

# Establishing an Oceanarium & Marine Biological Museum on PPP mode, Kollam

Pre-Feasibility Presentation (24<sup>th</sup> January 2025)

Kerala State Coastal Area Development Corporation

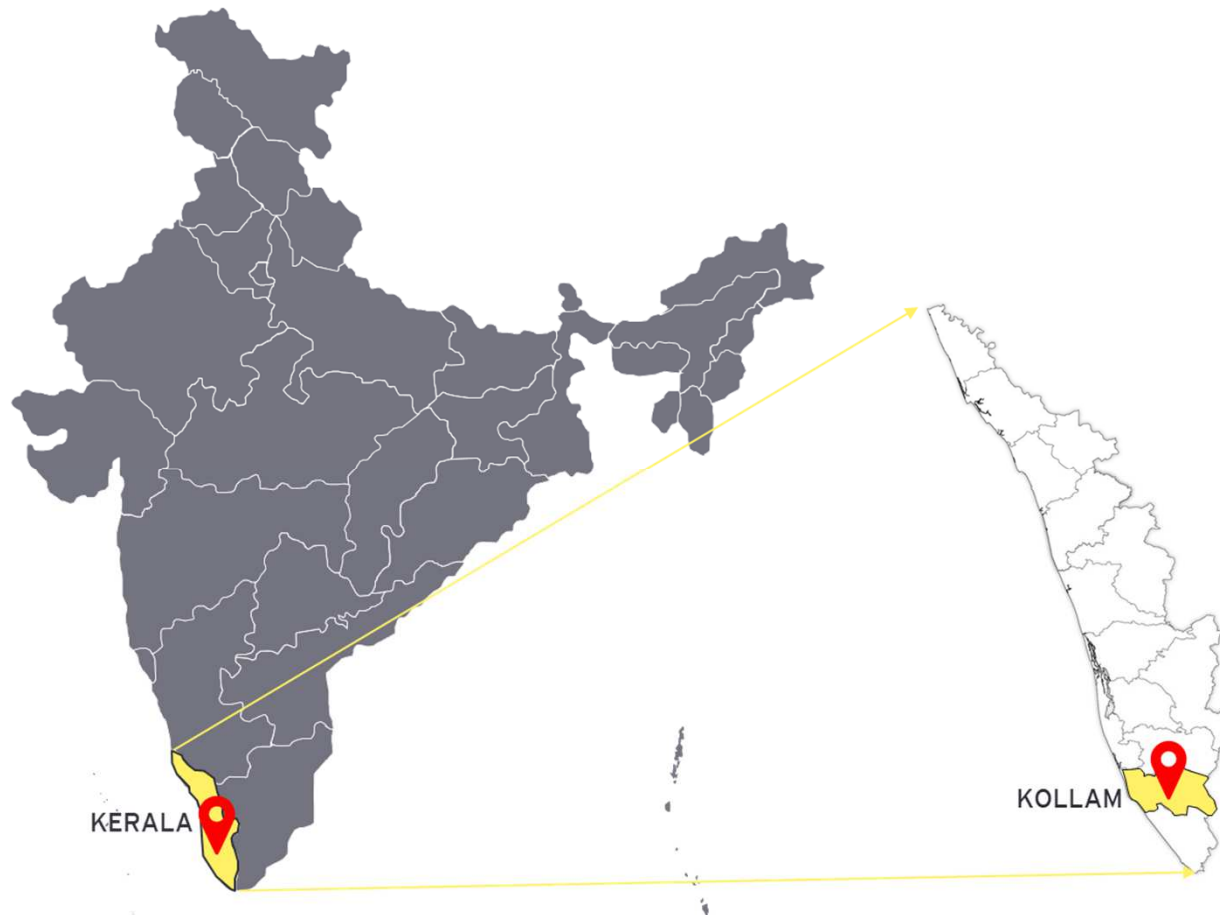


The better the question. The better the answer. The better the world works.



