

Study Towards Delineation of Areas Eligible for Developing Tourism Facilities in the State of Kerala

Final Report

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ENVIRONMENTAL SAFEGUARDS FOR ECOLOGICALLY SENSITIVE AREAS

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ABBREVIATIONS AND DEFINITIONS

BRDC	Bekal Resorts Development Corporation
CRZ	Coastal Regulation Zone
CVCA	Critically Vulnerable Coastal Area
CZMP	Coastal Zone Management Plan
DoT	Department of Tourism
DTPC	District Tourism Promotion Council
EPA	Environmental Protection Act
ESA	Ecologically Sensitive Area
GIS	Geographical Information System
GoI	Government of India
GoK	Government of Kerala
GPS	Geographical Positioning System
HTL	High Tide Line
MOEF&CC	Ministry of Environment, Forest and Climate Change
NCESS	National Centre for Earth Science Studies
NCSCM	National Centre for Sustainable Coastal Management
NDZ	No Development Zone
SoI	Survey Of India





The Indian constitution makes environmental protection an explicit duty for every citizen by the statement, "*It shall be duty of every citizen of India to protect and improve the environment including forests, lakes, rivers, wild life, etc. and to have compassion for living creatures*". In continuation to above, Government of India (GoI) has laid out various policy guidelines, acts, and regulations pertaining to sustenance of environment. Following this, several legislations such as The Water (Prevention and Control of Pollution) Act, 1974 and The Air (Prevention and Control of Pollution) Act, 1981 were enacted. But the need for general legislation had become increasingly evident. GoI enacted the Environment Protection Act, 1986 under Article 253 of the Constitution, which was passed by Parliament of India on 23rd May, 1986; it came into force on 19 November 1986. The EP Acts and Rules substantially empowers the Centre [the concerned ministry being the Ministry of Environment and Forests & Climate Change (MoEF&CC)] to take actions 'for the purpose of protecting and improving the quality of the environment and preventing, controlling and abating environmental pollution'.

EP Act, 1986 is the umbrella Act enables the central government to take measures it deems necessary to protect and improve the environment and to prevent, control and abate environmental pollution. A wide range of rules and notifications have been adopted under it, such as the:

e-waste (Management) Rules, 2016, as amended in 2018 (*e-waste* Rules);
Bio-Medical Waste Management Rules, 2016;
Plastic Waste Management Rules, 2016;
Construction and Demolition Waste Management Rules, 2016;
Hazardous and Other Waste (Management and Trans boundary Movement) Rules, 2016 as amended in 2019 (HW Rules);
Manufacture, Storage and Import of Hazardous Chemicals Rules, 1989 (MSIHC Rules);
Wetland Conservation Act, 2017,
Environment Impact Assessment (EIA) Notification 2006. and
Coastal Regulation Zone (CRZ) Notification, 2019

For the protection of the diverse and unique ecology along the coastal and tidally influenced water bodies, CRZ Notification was enacted under provisions of Section 3(1) and Section 3(2)



(v) of the Environment (Protection) Act, 1986 in the year 1991. The notification has undergone periodic improvements and is being superseded by the CRZ Notification issued vide Notification No. G.S.R. 37(E), dated the 18thJanuary 2019. The recent notification provides provisions for development of tourism activities along CRZ influence area which are identified by the respective State /UTs after incorporating in the CZMPs and aproved by MoEF&CC.

On the above background, Government of Kerala (GoK) intends to integrate the provisions of CRZ Notification, 2019 with delineation of designated tourism areas falling within CRZ for the State of Kerala. Presently, the approved CZMP for the State of Kerala is available in line with CRZ Notification, 2011 which will be taken as the base map and NCESS, Thiruvananthapuram will prepare the CZMP updated as per the latest notification. It is required that the geographic coordinates of the designated tourism areas to be shared to NCESS for integration with the CZMP which shall be undertaken through a consultative process and reconnaissance surveys along the Coastal belt of Kerala. On this background , Department of Tourism has entrusted KTIL and subsequently KITCO through Work Order - 259-18/KTIL/CZMP-Tourism/252-19 dated 4.10.2019. The present report is the draft report of the assignment and incorporates the project background, objectives, scope, methodology, final lists of tourism locations identified and environmental safeguards to be adopted in these locations.

The major output of the project is the GIS file showing the areas delineated for tourism activities along the Kerala Coast. The same is presented as **Volume II** of this report.





PROJECT BACKGROUND, OBJECTIVE & SCOPE OF WORK

2.1. Project Background

Kerala, a state located on the tropical Malabar Coast of south-western India is one of the most popular tourist destinations in the country. Its unique culture and traditions, coupled with its varied demography, has made Kerala one of the most popular tourist destinations in the world. The state's tourism agenda promotes ecologically sustained tourism, which focuses on the local culture, wilderness adventures, volunteering and personal growth of the local population. Flanked on the western coast by the Arabian Sea, Kerala has a long coastline of around 590 km from Kanwatheertha beach in the north to Poovar beach in the south; the state is blessed with serene and pristine beaches brimming with tourism activities and potential for future developments.

Kerala is also famous for its beautiful backwaters. Coastal belt of the State is criss crossed by a network of interconnected brackish canals, lakes and estuaries known as the Kerala Backwaters. The network includes five large lakes linked by canals, both man-made and natural, fed by 38 rivers and extending virtually half the length of Kerala state. These backwaters have a unique ecosystem rich in biodiversity; freshwater from the rivers meets the seawater from the Arabian Sea. The state's largest backwater system - Vembanad lake lies between Alappuzha, Kottayam and Ernakulam districts and is about 2033 km² in area with a length of 96.5 km. Vembanad lake, Ashtamudy and Sasthamkotta lake in Kollam districts are are included in the list of wetlands of international importance as per Ramsar Convention for the conservation and sustainable utilization of wetlands. National Waterway 3 from Kollam to Kottapuram passing through the backwater network covers a distance of 205 km and runs almost parallel to the coastline of southern Kerala facilitating both cargo movement and backwater tourism. All of these features grant the Kerala Coast vitality in the tourism sector of the state. **Table 2.1** shows the length of the coastal stretches across the various districts.

Table 2.1.Length of Coastal Stretches of Districts of Kerala

S.No	District	Length of Coast	Percentage of the Total
1.	Trivandrum	78	13.22
2.	Kollam	37	6.27
3.	Alappuzha	82	13.9



S.No	District	Length of Coast	Percentage of the Total
4.	Ernakulam	46	7.8
5.	Thrissur	54	9.15
6.	Malappuram	70	11.87
7.	Calicut	71	12.03
8.	Kannur	82	13.9
9.	Kasargod	70	11.86

While sandy beaches and extended backwater system offers immense potential for tourism the areas being tidally influenced areas, the locations are part of unique ecosystem warranting much attention. In regions of vast tourism potential and ecological importance, the regulation of tourism activities from an environmental perspective is essential to ensure sustainability.

CRZ Notification, came to effect on 20th Februay, 1991 imposing restrictions on industries, operations and processes. The main objectives of the CRZ Notification are:

To ensure livelihood security to the fishing communities and other local communities living in the coastal areas;

To conserve and protect coastal stretches and;

To promote development and sustainable manner based on scientific principles,

taking into account the dangers of natural hazards in the coastal areas and sea level rise due to global warming.

A revised notification came in to force on , 2011. This notification reconciles three objectives as follows:

Protection of livelihoods of traditional fisher folk communities;

Preservation of coastal ecology; and

Promotion of economic activities that have necessarily to be located in coastal regions.

The notification has undergone periodic improvements and being superseded by the CRZ Notification issued vide Notification No. G.S.R. 37(E), dated the 18thJanuary 2019. The CRZ notification, 1991 and its subsequent amendments plays a key role in regulating the activities along coastal stretches to minimize damage to coastal ecosystems.

In accordance with para (6) of the CRZ Notification, 2019, every coastal State Governments and Union territory (UT) Administrations are entrusted with revision or updation of CZMPs of their respective State or UT as per the provisions contained in the CRZ Notification, 2019. In addition, tourism plans are to be formulated by each state and integraed in the CZMP to be approved by MoEF&CC so as to make provisions for sustainable tourism activities along the



coastal and inland stretches for regions falling under the purview of the CRZ Notification, 2019. Incorporating the existing and proposed tourism locations as part of the tourism plan within the CZMP thus became quiet essential for Kerala, with most of tourism activity concentrated along the coastal stretches.

In line with CRZ Notification, 2011, Government of Kerala (GoK) has prepared the CZMP of Kerala through the National Centre for Earth Science Studies (NCESS), Thiruvananthapuram and was approved by the MoEF&CC. For the updation of CZMP as per the CRZ notification dated 18th January 2019, MoEF&CC has issued Guidelines. The guideline makes directions to be followed for the preparation of CZMP as follows:

All coastal States and Union territory administrations shall update their respective CZMPs (which was prepared based on the CRZ Notification, 2011), as per the provisions contained in the CRZ Notification, 2019, and after its updation and finalization following due procedures shall submit to the MoEF&CC for its final approval at the earliest.

The CZMP shall be updated or revised by any of the authorized agencies identified by the MoEF&CC, using the demarcation of the High Tide Line (HTL), Low Tide Line (LTL), Environmental Sensitive Area (ESA), Critically Vulnerable Coastal Areas (CVCA) as carried out by National Centre for Sustainable Coastal Management (NCSCM), Chennai and Hazard line as demarcated by the Survey of India (SoI).

The coastal states and union territories shall prepare draft CZMP on 1:25,000 scale identifying and classifying the CRZ areas within their respective territories in accordance with the guidelines given in Annexure - IV to the CRZ Notification, 2019.

The comparison of the salient features of CRZ notifications 2011 and 2019 is as shown below.

Zones as per CRZ Notification 2011	Features	Zones as per CRZ Notification 2019	Features
1-A	Critically vulnerable areas like	1-A	Critically vulnerable areas
	mangroves, turtle nesting		like mangroves, turtle
	zones, etc.		nesting zones, etc.
1-B	Area between HTL and LTL	1-B	Area between HTL and LTL
II	Developed area in Municipal	II	Developed area in Municipal
	limits		limits
	CRZ limit 500m		CRZ limit 500m
III	Rural Area- Panchayat limits	III-A	Rural Area - Panchayat
	CRZ limit -500m		limits – CRZ limit - 500m

Table 2.2.CRZ Notification 2011 and 2019 - Salient Features



Zones as per CRZ Notification 2011	Features	Zones as per CRZ Notification 2019	Features
	NDZ of 200m from HTL- No construction permitted up to 200 m Regulated activities beyond 200 m up to 500 m	III-B	Ares where population density greater than 2161 per square kilometer, NDZ of 50m from HTL- No construction permitted up to 50m with special provisions for temporary tourism facilities. Regulated activities beyond 50m up to 500m Rural Area- Panchayat limits –Population density less than 2161 per square kilometer CRZ limit -500m NDZ of 200m from HTL- No development permitted up to 200m with special provisions for temporary tourism facilities. Regulated activities beyond 200m up to 500m
IV	The water area from the Low Tide Line to twelve nautical miles on the seaward side; shall include the water area of the tidal influenced water body from the mouth of the water body at the sea up to the influence of tide which is measured as five parts per thousand during the driest season of the year	IV- A IV - B	The water area from the Low Tide Line to twelve nautical miles on the seaward side The tidally influenced water body from the mouth of the water body at the sea up to the influence of tide which is measured as five parts per thousand during the driest season of the year
CRZ limit along tidally influenced bodies	100 m or width of creek	CRZ limit along tidally influenced bodies	50 m or width of creek
CRZ limit for Backwater islands	50 m Jotification 2011 and 2019	CRZ limit for Backwater islands	20 m

Source: CRZ Notification, 2011 and 2019



2.2. Tourism Provisions as per CRZ Notification, 2019

The important clauses as per the CRZ Notification, 2019 which states the tourism provisions in the vrious CRZ areas and permissible activities within these zones are presented in **Table 2.3**.

Sl No	Important Clauses as per CRZ Notification 2019	Tourism Provisions and Permissible Activities in Zones							
1.	Clause 5.1.1 (i) Provisions for CRZ 1-A	Eco-tourism activities such as mangrove walks, tree huts, nature trails, etc., in identified stretches areas subject to such eco-tourism plan featuring in the approved CZMP as per this notification, framed with due consultative process, public hearing, etc. and further subject to environmental safeguards and precautions related to the Ecologically Sensitive Areas, as enlisted in the CZMP.							
2.	Clause 5.2 (VI) Provisions for CRZ II Areas	Temporary tourism facilities shall be permissible in the beaches which shall only include shacks, toilets or washrooms, change rooms, shower panels; walk ways constructed using interlocking paver blocks, etc, drinking water facilities, seating arrangements, etc. and such facilities shall however be permitted only subject to the tourism plan featuring in the approved CZMP as per this notification, framed with due consultative process or public hearing, etc. and further subject to environmental safeguards enlisted in the CZMP, however, a minimum distance of 10 meter from HTL shall be maintained for setting up of such facilities.							
3.	Clause 5.3. (II). (f) Provisions for CRZ III with NH/SH passing through NDZ	Wherever there is a national or State highway passing through the NDZ of CRZ-III areas, temporary tourism facilities such as toilets, change rooms, drinking water facility and temporary shacks can be taken up on the seaward side of the road. On landward side of such roads in the NDZ, resorts or hotels and associated tourism facilities shall be permitted and such facilities shall, however, be permitted only subject to the incorporation of tourism plan in the approved CZMP as per this notification.							
4.	Clause 5.3. (II). (g) Provisions for CRZ III areas	Temporary tourism facilities shall be permissible in the NDZ and beaches in the CRZ-III areas and such temporary facilities shall only include shacks, toilets or washrooms, change rooms, shower panels, walk ways constructed using							

Table 2.3	Important Clauses as Per CRZ Notification, 2019 W.R.to Provisions for
	Tourism Activities



Sl No	Important Clauses as per CRZ Notification 2019	Tourism Provisions and Permissible Activities in Zones
		interlocking paver blocks, etc, drinking water facilities, seating arrangements etc., and such facilities shall, however, be permitted only subject to the tourism plan featuring in the approved CZMP as per this notification subject to maintaining a minimum distance of 10 meters from HTL for setting up of such facilities.

Source: CRZ Notification, 2019

2.3. Objective of Present Study

The objective of the subject work is the delineation of areas eligible for developing tourism facilities in the state of Kerala in line with the CRZ Notification, 2019.

2.4. Scope of Work

The scope of work for the study is briefed in the section below:

Collection and review of approved CZMP for the state of Kerala.

Collection and review of the Resource Plans/ other similar documents as may be applicable for the Coastal Panchayaths/ other Municipal bodies falling in CZMP and delineation of areas proposed for tourism activities,

Identification of coastal Panchayaths/Other municipal bodies from maps available and form satellite imageries (Bhuvan Panchayath/ Google Earth imagery)

Compilation of observations and presentations before KTIL, finalization of areas to be considered as tourism areas in CZMP.

Collection of data through interaction with officials from Department of Tourism, District tourism Promotion Councils (DTPCs), any other specific tourism projects, etc. in the areas covered.

Site visits and boundary demarcation using GPS.

Mapping of existing tourism interventions in the area under consideration. Presentation of details collected from resource plans/ other similar documents and CZMPs and interactions.

Cross checking of the tourism destinations identified by KTIL and respective Panchayaths/ municipal bodies.

Inclusion of any additional tourism destinations identified by DTPC, which is not, included in the Resource plans as highlighted by KTIL.

Reconnaissance survey to the identified locations for the better understanding. A tentative boundary shall be marked during the survey with compilation of primary observation of site. Compilation of the observations with boundary in a map and present to KTIL.



The tourism locations to be included in CZMP shall be confirmed by mutual discussion with KTIL. Comments from KTIL shall be incorporated in the map for preparation of final maps.





DATA REQUIREMENTS AND METHODOLOGY

3.1. Data Requirement

The details identified at the inception stage, which will be utilized for the subject work are as follows:

Approved CZMP of the state of Kerala DPRs and list of locations provided by DTPC.

3.2. Methodology

The systematic approach adopted for the execution of study is presented in Figure 3.1 below.



Methodology adopted is presented in detail in the sections below:



3.2.1. Review of Approved CZMP for the State of Kerala

The approved CZMP as per CRZ Notificaiton, 2011for the State of Kerala in pdf format was provided by KTIL. The CZMPs were reviewed in order to understand the CRZ limit, of each coastal district including the coastal as well as the inland stretches. The CZMPs were converted in to GIS Interface towards onward integration to the updated CZMP in line with CRZ Notification, 2019.

3.2.2. Listing out of Areas Eligible for Tourism Development by DTPC's and Department of Tourism

Primary level discussions were held with department of Tourism, DTPCs of each district, KTIL for understanding the project. The objective of the project, activities to be performed and the final output was detailed through presentations. The probable tourism locations for each district were listed out by the tourism department and DTPCs. The areas included coastal stretches as well as inland stretches of rivers, lakes and backwaters. The lists consisted of existing tourism locations for each district is presented in **Annexure I.**

3.2.3. Detailed Interaction with CorUHVSRQGLQJ'73&\RI(DFK&RDVWDO'LVWULFWIRU,GHQWLI\L Approximate Boundaries of Locations

Primary interaction was followed by detailed discussions at various levels with officials of DTPCs and Department of Tourism at each districts. The locations availed rom DTPC and DoT was studied in detailed and the same was pinned in Google Earth software. Some of the Inland Stretches provided by DTPC was not falling under the CRZ limit and hence the same was omitted from the list.

Detailed interactions were held by KITCO with the DoT and DTPCs for identifying approximate boundary of the stretches identified. The boundaries of beach and inland stretches up to which active tourism take place or is proposed was also identified and marked with the help of Google Earth software.

3.2.4. Reconnaissance Visit to Assess the Areas Available and Identifying Potential for Development as per Secondary Data

Site visits were conducted to the locations/ stretches identified by DTPC/DoT between November, 2019 - January, 2020.

The individual site/stretches were visited with a pre developed checklist indicating major attributes such as geographic coordinates, accessibility, geographic features, existing tourism



facilities, ecological sensitivity, and future prospects which will be critical in defining utilisation of the same as a tourism spot. Database was developed for individual stretches or locations considered with reconnaissance visit, interaction with the local people and referring to various secondary data sources available.

3.2.5 Mapping of Tourism Locations with Identified Boundaries

Based on the reconnaissance visits conducted, extend of the beach stretch as well as the inland stretches which are proposed to be designated are tourism areas were marked in Google Earth.

3.2.6. Interaction with NCESS

NCESS being the nodal agency for preparation of CZMP, an interaction with the Key official of NCESS was carried out on the work progressed, methodology adopted and data based developed for the areas identified. The mapping done in Google Earth in parellel to the database developed was discussed. Concurrence was taken from NCESS for the method adopted and the format of output required to be incorporated in the Final CZMP.

3.2.7. Detailed Interaction with DoT and DTPC to Finalize the Stretches Identified

The initial boundaries of existing and proposed locations marked were presented before Tourism department and NCESS on January 17, 2019. Suggestions were made by Tourism department in the length of the stretches considered and also some additions were made considering the proposed tourism projects.

Based on the detailed discussion, it was decided to present the draft map before the DTPCs of all the districts. Discussions with DTPC's of Thiruvananthapuram and Kannur were on 17.01.2020. Discussion with all DTPCs from all the ten districts was held on February 13, 2019 at Thiruvananthapuram in order to review the draft map prepared. Each district was presented in Google Earth for better understanding of the location. Each DTPC reviewed the locations/ stretches marked and suggestions were made accordingly. A final presentation was made before the Tourism Advisory Committee chaired by the Tourism minister on 27.02.2020 and the recommendations of the Committee were incorporated and the tourism plan was finalized. The landward limit of the proposed locations was fixed as the CRZ limit for coastal stretch as well as inland stretches.



3.2.8. Preparation of Final Report

The final map was prepared based on the discussion with KTIL, DTPCs, and Tourism Department. The Google Earth files prepared after incorporating the additions and suggestions from the concerned departments was converted to GIS platform.

Meanwhile, the approved CZMP of Kerala was also digitized in the GIS platform,. The KML files thus converted has been superimposed into the digitized CZMP. The final map output is in the GIS format ie; shape file format. The maps prepared is presented in **Volume II** of this report. The details of the locations, stretch covered with area for each district is presented in **Chapter 4**.

3.2.9. Creation of Final Map with Delineated Locations and Submission to NCESS to Superimpose With the Draft CZMP of Kerala

The files submitted to KTIL after approval from GoK will be submitted to NCESS, the agency involved in the preparation and updation of the CZMP.

The tourism mapprepared would then be superimposed over the new CZMP to create the tourism plan as per the new notification. As per the procedure, public consultation will be held inorder to finalise thenew CZMP as per the CRZ Notification 2019.

