

REPORT ON
COASTAL ZONE MANAGEMENT PLAN (CZMP)
FOR ERNAKULAM DISTRICT – KERALA
(Prepared as per CRZ Notification 2019)



Prepared for

Department of Environment

Government of Kerala



**NATIONAL CENTRE FOR EARTH
SCIENCE STUDIES**

Ministry of Earth Sciences, Government of India
Thiruvananthapuram - 695 011, Kerala

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REPORT ON
**COASTAL ZONE MANAGEMENT PLAN (CZMP) FOR ERNAKULAM
DISTRICT - KERALA**

1. INTRODUCTION

Coastal zone faces an array of interconnected problems associated with population growth and development. Policies and legislations to reduce conflicts over uses in the coastal zone, protect coastal resources, and support livelihood activities of local communities as well as to address the development requirements of the coast to meet economic and societal requirements are essential. Integrating environmental, economic, and human activities to ensure pollution-free coastal waters and healthy ecosystems to sustain livelihood and coastal economy necessitates effective integration of science and public policy. Due to various development schemes of private and public, legal and illegal, large scale modifications and damages to coastal morphology and ecosystems by way of reclamation of tidal flats, destruction of mangroves, leveling of sand dunes, mining of beach sand, construction activities for settlement, establishment of industries, dumping of waste and discharge of pollutants. Rapidly changing land use due to the immense pressure for development in the coastal zone has adversely affected the coastal ecosystems, coastal morphology and livelihood resources of the coastal areas. One of the most cost-effective long-term solutions to control various ecologically destructive activities in the endangered coastal zone, is to invoke spatial buffers around coastal ecosystems. The Coastal Regulation Zone (CRZ) Notifications (MoEF, 2019; 2011; 1991) provides buffer zones in the coastal area is being considered as the pragmatic tool to control, minimize and protect environmental damages to sensitive coastal stretches from unplanned human interference. Management of coastal ecosystems through CRZ requires identification and mapping of the regulation lines and the spatial extent of the ecosystems and morphologies in appropriate scales. Implementation and enforcement of the provisions of CRZ on the ground require extensive coastal mapping and continuous monitoring.

The Government of Kerala entrusted National Centre for Earth Science Studies (NCESS), Thiruvananthapuram for the preparation of Coastal Zone Management Plan (CZMP) for the State of Kerala following the guidelines in CRZ Notification 2019. High Tide Line (HTL), Low Tide Line (LTL), Ecologically Sensitive Areas (ESAs), and Critically Vulnerable Coastal Areas (CVCAs) demarcated by the National Centre for Sustainable Coastal Management (NCSCM), Chennai, and the 'Hazard line' as demarcated by the Survey of India (Sol) have been made use of for the preparation of CZMP. The NCESS is an agency authorized by Government of India to prepare/update CZMP for the coastal stretches of our Country (OM F.No. J-17011/8/92-IA-III dated 08-08-2019).

1.1. CZMP Planning Process

The landmark Coastal Regulation Zone (CRZ) Notification, which was first issued on 19th February 1991, has been the most important legislative instrument in the country for coastal governance by considering the livelihood of fisherman and local people residing along the coast. The Ministry of Environment, Forests and Climate Change (MoEFCC), Government of India has issued a revised CRZ Notification in January 2011 under Section 3(1) and Section 3(2)(v) of the Environment (Protection) Act, 1986 and Rule 5(3)(d) of Environment (Protection) Rules, 1986 in supersession of CRZ 1991 except as respect to things done or omitted to be done before such supersession. Subsequently, in June 2014, the MoEFCC constituted a committee under the chairpersonship of Dr. Shailesh Nayak, the erstwhile secretary of the Ministry of Earth Sciences, to address the concerns raised by the state governments, eliminating ambiguities and simplifying certain provisions in CRZ Notification 2011. The committee held consultations with the state governments over the following six months and submitted its report to MoEFCC in January 2015. Ultimately, on 18th January 2019, in supersession of the CRZ Notification of 2011, the Government of India brought out the CRZ Notification 2019

The CRZ is a critical regulation for conservation and livelihood protection on the coast. All developmental activities in the CRZ are regulated through the CRZ Notification. Accordingly, the CRZ has been declared as 'the coastal stretches of the country and the water area up to its

territorial water limit'. The Coastal Regulation Zone Notification (MoEF&CC, 2011; 1991) which provides buffer zones in the coastal area is being used as the best tool to control, minimize and protect environmental damages to sensitive coastal stretches from unplanned human interference. Thus, the CRZ Notification promote development in a 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.

1.2. Development of a coastal database and information system

In the recent times, the availability of digital spatial data for the world coasts has vastly increased as a result of advancements in data capture and input techniques. The large increase in global data availability has had a significant impact on coastal science. The way in which coastal observations are stored and integrated largely determines the degree to which spatial processes can be understood. Therefore, well-organized and designed data systems are needed to underpin our understanding of the processes taking place over large parts of coasts. The expected accelerated rise in global mean sea levels may cause a number of physical changes to the world's coasts and hence can endanger coastal populations and infrastructure, as well as threaten many coastal ecosystems. The sensitivity of the coastal zone to sea-level rise, in conjunction with its importance in terms of social, economic, and ecological value, highlights the need for consistent national- to global-scale assessments of potential impacts along the coasts. However, the scope of these studies has been limited by the available data in terms of resolution, coverage, parameter availability, and dated sources: this is a generic problem for broad-scale coastal analysis. In addition to these limitations, data quality and integration constitute further problems; even in those cases where data and tools are available to coastal scientists for the analysis and modeling of coastal processes, these usually exist in fragmented forms. This fact compromises the consistency, reliability, and versatility of evaluations based on such sources. It has long been recognized that appropriate and reliable information within organized, planned, and coherent coastal databases is an essential prerequisite for coastal zone management.

In order to address the preceding issues and provide a consistent source of data for the Indian coast, the data collated digitally onto a GIS platform for the preparation of the CZMP come handy. This database contains physical, ecological, and vulnerability parameters and covers the Indian coasts uniformly, probably for the first time on a digital platform permitting retrieval, portability and sharing in a seamless manner. For this reason, the database has been specifically designed to address the data requirements of the project and the needs of researchers in the area of vulnerability assessment of coastal zones. It is also expected to be used for wider assessment of regional and global coastal issues.

1.3. Generation of CZMP maps

Management of coastal ecosystems through CRZ requires identification and mapping of the regulation lines and the spatial extent of the ecosystems and morphologies in appropriate scales. Implementation and enforcement of the provisions of CRZ on the ground require extensive coastal mapping and constant monitoring. As per the CRZ Notification 2019 issued vide Notification No. G.S.R. 37(E), dated the 18th January, 2019, all coastal States and Union territory administrations shall revise or update their respective coastal zone management plan (CZMP) framed under CRZ Notification, 2011 number S.O. 19(E), dated 6th January, 2011, as per provisions of this notification and submit to the Ministry of Environment, Forest and Climate Change for approval at the earliest and all the project activities attracting the provisions of this notification shall be required to be appraised as per the updated CZMP under this notification and until and unless the CZMPs is so revised or updated, provisions of this notification shall not apply and the CZMP as per provisions of CRZ Notification, 2011 shall continue to be followed for appraisal and CRZ clearance to such projects.

The Notification also directs the State to prepare or update the CZMP by engaging reputed and experienced scientific institution(s) or the agencies and in consultation with the concerned stakeholders. Consequently, the Government of Kerala entrusted National Centre for Earth Science Studies (NCESS), Ministry of Earth Sciences, Thiruvananthapuram for the preparation of Coastal Zone Management Plan for the State of Kerala following the guidelines in CRZ Notification

2019. National Centre for Earth Science Studies is an agency authorized by Ministry of Environment, Forests and Climate Change, Government of India to demarcate High Tide Line and Coastal morphologies to prepare the Coastal Zone Management Plan.

