directed to produce the relevant documents relating to issuance of Environmental Clearance and CRZ Clearance including the file of SEAC Appraisal before the next hearing date.

17. They are directed to complete the pleadings produce the documents and submit the report to this Tribunal on or before 17.03.2022 by e-filing in the form of searchable PDF/OCR Support PDF and not in the form of Image PDF along with necessary hard copies to be produced as per rules.

18. The Registry is directed to communicate this order to the members of the Committee and also to the official respondents by e-mail immediately so as to enable them to comply with the direction

19. For completion of pleadings, consideration of report and if possible for hearing, post on 21.03.2022.

.....J.M.  
(Justice K. Ramakrishnan)

.....E.M.  
(Dr. Satyagopal Korlapati)

Appeal No.14/2022 (SZ),  
4<sup>th</sup> March 2022. AM

Site at Azhakankuppam



Site at Alamparaikuppam



Site at Training wall Mouth of -



To,

17.03.2022

The Members of the Committee Constituted by the Hon'ble NGT  
Appeal No. 14 of 2022

Madam/sir,

The Kaliveli wetland system is the second largest brackish waterbody in Tamil Nadu. It consists of the estuary between villages Alamparai kuppam and Azhagankuppam, from which it extends into a curving creek which then joins the Kaliveli lake, now 5151 hectares of which have been declared as a bird sanctuary under G.O.(Ms) No. 123 [Environment, Climate Change and Forests (FR.5) Department, Dated 06.12.2021]. The whole wetland system is dynamic, ecologically and hydrologically contiguous. The entire area has been identified by Wildlife Institute of India as the area to be protected.

The wetland system is brackish near the estuary mouth, and largely fresh at the lake, though this fluctuates over the seasons.

Several aspects of the estuary and creek make it biologically rich and ecologically sensitive.

**Olive Ridley Nesting site** - The large beaches and foredunes along both ends of the estuary are recorded breeding sites of Olive Ridley turtles. Frequent sightings by locals and naturalists have been made of turtle nesting between months of January to March. Tree Foundation has data from the Alamparaikuppam side and on the Alangankuppam side of the sand bar, the forest department is directly monitoring nests, collecting eggs and safeguarding them in the hatchery set up by them.

More than 50 nests have been reported this season on both beaches on both sides of the estuary. It is requested that the committee call for statistics of turtle nesting on these shores from the Forest Department and the TREE foundation.

### **Seagrass beds and Biologically active mudflats -**

Large parts of the estuary mouth host seagrass beds of *Halophila ovalis* and *Syringodium isoetifolium*. The beds are richest in the months following monsoons and recede during the summer. They are important foraging and breeding grounds for brackish and marine fauna [Ramanujam, M. Eric, & Anbarasan, R. (2009)].

The mudflats here host rich benthic life including vast stretches of oyster reefs which are important ecological architects. Species like Girdled Horn Snail (*Pirenella cingulata*), Mud Creeper (*Telescopium telescopium*), Lugworms (*Arenicolidae*), Hermit crabs (Malacostraca) and Tower snails (*Turritella*) are commonly seen in hundreds.

**Bird hotspot** - The Kailveli estuary and wetland are a declared Important Bird and Biodiversity Area by Birdlife International, under criteria A1, and A4 (<http://datazone.birdlife.org/site/results?thrlev1=&thrlev2=&kw=Kailveli&req=0&cty=0&snm=&fam=0&gen=0&spc=&cmn=>)

These imply that the site hosts large congregations of several globally threatened species and host more than 1% of the global population/biogeographic region of many species. Tens of thousands of waterfowl including waders, ducks, terns and gulls are seen here during the winter months. A total of 164 bird species have been recorded at the estuary alone, as per ebird data (<https://ebird.org/india/hotspot/L2735736?yr=all&m=&rank=lrec>). Many of them are long distance migrants.

**Mangroves** - Edges of the creek and estuary, and many shallow pockets in the middle have good growths of *Avicennia marina* and *Rhizophora mucronata* mangroves. [Ramanujam, M. Eric, & Anbarasan, R. (2009)]

**Sand dunes** - The beaches along the Southern mouth of the estuary at Azhagankuppam and adjacent villages have primary dunes and in some places well developed secondary dunes and swales, which are presently being mined for local construction.