Shape the future  
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## Site Location



- 1** Near Matsyafed Shrimp Hatchery, Thirumullavaram  
*(Site mentioned in RFP)*
- 2** Northern side of Thirumullavaram Temple Pond  
*(Near Taj Hotel)*
- 3** Southern side of Thirumullavaram Temple Pond
- 4** Near Eravipuram (Before Thanni Bridge)
- 5** Near Thanni Beach (In-between the Sea and a Lake)





# Site Near Matsyafed Shrimp Hatchery, Thirumullavaram (8.901037, 76.550357)



- 0.7 Acres (Govt of Kerala)
- 9.3 Acres (Multiple private owners)

Site Assessment
Has ocean front and exclusive entry from proposed Coastal Highway.
Proximity to the existing Matsyafed Shrimp Hatchery.
The site may face potential environmental and regulatory challenges, especially concerning coastal zone regulations.
<b>The site is owned by multiple owners with existing residences. Land acquisition is a challenge.</b>

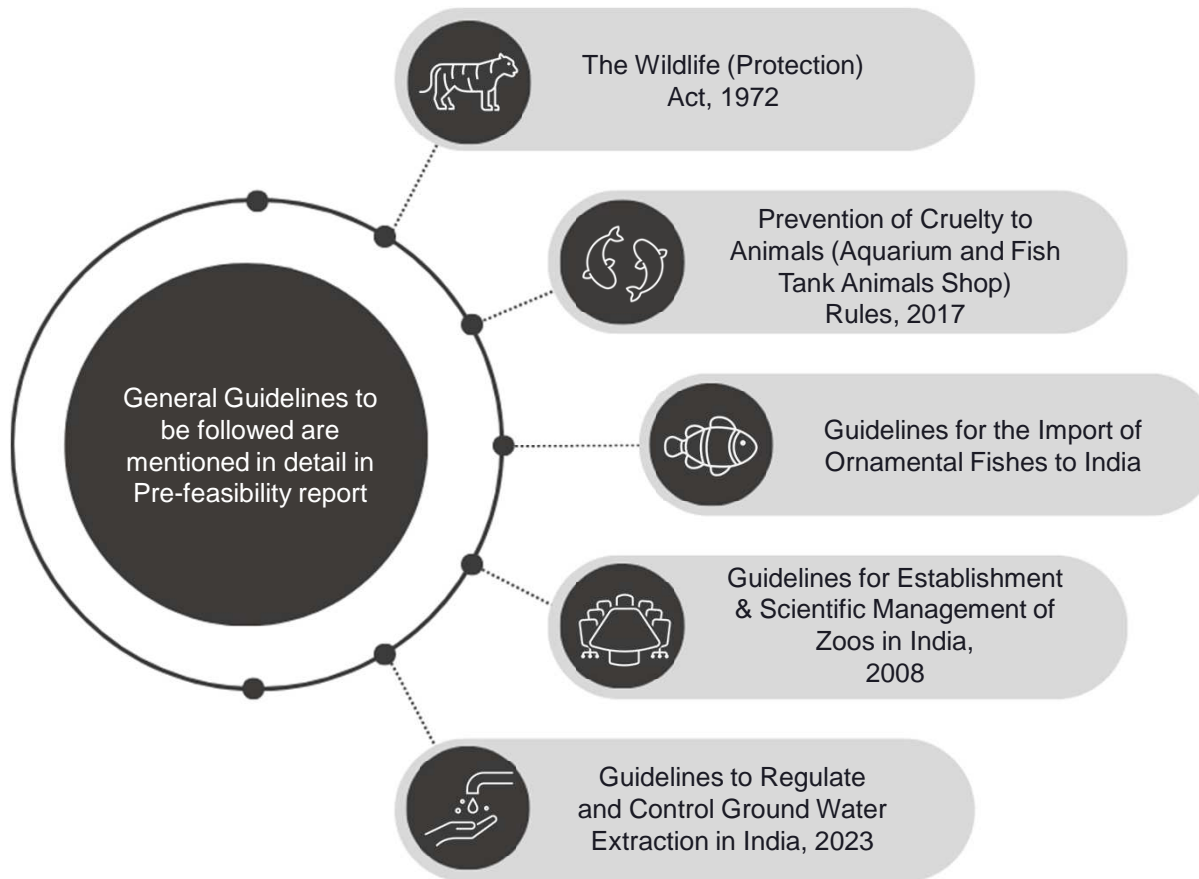
LEGEND	
<span style="border: 1px solid green; border-radius: 50%; padding: 2px;">A</span> Existing entry 1	<span style="border: 1px solid black; border-radius: 50%; padding: 2px;">3</span> St. John's Baptist's Church
<span style="border: 1px solid green; border-radius: 50%; padding: 2px;">B</span> Existing entry 2	<span style="border: 1px solid black; border-radius: 50%; padding: 2px;">4</span> Stella Maris Convent
<span style="border: 1px solid black; border-radius: 50%; padding: 2px;">1</span> St. John's UP School	<span style="border: 1px solid black; border-radius: 50%; padding: 2px;">5</span> Edakkattu Kavu Temple
<span style="border: 1px solid black; border-radius: 50%; padding: 2px;">2</span> Matsyafed Shrimp Hatchery	<span style="border: 1px solid black; border-radius: 50%; padding: 2px;">6</span> Quilon Beach Inn