Accordingly, preparation of the draft CZMP in 1:25,000 scale map identifying and classifying the CRZ areas within the respective territories in accordance with the guidelines given in Annexure-IV to the CRZ Notification 2019 has been taken up by NCESS, which involve public consultation. The subsequent guidelines issued by the MoEF&CC based on Office Memorandum 12-1/2019-1A III dated 26-06-2020 is to facilitate the State Government in updation of the CZMPs. As per the new guidelines, The CZMP database (shapefiles etc.) prepared as per the CRZ Notification, 2011 which have been scrutinized by the Technical Scrutiny Committee, finalized by the National Centre for Sustainable Coastal Management (NCSCM) and approved by the MoEF&CC, shall be used as the base for revision or updation of the CZMP, as per the provisions contained in the CRZ Notification, 2019. The guidelines brought out clarity in the case of the Data to be provided by the States/UTs to the authorized agencies, CRZ buffers, Processing of Census data, CRZ Classifications, Public consultation of draft CZMP updated or revised based on CRZ Notification 2019, format for CZMP report, approval process of CZMP, etc.

2. THE STATE OF KERALA

Kerala, the Gods own Country lies in the southwest corner of peninsular India and is positioned between 8°17'30"N and 12°47'40"N latitudes and 74°27'47"E and 77°37'12"E longitudes. It is bound by the Western Ghats mountain ranges to the east and the Arabian Sea to the west. The Ghats run parallel to the west coast at a distance ranging from 40-80 km. Kerala is spread over a total area of 38,863 sq.km, having significant stretches of water bodies. Altitudes ranges from below sea level (the Kuttanad area) to 2,695 m and the terrain falls into three well marked divisions: (a) the high ranges of the Western Ghats in the east with undulating hilly tracts, marked by long spurs, extensive ravines and dense forest, (b) the midland occupies with plantations and cultivated plains intersected by numerous rivers and streams, and (c) the coastal belt with dense settlements, coconut plantations and rice fields. The total population of Kerala is 33,387,677 (as per 2011 census) with a density of 859 per sq km. The average population density

of coastal area is 2150 per sq km. The coastline length of Kerala is about 590 km. Kerala is rich in rivers and backwaters with 44 rivers (41 west flowing and 3 east flowing) cut across Kerala with their numerous tributaries. The backwaters form an attractive and economically valuable and ecologically significant feature of Kerala. Kerala State has fourteen districts of which 9 districts has sea coast on its west.

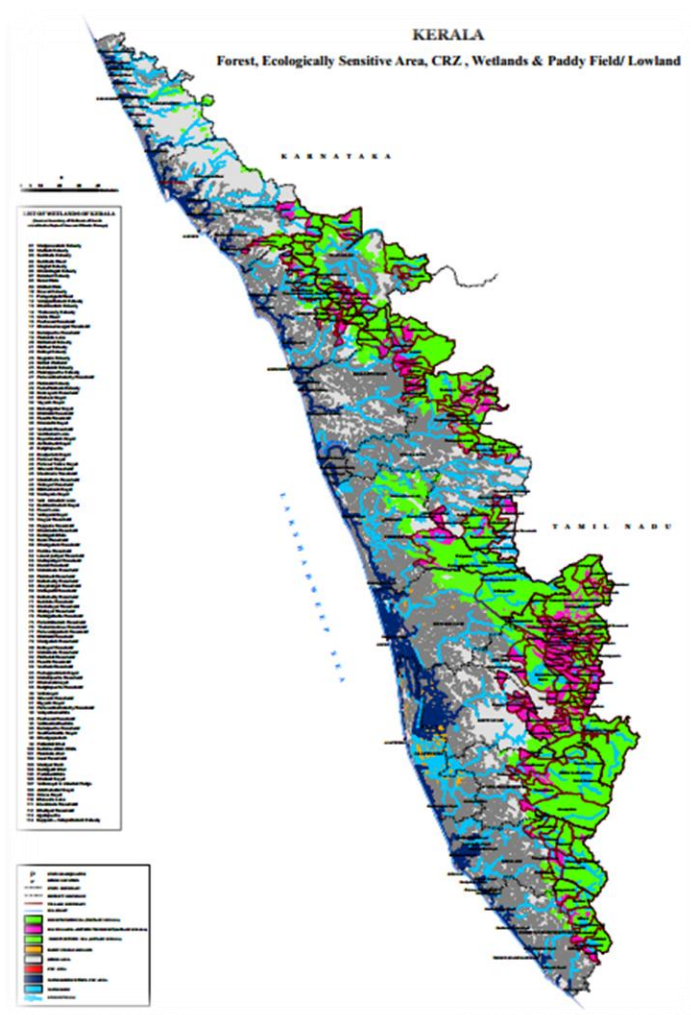


Figure 1: Kerala with various physiographic dispositions

There are 14 District Panchayats, 152 Block Panchayats, 941 Grama Panchayats, 87 Municipalities and 6 Municipal Corporations. Apart from this, Kerala has one Cantonment (Kannur). The 14 Districts in the state are distributed over 75 Taluks consisting of a total of 1535 Villages (1664 is including the Group Villages). It is interesting to note that 9 districts (Kasaragod, Kannur, Kozhikode, Malappuram, Thrissur, Ernakulam, Alappuzha, Kollam and

Thiruvananthapuram) out of the 14 have Lakshadweep Sea as their western boundaries and therefore come under the purview of CRZ covering considerable parts of coastline. Apart from the 9 districts, some parts of Kottayam district is also under the purview of CRZ since its western boundary is along the banks of tidal influenced Vembanad Lake.

2.1 Ernakulam District

Ernakulam district is situated almost at the middle of Kerala State and on the coast of the Lakshadweep Sea. It has the credit of being the economic nerve centre of the State. It is the most industrially advanced and flourishing district of Kerala compared to the other districts. The district headquarters is at Kochi, which endowed with one of the finest natural harbours in the world. Kochi is the commercial capital and the most cosmopolitan city of Kerala. The harbour is the nucleus around which Kochi and surrounding regions have grown and has become the “Queen of the Arabian Sea”. The modern period in the history of Cochin begins with accession to throne in 1790 of Ramavarma, the Sakthan Thampuran, and the treaty concluded by him with the English East India Company. Cochin port is believed to have been formed only by 1341 AD when the ancient harbour of Muziris (also known as Cranganore and Kodungallur) was silted up due to heavy floods in Periyar and became unsuitable for maritime trade. The integration of Travancore and Cochin States took place on the 1st July, 1949. The Maharaja of Travancore became the Rajapramukh of the new state and Paravur T.K. Narayana Pillai its first Chief Minister. The regions falling in the present Ernakulam district mostly belonged to Thrissur and Kottayam districts of Travancore-Cochin state.

The present district of Ernakulam was formed in 1958 by carving the regions from Thrissur and Kottayam area. The district is bounded by Lakshadweep Sea on the West, Kottayam and Alappuzha districts on the South, Idukki on the East and Thrissur on the North. The district has a sea coast of about 46 kms long and also has the presence of vast stretch of lakes and backwaters. Ernakulam district lies between latitudes 09°47'30"N and 10°18'15"N and longitudes 76°10'05"E and 76°55'05"E. Total area of Ernakulam District is 3068 km². In terms of area Ernakulam ranks 4th among the districts in the State. The location map of Ernakulam District is given in Figure 2.