**Coastal and Marine Biodiversity hotspot** - The estuary site is declared by Wildlife Institute of India as an ICMBIA (Important Coastal and Marine Biodiversity Area) [[http://wiienviis.nic.in/WriteReadData/UserFiles/image/ICMBIA\\_maps/96TN%20Kailveli.jpg](http://wiienviis.nic.in/WriteReadData/UserFiles/image/ICMBIA_maps/96TN%20Kailveli.jpg)]. The nearshore waters are documented breeding grounds for large number of Sperm Whales. Cetaceans recorded year around (resident populations), live or stranded, include Indo-pacific Humpback dolphin, Finless Porpoise, Spinner Dolphin, Pan-tropical spotted dolphins, Bottlenose Dolphin, Blue whales, Bryde's whale and Sperm whales [Report to the Marine Mammal Commission, Dipani Sutaria, 2018].

## **Notes on the ecological richness of the sites proposed for the two harbours and construction of training walls**

### **Site 1 - Azhagankuppam harbour site -**

This area is a rich biologically active mudflat with indicator species like Blue-Spotted Mudskippers (*Boleophthalmus boddarti*), vast oyster reefs (*Crassostrea* which women from inland villages collect and shuck), girdles horn snails (*Pirenella cingulata*), fiddler crabs, lug worms, etc. Waders and shorebirds like Red shanks, Sandpipers, Green shanks, Ringed Plovers, Whimbrels forage and roost here.

### **Site 2 - Alamparai harbour site**

This area is a bird roosting spot with gulls, terns, ibises, curlews, seen here in large numbers during winter months.

This site is also a salt marsh and biologically active mudflat. It has numerous young saplings of *Avicennia marina*, and salt marsh vegetation like *Sesuvium*, *Suaeda* and *Salicornia* species. Large populations of fiddler crabs, red ghost crabs, lug worms, oysters reefs, *Teloscopium*, Girdled hornsnails and other smaller molluscs and crustaceans.

Across this site is the Edaiyanthittu island where good growths of mangroves *Avicennia*, *Rhizophora* and *Exoecaria* are found, along with TDEF and Salt marsh vegetation.

### **Site 3 - Estuary mouth - proposed site of training walls**

The sand bars here make the Kaliveli creek a sheltered marine space, which is a nursery ground for various marine and brackish fauna, and where seagrass and oyster reef habitat is found. Opening of the mouth will disrupt this adversely. The sand bars will no longer buffer the wave velocity and the flow rate will increase. This will make the wetlands unfit for seagrass, oyster reefs and as nursery grounds.

The beaches on both the North and South are very dense Olive ridley turtle nesting grounds. Over 50 nests have found this season in 2022 between Jan - March in Alamparaikuppam alone which will be eroded away by training wall construction. Site visits revealed that atleast 25 sea turtles have died this season due to ghost nets, and propeller strikes already. During the site inspection, the committee also observed turtle tracks and nests. The estuary area is a nursery and a calving ground for cetaceans (entirely aquatic group of

mammals) – a letter from Dr. Dipani Sutaria, IUCN Cetacean Specialist Group is also submitted herewith.

It was pointed out that there were nests along the rubble road laid by the fisheries department. Eggs in one of these nests is likely to hatch and hatchlings will emerge today. We will send you a video of the same as soon as it is available.

All along the southern part of the estuary, rich seagrass meadows of *Halophila* and *Syringodium* are found, which are already threatened by mechanized boat docking. Dredging for the harbour will destroy them further.

The proposed site within the estuary and creek of Kaliveli is an impending ecological disaster. Moreover, 60 plus villages are dependent on the inland wetlands, estuary and creek, compared to the few seafacing village pushing for the harbour. Their voices however have gone unheard.

The issue, as repeatedly pointed out, is not whether a harbour is necessary or not – but whether the present sites are ecologically and legally permissible for the establishment of the harbour. Despite the existence / presence of ecologically sensitive features at the sites, they have been wrongly classified as CRZ 1B in the CZMP – however, this wrong demarcation cannot erase the factual presence of biologically active mudflats, salt marshes, turtle nesting grounds, sea grass etc. It is relevant to note that ports and harbours cannot be set up in ecologically sensitive areas falling under CRZ – IA.