3.2.10. Submission of Prepared maps to GoK for Approval

The final maps prepared by the NCESS would be submitted to the GoK for approval. The Kerala State Coastal Zone Management Authority would then approve the map, which is to be submitted for approval fromMoEF&CC.

3.2.11. Submission of CZMP by GoK to MoEF &CC for Approval

The CZMP prepared by the state is then submitted to MoEF&CC for final approval.





MAPPING OF IDENTIFIED STRETCHES

The areas delineated by DTPC/DoT to be included in tourism plan through the sequential consultative process presented in Chaper 3. The Consultants conducted detailed reconnaissance survey on the sites/stretches identified; consists of existing as well as proposed tourism destinations along the Kerala Coast. The tourism activities along the identified areas were collected during the time of site visit. Secondary data on number of tourists visiting the coastal districts were collected from the Annual report published by Dept. of Tourism, GoK.

Based on the reconnaissance and detailed consultation with the tourism department, the final boundaries of tourism stretches were marked. Following recommendation were made by the Tourism department and KTIL while delineating the toursim areas

Wherever the tourism areas are identified the CRZ limit shall be fixed as the landward boundary. This would be 500m for beach stretches in CRZ III and 100m for inland stretches along the tidally influenced water bodies such as Rivers/Creeks

Wherever there is a proposal for development of toursim facilities a length of 500m to the either sides of the location is to allocated as tourism area to accomodate any future developments.

The detailed description of stretches identified in each district and activities present and proposed along the stretches is described in the sections followed.

4.1. Tourism Stretches Identified in Thiruvananthapuram District

Thiruvananthapuram district - the capital of state is one of the most sought tourist destinations in the State by foreign and domestic tourists alike. A long shoreline with internationally renowned beaches, historic monuments, backwater stretches and a rich cultural heritage make this district a much sought-after tourist destination. The stretches identified within the District are presented in **Table 4.1** and **Table 4.2**.



Sl. No	Location/ Name of	Name of Local Body			Extent(k m)	Existing tourism facilities	Proposed Tourism	Theme of tourism	Ecologically Sensitive Areas if any
	Stretch		North	South			Facilities		
	Poovar to Kovalam	Kulathur, Thirupuram, Karumkulam, Vizhinjam	8°24'30.47" N 76°58'7.07" E	8°17'51.72" N 77° 5'24.01"E	22.069	Resorts Vizhinjam Walkway	Temporary Tourism Facilities	Beach tourism	Mangroves along Poovar estuary
	Shankumu kam	Petta, Kadagampall i	8°28'59.40" N 76°54'29.05 "E	8°28'33.21" N 76°54'51.72 "E	1.074	Shankumukam beach park and walkway	Temporary Tourism Facilities	Beach tourism	Nil
	Veli	Kadagampall i, Attipra	8°30'41.38" N 76°53'0.58" E	8°29'54.50" N 76°53'40.71 "E	1.771	Veli beach park and walkway	Temporary Tourism Facilities	Beach tourism	Nil
	Thumba to Muthalapo zhi	Kadinmkula m	8°37'51.74" N 76°47'7.40" E	8°33'2.93"N 76°51'8.31" E	11.599	Thumba seating arrangements- Arattuvazhi	Temporary Tourism Facilities	Beach tourism	Nil
	Anchuthen gu	Kadakkavoor	8°39'57.83" N 76°45'36.19 "E	8°39'30.66" N 76°45'59.39 "E	1.089	Anchuthengu Fort	Temporary Tourism Facilities	Beach Tourism Heritage tourism	Nil

Table 4.1.Tourism Areas along Coastal Stretches - Thiruvananthapuram District



Sl. No	Location/ Name of Stretch	Name of Local Body	Latitude-Long Co-ordinates North	gitude/ of the Stretch South	Extent(k m)	Existing tourism facilities	Proposed Tourism Facilities	Theme of tourism	Ecologically Sensitive Areas if any
	Arivallam to Kappil	Varakala, Edava	8°46'47.12" N 76°40'28.11 "E	8°41'35.55" N 76°44'16.48 "E	11.916	Arivallam beach park Thiruvambadi Aquarium and park Resorts	Temporary Tourism Facilities	Beach tourism	Nil

Table 4.2.Tourism Areas along Inland Stretches - Thiruvananthapuram District

Sl.No	Name of River /Backwater/w ater body	Stretch	Name of Local Body	Extent (km)	Latitude Longitude the Stretch North	e/ Coordinates of South	Existing Tourism Facilities	Proposed Tourism Facilities	Theme of Touris m	Ecologicall y Sensitive Areas If Any
	Kadinamkula m lake	Kadinamkul am Ferry Kadinamkul am Murukkump uzha entry	Kadinamkulam Kadinamkulam	0.98 1.16	8°36'31.69"N 76°49'2.67"E 8°36'50.62"N 76°49'18.51"E	8°36'5.73"N 76°49'27.30"E 8°36'22.29"N 76°49'31.60"E	Nil	Kadinamkulam Touris cruise project- m Temporary	Cruise Touris	Nil
		Pulimoottil kadavu	Kadinamkulam	1.11	8°39'42.78"N 76°46'36.23"E	8°39'14.95"N 76°46'36.10"E			m	
		Thonny kadavu	Kadakkavoor	1.	8°40'1.98"N 76°45'42.12"E	8°39'33.65"N 76°46'2.02"E		Tourism Facilities		



Sl.No	Name of River /Backwater/w	Name of Stretch	Name of Local Body	Extent (km)	Latitude Longitude/ Coordinates of the Stretch		Existing Tourism Facilities	Proposed Tourism Facilities	Theme of Touris	Ecologicall y Sensitive Areas If
	ater body				North	South			m	Any
		Irangu kadavu	Kadakkavoor	1.15	8°41'2.05"N 76°45'4.66"E	8°40'47.90"N 76°45'32.27"E				
		Kayikara kadavu.	Kadakkavoor	1.1	8°41'20.20"N 76°44'42.15"E	8°41'2.01"N 76°45'4.50"E				
		Ponnumthur uth Island	Kadakkavoor	0.6	8°41'55.23"N 76°44'49.55"E					
		Panayil kadavu	Vettoor, Cherunniyoor	1.45	8°41'52.62"N 76°45'19.09"E	8°41'48.45"N 76°45'5.82"E				
		Mananakku kayal	Vettoor, Cherunniyoo	1.22	8°42'4.79"N 76°46'39.26"E	8°41'47.38"N 76°46'21.72"E				
		Puthankada v	Vettoor, Cherunniyoo	1.17	8°43'10.73"N 76°45'57.03"E	8°42'41.99"N 76°45'40.91"E				
	Poovar	Poovar Inland- both banks of the river upto mouth	Thirupuram	11.8	8°21'20.28"N 77° 5'12.24"E	8°18'59.84"N 77° 4'23.89"E	Nil	Temporary tourism facilities, Mangrove walks	Eco- tourism	Mangroves along Poovar Estuary
	Karamana River	Thiruvallam - both banks upto mouth	Thiruvallam	1.98	8°26'45.43"N 76°57'15.13"E	8°26'15.25"N 76°57'17.77"E	Nil	Temporary tourism facilities	Recreat ional tourism Pilgrim age tourism	Nil



Sl.No	Name of River /Backwater/w ater body	Name of Stretch	Name of Local Body	Extent (km)	Latitude Longitude the Stretch North	e/ Coordinates of South	Existing Tourism Facilities	Proposed Tourism Facilities	Theme of Touris m	Ecologicall y Sensitive Areas If Any
	Aakulam lake	Aakulam Inland	Kadagampalli	4.4	8°31'15.11"N 76°53'38.75"E	8°31'8.70"N 76°53'44.69"E	Aakulam lake park and Walkway Aakulam tourist village and children's park	Temporary tourism facilities	Recreat ional tourism	Nil



4.1.1. Poovar to Kovalam Stretch

The Poovar beach area and estuary formed by Neyyar river is an active tourism location with activities on either side of the creek. The location offers scope for future developments along the inland as well. The mangroves along the estuary offers scope for cruise tourism. There are also a number of resorts along the backwater stretches

This tourism stretch includes Poovar beach and Poovar islands, mangrove areas, Neyyar estuary, Vizhinjam harbor, Vizhinjam port, Vizhinjam beach, Kovalam beaches, Adimalathura and Vizhinjam lighthouse beach upto Vazhamuttam in the north of Kovalam. This stretch is one of the most visited tourism stretches in the State highly preferred by foreign tourists. There are a large number of resorts and homestays operating in the stretch catering to mainly foreign tourists.



Poovar Mangroves



Boating Center at Poovar

Poovar Beach



Poovar Beach and Estuary

Figure 4.1.

Poovar Stretch



Kovalam has three beaches separated by rocky outcroppings in its long coastline; the three together form the famous crescent of the Kovalam beach. At the southernmost side, the Lighthouse Beach is the one most frequented by tourists; Lighthouse Beach got its name due to the old Vizhinjam Lighthouse located on top of the Kurumkal hillock. Eve's Beach and Samudra Beach are the other two beaches in the region, which are also active with tourism activities. There are many resorts and homestays operating in the region.



Kovalam Beach ± Northern SideLight House BeachFigure 4.2.Kovalam Beaches

Vizhinjam beach, park, and Vizhinjam harbor are also prominent locations along the stretch. Even though predominantly a fishing area the area is frequented by domestic tourists.



Vizhinjam Harbor Park

Vizhinjam Harbor

Figure 4.3. Vizhinjam Beach and Harbour Area



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Beaches near Adimalathura Area Figure 4.4. Vizhinjam to Adimalathura Stretch

4.1.2. Shankumugham

This stretch includes Shankumugham beach and Beach walkway and Park. This stretch is in proximity to the Trivandrum international airport. Mostly domestic tourists frequent this beach and activity is concentrated mainly along the park. North of this stretch is an active fishing area.



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Shankumugham Walkway and Beach Figure 4.5.

Shankumugham Park

4.1.3. Veli

This beach stretch includes Veli beach, Veli Beach Park, and Veli beach walkway. Towards north of this stretch is the Veli lake and there is a provision for boating along the lake from the park. This beach stretch is frequented by mostly domestic tourists.

Shankumugham Stretch



Veli lake and Park floating bridge

Veli Boating Figure 4.6

Veli stretch

4.1.4 Thumba to Muthalapozhi Stretch

The prominent locations along this stretch are Thumba Arattuvazhi Golden beach, Kadinamkulam beach, Gloria beach, Muthalpozhi creek where Kadinamkulam lake joins the Arabian Sea. The area is a predominantly fishing area and is frequented mainly by domestic tourists. The breakwater at Muthalapozhi is one of the key locations in the stretch where in tourism activity is concentrated.





 Arattuvazhi Golden Beach
 Kadinamkulam Beach

 Image: Structure of the structure o

4.1.5. Anchuthengu

Anchuthengu beach stretch is a 2km stretch adjoining the Anchuthengu Fort. Anchuthengu is a major fishing area. The tourism activities are around the Anchuthengu Fort.



View of Anchuthengu Fort



View of beach from Anchuthengu Fort









View of Anchuthengu Light house Anchuthengu Stretch

4.1.6. Arivallam to Kappil stretch

Arivallam to Kappil stretch consists of the major beaches such as Arivallam beach, Varkkala Paapanaasam beach, Varkkala Cliff beach, Thiruvambadi Aquarium, Kappil beach and small beaches such as Aaliyirakkm beach, Odayam beach, Edava beach, . The stretch is developed near the Varkkala, Arivallam area. Parks, walkways has been developed in the Arivallam area.



Arivallam Beach and Walkway

Kappil Edava Beach





Varkala Papanasam Beach

Thiruvambadi Aquarium Beach



Varkala Papanasam Beach Varka Figure 4.9. Arivallam to Kappil Stretch

4.1.7. Proposed Kadinamkulam Lake Cruise Tourism Locations

This includes the jetty locations of the proposed Kadinamkulam Cruise Tourism project.1 km stretch along each of the jetty locations is mapped as tourism location. The locations are shown below.

Kadinamkulam Ferry Kadinamkulam murukkumpuzha entry Pulimoottil kadavu Thonny kadavu Irangu kadavu Kayikara kadavu Ponnumthuruth Panayil kadavu Mananakku kayal



Puthankadavu

4.1.8. Poovar Inland Location

This inland stretch includs area towards east of Poovar estuary upto the CRZ limit. The area is abundant in mangroves and offers possibility for cruise tourism.



Figure 4.10. Poovar Mangroves

4.1.9. Thiruvallam

This stretch includes areas on both banks of Karamana river extending from estuary to the north of Thiruvallam Sree parasurama temple. There are various hotels and resorts operating around the region catering to domestic and foreign tourists alike.

4.1.10. Aakulam Lake Inland Stretch

This stretch includes area along the Aakulam lake, Aakulam lake walkway and Aakulam tourism village.





Aakulam Lake park

Aakulam Tourist Village

Figure 4.11. Aakulam Lake Inland Stretch

4.2. Tourism Stretches Identified in Kollam District

Kollam District is known as a trade hub and renowned for its beaches and serene backwater settings. Among the beaches, most prominent ones inlcude Kollam beach and secluded Thirumullavaram. Ashtamudi Lake is a gateway to the Kerala backwaters, a network of waterways rich with vegetation. The tourism locations of Kollam starts from the southern end at Kappil. The Kappil area is sandwiched between the Arabian Sea and the Kappil Kayal. The coastal and inland stretches identified as tourism areas are presented in **Table 4.3** and **Table 4.4**.


Sl.	Location/Name	Name of Local	Co-ordinates of	the stretch	Extent	Existing	Proposed	Theme of	Ecologically
No	of Stretch	body	North	South	km)	tourism	Tourism	tourism	Sensitive
						facilities	facilities		Areas If Any
	Kappil to	Kottapuram,	8°53'0.33"N	8°46'59.91"N	17.928	Kollam	Temporary	Beach	Nil
	Thangassery	Mayyanad,	76°33'49.52"E	76°40'19.26"E		Beach	Tourism	Tourism	
		Mundackal,Kollam				Park and	Facilities		
						Rain			
						Shelters			
	Thirumullavaram	Sakthikulangara	8°53'44.14"N	8°53'32.94"N	0.446	Nil	Temporary	Beach	Nil
			76°33'10.26"E	76°33'16.94"E			Tourism	Tourism	
							Facilities		
	Neendakara	Sakthikulangara,	8°57'20.26"N	8°55'15.97"N	3.695	Nil	Temporary	Beach	Nil
		Neendakara	76°31'58.33"E	76°32'29.90"E			Tourism	Tourism	
							Facilities		
	Chavara Kattil	Chavara	9°0'48.29"N	9°0'18.25"N	0.643	Nil	Temporary	Pilgrimage	Nil
			76°31'12.02"E	76°31'15.73"E			Tourism	Tourism	
							Facilities		
	Azhikkal	Clappana	9°8'3.64"N	9°7'24.30"N	1.420	Azhikkal	Temporary	Beach	Nil
			76°27'44.65"E	76°28'7.73"E		Walkway	Tourism	tourism	
						and Rain	Facilities		
						shelters			

 Table 4.3.
 Tourism Areas along Coastal Stretches - Kollam District



								-	
Name of River	Location/Nam	Name			Longtitude/	Existing	Proposed	Theme	Ecologicall
/Backwater/water	e of Stretch	of	(km)	Coordinates of	of the Stretch	Tourism	Tourism	of	y Sensitive
body		Local				Facilitie	Facilities	Tourism	Areas (If
		Body				s			Any)
				North	South				<i>y y</i>
	Ashramam	Kolla	2.69	8°54'4.50"	8°53'41.09"N	Asrama	Temporary	Cruise	Mangroves
	Kayal	m		Ν	76°35'0.53"E	m boat	Tourism	tourism,	adjacent to
	Asramam			76°35'14.41		landing	Facilities	Recreati	adventure
	adventure park			"Е		Asrama		onal	park.
	1					m		tourism	1
						Adventu			
						re park			
	Thevally	Kolla	2.8		8°53'42.08"N	-	Temporary	Cruise	Nil
	Hatchery &	m		8°54'0.08"	76°34'58.50"	Deet	Tourism	tourism,	
	Boat jetty			Ν	Е		Facilities	Recreati	
				76°34'17.02		jetty		onal	
Ashtamudy Lake				"Е				tourism	
	Panamukkam	Thrikk	1.49				Temporary	Cruise	Nil
	Kureepuzha	adavo		8°54'53.19"	8°54'29.10"N		Tourism	tourism,	
	-	or		Ν	76°34'30.97"	Nil	Facilities	Recreati	
				76°34'5.17"	Е			onal	
				Е				tourism	
	Kureepuzha	Thrika	0.97	8°55'20.51"	8°55'6.83"N		Temporary	Cruise	Nil
	ferry	davoor		Ν	76°34'3.63"E		Tourism	tourism,	
	2			76°33'58.82		Nil	Facilities	Recreati	
				"Е				onal	
								tourism	
		body Ashramam Kayal Asramam adventure park Thevally Hatchery & Boat jetty Boat jetty Hatchery & Boat jetty Hat	Backwater/water bodye of Stretch Local Bodyof Local BodyAshramam Asyal Asramam adventure parkKolla mThevally Hatchery & Boat jettyKolla mPanamukkam KureepuzhaThrikk adavo orKureepuzhaThrikk adavo or	Backwater/water bodye of Stretch of Local Bodyof Local Body(km)Ashramam Kayal Asramam adventure parkKolla n2.69 nThevally Hatchery & Boat jettyKolla n2.8 nPanamukkam KureepuzhaThrikk adavo or1.49 adavo orKureepuzhaThrikk adavo or0.97	/Backwater/water bodye of Stretch of Local Bodyof Local Body(km)Coordinates of Coordinates of NorthAshramam Kayal Asramam adventure parkKolla m2.69 N8°54'4.50" N 76°35'14.41 "EThevally Hatchery & Boat jettyKolla m2.8 N 2.88°54'0.08" N 76°34'17.02 "EPanamukkam Kureepuzha ferryThrikk adavoor1.49 N 76°34'5.17" E8°54'53.19" N 76°34'5.17" E	Backwater/water bodye of Stretch of Local Bodyof Local Body(km)Coordinates of the Stretch NAshramam adventure parkKolla n2.698°54'4.50" N 76°35'14.41 "E8°53'41.09"N 76°35'0.53"E 76°35'14.41 "EAshramam adventure parkKolla n2.698°54'0.08" N 76°34'17.02 "E8°53'42.08"N 76°34'58.50" EAshtamudy LakeThevally Hatchery & Boat jettyKolla m2.8 m8°54'0.08" N 76°34'17.02 "E8°54'29.10"N 76°34'30.97" EPanamukkam KureepuzhaThrikk adavo or1.49 R *55'20.51" N 76°34'3.63"E8°55'20.51" N 76°34'3.63"E8°55'6.83"N 76°34'3.63"E	Backwater/water bodye of Stretch bodyof Local Body(km)Coordinates of the Stretch SouthTourism Facilitie SouthAshramam Kayal Asramam adventure parkKolla N Asramam adventure parkKolla N N Thevally Hatchery & Boat jettyKolla N N2.69 N N To°35'14.41 "ESouthAsrama M boat Jastin Asrama M dventur re parkAshramam Asramam adventure parkKolla N N N To°35'14.41 "ESouthAsrama M boat Jastin Asrama M dventur re parkAshramam Astramam adventure parkKolla N N To°34'17.02 "ES°53'42.08"N N To°34'58.50" EBoat jettyAshtamudy LakePanamukkam KureepuzhaThrikk adavo or1.49 N N To°34'5.17" ES°54'29.10"N R°54'29.10"N To°34'3.63"E N To°34'3.63"ENil	Backwater/water bodye of Stretch bodyof Local Body(km) Local BodyCoordinates of the Stretch PacilitiesTourism FacilitiesTourism FacilitiesAshramam Asramam adventure parkKolla Asramam adventure parkCoordinates of the Stretch NSouthTemporary Tourism FacilitiesImage: Stretch Asramam adventure parkKolla N2.69 N8°54'4.50" N N8°53'41.09"N Asrama Tourism PacilitiesAsrama Temporary Tourism FacilitiesImage: Stretch Asramam adventure parkKolla N2.69 N N8°54'4.50" N To"35'14.41 To" N8°53'42.08"N Adventur re parkAsrama m M Adventur re parkTemporary Tourism FacilitiesThevally Hatchery & Boat jettyKolla N To"2.8 N N To"34'17.02 	Backwater/water bodye of Stretch bodyof Local Body(km) Local BodyCoordinates of the Stretch resultTourism FacilitiesTourism Facilitiesof Tourism FacilitiesAshramam Kayal Asramam adventure parkKolla m Asramam adventure park2.69 m8°54'4.50" N resultSouthAsrama resultTemporary Tourism FacilitiesCruise tourism FacilitiesCruise tourism resultThevally Hatchery & Boat jettyKolla n2.8 m8°54'0.08" N result8°53'42.08"N resultSouth m Adventu re parkTemporary rourism FacilitiesCruise tourism recreati onal tourism resultPanamukkam FurgerThrikk adavo or1.49 result8°54'53.19" N result8°54'30.97" resultSouth m resultTemporary rourism FacilitiesCruise tourism rourism resultPanamukkam ferryThrikk adavo or1.49 result8°55'20.51" N roise's 783'58.82 "E8°55'6.83"N roise's 783'8 roise's 783'8 roise's 783'8 roise's 783'8 roise's 783'8 roise rois