## Regulations impacting site

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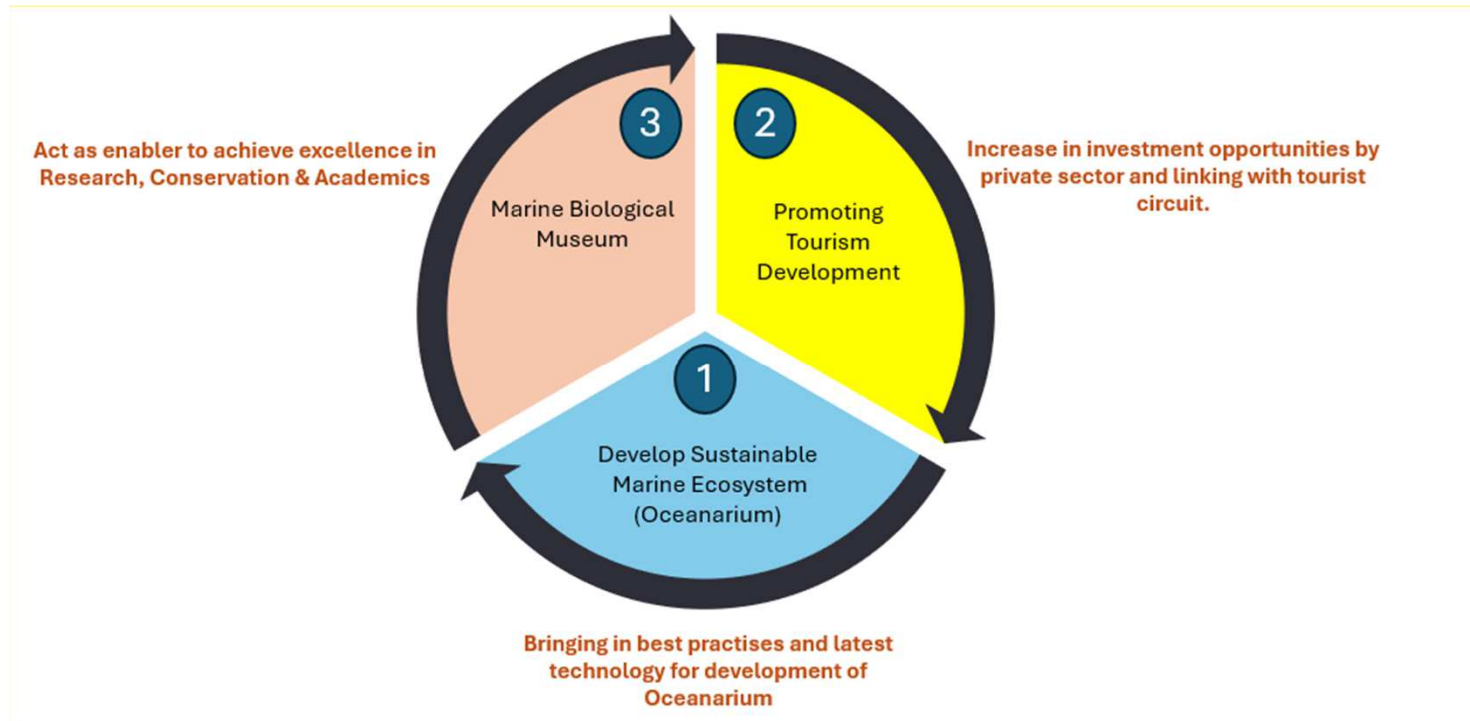
## Other Guidelines