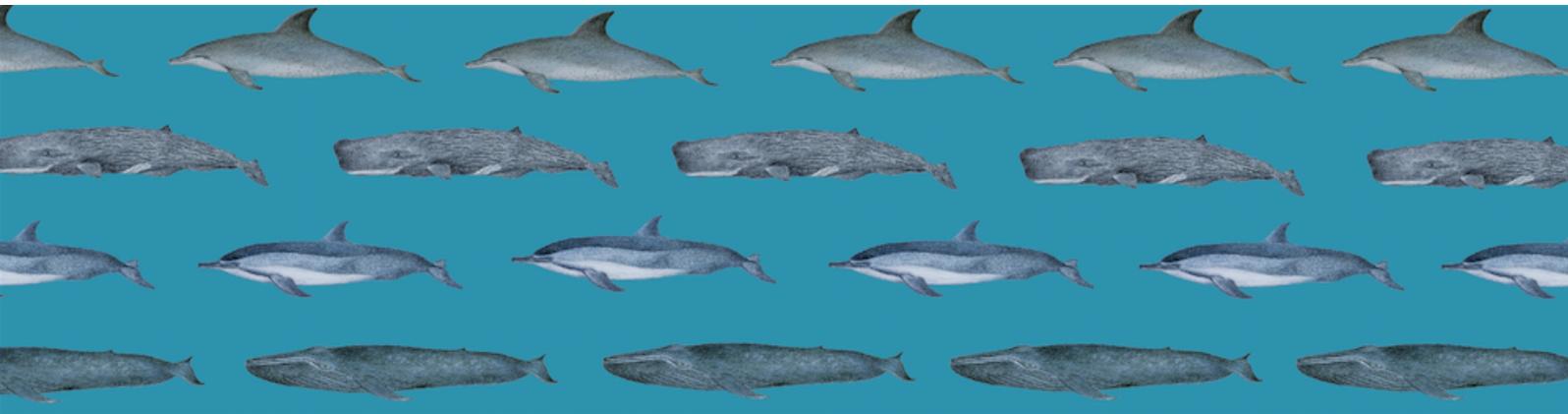
Photographs taken during the site visit and on earlier occasions are available at <https://drive.google.com/drive/folders/1F-U3KP6guxFdhW3RXxT68I1rcFrgZ4GA?usp=sharing>

Please also visit ebird <https://ebird.org/hotspot/L2528909> for photographs and evidence of the diverse birdlife in the subject area.

Thank you



M. Yuvadeeban



Dipani Sutaria, PhD - Ecologist, India  
Senior Research Fellow, James Cook University, Australia  
IUCN Cetacean Specialist Group  
Marine Mammal Research And Conservation Network Of India [www.marinemammals.in](http://www.marinemammals.in)  
[Dipani.Sutaria@jcu.edu.au](mailto:Dipani.Sutaria@jcu.edu.au); [Dipani.Sutaria@gmail.com](mailto:Dipani.Sutaria@gmail.com)

To

#### WHOMSOEVER IT CONCERNS

Research carried out by our team and the local network in the stretch between Cuddalore and Cheyyur 2015 onwards identified the coastal and offshore waters in the wetland and estuarine areas off Marakkanam, Kaliveli, Alamparai and Odiyur to be socially and ecologically very important and sensitive. These zones where brackish and freshwater entered the sea, had greater instances of cetacean sightings, both from systematic surveys and from interview surveys of fishers and other sea going communities. Cetacean sightings are indirect evidence of the presence of productive ecosystems and prey (large and small sized fish; squid, molluscs, shrimp, and plankton).

Cetaceans using these waters (based on sightings) are Humpback dolphins, Finless porpoises, Bottlenose dolphins, Spinner dolphins, pan-tropical spotted dolphins, Striped dolphins, Risso's dolphins, Pilot whales, Killer whales, Sperm whales, Blue whales and Bryde's whales. Other species that have beached live or have been found as carcasses include Rough toothed dolphins, Common dolphins, Cuviers beaked whales, Dwarf sperm whales and false killer whales.

This stretch of wetlands and estuaries entering the Bay of Bengal, needs to be sensitively managed, in terms of infrastructure development and at-sea activities, if resources and biodiversity need to be protected and managed sustainably for future generations. Climate change is surely to bring about drastic events in the future (floods, water-shortage, erosion, loss of fish diversity, loss of habitat for fish and other littoral diversity..etc). We must restore / protect our natural defence systems (such as beaches, wetlands, offshore ridges and trenches) to the effects of climate change.