 Table 4.4.
 Tourism Areas along Inland Stretches - Kollam District



Sl.N	Name of River		Name		Latitude	Longtitude/	Existing	Proposed	Theme	Ecologicall
0	/Backwater/water	e of Stretch	of	(km)	Coordinates of	of the Stretch	Tourism	Tourism	of	y Sensitive
	body		Local				Facilitie	Facilities	Tourism	Areas (If
			Body				S			Any)
					North	South				
		Sambranikodi	Thrikk	14.2				Temporary	Cruise	Nil
		_	aruva		8°58'11.84"	8°55'45.18"N	Boat	Tourism	tourism,	
		Kakkathuruth			Ν	76°34'13.88"	jetty	Facilities	Recreati	
		inland stretch			76°36'54.69	E	July		onal	
					"Е				tourism	
		Kuthiramunam	Panay	0.21	8°58'54.23"			Temporary	Cruise	Nil
		bu Island	am		76°37'39.56"	E		Tourism	tourism,	
							Nil	Facilities	Recreati	
									onal	
									tourism	
		Kuthiramunam	Panay	0.37	8°58'59.99"	8°58'56.16"N		Temporary	Cruise	Nil
		bu inland	am		N	76°37'52.00"		Tourism	tourism,	
		stretch			76°37'47.07	E	Nil	Facilities	Recreati	
					"Е				onal	
									tourism	
		Kanjiracode	Perina	0.97				Temporary	Cruise	Nil
		inland stretch	d		8°58'24.64"	8°57'56.83"N		Tourism	tourism,	
					N	76°39'43.73"	Nil	Facilities	Recreati	
					76°39'43.86	E			onal	
					"Е				tourism	
		Kumbalam	Mulav	1.52				Temporary	Cruise	Nil
		Ashtamudi	ana		8°59'56.12"	8°59'34.10"N		Tourism	tourism,	
					N	76°39'18.94"	Nil	Facilities	Recreati	
					76°39'50.99	E			onal	
					"Е				tourism	



S1.N 0	Name of River /Backwater/water body	Location/Nam e of Stretch	Name of Local Body	Extent (km)	Coordinates of the Stretch		Existing Tourism Facilitie s	Proposed Tourism Facilities	Theme of Tourism	Ecologicall y Sensitive Areas (If Any)
			200)		North	South				
		East Kallada stretch	East Kallad a	8.07	9° 0'9.39"N 76°38'36.27 "E	9° 0'5.14"N 76°39'10.39" E	Nil	Temporary Tourism Facilities	Cruise tourism, Recreati onal tourism	Nil
		West Kallada	West Kallad a	3.53	9°1'36.76" N 76°38'48.11 "E	9°0'10.13"N 76°35'41.05" E	Nil	Temporary Tourism Facilities	Cruise tourism, Recreati onal tourism	Nil
		Thevalakkara inland stretch	Theval akkara	3.77	9°0'11.82" N 76°35'40.02 "E	8°58'52.71"N 76°34'39.09" E	Nil	Temporary Tourism Facilities	Cruise tourism, Recreati onal tourism	Nil
		Pattakkadavu	Theval akkara	1.04	9°1'6.59"N 76°36'10.05 "E	9°0'48.43"N 76°36'18.15" E	Nil	Temporary Tourism Facilities	Cruise tourism, Recreati onal tourism	Nil
		Thekkumbhag am	Thekk umbha gam	0.52	8°58'1.86" N 76°34'22.31 "E	8°57'51.91"N 76°34'9.29"E	Nil	Temporary Tourism Facilities	Cruise tourism, Recreati onal tourism	Nil



Sl.N	Name of River		Name	Extent		Longtitude/	Existing	Proposed	Theme	Ecologicall
Ο	/Backwater/water	e of Stretch	of	(km)	Coordinates of	of the Stretch	Tourism	Tourism	of	y Sensitive
	body		Local				Facilitie	Facilities	Tourism	Areas (If
			Body				S			Any)
					North	South				
		Pulimoottil	Thekk	0.69	8°57'3.34"	8°56'58.23"N		Temporary	Cruise	Nil
		kadavu	umbha		Ν	76°33'22.91"		Tourism	tourism,	
			gam		76°33'44.71	E	Nil	Facilities	Recreati	
					"Е				onal	
									tourism	
		Panmana Boat	Panma	1.34		9°0'53.62"N		Temporary	Cruise	Nil
		jetty	na		9°1'28.77"	76°31'45.45"	Boat	Tourism	tourism,	
					Ν	E	jetty	Facilities	Recreati	
					76°32'6.16"		Jetty		onal	
					E				tourism	
		Munroe Island	Mundr	11.83	8°58'30.69"N			Temporary	Cruise	Mangroves
			othuru		76°36'29.94".	E		Tourism	tourism,	
			th					Facilities	Recreati	
							Resorts		onal	
									tourism	
									Eco	
									tourism	
		Kadapuzha	West	4.37		9°0'22.35"N		Temporary	Cruise	Nil
		Bridge to	Kallad		9°1'36.77"	76°37'54.58"		Tourism	tourism,	
		Munroe	a, East		Ν	E	Nil	Facilities	Recreati	
			Kallad		76°38'50.23				onal	
			а		"Е				tourism	
		Kappil –	Paravu	1.3		8°46'48.58"N		Temporary	Recreati	Nil
7	Kappil lake	Paravur inland	r		8°49'8.03"	76°40'30.93"	Nil	Tourism	onal	
					Ν	Е		Facilities	tourism	



Sl.N o	Name of River /Backwater/water body	Location/Nam e of Stretch	Name of Local Body	Extent (km)	Latitude Coordinates o	Longtitude/ of the Stretch	Existing Tourism Facilitie s	Proposed Tourism Facilities	Theme of Tourism	Ecologicall y Sensitive Areas (If Any)
					North	South				
					76°39'21.86 "E					
8	Paravur lake	Paravur and Ithikkara Inland	Paravu r	1.8	8°50'20.84 N 76°40'31.54 E	8°50'4.11"N 76°40'36.03" E	Resorts	Temporary Tourism Facilities	Recreati onal tourism	Nil
9	Kollam thodu	Paravur lake to Asramam Lake Inland	Munda kkal, Kolla m	8.56	8°53'41.47 N 76°34'59.22 E	8°50'22.51"N 76°38'3.14"E	Nil	Temporary Tourism Facilities	Recreati onal	Nil
10	National	Clappana Sathyalayam kadavu	Clappa na	0.25	9°7'32.97" N 76°29'1.76" E	9°7'31.55"N 76°28'54.31" E	Resorts	Temporary Tourism Facilities	Recreati onal tourism	Nil
10	waterway III	Alumkadavu	Adina d, Karun agapal li	0.95	9°3'39.14" N 76°30'5.32" E	9°3'12.22"N 76°30'19.59" E	Boat jetty	Temporary Tourism Facilities	Recreati onal tourism	Nil
11	Vattakayal - Kannettykayal	Panmana	Panma na	2.13	9°1'35.93" N 76°31'42.83 E	9°1'35.63"N 76°31'26.96" E	Panman a boat jetty	Temporary Tourism Facilities	Recreati onal tourism	Nil



Sl.N o	Name of River /Backwater/water body		Name of Local Body	Extent (km)	Latitude Coordinates o	Longtitude/ of the Stretch	Existing Tourism Facilitie s	Proposed Tourism Facilities	Theme of Tourism	Ecologicall y Sensitive Areas (If Any)
					North	South				
		Kannetty Stretch	Ayani velikul angara	0.97	9°2'55.87" N 76°32'31.01 E	9°2'22.26"N 76°32'16.57" E	Nil	Temporary Tourism Facilities	Recreati onal tourism	Nil



4.2.1. Kappil to Thangassery Stretch

The beach stretch includes Kappil beach, Pozhikkara beach, Lakshmipuram beach, Mayyanad beach, Thanny beach and Kollam beach including Kollam port area. Kollam beach area is developed with facilities such as park, seating arrangement, rain shelters etc.



Kollam Beach

Lakshmipuram Beach



Mayyanad Beach

Thangassery Breakwater



Kollam Port Area



Paravur Beach





4.2.2. Thirumullavaram

This beach stretch includes the Thirumullavaram beach and adjacent areas which are relatively undisturbed stretch offering plenty of scope for future development.



Figure 4.13. Thirumullavaram Beach and Groynes

4.2.3. Neendakara

This stretch includes beaches to the north and south of Neendakara harbour. The area is predominantly a fishing area and fishing harbour and market are prominent locations along the stretch.



Neendakara Harbour

Neendakara Beach

Figure 4.14. Neendakara Stretch

4.2.4. Chavara Kattil

Includes the beach stretch adjacent to the Chavara Kattil Devi temple. Frequented mostly by the pilgrims, this beach stretch offers plenty of scope for future activities





Figure 4.15. Kattil Beach

4.2.5. Azhikkal

This stretch is a developed beach stretch with walkways and rain shelters and is frequented mostly by domestic tourists.



Figure 4.16. Azhikkal Beach and Walkway

4.2.6. Kollam Inland Stretches

Ashtamudi Lake is the second largest lake in Kerala and is situated in Kollam District. The lake spreads over an area of 61.42 square kilometres. Its name, Ashtamudi has been derived from two words 'Ashta' meaning eight and 'Mudi' meaning branch, thereby stating the fact that lake has eight branches. All the eight branches converge into a single channel that meets with the Arabian Sea. The lake is fed by the major river, Kallada. Thevally Lake, Kandachira Lake, Kureepuzha Lake, Thekkumbagham Lake, Kallada Lake, Perumon Lake, Kumbalathu Lake



and Kanjirottu Lake are the eight different branches of Ashtamudi. Various stretches across the lake has been identified with tourism activities existing as well as with potential for future activities.

Other prominent Inland locations in the district include the national waterway 3 stretch, inland stretches along Kappil lake, Paravur lake, Kollam thodu, Ithikkara lake, Kannettykayal and Vattakayal.

4.3. Tourism Stretches Identified in Alappuzha District

Alleppey' or 'Alappuzha' is among the most coveted tourist destinations in Kerala. Located on the banks of the turquoise Vembanad Lake, this tourist destination hosts major share of the houseboat cruises in Kerala. The various tourism stretches including both coastal and inland areas identified for the district is listed in **Table 4.5** and **Table 4.6** which is followed by detailed description of the stretches



S.	Location/Name	Name of	Co-ordinates of	the stretch	Extent	Existing tourism	Proposed	Theme of	Ecologically
No	of Stretch	Local Body	North	South	(km)	facilities	Tourism	tourism	Sensitive
							facilities		Areas If any
	Thottapilly	Kuzhur	9°18'38.14"N	9°18'10.07"N	0.880	Thottapilly	Temporary	Beach	Nil
			76°22'56.60"	76°23'10.37"E		beach park	Tourism	tourism	
							Facilities		
	Alapuzha	Alapuzha	9°31'47.57"N	9°28'49.73"N	6.491	Alapuzha beach	Temporary	Beach	Nil
			76°18'35.69"E	76°19'12.45"E		park and	Tourism	tourism	
						walkway	Facilities		
	Kattoor -Chethy	Mararikulam	9°37'19.46"N	9°33'17.64"N	5.192	Resorts	Temporary	Beach	Nil
		north ,	76°17'50.31"E	76°18'22.27"E			Tourism	tourism	
		Mararikulam					Facilities		
		.south							
	Arthungal	Cherthahla	9°40'7.97"N	9°39'18.98"N	1.483	Arthungal beach	Temporary	Beach	Nil
		south	76°17'26.65"E	76°17'34.01"E		park	Tourism	tourism	
							Facilities		
	Andhakaranazhy	Pattanakad	9°45'11.99"N	9°44'39.81"N	0.824	Andhakaranazhy	Temporary	Beach	Nil
			76°16'59.40"E	76°17'3.50"E		walkway	Tourism	tourism	
							Facilities		

 Table 4.5.
 Tourism Areas along Coastal Stretches Alappuzha District



Table 4.6.Tourism Areas along Inland Stretches Alappuzha District

Sl.No	Name of River /Backwate	Locati on/Na me of	Name of Local	Extent(km)	Coordina the Stretc	h	Existing Tourism	Proposed Tourism	Theme of Tourism	Ecologically Sensitive
	r/water body	Stretc h	Body	KIII)	North	South	facilities	Facilities	Tourism	Areas If Any
1.	Kayamkul am Lake	Kaya mkula m Inland	Kayam kulam	1	9°10'14 .29"N 76°29'3 3.41"E	9°10'1 0.09"N 76°29' 43.10" E	Kayamkulam lake park and walkway	Temporary Tourism Facilities	Recreational tourism	Nil
		Arook utty	Arooku tty	1.47	9°52'16 .54"N 76°19'1 9.84"E	9°52'8. 47"N 76°19' 59.98" E	Nil	Temporary Tourism Facilities	Recreational Tourism	Vembanadu lake critically vulnerable
2.	Vembanad u Lake	Kakka thurut h	Ezhupu nna	4.43	9°49'0.65"N 76°19'23.78"E		Nil	Temporary Tourism Facilities	Recreational Tourism	Vembanadu lake critically vulnerable
	u Lake	Perum balam island	Perumb alam	12.8	9°49'50.01"N 76°22'5.93"E		Nil	Temporary Tourism Facilities	Recreational Tourism	Vembanadu lake critically vulnerable
		Thykk attusse ry	Thykka ttussery	0.56	9°46'38 .11"N 76°20'9 .95"E	9°46'2 0.75"N 76°20' 9.50"E	Nil	Temporary Tourism Facilities	Recreational Tourism	Vembanadu lake critically vulnerable



Sl.No	Name of River /Backwate r/water body	Locati on/Na me of Stretc h	Name of Local Body	Extent(km)	Coordina the Stretc North		Existing Tourism facilities	Proposed Tourism Facilities	Theme of Tourism	Ecologically Sensitive Areas If Any
		Thann eermu kkam	Thanne ermukk am	1.77	9°40'47 .08"N 76°22'5 5.33"E	9°40'3 7.18"N 76°23' 38.94" E	KTDC Kumarakam Gateway Resorts	Temporary Tourism Facilities	Recreational Tourism	Vembanadu lake critically vulnerable



4.3.1. Thottapilly

The beach stretch extends 1 km south from the Thottappilly beach to Thottappilly fishing harbour in the north. The stretch includes the existing park and facilities near the lake.



Thottapilly Beach

Thottapilly Harbour



4.3.2. Alappuzha Stretch

The Alappuzha beach stretch extends from Kunnumpuram in the south to Poomkavu in the north which is already developed with walkway, park and resorts nearby. The other beaches coming in the stretch includes Mangalam beach, Thumpoly beach and Vikasanam beach.



Alappuzha Beach and Walkway

Thumpoly Beach

Figure 4.18. Alappuzha Stretch

4.3.3. Kattoor Chethy Stretch

The stretch extends from Kattoor in the south to Chethy harbour area in the north. The stretch includes Mararikulam, Chethy, Pollethai and Kattoor beaches. This tourism stretch is frequented by foreign tourists and has many resorts and homestays.





Mararikulam Beach

Pollethai Beach



Chethy Beach



4.3.4. Arthungal

The tourism area identified in Arthungal beach include almost 1km of the beach and the connectd areas of existing beach part, beach park, rain shelters, Kiosk, toilet facilities etc.



Arthungal Beach Park



Arthungal Beach



Figure 4.20. Arthungal Beach Area

4.3.5. Andhakaranazhy

The beach stretch includes the existing walkway, buildings and the beach. Also includes the estuary area.



Andhakaranazhy Beach Walkway



Andhakaranazhy Beach

Figure 4.21. Andhakaranazhy Stretch

4.3.6. Inland Stretch along Kayamkulam Kayal

The stretch includes the Kayamkulam boat race Pavilion, Kayamkulam boat jetty, Park, Walkway. The boat pavilion for Champions boat league is the main attraction along the stretch.



Walkway Along Kayamkulam Lake



Lake Park

Figure 4.22. Kayamkulam lake Inland Stretch



4.3.7. Inland stretches along Vembanad Backwaters

Areas include inland stretches along Arookutty, Perumbalam island, Kakkathuruth, Thykattussery proposed tourism information centre location and area adjacent to the Thanneermukkam bund- KTDC Kumarakam gateway.



Kakkathuruth

Thykattussery Proposed Information Centre Location

Figure 4.23. Vembanadu Backwater Inland Stretches

4.4. Tourism Stretches Identified in Kottayam District

Kottayam district though without a coastline has plenty of tourism activities concentrated along the backwaters mainly Vembanadu Lake. The list of identified tourism stretches are presneted in **Table 4.7** and the same is briefed in the sections followed.



Sl. No	Name of River /Backwater/wate r body	Name of Stretch	Name of Local Body	Exten t (km)	Latitude Coordinates o North	Longtitude/ of the Stretch South	Existin g Touris m Faciliti es	Propose d Tourism Facilities	Theme of Tourism	Ecological ly Sensitive Areas if Any
		Thaneermukk am to Vadakkemuri	Vechoor, Thalalyazham,Vaikom,Nad uvile, Vadakkemuri	5.38	9°46'47.46" N 76°22'17.08 "E	9°40'19.40" N 76°24'21.30 "E	Vaikka m lake beach Walkw ay	Tempora ry tourism facilities	Recreatio nal tourism	Vembanad lake
		Murinjupuzh a to Palakkari	chempu	11.23	9°49'59.64" N 76°23'11.12 "E	9°49'16.11" N 76°23'29.81 "E	Palakka ri Aqua Touris m	Tempora ry Tourism Facilities	Recreatio nal tourism	Vembanad lake
1.	Vembanadu lake	Maravanthur uth to Murinjupuzh a	Vadakkemuri, Chempu	5.5	9°49'16.11" N 76°23'29.81 "E	9°46'52.79" N 76°22'18.30 "E		Tempora ry Tourism Facilities	Recreatio nal tourism	Vembanad lake
		Palakkari vattathuruth and adjacent islands	Vadakkemuri , Chempu	4	9°50'37.58" 76°23'24.77"		Nil	Tempora ry Tourism Facilities	Recreatio nal tourism	Vemabana du lake
		Chemmankar i boat jetty to Poothotta	Manakunnam	2.3	9°51'46.99" N	9°50'40.94" N	Nil	Tempora ry Tourism Facilities	Recreatio nal tourism	Vembanad Lake

 Table 4.7.
 Tourism Areas along Inland Stretches - Kottayam District



					76°22'40.91 ''E	76°23'12.47 "E				
2.	Muvattupuzha River	Ithipuzha bridge stretch- both banks	Vadakkemuri	2	Ν	9°46'53.03" N 76°22'17.39 "E	Nil	Tempora ry Tourism Facilities	Recreatio nal tourism	Nil



4.4.1. Vembanadu Lake Inland Stretches

The continuous stretch along the lake includes Vaikom, TV Puram, Vaikom lake Beach, Vilakkumadam. The stretch also includes Maravanthuruth to Downstream of Murinjapuzha Bridge (Left bank, Chemmanakari Boat jetty to Poothotta stretch. and areas such as Palakkari Aqua Tourism, Vattathuruth Island, and Poothotta ferry, islands near Upathezhathu, Amachadi thuruth and Vattaveli thuruth



Figure 4.24. Vaikam Lake Beach

4.4.2. Moovattupuzha River Inland Stretches

This includes inland stretch to the downstream of Ithipuzha Bridge up to Vembanadu Lake.

4 5. Tourism Stretches Identified in Ernakulam District.

The district is blessed with many destinations that are frequented by both domestic and foreign tourists alike. The tourism activity of the district is not only along the beaches but along the backwater stretches. There are many backwater islands brimming with tourism potential. The tourism stretches identified for the district is listed in **Table 4.8** and **Table 4.9** and a brief description of the locations are followed.



