



Ministry of Tourism
Government of India

DETAILED PROJECT REPORT PACKAGE 1

PORVORIM CREEK EXPERIENCE

PORVORIM, GOA

FEBRUARY 2024



TABLE OF CONTENTS

BACKGROUND	6
DOCUMENT CONTROL.....	7
1. INTRODUCTION AND PROJECTS AT GLANCE.....	9
1.1 Project Background	9
1.2 Project Shelf (as per In-Principal Approved Master Plan, Strategy and Action Plan Document)	12
1.3 Package 1 Projects	14
1.4 Proceedings of the 14 th Mission Directorate Meeting	14
1.5 Proceedings of the 7 th CSMC Meeting	15
2. DETAILS OF PROJECT PACKAGE CONCEPT	18
2.1 Site Brief.....	18
2.2 Existing Scenario Analysis of the Tourist Experience	20
2.3 Project Rationale	22
2.4 Land Availability	23
2.5 Site Surveys and Investigations.....	27
2.6 Identified Interventions	28
2.7 Project Layout and Architectural Design.....	38
2.8 Pre-Construction Clearances applicable and documentary proof of the same	40
2.9 Minor Interventions and Soft Interventions requiring specialized agencies.....	40
2.10 Environmental Compliances and Protection Measures	40
2.11 Sustainability Assessment and Interventions.....	41
2.12 Disaster Related Risk Assessment and Protection Measures.....	42
2.13 Project Cost Estimation	46
3. SKILL DEVELOPMENT AND CAPACITY BUILDING.....	48
3.1 Need for Skill Development and Capacity Building Initiatives at Porvorim	48
3.2 Scope for Skill Development and Capacity Building at the Destination	48
3.3 Target Audience	49
3.4 Skill Gap Assessment	49
3.5 Convergence with Central and State Schemes	50
3.6 Mechanisms for Quality Assurance.....	51
3.7 Implementation Plan	52
3.8 Impact Assessment	53

4. BRANDING AND MARKETING	55
4.1 Existing Scenario	55
4.2 Need for Branding and Marketing Strategy for the Experience	55
4.3 Marketing Strategy and Action Items	56
4.4 Action Items	57
5. ICT INTERVENTIONS	60
5.1 Existing Scenario	60
5.2 ICT interventions at Porvorim Creek Experience	60
6. PROJECT IMPLEMENTATION, OPERATION AND MAINTENANCE FRAMEWORK 63	
6.1 Project Implementation Plan.....	63
6.2 Project Schedule.....	64
6.3 Operation and Maintenance	65
6.4 Minimum Development Obligations to be funded by TEDMA	66
6.5 Service Level Benchmarks and Performance Monitoring for TEDMA.....	68
7. FINANCIAL FEASIBILITY.....	72
7.1 Tourist Footfall Projection	72
7.2 Revenue Sources	74
7.3 Revenue Estimation	74
7.4 Identified Areas of Expenditure	76
7.5 Estimated Expenditure	77
7.6 Project Cash flow of the Gorge Experience	78
ANNEXURES	80
Annexure A: Understanding	80
Annexure B: Recommendations from State Steering Committee for DPR	81
Annexure C: Layout Plans and Drawings.....	82
Annexure D: Bill of Quantities	83
Annexure E: Land Details for Jetty Terminal Building	84
Annexure F: Land Details for Comunidade Lands	86
Annexure G: Role and Responsibilities of Goa Tourism Development Corporation for the Porvorim Creek Experience Development, Construction, Operations and Maintenance	107
Annexure H: Role and Responsibilities of TEDMA for the Porvorim Creek Experience Development, Construction, Operations and Maintenance	108

LIST OF FIGURES

Figure 1: Torda creek at Porvorim, Goa	18
Figure 2: Location and connectivity of Porvorim, Goa	19
Figure 3: Issues with Poor Condition Jetty Infrastructure in the Region	21
Figure 4: Issues with access towards river edge from the Main Road and basic amenities for boating.....	21
Figure 5: Dilapidated and unused buildings, to be redeveloped as a Jetty Terminal Building	22
Figure 6: Poor Streetscape along Ekoshim Creek Road.....	22
Figure 7: Site Surveys and Existing Condition	27
Figure 8: Proposed Layout of the Identified interventions	32
Figure 9: Proposed Character of Jetty terminal building.....	33
Figure 10: Envisioned Character of Jetty for Yacht embarking and disembarking at terminal building	34
Figure 11: Kayak embarking and disembarking jetty at Ekoshim road	35
Figure 12: Proposed Character of Holy Cross Junction.....	36
Figure 13: Proposed Character of Betim/ Malim Junction	37
Figure 14: Overall Layout Plan – Porvorim Creek Experience.....	39

LIST OF TABLES

Table 1: Identified Shelf of Project as per Master Plan, Strategy and Action Plan Report Iteration 1 - Porvorim	9
Table 2: Summary of Interventions.....	12
Table 3: Project components and cost.....	14
Table 4: Climate in Porvorim, Goa	20
Table 5: Details of vacant land parcel for Ekoshim road promenade.....	23
Table 6: Details of vacant land parcel for Ekoshim road promenade amenity and parking...	23
Table 7: Details of vacant land parcel for Jetty terminal building	23
Table 8: Sustainability Parameters Incorporated with in the Intervention Design.....	41
Table 9: History of Hazard Occurrence	42
Table 10: Project Cost Estimates	46
Table 11: Central and State Level Skill Development Programme and Schemes – Potential Convergence.....	50
Table 12: Plan for Implementation of Skilling and Capacity Building Interventions at Porvorim, for the Experience Development	52
Table 13: Project development and construction phase details	63
Table 14: Minimum development components to be provided by the TEDMA in the Project development and construction phase.....	64
Table 15: Proposed Project Scheduling	65
Table 16: List of Probable Operation and Maintenance Activities at the Experience Area	65
Table 17: Service Level Requirements for TEDMA in O&M of Porvorim Creek Experience	68
Table 18: Increase in Tourist Footfall at Attractions around experience area from 2023 - 2029	72
Table 19: Total Tourists visiting the Experience Area from nearby tourist attractions	72
Table 20: Share of Total Tourists from Panjim, Visiting the Experience Area	73
Table 21: Expected increase in tourist footfall at the experience area due to factorial accountings	73
Table 22: Total Tourists Expected for Porvorim Creek Experience.....	73

Table 23: Estimated revenue to TEDMA from the Porvorim Creek Experience during the operation and management phase75
Table 24: Manpower Expenses for the Beach Experience 76
Table 25: Estimated expenditure to TEDMA from the Porvorim Creek Experience during the operation and management phase 77
Table 26: Operational Cost & Revenue for TEDMA for Porvorim Creek Experience 78

LIST OF MAPS

Map 1: Tourist Attractions at Porvorim..... 19
Map 2: Identified Land Under Ownership of Comunidade at Porvorim 25
Map 3: Identified Land Area for Jetty Terminal Building 26
Map 4: Seismic Hazard Map for Goa 43
Map 5: Inundation Map based on various SLR scenarios for Goa 44

BACKGROUND

Swadesh Darshan Scheme 2.0 Guidelines stipulates development of tourism projects under the Scheme following the destination centric approach wherein focus shall be to develop a tourist destination in a holistic manner integrated with nearby added attractions and curated experiences.

As per the SD 2.0 Guidelines, subsequent to the approval of each iteration of the Destination Master Plan, Strategy and Action Plan, State Implementation Agency via PDMC shall be required to submit the Detailed Project Report (“DPR”) leading to sanction of projects. There shall be maximum of four DPRs for packages.

The major sections covered in the Detailed Project Report are as follows:

- i. Section 1 – Projects at Glance
- ii. Section 2 – Details of Project Package
- iii. Section 3 – Project Implementation Framework
- iv. Annexures

This DPR details out interventions under Package 1 – Creek Experience for Porvorim, Goa

DOCUMENT CONTROL

Name of the State	Goa		
Report Title	Detailed Project Report – Package 1, Porvorim Creek Experience		
This Document Comprises	Main Document Pages	No. of Annexures	No. of Drawings

Document Version	Document Title	Approved By	Approval Date
V1	Detailed Project Report – Package 1, Porvorim Creek experience	-	-

01

INTRODUCTION AND
PROJECTS AT GLANCE

1. INTRODUCTION AND PROJECTS AT GLANCE

1.1 Project Background

The Swadesh Darshan Scheme 2.0 aims to develop tourist destinations comprehensively, focusing on a destination-centric approach. In this scheme, total 36 destinations were approved in Phase 1 by the Ministry of Tourism, Government of India for tourism development. Porvorim in the state of Goa is one of these destinations.

As part of the project, a project inception report was developed which detailed out on preliminary site assessment, project methodology, delineated study area for the project and potential sources for data collection. As the second deliverable, the Master Plan Strategy and Action Plan's 1st Iteration was prepared. It encompasses **destination assessment, preliminary tourist surveys, and consultations with different stakeholders such as government officials, local Communities, Tourism Service Providers**, etc. Considering the above-mentioned parameters, the vision and proposed project shelf was formulated for Porvorim destination as follows:

Table 1: Identified Shelf of Project as per Master Plan, Strategy and Action Plan Report Iteration 1 - Porvorim

S. No.	Proposed Intervention	Identified Component
1	Development of Town Square	<ul style="list-style-type: none"> • Arrival Area, • Central Plaza, • Linear Mound Park, • Interpretation Centre • Observation Tower, • Water fountain, • Stage and Performance area, • Commercial blocks (shops and restaurants)
2	Taleshwar Spring Precinct Development	<ul style="list-style-type: none"> • Temple premises upgradation, • Spring-side seating • Walkway, • Nature Trail Development
3	Urban Park with Jetty	<ul style="list-style-type: none"> • Playing Ground with viewing stands, • Senior Citizen Park, • Lookout Decks, • Upgradation of Fish Market, • Upgradation of Jetty
4	Promenade Development of Ekoshim Creek (Road and Infrastructure)	<ul style="list-style-type: none"> • Promenade, • Road Infrastructure, • Lookout Points, • Bird Observation Deck, • Jetty Points,

S. No.	Proposed Intervention	Identified Component
		<ul style="list-style-type: none"> • Rain Pavillion, • Boardwalks, • Arch Bridges, • Junction Upgradation, • Kiosk spaces
5	Promenade Development of Torda Creek (Road and Infrastructure)	<ul style="list-style-type: none"> • Promenade, • Road Infrastructure, • Lookout points, • Boardwalk, • Idol immersion areas, • Jetty Points, • Rain Pavillion, • Arch Bridges, • Junction Upgradation, • Shops and Kiosk spaces
6	Promenade Development of Paitona Creek (Road and Infrastructure)	<ul style="list-style-type: none"> • Promenade, • Road Infrastructure, • Lookout Points, • Jetty Points, • Rain Pavillion, • Arch Bridges, • Junction Upgradation
7	Promenade Ambirna Creek (Road and Infrastructure)	<ul style="list-style-type: none"> • Promenade, Road Infrastructure, Boardwalk, Lookout Points, Jetty Points, Rain Pavillion, Arch Bridges, Junction Upgradation
8	Experiential Walk	<ul style="list-style-type: none"> • Earthen Road, • Stepped Sitting Areas, • Selfie Points, • Viewing Decks, • Boardwalks
9	Development of Jetty Terminal Building	<ul style="list-style-type: none"> • Air Deck, • Community Restaurant Area, • Public Library, • Registration counter, • Senior Citizen space, • Rock pool, • Boardwalk, • Office Spaces, • Jetty Upgradation, • Boat docking space
10	Town Square Precinct - Art Walk Streetscaping (From Townsquare to Houses of Goa Museum)	<ul style="list-style-type: none"> • Upgradation and reconstruction of footpaths and road junctions

S. No.	Proposed Intervention	Identified Component
		<ul style="list-style-type: none"> Addition of street furniture, signages and artwork/murals along the street and on the road Street lighting and plantation Information boards <p>Development and reconstruction of Stormwater drains</p>
11	<p>Heritage Walks and Cycling Tour Circuits at Britona) Britona Streetscape tour</p> <ul style="list-style-type: none"> Circuit 1 - Town square to Char Manos Ekoshim Road and Salvador do Mundo Church (5.14 Km) Circuit 2 - Betim junction to Char Manas and Manas (3.24 Km) Circuit 3 - Houses of Goa to Ekoshim creek road to Torda creek road (5.04 Km) Circuit 4 - Ambirna Creek road to Torda creek road junction (3.46 Km) 	<ul style="list-style-type: none"> Streetscaping Designated bicycle paths and walking paths Street furniture Upgradation, reconstruction, and adaptive reuse of dilapidated traditional villas Information boards Photography points Construction of stormwater drains, Street lighting Water ATMs Development of pause points, and start/end junctions of circuits
12	Accommodation Facilities	
12.1	Eco - Cottages	<ul style="list-style-type: none"> Cottages Dining/restaurant Area Administration Area Walkways Connecting Promenades
12.2	Boat Houses	<ul style="list-style-type: none"> Boat- Docking points Refuelling stations Administration Area with Medical Aid
12.3	Forest/ Paddy Field Camping Ground	<ul style="list-style-type: none"> Campground Common Toilets (Portable) Dining Area Administration/ Registration Area Water ATM
13	Soft Interventions	<ul style="list-style-type: none"> Digital Interventions Branding, Marketing and Promotion Sustainability Initiatives Action Plan for Community Engagement and Capacity Building Policy and Regulatory Interventions

1.2 Project Shelf (as per In-Principal Approved Master Plan, Strategy and Action Plan Document)

The proposed interventions in Porvorim region are attraction specific as well as pan destination. Of all the identified interventions for development of tourism at the destination, Porvorim Creek Experience has been identified to be taken up as part of the DPR 1 project. The summary of experiences and interventions within those experiences is shown in the table below:

Table 2: Summary of Interventions

S No	Project Title/Interventions	Details (Major Features)	Built-up area/Quantity/Length	Project Cost (Cr.)	Short-Term (0-2 Yr)/ Medium Term (2-5 Yr)/ Long Term (5-10 Yr)	Project Funding Type (Central/State/PPP)	is it Part of Package 1?
1	Streetscaping- Enhancing the Access and Visibility	Malim junction development	80 sq.m	0.08	Short-Term (0-2 Years)	Swadesh Darshan 2.0	Yes
		Holy cross junction development	88 sq.m	0.12	Short-Term (0-2 Years)		
2	Ekoshim creek road Promenade	Promenade (1.2 kms)	2500 sq.m	6.71	Short-Term (0-2 Years)		
		Bicycle rental shop	40 sq.m		Short-Term (0-2 Years)		
		Seating plaza with street furniture	850 sq.m		Short-Term (0-2 Years)		
		Cycle track with signages	5000 sq.m		Short-Term (0-2 Years)		
		Kayak embarking and disembarking jetty	216 sq.m		Short-Term (0-2 Years)		
		EV charging station and car parking	36 sq.m		Short-Term (0-2 Years)		
Watch Tower	1 nos.	Short-Term (0-2 Years)					
3	Jetty terminal building	Ticketing counter, souvenir shop, cycle rental shop, café,	2012 sq.m	7.51	Short-Term (0-2 Years)		

Detailed Project Report – Package 1
Porvorim Creek Experience

		indoor children's play area, toilets and changing area, yacht jetty, outdoor seating, site parking					
	Total			18.05			

1.3 Package 1 Projects

Of the detailed shelf of projects identified with potentiality to be taken up for comprehensive development of tourism in Porvorim, the project titled “**Porvorim Creek Experience**” is identified for DPR Package 1. It comprises of both hard and soft interventions. Details of the project package including contract type and the estimated cost for all the proposed components of project required for tendering and implementation of the project are as follows:

Table 3: Project components and cost

S. No.	Proposed Intervention	Cost (in INR Cr.)
1	Jetty and Terminal Building (Ticketing counter, Souvenir shop, Café with Indoor children's play area & co-working desks, Toilets and changing rooms)	6.68
2	Ekoshim Road Streetscape Development (Kayaking station to Panchayat Terminal with Ekoshim Creek road Streetscapes, Seating Plaza with street Furniture, Seating kiosk, EV pickup & Dropoff points, Cycling Stands, Kayaking Jetty, Cycling Track, Watch Tower, Softscapes, Information boards & Electrical works)	6.27
3	Holy cross junction (Food Kiosks, Trellis with seating, Street furniture and Benches & Signages, Softscapes & Electrical works)	0.15
4	Betim/ Malim Junction Improvement	0.08
Sub-Total		13.18
GST Charges (18%)		2.37
Minimum Contingencies (3%)		0.47
SIA Charges (3%)		0.48
Total		16.50

1.4 Proceedings of the 14th Mission Directorate Meeting

Mission Directorate (MD) meeting for review of shortlisted experience for DPR Package 1 in Porvorim, Goa was held on 3rd October 2023. Generalized comments were received as part of the MD meeting for all the 17 experiences are as follows:

- A brief presentation was made about the proposed experiences. It was noted that wherever forest department or ASI is involved, the clearance from the concerned agency has to be taken and they should be on board before DPR is finalized. The Ministry of Tourism will also take up discussions with Ministry of Environment and ASI for the same.
- It was also noted that number of experiences are not limited and the States and Destinations, which come up with end-to-end transformative experiences with sustainable operations and management, the same will considered by the Ministry. Accordingly, the amount allocated for each destination may be enhanced.
- These experiences will be presented in the next CSMC meeting for in-principal approval.

1.5 Proceedings of the 7th CSMC Meeting

CSMC meeting for review of shortlisted experience for DPR Package 1 in Porvorim, Goa was held on 6th October 2023. The comments received as part of the CSMC meeting are as follows:

The shortlisted interventions were presented by PDMC teams for respective destinations. The Committee reviewed the shortlisted experiences presented in the meeting and following observations were made:

Central Government Clearances

- It was re-iterated that prior permission from ASI, Forest, CRZ and other Central Government Agencies, as may be required shall be obtained and included in the DPR. The Ministry of Tourism will also hold meetings with the relevant agencies to expedite the clearances.

State Government Clearances

- All clearances as may be required from any State Regulatory Authority must be obtained and included in the DPR.
- Availability of land and possession of land for implementing the project must be included in the DPR.
- Technical feasibility of the project including flooding and other factors shall be ascertained and included in the DPR.

State Government's Mandate for PPP

- State's mandate for potential PPP opportunities shall also be included in the DPR.

Local design, architecture and eco-friendly material

- The design should be inspired by local architecture, local material and other eco-friendly and heritage considerations as may be relevant. The Ministry should also set up a mechanism to ascertain the same.
- Further, the landscapes such as gardens, parks etc. to be designed using indigenous species.

Universal Accessibility

- Universal accessibility (including handrails, ramps with correct slope, washrooms designed with sensitivity to differently abled tourists, etc.) to be ensured while preparing the detailed designs of the experiences.

Carrying capacity and visitor management

- At environmentally sensitive areas such as wetlands and waterfronts, beaches etc. the carrying capacity estimation to be undertaken as well as minimal construction and nature-based activities to be proposed.

Soft intervention to be essential part for good visitor experience

- The experiences should include soft interventions such as digitalization, marketing and promotion, visitor management, safety, cleanliness, hygiene, reception, and grievance handling etc. as may be required for end-to-end pleasant visitor experience. Interventions

involving large scale construction with implementation timeline of more than 8-10 months to be avoided.

Operation and management on sustainable basis through professional agencies

- The DPR shall mandatorily include proposal for operation and management of the experience on the sustainable basis by Professional agencies and revenue to be retained by Destination.
- Combined development, maintenance and operation and management contract will be explored to ensure long terms success of the proposed experiences.

The committee accordingly **approved in principle the proposed concepts for the tourist experiences at various destinations for further detailing and preparation of DPR's**. States was directed to submit the DPR of shortlisted interventions by the 10th of November 2023 with assessment of readiness of project after incorporating the feedback and the guidance note in this regard.

The committee directed the State/UTs and PDMCs to highlight and escalate to the Ministry regarding pending clearances or approvals from other Departments/ Ministries for resolution to ensure timely submission of the DPRs.

02

DETAILS OF PROJECT
PACKAGE CONCEPT

2. DETAILS OF PROJECT PACKAGE CONCEPT

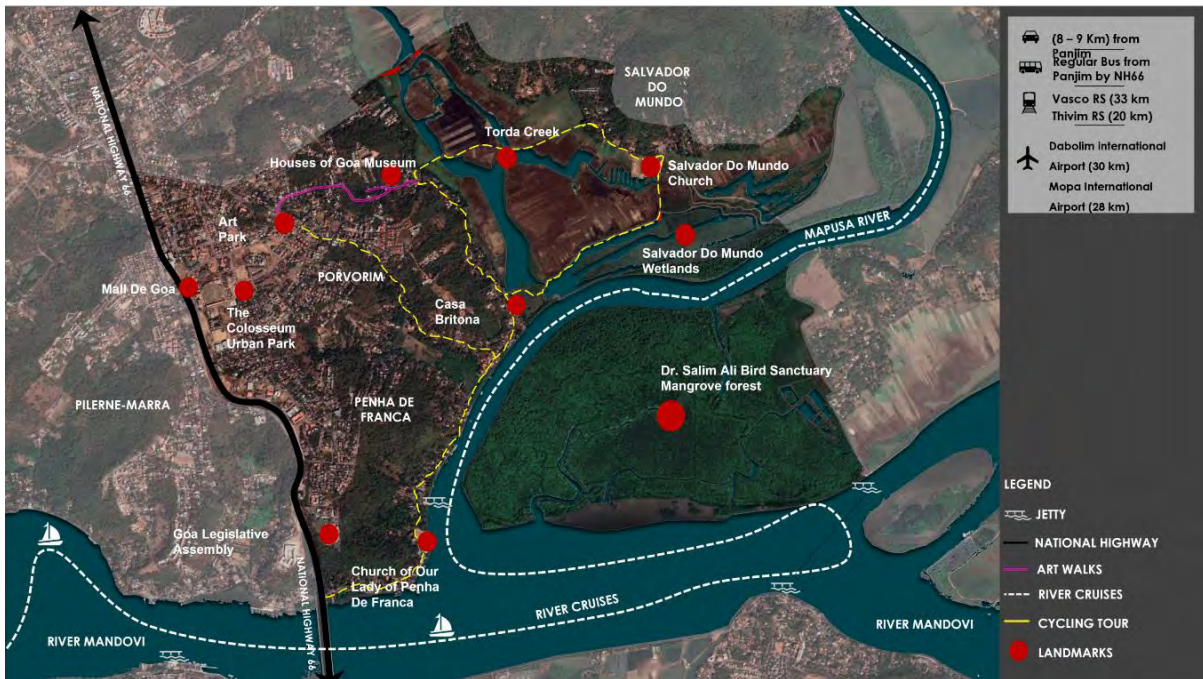
2.1 Site Brief

The landscape of Porvorim stretches across verdant hills, fertile paddy fields, the serene Torda Creek, and the picturesque riverfronts of Mapusa and Mandovi. Torda Creek has charmed backpackers and adventure seekers with its raw, natural beauty, mangroves, and inviting waters. Tourists come here to capture the scenic allure, document their experiences through vlogs and videos, and immerse themselves in the magnetic appeal of this spot. The serenity of River Mandovi and River Mapusa also attracts those seeking a quieter, less-travelled path in Goa. Here, boats and yachts offer serene river cruises catering to tourists, local gatherings, private events, and corporate functions. But the potential of these waters goes beyond mere tranquility; it can become a hub for specialized nautical adventures, including backwater and mangrove forest kayaking tours.

Figure 1: Torda creek at Porvorim, Goa



Map 1: Tourist Attractions at Porvorim



2.1.1 Accessibility and Connectivity

Tourists arrive in the state primarily via three transit means i.e. airways, railways and road ways which include Mopa and Dabolim Airport; Thivim, Vasco and Marao Railway Stations; interstate bus services, and private vehicles. To enter cities or suburbs such as Porvorim cab services or intercity shuttle bus services are used.

Figure 2: Location and connectivity of Porvorim, Goa



2.1.2 Climatic Conditions

The area due to its proximity to the coast, and with presence of backwaters and mangroves, experiences a tropical climate with moderate humidity in the non-monsoon months. The average annual maximum temperature year ranges from 26.7 C to 32.3 C. April is recorded to be the hottest month of the year with 32.5 C. The average minimum temperature ranges in a year range between 20.7 C to 26.2 C, with January being the coldest month. Based on the information from secondary data sources, it is understood that the five months from November to March experience pleasant climate with no rainfall and moderate temperature. Hence, these are usually the preferred months for the tourists as well. February is the driest month, with 0 mm | 0.0 inch of rain. The most precipitation occurs in July, when there is an average of 868 mm (34.2 inches) of rainfall.

Table 4: Climate in Porvorim, Goa

	January	February	March	April	May	June	July	August	September	October	November	December
Avg. Temperature °C (°F)	25.5 °C (78) °F	26 °C (78.9) °F	27.2 °C (80.9) °F	28.6 °C (83.5) °F	28.8 °C (83.8) °F	26.2 °C (79.2) °F	25.3 °C (77.5) °F	25.1 °C (77.2) °F	25.6 °C (78) °F	26.5 °C (79.7) °F	26.7 °C (80.1) °F	26.1 °C (79) °F
Min. Temperature °C (°F)	20.7 °C (69.2) °F	21 °C (69.8) °F	22.9 °C (73.2) °F	25.1 °C (77.3) °F	26.2 °C (79.1) °F	25 °C (77) °F	24.3 °C (75.8) °F	24 °C (75.2) °F	23.9 °C (75) °F	24 °C (75.2) °F	23.1 °C (73.5) °F	21.8 °C (71.2) °F
Max. Temperature °C (°F)	30.6 °C (87.2) °F	31 °C (87.9) °F	31.5 °C (88.7) °F	32.3 °C (90.2) °F	31.9 °C (89.5) °F	28 °C (82.5) °F	26.7 °C (80.1) °F	26.7 °C (80.1) °F	27.6 °C (81.7) °F	29.5 °C (85) °F	31 °C (87.7) °F	31.1 °C (87.9) °F
Precipitation / Rainfall mm (in)	1 (0)	0 (0)	5 (0)	6 (0)	83 (3)	718 (28)	868 (34)	578 (22)	272 (10)	137 (5)	27 (1)	5 (0)
Humidity(%)	60%	63%	70%	72%	74%	86%	90%	90%	88%	82%	69%	60%
Rainy days (d)	0	0	0	1	6	20	22	21	18	12	3	1
avg. Sun hours (hours)	10.1	10.3	10.1	9.6	8.8	7.2	7.5	7.7	7.9	9.0	10.0	10.0

2.2 Existing Scenario Analysis of the Tourist Experience

Porvorim, located on the northern banks of the Mandovi and Mapusa rivers, is a charming suburban enclave in North Goa. While it serves as the de-facto legislative capital of Goa, Porvorim offers more than bureaucracy—it boasts a unique, bio-diverse setting that makes it a promising "Beyond Beach" tourist destination. The landscape of Porvorim stretches across verdant hills, fertile paddy fields, the serene Torda Creek, and the picturesque riverfronts of Mapusa and Mandovi. This area also embraces extensive mangroves along its water's edge. Currently, the region offers diverse tourism activities, including cruise tours and access to the mangrove forest at the Dr. Salim Ali Bird Sanctuary. However, as this destination is mostly unexplored and is visited only by a niche segment of tourists, essential infrastructure required for its efficient and safe functioning of activities is underdeveloped. Considering this scenario, it was noted that the experience at the Torda creek and Mapusa river front needs to be streamlined with infrastructure and provide activities which encourage a safe tourist interface. A detailed assessment of the site was carried out to understand the existing situation of activities around the Torda creek and Mapusa river is as follows:

Figure 3: Issues with Poor Condition Jetty Infrastructure in the Region



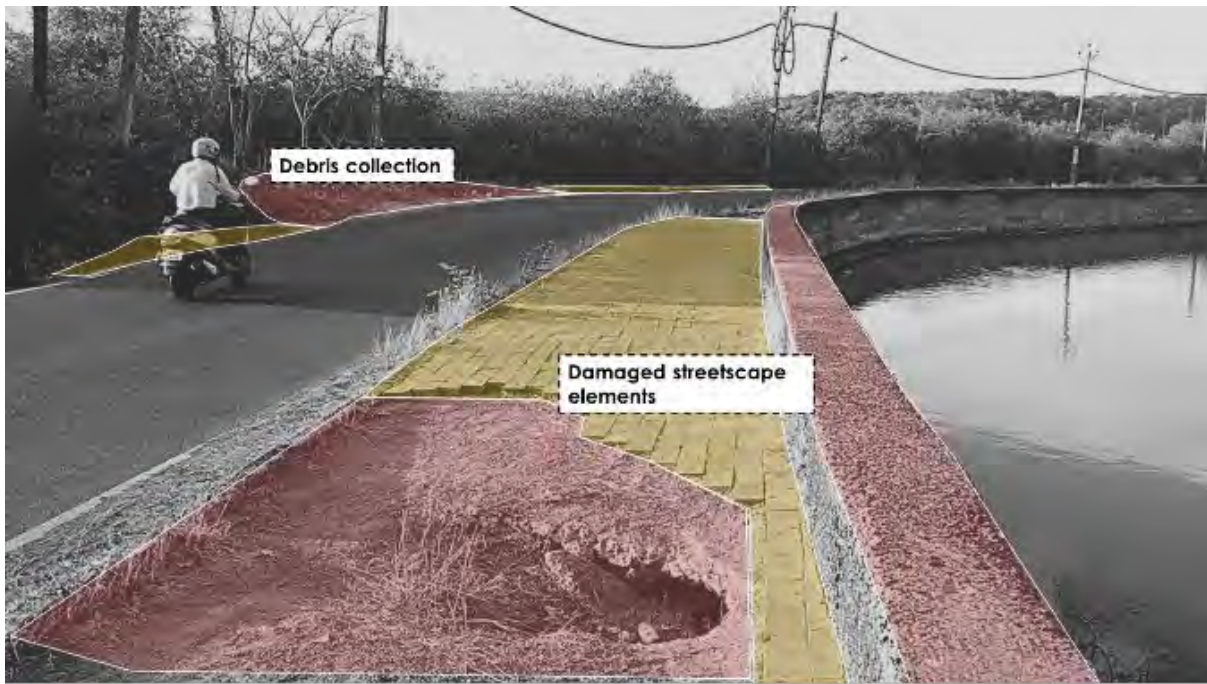
Figure 4: Issues with access towards river edge from the Main Road and basic amenities for boating



Figure 5: Dilapidated and unused buildings, to be redeveloped as a Jetty Terminal Building



Figure 6: Poor Streetscape along Ekoshim Creek Road



2.3 Project Rationale

The region of Porvorim offers vivid cultural and natural landscapes which the tourist can explore, beyond the typical beaches of Goa. However, the presence of the assets is not supported with sufficient and good quality tourism infrastructure and interfaces. The on-going activities are concentrated in certain areas and only popularized by the private boat tour agencies currently present. The Torda creek as no activities taking place other than local fishing activities and visits by residents. As a result of this, many tourists do not visit the place,

and most of the area has remained unexplored. Therefore, a comprehensive tourist experience plan had been formulated that enhances, supports and up-scales the existing boating activities further providing scope for establishing a greater variety of water-based activities. Along with the water-based activities, this area offered other adventure activities such as cycling tours operated by a private local agency. However, it again lacks the required infrastructure such as way-finding signages, demarcated paths, cycle rental, storage, and repair areas. Hence, these amenities are provided as part of improving the existing infrastructure consequently encouraging more visitors to the destination.

2.4 Land Availability

The dominant local occupation of Goa includes paddy farming and fishing. Being on the coast it follows an aqua-agriculture integrated system called khazans. Khazan lands are saline alluvial soils that have been artificially reclaimed, and they are primarily found in the low-lying flood plains of the Mandovi and Zuan estuaries. This ecosystem is primarily centred on salinity control and tides. These aqua-agro systems are community managed resources. Before the Portuguese rule, Khazans were managed by traditional self-governing communities called *Gaukaris*. During the Portuguese rule in Goa they were renamed as *Comunidades*. The *Comunidade* is a legal entity that owns all land in a village that is not privately owned. Due to limited availability of land owned by the Tourism department, the *Comunidade* land has been taken up to develop infrastructure required for activating water-based adventure activities along Torda creek. These lands identified along the proposed intervention are of a total of 7525 sq.m. The land available to be developed as part of the Jetty terminal building is currently owned by the Directorate of Education, Goa and is in the process of being officially transferred. The land transferred order has been issued by the directorate on a no profit no loss basis to the Department of Tourism is 2229.40 sq.m. The land parcels available and sought for NOCs from the *Comunidade* and Salvador do Mundo panchayat are as below.

Table 5: Details of vacant land parcel for Ekoshim road promenade

S No.	Vacant Land	Details
1	Location	Ekoshim road, Salvador Do Mundo Panchayat
2	Ownership	Comunidade Serula
3	Leasing	Comunidade Serula Multiple owners
5	Area	7525 sq.m

Table 6: Details of vacant land parcel for Ekoshim road promenade amenity and parking

S No.	Vacant Land	Details
1	Location	Ekoshim road, Salvador Do Mundo Panchayat
2	Ownership	Salvador Do Mundo Panchayat
3	Leasing	None
5	Area	300 sq.m

Table 7: Details of vacant land parcel for Jetty terminal building

S No.	Vacant Land	Details
1	Location	Britona road, Penha De Franca Panchayat

S No.	Vacant Land	Details
2	Ownership	Directorate of Education
3	Leasing	None
5	Area	2229.40 sq.m

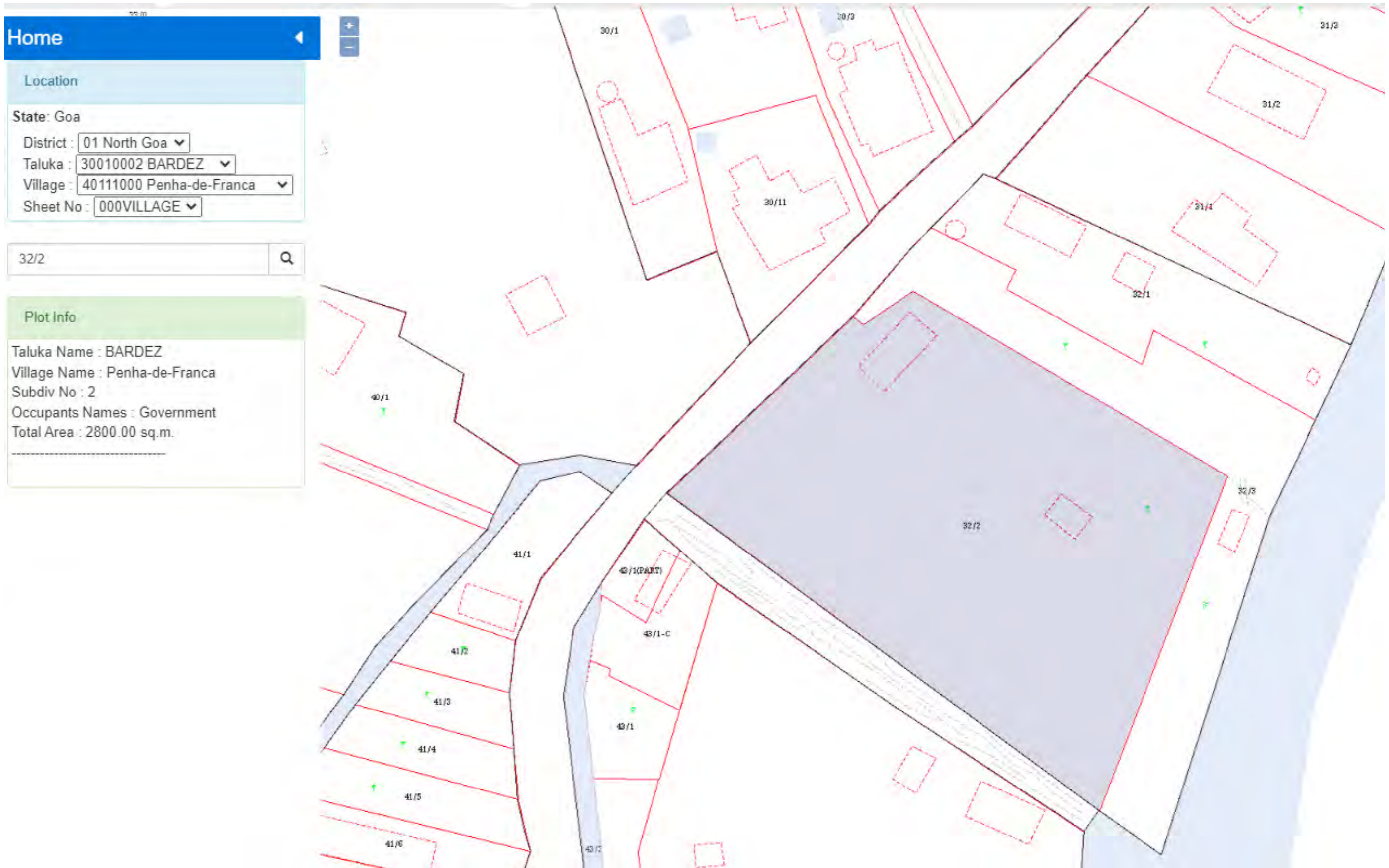
The proof of ownership of land under State department of Tourism, Government of Goa and required NOCs from the Comunidade and Salvador Do Mundo panchayat is attached in Annexure.E and F.

Map 2: Identified Land Under Ownership of Comunidade at Porvorim



LEGENDA	LEGENDA	LEGENDA
SÍMBOLO	SÍMBOLO	SÍMBOLO
DESCRIÇÃO	DESCRIÇÃO	DESCRIÇÃO
1. RESIDUAL LAND	9. TERRA DA COMUNIDADE DE PORVORIM	18. BARRIO RESIDUAL
2. COMMERCIAL LAND	10. CHURCH OF SALVADOR DO MUNDO	19. MANGROVE FOREST
3. INDUSTRIAL LAND	11. SACRATÓRIO DE EDUCACIONIS	20. MANGROVE FOREST
4. COMMERCIAL LAND	12. CAPTANIA DE PORTO DE SANTO	21. RIVER / CANAL
5. COMMERCIAL LAND	13. FARM TO GROW UP (SPT) & RELAND	22. NO-DEVELOPMENT ZONE
6. COMMERCIAL LAND	14. CIVILIZ. MONTE	
7. S.P. SALVADOR DO MUNDO	15. OPEN FIELDS	
8. S.P. FERRA DE FRANCA		

Map 3: Identified Land Area for Jetty Terminal Building



2.5 Site Surveys and Investigations

Surveys and Investigations were carried out to understand the site situation and detail out the proposed interventions accordingly. These provide us with an idea of the actual site scenario and develop the design based on it.

2.5.1 Site Assessment and Primary Site Survey

Primary site survey and mapping is a pre-requisite step for understanding and mapping of the on-ground conditions, ground-truthing of the secondary data and information and preliminary feasibility assessment of the proposed intervention.

For the areas along the creek in Porvorim, a detailed physical site visit and survey was undertaken. The survey mapped the entire stretch area and documented the site conditions on each segment. An on-foot physical inspection of the creek edge and available land parcel was undertaken to analyze the existing scenario, identify the gaps and document the precinct conditions of the sanctuary.

Figure 7: Site Surveys and Existing Condition





2.6 Identified Interventions

Based on the understanding of the tourism significance of the site, further site investigations, land availability, a suitable mix of interventions has been identified to enhance the overall tourism experience at the site. These have been classified into Hard and Soft Interventions as follows:

2.6.1 Proposed Hard Interventions

- i. **Ekoshim Creek road, Promenade development** - This stretch includes reconstruction of existing footpaths, viewing decks, space for eateries, kiosks, and addition of lighting along the roads. Information boards and signages will be placed along the promenade at demarcated pause points and junctions. EV shuttles to run along the promenades with designated start and endpoints marked at junctions and up to the assigned parking areas. Details of the proposed components are as below:
 - a. **Watch tower for bird watching-** Currently, Ekoshim road has only a single designated bird watching area with no infrastructure that assists the activity. General covered and open seating space is provided which is unable to hold larger groups. There are no information boards or signages available that formally mark the area for bird watching.
 - b. **Rain shelters** - The creek road areas see tourists and locals visiting during the monsoons to experience the scenic beauty of the water bodies and wetlands. As Goa experiences torrential rains between June to August, rain shelters are proposed along the route to enable protection while also creating a unique amenity to experience the monsoons.
 - c. **Shops and kiosks** - Designated areas for commercial activities like small food stalls and souvenir kiosks along the road are planned for increasing tourist spending and time spent at the destination. Due to ecologically sensitive nature of the area, shops and kiosk sizes and numbers will be limited.
 - d. **Kayak embarking and disembarking jetty** – As one of the main tourist activities proposed at the creek side is that of kayaking the infrastructure required to enable it proposed. A floating jetty with seating, changing and kayak anchoring spaces are proposed.
 - e. **Cycling infrastructure** – This area sees a few local cycle tours taking place to explore its unique natural and cultural heritage. However, infrastructure such as dedicated bike lanes, way-finding, and basic amenities is lacking. Therefore, a safe and monitored rental shop with basic amenities such as repair area and storage is envisaged as well.
 - f. **Parking and EV stations** – This road has regular flow of traffic to pass into adjoining villages. However, this area does not have any designated parking resulting in vehicles stationed on the footpath in order to enjoy the scenic beauty of the area. The regular traffic flow and narrow roads also results in congestion at junctions. In order to streamline and reduce traffic flow from the estimated tourist vehicles, an EV hop-on, hop-off system is proposed. Therefore, a designated parking area with EV buggy charging stations is provided on the promenade.
- ii. **Jetty Terminal Building-** Porvorim being located along creeks and rivers, has many existing water-based activities conducted by private agencies. These include boat and yacht cruises along Mapusa river. It is observed that each jetty is constructed as a flexible or semi-permanent gangway to enable boat docking and access on-to the vessels. There is a lack of a public, government run terminal building that houses all facilities and associated

amenities required for tourists to fully experience boating and yacht cruises. In order to create more organized urban facilities and spaces for locals and tourists, a jetty terminal building has been planned.

iii. **Streetscape Improvement** - The destination offers a unique mix of old landmarks, rural and cultural pause points, and scenic routes that can be connected via road to enable cycle tours and heritage walks. The routes are currently undefined and lack adequate infrastructure that enables cycling and walking circuits to take place. These undefined circuits are currently used by locals engaging in casual cycling excursions over the weekends with a few planned Heritage walks via external agencies. Along the roads connecting the various activity areas and pause points, certain junctions are planned to be upgraded to provide a few streetside facilities and way-finding amenities.

a. **Malim junction**- As a main entry point into the destination this junction currently does not visually highlight, welcome nor direct visitors towards its various pause points. In order to highlight the same, this junction will be redeveloped.

b. **Holy cross junction**- An interesting pause point and local gathering space that sees festive decorations taking place, this junction has the potential to function as a significant way-finding point. It will integrate the existing local kiosk and provide shaded seating with water provision.