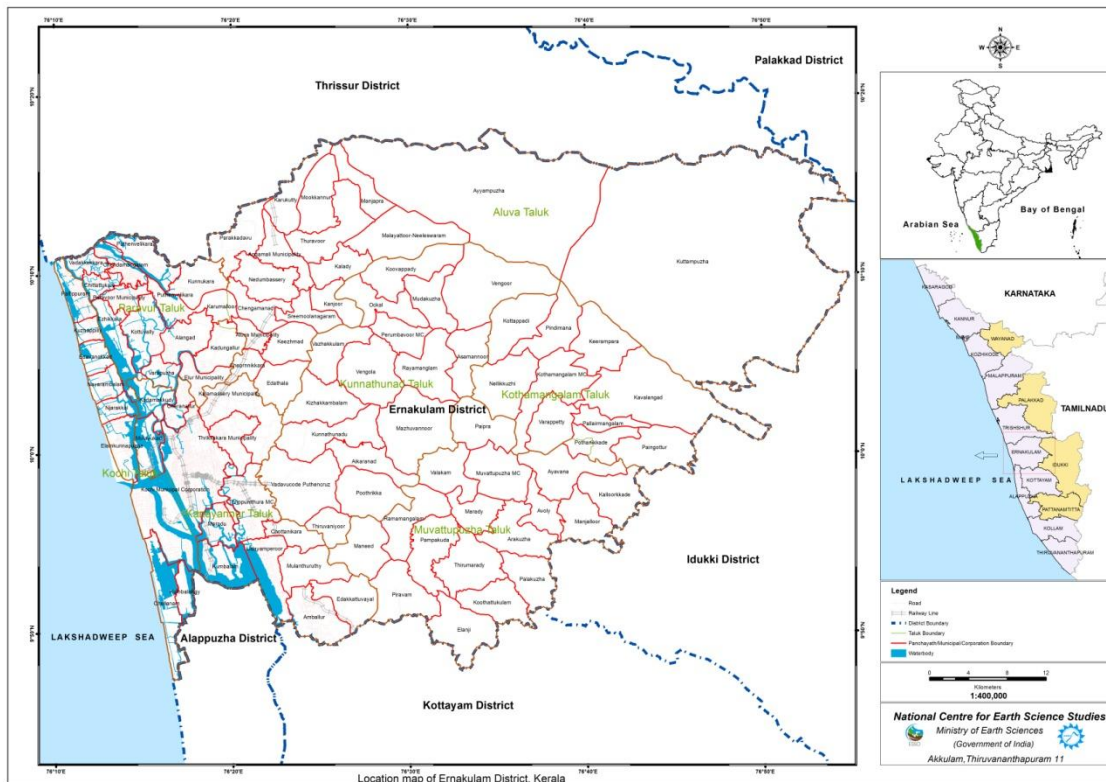


Figure 2: Location map of Ernakulam District

2.1(a) Administration

There are two systems of administrative set up in the State – Revenue and local self government. Under the revenue system the District is divided into Revenue Division, Taluks and Villages. However, for local administration, the District is divided into Urban local bodies (Municipal Corporation and Municipal Councils) and rural local bodies comes under the hierarchy of District Panchayat consisting of Block Panchayats defined with geographically contiguous cluster of a few Grama Panchayats. For the implementation of development activities, Panchayats are grouped under Community Development Blocks. Therefore all these units viz., Taluks, Villages, urban and rural local bodies have their own relevance and importance.

Ernakulam district is constituted of territories which formed part of the erstwhile Princely States of Cochin and Travancore and Malabar district of then Madras Presidency. The history of Ernakulam district synchronized with the history of Cochin State. The Ernakulam District consists of two revenue divisions, 7 taluks and 124 villages. The two revenue divisions are Muvattupuzha revenue division consisting of 53 villages of Kothamangalam, Muvattupuzha, Kunnathunad taluks

and Fort Kochi revenue division consisting of 71 villages of Aluva, Paravur, Kochi and Kanayannur taluks.

Under the Local Self-Government System, the District is divided into one Municipal Corporation (Kochi), 13 Municipal Councils (Thrikkakara, Kalamassery, Eloor, Koothattukulam, Piravom, Muvattupuzha, Perumbavoor, North Paravur, Maradu, Kothamangalam, Aluva, Thripunithura and Angamaly), 14 Development Blocks (Angamaly, Alangad, Edapally, Koovappady, Kothamangalam, Mulanthuruthy, Muvattupuzha, Palluruthy, Pampakuda, Parakkadavu, Paravur, Vadavucode, Vazhakulam and Vypin), and 82 Panchayats. The area encompassing the Kochi city and surroundings forms the headquarters of the District.

2.1(b) Physiography

As a continuum of the State, the district too can be divided into three distinct physiographical units such as the coastal plains, the midlands and the eastern highland regions. The coastal plains form the low land areas adjacent to the Lakshadweep Sea.

The Ernakulam district falls in the Central Kerala Coast. Each micro region is further divided into sub-micro regions on the basis of topography, geology, soils, climate and natural vegetation. Thus Ernakulam district consists of such sub-micro-morphological regions viz., Cochin coast, Periyar-Muvattupuzha Rolling Plain, Malayattur Forested hills and mountainous region.

Cochin Coast is bounded by Thrissur coast in the north, Periyar-Muvattupuzha Rolling Plain in the east, Alappuzha Coast in the south and the Lakshadweep Sea in the west. It is a flat alluvial tract lying all along the coast of this district. The Periyar river and various interlinked backwaters and canals affect the fluvioestuary deposits in this tract. The maximum height (35 m.) is located at Puthenvelikkara village of Paravur taluk. In the southern portions of this region, the influence of sea-water is conspicuous. Some areas of this tract also have flood plains. Cochin, the Queen of the Arabian Sea, and Paravur are located in this region.

Periyar-Muvattupuzha makes its boundaries with Thrissur Plain in the north, Malayattur Forested Hills, Anamalai Forested Hills and Periyar River Basin in the east, Kottayam Rolling Plain in the south and Cochin coast in the west. This region is drained by two major rivers viz. the Periyar and the Muvattupuzha. The south-east portion of this rolling plain has isolated hills with a maximum

height of 307 m. at Pirakunnamkara of Kuttamangalam village of Kothamangalam taluk. The minimum height is 33 m. recorded over the western border at the Thrikkakara. A number of isolated residual hills, between Perumthuruthy and Kuruvil area, are found in the middle and south-eastern portion of this region. Angamali, Alwaye, Perumbavoor, Kothamangalam, Muvattupuzha and Trippunithura towns are located in this region.

Malayattur Forested Hills falls in a small area in the north-east portion of this district, makes its boundaries with Kodessry Forested Hills in the north, Anamalai Forested Hills in the east and Periyar – Muvattupuzha Rolling Plain in the south and the west. This region is an elevated area with an average height of 600 m. It has dense forests. Steep slopes occur in the western portion of this region. It has foot-hills of the Western Ghats. The region also falls in the catchment area of the Periyar river. The maximum height is 631 m. found in the Malayattur reserve forest.

Mountainous region is the hilly tract along the eastern portions of Aluva, Kunnathunad and Kothamangalam taluks border the Western Ghats. There are few outlying small hill in Aluva taluk, some of which are above 800 feet in height above mean sea-level. There are some hilly areas in Paravur and Kothamangalam taluks also. The terrain of Mulamthuruthy, Amballur, Edakkattuvayal, Kaippattur, Keecherry, Thrikkakara south and Thrikkakara north villages of Kanayannur taluk and the south eastern border of Paravur taluk are hilly, the height ranging between 100 feet to 300 feet above mean sea level.

2.1(c) Rivers and drainage characteristics

The 590 km long Kerala coast is intercepted by 41 rivers which originate from the Western Ghats and flow towards the west. The rivers either debouch into the Arabian Sea through inlets directly, or drained to the sea through estuaries/lagoons. There are 48 inlets along the Kerala coast out of which 20 are permanent, whereas the remaining 28 are seasonal (remain open only during the monsoon period of June – September). The seasonal inlets mostly remain closed during the fair season due to the development of spit along the inlets due to deposition from longshore sediment transport. Seasonal inlets are normally cut open during monsoon for discharging storm-water accumulated from rainfall reducing the coastal inland from flooding risk. Reduction in the

supply of riverine sediments might have affected the stability of the south-west coast in recent years.