S1. Name of Latitude Longtitude/Co-Extent Existing **Ecologically Sensitive** Name Proposed Theme of No Local ordinates of the stretch (km) tourism Tourism of tourism Areas (If any) Body South Facilities Stretc North facilities h Nil Chella Chellana 9°48'15.30" 9°47'42.10"N 1.089 Nil Temporary Beach tourism 76°16'33.33" Tourism Ν nam m 76°16'27.89" Е Facilities E 9°52'21.57" 9°51'59.36"N 0.778 Nil Beach Nil Kanna Chellana Temporary 76°15'47.30" Tourism Tourism maly m Ν 76°15'41.92" Facilities Ε E 9°58'4.91"N 0.376 Kochi Beach Nil Fort Fort 9°57'37.60"N Fort Temporary 76°14'14.02" Walkway Tourism Tourism Kochi Kochi 76°14'32.69" Facilities Ε E 9°59'51.65"N 21.613 Vypin Puthuvy Malippuram Temporary Beach Mangroves 10°10'40.35 76°13'6.73"E Aqua tourism Tourism Tourism Puthuvypin pe, 76° Elamku Ν and Facilities Muna Aqua tourism nnapuzh 9'55.76"E Mangrove mbam walks a, Nayara **Resorts** at mbalam, Cherai Njatrack Region al Edavana kkad, Kuzhupi lly,

Table 4.8.	Tourism Areas along Coastal Stretches - Ernakulum District
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S1. No	Name of River /Backwat er/water body	Name of Stretch	Name of Local Body	Exte nt (km)	Latitude ordinates of the St North	Longtitude/Co- retch South	Existing Tourism Facilities	Proposed Tourism Facilities	Theme of Tourism	Ecologically Sensitive Areas (if Any)
	louy	Kottayil Kovilakam	Chenda mangala m	3.3	10°10'30.51"N 76°14'17.13"E	10°10'2.00"N 76°15'7.14"E	Boat jetty	Temporary Tourism Facilities	Heritage tourism	CRZ 1-A Jew synagogue
	Periyar, National	S.A Smarakam	Vadakke kara, Kuzhupil ly	1.07	10°10'25.54"N 76°10'40.03"E	10° 9'10.32"N 76°11'44.02" E	Museum	Temporary Tourism Facilities	Heritage tourism	Nil
5	Waterwa y III extension - Muziris heritage locations	Go Thuruth	Chenda mangala m	1.4	10°11'33.55"N 76°12'38.60"E	10°11'13.11" N76°13'18.56 "E	Performan ce Centre	Temporary Tourism Facilities	Heritage tourism	Nil
		North Paravur Boat jetty	Paravur	1.07	10° 9'11.31"N 76°13'35.18"E	10° 9'5.93"N 76°13'2.52"E	Boat jetty and Amenity centre	Temporary Tourism Facilities	Heritage tourism	Nil
		Pallipuram fort and Manjumath a church	Kuzhupil ly	3.16	10°10'25.26"N 76°10'40.12"E	10°9'10.09"N 76°11'43.23" E	Pallipuram fort	Temporary Tourism Facilities	Heritage tourism	CRZ 1 A Pallipuram fort
	Ernakulu m channel	Kadamakk udy	Kadama kkudi	2.38	10° 4'19.08"N 76°14'32.52"E	10°3'12.72"N 76°15'2.09"E	Nil	Temporary Tourism Facilities	Recreational tourism	Nil
6		Marine Drive	Elankula m	3.12	9°59'32.85"N 9°59'32.85"N	9°58'2.41"N 76°16'50.47" E	Marine Drive	Temporary Tourism Facilities	Recreational tourism	Nil

 Table 4.9.
 Tourism Areas along Inland Stretches Ernakulum District



S1. No	Name of River /Backwat er/water body	Name of Stretch	Name of Local Body	Exte nt (km)	Latitude ordinates of the St North	Longtitude/Co- tretch South	Existing Tourism Facilities	Proposed Tourism Facilities	Theme of Tourism	Ecologically Sensitive Areas (if Any)
							Walkway Parks			
		Vypin	Puthuvy pe	1.1	9°58'24.42"N 76°14'23.26"E	9°58'28.91"N 76°14'39.15" E	Vypin Walkway	Temporary Tourism Facilities	Recreational tourism	Nil
		Thanthonni thuruth	Mulavuk ad	1.57	9°59'52.20"N 76	°16'6.01"E	Nil	Temporary Tourism Facilities	Recreational tourism	Nil
		Bolgatty	Mulavuk ad	6.8	10° 1'51.04"N 76°15'34.20"E	9°59'31.76"N 76°15'50.09" E	Kochi Marina Bolgatty palace	Temporary Tourism Facilities	Recreational tourism	Nil
		Mangalava nam	Kochi	0.95	9°59'16.84"N 76	°16'26.86"E	Bird Sanctuary	Temporary Tourism Facilities	Eco tourism	Mangroves – Bird sanctuary
		Willington island	Kochi corporati on	1	9°56'7.21"N 76°16'16.87"E	9°55'51.91"N 76°16'42.47" E	COPT Walkway	Temporary Tourism Facilities	Recreational tourism	Nil
7	Kaithapu zha lake	Kumbalan gi Island	Kumbala ngi	12.1 1	9°53'55.30"N 76°17'6.76"E		Resorts- tourism village	Temporary Tourism Facilities	Recreational tourism	Nil
7		Kari island	Chellana m	2.06	9°54'5.91"N 76°15'50.51"E	9°54'7.15"N 76°15'55.24" E	resorts	Temporary Tourism Facilities	Recreational tourism	Mangroves



S1. No	Name of River /Backwat er/water body	Name of Stretch	Name of Local Body	Exte nt (km)	Latitude ordinates of the St North	Longtitude/Co- retch South	Existing Tourism Facilities	Proposed Tourism Facilities	Theme of Tourism	Ecologically Sensitive Areas (if Any)
		Valanthaka d island	Kumbala m	3.79	9°55'13.51"N 76°19'37.81"E	9°55'8.01"N 76°19'41.85" E	Nil	Temporary Tourism Facilities	Recreational tourism	Nil
8	Vembana du lake inland	Poothotta	Udayam peroor	4.49	9°50'49.64"N 76°23'20.91"E	9°50'39.40"N 76°22'58.39" E	Poothotta ferry	Temporary Tourism Facilities	Recreational tourism	Vembanadu wetland
	locations	Kundanoor Maradu	Maradu	0.35	9°56'37.13"N 76°18'27.17"E	9°56'33.48"N 76°18'19.02" E	Nil	Temporary Tourism Facilities	Recreational tourism	Nil
9		Cheranallo or	Chernalo or	0.91	10° 4'10.11"N 76°17'7.92"E	10° 4'6.74"N 76°16'54.47" E		Proposed Locations for water metro	Cruise and Recreational	Nil
	Ernakula m backwate	Eda Kochi ferry	Eda Kochi	0.69	9°53'45.81"N 76°17'37.48"E	9°53'48.32"N 76°17'47.21" E	Nil			
	- rs – Kochi Water Metro Locations	Eroor ferry	Thripoon ithura	0.65	9°58'48.33"N 76°19'52.77"E	9°58'49.41"N 76°20'13.47" E	1111			
		Chittoor ferry	Chittoor	0.57	10° 2'28.03"N 76°16'13.18"E	10° 2'0.33"N 76°16'11.43" E				



S1. No	Name of River /Backwat er/water body	Name of Stretch	Name of Local Body	Exte nt (km)	Latitude ordinates of the St North	Longtitude/Co- tretch South	Existing Tourism Facilities	Proposed Facilities	Tourism	Theme of Tourism	Ecologically Sensitive Areas (if Any)
		Korumkott a ferry	Elamkun napuzha	0.38	10° 2'8.88"N 76°16'1.52"E	10° 2'3.33"N 76°16'6.36"E					
		Mulavukad	Mulavuk ad	1	10° 1'50.77"N 76°15'34.36"E	10° 0'7.47"N 76°15'50.72" E					
		Ponnarima ngalam	Mulavuk ad	1	10° 0'17.63"N 76°15'47.98"E	9°59'17.77"N 76°16'2.29"E					
		Thanthonni thuruth	Mulavuk ad	1.2	9°59'52.20"N 76	°16'6.01"E					
		High Court Ferry	Kochi	1	9°59'32.71"N 76°16'7.30"E	9°58'42.43"N 76°16'32.26" E					
		Ernakulam jetty	Kochi	1.1	9°58'42.43"N 76°16'32.26"E	9°58'2.47"N 76°16'50.21" E					
		Thevara ferry	Kochi	0.98	9°57'5.32"N 76°17'17.18"E	9°56'37.48"N 76°17'31.91" E					
		Kakkanad ferry	Thrikkak kara	0.43 4	9°59'31.49"N 76°20'57.32"E	9°59'31.92"N 76°21'8.71"E					



Study Towards Delineation of Areas Eligible for Developing Tourism Facilities in the State of Kerala

S1. No	Name of River /Backwat er/water body	Name of Stretch	Name of Local Body	Exte nt (km)	Latitude ordinates of the St North	Longtitude/Co- tretch South	Existing Tourism Facilities	Proposed Facilities	Tourism	Theme of Tourism	Ecologically Sensitive Areas (if Any)
		Kumbalam ferry	Kumbala m	1	9°55'16.16"N 76°18'32.03"E	9°54'52.72"N 76°18'19.64" E					
		Nettoor ferry	Maradu	0.97	9°55'51.06"N 76°18'19.01"E	9°55'21.12"N 76°18'34.88" E					
		Vytila ferry	Thripoon ithura	1.07	9°58'14.20"N 76°19'25.15"E	9°57'46.46"N 76°19'31.13" E					
		Vypin	Puthuvy pe	1	9°58'28.59"N 76°14'39.36"E	9°58'24.26"N 76°14'23.20" E					
		Fort Kochi ferry	Kochi Corporat ion	1.14	9°58'6.02"N 76°14'36.42"E	9°57'54.55"N 76°15'21.29" E					
		Mattancher y ferry	Kochi Corporat ion	1.1	9°57'54.55"N 76°15'21.29"E	9°57'5.73"N 76°15'42.16" E					
		Bolgatty	Mulavuk ad	1	9°59'29.39"N 76°15'59.78"E	9°59'31.19"N					



SI. No	Name of River /Backwat er/water body	Name of Stretch	Name of Local Body	Exte nt (km)	Latitude ordinates of the St North	Longtitude/Co- tretch South	Existing Tourism Facilities	Proposed Tourisr Facilities	n Theme of Tourism	Ecologically Sensitive Areas (if Any)
						76°15'49.36" E				
		Thykooda m	Maradu	0.96	9°57'17.90"N 76°19'23.35"E	9°57'12.80"N 76°19'49.11" E				



4.5.1. Chellanam

The key attractions along this stretch are Chellanam beach and Chellanam harbor. The undisturbed beach stretch though predominantly a fishing area is frequented by domestic tourists.



Chellanam Beach

Chellanam Harbour

Figure 4.25. Chellanam Stretch

4.5.2. Kannamali

The stretch mainly composes of the Kannamali beach. It is an underdeveloped beach stretch and fishing area, visited mainly by domestic tourists.



Figure 4.26. Kannamali Beach

4.5.3. Fort Kochi

It is one of the most developed and visited stretches in the district .The Walkway along the beach is the key attraction. This tourism stretch is frequented by foreign and domestic tourists alike and offers scope for the future.





Fort Kochi Walkway Figure 4.27. Fort Kochi Fishing Nets Fort Kochi Stretch

4.5.4. Vypin to Munambam Stretch

This long beach stretch composes mainly of beaches Puthuvypin, Valappu, Malippuram, Chappa, Nayarambalam, Njarackal Kuzhupilly, Ambedkar and Cherai. Aqua tourism and mangrove information park of Matsyafed at Malippuram is a main attraction apart from the serene beaches. Much of the activity here is concentrated along the Cherai Kuzhupilly region. A number of resorts are operating around the Cherai beach catering to both domestic as well as foreign tourists. The tourism activity along this stretch is not only concentrated along the beaches but also along the backwaters.



Puthuvype Beach

Valappu Beach





Nayarambalam Beach

Kuzhupilly Beach



Malippuram Aqua Beach

Mangrove Walk Malippuram



Ambedkar Beach

Cherai Beach





Munambam Walkway

Munambam Beach

Figure 4.28 Vypin to Munambam Stretch

4.5.5. Muziris Heritage Sites

These inland sites include areas associated with Pallipuram fort, Manjumatha church, Kottayil Kovilakam, Go thuruth Perfomance centre, Moothakunnam, North Paravur boat jetty and Sahodaran Ayyappan smarakam.



Kottayil Kovilakam Boat Jetty



Pallipuram Fort





North Paravur Boat Jetty ± Muziris heritage



Manjumatha Church ± Muziris heritage



Go thuruth Perfomance Centre



Sahodaran Ayappan Smarakam

Figure 4.29. Muziris heritage Tourism Locations

4.5.6. Inland Locations along Kochi Kayal and Associated Areas

The identified locations along the backwaters in Ernakulam include Kadamakkudy, Marine drive, Fort Vypin Walkway and ferry, Thanthonni Thuruth Island, Bolgatty Island, Mangalavanam bird sanctuary and Willington island walkway. Major tourist activities in the city is concentrated in these locations.





Kadamakkudy Lake view

Marine Drive Walkway



Willington island Walkway



Vypin Walkway



Kochi Marina - Bolgatty



Mangalavanam Bird Sanctuary - Mangroves

Figure 4.30. Ernakulam Channel Inland Stretches

4.5.7. Inland locations along Kaithapuzha Lake

The inland stretches identified are Kumbalangi and Kari islands. Kumbalangi Island is a part of Integrated Toursim Village Project and is frequented by foreign as well as domestic tourists. Kari Island is also being proposed under a responsible tourism project. There are various resorts



and homestays operating in these islands. The Lakeside Park at Kumbalangi is also a prominent location.



Kumbalangi Park

Kari Island

Figure 4.31. Kaithapuzha Lake

4.5.8. Inland Stretches of Vembanadu Lake

The tourism stretches identified include Valanthakad stretch, Kundanoor, Maradu and Poothotta Stretch. Valanthakad stretch is proposed location for responsible tourism project Poothotta stretch includes ferry and Backwater Island adjacent to the ferry.



Valanthakadu

Poothotta Ferry

Figure 4.32. Vembanadu Lake Stretches

4.5.9. Kochi Water Metro Locations

The major and minor terminals of the proposed water metro project has been identified. The identified locations have been mapped as 1 km long stretches. The identified locations are listed in **Table 4.9**.



4.6. Tourism Stretches Identified in Thrissur District

Thrissur is considered as the cultural capital of the State and the district has many coastal and inland locations frequented by foreign and domestic tourists alike. Most of the stretches are relatively undisturbed stretches with potential for future development. The stretches identified are as listed in **Table 4.10 and Table 4.11** and the brief description is followed.


Name of Local Body S1. Name Latitude Longtitude/Co-Exten Existing Proposed Theme Ecologicall of Ν ordinates of the stretch Tourism of y Sensitive Stretch t (km) tourism facilities Areas North South Facilities tourism (If 0 any) Munackal Eriyad 10°11'17.97" 10°10'39.89" 1.162 Park, walkway Temporar Beach Nil tourism Ν Ν and Rain y Tourism 76° 76° shelters Facilities 9'35.66"E 9'44.70"E Thalikkulam Beach Nil Valappad-10°26'3.03"N 10°23'33.50" 7.111 Valappad Temporar Snehatheeram 76° v Tourism tourism seating Ν 4'33.89"E 76° Arrangements Facilities 5'34.60"E Nattika rain shelters and walkway Snehatheeram walkway and seats Vadanapalli, Enagandiyo 10°30'24.90" Beach Nil Chettuva 10°27'14.38" 8.361 Nil Temporar Vadanapalli Ν Ν y Tourism tourism or 76° 76° 4'4.00"E Facilities 2'26.22"E Chavakkad Chavakkad 10°34'56.67" 10°33'57.30" 2.077 Chavakkad Temporar Beach Nil Ν beach walkway Touris Ν y Tourism 76° 76° 0'8.40"E Facilities and Rain m 0'38.08"E Shelters Nil 10°39'37.40" Beach Mannalamkunn Punnayur, Kadikkad 10°39'8.66"N 0.974 Mannalamkunn Temporar Ν 75°58'16.23" y Tourism tourism u u park 75°58'4.06"E Е Facilities

Table 4.10.	Tourism Areas along Coastal Stretches Thrissur District
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2 1		Name of Stretch	Name of Local Body				Existing tourism	Proposed Tourism	Theme of	Ecologicall y Sensitive
C				North	South		facilities	Facilities	tourism	Areas (If any)
	V	Veliancode	Veliancode	10°43'52.75" N 75°56'12.47" E	10°43'18.57" N 75°56'26.27" E	1.831	Nil	Temporar y Tourism Facilities	Beach tourism	Nil

Table 4.11.	Tourism Areas along Inland Stretches - Thrissur District
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S 1. N	Name of River /Backwat	Name of Stretch	Name of Local Body	Extent (km)	Latitude Longtitude/C the Stretch	Longtitude/Coordinates of		Proposed Tourism Facilities	Theme of Tourism	Ecological ly Sensitive
0	er/water body				North	South				Areas (if Any)
	Periyar	Kottapu ram fort and market	Methala	3.5	10°12'9.16" N 76°12'40.45 "E	10°12'0.38" N 76°11'47.42 "E	Kottapuram fort walkway Kottapuram market Muziris boat jetty	Temporary Tourism Facilities	Heritage tourism	Nil
		V P Island	Methala	2.63	10°11'48.81" 76°12'8.37"E		Nil	Temporary Tourism Facilities	Recreational Tourism	Nil
	Pulloot river and Canolly Canal	Kunnu mpura m	Kodungall oor	0.48	10°13'36.07 "N 76°12'23.26 "E	10°13'5.82" N 76°12'37.04 "E	Municipal park	Temporary Tourism Facilities	Recreational Tourism	Nil



S l. N o	Name of River /Backwat er/water body	Name of Stretch	Name of Local Body	Extent (km)	Latitude Longtitude/C the Stretch North	oordinates of South	Existing Tourism Facilities	Proposed Tourism Facilities	Theme of Tourism	Ecological ly Sensitive Areas (if Any)
		Karupa danna	Vellangal oor	0.66	10°16'25.16 "N 76°11'42.03 "E	10°16'10.22 "N 76°11'38.17 "E	Nil	Temporary Tourism Facilities	Recreational tourism	Nil
		Bungla kadavu	Mathilaka m	0.146	10°17'43.37 "N 76°10'4.01" E	10°17'41.64 "N 76°10'9.06" E		Temporary Tourism Facilities		
		Kandas samkad avu	Manalur	0.63	10°28'24.45 "N 76° 5'34.94"E	10°28'15.38 "N76° 5'33.23"E		Temporary Tourism Facilities		
		Thripra yar	Nattika	0.48	10°25'2.70" N 76° 6'54.93"E	10°24'48.52 "N 76° 7'2.14"E		Temporary Tourism Facilities		
	Karanjira	Moonn amkallu		0.2	10°32'37.85 "N 76° 2'50.28"E	10°32'35.07 "N 76° 2'40.93"E	Nil	Temporary Tourism Facilities	Recreational tourism	Nil
	River	Chettuv a	Chettuva	2.83	10°31'47.62 "N 76° 3'42.15"E	10°31'56.24 "N 76° 2'24.14"E	Nil	Temporary Tourism Facilities	Recreational tourism	Nil
		Padoor	Kadappur am	1.18	10°31'57.70 "N 76° 3'48.03"E	10°32'33.57 "N 76° 3'17.91"E	Nil	Temporary Tourism Facilities	Recreational tourism	Nil



Name of River /Backwat er/water body	of	Name of Local Body	Extent (km)	Latitude Longtitude/C the Stretch North	oordinates of South	Existing Tourism Facilities	Proposed Tourism Facilities	Theme of Tourism	Ecological ly Sensitive Areas (if Any)
Chettuva River	Rajah island and adjacen t islands	Chettuva	0.28	10°32'3.54"N 76°3'1.67"E, 10°32'7.80"N 3'7.30"E		Resorts	Temporary Tourism Facilities	Recreational tourism	Mangrove s along Chettuva River adjacent to islands



4.6.1. Munackal

The beach stretch extends from the northern side of the breakwater and extends up to north for about 1.2 km. The beach is developed and has a park, walkway and rain shelters. The stretch also covers the inland area of Periyar estuary where Chinese fish net and other fishing activities are present.



Munackal Park

Munackal Walkway







Fishing Nets Munackal



4.6.2. Valappad ± Snehatheeram Stretch

The stretch extends from Valappad beach in the south to Snehatheeram beach ion the north. The stretch covers three main beaches- Valappad, Nattika and Snehatheeram beaches. The Valappad beach is a developing beach stretch. Both Nattika and Snehatheeram beaches are more active and is visited by domestic and foreign tourists alike.