2.6.2 Proposed Soft Interventions

Soft Interventions are developed both to complement the proposed hard interventions as well as for destination development and promotion.

Employment, Skilling, and Community Engagement

iv. **Skill Development of Boat Operators** – Skills for boating tour operators can also be enhanced which enables them to take up role of a guide too, to improve the guided boating experience of tourists. Further collaboration for up-skilling and certification programs will be carried out with the National Institute of Watersports (NIWS) under the centrally funded scheme “Capacity Building for Service Providers” scheme (CBSP) by the Ministry of Tourism.

v. **Skill Development of Cycling Tour Operators** – Skills for cycling tour operators can also be enhanced to take up role of a guide too for improving the guided experience of tourists. It can be taken up under the centrally funded scheme “Capacity Building for Service Providers” by the Ministry of Tourism. Along with providing skills as guides, training for basic cycle repair and maintenance can be provided. This can be provided by the Central Scheme of “Pradhan Mantri Kaushal Vikas Yojana 4.0” wherein training can be provided by Institutes or On-The Job by private agencies as well.

Branding, Marketing and Promotion

vi. **Branding and Marketing of the Experience and the Destination** – Porvorim as a destination, is mostly unknown to tourists. The cultural and geographical significance of the destination needs to be showcased on a larger platform to enable greater revenue generation from tourism activities and develop the destination comprehensively. As the State of Goa is

currently pushing for promotion of experiencing “Goa Beyond Beaches” through various social media handles, Porvorim requires to be showcased as one of the “Beyond Beach” experience that showcases local culture, festivals, and natural assets. These can be done through participation in various road shows, influencer based digital marketing, video advertisement, etc.

Figure 8: Proposed Layout of the Identified interventions



Figure 9: Proposed Character of Jetty terminal building



Figure 10: Envisioned Character of Jetty for Yacht embarking and disembarking at terminal building



Figure 11: Kayak embarking and disembarking jetty at Ekoshim road



Figure 12: Proposed Character of Holy Cross Junction



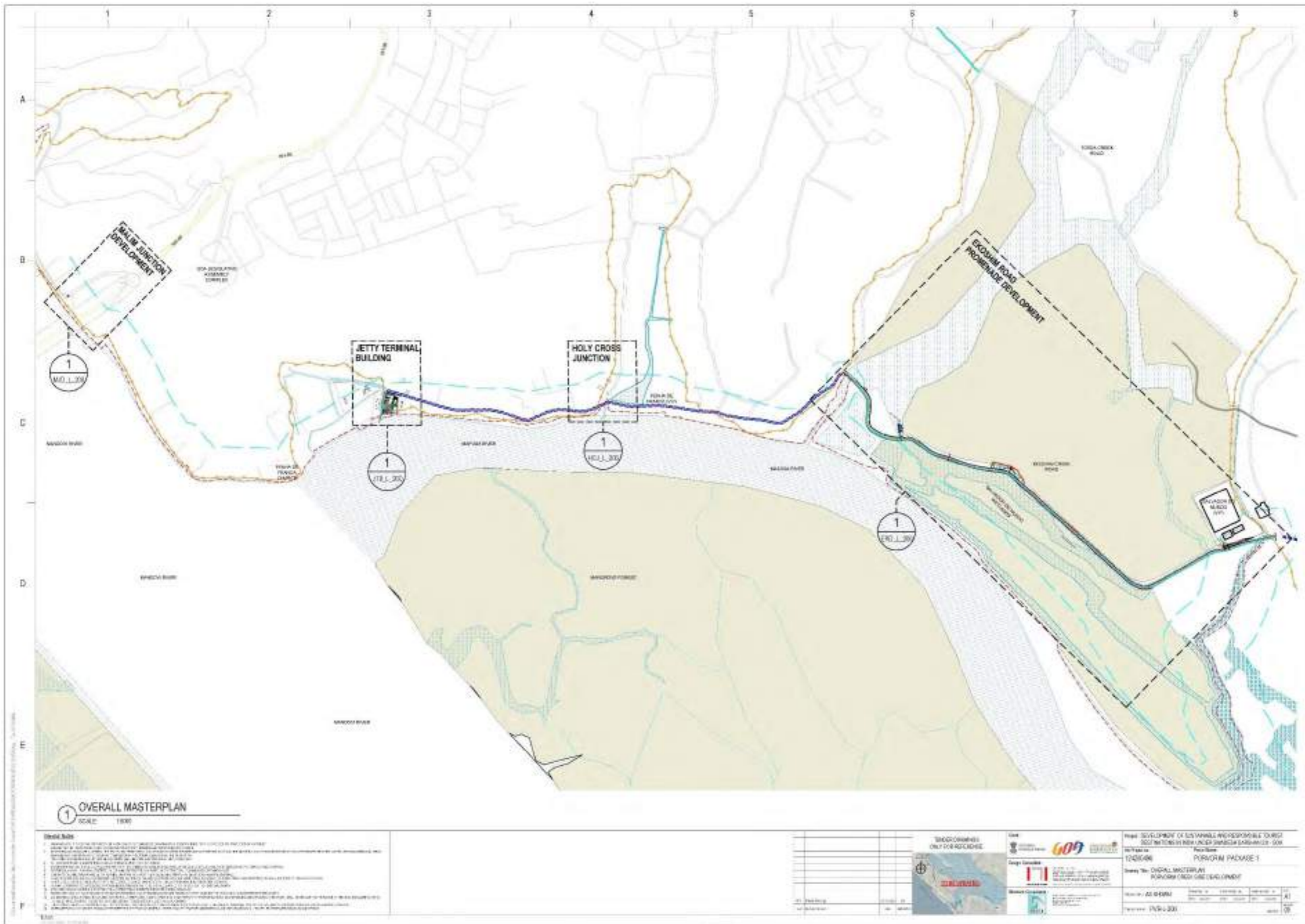
Figure 13: Proposed Character of Betim/ Malim Junction



2.7 Project Layout and Architectural Design

The overall layout plan for the proposed interventions for Porvorim Creek Experience is as shown in the following figures, the detailed project layout and architectural designs prepared as part of the DPR are attached as **Annexure C** of this report.

Figure 14: Overall Layout Plan – Porvorim Creek Experience



2.8 Pre-Construction Clearances applicable and documentary proof of the same

The identified intervention areas being located close to and estuary with a mangrove forest falls under a sensitive zone CRZ-III (No Development Zone). Area along the Ekoshim Creek road falls under Khazan Land and Mangrove Buffer zone CRZ 1A. Hence, clearance will be required from the CRZ department.

Due to the existing mangroves in the area, clearance is sought from the Forest Department. W.r.t to development along the Ekoshim road clearance will be sought from TCP (Town and Country Planning department) and Public Works Department as well.

2.9 Minor Interventions and Soft Interventions requiring specialized agencies

The proposal for the project “Porvorim Creek Experience” involves development of tourism experience through numerous hard as well as soft interventions, for curation of a holistic experience for tourists. The details of these interventions are explained in the subsequent sections of the report.

2.10 Environmental Compliances and Protection Measures

India has an elaborate legal framework with over two hundred laws relating to environmental protection. Key national laws for the preservation and conservation of natural environment in and around the tourist destination and tourist attraction are as follows:

- Water (Prevention and Control of Pollution) Act of 1974, amended in 1988
- Air (Prevention and Control of Pollution) Act of 1981, amended in 1987
- Environment (Protection) Act of 1986
- Public Liability Insurance Act of 1991
- The Forest (Conservation) Act. 1980 with amendments
- Noise Pollution (Regulation and Control Act), 2000
- Construction and Demolition Waste Management Rules, 2016
- Solid Waste Management Rules, 2016
- Plastic Waste Management Rules, 2016

The experience design shall try and comply with possible set of above-mentioned acts, rules, and regulations. There will be several preventative and protection measures set up at the site, to ensure minimal environmental damages to the site and surrounding context, such as:

During Construction Phase

- Careful handling of construction and demolition waste, so as to not contaminate River Mapusa and Torda Creek as well as to not harm the Ecological Sensitivity of the Mangrove areas within the site.
- Ensure Efficient Waste Management at the Site, through well-defined asset operation and maintenance framework.
- The project development shall ensure no discharge of wastewater into the river and backwaters.
- Ensure minimal noise pollution and disturbances to the adjoining communities and societies

- The construction shall ensure no cutting of trees to maintain the ecological balance of the area.
- The construction of the project shall be in line with the natural topography of the site and ensure that no large-scale alterations to the topography and geological structures is done at the site during construction phase of the project.
- Ensure no damages to local heritage and cultural elements in the surrounding.
- No harm shall be done to the existing flora and fauna during project construction.

During Operation Phase

- As a policy measure, the use of plastic material shall be banned within the identified experience zone, to minimize the waste generated at the site. Reverse vending machines to be placed wherever possible and also provide wet and dry waste garbage bins at regular intervals.
- Water ATMs to encourage reuse of water bottles and discourage purchase of new plastic bottled water.
- Design shall promote walkability, cycling, and EV transit to the best possible extent, which reduces the need to use motorized vehicles within the project area.

2.11 Sustainability Assessment and Interventions

This section provides a sustainability assessment of the project components in Porvorim focus on the redevelopment of the existing dilapidated structure into a Jetty Terminal Building and upgradation of the existing Ekoshim road as a promenade. As the project is a brownfield project, the assessment is conducted using the parameters of Ecological, Economic, and social sustainability, in accordance with the guidelines set by the Indian Green Building Council (IGBC).\

Table 8: Sustainability Parameters Incorporated with in the Intervention Design

Ecological	Economic	Social
<ul style="list-style-type: none"> • Sustainable building materials and practices, such as locally sourced materials, low-emission paints, and energy-efficient fixtures, will be utilized to minimize environmental impact during construction and operation phases. • The Jetty Terminal Building will be designed to maximize natural lighting and ventilation, reducing the need for artificial lighting and mechanical ventilation systems 	<ul style="list-style-type: none"> • The project will create employment opportunities during the construction phase, contributing to the local economy and supporting livelihoods. • Upon completion, it will facilitate tourism and transportation activities, potentially boosting economic activity in the region and creating additional job opportunities. 	<ul style="list-style-type: none"> • The Jetty Terminal Building and Ekoshim road Promenade components are designed to be accessible to people of all ages and abilities, including provisions for ramps, and barrier-free pathways. • EV transportation and cycle rental facilities are integrated into the design to improve connectivity and accessibility for residents and tourists alike.

Ecological	Economic	Social
<ul style="list-style-type: none"> • Energy-efficient HVAC (Heating, Ventilation, and Air Conditioning) systems and lighting fixtures will be installed to minimize energy consumption and greenhouse gas emissions. • Water-efficient plumbing fixtures and wastewater treatment facilities will be incorporated into the design to minimize water consumption and promote water reuse. • Landscaping will prioritize native and drought-resistant vegetation, requiring minimal irrigation and reducing the demand for potable water. 		<ul style="list-style-type: none"> • Stakeholder consultations are conducted to ensure that local needs and preferences are considered in the design and planning process. • The project will prioritize the preservation of cultural heritage and promote community identity through architectural design elements and programming.

2.12 Disaster Related Risk Assessment and Protection Measures

Goa has a combination of geographical factors such as its climate, geomorphology, and drainage pattern. Goa has a number of large and small river systems which when combined with heavy monsoons and high tide conditions cause flooding and water logging in some areas.

2.12.1 Risk Assessment

Goa's proximity to the open sea makes the North Goa district prone to a variety of natural disasters like floods, earthquakes, cyclones. The occurrence of cyclones and floods is mostly limited to monsoons only. The impact of cyclonic winds is experienced at the onset of monsoons in April end and May and also towards the end of September and October. Certain areas in the North Goa district are prone to landslides mostly during the monsoon season.

History of Hazards in North Goa District is as follows:

Table 9: History of Hazard Occurrence

S. No.	Hazard	Year of Occurrence
1	Earthquake	1967 and 1993
2	Floods/Heavy rains	2005
3	Cyclones	2009
4	Landslides	2007

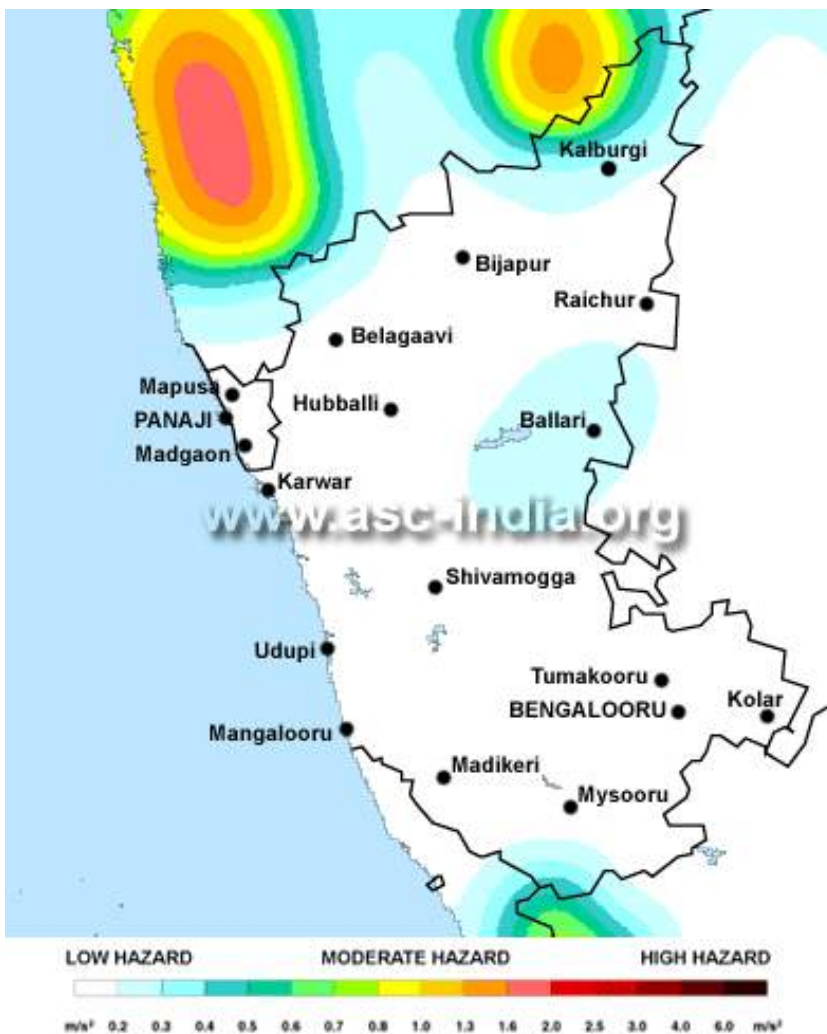
S. No.	Hazard	Year of Occurrence
5	Tsunami	

Source: (District Disaster Management Plan (North Goa), 2012)

Earthquake

Goa has not been impacted by earthquakes directly. However, it has experienced the tremors of earthquakes with magnitudes of 5.0 and more especially the “Koyana” and “Latur” earthquakes of Maharashtra in 1967 and 1993. Although there were no casualties in Goa, it disrupted the route life as many residential and public infrastructure was severely damaged (District Disaster Management Plan (North Goa), 2012).