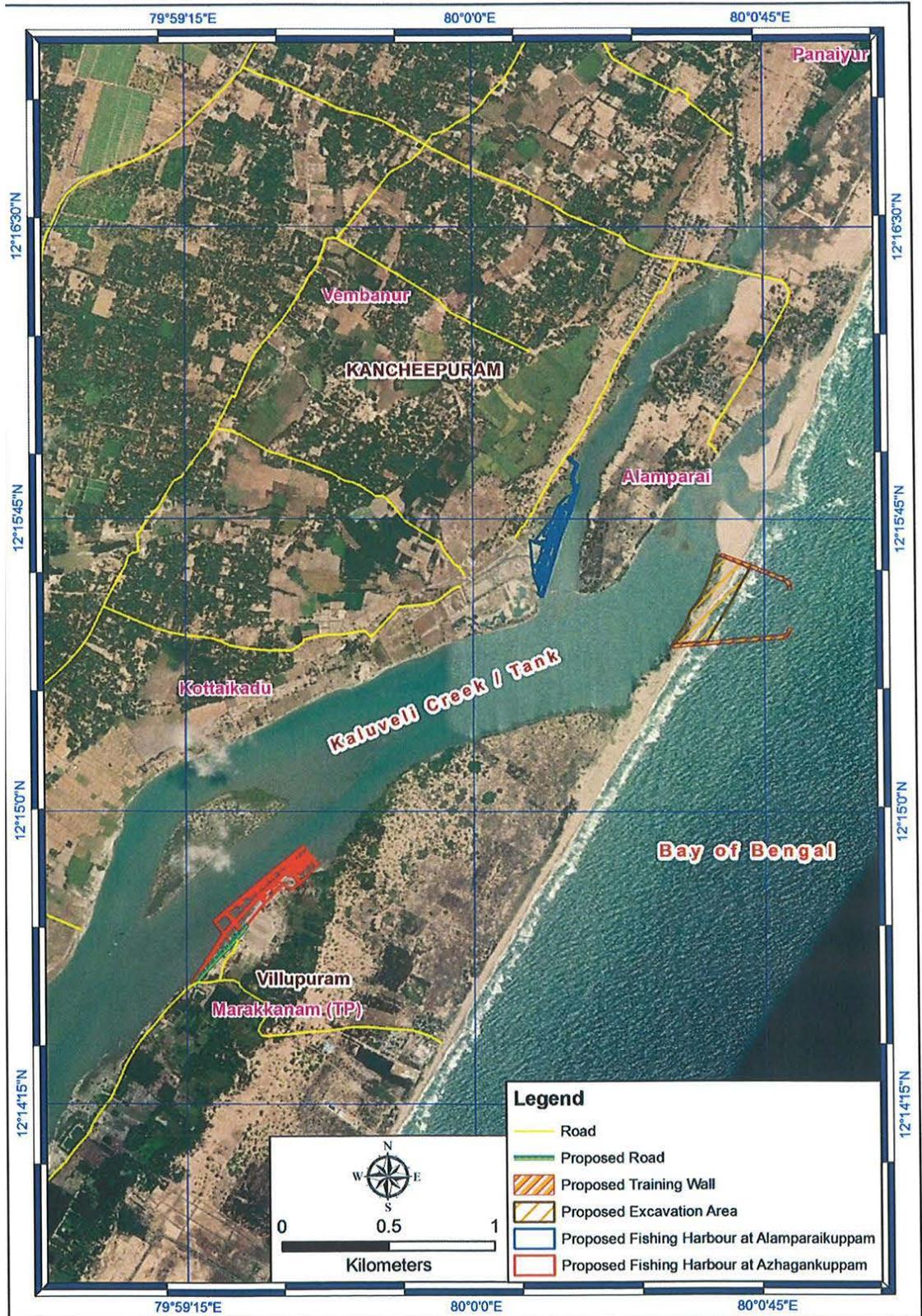
The presence of mega-fauna is an indicator of healthy ecosystems. The species list of cetaceans using these waters off Kalivelli, Alamparai and Marakkanam is long. It shows that protecting coastal stretches that offer complexities in biological, physical and chemical oceanography is necessary for future well-being of human society.