Valappad Beach

Nattika Rain Shelters



Snehatheeram Beach

Snehatheeram Walkway and Seats

Figure 4.34.Valappad ± Snehatheeram Stretch

4.6.3. Chettuva Vadanapalli Stretch

The costal stretch extends from the north of Chettuva estuary to Vadanapalli beach.Chettuva Azhimukham beach, Munakakkadavu Azhimukham beach, Nakshathra beach and Vadanapalli are the prominent beaches coming under this stretch. Estuary formed by Karuvannur River is a prominent feature along this stretch.





Vadanapilly Beach

Chettuva Azhimukam Beach



Munakadavu Azhimukam BeachKaruvannur EstuaryFigure 4.35.Chettuva Vadanapilly Stretch

4.6.4. Chavakkad

Beach extends from the Chavakkad beach usually known as Blangad beach. The beach also has park and walkway, rain shelters and seating arrangements. The beach stretch also includes the Dwaraka beach to the north of Blangad Beach.



Chavakkad Beach Walkway and Rain Shelters



Chavakkad Beach

Figure 4.36. Chavakkad Stretch



4.6.5. Mannalamkunnu

This beach stretch consists of Mannalamkunnu beach where tourism facilities including a beach park is being developed. The beach is frequented mainly by domestic tourists.



Mannalamkunnu Park Construction

Mannalamkunnu Beach



4.6.6. Veliankode

This beach stretch consists of Veliankode beach and inland stretch along the estuary formed by Kanjiramukku River. The beach is undisturbed and is frequented by domestic tourists.



Figure 4.38. Veliancode Beach

4.6.7. Inland Stretches along Periyar River

The inland stretches identified along Periyar River include Kottapuram stretch, Station kadavu stretch and Valiya Panikkan Island. The Kottapuram stretch includes Kottapuram market, Muziris boat jetty, Kottapuram fort and walkway which are part of Muziris heritage project. The stretch also includes location for Champions boat league pavillion.





Kottapuram Fort Walkway

Kottapuram Fort Boat Jetty



Kottapuram Market Walkway

Kottapuram Fort Remnants

Figure 4.39. Muziris Inland Stretches

4.6.8. Inland Stretches along Pulloot River and Canolly Canal

The inland stretches identified along the Pulloot River include Kunnumpuram and Karupadanna stretches. The Kunumpuram stretch is along the right bank towards the downstream of Pulloot Bridge covering the areas falling Kunnumpuram Municipal park and Muziris Boat jetty at Kizhakkumpuram. The stretches identified along Canolly Canal include Kandassankadavu and Banglakadavu.

4.6.9. Inland stretches along Karanjira River

The inland stretches identified includes both banks of Karanjira River along Chettuva and Padoor, inland stretch extending from Chettuva Bridge to Moonnamkallu, Chettuva fort and Thriprayar boat landing centre opposite to the Thriparayar temple.



4.6.10. Inland Locations of Chettuva Puzha

The inland stretches identified along Chetuva River include Raja Island and adjacent islands along the lake.

4.7. Tourism Stretches Identified in Malappuram District

The hilly district of Malappuram falls among the northern districts in the state of Kerala. Closely bordered by the mountain ranges of the Western Ghats on its east and flanked by the Arabian Sea on the West. Historic monuments, natural attractions, ritual art forms, ethnic cuisine and age-old traditions make Malappuram a unique destination for travellers. The beaches, rivers and lakes are also a major tourist attraction in the district. The list of identified tourism areas are presented in **Table 4.12** and **Table 4.13** and the brief description of the locations is followed.



S1.	Name of Stretch	Name of Local	Latitude	Longtitude/Co-	Exten	Existing	Proposed	Theme	Ecologicall
Ν		Body	ordinates of the	stretch	t (km)	tourism	Tourism	of	y Sensitive
0			North	South		facilities	Facilities	tourism	Areas (If
									any)
	Puthuponnani to	Veliancode,Ponnan	10°47'8.91"N	10°43'55.05"	6.592	Nil	Temporar	Beach	Nil
	Ponnani	i	75°54'42.47"E	Ν			y Tourism	Touris	
				75°56'8.26"E			Facilities	m	
	Padinjarekkara	Purathur	10°47'51.33"	10°47'14.94"	1.040	Padinjarekkar	Temporar	Beach	Nil
			Ν	Ν		a Azhimukam	y Tourism	Touris	
			75°54'30.11"E	75°54'36.10"E		Park	Facilities	m	
	Vakkad	Vettom	10°53'5.89"N	10°52'31.76"	1.099	Seating	Temporar	Beach	Nil
			75°53'21.23"E	Ν		Arrangements	y Tourism	Touris	
				75°53'28.41"E			Facilities	m	
	Unniyal	Nirmaruthur	10°55'16.40"	10°53'53.71"	2.637	Nil	Temporar	Beach	Nil
	Paravanna		Ν	Ν			y Tourism	tourism	
			75°52'53.91"E	75°53'11.23"E			Facilities		
	Kettungal Tanur	Tanur,Tirur	11°1'42.67"N	10°59'25.87"	4.408	Thooval	Temporar	Beach	Nil
			75°51'14.99"E	Ν		Theeram	y Tourism	Touris	
				75°51'52.47"E		Beach Park	Facilities	m	
	Parappanangaad	Parappanangadi	11°3'37.76"N	11°3'8.44"N	1.188	Nil	Temporar	Beach	Yes CRZ 1
	i		75°50'49.19"E	75°50'56.86"E			y Tourism	tourism	A turtle
							Facilities		nesting
	Alungal	Ariyallur	11°4'39.06"N	11°4'8.20"N	1.056	Nil	Temporar	Beach	
			75°50'32.25"E	75°50'41.94"E			y Tourism	Touris	
							Facilities	m	
								Eco	
								Touris	
								m	

 Table 4.12.
 Tourism Areas along Coastal Stretches - Malappuram District



S1.	Name of Stretch	Name of	Local	Latitude	Longtitude/Co-	Exten	Existing	Proposed	Theme	Ecologicall
Ν		Body		ordinates of the	stretch	t (km)	tourism	Tourism	of	y Sensitive
0				North	South		facilities	Facilities	tourism	Areas (If
										any)
	Vallikunnu	Vallikunnu		11°5'45.73"N	11°5'13.88"N	1.050	Nil	Temporar	Beach	Nil
				75°50'12.51"E	75°50'21.81"E			y Tourism	Touris	
								Facilities	m	
	Kadalundi	Vallikunnu		11°7'23.64"N	11°6'31.83"N	2.089	Nil	Temporar	Beach	Nil
	Anangadi			75°49'32.12"E	75°49'57.11"E			y Tourism	Touris	
								Facilities	m	

 Table 4.13.
 Tourism Areas along Inland Stretches - Malappuram District

Sl. No	Name of River /Backwate r/Waterbo dy	Nam e of Stret ch	Name of Local Body	Exte nt (km)	Latitude Longtitude Ordinates Stretch North	e/Co- of the South	Existing Tourism Facilities	Proposed Tourism facilities	Theme of Tourism	Ecologically Sensitive Areas (If Any)
	Biyyam Lake	Biyy am lake inlan d	Maranch ery	2.95	10°46'48 .72"N 75°57'31 .53"E	10°46'45 .86"N 75°57'34 .04"E	Biyyam lake park	Temporary Tourism Facilities	Recreational Tourism	Nil
	Bharathap uzha	Nila Walk way	Purathur	13.7	10°49'7. 60"N 75°57'51 .07"E	10°46'58 .48"N 75°55'12 .63"E	Nil	Temporary Tourism Facilities	Recreational Tourism	Nil
	Kadalundi river	Kada lundi	Vallikun nu	2.63	11° 8'15.35" N	11° 7'27.15" N	Nil	Temporary Tourism Facilities	Recreational, Eco Tourism	Mangroves along Kadalundi river



Sl. No	Name of River /Backwate r/Waterbo dy	Nam e of Stret ch	Name of Local Body	Exte nt (km)	Latitude Longtitude Ordinates Stretch North	e/Co- of the South	Existing Tourism Facilities	Proposed Tourism facilities	Theme of Tourism	Ecologically Sensitive Areas (If Any)
		inlan d			75°50'28 .11"E	75°49'55 .86"E				
		Balat hirut hi islan d	Vallikun nu	1.45	11°7'43.18"N 75°50'5.69"E		Nil	Temporary Tourism Facilities	Eco tourism	Mangroves and community reserve



4.7.1. Puthuponnani- Ponnani Stretch

This stretch extends from Puthuponnani at the north of Kanjuramukku River estuary up to Ponnani beach. Ponnani lighthouse and Ponnani harbour are the major attractions along this stretch. The beach stretches are rather undeveloped, but offering scope for tourism activities in the future.



Ponnani Harbour

Ponnani Stretch

4.7.2. Padinjarekkara

This stretch extends to the north of Padinjarekkara Azhimukam where Bharathapuzha joins Arabian Sea up to Padinjarekkara beach. The prominent locations along the stretch include Padinjarekkara Azhimukam Park, Padinjarekkara breakwater and Padinjarekkara beach. This is a developing beach stretch frequented mainly by local tourists.

Figure 4.40.



Padinjarekkara Walkway



Padinjarekkara Beach





Padinjarekkara Breakwater Figure 4.41.



Padinjarekkara Azhimukam Park Padinjarekkara Stretch

4.7.3. Vakkad

This beach stretch consists of Vakkad beach which is a developing beach in terms of tourism activity. It is mostly visited by domestic tourists and there are seating arrangements present.



Figure 4.42. Vakkad Beach

4.7.4. Unniyal to Paravanna Stretch

This undisturbed stretch extends from Paravanna beach in the south to Unniyal beach in the north and is frequented mainly by domestic tourists.







Unniyal Beach

Paravanna Beach

Figure 4.43. Paravanna Unniyal Stretch

4.7.5. Kettungal Tanur Stretch

This stretch extends from Tanur in the south up to Kettungal Beach in the north. Purapparamba river forms an estuary towards the north of the stretch. The main beaches along the stretch are Kettungal, Thooval Theeram and Ottumpuram and Tanur. Of these, Thooval theeram is well developed with park and Walkways.



Thooval Theeram Beach Walkway and Seats

Kettungal Beach



Thooval Theeram Beach





Figure 4.44. Kettungal Tanur Stretch

4.7.6. Parapanangaadi

This beach stretch includes relatively undisturbed Parapanangaadi beach stretch. The stretch is relatively undisturbed and has the scope for development of temporary tourism facilities along the beach.



Figure 4.45. Parappanangaadi Beach

4.7.7. Alungal

This undisturbed stretch is predominantly a fishing area and is mostly visited by local tourists. The stretch offers scope for integrated or responsible tourism activities.







4.7.8. Vallikunnu

This underdeveloped stretch include Vallikunnu beach. It is mostly visited by local tourists and has a scope for tourism development along the beaches and also landwards.



Figure 4.47. Vallikunnu Beach

4.7.9. Kadalundi Anangaadi Stretch

The beach stretch extends from the south of Kadalundi River estuary to Anangadi beach in the south. Much of the tourism activity in this stretch is concentrated along Kadalundi Nagaram Beach. The rocky strata along the beach is the major attraction. The stretch is adjacent to the Kadalundi bird sanctuary and community reserve.



Anangaadi Beach

Kadalundi Nagaram Beach

Kadalundi Anangadi Coastal Stretch



Figure 4.48. Ka

4.7.10. Inland Locations along Biyyam Kayal

This stretch consists of the inland stretches to the south of Biyyam regulator cum bridge (RCB) along both the banks. There is a park adjacent to the RCB and the stretch is also a location of Champions boat league.



Biyyam RCB



Biyyam Lake Park

Figure 4.49. Biyyam Lake Inland Stretch

4.7.11. Inland Locations along Bharatapuzha

The stretch includes both the banks of Bharatapuzha to the south of Chamravattam RCB up to the mouth of the river. There is a proposal to construct a walkway along the identified stretch.

4.7.12. Inland Locations along Kadalundi River

This stretch includes banks of Kadalundi River to south of Kottakadavu bridge up to mouth of the river. It also includes Balathiruthi and adjacent islands. The stretch is part of Kadalundi Vallikunnu Community reserve and Kadalundi bird sanctuary. The mangrove forests along the stretch make it a picturesque location.





Figure 4.50.Kadalundi MangrovesTourism Stretches Identified in Kozhikode District

Kozhikode district with a coastline of about 71 km is one of the most visited tourist destination in the State. Most of the beach stretches along the district have functional beach parks and other tourism facilities. The list of identified tourism stretches are presented in **Table 4.14** and **Table 4.15**. The brief description of the locations is presented in the susequent sections.



4.8.

Sl N o	Locatio n /Name of Stretch	Name of the Local Body	Latitude ordinates of th North	Longtitude/Co- le Stretch South	Extent (km)	Existing Tourism facilities	Proposed Tourism Facilities	Theme of Tourism	Ecologically Sensitive Areas if any
1	Gothee shwara m- Chaliy am	Beypore,	11°11'2.67" N 75°47'43.35 "E	11°9'12.51"N 75°48'27.21" E	2.548	Seating Arrangements along breakwater – Beypore Beypore marina	Temporary Tourism Facilities	Beach Tourism	Nil
2	Edakka l Kothi	Calicut Corporati on	11°18'22.02 "N 75°45'4.45" E	11°13'24.40" N 75°46'49.10" E	10.876	Kamburam beach park and walkway Bhatt road beach park and walkway Kozhikode lighthouse beach and walkway Kozhikode south beach walkway Mukhadar walkway	Temporary Tourism Facilities	Beach Tourism	Nil
3	Elathur	Elathur	11°21'14.08 "N 75°44'10.12 "E	11°20'32.86" N 75°44'11.51" E	0.534	Nil	Temporary Tourism Facilities	Beach tourism	Nil
4	Kappa d	Chemanje ri	11°24'1.13" N 75°42'37.80 "E	11°22'38.57" N 75°43'20.37" E	3.288	Nil	Temporary Tourism Facilities	Beach Tourism	Nil

 Table 4.14.
 Tourism Areas along Coastal Stretches - Kozhikode District



Sl N o	Locatio n /Name	Name of the Local Body	Latitude Longtitude/Co- ordinates of the Stretch		Extent (km)	Existing Tourism facilities	Proposed Tourism Facilities	Theme of Tourism	Ecologically Sensitive Areas if any
Ŭ	of Stretch	Dody	North	South			racintics		ii aiiy
5	Parapal li	Quilandy	11°27'43.84 "N 75°39'48.79 "E	11°26'51.32" N 75°40'59.46" E	3.157	Nil	Temporary Tourism Facilities	Recreational tourism	Nil
6	Payyoli – Thikko ti	Payyoli, Thikkoti	11°30'55.58 "N 75°36'28.06 "E	11°28'28.93" N 75°37'15.27" E	5.236	Nil	Temporary Tourism Facilities	Beach tourism, Eco tourism	CRZ 1A Turtle nesting
7	Kolavi palam	Vadakara	11°33'46.45 "N 75°35'28.61 "E	11°32'32.68" N 75°35'51.09" E	2.432	Nil	Temporary Tourism Facilities	Beach tourism, Eco Tourism	CRZ 1A Turtle nesting
8	Vadaka ra	Vadakara	11°34'36.71 "N 75°35'8.21" E	11°34'6.19"N 75°35'19.67" E	1.039	Vadakara beach park, walkway and seats	Temporary Tourism Facilities	Beach tourism	Nil
9	Chomb ala	Azhiyur	11°40'14.38 "N 75°32'50.80 "E	11°39'38.86" N 75°33'7.21"E	2.124	Nil	Temporary Tourism Facilities	Beach Tourism	Nil



S.N o	Name of River /Backwater	Name of Stretch	Name of Local Body	Exten t (km)	Latitude Longtitude/Coordinates of the Stretch North South		Existing Tourism Facilities	Proposed Tourism Facilities	Theme of Tourism	Ecologicall y Sensitive Areas if Any
1	Kadalundi River	Kadalundi Inland	Kadalundi	1	11° 8'17.48"N 75°50'25.51" E	11° 7'43.22"N 75°49'32.29" E	Kadalundi Bird Sanctuary	Temporar y Tourism Facilities	Eco Tourism	Mangroves along Kadalundi River and Community Reserve
2	Chaliyar	Chaliyar Inland	Feroke	1.03	11°12'16.40" N 75°52'14.48" E	11°12'11.95" N 75°51'44.18" E	Private Resorts	Temporar y Tourism Facilities	Recreationa 1 Tourism	Nil
3	Canolly Canal	Sarovara m	Calicut Corporatio n	4.73	11°16'26.39" N 75°47'33.22" E	11°16'11.77" N 75°47'38.13" E	Sarovara m Bio Park	Temporar y Tourism Facilities	Eco Tourism	Mangroves and wetland adjacent to stretch
4	Korapuzha Akalapuzh a	Elathur	Elathur	2.99	11°21'16.66" N 75°44'23.14" E	11°20'10.57" N 75°44'39.91" E	Nil	Temporar y Tourism Facilities	Recreationa 1 Tourism	Nil
5	Kuttiyadi River	Iringal Inland	Iringal	1.74	11°33'48.56" N 75°36'31.65" E	11°34'7.16"N 75°35'35.26" E	Sargalaya Arts and Crafts Village	Temporar y Tourism Facilities	Recreationa l and heritage tourism	Mangroves along the Kuttiyadi River estuary

 Table 4.15.
 Tourism Areas along Inland Stretches - Kozhikode District



4.8.1. Gotheeshwaram to Chaliyam Stretch

The main attractions along this stretch are Gotheeshwaram beach, Beypore marina, Beypore and Chaliyam breakwaters, Beypore Chaliyam jangar service, Chaliyar estuary, Chaliyam Mulla beach etc. The Gotheeshwaram beach is a beach stretch with casuarina trees along the beach and is mostly visited by domestic tourists. There is an existing cruise tourism service from Beypore to Calicut by KSINC. Much of the tourism activity at Beypore and Chaliyam is concentrated along the breakwater.



Gotheeshwaram Beach

Beypore Marina



Beypore Breakwater

Chaliyam Beach

Figure 4.51.Gotheeshwaram Chaliyam Stretch

4.8.2. Edakkal to Kothi Stretch

This long stretch includes Konadu Bhatt Road beach, Kamburam sports beach, Calicut lighthouse Calicut north, and south Beaches, Old Sea Bridge, Mukhadar Beach and Kothi beach. Much of the activity along this stretch is concentrated along the north and south beaches which are one of the most visited beaches in the state. All these beaches have walkways; rain



shelters etc. as tourism facilities except Kothi beach, which is an undisturbed beach. Towards north of Kothi beach Mampuzha river forms an estuary. A number of beach hotels and restaurants are present along the stretch catering to both domestic and foreign tourists.



Bhatt Road Beach Walkway

Bhatt Road Beach



Kamburam Walkway and Shelters

Kamburam Beach



Calicut Light House

Old Sea Bridge and North Beach





Calicut South Beach and Walkway

Mukhadar Beach



Calicut North Beach Walkway Figure 4.52. Edakkal to Kothi Stretch

4.8.3. Elathur

This includes a beach stretch to the south of Korapuzha estuary. This relatively undisturbed stretch is visited mostly by local tourists. The picturesque view of the estuary makes it a location with plenty of scope for tourism activity along the beach.







4.8.4. Kappad Stretch

Kappad beach, Kappad Beach Park, and Vasco Da Gama memorial are the main attractions along this stretch. Domestic and foreign tourists alike frequent this location. There are also a few resorts and homestays adjacent to the beach.



Kappad Beach Park

Kappad Beach

Figure 4.54. Kappad Stretch

4.8.5. Parapally Beach Stretch

In this stretch, the activity is mainly concentrated around the existing cliff area. Domestic tourists mostly visit this undisturbed stretch; though undeveloped, this stretch offers plenty of scope for tourism activities around the cliff. The stretch extends from Palakkulam to Panthalayani.



Figure 4.55. Parapally Cliff



4.8.6. Payyoli Thikkoti Stretch

This stretch includes beaches of Payyoli and Thikkoti, mostly visited by domestic tourists. These long and wide beaches are undisturbed and offer scope for development of activities along the beach and landward side as well. There are also existing proposal to convert Thikkoti beach into a drive-in beach. Velliyamkallu Rock- an island offshore in Arabian sea is also another attraction. The island is located around 14 km from Payyoli and 16 km from Thikkoti sea shores and can be accessed via boats. The island is of great historical importance and is a picturesque location



Payyoli Beach

Thikkoti Beach



4.8.7. Kolavipalam

Kolavipalam beach also known as the 'Turtle Beach' is located south of the Murad River about 30 km north of Kozhikode. The turtles that frequent the beach are the endangered Olive Ridley turtles (*Lepidochelys olivacea*). There is a turtle conservation program managed by "theeram" a turtle conservation society which releases hatchlings during months of October to January. It is an ideal location for conservation tourism.