The important rivers of the Ernakulam District are the Periyar and the Muvattupuzha of which the former flows through Kothamangalam, Aluva, Kunnathunad and Paravur taluks. The Chalakudy river which flows through the north of Aluva merges with the Periyar at Elamthikara. The river Thodupuzha, the Kaliyar and the Kothamangalam merge together to form the Muvattupuzha river. During rainy seasons, these rivers are in full spate and low lying areas on the banks are affected by heavy floods, but in the summer season they generally go dry.

Periyar is the longest river in Kerala (244 km), and its river basin is the second largest river basin of Kerala, with a catchment area of 5398 sq. km, and drains parts of Idukki and Ernakulam districts of the state. Major tributaries of the river are Mullayar, Cheruthoni Ar, Muthirapuzha, Perinjankutty Ar and Idamalayar, and most of the upstream tributaries flow through deep gorges and steep valleys. The general drainage pattern of the basin is dendritic in nature. The Periyar is known as The lifeline of Kerala; it is one of the few perennial rivers in the region and provides drinking water for several major towns. The Idukki Dam on the Periyar generates a significant proportion of Kerala's electrical power. It flows north through Periyar National Park into Periyar Lake, a 55 km² artificial reservoir created in 1895 by the construction of a dam across the river. The mainstream of the river bifurcates at Alwaye, and both the branches debouch into the Arabian Sea through two different estuaries. The north-trending branch joins the Chalakudy river and joins the Arabian Sea at Munambam through the Kodungallur–Azhikode estuary, whereas the south-trending branch forms numerous rivulets and joins the Vembanad–Kol wetland system and later joins the Arabian Sea through Cochin estuary.

Muvattupuzha River is one of the important rivers in Ernakulam District of Kerala. The name is made up of three Malayalam words: 'Moonu', which stands for 'three', 'aaru' - small river, and 'puzha', which also means river. The three rivers in this case are the Kothamangalam river or Kothayaar, Kaliyar and Thodupuzhayaar, which merge to form a single river. Thus it is called centre point of confluence of three rivers or Thriveni Sangamam in Malayalam. These rivers join together

at Muvattupuzha and then flow towards south-west as a single river to the Vaikkom Lake. Finally, it merges with the Lakshadweep Sea. The mainstream length of the river is 121 km with a basin area of 1544. The famous Thommankuthu Waterfalls is situated in the river Muvattupuzha. It is situated on midland regions with planes and hills scattered all around especially on the Southern and Eastern side. Essentially, this region from Thodupuzha, Muvattupuzha, Kothamangalam were called "Keezhmalanad" of erstwhile Vadakkumkoor Kingdom indicating this as the midlands with Fertile soils deposited by the Thodupuzha river and Muvattupuzha river over a period of time due to floodings of the banks. The old Muvattupuzha bridge built over the Muvattupuzha river was the first concrete bridge in Asia. It was completed in 1914. This serves as the connection between Nehru Park and Kacherithazham. The town consists of two regions separated by the Muvattupuzha bridge.

2.1(d) Coastal Wetlands

The rivers draining into the Lakshadweep Sea along this coast form estuarine interface around their inlets. Kerala, despite its small land area with long coastline studded with world's best string of beaches. It is bestowed with a vast network of backwaters, lagoons, natural lakes, rivers and canals.

Backwaters in the forms of lagoons (kayals), canals and distributory systems of the rivers occupy a considerable part of the coastal plain of Ernakulam district. The low land region has a network of canals and backwaters. Many streams and rivers empty themselves into these backwaters. Vembanad kayal is the prominent back water body in the district, though location to location it is being known differently. Vembanad estuary, situated in Kerala, is the largest tropical wetland ecosystem along the south-west coast of India spread of several districts, but having its large expanse in Ernakulam District. This tropical estuary, fed by ten rivers draining into the Arabian Sea, covers an area of 21,050 ha spread between latitudes 9.59°N and 10.61°N and longitudes 76.19°E and 76.43°E. The rich biodiversity of shell fish and other aquatic resources and their socio-economic importance, made Vembanad estuary a wetland of international importance, and is designated a "Ramsar site". A unique characteristic of the estuary is the Thaneermukkom salt water barrier which divides the water body into two zones—one with freshwater fed by the

rivers on the southern side, and the other with brackish water fed both by rivers and Arabian Sea on the northern side. The physical spread of the Vembanad region extends to the low lying areas surrounding the Vembanad Lake, which form the deltaic plains of Pullot, Periyar, Muvattupuzha, Achencoil, Pamba, Manimala and Meenachil Rivers originating from the Western Ghats. The region lies between 915' – 90 35' N latitude and 76023' – 76035' E longitude. It covers an area of 870 km² comprising of about 490km² of paddy fields, 300 km² of garden lands. The remaining areas consist of water bodies like lagoons, canals, and rivers. Nearly 60% of the area excluding the lake lie 0.5m to 2m below sea level and this area spread across Kuttanad. The entire region is half submerged in water during the monsoon season from June to January every year. Bunds have been constructed to protect the low-lying areas from floods and tides. During high tide in dry season salt water incursion is a dominant phenomena noticed in the Vembanad ecosystem while fresh water inundation occurs during monsoon rains.

Kodungallur kayal and Varapuzha kayal are two other backwaters adjoining the Vembanad Lake. The Kodungallur kayal is found north of Parur taluk, and extends to the Thrissur district. The Varappuzha kayal is located south of the Parur taluk and the Periyar river drains into it.

2.2 Demography and socio-economic activities

Kerala has 33.38 million population as per the Census 2011. It is the 13th most populous State in India with an overall population density of 860 per square kilometer. The State of Kerala accounts for 2.8% of India's population but it contributes nearly 4% of the Indian economy. Kerala is occupied with three times more dense settlement than the rest of the country. The coastal regions are more populated than the mountains and eastern hills of the State with 2.5 times the overall population density. Kerala has a Human Development Index of 0.79, which is "very high" and the highest in India. Kerala also has the highest literacy rates among all Indian states at 98.9% and a life expectancy of 74 years which is among the highest in the country. Kerala has experienced a rapidly dropping rural poverty rate, which fell from 59% in the mid-1970s to 12% by 2010, while the overall poverty rate fell 47% between the 1970s and 2000s, compared to a drop of just 29% in total poverty in the country.

While Kerala has what appears to be rapid growth by the standards of most areas, its 4.9% decadal population growth rate in 2011 was the lowest in India and less than one-third of the India average of 17.64%. Between 1951 and 1991, Kerala's population more than doubled from 15.6 million to 29.1 million, reaching 33.3 million by 2011. Kerala is currently heading for zero growth in its population, as the state has a meager fertility rate and a stabilizing death rate. In 2021, census figures predict Kerala might record negligible population growth, which will be a first in India.

The socio-economic and demographic indicators of Kerala point to the fact that the State is fast approaching the fourth stage of demographic transition. It are the only major State in the country, which has a sex ratio in favour of females. Kerala is one of the most densely populated (but scattered fairly uniformly) States in India. There is a high degree of family planning practices, a high average age at marriage and low and slowly declining rate of mortality in Kerala. The population is also advanced with regard to literacy and educational attainment. The various sectors such as agriculture cash crop production, animal husbandry, aquaculture, fisheries, micro enterprises and large-scale industries, tourism etc. play important role in the economy of Kerala. This state is unique in many respects among the states of India, one of which is its settlement pattern, characterized by a rural-urban continuum. Applying the "continuous method" to study spatial change in the occupational structure across rural, small towns and large urban units (comprising of cities/big/medium towns and agglomerations), it is interesting to note that economic diversification in general and manufacturing in particular, has been fairly rapid in rural areas.