Map 4: Seismic Hazard Map for Goa



Source: Amateur Seismic Center

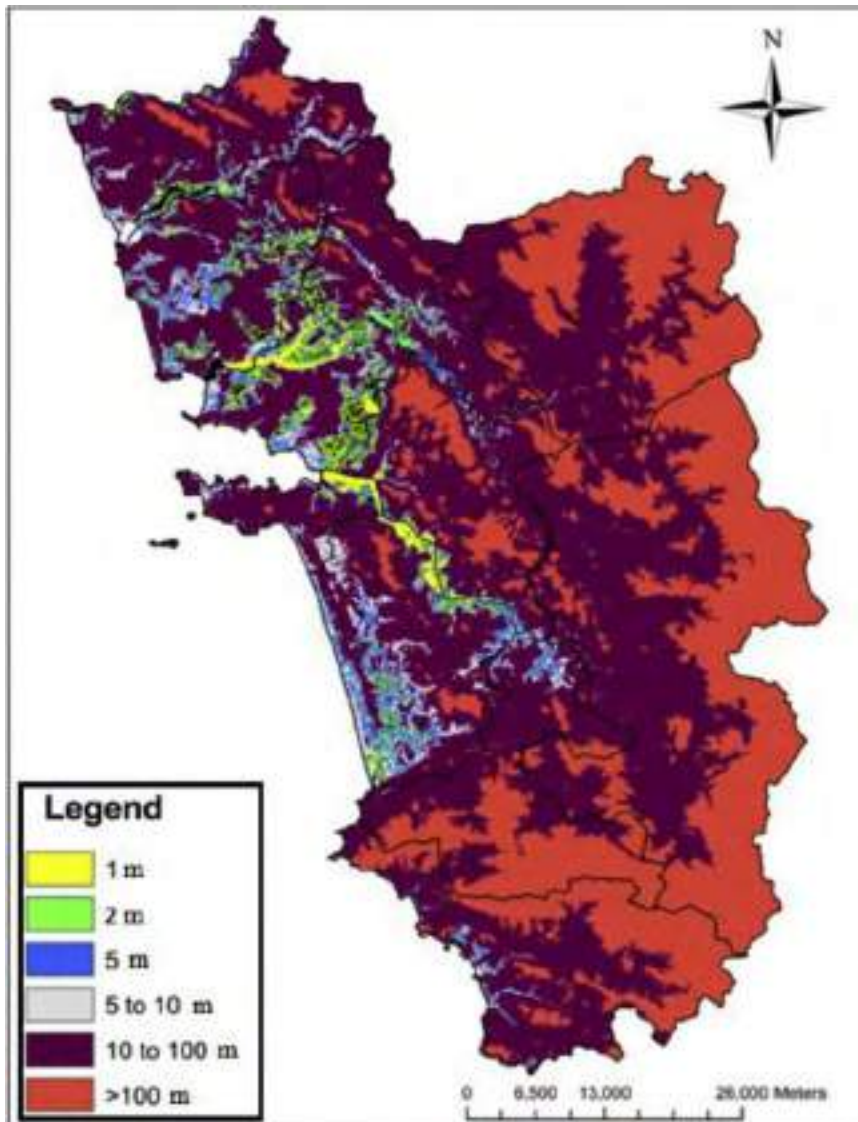
Floods/ Heavy rains

Goa receives 75% of its annual rainfall during monsoon months of June to September. This results in heavy discharge in the rivers which is further compounded by sediment deposition, drainage congestion and synchronization of river floods with sea tides. The river Mandovi flowing in the North district has 10 tributaries with Mapusa river, both being located at the

destination. The only major flood experienced in locations close to Porvorim was in Panjim during 2005 due to the overflowing of rivulets. It however did not cause major casualties but heavily damaged properties.

The North Goa district having both coastal and river estuaries does experience floods mostly due to storm surges. As the project is located in the Bardez taluka along the Mapusa river, a tributary of the Mandovi river it is prone to flooding due to temporary rise in water levels of nearby rivulets.

Map 5: Inundation Map based on various SLR scenarios for Goa



Source: Research Gate

Cyclones

North Goa district is susceptible to cyclonic storms, particularly during the pre-monsoon and post-monsoon periods. Cyclones originating in the Arabian Sea can bring strong winds, heavy rainfall, and storm surges. Coastal communities are particularly vulnerable to the impacts of cyclones, including coastal erosion, flooding, and damage to infrastructure. However, the

project site is located away from the coastal area and is not directly impacted by cyclonic storms. However, surges in the water levels in the rivers may cause flooding in certain areas.

Landslides

The severity of landslide in the North goa district is Low in nature. However, a severe landslide took place on the Mapusa-Panjim NH-17 (now NH 66) during monsoons of 2007 causing the road to be obstructed for months. Although, this area falls within the destination but is located further away from the proposed intervention in Package 1.

Tsunami

The North Goa district coastal belt has not reported any tsunami in the past. However, the tsunami of 2006 had caused certain aftereffects in the sea and rivers but no loss of lives or property damage. Only certain vessels at sea were reported to have been damaged.

2.12.2 Mitigation Measures

To enhance hazard preparedness and risk reduction at the attraction, strategic measures contributing to a more resilient and prepared community in the face of disaster should be adopted. Following crucial measures would be taken into consideration to mitigate the risk of the hazards in the Porvorim region, pertaining to the project area:

- Designation of **Special Evacuation signages** and identification of routes will be integrated with proposed circulation routes will be provided in addition to the existing Cyclone Disaster Warning System installed at Police Headquarters and in the vicinity of the project.
- The Jetty terminal building design is developed in **adherence to fire norms** and specification of Building Byelaws.
- In addition to the norms prescribed in the CRZ regulations for construction in No Development Zone, the Jetty Terminal Building does not exceed plinth area of the current building.
- Ensure **clear drainage channels** and system and a smooth flow of water as per the existing topography, to avoid flooding.
- Use of existing Storm water drains, natural water channels that directly connect to the river and creek to assist efficient storm water drainage at the project interventions.
- Protection of existing mangrove trees available throughout the site are an effective **Nature Based Solution** that naturally reduces the impact of river flooding and tsunamis.
- **Capacity Building of local communities** as first reaction measures during the time of disaster and emergency
- **Training tour guides on emergency measures** for disaster risks to ensure a prompt and safe evacuation process for the tourists visiting the destination.
- The Project design encourages development of **Shaded Pause Points along the proposed cycling tour routes and promenade**, for tourists to rest during the extreme heat of summers.

2.13 Project Cost Estimation

The Summary of the Project Cost estimated to incur during the project is as follows:

Table 10: Project Cost Estimates

S. No.	Proposed Intervention	Cost (in INR Cr.)
1	Jetty and Terminal Building (Ticketing counter, Souvenir shop, Café with Indoor children's play area & co-working desks, Toilets and changing rooms)	6.68
2	Ekoshim Road Streetscape Development (Kayaking station to Panchayat Terminal with Ekoshim Creek road Streetscapes, Seating Plaza with street Furniture, Seating kiosk, EV pickup & Dropoff points, Cycling Stands, Kayaking Jetty, Cycling Track, Watch Tower, Softscapes, Information boards & Electrical works)	6.27
3	Holy cross junction (Food Kiosks, Trellis with seating, Street furniture and Benches & Signages, Softscapes & Electrical works)	0.15
4	Betim/ Malim Junction Improvement	0.08
Sub-Total		13.18
GST Charges (18%)		2.37
Minimum Contingencies (3%)		0.47
SIA Charges (3%)		0.48
Total		16.50

For all cost elements for Physical Infrastructure, the assumptions (rates, methods of calculations etc.) are clearly mentioned in the BOQ in **Annexure-D**.

03

SKILL DEVELOPMENT
AND CAPACITY
BUILDING

3. SKILL DEVELOPMENT AND CAPACITY BUILDING

3.1 Need for Skill Development and Capacity Building Initiatives at Porvorim

The skilling landscape of Goa has existed in various industries from manufacturing to service industries. In terms of economic growth, the share of the services sector has been significantly increasing with hospitality being the biggest job creator. It has multiple active initiatives and schemes that encourage capacity building and skill development of local communities undertaken by local institutes such as the National Institute of Watersports (NIWS), Institute for Hotel Management Goa, and the Indian Institute of Tourism and Travel Management.

Some reasons for beginning skill development and capacity building initiatives that cater to boating activities, drivers and guides in Porvorim is as follows:

- Developing skills among the local workforce can significantly **enhance the quality of services** provided to tourists visiting Porvorim. Well-trained individuals contribute to a positive and memorable visitor experience, promoting word-of-mouth recommendations and repeat visits.
- Expansion of current Skilling programs to include residents at the destination will **create opportunities for local residents to gain employment** within the tourism sector. Diversification of employment can reduce dependency on traditional occupations and contribute to the economic well-being of the community.
- Skill development programs can focus on **promoting sustainable tourism practices**. Training locals in responsible tourism, conservation, and eco-friendly initiatives helps ensure that tourism activities do not harm the natural environment or cultural heritage of Porvorim.
- The exiting skilling initiatives can **empower individuals to become entrepreneurs** by providing them with the necessary skills to start and manage tourism-related businesses. This can lead to the creation of local enterprises such as homestays, guided tours, and artisanal crafts.
- Training programs can focus on **improving communication and hospitality skills** among the workforces. This is particularly important in the tourism sector, where positive interactions with visitors contribute significantly to their overall satisfaction.

3.2 Scope for Skill Development and Capacity Building at the Destination

With respect to training programs at the destination training and capacity building will be focused on boating operators, drivers and guides. The current scenario observed at the destination is also that of many local youths in need of employment. Therefore, initiating

training programs that enable and involve the local community to participate actively in tourism service provision, and empower them with alternative livelihood opportunities.

Some of the areas of skilling and capacity building areas identified within the experience are:

- Front desk/Ticketing counter at Jetty terminal building
- Food kiosk vendors
- Cleaning Staff
- Souvenir Shop Attendant
- Boat operator and crew members
- Cycle rental Shop Attendant
- Café staff
- Indoor Children's Play Area Attendant
- EV shuttle drivers

Further, activities w.r.t. watersports can be carried out in collaboration with NIWS such as:

- Safety and Quality norms for water sports
- Short term training and refresher courses for Life Saving Techniques, Basic First Aid and CPR

In addition to this, several training and capacity building areas has also been identified for the overall destination, which can benefit in improving the tourism experience within the DPR area too. These are:

- Skill testing and Certification program for hospitality services
- Tourism Awareness Program for the operators on provision of sustainable tourism services

3.3 Target Audience

Identifying the target audience is paramount for skill development in tourism projects, especially for a destination such as Porvorim, where there are multiple employment opportunities within the tourism industry. By recognizing and addressing the specific requirements of the target audience, tourism projects can create a workforce that not only meets but exceeds the expectations of travellers, fostering positive experiences and promoting the growth of the industry. Some of the key group of participants identified for skilling, which can enhance the Porvorim Creek Experience are:

- Local Youth Population
- Local Entrepreneurs/ Guides
- Women's group
- Tourism Professionals/ Service Providers/ Operators

3.4 Skill Gap Assessment

Assessing the tourism skill gap in Porvorim, Goa involves identifying the current skills of the local workforce, understanding the demands of the tourism industry, and recognizing any disparities or deficiencies. Based on the initial understanding of the skill set of local communities the proposed interventions, it is understood that there is a stark gap between the skills demanded to work in tourism service provision for the project area and the supply from local communities. The set of skills, as identified to be necessary for working within the intervention are:

- Vocational Skills to work as a tour guide and other tourism service provision
- General Etiquettes in provision of tourism services

- Skills in provision of first aid to tourists in case of any emergencies
- Professional Swimmers and Divers in case of any water-based emergencies in the creek

Apart from these specialized skills, the communities and tourism service providers in the experience area are also observed to be devoid of understanding the needs and necessity of promoting responsible and sustainable tourism activities. The skilling and capacity building program for the experience shall also focus on developing these through targeted tourism awareness programs for the local communities.

Further a detailed assessment will be done, wherein the local communities will be consulted, and an understanding will be developed on additional need for training and capacity building initiatives for the experience.