- When acquiring aquatic species, it is imperative to **select those not listed under Schedule I of the Wildlife Protection Act** to ensure compliance with legal regulations. While the Act generally excludes most marine fish species from its schedules, it explicitly includes all Scleractinia corals (reef-building corals) within Schedule I.
- Key aspects of Import of Ornamental Fishes Guidelines include **obtaining an import permit from DAHDF**, adhering to specific packaging and transportation requirements, and ensuring the imported fish meet health and quarantine standards. The permitted list of species is crucial, and only those on the approved list can be imported.
- The application for water connection requires submission of various documents including **an impact assessment report for dewatering projects, an affidavit regarding water availability, certificates from government agencies on treated sewage water and water supply availability, a Rainwater Harvesting Plan, details of water requirement, completion certificate for infrastructure projects, and building plan approval for new projects.**

# Vision

In view of the overall project scheme and understanding of the objectives as outlined by KSCADC, we propose to adopt approach focused on “***Creating Destinations for a Better Tomorrow***” which would achieve by development of “***Sustainable Marine cum Tourism led Ecosystem***”





# Project Components



Conceptual Design of Oceanarium and Marine Biological Museum (AI Generated Images)  
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Oceanarium Block



Marine Biological Museum Block




Recreational




# Project Components


Marine Biological Museum Block



Biological Research & Preservation Lab




Educational Zone




Display Tanks


Oceanarium Block



Touch Tanks




Shark Tunnels




Quarantine Block


Recreational Zone



Themed restaurants/ food courts



Souvenir Shops



Multimedia Theatres

# Project Components

OCEANARIUM BLOCK	Main Block	<ul style="list-style-type: none"><li>▶ Ticket Area</li><li>▶ Entrance Lobby cum Visitor Lounge</li><li>▶ Cloak Room (Luggage Storage)</li><li>▶ Lost &amp; Found Room</li><li>▶ First Aid Room</li><li>▶ Service Area (Washrooms + Mothers Lounge)</li><li>▶ Main and Sub Pavilions Zone</li><li>▶ Thematic Galleries</li></ul>			<ul style="list-style-type: none"><li>▶ Mechanical Rooms</li><li>▶ Electrical Rooms</li><li>▶ Utility Distribution Areas</li><li>▶ Loading Docks</li><li>▶ Decontamination Room</li></ul>	RECREATIONAL ZONE	Cafeteria/ Themed Restaurants/ Food Court	<ul style="list-style-type: none"><li>▶ entrance foyer</li><li>▶ Seating area (closed)</li><li>▶ Seating area (open)</li><li>▶ Kitchen</li><li>▶ Counter area storeroom</li><li>▶ Janitor room</li><li>▶ Toilets</li><li>▶ Service areas</li></ul>	
		<ul style="list-style-type: none"><li>▶ Shark Tunnels &amp; Exhibit Zone:</li><li>▶ Coral Reef Zones</li><li>▶ Touch Tanks</li><li>▶ Coral Reef Zone</li><li>▶ Open Ocean/ Pelagic Zone</li><li>▶ Aquatic Plant Life Exhibit Zone</li><li>▶ Aqua Theatre</li><li>▶ Souvenir Shop (Retail Zone)</li><li>▶ Oceanarium Restaurant Area (Sitting + Grab and Go)</li><li>▶ Behind the Scenes Area (Experiential Area)</li><li>▶ Open Area for Shows and Cultural Functions</li></ul>	Preservation Labs	<ul style="list-style-type: none"><li>▶ Administration