Ernakulam District ranks the 4th in the State in area and with 3,282,388 persons, Ernakulam District ranks the 3rd in population among districts. Ernakulam District has the 3rd rank in total, the 3rd rank in male and the 7th rank in female work participation rate among the districts. Ernakulam was the first District in the Country having cent per cent literacy. Its present literacy rank is 3rd in the State. The District has the 12th position in sex-ratio (1027) and 8th position in sex ratio of 0-6 population (961). The District has the 3rd position in urban work participation rate (37.21%) in the State. The District holds the 14th rank in marginal work

participation rate (15.04%) and in percentage of non-workers (61.94%). The District has the 1st position in the percentage of main workers (84.96%), literacy rate (95.89%) and urban density (2415). Ernakulam District may well be called the hub of industrialization in Kerala. India's first private Air Port at Nedumbassery and the seat of High Court are in the District. Kodanad - one of the largest elephant training centre in South India and Thattekkadu Bird Sanctuary are located in the District. It is one of the Coastal Districts of Kerala. Indian Naval Base is located in the District. It is the only District in the State with a Jewish Synagogue. Fort Kochi in Ernakulam District is the oldest settlement area of Jews. The District is famous for Chinese fishing net – Huge cantilevered fishing net. Wonderla, an amusement park for children, is located in the District. The only urban agglomeration i.e., Kochi UA with more than a million population is located in the District.

2.3. Coastal Geomorphology and Ecosystem

The shoreline of Kerala is generally straight, trending NNW-SSE, with minor variations. The various coastal geomorphological units are beaches, beach cliffs, stacks, islands, shore platforms, spits, bars, beach ridges, estuaries, lagoons, mudflats, tidal flats and deltaic plains. The beaches are mostly sandy and dynamic in nature. Throughout the coast exists narrow stretch of beach except in cliff areas. In areas like Kovalam, Vizhinjam, Varkala, Ezhimala, Bekal etc the headland is directly abetting the sea where the wave break occurs along the foot of lateritic cliff. The height of the cliff may be of 20 m or more. In some coast having cliffs, there are numerous stacks protruding into the sea in nearshore as well as in offshore regions. These stacks are the vestiges left behind after an island or head land portion which has been eroded out or still receding. Around Mahe and Thalassery, these stacks are found aligned nearly parallel to the coast. In lateritic coast offshore islands are observed in certain locations. The Green Island located in the offshore of Thalassery coast is a similar type of island and have continuity with the mainland with a string of stacks. The constant wave attack on the neck portion resulted discontinuity of the stacks and becomes an island. The coastal wetlands, backwaters and estuaries along the coast of Kerala are rich, biologically and ecologically diverse as well as economically significant ecosystems which plays important role in livelihood of people. The major backwaters in Kerala are Vembanad, Ashtamudi,

Kayamkulam, Akkulam, Kadinamkulam, Anchuthengu, Edava, Nadayara, Paravur, Vattakayal, Chettuva, and Valiyaparamba.

Based on physiography, the district can be divided into three distinct geomorphologic units viz i) the coastal plains and lowlands in the western part, (ii) the central undulatory terrain comprising the midland region and (iii) eastern highland region. The low land lies between the backwater and sea, while the midland occupies the area in between the low land and the highland. Coastal plain forms a narrow belt of palaeo-coastal/alluvial depositional landforms running parallel to the coast with a maximum width of about 20 km. The area mainly covered by the low land coastal plain and part of lateritic mid land. It is observed that in most of the places the soil formation is clayey sand to sandy clay. In some places the aquifer is laterite overlain on weathered crystalline basement. Riverine alluvium, sandy soil, clayey soil and fine sand were also found in other locations. The coastal plain is a low lying area, with a maximum elevation of around 10m, characterized by backwater bodies, marshy lands, sandy flats and alluvial plains, which are liable for flooding during the monsoon. The coastal landforms are conspicuous in the coastal plain region, consists of sand and alluvium. Other major geomorphological features identified from the area are barrier islands, beach ridges, mudflats and tidal flats, flood plains and mangrove swamps.

The midland region has a rolling topography with low hills and narrow valleys. The hills are generally covered with laterite or laterite soils and the valleys are alluvial. The region has very gentle to moderate slope from east to west. The eastern most part is a rugged terrain with steep sloped hills and small summits. It actually forms the foothills of the Western Ghats. Elevation of this terrain is generally more than 300m above MSL. In the eastern portion, the hill near Mullaringad is 1100 feet high. Near Kondimarton and 8 KM south-west of it, hills of 897' and 1008' high respectively are noticed. In the northern portion, Kurisumudi (1274'), Kattanna (1502') and Karathulimudi hills are seen.

2.4. Marine Fishery Resources

Fisheries sector is recognized as one of the important sectors contributing significantly to the nation's economy. It is not only recognized as a powerful income and employment generator

as it stimulates growth of a number of subsidiary industries, but also is a source of cheap and nutritious food earning foreign exchange too. It provides livelihood to approximately 14.49 million people in our country. Kerala is one of the prominent maritime States in India and is blessed with most productive portion of Arabian Sea with a continental shelf area of 39,139 Sq km. Many commercially important finfishes and crustaceans form the high value fish species. The projected value of total fish production from Kerala comes to 706.882 MT by 2019-20. Over exploitation is one of the major threats in marine fishery resources. If the rich underexploited demersal and pelagic resources are utilized effectively, Kerala can brag the top position in total fish production and also contribute fruitfully towards the economic development of the State. According to the available estimates of potential fishery resources of the West Coast, particularly in the south-west coasts, Kerala possesses the richest fishing grounds in the region. Marine fish landings for 2014-15 in Kerala was estimated at 524468 MT and that for 2013-14 was 522308 MT. Contribution of various fish resources include, pelagic fin fishes 361956.69 MT, demersal fin fishes 49416.9 MT, crustaceans 65955.12 MT, molluscs 34057.6 MT and miscellaneous 13084 MT.

Kerala holds the second position in terms of fisherfolk population, among the nine maritime states in our country. A great deal of Kerala's economy depends on fishing for subsistence, livelihood and employment. Fish consumption in Kerala is four times the national average and the production share of Kerala is the second largest in the country with 16.6% of India's total marine exports. The total populace of fisherfolk residing in the state of Kerala is estimated to be 11.11 lakh, which includes 8.55 lakh in the marine sector and 2.55 lakh in the inland sector (GOK, 2015). Out of this, the number of active fishermen is 2.28 lakh (1.90 lakh in marine sector and 0.42 in the inland sector). Currently, there are 222 fishing villages in the marine sector and 113 in the inland sector, where fishing and its allied sectors provide livelihood to a vast majority of population (GOK, 2015). Primarily the fishers depend on fishing as the prime source of income. However, 12% of the fisherfolk generates additional income from allied fishing activities like marketing/repairing nets, fish vending/processing and other fishery related activities. The socio-economic condition of the fisherfolk in the state is sad, when compared to the general section of the population. Most of them are in the grip of subsistence economy and indebtedness

due to socio-economic constraints, education and depletion of fishery resources. The density of population in the coastal area is 2168 persons per km².