3.5 Convergence with Central and State Schemes

The envisioned tourism sector skilling and capacity building programs for the experience area are envisioned to be taken up in convergence with the state and central level programs. These are as mentioned in the table below:

Table 11: Central and State Level Skill Development Programme and Schemes – Potential Convergence

Organisation/ Authority	Skill Development Programme / Schemes	Conducted by	Sector Covered
Centre Level			
"Capacity Building for Service Providers" (CBSP) Scheme (Initiative by MoT)	Hunar Se Rozgar Tak (HSRT) (Skilling Programme)	Central Institutes of Hotel Management (CIHMs),	Tourism and Hospitality
	Entrepreneurship Programme (Up-skilling)	State of Institutes of Hotel Management (SIHMs),	
	Skill Testing & Certification (Re-skilling)	Indian Institute of Tourism and Travel Management (IITM),	
	Tourism Adventure Courses (Re-skilling)	Food Craft Institutes (FCIs),	
	Linguistic Tourist Facilitators (Up-skilling)	State Tourism Departments/Development Corporations,	
	Incredible India Tourist Facilitator Course (IITFC) basic Certification Programme	Indian Culinary Institute (ICI)	
	Tourism Awareness /Sensitization programme		
Ministry of Skill Development & Entrepreneurship (MSDE) + National Skill Development Corporation (NSDC)	Training of Trainers program	Institute of Training of Trainers (IToT), Visakhapatnam	Tourism and Hospitality

Organisation/ Authority	Skill Development Programme / Schemes	Conducted by	Sector Covered
Ministry of Skill Development & Entrepreneurship	Dual System of Training scheme	Under Directorate General of Training by Industrial Training Institutes (ITIs)	Tourism and Hospitality
India Tourism Development Corporation (ITDC)	Skill Development Course	Centre of Excellence	Tourism and Hospitality
National Skill Development Corporation (NSDC)	Skill development training under Pradhan Mantri Kaushal Vikas Yojana	Leap Skills Academy Private Limited, Rustomjee Academy for Global Careers Private Limited	Tourism and Hospitality
Indira Gandhi National Open University (IGNOU)	Diploma in Tourism Studies	School of Tourism and Hospitality Service Management (SOTHSM)	Tourism
Directorate of Skill Development and Entrepreneurship, Government of India	Skill Development and Entrepreneurship	Directorate of Skill Development & Entrepreneurship-Goa	Tourism and Hospitality
State Level			
National Institute of Water Sports (NIWS), Goa	Water sports trainings	Indian Institute of Tourism & Travel Management-IITM	windsurfing, sailing, water skiing, kayaking
Gesto Culinary & Hospitality Academy	Certificates Courses (6 Months)	Gesto Culinary & Hospitality Academy	Hospitality

3.6 Mechanisms for Quality Assurance

Quality assurance in skilling and capacity building exercises for tourism development is crucial to ensure that training programs effectively prepare target audience for the demands of the industry. Here are key elements of a robust quality assurance framework:

- 1. Standardized Curriculum based on the type of skill training:** Develop a standardized curriculum based on the focus area of skilling and capacity building, that aligns with industry standards and best practices. Clearly define learning objectives, outcomes, and the specific skills that participants should acquire. Regularly review and update the curriculum to adapt to evolving trends and advancements in the tourism sector.
- 2. Accreditation and Certification:** DMC in partnership with diverse institutions can take up certification of the trained staff at the site. Additionally, an accreditation system can be developed for several service providers, by DMC in collaboration with TEDMA, to ensure that the employees working within the experience area are adequately trained and meet a standard quality of service provision. This can enhance the credibility of the workforce within Porvorim Creek Experience Area.
- 3. Assessment and Evaluation:** Implement rigorous assessment methods, including both formative and summative evaluations, to measure participants' progress throughout the

training. Assessments should be aligned with the learning objectives and provide insights into the effectiveness of the training program. Regularly review and refine evaluation processes based on feedback and outcomes.

4. **Industry Collaboration:** Foster collaboration with industry stakeholders, tourism associations, and employers. Engage them in the development of training programs, seek their input on industry needs, and establish partnerships for internships or on-the-job training. This ensures that the training is directly relevant to the practical requirements of the tourism sector.
5. **Feedback Mechanisms:** Establish robust feedback mechanisms for tourists, to assess the quality of service provided within the experience area and at the destination. Regularly collect feedback on the content, delivery, and effectiveness of the training programs. Use this feedback to make continuous improvements, address any shortcomings, and enhance the overall quality of the skilling and capacity building exercises.
6. **Accreditation of the Tourism Service Providers:** to ensure that the services provided at the destination follow sustainable practices and promote responsible tourism practices within the experience area.

3.7 Implementation Plan

The implementation plan for the skilling and capacity building intervention is as follows:

Table 12: Plan for Implementation of Skilling and Capacity Building Interventions at Porvorim, for the Experience Development

Identified Stages and Activities	Timeline
Stage 1: Project Initiation and Planning	
<ul style="list-style-type: none"> • Skill Gap Assessment at the destination • Establish a project team and roles. • Develop a detailed plan for training and capacity building for the identified areas, including timelines, milestones, and budgeting. • Identify and secure funding sources. 	1 – 2 Months
Stage 2: Stakeholder Engagement and Partnerships	
<ul style="list-style-type: none"> • Identification of the potential convergences with central and state level programs and schemes • Engage with local government, DMC, APTDC, and relevant stakeholders. • Form partnerships with training institutions, industry associations, and local businesses. • Conduct initial awareness campaigns to involve the community. 	3 – 4 Months
Stage 3: Curriculum Development and Training Material Design	
<ul style="list-style-type: none"> • Identification of the training programs required for development of Gandikota Gorge experience. • Designing of a curriculum tailored to the needs of the Gandikota tourism industry. • Develop training materials, resources, and tools. • Ensure alignment with industry standards and best practices. 	5 – 6 Months
Stage 4: Program Launch	
<ul style="list-style-type: none"> • Launch the skill development program. 	7 – 8 Months

Identified Stages and Activities	Timeline
<ul style="list-style-type: none"> • Identification and engagement with participants through local community outreach. • Conduct orientation sessions for enrolled participants. 	
Stage 5: Implementation, Monitoring and Evaluation	
<ul style="list-style-type: none"> • Start the training sessions, ensuring adherence to the curriculum. • Implement regular monitoring and evaluation mechanisms to assess program effectiveness. • Gather feedback from both participants and instructors for continuous improvement. • Develop strategies for post-training support, including job placement or entrepreneurial guidance. 	8 – 12 Months
Post – Implementation – Ensuring Timely Follow up and Sustainability	
<ul style="list-style-type: none"> • Continue monitoring the progress of trained individuals in the workforce. • Assess the long-term impact of the skill development program on the local community and tourism sector. • Develop strategies for the sustainability of the program beyond the initial 12 months. • Throughout the implementation, adaptability is key. Unforeseen challenges may arise, and flexibility in adjusting the project plan will help ensure success. Additionally, maintaining open communication with stakeholders and participants is crucial for the continuous improvement of the program and its long-term success. 	Continuous Post Implementation

3.8 Impact Assessment

Assessing the impact of skill development and capacity building activities for Porvorim Creek Experience is crucial for understanding the effectiveness of the programs and making informed decisions for future initiatives. Some the methods which can adopted are:

- 1. Pre- and Post-Training Skill Gap Assessments:** Conduct a skill gap assessment before the commencement of training and again after its completion to measure the improvement in participants' skills and knowledge. This method helps quantify the impact of the training on individual capabilities.
- 2. Change in share of Local Employment at the Experience Area:** Observe the changes in the employment rates of the local communities within the experience area of individuals who have undergone skill development programs. Measure the number of participants who successfully secure jobs or entrepreneurial opportunities in the tourism sector at Porvorim. This provides tangible evidence of the program's impact on participants' employability.
- 3. Surveys and Feedback:** Collect feedback from tourists, participants, and employers in the tourism industry. Use surveys to gather qualitative insights into the perceived impact of the training on participants' performance, confidence, and adaptability in their roles. Additionally, seek feedback from employers on the skills and competencies of the trained workforce.

04

BRANDING AND
MARKETING

4. BRANDING AND MARKETING

4.1 Existing Scenario

In spite of the cultural and natural hinterland assets of Porvorim, the experiences at the site have not been actively promoted on the state tourism website and its mobile application. Although the State is actively promoting tourism experiences under its “Goa Beyond Beaches” campaign there are no dedicated webpages that mention and promote it. The Goa Tourism webpage provides information about the various attractions and activities available but are not categorized as “Beyond Beach” experiences nor does it mention the destination. Therefore, there is no active promotion specifically of the destination in international travel marts, exhibitions, or on the social media platforms of Goa Tourism.

Goa has a strong social media presence, promotion and marketing strategy for all tourism attractions, activities and accommodations available. It undertakes a variety of social media engagement activities and competitions to engage and promote Goa but however lacks similar efforts for promotion of the destination.

Further, it is observed that w.r.t the overall branding of Goa, the dominant promotion seen is that of the Casino activity. On arrival at airports and along main highways a number of hoardings, boards and signages promote the casino activity available at Panjim.

Hence, instead of being in line with Goa Tourism's online promotion and branding activities as seen on their websites, the branding and promotion of Casinos is more dominant. Therefore, this disconnects in the marketing, branding and promotion activities causes tourists to visit these attractions more than the intended target areas as marketed by the State online.

4.2 Need for Branding and Marketing Strategy for the Experience

Based on the assessment of the existing branding and marketing scenario and the site assessment, it is identified that there is a need for development of a comprehensive branding and marketing strategy for the experience. Some of the reasons identified for it are:

- **Enhanced Recognition of Tourist Attraction Recognition:** A well-defined brand creates an identity for the destination, making it easier for travelers to identify, remember, and choose it as a preferred destination.
- **To develop a competitive market advantage:** Effective branding and marketing create a unique selling proposition (USP) for Porvorim creek and riverside (hinterlands), highlighting its distinctive features and experiences. This gives it a competitive edge in the tourism market, attracting visitors who are seeking something special and different.
- **To attract a greater number of visitor footfall:** A targeted marketing strategy can significantly increase the awareness of Porvorim hinterlands among potential visitors. This increased

visibility can lead to a higher footfall of tourists, positively impacting the local economy through tourism-related spending.

- **For Preservation of the Hinterland Sanctity and promote Sustainability:** A comprehensive marketing strategy can emphasize the importance of responsible tourism and the preservation of Porvorim natural and cultural assets. By promoting sustainable practices, the destination can ensure its long-term viability and minimize negative environmental impacts.

4.3 Marketing Strategy and Action Items

A well-executed branding and marketing strategy for the Porvorim Creek Experience will be integral to its success, ensuring sustained growth, positive economic impact, and the preservation of its unique attractions. Some of the parameters identified for a comprehensive branding and marketing strategy for Porvorim Creek Experience are as follows:

Strategy 1: Define the Brand Identity for Porvorim representing the USP of the Experience

- **Brand Essence:** Position Porvorim hinterland as a mesmerizing blend of natural beauty, cultural significance, and adventurous exploration.
- **Unique Selling Proposition (USP):** Emphasize the "Goa Beyond Beaches" tagline to highlight its distinctive natural assets. Also promote the concept of "Active Vacations" to promote the proposed adventure activities at the destination.
- **Event Based Marketing:** Porvorim has a number of popular cultural events taking place but are not well promoted and known amongst tourists. Identify and market identified annual events for Porvorim, to develop it as a crowd puller for the destination.

Strategy 2: To develop a visual identity for the destination through logo and other content

- **Logo Design:** Create a visually appealing logo that captures the essence of the Porvorim creek and riverside. Utilize the colors of the destination and incorporating elements like local cultural motifs.
- **Consistent Visuals:** Maintain a consistent visual theme across all marketing materials, including brochures, websites, and social media platforms.

Strategy 3: Create and Enhance Online Presence of the Experience

- **Website Optimization:** Develop an interactive and user-friendly website "www.visitporvorim.com" with stunning visuals, detailed information, and easy navigation.
- **Social media-based marketing:** Leverage social media platforms to share captivating content, engage with the audience, and promote user-generated content. Numerous competitions and virtual events can be organized to enhance the audience engagement on social media.

Strategy 4: Enable Content Marketing through blogs and articles

Regularly publish blogs and articles on the website, covering topics such as adventure activities, local cuisine, culture, and hidden gems at the destination.

Strategy 5: Explore avenues for Collaborations and Partnerships

- **Partnerships with Tour Operators and Travel Agencies:** Form partnerships with travel agencies to include Porvorim creek in their itineraries.

- **Collaboration with Local Businesses:** Collaborate with local businesses, such as hotels and restaurants, to create package deals and cross-promotional campaigns.

Strategy 6: Adventure Tourism Promotion

- **Adventure Packages:** Develop adventure tourism packages, including nature walks and trails, yachting, kayaking, and cycling.
- **Collaborate with Adventure Brands:** Partner with adventure sports brands for joint promotions and events.

Strategy 7: Showcasing the Testimonials and Reviews

- **Customer Testimonials:** Showcase positive testimonials and reviews from visitors who have experienced Porvorim Creek.
- **Influencer Collaborations:** Partner with travel influencers to create authentic content and reviews.

4.4 Action Items

The identified strategy has been transformed into action items for Porvorim Creek Experience as follows:

Strategy 1: Define the Brand Identity for Porvorim representing the USP of the Experience

- **Action:** Collaborate with a design agency to create a captivating visual theme that reflects the essence of Porvorim Creek Experience.

Strategy 2: To develop a visual identity for the destination through logo and other content

- **Action:** Organize an online logo and tagline design competition, to encourage participation from local communities. For Porvorim, the competition has already been undertaken, and will be concluded soon.

Strategy 3: Create and Enhance Online Presence of the Experience

- **Action:** Develop an interactive and user-friendly website with detailed information, high-quality visuals, and easy navigation.
- Develop a social media page for the destination marketing, highlighting the USP of the Porvorim Creek Experience.

Strategy 4: Enable Content Marketing through blogs and articles

- **Action:** Initiate a content marketing campaign, starting with storytelling about the Porvorim hinterland history, culture and unique experiences.

Strategy 5: Explore avenues for Collaborations and Partnerships

- **Action:** Reach out to local travel agencies and businesses for potential partnerships and collaborations and creating joint promotional materials and packages.

Strategy 7: Showcasing the Testimonials and Reviews

- **Action:** Collect and showcase customer testimonials on the website. Collaborate with travel influencers for authentic content creation.

Further the TEDMA formed for experience management can be provided with branding and marketing rights for the experience area, to attract additional private investment and a greater tourist footfall for the experience, and better revenue generation.

05

ICT INTERVENTIONS

5. ICT INTERVENTIONS

5.1 Existing Scenario

In the present scenario, owing to the negligible tourism activities in the area, there are hardly any ICT based mechanism adopted for tourism management and tourist engagement mechanism, within the experience area. Due to absence of comprehensive and holistic tourism experience around the creeks, until now, there was no need for such an intervention. However, with the development of a complete tourism experience around the Creeks of Porvorim, it is essential to integrate technology-based intervention for enhanced tourist safety, security, and overall tourism interface.

5.2 ICT interventions at Porvorim Creek Experience

1. Development of Experience Website – A dedicated website for the experience shall be developed, as part of the intervention. This shall showcase USP of the experience area, basic information on tourist touchpoints within the experience area, location of tourist amenities, online booking and ticketing of different activities offered including cycling tours, kayaking tours privately operated yacht tours, etc. Further this can also be integrated with Goa tourism website to increase the reach of the experience and eventually enhance visitor footfall at site.

Timeline: The project shall be initiated after commencement of work on the site. In the initial phases, the website can be used for experience marketing and creating awareness about tourism around creeks in Porvorim. It is expected to be completed within a maximum of 2 months from the initiation. However, the information on the activities at the experience area can be added once these activities have become functional. Moreover, there is a requirement for continuous monitoring and maintenance of the website, to provide accurate information to the tourists.