Figure 4.57. Kolavipalam Beach Stretch

4.8.8. Vadakara

Vadakara sand banks and beach park are the main attractions of this stretch mostly visited by domestic tourists. Towards the south of this stretch lies an estuary formed by Kuttiyadi River. The activity is also concentrated along the groyne towards the south of the stretch.







Figure 4.58. Vadakara stretch

4.8.9. Chombala

This beach stretch comprises Chombala beach and Chombala harbor area. The beach stretch is a long wide undisturbed stretch abutted by Casuarina trees along the shore. The stretch is mostly visited by domestic tourists. Even though the stretch is underdeveloped, it offers plenty of scope for tourism activity along the beach stretch.





Chombala Harbour

Chombala Beach



4.8.10. Kadalundi Inland Stretch

This stretch includes the right bank of Kadalundi River extending from Kottakadav bridge to mouth of the river. The stretch includes the Kadalundi Bird Sanctuary from where boating services are available along the estuary. The mangroves and migratory birds along the stretch makes it a picturesque and ecologically important location.



Kadalundi Boat Landing Figure 4.60.



Kadalundi Mangroves Kadalundi inland stretch

4.8.11. Chaliyar Inland Stretch

It includes inland stretch along the bank of river Chaliyar adjacent to the Aarapuzha Bridge.

4.8.12. Sarovaram Inland Stretch

This includes inland stretch adjacent to the Sarovaram Bio Park adjacent to the Canolly canal. This is one of the prominent tourist spots in the city frequented by domestic and foreign tourists alike. The bio park is an eco- tourism spot with theme of mangrove and wetland conservation.





Sarovaram Bio Park Walkway

Sarovaram Boating

Figure 4.61. Sarovaram Bio Park

4.8.13. Korapuzha ± Akalapuzha Inland Stretch

The inland stretches at the confluence of Korapuzha and Akalapuzha rivers



Figure 4.62. Korapuzha Estuary

4.8.14. Iringal Inland Stretches

The stretch includes inland stretches along both banks of Kuttiyadi River to the south of Moorad Bridge up to the mouth of the river. Main attractions along this stretch are Iringal Sargalaya Crafts village, and Kuttiyadi River estuary. The Iringal arts and Crafts village is a major tourism destination in the district visited both by domestic and foreign tourists. Sargaalaya also provides opportunity for the tourists to enjoy classical and folk art forms of Kerala, boating along the Moorad River.





Iringal Crafts Village

Iringal Estuary

Figure 4.63. Iringal Inland Locations

4.9. Tourism Stretches Identified in Kannur District

Kannur district has one of the longest beach stretches in the state of about 82 km. The district has many locations with existing tourism activities along coastal stretches and also the inland stretches. The tourism locations identified are listed out in **Table 16** and **Table 17**. The brief description of the locations are briefed in the section below.



Table 4.16.	Tourism Areas along Coastal Stretches -Kannur District
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Sl. No	Beach/ Stretch Name	Name of Local Body	Latitude ordinates of the S North	Longtitude/Co- Stretch South	Extent (Km)	Existing Tourism facilities	Proposed Tourism facilities	Theme of Tourism	y Sensitive Areas if
	Thalassery	Thalassery	11°45'26.18"N 75°28'44.30"E	11°44'17.97"N 75°29'44.11"E	3	Centenary park Thalassery Fort Thalassery Pier Overburrys folly Sea view park	Temporary Tourism Facilities	Beach Tourism	any Thalassery Fort CRZ 1A
	Dharmada m Island	Dharmadam	11°46'11.00"N 75°27'2.94"E		0.664	Nil	Temporary Tourism Facilities	Recreatio nal Tourism	
	Dharmada m Coastal Stretch	Dharmadam	11°46'38.18"N 75°27'18.73"E	11°45'57.81"N 75°27'37.67"E	2.835	Dharmadam park Walkway Rain shelters Toilet facilities	Temporary Tourism Facilities	Beach Tourism	
	Muzhappil angad	Muzhupilang ad	11°48'29.69"N 75°25'56.56"E	11°46'44.06"N 75°27'18.20"E	7.448	Walkway Central park Rain shelters	Temporary Tourism Facilities	Beach tourism	Nil
	Thottada - Ezhara	Edakkad	11°50'19.59"N 75°24'11.09"E	11°48'28.95"N 75°25'43.33"E	7.304	Resorts	Temporary Tourism Facilities	Beach tourism	Nil
	Kadalayi	Edakkad	11°51'2.94"N 75°23'25.68"E	11°50'35.43"N 75°23'48.75"E	2.325	Resorts	Temporary Tourism Facilities	Beach tourism	Nil



Sl. No	Beach/ Stretch	Name of Local Body	Latitude ordinates of the S	atitudeLongtitude/Co-Erdinates of the Stretch(1)		Existing Tourism	Proposed Tourism	Theme of Tourism	Ecologicall y Sensitive
	Name		North	South		facilities	facilities		Areas if any
	Arakkal- Azhikkal	Kannur municipality, Pallikunnu, Valapattanm, Azhikode	11°56'31.95"N 75°17'49.65"E	11°51'29.39"N 75°22'51.80"E	20.718	Arakkal Museum St Angelo Fort Payyambalam Park Cliff walkway Chal beach park	Temporary Tourism Facilities	Beach tourism	St Anjelos Fort – CRZ 1A
	Mattool	Mattool	11°57'13.81"N 75°17'22.47"E	11°56'45.46"N 75°17'42.98"E	1.275	Nil	Temporary Tourism Facilities	Beach tourism	Nil
	Chootad	Madayi	12° 1'21.08"N 75°13'31.23"E	12° 1'2.66"N 75°14'15.40"E	3.37	Chootad park	Temporary Tourism Facilities	Beach tourism	Nil
	Ettikkulam	Ramanthali	12° 0'40.04"N 75°12'34.40"E	12° 0'43.27"N 75°13'6.75"E	1.125	Nil	Temporary Tourism Facilities	Beach tourism	Nil



S.No	Name of Water Body	Location/Name of the Stretch	Name of	Extent (km)	Latitude Longtitude/Coordinates of the Stretch		Existing Tourism	Proposed Tourism	Theme of Tourism	Ecologically Sensitive
			Local Body		North	South	Facilities	Facilities		Areas if Any
	Mahe River	New Mahe	New Mahe	1	11°42'35.61"N 75°32'5.12"E	11°42'26.04"N 75°32'32.40"E			Cruise Tourism Eco tourism	
		Pathikkal	Kannad i	1.14	11°42'19.97"N 75°32'54.10"E	11°42'7.02"N 75°33'18.65"E	Nil	Proposed locations for Malabar cruise tourism project		Mangroves
		Monthal	Peirnga lama	0.86	11°41'44.29"N 75°33'43.75"E	11°41'16.98"N 75°33'46.31"E				Mangroves
		Kariyad	Peringa lam	1.02	11°41'11.74"N 75°35'7.25"E	11°40'49.23"N 75°34'44.33"E				
		Peringathur	Peringa thur	1.05	11°42'45.21"N 75°35'34.49"E	11°42'38.51"N 75°35'18.94"E		project		
1		Kakkadavu	Chokli	1.1	11°42'7.01"N 75°33'18.69"E	11°41'52.46"N 75°33'31.73"E				
	Anjarakkandi river	Dharmadam	Dharma dam	11.87	11°47'32.06"N 75°27'49.17"E	11°46'57.89"N 75°27'48.14"E	Nil	Proposed locations for	Cruise Tourism	Mangroves adjacent to Dharmadam stretch
		Parapram	Pinarar yi	1	11°49'3.64"N 75°28'25.32"E	11°49'4.36"N 75°27'55.40"E		Malabar cruise		
		Cherikkal	Cherikk a	0.9	11°49'25.81"N 75°29'24.39"E	11°49'14.93"N 75°29'0.29"E		tourism project		
		Mambram	Mangat tidam	0.933	11°49'53.55"N 75°30'5.33"E	11°49'24.39"N 75°30'10.54"E				

 Table 4.17.
 Tourism Areas along Inland Stretches - Kannur District



S.No	Name of Water Body	Location/Name of the Stretch	Name of	Extent (km)			Existing Tourism	Proposed Tourism	Theme of Tourism	Ecologically Sensitive
			Local Body		North	South	Facilities	Facilities		Areas if Any
		1.Azhikkal Boat Jetty	Azhiko de	1	11°56'42.39"N 75°18'6.78"E	11°56'40.47"N 75°18'36.14"E			Cruise Tourism, Eco tourism	Mangroves along Kolacheri island, Azhikkal boat jetty, Bhagath singh island
		2Azhikkal	Azhiko	1.1	11°56'40.47"N	11°56'27.89"N		Proposed locations for		
		ferry	de		75°18'36.14"E	75°19'5.82"E				
		3Pappinisseri		1.032	11°56'37.42"N 75°20'4.37"E	11°56'27.92"N 75°20'17.75"E				
		Pappinisseri	Pappini	1.11	11°56'27.92"N	11°56'17.81"N				
	Valapattanam	parakkal	sseri		75°20'17.75"E	75°20'30.10"E		Malabar		
		Valapattanam	Valapat tnam	1	11°55'48.56"N 75°20'59.09"E	11°55'39.30"N 75°21'27.62"E		- cruise tourism		
		Bhagath singh island	Pappini sseri	0.8	11°56'34.32"N 7	5°22'3.12"E		project		
		Narath	Narath	0.9	11°57'25.91"N 75°22'49.56"E	11°57'14.51"N 75°22'28.52"E				
		Pamburuthi	Kolach	0.99	11°57'46.23"N	11°57'34.21"N		1		
		Island	ery		11°57'46.23"N	75°22'50.15"E				
		CH Island	Kolach ery	0.19	11°57'50.69"N 7	5°22'47.42"E				
		Kolachery island	Kolach ery	0.96	11°58'4.34"N 75	°22'57.75"E				


S.No	Name of Water Body	Location/Name of the Stretch	Name of	Extent (km)	Latitude Longtitu the Stretch	de/Coordinates of	Existing Tourism	Proposed Tourism	Theme of Tourism	Ecologically Sensitive
			Local Body		North	South	Facilities	Facilities		Areas if Any
		Parassinikadavu Boat Terminal	Talipar ambu	0.95	11°59'13.69"N 75°24'2.95"E	11°58'45.14"N 75°24'2.11"E				
		AKG Island	Anthoo r	1.37	11°59'54.80"N 75	°24'5.12"E				
		Madakkara	Onchiy am	0.56	11°57'40.41"N 75°18'12.20"E	11°57'14.65"N 75°18'36.54"E				Mangroves
		Thekkumbad	Mattool	0.55	11°58'17.25"N 75°17'30.36"E	11°57'52.47"N 75°17'55.91"E				Mangroves
		Matool north	Mattool	1	11°58'53.02"N 75°17'2.58"E	11°58'23.29"N 75°17'16.37"E				Mangroves
		Matool south	Mattool	0.97	11°57'27.35"N 75°18'1.70"E	11°57'1.28"N 75°18'13.65"E		Proposed		Mangroves
		Muttil	Muttil	0.40	11°59'51.31"N 75°16'35.26"E	11°59'53.44"N 75°16'40.97"E		locations for Malabar	Cruise	Mangroves
	Kuppam	Vadikkal	Madayi	1	12° 0'53.19"N 75°15'48.27"E	12° 1'22.54"N 75°15'58.90"E		cruise tourism	Tourism	
		Pazhayangadi		1.49	12° 1'22.54"N 75°15'58.90"E	12° 1'32.95"N 75°16'6.45"E		project		Mangroves
	-	Madayi	Madayi	1.1	12° 1'32.95"N 75°16'6.45"E	12° 1'34.07"N 75°16'31.43"E				
		Thavam	Madayi	0.98	12° 1'23.13"N 75°16'16.55"E	12° 1'16.04"N 75°16'47.65"E				
		Cherukunnu	Cheruk unu	0.71	12° 0'25.68"N 75°17'38.64"E	12° 0'19.52"N 75°17'52.23"E				Mangroves



S.No	Name of Water Body	Location/Name of the Stretch	Name of	Extent (km)	Latitude Longtitu the Stretch	de/Coordinates of	Existing Tourism	Proposed Tourism	Theme of Tourism	Ecologically Sensitive
			Local Body		North	South	Facilities	Facilities		Areas if Any
		Ezhome kottakkal kadavu	Ezhom e	1	12° 2'18.31"N 75°18'5.29"E	12° 2'6.59"N 75°18'2.25"E				
		Pattuvam boat jetty	Pattuva m	0.98	12° 2'0.21"N 75°18'36.75"E	12° 1'51.06"N 75°18'12.13"E				
		Pattuvam Muthukuda	Pattuva m	1.05	12° 1'51.06"N 75°18'12.13"E	12° 1'28.74"N 75°18'12.96"E				
		Pattuvam Mangalassery	Pattuva m	0.98	12° 2'21.59"N 75°19'58.15"E	12° 2'16.59"N 75°19'32.45"E				Mangroves
		Kuppam	Kuppa m	1.01	12° 3'12.13"N 75°20'54.30"E	12° 2'49.20"N 75°20'32.43"E				
		Kattampallykad davu	Peringa lam	1.01	12° 6'27.81"N 75°22'43.29"E	12° 6'8.94"N 75°22'35.26"E				
	Valiyaparamba	Punnakkadavu	Payyan ur	1	12° 4'43.67"N 75°11'28.43"E	12° 4'14.21"N 75°11'39.83"E		Proposed locations for Malabar cruise tourism project	Cruise Tourism	Nil
	backwater	Kalikadappuram	Payyan ur	1	12° 5'24.60"N 75°10'29.27"E	12° 5'12.51"N 75°10'20.51"E		Temporary Tourism Facilities		
		Kavvayi Island	Payyan ur	2.9	12° 5'1.75"N 75°1	0'42.46"E	Resorts	Temporary Tourism Facilities	Recreationa 1 Tourism	Nil



S.No	Name of Water Body	Location/Name of the Stretch	Name of	Extent (km)	the Stretch	de/Coordinates of	Existing Tourism	Proposed Tourism	Theme of Tourism	Ecologically Sensitive
			Local Body		North	South	Facilities	Facilities		Areas if Any
2	Kuyyali River	Thalassery mangrove stretch	Thalass ery	2.02	11°45'59.38"N 75°28'49.65"E	11°45'36.94"N 75°29'23.94"E		Proposed location for a walkway	Eco Tourism- Mangrove walks	Mangroves along Kuyyali River
		Eranholi Bridge stretch	Eranhol i	0.4	11°45'40.49"N 75°30'24.56"E	11°45'40.49"N 75°30'24.56"E		Proposed location for park	Recreationa 1 Tourism	Nil
3	Kuttikol River	Vellikeel	Pattuva m	1.14	12° 0'20.02"N 75°20'2.07"E	11°59'52.10"N 75°20'13.04"E	Vellikeel eco- tourism- walkway and Rain Shelters	Temporary Tourism Facilities	Eco Tourism	Mangroves along Kuttikol River adjacent to the stretch
4	Vayalapra River	Vayalapra	Cheruth azham	1.86	12° 2'58.55"N 75°15'13.27"E	12°2'44.69"N 75°15'9.19"E	Floating park, Rain Shelters	Temporary Tourism Facilities	Recreationa 1 Tourism	Mangroves along the lake



4.9.1. Thalassery Stretch

The Thalassery tourist stretch includes, the Thalassery old sea bridge, Overburry's Folly, Sea View Park, Thalassery Fort and the Thalassery centenary park as the prominent locations. These locations are part of the Thalassery heritage project and is frequented by a large number of foreign and domestic tourists. Domestic tourists predominantly visit both Centenary Park and Sea View Park located along the shore. The Thalassery fort and Overburry's Folly are of historical value and is visited by foreign and domestic tourists alike.



2YHUEMU₩)ROO\

Thalassery Fort





Sea View Park

Figure 4.64. Thalassery Stretch

4.9.8. Dharmadam Stretch

Dharmadam beach, Dharmadam beach park and Dharmadam Island are the main attractions along this stretch. The park is well developed and is frequented mainly by domestic tourists. There are also boating services from the beach towards the island. Many homestays and restaurants are operating in proximity to the beach.





Dharmadam beach



Dharmadam Beach Park



Dharmadam Beach Park Figure 4.65. Dharmadam Stretch

Dharmadam Island

4.9.3. Muzhappilangad Stretch

Muzhupilangad beach is the longest Drive-In Beach in Asia. The beach spanning almost 5.5 km. It is one of the most visited beaches in the state especially during the beach festival in the month of April. The Muzhupilangad beach park, walkway along the beach and Casuarina forest along the shore are other important features. There also exists a number of homestays and resorts catering to mainly foreign tourists.





Muzhupilangad Beach

Muzhupilangad Beach Park

Figure 4.66. Muzhipilangad Stretch

4.9.4. Thottada to Ezhara Stretch

This beach stretch comprises beaches, Thottada, Kizhunna and Ezhara beaches. There are a number of homestays and resorts operating in the region catering mainly to foreign tourists. The rocky shore and undisturbed, serene beach stretch is the factor attracting tourists to this location.



Kizhunna Beach

Thottada Beach



Ezhara Beach



Figure 4.67. Thottada to Ezhara Stretch

4.9.5. Adikadalayi

This stretch includes Adikadalayi beach also known as Kadalayi beach and Kaanam river estuary. This relatively undisturbed stretch is mostly frequented by domestic tourists. There are also a few resorts and homestays operating adjacent to the stretch.



Figure 4.68. Adikadalayi Beach

4.9.6. Arackal to Azheekkal Stretch

This stretch includes Arackal beach, Moppila bay, Payyambalam beach, Payyambalam walkway, Neerkadavu beach, St. Anjelos Fort, Ayikkara sea view point, Meenkunnu beach, Chal beach, Chal beach park and Azheekkal beach. There are also a number of resorts and homestays operating in the area catering to both domestic and foreign tourists.



Moppila Bay

St. Angelo Fort





Payyambalam Beach





Payyambalam Cliff Walkway



Meenkunnu Beach



Chal Beach



Chal Beach Park





Azheekkal Estuary and BreakwaterAzheekkal BeachFigure 4.69.Arackal to Azheekkal Stretch

4.9.7. Mattool

This beach stretch is located towards north of Azheekal. Valapattanam river estuary is towards the south of the stretch. The beach is frequented by mainly domestic tourists.



Figure 4.70. Mattool Beach

4.9.8. Chootad

Chootad beach and Chootad beach park are the main attractions along the stretch. The beach park and walkway are located aside the estuary and Casuarina trees along the shore. The park offers provision for boating along the estuary as well.





Chootad Beach Park and Walkway

Boating In Perumba

Figure 4.71. Chootad Beach Stretch

4.9.9. Ettikulam

Located close to the Ezhimala Naval Academy, this stretch is predominantly a fishing area. The beach is frequented mainly by local tourists.



Figure 4.72. Ettikulam Beach

4.9.10. Proposed Malabar Cruise Tourism Inland Locations

The proposed Malabar cruise tourism project along Mahe River, Kuppam River, Valapattanam River, Anjarakkandi River and Valiyaparmba backwaters includes multiple jetty locations and various other amenity centers. The project locations that have been earmarked for future development is included as a part of the tourism plan for the district. The **Table 4.17** shows the various location along the proposed cruise routes identified for future developments.



4.9.11. Kuyyali River inland locations

The inland stretches along the Kuyyali river includes the Thalassery Mangroves stretch at Koduvally and Eranholi bridge stretches. Both these locations offer picturesque view of the river and offers scope for further development of tourism facilities along the banks.



Figure 4.73. Thalassery Mangroves ± Koduvally

4.9.12. Kuttikol river inland locations

Kuttikol river a tributary of the Kuppam river is abundant in mangroves and Vellikeel located alongside the river is part of an eco-tourism project offering mangrove walks, rain shelters and boating along the river. The stretch is frequented by both domestic and foreign tourists alike and there is plenty of scope for future developments along the stretch.



Figure 4.74. Vellikeel Mangrove Walk

4.9.13. Vayalapra Inland Stretch

This stretch is located along Vayalapra River a tributary of Perumba River. This inland stretch consists a floating park and a children's park along the banks of the river, Vayalapra. One can



view mangroves along the banks of the river Boating along the river is also a feature of the park. Domestic tourists and foreign tourist alike frequent this tourist destination.



Vayalapra Mangroves

Vayalapra &KLOGUHQ¶3DUN



Vayalapra Boat LandingVayalapra Floating ParkFigure 4.75.Vayalapra Floating Park and Mangroves

4.10. Tourism Stretches Identified in Kasargode District

The list of tourism destinations in the district were provided by the DTPC. Initial discussion was held with the DTPC and the reconnaissance visits were conducted after the discussion with DTPC. Based on this the boundaries of the stretches identified were marked. The list of coastal and inland tourism locations are presented in **Table 4.18** and **Table 4.19**. The brief description of the locations are followed.