Fisheries in Ernakulam district occupy a very important position in the industrial sector in Kerala. District has the benefit with the immense wealth of marine and inland fishing. It has coastal line of 46 Kms forming 7.8 percent of the total length of coast line in the state along with the backwaters, ports and harbours make it an ideal centre for fishing both marine and inland. Kochi is also an ideal place to provide support to fisheries in its various aspects like education, research and development. Apart from the Cochin Port, Munambam is the major fishing harbour along the coast. Apart from this, Chellanam Fishing Harbour is under construction to facilitate the fishing community in the southern part of the district. This is one of the well developed coastal districts in central part of Kerala consisting 24 fish landing centres. There are 21 marine and 15 inland fishing villages. Based on 2018-19 report, annual fish production was 68170 MT from marine and 21589 MT from inland sector totaling 89759 MT. Fisher folk population was 194252 with a breakup of 131077 from marine and 63175 from inland as per the estimate for 2019-20. The district is rich in hatcheries and fish farms established by public sector of State Government. The fisheries department runs one multi-species eco Hatchery at Bhuthathankettu in Keerampara Panchayath. The Njarakkal Fish Farm and Edakochi Government fish farm are under the ADAK. MATSYAFED established brackish water fish farms at Malippuram and Njarakkal. The seed farm at Kadungalloor established by Kerala Aqua Ventures International Ltd and the Prawn Hatchery by KUFOS at Panangad in Kumbalam Panchayat are the state of the art establishments. Various important institutions are located here to serve this purpose like the Central Marine Fisheries Research institute. Natural and Engineering Training, Cochin, Base of the Exploratory Fisheries Project, Export Inspection Council of India, Integrated Fisheries Project, the Marine product and Export Development Authority, Naval Physical and Oceanographic Laboratory, Central Institute of Fisheries, Regional Centre of the National Institute of Oceanography (ICAR), Office of the Fisheries Advisor, Office of the Joint Director of Fisheries, Kerala Fisheries Corporation, Regional Shrimp Hatchery, Department of Industrial Fisheries, School of Marine Sciences and School of Industrial Fisheries under CUSAT, Kerala University of Fisheries and Ocean Studies (KUFOS), the Sea Food Exporters Association of India, etc. Fishermen development welfare co-operative societies are

functioning in this district extends all basic support and assistants for the development of inland fish farming.

2.5. Biodiversity of Ernakulam district

The ecology of the Ernakulam region is under a huge threat due to the unplanned development. Wetlands and backwaters are the landscape in Ernakulam District encompassing the low land regions. Vembanad Kayal, its network of canals and the surroundings occupy large expanse rich in biodiversity. The aquatic habitats are common in the lowlands of the District with extensive lakes, canals and river systems occupying substantial geographical area. Woody climbers, shrubs and herbs are also seen in such areas as exemplified by presence of several species.

Ernakulam District has considerable aerial extent of mangroves among the coastal districts in Kerala. Especially banks of the tidally influenced part of the Vembanad Kayal and network of canals have good expanse of mangroves though under stress and degradation. Many shore birds were observed abounding the environs of the marsh-mangrove wetland system of these areas. The mangrove fringed coasts and the vast mudflats provided good potential for fisheries. The catches from the coastal estuarine cum backwaters exhibit good diversity and abundance of species. Local fisher folk greatly depend on the fisheries for their subsistence living.

The midland hillocks have its own characteristic floral composition supporting scrub jungles and cashew plantations on the hill slopes and grasslands and associated aquatic and semi-aquatic plants on the hilltops. Even though these hills are exposed directly to the sunlight and wind, they harbour rich species diversity. Recent plant explorations revealed more additions to the known plant species of the area some of which turned out to be new to science, and endemic to the locality. The vegetation of the hillocks may be classified mainly into grasslands and scrub jungles.

3. PURPOSE AND SCOPE OF CZMPS

The Coastal Zone Management Plans proposes a spatial planning framework for development by providing setbacks around sensitive eco-zones restricting development and other activities

close to it. Setbacks require specific reference lines and boundaries for its meaningful implementation. The High Tide Line (HTL) forms the cardinal reference line for determining the setbacks for CRZ. The 50, 100, 200 and 500m CRZ lines landward from the HTL are the landward setback lines. In the case of inland Backwater islands 20m from the HTL is uniformly demarcated. The Low Tide Line (LTL) and the Territorial water boundary (12 NM) form the setback lines towards the sea. The 50m line or width of the creek from the HTL has been demarcated along the tidal influenced water bodies that are connected to the sea and the distance upto which tidal effects are experienced, determined based on the salinity concentration of 5ppt. The CZMP has to be prepared in two scales (1:25,000 and 1:3960 or the nearest scale) in accordance with the guidelines given in Annexure-IV of CRZ notification 2019. The CZMP in 1:25000 scale with Survey of India Toposheets as base maps are required for formulating policy decisions. These are to be submitted to MoEFCC, Govt of India for approval after stakeholder/public consultations. The local level CZMP are to be prepared in 1:4000 with cadastral base maps and based on the approved CZMP. These local level CZM maps are for the use of local bodies and other agencies to facilitate the implementation of Coastal Zone Management Plans. The CZMP also has to incorporate the Hazard Line as demarcated by Survey of India (Sol) with a view to reduce the vulnerability of the coast. Critically Vulnerable Coastal Areas (CVCAs) demarcated by NCSCM is also incorporated into the CZMP prepared.

4. COASTAL ZONE MANAGEMENT PLANS

The para 6 of the CRZ Notification 2019, numerates the following instructions for carrying out the CZMP of a State.

- (i) All coastal States and Union territory administrations shall revise or update their respective coastal zone management plan (CZMP) framed under CRZ Notification, 2011 number S.O. 19(E), dated 6th January, 2011, as per provisions of this notification and submit to the Ministry of Environment, Forest and Climate Change for approval at the earliest and all the project activities attracting the provisions of this notification shall be required to be appraised as per the updated CZMP under this notification and until and

unless the CZMPs is so revised or updated, provisions of this notification shall not apply and the CZMP as per provisions of CRZ Notification, 2011 shall continue to be followed for appraisal and CRZ clearance to such projects.

- (ii) The CZMP may be prepared or updated by the coastal State Government or Union territory by engaging reputed and experienced scientific institution(s) or the agencies including the National Centre for Sustainable Coastal Management (hereinafter referred to as the NCSCM) of Ministry of Environment, Forest and Climate Change and in consultation with the concerned stakeholders.
- (iii) The coastal States and Union territories shall prepare draft CZMP in 1:25,000 scale map identifying and classifying the CRZ areas within the respective territories in accordance with the guidelines given in **Annexure-IV** to this notification, which involve public consultation. All developmental activities listed in this notification shall be regulated by the State Government, Union territory administration, the local authority or the concerned Coastal Zone Management Authority within the framework of such approved CZMP, as the case maybe, in accordance with provisions of this notification.
- (iv) The draft CZMP shall be submitted by the State Government or Union territory to the concerned Coastal Zone Management Authority for appraisal, including appropriate consultations, and recommendations in accordance with the procedure(s) laid down in the Environment (Protection) Act, 1986 (29 of 1986).
- (v) The Ministry of Environment, Forest and Climate Change shall thereafter consider and approve the respective CZMP of concerned State Governments or Union territory administrations.
- (vi) The CZMP shall not normally be revised before a period of five years after which, the concerned State Government or the Union territory may consider undertaking a revision.

4.1. Demarcation of High Tide Line (HTL) and Low Tide Line (LTL)

The highest level horizontal positional and spatial accuracy in mapping and presenting the HTL becomes necessary for field uses by CRZ implementing agencies. The agencies are looking for a planimetric accuracy approaching zero error. The different approaches now practiced in the country to demarcate the HTL are Tide level projection, using morphological signatures observed in the field as well as from the high-resolution satellite imageries. NCESS follows the approach using morphological signatures as per the guidelines mentioned in the Annexure I of CRZ Notification 2011. The coastal morphological signatures are collected by field work as well as from the satellite imageries.