Implementation, Operation, Maintenance and Management: TEDMA shall be the responsible for the installation, operation, management, and maintenance of the website developed for the experience area.

2. CCTV Monitoring for Jetty Terminal Building and associated public areas – CCTV monitoring of the Jetty Terminal Building and associated public areas is identified as one of the ICT Based interventions within the experience area. This shall enable effective monitoring of the area. CCTV cameras shall be installed at key strategic locations within the building at areas outside including Entry/Exit areas, ticketing desk and parking areas. This is envisaged to increase tourist safety and security and shall be funded under Swadesh Darshan 2.0 scheme.

Timeline: The project shall be initiated once the construction activities at the site is complete, and the electrical works has begun. It is expected to be completed within a maximum of 2 months from the initiation. Moreover, there is a requirement for continuous

monitoring and maintenance of the infrastructure at regular intervals as prescribed with the installation guide, to ensure continuous functioning of the system.

Implementation, Operation, Maintenance and Management: TEDMA shall be the responsible for the installation, operation, management, and maintenance of the ICT Based interventions within the experience area.

06

PROJECT
IMPLEMENTATION,
OPERATION &
MAINTENANCE
FRAMEWORK

6. PROJECT IMPLEMENTATION, OPERATION AND MAINTENANCE FRAMEWORK

6.1 Project Implementation Plan

Goa Tourism Development Corporation (GTDC), the state implementation agency (SIA) shall facilitate and supervise the implementation of the Porvorim Creek Experience, DPR Package 1 project. GTDC shall undertake the following activities for initiation of the project implementation:

- Obtain / procure land and provide land for the project free of cost.
- Obtain all necessary clearances, approvals from the relevant agencies.
- Obtain approval of the Package - 1 project DPR from Ministry of Tourism.
- Through a competitive bidding process, appoint a Tourism Experience Development and Management Agency (TEDMA) to undertake the development, construction and operation, maintenance, and overall management of this project. The TEDMA shall be given maximum one year for development and minimum 60 months (5 years) for operation and management.
- Monitor the activities undertaken by TEDMA in Project Development, Construction operation, maintenance. The roles and responsibilities of GTDC during Project Development, Construction and O&M phases are listed in Annexure G.

Project Development and Management Consultant (PDMC) will assist GTDC in the bidding process for selection of TEDMA.

The Destination Management Organization (DMO) which will be formed as a Special Purpose Vehicle (SPV) will oversee the activities performed by the TEDMA and take measures for promotion and development of tourism in Porvorim Creek Experience along with the entire destination.

6.1.1 Project Development and Construction

TEDMA shall undertake development and construction of Minimum Development Obligations to be funded under SD 2.0 as provided in section 1.3 of this DPR. As indicated in the table below, TEDMA shall complete Development and Construction of the project in a duration of maximum 12 months.

Table 13: Project development and construction phase details

S.no	Project details	Project Cost (in INR) *	Tendering		Project Construction Scheduled Completion
			Expected Release Date	Expected Award Date	
1	Porvorim Creek Experience –	14,41,56,369	April 2024	June 2024	June 2025

	Porvorim, North Goa				
--	------------------------	--	--	--	--

Note: Excluding GST and other charges

The roles and Roles and Responsibilities of TEDMA during the project development and construction phase are listed in Annexure H.

Minimum area of various components in the Porvorim Creek Experience to be developed by the TEDMA in the Development and Construction phase, which will be funded under SD 2.0 are detailed below in the Table 10.

Table 14: Minimum development components to be provided by the TEDMA in the Project development and construction phase

S. No	Activities	Particulars	Area
1	Ekoshim Creek road Promenade	<ul style="list-style-type: none"> Promenade Upgradation of existing Footpath Watch Tower (1 no) Seating Plaza with street Furniture Seating Kiosks EV Station Bicycle rental shop Kayak embarking and disembarking jetty Cycling track Softscapes 	8,722 sq. m
2	Jetty terminal building	<ul style="list-style-type: none"> Ticketing counter Souvenir shop Cafeteria Indoor children's play area Senior citizen outdoor seating Cycle stands for rental Boating jetty Outdoor seating and on-site parking Softscapes 	2,012 sq. m
3	Malim junction	<ul style="list-style-type: none"> Roundabout development 	80 sq. m
4	Holy cross junction	<ul style="list-style-type: none"> Trellis with seating Designated platforms for food kiosk - hardscape development Softscapes 	88 sq. m
Total Area			10,902 sq. m

Enhanced Design, Specifications and Facilities by TEDMA

On TEDMA's request, GTDC may approve enhancements to the design and specifications of any component or the provision of additional facilities in the project at TEDMA's own cost. This is to align with market needs or to ensure the delivery of higher quality services.

6.2 Project Schedule

The project components are envisaged to be implemented on a quarterly basis as shown in the bar chart below:

Table 15: Proposed Project Scheduling

S No.	Project Components	Q1	Q2	Q3	Q4
1	Streetscape Improvement of Ekoshim Road				
2	Junction Improvement				
3	Development of Jetty Terminal Building and Associated Area				
4	Development of Kayaking Jetty				

6.3 Operation and Maintenance

After completing the project construction within a maximum duration of 12 months, TEDMA will be responsible for the operation and management of the project area for a minimum period of 60 months (5 years). If TEDMA completes development and construction before the stipulated 12-month period, it can commence operations. Following 60 months of operation and management of the experience area, GTDC may consider renewing the O&M contract with TEDMA for a mutually agreed-upon period.

During the operation and maintenance phase, TEDMA shall be responsible for overall management of the project which includes but not limited to recruitment and training of Human Resources, providing technical services for O&M of experience, Equipment O&M, Maintenance, Marketing and promotion of the project and destination, Sales, Revenue Collection, others. The roles and Roles and Responsibilities of TEDMA during the project Operations and Maintenance phase are listed in Annexure G.

TEDMA shall ensure proper functioning and regular maintenance of common public areas including the public areas in proposed jetty terminal building, public green areas, infrastructure associated with kayaking and cycling tours, etc. Both online and offline ticketing of kayaking and cycling tours, hiring of appropriate staff for operating these tours and skilling and capacity building of these staff if required will be the responsibility of TEDMA. The proposed restaurant/ café, jetties for operation of yacht tours, souvenir shops, although developed by TEDMA, can be rented out to other private operators by TEDMA. Following tentative **recurring maintenance and operating activities** are envisioned as part of the experience:

Table 16: List of Probable Operation and Maintenance Activities at the Experience Area

S. No.	Type of Operating and Maintenance Activities	Envisioned O&M Agency
1	Operation and Maintenance of public infrastructure facilities within the experience area including pedestrian pathways, signages and information boards, benches, public toilets, etc.	TEDMA, Overlooked upon by DMC
2	Operation and Maintenance of Street infrastructure including EV charging points	TEDMA, Overlooked Upon by DMC
3	Operation and Maintenance of Infrastructure associated with Kayaking and Cycling Activities	TEDMA, Overlooked Upon by DMC

S. No.	Type of Operating and Maintenance Activities	Envisioned O&M Agency
4	Maintenance of publicly accessible areas and landscaped areas within the Jetty Terminal Building	TEDMA, Overlooked Upon by DMC
5	Operation and Maintenance of Jetties developed for yacht tours	TEDMA, Overlooked Upon by DMC
6	Regular Maintenance of CCTV infrastructure	TEDMA, Overlooked Upon by DMC
7	Waste Management at the project Area	TEDMA, Overlooked Upon by DMC
8	Marketing and Advertising of the Experience	TEDMA, Overlooked Upon by DMC
9	Regular Skilling and Capacity Building	TEDMA in Convergence with National Schemes in association with the government institutes around the site

To balance the targeted O&M Activities and expenses the following **Revenue Sources** are envisioned for Development of Porvorim Creek Experience:

- Ticketing Charges of Kayaking Tours
- Revenue from Cycle Rentals
- Revenue from Cycling Tours
- Parking Charges
- Rental from Food Kiosks/ Restaurant/ Café and Souvenir Shop
- Rental Income from operators using Jetty for Yacht tours

6.4 Minimum Development Obligations to be funded by TEDMA

To create and promote Porvorim Creek Experience, TEDMA shall undertake various aspects and activities using its own funding. The Minimum Development Obligations to be undertaken by TEDMA with its own funding are outlined below.

- **Provision of Infrastructure and facilities:** All the necessary Infrastructure, Interiors, Furnishings, Consumables, Peripherals, Fixtures, others required to make the experience fully operational and continued operation and management.
- **Provision of Cruise Experience Infrastructure:** Provide minimum infrastructure facilities to ensure smooth functioning of the cruise experience for tourists. Collaborations should be made with licensed vendors that have the necessary vessels and equipment to operate the cruise experience from Jetty Terminal Building and Kayaking at Ekoshim road.
- **Provision of Infrastructure to support bicycling and kayaking tours:** Provide infrastructure for initiating cycling and kayaking tours in the region, including spaces for cycle rentals, points for boarding and disembarking for kayaking tours, etc. along with a service point. Collaborations should be made with a licensed vendor for operation of the experience.
- **Staff deployment:** Engage licensed professional service and activity operators, experts to support in design, development, operations and management of the experience and sufficient staff for administration, operation and maintenance of every component of the experience.

- **Marketing and promotion of the experience:** Develop and Maintain website and social media handles for the experience area, organise events, festivals, marketing Porvorim Creek Experience through different platforms at the local, regional, and national levels.
- **Capacity building and skill development** for staff through organising capacity building and training activities in various tourism promotion-related areas such as Navigation and seamanship, Safety Protocols and Emergency Response, Technical Equipment Operation, communication skills, customer service excellence, culinary training, Hospitality, linguistic training, crisis management, others.
- **Tourist Feedback:** Obtain customer feedback from at least 15% of the total Tourists visited the experience area every month. Install and maintain QR codes within the experience area to record user feedback and tourist surveys. Promote QR feedback codes through social media, website.
- **General Operations:** Payment of Utility charges, applicable taxes on time; Timely payment of wages to staff; Provide uniform Provide uniforms for the staff to ensure a professional and consistent appearance.
- **Safety and security:** Provide and operate surveillance system, a first aid and medical room, and security personnel available 24x7.
- **General Repairs & Maintenance**
- Consumable for Upkeep, Inventory; Upkeep of landscaped area, entire experience area; Maintain and ensure the proper functioning of infrastructure within the project area.
- **Compliance with Regulations:** Ensure compliance with all relevant laws and regulations governing tourist activities in Goa.

The performance of TEDMA with regard management of the entire project will be evaluated by a Professional Agency on defined service levels of the TEDMA as detailed in Section 6.3. The Professional Agency will submit periodic reports to Destination Management Organisation (DMO) and GTDC. In case of breach of service levels of the TEDMA, penalties will be imposed on TEDMA.

6.5 Service Level Benchmarks and Performance Monitoring for TEDMA

The table below outlines the defined service levels for TEDMA's operation and management in various areas. These service level indicators serve as performance parameters to measure TEDMA's service quality, with associated penalties for any failure to meet the specified standards. The Service Level Requirements are established based on various minimum development obligations that TEDMA must undertake for the operation and maintenance of the Porvorim Creek Experience.

Table 17: Service Level Requirements for TEDMA in O&M of Porvorim Creek Experience

S. No.	Parameter	Service Level	Frequency	Evaluation Type i. Self (Record Keeping) ii. Automated iii. Independent Agency (IA)	Penalty for Non-Compliance
1	Cleanliness and Hygiene of Toilets and Changing Rooms	Dry washrooms; hygienic; non-stinking; water available	Ongoing (Regular)	1. QR-based automated feedback (scale of 1-5) 2. Random checks by IA	Monthly average rating <3: Rs.25,000 penalty up to 2 months >3 & <4: Rs.5000 penalty and warning letter <3 consecutively for 3 months: Event of default/Termination
2	Services availability	Water 24/7; Power 24/7; Sewage: non-leaking/non-stinking; Solid water: clean and emptied regularly	Ongoing (regular)	1. QR-based automated feedback (scale of 1-5) 2. Complaint register 3. Random checks by IA	Downtime only on pre-intimated scheduled maintenance times >10 complaints a month (verified by IA): Rs. 25,000 penalties >15 complaints a month for two consecutive months: Event of default/termination
3	Upkeep of landscaped area and pathways	Streetlights (no. of lights non-functional) Condition of benches (color, stability)	Ongoing (regular)	1. QR-based automated feedback (scale of 1-5) with photos 2. Complaint register 3. Random checks by IA	<5 complaints a month: No penalty; Warning issued. 5-10: Rs. 5000 per month >10: Rs.25,000 per month (Multiple complaints on single day considered as one complaint)

Detailed Project Report – Package 1
Porvorim Creek Experience

S. No.	Parameter	Service Level	Frequency	Evaluation Type i. Self (Record Keeping) ii. Automated iii. Independent Agency (IA)	Penalty for Non-Compliance
					>15 complaints a month for two consecutive months: Event of default/termination.
4	Upkeep of Built Structures and allied infrastructure	Condition of the project components built as part of experience and as per O&M Manual	Quarterly	Self - Status reports by TEDMA Scheduled visits by IA/SIA/DMO	Rs. 25,000 for any unrepaired damage and non-compliance with maintenance manual. (Per quarter) Defaults for two consecutive quarters – Event of default/termination
5	Arrival and Traffic management at arrival area/ Overall tour experience	Scale of 1-5 Quality of experience; waiting times; TAT at reception; etc	Ongoing (regular)	1. QR-based automated feedback (scale of 1-5) 2. Complaint register 3. Feedback kiosk	Rs. 25,000 for monthly average rating of <4 Rs.50,000 for monthly average rating of <3 <3 consecutively for 3 months: Event of default/Termination
6	Information, Signage & Wayfinding	Scale of 1-5	Ongoing (regular)	1. QR-based automated feedback (scale of 1-5) 2. Complaint register 3. Feedback kiosk 4. Weekly reports by TEDMA	Rs. 5,000 for monthly average rating of <4 Rs. 10,000 for monthly average rating of <3 <3 consecutively for 3 months: Event of default/Termination
7	Safety/Security	No. of incidents (minor; major) Availability of first-aid kits (info signboards) Availability of ambulance on call (info signboards)	Ongoing (regular)	Incidents to be reported by the effected parties and by the TEDMA on a monthly basis. Unavailability of boards	>2 minor incidents; 1 major incident per month: Rs. 25,000 penalties >4 minor incidents and >2 major incidents: Event of default/termination Rs. 5000 penalties for not maintaining sign boards
8	Experience Website	Regular up dation of information. seamless ticket booking; outreach; Downtime	Regular (ongoing)	ne complaints received. Random checks by IA	Rs. 2,000 for each instance of unavailability (downtime) Rs.10,000 for poor quality (based on IE report)

S. No.	Parameter	Service Level	Frequency	Evaluation Type <i>i. Self (Record Keeping)</i> <i>ii. Automated</i> <i>iii. Independent Agency (IA)</i>	Penalty for Non-Compliance
9	Marketing/Promotion	Increase in footfalls; Share of domestic and foreign tourists; increase in footfall; experience promotion on different platforms	Monthly	TEDMA monthly reports on activities. IA checks	IA review report basis which penalties or warning letters may be issued

07

FINANCIAL FEASIBILITY

7. FINANCIAL FEASIBILITY

The capex would be funded under Swadesh Darshan 2.0 scheme funds and the construction, Operation, Maintenance and Management shall be undertaken by the Private Agency, that would be claimed as TEDMA (Tourism Experience Development and Management Agency).