Thank you, Dipani Sutaria

March 17<sup>th</sup> 2022

*Dipani Sutaria*

# Project Location Map



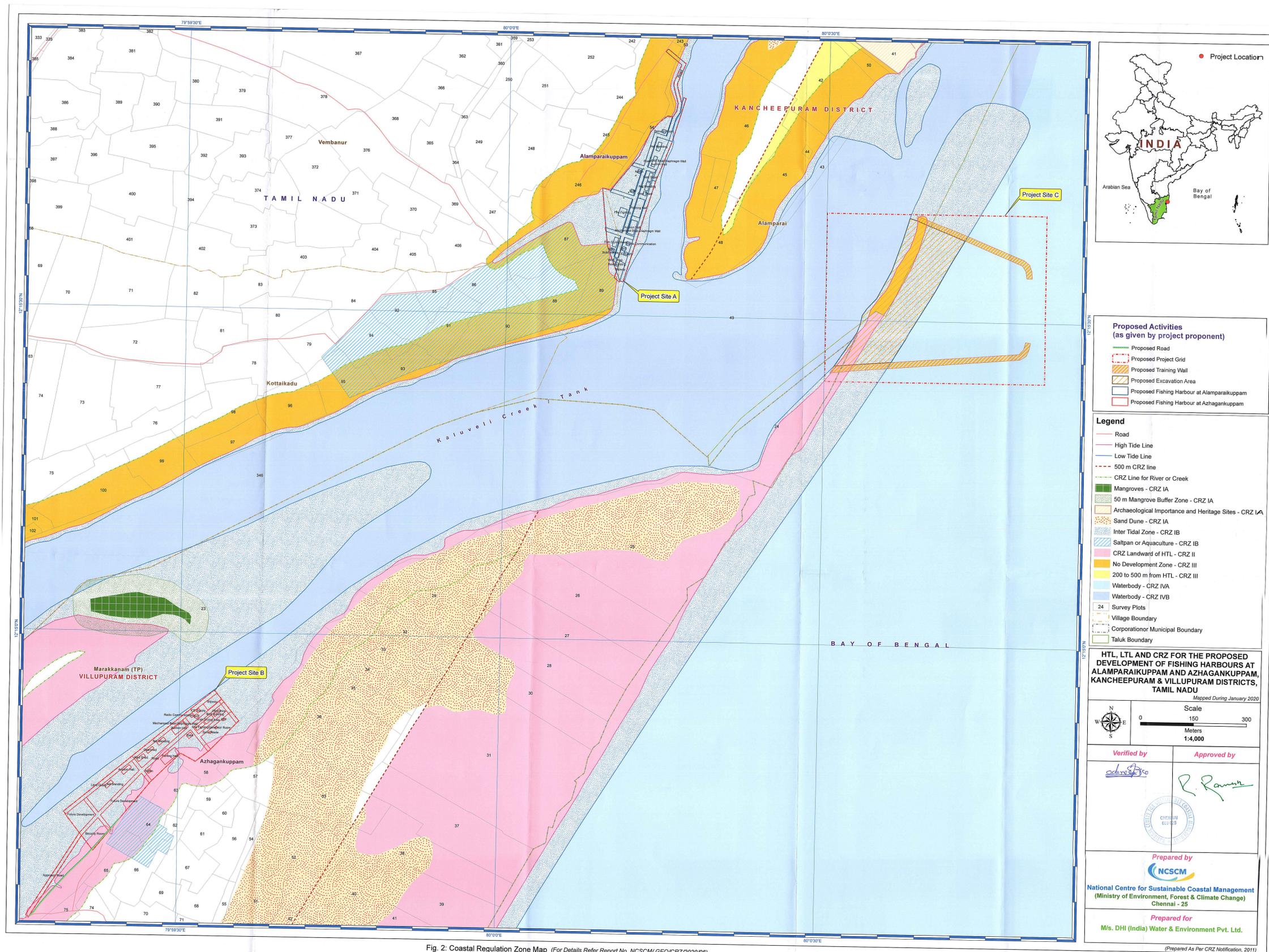
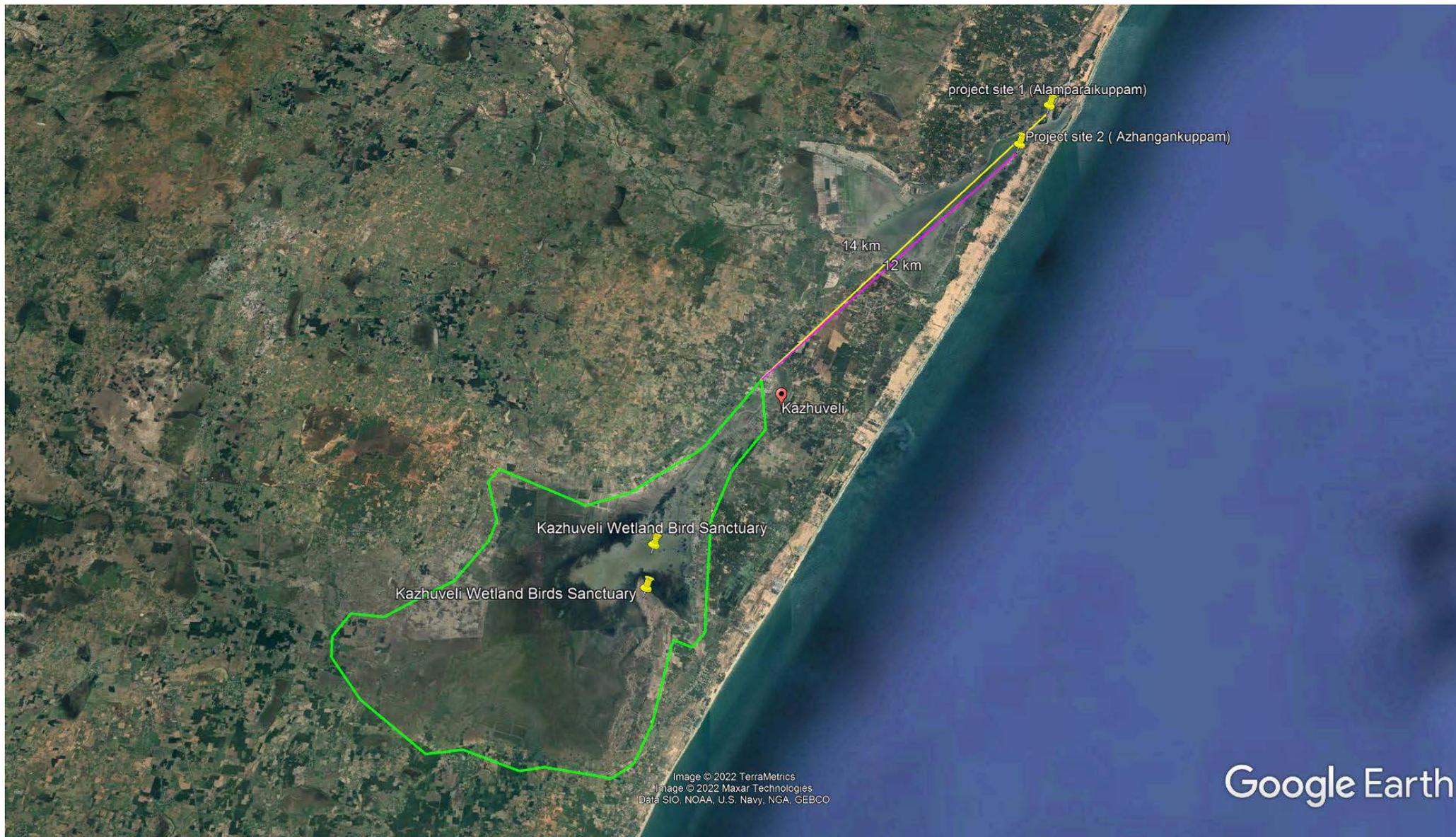