or office area</li><li>▶ Security</li><li>▶ Sample receipt and registration</li><li>▶ Sample storage room</li><li>▶ Primary sample processing and subsampling preparation area</li><li>▶ Wet Chemistry Laboratory<ul style="list-style-type: none"><li>• Proximate and General analysis</li><li>• Nutritional evaluation</li><li>• Wet Lab for pesticide residues/mycotoxin sample preparation</li><li>• Instrumentation room</li><li>• Heavy Metal Analysis (a suite of two rooms side by side)</li><li>• Glassware washing and drying area</li></ul></li></ul>	Souvenir Shops		<ul style="list-style-type: none"><li>▶ Entrance</li><li>▶ Counter</li><li>▶ Display walls</li><li>▶ Exhibit rooms</li><li>▶ Toilet</li></ul>		
					Amphitheatre		<ul style="list-style-type: none"><li>▶ Tiered Seating</li><li>▶ Stage</li><li>▶ Dressing rooms</li><li>▶ Deck/Foyer space</li><li>▶ Lawn</li><li>▶ Toilets</li></ul>		
					Multimedia Theatres		<ul style="list-style-type: none"><li>▶ Lobby</li><li>▶ Projection</li><li>▶ Screen</li><li>▶ Tired seating</li></ul>		
MARINE BIOLOGICAL MUSEUM	Support Services Block	<ul style="list-style-type: none"><li>▶ Office Block</li><li>▶ Medical Centre for Species</li><li>▶ Quarantine Area + Tanks</li><li>▶ Water Circulation Area</li><li>▶ HVAC Area</li><li>▶ Staff Area + Amenity Block</li><li>▶ Service Entry &amp; Exit</li></ul>	Marine Biodiversity Galleries	<ul style="list-style-type: none"><li>▶ Reception</li><li>▶ Hall</li><li>▶ Information kiosks</li><li>▶ Exhibition areas</li><li>▶ Service areas</li></ul>			Augmented Reality (AR) Experiences	<ul style="list-style-type: none"><li>▶ Platform</li><li>▶ Projection suite</li><li>▶ Projection room</li><li>▶ Staff room</li><li>▶ Washroom</li><li>▶ Store</li><li>▶ Switch room</li><li>▶ Equipment storage room</li><li>▶ Service areas</li></ul>	
			Display Area	<ul style="list-style-type: none"><li>▶ Reception</li><li>▶ Hall</li><li>▶ Display areas</li><li>▶ Service areas</li></ul>				<ul style="list-style-type: none"><li>▶ Lobby</li><li>▶ Screen</li><li>▶ Projection suite</li><li>▶ Projection room</li><li>▶ Platform</li><li>▶ Electronics Room</li><li>▶ Store</li></ul>	
	Marine Fossil Area								
	6. Educational Zone	<ul style="list-style-type: none"><li>▶ Reception</li><li>▶ Gathering area</li><li>▶ kiosks</li><li>▶ seminar rooms</li><li>▶ conference rooms</li><li>▶ demonstration areas</li></ul>	Photo Booths, Craft and Activity Station	<ul style="list-style-type: none"><li>▶ Booths</li><li>▶ Gathering area</li><li>▶ Yoga area</li><li>▶ Indoor hall</li><li>▶ Service areas</li></ul>					
		Virtual Reality (VR) Experience		<ul style="list-style-type: none"><li>▶ Lobby</li><li>▶ Screen</li><li>▶ Projection suite</li><li>▶ Projection room</li><li>▶ Platform</li><li>▶ Electronics Room</li><li>▶ Store</li></ul>				Water Sport Activities cum Joy Rides	<ul style="list-style-type: none"><li>▶ Ticket counters</li><li>▶ Gathering area</li><li>▶ Swimming pools</li><li>▶ Docking stations</li><li>▶ Equipment storage</li><li>▶ Guard Quarters</li><li>▶ Observation Stalls</li><li>▶ Activity Zone</li><li>▶ Fountains/Water Installations</li></ul>

# Funding Mechanisms

## Swadesh Darshan scheme

The scheme is a central sector scheme, wherein 100% funding comes from Ministry of Tourism, Govt of India. The projects can be funded for a maximum project cost of INR 100 crores.