Sl. No	Name of Stretch	Name of Local Body	Latitude ordinates of the North	Longtitude/Co- stretch South	Extent (Km)	Existing tourism facilities	Proposed Tourism Facilities	Theme of tourism	Ecologically Sensitive Areas if any
1	Valiyapara mba	Valiyapa ramba	12° 7'9.12"N 75° 9'9.43"E	12° 6'8.41"N 75° 9'34.29"E	4.728	Nil	Temporary Tourism Facilities	Beach tourism	Nil
2	Mavilakad appuram	Valiyapa ramba	12°11'55.90" N 75° 7'15.66"E	12°10'54.16"N 75° 7'40.10"E	2.323	Nil	Temporary Tourism Facilities	Beach tourism	Nil
3	Thaikadap puram - Azhithala	Neelesh waram	12°14'35.69" N 75° 6'13.56"E	12°12'3.22"N 75° 7'9.89"E	4.855	Naithal turtle hatchery- conservatio n	Temporary Tourism Facilities	Eco – tourism Beach tourism	CRZ 1-A turtle nesting
4	Ozhinhava lappu	Kanhang ad	12°15'57.38" N 75° 5'40.06"E	12°14'57.49"N 75° 6'4.83"E	2.346	Resorts and homestays	Temporary Tourism Facilities	Eco tourism Beach tourism	CRZ 1-A turtle nesting
5	Hosdurg	Kandang ad	12°19'7.80"N 75° 4'20.12"E	12°18'8.27"N 75° 4'44.79"E	1.990	Nil	Temporary Tourism Facilities	Eco tourism Beach Tourism	CRZ 1-A turtle nesting
6	Bekal	Pallikare	12°23'52.80" N 75° 1'41.64"E	12°22'48.80"N 75° 2'38.73"E	3.750	Bekal Fort Bekal beach park KTDC beach camp	Temporary Tourism Facilities	Beach tourism	Nil
7	Trikkanna d	Pallikare, Uduma	12°24'43.77" N 75° 1'17.00"E	12°24'6.89"N 75° 1'35.55"E	1.533	Trikannad Beach Walkway	Temporary Tourism Facilities	Beach tourism	Nil

 Table 4.18.
 Tourism Areas along Coastal Stretches - Kasargod District



Sl. No	Name of Stretch	Name of Local Body	Latitude ordinates of the North	Longtitude/Co- e stretch South	Extent (Km)	Existing tourism facilities	Proposed Tourism Facilities	Theme of tourism	Ecologically Sensitive Areas if any
						And Rain Shelters			
8	Janma to Kappil	Uduma	12°26'22.72" N 75° 0'17.26"E	12°25'3.47"N 75° 0'53.56"E	2.711	Resorts	Temporary Tourism Facilities	Beach tourism	Nil
9	Chembirik ka	Chemna du	12°27'20.78" N 74°59'45.62" E	12°26'40.26"N 75° 0'8.92"E	1.687	Nil	Temporary Tourism Facilities	Beach tourism	Nil
10	Kasaba	Kasargo d	12°29'26.93" N 74°58'41.90" E	12°28'27.66"N 74°59'4.51"E	1.323	Kasaba Beach Park	Temporary Tourism Facilities	Beach tourism	Nil
11	Nellikunnu	Kasargo d	12°30'42.12" N 74°58'10.54" E	12°30'12.37"N 74°58'23.25"E	1.021	Nil	Temporary Tourism Facilities	Beach tourism	Nil
12	Kumbla	Mogral puthur	12°35'30.91" N 74°56'14.47" E	12°35'0.26"N 74°56'27.76"E	0.979	Nil	Temporary Tourism Facilities	Beach tourism	Mangroves along Kumbla estuary
13	Shiriya	Kumbala	12°37'12.04" N 74°55'30.74" E	12°36'38.84"N 74°55'44.63"E	1.198	Nil	Temporary Tourism Facilities	Beach tourism	Mangroves along Shiriya estuary



	Name of Stretch	Name of Local Body	Latitude ordinates of the North	Longtitude/Co- e stretch South	Extent (Km)	Existing tourism facilities	Proposed Tourism Facilities	Theme of tourism	Ecologically Sensitive Areas if any
14	Muttam	Mangalp adi	12°38'42.01" N 74°54'54.28" E	12°38'6.56"N 74°55'8.58"E	1.234	Nil	Temporary Tourism Facilities	Beach tourism	Nil
15	Kanwathee rtha to Manjeshw aram	Manjesh waram	12°45'25.46" N 74°51'54.92" E	12°41'29.55"N 74°53'40.31"E	7.74.3	Nil	Temporary Tourism Facilities	Beach tourism	Mangroves towards Kunjathur Rivulet and Uppala estuary

S N o	Name of River/Ba ckwater	Name of the Stretch	Name of Local Body	Extent (km)	Latitude Longtitude/Coord the Stretch North	linates of South	Existing Tourism Facilities	Proposed Tourism Facilities	Theme of Tourism	Ecologically Sensitive Areas If Any
		Thekkekad	Padan na	1.15	12°10'24.72"N 75° 8'21.13"E	12°10'6.48 "N 75° 8'35.93"E	Resorts	Temporary Tourism Facilities	Recreational Tourism	Nil
1	Valiyapa ramba backwat	Ayttty	Trikar ippur	1.23	12° 9'10.91"N 75° 9'13.45"E	12° 8'40.71"N 75° 9'26.04"E	Boating centre - BRDC	Temporary Tourism Facilities	Recreational Tourism	Nil
	er	Edayilakad	Valiy apraa mba	0.45	12° 8'19.71"N 75° 9'25.36"E	12° 7'53.39"N 75° 9'35.61"E	Amenity centre – BRDC-	Temporary Tourism Facilities	Recreational Tourism	Nil



S N o	Name of River/Ba ckwater	Name of the Stretch	Name of Local Body	Extent (km)	Latitude Longtitude/Coord the Stretch North	linates of South	Existing Tourism Facilities	Proposed Tourism Facilities	Theme of Tourism	Ecologically Sensitive Areas If Any
		Kottapura m	Nilesh war	0.9	12°14'10.33"N 75° 7'30.15"E	12°14'4.30 "N 75° 7'51.19"E	Kottapura m boat terminal -	Temporary Tourism Facilities	Recreational Tourism	Nil
		Madakkal	Trkari ppur	1.14	12° 6'9.34"N 75° 9'58.88"E	12°5'51.14 "N 75°10'12.2 0"E	Proposed Malabar tourism circuit jetty location	Temporary Tourism Facilities	Recreational Tourism	Nil
		Mavilakad appuram	Valiy apara mba	1.1	12°11'39.02"N 75° 7'39.66"E	12°11'8.60 "N 75° 7'50.80"E	Proposed Malabar tourism circuit jetty location	Temporary Tourism Facilities	Recreational Tourism	Nil
	Toiograi	Podothirut hi Island	Nileh war	1.27	12°14'32.10"N 75	[°] 9'30.46"E	Nil	Temporary Tourism Facilities	Recreational Tourism	Nil
2	Tejaswi ni river	Ramanchir a	Kayy ur- Chee meni	0.69	12°14'24.45"N 75° 9'44.75"E	12°14'3.23 "N 75° 9'48.02"E	Nil	Temporary Tourism Facilities	Eco-tourism	Mangroves along the banks
3	Kariang ode river	Orcha island	Neele shwar	1.51	12°14'31.94"N 75	^{5°} 7'25.76"E	Nil	Temporary Tourism Facilities	Recreational Tourism	Nil



S N o	Name of River/Ba ckwater	Name of the Stretch	Name of Local Body	Extent (km)	Latitude Longtitude/Coord the Stretch North	linates of South	Existing Tourism Facilities	Proposed Tourism Facilities	Theme of Tourism	Ecologically Sensitive Areas If Any
	Bekal	Malankunn u inland	Pallik are	1.15	12°24'31.10"N 75° 1'47.45"E	12°24'34.9 5"N 75° 2'0.58"E	Nil	Temporary Tourism Facilities	Recreational Tourism	Nil
4	and Chithari River	Chettukun d Inland	Pallik are	1	12°22'0.39"N 75° 3'29.74"E	12°21'38.1 0"N 75° 3'20.23"E	Nil	Temporary Tourism Facilities	Recreational Tourism	Nil
	Inland	Kolavayal Kallingal	Pallik are	1.16	12°21'44.61"N 75° 3'24.49"E	12°21'14.5 8"N 75° 3'35.33"E	Nil	Temporary Tourism Facilities	Recreational Tourism	Nil
5	Chandra	Thalangara inland	Kasrg od	1.03	12°28'49.74"N 74°59'24.11"E	12°28'34.7 0"N 74°59'45.2 1"E	Thalangar a walkway and children's park	Temporary Tourism Facilities	Recreational Tourism	Nil
	giri river	Chandragir i inland	Kasrg od	1.22	12°28'34.90"N 75° 0'17.63"E	12°28'14.8 5"N 74°59'55.7 7"E	Rain shelter	Temporary Tourism Facilities	Recreational Tourism	Nil



4.10.1 Valiyaparamba

This beach is located along the Valiyaparamba Island and is close to Kavvayi and Valiyaparamba backwaters. The long and wide stretch of beach provides ample scope for activities along the beach, landward side and along the lakeside.



Figure 4.76. Valiyaparamba Beach

4.10.2. Mavilakadappuram

This beach stretch is towards the south of creek formed by Tejaswini River at Azhithala. The wide beach stretch and view of the lake from the breakwater is the key feature attracting tourists to this location.



Oriyara Breakwater and Estuary

Mavilakadappuram Beach

Figure 4.77. Mavilakadappuram Stretch

4.10.3. Thaikadappuram ± Azhithala Stretch

This beach stretch extends from Thaikadappuram Turtle beach to Azhithala breakwater. Thaikadappuram is a very active turtle nesting zone and conservation center. 'Naithal' a turtle



conservation hatchery is present, which is a joint conservation program of Kerala Forest and Wildlife Dept. and local communities. Every year during months of September to January, hatchlings are released into ocean from the conservation centre

The Azhithala beach to the south of stretch is a much-favoured tourism destination. Here much of tourism activity is concentrated along the breakwater and the casuarina plantation. It is also a proposed site for a beach park by Bekal Resort Development Corporation. Towards south of the stretch the Tejaswini river forms an estuary meeting the Arabian Sea.



Azhithala Breakwater

Azhithala Beach



Thaikadappuram Beach

Naithal Turtle Hatchery

Figure 4.78. Thaikadappuram Azhithala Stretch

4.10.4. Ozhinhavalappu stretch

This beach stretch is a serene beach stretch with lots of private beach resorts and homestays operating in the landward side. This wide beach stretch is a preferred location mainly by foreign tourists. The location is also an active turtle-nesting zone and is visited by Olive Ridley turtles during September to January.





Figure 4.79. Ozhinhavalappu Beach

4.10.5. Hosdurg

The area is mainly a fish-landing centre. Hosdurg Beach is a wide and long stretch covering dazing tawny sands and Casuarina plantation. It is a relatively undisturbed beach stretch with not many tourism amenities with plenty of scope for tourism development



Figure 4.80. Hosdurg Beach

4.10.6 Bekal stretch

The Bekal beach stretch lies to the north and south of the historic Bekal fort, which is the largest fort in the state. Bekal fort happens to be the biggest fort of Kerala spreading over forty acres. The important features of this fort are the tank with its flight of steps, the opening of the tunnel towards the South, the magazine for keeping ammunition and the broad and wide steps leading



to the Observation Tower. The fort is one of the most visited tourist destinations in the district. The Red moon Beach Park, KTDC beach camp resort etc. are located to the south of the fort.



Bekal Fort



Bekal Red Moon Beach Park



KTDC Beach Camp

Bekal Beach

Figure 4.81. Bekal Stretch

4.10.7. Trikannad

It is a beach stretch adjacent to the Trikkanad Tryambakeshwara temple which is a famous pilgrim center in the state. There is sufficient scope for pilgrimage tourism along this stretch. The walkway and rain shelters along the beach also attract local tourists.





Figure 4.82. Trikannad Walkway and Rain Shelters

4.10.8. Janma to Kappil Stretch

This beach stretch includes beaches Janma, Koppal, Kovval, and Kappil. This stretch has the estuaries formed by Kalanadu River and Kappil River towards north and south respectively. The stretch also consists of a number of resorts and is a preferred destination by both domestic and foreign tourists.



Janma Beach - Udma

Kappil Beach

Figure 4.83. Janma to Kappil stretch

4.10.9. Chembirikka

The Chembirikka beach is a preferred destination among tourists and natives alike. Unspoiled, curving shoreline with sand, rock formations is the main attraction. The confluence of Noombil River or Chembirikka River with the sea adds beauty to this place. The beach is situated about 7 km from the Kasargode Town.





Figure 4.84. Chembirikka Beach

4.10.10.. Kasaba Stretch

It is a long beach stretch with Casuarina trees towards landward side and the main attractions along the stretch are the Kasaba beach, Kasaba Beach Park and Kasargode harbour. Towards south of this stretch is an estuary formed by Chandragiri river.



Kasaba Beach

Kasargode Harbour

Figure 4.85. Kasaba Stretch

4.10.11. Nellikunnu

The beach stretch frequented mainly by local tourists is located at about 3 km from Kasargode town with the main attraction being the Kasargode light house.





Nellikunnu Beach

Nellikunnu Light House



4.10.12. Kumbla

Located towards south of Shiriya estuary this beach stretch is a very active tourist location. It is a predominantly fishing area and here the Mogral River forms an estuary, towards south of the stretch. The stretch has vast potential for tourism both along the lake and beach stretches. The historic Kumbla fort is in proximity to the stretch,



Figure 4.87. Kumbla Mogral Beach

4.10.13. Shiriya

This stretch includes Shiriya beach which is adjacent to a creek where the Shiriya River joins the Arabian Sea. The view of the estuary and fishing activities along it makes it an active tourism location. This location is mostly preferred by local tourists.





Shiriya Estuary

Shiriya stretch

4.10.14. Muttam Beach

Situated at about 8 km from Kumbla this beach stretch is an active fishing location and there is an estuary towards south of the beach. This is an undisturbed location mostly preferred by local tourists and offers sufficient scope for beach activities along the shore.

Figure 4.88.



Figure 4.89 **Muttam Beach**

4.10.15. Kanwathirtha to Manjeshwaram

This coastal stretches include areas from Kanwathirtha beach in the north to Manjeshwaram beach in the south. Kanwathirtha beach is situated at a distance of 5 km from north of Manjeshwar. The luscious coconut groves on the beach give the beach a lush green cover. The huge pond close to the sea, is called 'Kanwa Thirtha'," a source of pristine water". It is renowned for its long beach stretch abutted by Casuarina plantations and Kunjathur rivulet. The wide beach and the mangroves along the rivulet makes it a picturesque location.



Other prominent locations along the stretch are the Manjeshwaram beach and harbor. These locations are mostly frequented by domestic tourists. Even though, an underdeveloped stretch at present the location has plenty of potential for future tourism development.



Kanwathirtha Beach

Kunjathur Rivulet and Mangroves



Manjeshwaram Harbour and Breakwater Figure 4.90. Kanwa

er Manjeshwaram Beach Kanwathirtha coastal stretch

4.10.16. Valiyaparamba Backwaters Inland Stretches

This stretch includes mainly the proposed Malanadu tourism project locations, Ayitty, Edayilakkad and Thekkekad Island, which is a backwater island. The proposed jetty locations of the Malanadu project are Mavilakadappuram boat jetty and Madakkal boat jetty. Ayitty is a BRDC project location offering boating services along the backwater and Edayilakkad is a BRDC amenity centre.





Ayitty Amenity Centre

Ayitty Boat Landing



Madakkal

Mavilakadappuram

Figure 4.91. Valiyaparamba Backwater Locations

4.10.17. Tejaswini River Inland Stretch

This stretch includes Ramanchira, Kottapuram boat terminal and Podothiruthi Island. Both these locations are mostly visited by local tourists and offer scope for tourism activities along the banks of the river. There are many view points across the stretch frequented by local tourists. Kottapuram boat terminal is a proposed location for Malabar cruise tourism project.





Ramanchira View Point

Tejaswini River View Point - Podothiruthi



Kottapuram Boat Terminal Figure 4.92. Tejaswini River Inland Stretches

4.10.18. Kariangode River Inland Locations

This stretch includes locations along Orcha Island and Nambiarkkal Dam. Orcha Island is a riverine island located in Nileswar municipality and there are various houseboat services operating around the region. The island offers plenty of scope for future tourism activity.





Figure 4.93. Orcha Island Boating

4.10.18. Chithari River and Bekal Inland Locations

Includes BRDC sites Malankunnu, Chettukund and Kolavayal Kallingal which are proposed locations for future BRDC resort projects.

4.10.19. Chandragiri River Inland Stretches

The inland stretches along Chandragiri River include Thalangara and Chandragiri kadavu stretches. Thalangara stretch includes a walkway and municipal park located beside the Chandragiri estuary. The Chandragiri Kadavu stretch is located beside the Chandragiri fort and the tourism activity in the stretch is concentrated along the Kadavu view point. Both these stretches are frequented by local tourists.



Thalangara Walkway Figure 4.94.

Chandragiri Kadavu View Point Chandragiri river inland stretch





ENVIRONMENTAL SAFEGUARDS FOR ECOLOGICALLY SENSITIVE AREAS

5.1. Aspects on Environmental Sustainability and Tourism Carrying Capacity

Tourism is highly dependent on quality of natural and socio- cultural environment of locations. The development of location as a tourism destination causes changes and even degradation of these locations. It is very challenging to evaluate adverse impacts of the tourism activities on the ecosystem because the environmental impacts arise not only due to increase in number of visitors but also due to various operations of tourism industry such as transportation, pollution, waste generation, etc. Implementation of environment-friendly programme creates a sustainable environment. The environmental sustainability has to focus on the overall viability and health of ecological systems. Natural resource degradation, pollution, and loss of biodiversity are detrimental because they increase vulnerability, undermine system health, and reduce resilience.

Many coastal areas are experiencing particular pressure from growth in lifestyles and growing numbers of tourists. Coastal environments are limited in extent consisting of only a narrow strip along the edge of the ocean. Coastal areas are often the first environments to experience the detrimental impacts of tourism.

Small Islands are especially affected and often depend on tourism. Mass tourism tends to put a strain on fragile island ecosystems and the natural resources it provides. Studies have shown that early practices of tourism were unsustainable and took a toll to environmental factors, hurting the natural landscapes that originally drew in the tourists.

Since the project is the mapping of existing and proposed tourism destinations along the Kerala Coast, ecological, social and economic criteria has been considered for development of tourism planning process. The system of criteria for evaluation of tourism zones is [resented in Figure below.





 Figure 5.1.
 System of criteria for evaluation of tourism zones.

 Source: Criteria for planning sustainable tourism development zones in coastal regions: case study of Croatia

 NOTE:
 - NOTE:

Criteria of spatial and ecological sustainability evaluate possible tourism zones in terms of their physical features and impacts of tourism development within zones on the destination environment. Location characteristics are assessed in relation to the quality of natural features of the zone and the surroundings. The tourism products being considered are as follows:

Climate quality Sea quality Air Quality Beach quality Terrain quality Sensitivity of natural and anthropogenic environment in the area Attractiveness of natural and anthropogenic resources in the area Existence of conflicting activities in the area Attractiveness of view from the zone



Harmon of the zone and the surrounding areas.

Also, other factors considered includes infrastructure availability such as

traffic accessibility of broader destination, traffic accessibility of tourism zone, availability, capacity and quality of utility systems within the zone distance to utility infrastructure to which zone can be connected.

Tourism carrying capacity

Tourism Carrying Capacity" is defined by the World Tourism Organization as "The maximum number of people that may visit a tourist destination at the same time, without causing destruction of the physical, economic, socio-cultural environment and an unacceptable

The main flaw of tourism carrying capacity is that, on the practical level, it is difficult to calculate a maximum number of visitors because this is also dependent on other factors like the way in which the tourists behave.

Considering these, for focusing in particular on businesses, sustainable tourism must have the following characteristics:

minimize negative economic, environmental, and social impacts

- generate greater economic benefits for local people and enhances the well-being of host communities, improves working conditions and access to the industry
- involve local people in decisions that affect their lives and life chances
- make positive contributions to the conservation of natural and cultural heritage, to the maintenance of the world's diversity
- provide more enjoyable experiences for tourists through more meaningful connections with local people, and a greater understanding of local cultural, social and environmental issues

provide access for people with disabilities and

must be culturally sensitive, engenders respect between tourists and hosts, and builds local pride and confidence.