Fig. 2: Coastal Regulation Zone Map (For Details Refer Report No. NCSCM GEO/CRZ/2020/06)

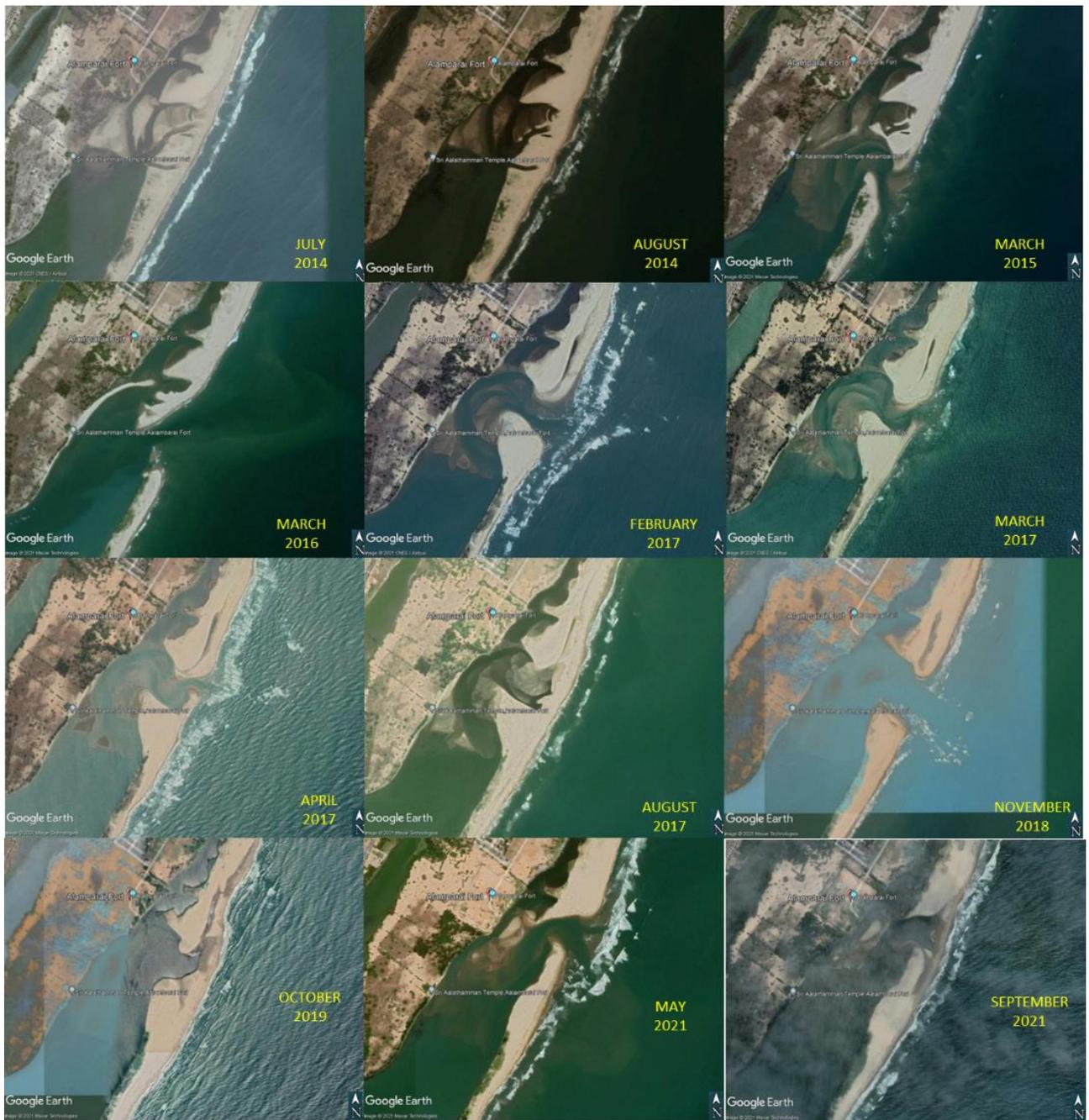


— Aerial Distance between Kazhuveli Wetland Bird Sanctuary to Project site 1 (14 km) Alamparaikuppam (v)  
— Aerial Distance between Kazhuveli Wetland Bird Sanctuary to Project site 2 (12 km) Azhangankuppam (v)

## Shoreline change and Creek Mouth behaviour – Alamparaikuppam to Azhagankuppam coast

The shoreline change along the Alamparaikuppam to Azhagankuppam stretch is analysed. The behaviour of creek mouth is compared across different months using satellite imageries taken from Google Earth. In general, the mouth remains open during October to March and closed during the remaining months. The freshwater flow during the monsoon season from October to December helps in keeping the mouth open. The shoreline is devoid of any coastal structures presently which implies that any behaviour is due to natural phenomena.





Behaviour of mouth - Monthwise