Morphological signatures are good indicators of shoreline oscillation and inundation of coastal waters, which could be used for identifying the HTL. The inundation of coastal waters on to the land and seasonal shoreline oscillations are dependent on coastal morphology. Shoreline remains stable and would not retreat significantly along cliffy coasts. The shoreline retreats up to the cliff base along pocket beaches. Artificial morphologies like seawalls confine the oscillation of shoreline along the line of the structure itself. Sandy beaches are prone to seasonal and long term shoreline oscillation. Long term stability of the beach and the position of the stable part of the beach would be evident from morphological signatures such as berm and berm crest. This could be done by field methods and using combination of spatial data sources including satellite data. The HTL has to be fixed with respect to certain reference points on the land. These reference points at sufficiently close intervals (preferably at least 1km along shore) have to be marked with respect to latitude-longitude and known points in the base map. Geomorphologic features like berm crest, cliff, headland, line of permanent vegetation, etc are indicators of the reach of sea water into the land. Stable coastal protective structures like seawall also limit the intrusion of seawater. Hence High Tide Line (line of maximum reach of seawater into the land during spring tide) can be fixed in the field, with respect to these features and tied to the reference points, as detailed below:

a) Landward (monsoonal) berm crest for beaches

In all the well-formed wide beaches, one or more berms (which are nearly horizontal part of the beach developed through the deposition of sand by wave action) are usually observed. The seaward end of the berm at which a sudden downward slope is observed is termed a berm crest. When there is only one berm, it normally gets eroded during the monsoon with a berm crest on the landward side. But when there are two berms the landward berm is the monsoonal berm, which normally do not get eroded. Or else we can say that the erosion reaches only to the second berm crest. Since the tidal waters do not reach the coast beyond this landward berm crest, it is taken as the HTL. The distance to this point from the reference point is measured using the beach profile to fix the position of the HTL.

b) Seawall/revetments/embankments

In highly erosion-prone areas, no second berm is observed landward. Such locations will be protected mostly by seawalls. During monsoon season majority of these places are devoid of beaches. The waves impinge upon the seawall during the monsoon season, especially during the high tide. Thus, they are the artificial barriers stopping the waves/tides at the coast. Since the seaward part of the seawall in most cases is defaced due to erosion, the landward toe is taken as the HTL boundary in such locations. In areas where stabilized frontal beach with considerable width seaward of seawalls are present, the HTL has been marked following the procedures prescribed in the CRZ Notification 2019 and HTL manual (*NCSCM Technical Report Series 23B, 2015: MANUAL ON DEMARCATION OF High Tide Line and Low Tide Line and preparation of CZMP of the Coast of India*). Either, the permanent vegetation line or the monsoonal berm crest has been considered for HTL demarcation in such cases as done for the coasts without seawall. On the other extreme, in the case of continuously eroding sites there are lines of sea wall which are now in the sea. In such cases the landward seawall is taken. In order to facilitate the demarcation of HTL at seawall locations, the latter has to be clearly marked in the beach profile during coastal surveys.

c) Permanent Vegetation Line

Permanent vegetation develops on the stable part of the beach. There are several locations along Kerala coast, which has only one berm and the beaches undergo severe erosion during the monsoon, and yet not protected by seawalls. In such cases, permanent vegetation, particularly well grown coconut trees, which are the main vegetation species prevalent all along the coast, is used as an indicator. The part of the beach landward of monsoon berm crest, which is mostly stable and the line of permanent vegetation normally follows the line of monsoon berm crest which is the HTL.

d) Coastal sand dune / paleo-aeolian dune

Sand dunes are mounts, hills or ridges of sand that lies behind the part of the beach affected by tides. They are formed over many years when windblown sand is trapped by beach vegetation or other stationary objects. Sand dunes are habitat for coastal plants and animals. The size and morphology of coastal dunes is dependent on the complex interaction between controlling winds, sediment supply, and the geomorphology of the nearshore and beach environment. Mostly, dunes can be divided into those that form from the direct supply of sediment from the beach face (primary dunes), and those that form from the subsequent modification of primary dunes (secondary dunes). Sand dunes provides and storage and supply for adjacent beaches. They also protect inland areas from storm surges, hurricanes, flood-water, and wind and wave action that can damage property. Sand dunes support an array of organisms by providing nesting habitat for coastal bird species including migratory birds. The main secondary dunes include blowouts, parabolic dunes, and transgressive dune fields.

In Kerala, coastal inland areas have remnants of coast-parallel sand ridges manifesting the Holocene transgressive still stands of sea. North and Central Kerala coasts had such dispositions of strandlines of alternating ridges with swales. However, due to the demand of dense population in the coastal region and development activities, we could rarely see such raised dunes/ridges currently in Kerala except along the Pallikkara-Kanhangad coastal belt in the Kasaragod District.

Another interesting feature witnessed is the foredunes bordering the beaches along most part of Kerala coast. They are seen in the backshore of the beaches as shadow dunes continuously being formed due to the sand blown out and trapped around any obstruction such as shrubs or grasses in the backshore.

e) Mangroves

Mangroves are unique plant communities comprising of evergreen trees and shrubs belonging to several unrelated families observed in tropical to subtropical intertidal regions, where constant tidal water exchange takes place. Mangrove ecosystem ecologically functions as a complex ecotone or interface zone between the terrestrial and marine ecosystems, exemplifying diverse habitats, including microhabitats, characteristic of terrestrial, intertidal and aquatic environs. As an invaluable ecological system and for reasons of its rich biodiversity, economic and social standing for sustenance and survival of community people, sustainability of sea food, and shore-line stability, conservation of mangroves is of paramount importance.

They exhibit remarkable adaptation for salt tolerance with a spread of around 1 lakh sq.km world over distributed in about 30 countries. Mangroves in India account for about 5 percent of the world's mangrove vegetation and are spread over an area of about 4,800 sq.km along the coastal States/UTs of the country. The best development of mangroves in India is along the east coast with nearly 57% (~2750 sq.km) of the mangrove ecosystem of the country. Along the west coast of the country occur 23%(~1100sq.km) of the Indian mangroves and the remaining 20% is around the Andaman and Nicobar Islands (India). The east coast, unlike the west coast, is endowed with the largest mangrove wetlands developed on larger river deltas created by the major east flowing rivers of the country.

Kerala once in the 1950's was blessed with a large spread of about 700 sq.km mangroves, but has been declined considerably to around 20 sq.km. All along the Kerala coast there are a good number of small mangrove stands, though mostly in isolated patches, fringing the estuaries and backwaters (kayals); and around islets or along river margins in the coastline stretches. Kerala with

its very limited extent of mangroves is in no way free from the current trends of degradation of mangrove systems in the country. Mangrove systems in Kerala exhibited a higher grade of heterogeneity in their environmental settings and ecosystem features. Mangrove systems are one of the most threatened habitats in Kerala, as anywhere else in the country, or in the world. There is confusion about the actual/exact extent of mangrove distribution in Kerala in the absence of a precise estimate of it.

There are 15 true mangrove species and 49 mangrove associates observed in the coastal brackish water areas of Kerala. The 15 true mangrove species belonged to 9 genera spread over 7 families. The family, Rhizophoraceae is the most represented one with 6 species belonging to 3 genera. Mangrove associates are generally observed in the fringe areas where the wetland nature is devoid of any salinity.

Some of the mangrove species reported in the Ernakulam district are *Avicennia officinalis*, *Bruguiera cylindrica*, *Bruguiera gymnorhiza*, *Bruguiera sexangula*, *Excoecaria agallocha*, *Rhizophora apiculata*, *Rhizophora mucronata*, *Sonneratia alba*, *Sonneratia caseolaris*, and *Acanthus ilicifolius*. The distribution of mangroves in the district varies from moderately dense to sparse degraded types. *Avicennia officinalis* is one of the common species noticed in many colonies of mangroves. Even under severe degradation, *Avicennia marina* species still shows its adaptation capacity under stressful condition with re-sprouting from in and around the destroyed trees. Out of four species belonging to the genus *Bruguiera*, *B. cylindrica* has relatively wide distribution in Ernakulam district followed by *Bruguiera sexangula*, *Bruguiera parviflora* and *Bruguiera gymnorhiza*. *Kandelia kandal* is also reported in the district from locations like Kumbalam which also has been reported from all districts except Trivandrum. Species like *Sonneratia alba* is becoming endangered due to its small populations in the districts of Ernakulam, Kozhikode, Kannur and Kasargode. *Lumnitzera racemosa* and *Aegiceras corniculatum* have become rare mangrove species in Ernakulam. However, certain studies have reported fair presence of *Lumnitzera racemosa* and *Aegiceras corniculatum* from certain locations in Ernakulam District.

f) Rocks, Headlands, Cliffs

The 590km long Kerala coast is dotted in between by rocky promontories, headlands and steeply sloping cliffs. Except the coastal districts of Ernakulam and Alappuzha, all the other 7 districts have distribution of such rocks/headlands/cliffs to varied extent. At the rock outcrops, headlands and cliffs the water is quite deep that there is virtually no spatial displacement in the waterline. Hence, the High Water Line available in the topographical maps (transferred to the base map) can be taken as such. However, at the eroding laterite cliffs (e.g.Varkala, Paravoor, Thalassery in Kerala), the latest position of the toe is taken from the cross section measured at the respective sites. This is to be verified against the satellite imagery and transferred to the base map.