## Special Assistance to States for Capital Investments (SASCI) scheme

A budget outlay of Rs. 2,000 Crores has been earmarked under this scheme for 2024-25. However, the maximum funding under this scheme is capped at INR 250 Crores per project.

## Pradhan Mantri Matsya Sampada Yojana (PMMSY)

A scheme to bring about Blue Revolution through sustainable and responsible development of fisheries sector in India" with an estimated investment of Rs. 20,050 crores. For the first item under PMMSY, Aquaparks would be developed as hub of fisheries and aquaculture activities as one stop 'parks'. Aqua Park(s) would be developed to house Modern Aquarium.

## Scheme for Financial Support to PPPs in Infrastructure (Viability Gap Funding Scheme)

□VGF support of upto 60% of the Total Project Cost (maximum up to 30% by the Central and State Governments each) for the social sectors and upto 80% of the Total Project Cost (maximum up to 40% by the Central and State Governments each) for Pilot/Demonstration Projects in Health and Education sectors.

## India Infrastructure Project Development Fund (IIPDF)

DEA has restructured the existing fund as a Central Sector Scheme with total outlay of Rs.150 Crore for a period of 3 years from 2022-23 to 2024-25.



## Way Forward

- ▶ **Finalizing the site** for development of the Oceanarium and Marine Biological Museum and thereafter expediting the process of land acquisition.
  - If Site 3 is finalized, process of change in land use.
  - Attain special permission from the committee formulated under general provisions in Kollam Master Plan 2041(if any of the other site is finalized).
- ▶ Topographical land survey, formulation of master plan, and undertaking technical and financial feasibility shall be undertaken once the site is finalized.
- ▶ Special authorization to be attained from the Kerala Coastal Zone Management Authority (CZMA).
- ▶ Stakeholder consultation to be carried out:

National Level stakeholders	State Level stakeholders
Ministry of Tourism	Town and Country Planning
Ministry of Fisheries	Coastal Zone Management Authority
Ministry of Culture	Water Authority
Ministry of Road Transport and Highways	Tourism Department
Department of Economic Affairs	Fisheries Department
	Environment and Climate Change Department
	Department of Culture
	Department of Transportation

## Alignment with SDG Goals

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The establishment of the **Oceanarium and Marine Biological Museum** aligns with the following global Sustainable Development Goals (SDGs):



## Site : Near Matsyafed Shrimp Hatchery, Thirumullavaram (8.901037, 76.550357)

Strength	Weakness	Opportunity	Challenge
<ul style="list-style-type: none"><li>▶ Ocean Front of almost 500 meters.</li><li>▶ Exclusive entry from proposed Thiruvananthapuram-Kasaragod Coastal Highway (Tentative Completion 2026)</li><li>▶ Among all the shortlisted sites, this site has the maximum area.</li></ul>	<ul style="list-style-type: none"><li>▶ Proximity to the sea could make the area prone to flooding, especially during monsoons or high tides.</li><li>▶ The site faces potential long-term risks from coastal erosion, cyclones or rising sea levels, impacting its sustainability and infrastructure.</li></ul>	<ul style="list-style-type: none"><li>▶ Proximity to the Matsyafed Shrimp Hatchery opens opportunities for collaborative marine research and resource sharing.</li><li>▶ Developing the shoreline with tourism and water related activities.</li><li>▶ It has an ample space for development of different zones.</li></ul>	<ul style="list-style-type: none"><li>▶ The site may face potential environmental and regulatory challenges, especially concerning coastal zone regulations</li><li>▶ Setting up of committee for special permission for project development.</li><li>▶ The site is owned by multiple owners. Land acquisition is a challenge.</li></ul>



## Regulations considered