Apart from this, the government has certain rules and regulations, which needed to followed. The CRZ notification itself proposes the permissible activities in each zone related to tourism.



Any development in the identified tourism destinations must be according to this. The same is briefed in the section below.

5.2. Need For Sustainable Measures to be Adopted at Tourism Areas

Many of the identified tourism locations contain areas that are part of or contain areas that are ecologically sensitive wherein special precautions are to be adopted so as to ensure sustainable tourism development. These sensitive area include turtle nesting zones, mangroves, sandy beaches etc. The Ecologically Sensitive Areas (ESAs) and the geo-morphological features play a vital role in maintaining the functions of the coast. Mangroves, beaches, coral reefs, etc., aid in controlling coastal erosion, shoreline change, and saltwater intrusion and also serve as natural defence against coastal hazards such as storm surges, cyclones and tsunamis. The ESAs maintain the biological integrity of the coast by providing direct and indirect ecosystem services to the coastal livelihood. In addition, several invaluable archaeological and heritage sites are also located along the coast. Hence conservation and protection of the above areas, features and sites become necessary. Measures specific to each location have to be adopted to ensure that no biodiversity loss or ecosystem damage occurs. General Measures to be adopted are as follows.

5.2.1. Mangroves and Turtle nesting Zones

In CRZ 1A areas, the only permissible activities are Eco-tourism activities such as mangrove walks, tree huts, nature trails, etc., in identified stretches or areas subject to being part of the eco-tourism plan featuring in the approved CZMP. Mangroves in Government land shall be protected based on a detailed plan to be prepared by the concerned State Governments or Union territory administrations, and in case the mangrove area is more than 1000 square meters, a buffer of 50 metre along the periphery of mangrove area shall be provided. This buffer zone of 50 metre may be utilised for public facilities for developing parks, research facilities related to mangrove biodiversity, facilities for conservation.

Mangroves declared as forest under the Forest (Conservation) Act, 1980 (69 of 1980). Notwithstanding anything contained in this notification, such mangroves declared by the concerned State Governments or Union territory Administrations or Central Government as forest land under the Forest (Conservation) Act, 1980 (69 of 1980) shall attract the provisions of the said Act.



Mangroves not declared under Forest (Conservation) Act, 1980:

Mangroves in Government land shall be protected based on a detailed plan to be prepared by the concerned State Governments or Union territory administrations, and in case the mangrove area is more than 1000 square meters, a buffer of 50 metre along the periphery of mangrove area shall be provided. This buffer zone of 50 metre may be utilised for public facilities for developing parks, research facilities related to mangrove biodiversity, facilities for conservation and the like.

Mangroves in private land will not require a buffer zone.

Turtle nesting grounds identified by the concerned State Governments or Union territory administrations shall be protected as per Wildlife (Protection) Act of 1972. No activities shall be permitted in and around the turtle nesting ground including those causing light and sound pollution except for those required for conservation and protection of these sites.

5.2.2. Nesting grounds of birds

The nesting ground of birds including their local migratory route shall be protected. No developmental activities which have adverse impact on the nesting grounds and the migratory routes shall be undertaken including construction of wind mills, transmission lines and the like in the locality. Efforts shall be made to increase the forest cover and mangrove cover including enriching the biodiversity of salt marsh and other coastal water bodies so as to provide for suitable habitat for the avi fauna.

5.2.3. Geo-morphologically Important Zones:

Sand dunes identified shall be conserved and protected as follows:No developmental activities shall be permissible except for providing eco-friendly temporary tourism facilities on stilts such as walkways, tents and the like;Mining of sand from sand dunes shall be prohibited activity except for the removal of atomic minerals with proper replenishment using the tailings or other suitable sand;No activities on the sand dunes shall be taken up that would lead to erosion/destruction of sand dunes;

Sandy beaches shall be protected as follows.Mining of beach sand is prohibited except for manual mining of atomic minerals with proper replenishment using the tailings or other suitable sand. When the permissible developmental activities are taken up on the beaches if loss of beach in the neighbourhood is predicted, necessary beach nourishment to compensate for the



losses shall be undertaken by the project authorities and its long term maintenance shall be ensured by them.

Biologically active mudflats (a) Biologically active mudflats will be identified by NCSCM in association with State Governments or Union territory administrations. The States or Union territories shall prepare management plans for such demarcated biologically active mudflats.

5.2.4. Corals and coral reefs and associated biodiversity

Destruction of coral and coral reefs and the surroundings is a prohibited activity. All coral and coral reefs shall be protected except for those small quantities required for research purposes. It shall be ensured that no activities that are detrimental to the health of corals, coral reefs and its associated biodiversity, such as mining, effluent and sewage discharge, dredging, ballast water discharge, ship washings, fishing other than traditional non-destructive fisheries, construction activities and the like are taken up in and around the coral areas.

5.2.5. National Parks, marine parks, Sanctuaries, reserve forests, wildlife habitats and other protected areas protected areas declared under the provisions of Wild Life (Protection) Act, 1972 (53 of1972), the Forest (Conservation) Act 1980 (69 of 1980) or Environment (Protection) Act 1986 (29 of 1986); including Biosphere Reserves

Conservation and protection of the above mentioned areas shall be as per the provisions of the respective Acts, notifications or guidelines as the case may be.

5.2.6. Areas or structures of Archaeological Importance and Heritage Value Sites:

No activities that are detrimental to the identified areas or structures of archaeological and heritage value shall be permitted. It shall be ensured that these structures or areas are preserved and activities undertaken without changing the façade/plinth of such structures. Such structures could be considered for use in accordance with the relevant norms after undertaking careful designing of the interiors without changing the exterior architectural design of the structure.





FINDINGS AND CONCLUSION

The areas delineated as tourism destination were identified by the Department of Tourism, DTPC and steering committee including tourism operators and others. The total length of the areas identified as tourism destinations in each district with existing and proposed tourism plans are presented in **Table 6.1**.

		rotar length of raentine		counter on b
S.no	District	Length of Coastal	Length of Coast	Percentage of
		Stretch marked as	(km)	coastal length
		Existing and Proposed		marked as
		Tourism Location		Toursim Area
		(km)		(%)
1.	Trivandrum	49.518	78	63.48
	Kollam	24.132	37	65.22
	Alapuzha	14.87	82	18.13
	Ernakulam	23.856	46	51.84
	Thrissur	21.156	54	39.92
	Malappuram	21.159	70	30.84
	Kozhikode	31.234	71	43.99
	Kannur	50.064	82	61.04
	Kasargod	39.421	70	56.31

Table 6.1.Total length of Identified Coastal Tourism Destinations

Annexure II shows the detailed tourism maps consisting of the existing and proposed tourism areas superimposed on the CZMP.


ANNEXURE-I

LIST OF TOURISM LOCATIONS

Thiruvananthapuram District

Existing tourism locations

- □ Stretch 1 Neyyar Thiruvallam
- □ Stretch 2 Shangumugam (Airport cargo complex to Tsunami park)
- □ Stretch 3 Veli (Veli Pozhikara to Veli Youth Hostel)
- □ Stretch 4 Anchuthengu (One km up and down of Anchuthengu Kotta)
- □ Stretch 5 Muthalapozhi (One km stretch)
- □ Stretch 6 Varkala (Papanasam beach to Thiruvambadi, black beach)
- □ Stretch 7 Vettakkada palli to Kappil beach
- □ Stretch 8 Thiruvambadi aquarium

Proposed tourism destinations

- □ Stretch 1 Akkulam Lake
- □ Stretch 2 Anchuthengu to Kadinamkulam stretch
- □ Stretch 3 Thumpa beach to Muthalapuzhi stretch
- □ Stretch 4 Muthalapozhi beach to Arivallam beach
- □ Stretch 5 NW3 and TS canal stretch to be included

Note:

- \Box Possibilities of ecotourism to be checked for Poovar (Mangrove areas)
- □ Possibilities for cruise tourism to be checked for Vizhinjam

Kollam District

Existing tourism locations

□ Stretch 1 Kappil to Thekkumbhagam (About 2.5 km stretch, Kottappuram village)

- □ Stretch 2 Paravur to Pozhikkara (About 2 km stretch)
- □ Stretch 3 Paravur Kayal
- □ Stretch 4 Kappil Kayal
- □ Stretch 5 Thanni to Mayyanad (About 2 km stretch)
- □ Stretch 6 Kollam beach to Thangassery
- □ Stretch 7 Mundakkal
- □ Stretch 8 Thirumullavaram beach (About 2 kms)
- □ Stretch 9 Clappana beach (About 2 Km)
- □ Stretch 10 Alumkadavu (Along waterway)
- □ Stretch 11 Kannetty
- □ Stretch 12 Chavara Kattil
- □ Stretch 13 Karunagapally
- □ Stretch 14 Mandrothuruthu Island
- □ Stretch 15 Panmana

Proposed destination for development

- □ Stretch 1 Paravur extension (Towards North)
- □ Stretch 2 Karunagapally extension (Towards North)
- □ Stretch 3 Neendakara extension(both north and south)
- □ Stretch 4 Kannetty Kayal
- □ Stretch 5 Asramam Kayal
- □ Stretch 6 Ithikkara Kayal
- □ Stretch 7 Ashtamudi Kayal
- □ Stretch 8 Sambranikodi
- □ Stretch 9 Kureepuzha
- □ Stretch 10 Thrikkaruva

- □ Stretch 11 East & West Kallada
- □ Stretch 12 Kallada river entry
- □ Stretch 13 Thevalakkara
- □ Stretch 14 Kollam Thodu
- □ Stretch 15 Ayiramthengu

Alappuzha District

- □ Kakkathuruth Island
- □ Perumbalam
- □ Aroookutty
- □ Thykkattussery
- \Box Resorts before Thannermukkam bund- west bank KTDC Sarovaram
- □ Kayamkulam Kayal House Boat terminal KSRTC opposite
- □ Thottappilly
- □ Thottappilly beach
- \Box Alappuzha Beach 2 km
- \Box Marari Beach Chethy Beach Pollethai 3 4 km
- □ Arthungal Beach
- □ Andhakaranazhi
- □ Alappuzha Canal (shall be reconfirmed)
- □ Valiya Azheekkal Beach
- \Box Cruise routes

Kottayam District

- □ Palekkari fish farm (Chembu Panchayath)
- Vykkom Kayalora Beach
- □ Thekke Vattathuruth Island various islands in Vembanad Kayal

Chembu, Maravanthuruth, Udayanapuram, T V Puram, Thalayazham, Vechoor, Vykom

Municipality – predominantly private resorts

- □ Philip Grama Vechoor
- □ Philip Kutty Farm
- \Box K V Canal

Ernakulam District

□ Munambam – Puthuvypin – 9 beaches (Nayarambalam, Cherai, Chathangad, Kuzhuppally,

Puthuvypin, Amdedkar beach, Chappa, Malippuram backwater, Munambam)

- □ Fort Vypin
- \Box Gothuruth
- \Box Fort Kochi Chellanam
- □ Bolgatty
- □ Willingdon Island
- \Box Ramanthuruth-Valanthakad
- □ Mattanchery
- □ Kadamakkudy
- \Box Vallarpadom
- 🗆 Kumbalangi
- \Box Valanthkadu
- □ Kundannoor
- 🗆 Maradu
- □ Cheranallur
- \Box Poothotta
- \Box Marine Drive upto Shipyard
- □ Paravoor 1.5 km Boat Jetty 1.5 km towards North

□ Pallipuram Fort

- □ S A Smarakam
- □ Maritime Meuseum Eastern side get from Muzris office
- \Box Thoppumpady
- □ Mattacherry to Market Road
- □ Walkway connecting to Port
- \Box Kadambrayar
- □ Varappuzha
- □ Chittoor
- □ Chambakkara
- □ Thevara
- □ Thanthonni Thuruth
- □ KMRL Project
- □ Vyttila

Thrissur District

- \Box Stretch 1 Munakkal around 1.2 km
- \Box Snehatheeram beach –0.5 km
- □ Chavakkad 2 km pvt exists till Kadappuram end
- \Box Nattika 3 km pvt exists

Proposed

- \Box Vadanapalli 0.5km
- \Box Valappad 1 km
- \Box Mangalamkunnu >0.5 km
- \Box Dwaraka beach 1 km
- □ Kodungalllore Beeyam Kayal

- 🗆 Chettuva , Chettuva Fort
- □ Thriprayar boat landing centre
- \Box Eanammavu Kandassankadavu –
- □ Vanchikkadavu (may not be in czmp)
- □ Karingolchira Kadavu
- □ Pavaratti Mangrove
- □ Mar Thoma Kayal
- □ Kottappuram
- □ Manaloor Kadavu
- Chettuva Raja Island
- □ Kottappuram Fort
- □ Banglakadavu

Malappuram District

Existing

- \Box Padinjarekkara beach purathoor 470 m 60 m width sandy beach around 1 km stretch
- □ Beeyem kayal –
- \Box beeym bridge regulator area. –
- □ Ottumpuram thooval theeram beach Parappanangadi beach
- □ Balathiruthi Vallikkunnu area
- \Box Alungal beach (turtle nestling ground 3.55 km)

Proposals

- \Box Unniyal T R Puram beach
- □ Kettungal beach
- \Box Anangadi badam beach

Kozhikode District

Existing

- \square Beypore Beach 1.2 km
- $\hfill\square$ Kozhikode beach south beach to Bhat road beach 11 km
- \Box Kappad beach
- $\hfill\square$ Vadakara sand banks
- 🗆 Kanayamkodu
- □ Chaliyar
- \Box Aavikkara beach
- □ Korappuzha
- □ Korappuzha backwater
- □ Kadalundi kandal reserve, bird sanctuary

Proposals

- \Box Gotheeswaram
- □ Payyoli beach
- $\hfill\square$ Thikkodi beach
- 🗆 Kallayi Canoli canal Korappuzha river
- \Box Iringal Sargalaya
- □ Parappally beach
- □ Velliyankallu
- $\hfill\square$ Chombala beach
- □ Akalapuzha
- 🗆 Olappara

Kannur District

Existing

- □ Thalassery Heritage project pier –centenary park already park existing
- \Box Dharmadom Island, beach
- \Box Arakkal beach
- □ Muzhappilangad beach
- □ Thottada beach Adikadalayi payyambalam chal beach till Azhikkode beach
- \Box Choottad beach ezhimala
- \Box Kuppam river mangalassery , pazhayangadi walk way boat race pavilion etc
- \Box Vaylappra perumba river –boating
- □ Vellikkeel kuppam river boating

Proposed

- □ Ettikkulam beach
- \Box Aavikkara beach
- \Box Malanadu cruise all
- □ Vellikkeel mangroves
- □ Thalassery mangrove
- □ Valapattanam Pappinissery

Kasaragod District

- □ Valiya parambu Manjeswaram
- □ BRDC Projects resorts
- o 6 resorts kolavayal near kanjangad
- o Chettukund in Pallikkara Panchayath
- o Malankunnu in Uduma Panchayath
- o Kappil in Uduma Panchayath
- o Bevoori in Uduma Panchayath
- o Chembirikka in Chemmanad panchayath

- □ KTDC beach camp bekal pallikkara
- \Box Bekal beach Park
- □ Bekal fort property in both sides thanal facility centre , parking bay
- □ Thrikkannad Uduma Panchayath Tsunami scheme
- □ Ayitty amenity centre Thrikkarippur Panchayath
- □ Edayilakkad Valiyaparamba Panchayath

Proposals

- □ Kottappuram boat terminal
- □ Azhithala beach park Neeleswaram municipality
- □ Pulimuttu Valiyaparamba side
- 🗆 Valiyaparamba island, Valiya paramba panchayath

Department Projects

- o Hosdurg beach
- o Bekal heritage beach near Bekal fort
- o Kappil beach
- o Janma Kadappuram
- o Koppal
- o Chembarikka beach
- o Nellikkunnu kadappuram
- o Thalangara
- o Kumbala beach
- o Kanwatheertha
- o Kasaba beach
- o Ozhinja valappu area pvt resorts
- o Marakkappu kadappuram beach

Backwater side

- □ Neeleswaram river -- Oyster opera
- □ Kumbala Shiriya Puzha
- \Box Kidoor
- □ Boat jetty near Chandragiri fort
- □ Aayankadavu
- □ Nambiarkal anakkettu
- □ Oorcha neeleswaram municipality
- □ Podothuruthi Tejaswini puzha
- □ Ramanchira

Recommendations Made by Tourism Department -17.01.2020 &

13.02.2020

Trivandrum District:

□ For Shangumugham Beach, the area to be extended till the Shangumugham Ground in the north.

□ At Akkulam area, proposed convention centre area near NISH and school to be incorporated in the map.

□ Thumba and Muthalapozhi area to be shown as a single stretch.

 \Box Area from Vizhinjam to Poovar also to be included in the map as a single stretch.

□ For Inland area of Poovar region, 500m upstream of the bridge can be be marked as potential zone.

 \Box Anchuthengu fort area, 1 km stretch to be marked as potential zone.

□ Arivallam to Kappil to be marked as single stretch, Kappil area to be extended so as to account for loss in shore.

Kollam District

□ The inland locations were only mentioned as names of Kayal. In such cases, finalisation can be done after discussion with Mr Santosh, DTPC Secretary.

 $\hfill\square$ The Sasthamcotta and Ashtamudi Lake to be shown as tourism potential area

□ Ashtamudi Lake- the 8 mudis to be identified and details to be collected from DTPC.

Ashtamudi corporation limit to be included.

 \Box The complete stretch of Munroe Island can be shown as Tourism Area.

□ Chavara Kattil area to be shown.

Alappuzha District

Thottappilly beach stretch to be included.

Kottayam District

Mark areas proposed which come within CRZ

Ernakulam District

□ At KMRL jetty locations, a small area to the north and south of the jetties to be proposed as tourism destinations for the future development.

□ Whole Kumbalangi Island and adjacent islands- Valanthakadu, Kari to be shown as tourism destination. The landward limit can be shown as 20 m from the HTL as per the CRZ notification 2019.

- □ Private Resort areas in Cherai backwaters to be included.
- □ Bolgatty Island and palace area to be marked as single stretch.
- \Box Fort Kochi to Mattanchery Stretch to be marked as single stretch.
- $\hfill\square$ Muziris project area to be marked as area having high potential. 20 m landward area

to be marked as prominent location.

Thrissur District

□ Nattika and Snehatheeram beach area can be shown as a single stretch.

 $\hfill\square$ Chettuva inland areas to be checked and included

- $\hfill\square$ Maritime museum to be checked and included.
- □ Resort areas close to Raja Island to be included.

Malappuram District

- □ South of Puthuponnani to Ponnani Azhimugham beach to be marked as single stretch.
- $\hfill\square$ Tanur to Thooval Theeram to be shown as single stretch
- □ Both right and left bank downstream of Chamravattam bridge to be marked as

Viewpoints as the per the already identified right bank

- □ Padinjarekkara stretch to be extended to the northern side.
- □ Unniyal to Paravanna stretch to be combined as single stretch.
- □ Vallikkunnu beach area to be included.

Kozhikode District

- □ Gotheeswaram to Beypore to be shown as single stretch.
- □ Bhatt road to Kothi beach to be marked as a single stretch with high potential
- □ Thikkodi to Payyoli to be included as single stretch
- □ Kappad beach stretch to be extended to a 3 km stretch
- □ Sarovaram park to be checked and included
- \Box Kolavi area to be shown as a 2 km stretch.
- □ Kadalundi sanctuary area- 3 km stretch to the north and south of the sanctuary to be
- \Box marked as potential area.
- $\hfill\square$ Velliyamkallu to be included as a location.
- □ Kolavipalam turtle conservation beach mark 2km stretch
- □ Canoli canal stretch to be included
- □ Kannur District
- □ Thalassery pier to Centenary Park to be marked as single stretch.
- □ Thalassery mangrove to be marked as mangrove tourism area.
- The area from the River opening of Anjarakandy River up to the Malabar Cruise boat jetty to
- \Box be included in the list.
- □ Mappila bay 500 m south and area up to Payyambalam beach to be included
- □ Kasargode District

- □ Azhithala to Thaikadappuram to be marked as single stretch.Turtle nesting beach at
- □ Thaikadappuram to be marked as Conservation tourism Zone

Recommendations Made by Tourism Advisory Committee on 27.01.2020

- □ Mararikulam beach stretch (Alapuzha) to be extended up to Kattoor.
- □ Chettuva stretch (Thrissur) to be extended up to Vadanapally.
- □ Perumpalam Island (Alapuzha) to be included.
- □ KTDC area adjacent to the Thaneermukkam Bund (Alapuzha) to be included.
- □ Parapally beach (Calicut) to be extended up to Panthalayani.
- □ Kadalundi islands to the north of Kottakadavu bridge (Calicut) to be included.
- □ Valiyaparamba stretch (Kasargod) to be extended southwards

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