7.1 Tourist Footfall Projection

Tourist footfall at the experience area is calculated based on the following understanding and assumptions.

A. Tourist from nearby tourist attractions, i.e., Dr. Salim Ali Bird Sanctuary and Houses of Goa Museum – owing to the proximity of the site to the experience area, an incremental share of tourists from 20% - 30% in a span of 5 years has been considered to come to the experience area.

Note: It is assumed that the growth of tourist footfall at these attractions will be based on the CAGR of Goa, i.e., 14.16%

Table 18: Increase in Tourist Footfall at Attractions around experience area from 2023 - 2029

Attractions/Year	2023	2024	2025	2026	2027	2028	2029
Salim Ali Bird Sanctuary	14,700	16,782	19,158	21,871	24,967	28,503	32,539
House of Goa Museum	35,548	40,581	46,327	52,887	60,376	68,925	78,685
Panjim	6,88,000	7,85,421	8,96,636	10,23,600	11,68,542	13,34,007	15,22,903

Table 19: Total Tourists visiting the Experience Area from nearby tourist attractions

Tourist footfall from nearby Destination	20%	20%	20%	25%	25%	30%
Captured Tourists from Dr. Salim Ali Bird Sanctuary (20% - 30%)	3,356	3,832	4,374	6,242	7,126	9,762
Captured Tourists from Houses of Goa Museum (20% - 30%)	8,116	9,265	10,577	12,075	13,785	15,737
Total Tourist Footfall from nearby Attractions (A)	11,473	13,097	14,952	18,317	20,911	25,499

B. Exploratory Tourists from Panjim – In addition to it, a minimal number of tourists, i.e. around 5%, visiting Panjim, are considered to come to the site, to explore the activities proposed within the experience area

Table 20: Share of Total Tourists from Panjim, Visiting the Experience Area

Year	2024	2025	2026	2027	2028	2029
Panjim	7,85,421	8,96,636	10,23,600	11,68,542	13,34,007	15,22,903
% Share of Tourist Footfall from Panjim, Visiting the Experience	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%
Expected Tourist Footfall within Experience Area from Panjim (B)	39,271	44,832	51,180	58,427	66,700	76,145

C. Natural Increase in tourist footfall due to following factors:

- a. Ease of Movement and Connectivity to the Site (1%)
- b. Development of Activities and Amenities at the experience area
 - i. Activities (1%)
 - ii. Infrastructure Provision for Cycling and Boating (1%)
 - iii. Basic facilities like café, restaurant, water, and sanitation facilities (1%)
- c. Branding and Promotion (5%)

Table 21: Expected increase in tourist footfall at the experience area due to factorial accountings

Factor/ Year	2024	2025	2026	2027	2028	2029
Total Tourist Expected at the Experience Area from nearby attractions and Panjim (C = A+B)	50,744	57,929	66,132	76,744	87,611	1,01,644
Ease of Movement/Connectivity (Junction Improvement) (1% of C)	507	579	661	767	876	1,016
Adding activities to the Existing Experience (3% of C)	1,522	1,738	1,984	2,302	2,628	3,049
Branding & Promotion (5% of C)	2,537	2,896	3,307	3,837	4,381	5,082
Total tourists within the experience area due to Factorial accountings (D)	4,567	5,214	5,952	6,907	7,885	9,148

Total Tourists Expected for Porvorim Creek Experience

The total number of tourists expected at within the experience area, shall be a total of all the above-mentioned parameters and assumptions.

Table 22: Total Tourists Expected for Porvorim Creek Experience

Factor/ Year	2024	2025	2026	2027	2028	2029
Total Tourist Footfall from nearby Attractions (A)	11,473	13,097	14,952	18,317	20,911	25,499
Expected Tourist Footfall within Experience Area from Panjim (B)	39,271	44,832	51,180	58,427	66,700	76,145

Factor/ Year	2024	2025	2026	2027	2028	2029
Total tourists within the experience area due to Factorial accountings (D)	4,567	5,214	5,952	6,907	7,885	9,148
Total Tourists Footfall Expected Within the Experience Area (A + B + D)	55,310	63,142	72,083	83,651	95,496	1,10,792

All the revenue calculations for Porvorim Creek Experience are based on this expected tourist footfall.

7.2 Revenue Sources

The revenue streams identified based on the activities expected as per the design specifications and proposed activities, same shall be operate, maintain, and manage by the private agency, these are as follows:

1. Revenue from e – Buggies (EV Transit)
2. Rental Income from operators using jetty for yacht tours
3. Revenue share from kayaking
4. Revenue Share from cycling tours and bicycle rentals
5. Vehicular Parking Charges
6. Rentals from Restaurant/ Café, Shops
7. User fee for Locker Facilities
8. Revenue from Water ATM

The revenue projection over the next 5 years after the completion of experience development has been undertaken accounting the escalation and general assumptions based on the footfall projection and percentage of footfall engagement in different activities within the experience area.

7.3 Revenue Estimation

Basis the components outlined in the Porvorim Creek Experience and considering the estimated annual footfall, the revenue for the operation and maintenance phase over the five years is estimated.

As shown in Table, the total estimated revenue from the Porvorim Creek Experience during the second year, i.e., the first year of operation and maintenance, is INR 72,53,526 which will increase to INR 1,24,00,780 by the 5th year. In the initial year, the revenue obtained from the rentals of the restaurants, yacht parking, constitutes the highest source of revenue, i.e., 43% of the entire estimated revenue, followed by revenue from kayak rides (27% of the total estimated revenue). Other major sources of revenue include rental from usage of jetty for yacht tour operations, rental from bicycle rides, buggy rides, and vehicular parking. Please refer to table for the details of source-wise revenue to TEDMA during the operation and maintenance phase

Table 23: Estimated revenue to TEDMA from the Porvorim Creek Experience during the operation and management phase

Revenue Head	Basis of Assessment	Units	Price per unit (in INR)	Revenue share to TEDMA	Basis for escalation	Year 2 (Revenue in INR)	Year 3 (Revenue in INR)	Year 4 (Revenue in INR)	Year 5 (Revenue in INR)	Year 6 (Revenue in INR)
Revenue from Buggy rides (EV Transit)	Number of tourists for experience; average price per unit; revenue share for TEDMA	11,062 Tourists	INR 150/ Tourists	30%	5% every year	5,96,696	7,15,248	8,71,530	10,44,685	12,72,613
Revenue from Kayak rides (includes EV Buggy ride)	Number of tourists for experience; average price per ride; revenue share for TEDMA	5,531 Tourists	INR 1,000/ Tourists	30%	5% every year	19,88,987	23,84,158	29,05,099	34,82,284	42,42,044
Revenue from cycle rides	Number of tourists for experience; average price per ride; revenue share for TEDMA	5,531 Tourists	INR 200/ Tourists	40%	5% every year	5,30,396	6,35,776	7,74,693	9,28,609	11,31,212
Yacht parking rental	Number of yacht capacity for parking; rental per month; 6 yacht parking rentals from 5th year	5 Yacht	INR 20,000/ Yacht		5% every year	12,60,000	13,23,000	13,89,150	17,50,329	18,37,845
Revenue from Water ATM	Number of tourists using water; charge per use	13,828 Tourists	INR 10/ Tourists		2% every year	1,61,013	1,87,489	2,21,928	2,58,420	3,05,805
Rentals from Souvenir Shop	Total Sq ft Available; Rentals per Sq ft	218 Sq. ft.	INR 40/ Sq ft.		5% every year	1,09,872	1,15,366	1,21,134	1,27,191	1,33,550
Rentals from Restaurant	Total Sq ft Available; Rentals per Sq ft	2,995 Sq. ft.	INR 50/ Sq. ft.		5% every year	18,86,850	19,81,193	20,80,252	21,84,265	22,93,478
Rentals from Shops	Number of Kiosk; Rental per Kiosk	2 Shops	INR 7,500/ Shop		5% every year	1,89,000	1,98,450	2,08,373	2,18,791	2,29,731
Parking Charges	Number of 2W/ Cars/ Buses Per Month; 0 - 3 Hrs More than 3 Hrs Charges for Each Category	-	-		Tourists: Price to increase 2% each year					
	0 - 3 Hr - 60%									
	2W	10,620 2W	INR 10/ Vehicle		-	1,23,658	1,43,991	1,70,441	1,98,467	2,34,860
	Cars	1,770 Cars	INR 25/ Vehicle		-	51,524	59,996	71,017	82,694	97,858
	More than 3 Hr - 40%									
	2W	7,080 2W	INR 20/ Vehicle		-	1,64,878	1,91,989	2,27,254	2,64,622	3,13,147
Cars	1,180 Cars	INR 50/ Vehicle		-	68,699	79,995	94,689	1,10,259	1,30,478	
Locker Facility	Number of users to use locker facility; price per usage	5,531 Tourists	INR 20/ Tourists		10% every year	1,21,683	1,33,851	1,47,236	1,61,960	1,78,156
Total Revenue Generated (in INR)						72,53,256	81,50,502	92,82,797	1,08,12,577	1,24,00,780

7.4 Identified Areas of Expenditure

The expenditure streams are identified based on elements required to operate, maintain and manage the Beach Experience, considering the after-development scenarios. The escalation of the yearly expenditure streams is 5% or 10%, considered around the rate of inflation or double of rate i.e., 5.69% in December 2023 (Government of India, GOI).

- **Overall Maintenance Expenses** - 5% of the overall Capex of the project
- **Administrative Expenses**
- **Marketing Expenses** - 5% of the overall revenue
- **Utility Expenses** - Development of the experience would require the basic utility like water supply, sanitation facilities, solid waste management & power supply.

7.4.1 Manpower Expenses

Table 24: Manpower Expenses for the Beach Experience

Manpower Requirements	No. of Manpower (Operator Level)	Salary (INR per Month)	No. of Manpower (Supervisor Level)	Salary (INR per Month)	Total Annual Salary (INR)
Landscaping	2	20,000	-	-	4,80,000
Security; Parking	5	18,000	-	-	10,80,000
Housekeeping (Hygiene and Cleanliness)	4	15,000	-	-	7,20,000
Administration	3	25,000	1	50,000	19,20,000
Total No. of Manpower	14		1		
Annual Salary (Total Manpower Expenses)					42,00,000

The total Manpower is 15 persons & the total staff expenditure is estimated as 42 Lakhs per annum (per person monthly salary is consider including all the applicable extra payables to individual).

7.5 Estimated Expenditure

Basis the components outlined in the Porvorim Creek Experience, the expenditure for the operation and maintenance of the experience is estimated considering the overall maintenance, manpower expenses, expenses towards infrastructure maintenance.

As indicated in Table, the overall expenditure for the Porvorim Creek Experience in Year 2, i.e., the initial year of operation and maintenance, is estimated to be Rs. 69,67,049, with a projected increase to Rs. 81,56,538 by Year 6. In Year 2, approximately 62% of the total estimated expenditure is allocated to manpower costs. Other significant expense categories include overall maintenance, administrative expenses, and marketing, alongside expenditures related to infrastructure and utility maintenance.

Table 25: Estimated expenditure to TEDMA from the Porvorim Creek Experience during the operation and management phase

S. No.	Expenditure Item	Escalation per Annum	Year 2 (Expenditure in INR)	Year 3 (Expenditure in INR)	Year 4 (Expenditure in INR)	Year 5 (Expenditure in INR)	Year 5 (Expenditure in INR)
1	Overall Maintenance Expense	5%	15,13,642	15,89,324	16,68,790	17,52,230	18,39,841
2	Manpower Expenses	3%	43,26,000	44,55,780	45,89,453	47,27,137	48,68,951
3	Power Expenses	5%	1,26,000	1,32,300	1,38,915	1,45,861	1,53,154
4	Administrative Expenses	7.5%	6,45,000	6,93,375	7,45,378	8,01,281	8,61,378
5	Marketing Expenses	5%	2,04,157	2,14,365	2,25,083	2,36,337	2,48,154
6	Sewerage Maintenance Expenses	5%	26,250	27,563	28,941	30,388	31,907
7	Waste Management Expenses	5%	1,26,000	1,32,300	1,38,915	1,45,861	1,53,154
Total Expenditure (in INR)			69,67,049	72,45,006	75,35,475	78,39,094	81,56,538

Note: TEDMA Margin is not considered

7.6 Project Cash flow of the Gorge Experience

Considering the estimated revenue and expenditure for the Porvorim Creek Experience, the Operational Cost and Revenue details for Operation & Management Phase (Year 2 to Year 6) are shown in table below.

Table 26: Operational Cost & Revenue for TEDMA for Porvorim Creek Experience

S No.		Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
		Development and Construction	Operations & Management (All numbers in Indian Rupees)				
1	Revenues		72,53,256	81,50,502	92,82,797	1,08,12, 577	1,24,00, 780
2	Operational Expenditure*		69,67,049	72,45,006	75,35,475	78,39,094	81,56,538
3	Expected Cash Flow (Surplus / Deficit)		2,86,207	9,05,496	17,47,322	29,73,483	42,44,242
	Net Cash Flow		1,01,56,750				

Note*: TEDMA Margin and annual fee to be given by TEDMA to GTDC and DMO are not considered in Operational Expenditure

As shown in Table, TEDMA will not incur a deficit in the initial year (Year 2) of operation and management. The net cash flow for the five years of operation and maintenance is calculated as INR 1,01,56,750. However, it should be noted that the expenditure items such as TEDMA margin, annual fee to be given by TEDMA to GTDC and DMO are not considered.