The cliffs and rocky promontories are not present along the Ernakulam coast.

g) Influence of Tidal action

CRZ shall apply to the land area between HTL to 50 meters or width of the creek, whichever is less on the landward side along the tidal influenced water bodies that are connected to the sea. The tidal influenced water bodies as per the CRZ Notification 2019 means the water bodies influenced by tidal effects from sea in the bays, estuaries, rivers, creeks, backwaters, lagoons, ponds that are connected to the sea. The distance up to which CRZ is applicable shall be governed by the distance upto which the tidal effects are experienced which shall be determined based on salinity concentration of five parts per thousand (ppt) measured during the driest period of the year and distance upto which tidal effects are experienced. As per the Office Memorandum dated 26th June 2019 of the MoEFCC, guidelines were issued facilitating updation of CZMPs, according to which, the CZMP database prepared as per the CRZ Notification 2011 shall be used as the base for revision or updation of the CZMP, as per the provisions contained in the CRZ Notification, 2019. Therefore, the tidal effects as marked in the CZMP prepared as per the CRZ Notification 2011 forms the basis for the updation of the CZMP currently being prepared. The tidal limit of various tide influenced waterbodies of the Ernakulam District is given in the table below in terms of location with latitude and longitude.

Table: Salinity/CRZ limit along the inland water bodies in Ernakulam District

Sl.no	Name of Waterbody	Latitude	Longitude
1	Periyar River	10° 8'40.40"N	76°16'55.96"E
2	Periyar River (Tributary)	10° 4'36.30"N	76°18'10.32"E
3	Varapuzha	10° 4'8.19"N	76°17'19.62"E
4	Chithrapuzha	9°59'29.61"N	76°21'8.86"E
5	Muvattupuzha River (Tributary)	9°51'24.89"N	76°23'8.08"E

4.2 Demarcation of Ecologically Sensitive Areas

Guidelines for preparation of the CZMP specifies that the CZM maps shall clearly demarcate the land use plan of the area and map out the Ecologically Sensitive Areas (ESAs) or the CRZ-IA areas as per mapping made available by NCSCM to coastal State and Union territories. Coastal ecosystems provide a variety of ecosystem services for humans; however, these systems are susceptible to both terrestrial and marine factors because they are situated in the coastal ecotone. Consequently, coastal marine ecosystems are very sensitive to environmental change and human activities. Constructions for coastal development are still often located in sensitive biological and ecological areas without much consideration of their impact. In this context, the CRZ Notification 2019 provides provisions to achieve coordinated development of the population, economy, and environment in the coastal area. Ecological sensitivity refers to the degree of reflection of ecosystem interference in human activities and changes to the natural environment; that is, the degree to which the ecosystem responds to environmental changes caused by the combination of internal and external factors. Through identifying such sensitive areas, conservation and management strategies could be developed that facilitate the sustainable use of coastal resources.

The different ecologically sensitive areas as listed in the CRZ Notification 2019 have been assimilated from the previously approved CZMP maps as directed through the guidelines and

further the changes occurred till recently has been captured using high resolution satellite data. The same has been field verified for accuracy assessment wherever required.

5. ECOLOGICALLY SENSITIVE AREAS/COASTAL LANDUSE

Presence of ESAs in the Ernakulam District is restricted to mangroves and turtle nesting grounds, and devoid of areas or structures of archaeological importance and heritage site. They are being described in the following section with their extent in the local bodies.

5.1. Mangroves

As per the available literature, about 40% of the mangroves has been depleted during the recent years in Ernakulam District. However, at present, these highly fragmented formation are in a much degraded state, mainly due to pollution, reclamation and other anthropogenic influences. *Rhizophora apiculata*, *Bruguiera gymnorhiza*, *Bruguiera cylindrical*, *Carallia brachiata*, *Avicennia marine*, *avicennia officinalis*, *Acrosticum aureum*, *Aegiceres corniculatum*, *Acanthus ilicifolius*, *Derris trifoliata*, *Derris scandens*, *Excoecaria agallocha*, etc are some of the species often reported from the area. In the ecotones and more degraded sites harbouring the vegetation type, several mangrove associates also flourish.

Even with the highly degraded nature of mangrove formations, Ernakulam District is ranked 2nd in terms of extent of mangroves followed by Kannur. The total extent of mangroves in Ernakulam district is 530.18 hectares, which is a significant presence among the coastal districts in Kerala. Among the local bodies, Elankunnappuzha Panchayat (192.84 ha) followed by Chellanam Panchayat (65.60 ha) have somewhat luxuriant growth of mangroves. Panchayats such as Amballur and Kadungallur are devoid of mangroves. Among the urban local bodies, Kochi Corporation is having the maximum extent of 47.90 hectares followed by Maradu Municipality (42.87 ha). The adjoining Thrippunithura Municipality also have an extent of 24.68 hectares. However, Kalamassery and Eloor Municipalities are totally devoid of mangroves though some traces of mangroves has been noticed in Paravoor and Thrikkakara Municipalities.

5.2. Archaeologically important and Heritage Sites

An archaeological site is a place (or group of physical sites) in which evidence of past activity is preserved (either prehistoric or historic or contemporary). Archaeological sites are open museum for living history. Heritage is a broad concept that includes the natural as well as the cultural environment. It encompasses landscapes, historic places, sites and built environments, as well as biodiversity, collections, past and continuing cultural practices, knowledge and living experiences. The prime concern of Conservation, Preservation and Maintenance of ancient monuments and archaeological sites along the coastal region remains one of the objectives of the CRZ Notification.

There are many archeological or heritage sites within the CRZ area of the Ernakulam district. They are Pallippuram Fort, Paravur Jewish Synagogue, Vypeekotta Seminary, Jewish Synagogue at Chendamangalam, Kottayil Kovilakam, Bastion Bunglow, Mattancherry Palace, St. Sebastian's Church, Paliyam Kovilakam, Paliyam Nalukettu, etc. The total area encompassing the listed sites is 0.38 hectares.

Pallippuram Fort built in 1503 by the Portuguese is considered as the oldest surviving European monument in India. Also known by the name Ayikotta or Alikotta, the fort is a gigantic hexagonal structure. The architecture of the fort is quite fascinating with a hexagonal outpost and lowest floor raised to a height of five feet. Laterite, mortar and wood are used for the construction. There is a cellar inside the fort, which was used at that time as a magazine. The local people believe that the cellar is a tunnel that leads to the Cheraman Masjid in Kodungallur. The fort fell into the hands of Dutch army in 1663. In 1798, the fort was purchased by the Travancore Maharaja and is now a protected monument of the Kerala State Archaeology Department.

The Jewish communities who came here in different periods settled in and around Kodungallur were involved in trade. Synagogues are Jewish places of worship. One of the oldest such Synagogues is the Paravur Synagogue. The Paravur Synagogue is the most expansive and complete among synagogues in Kerala built in 1615.

The remains of the Vypeekotta Seminary built by the Portuguese are preserved as a historic monument and site. The Vypeekotta Seminary is located in Chendamangalam village in Ernakulam District. This Seminary was established to teach the priests of Malabar, the ceremonies and language to be used in Roman Catholic Churches founded by the Portuguese. There were many buildings on the premises, which were destroyed during the wars in later period. There is a church still functioning in the compound, probably built during the same period, but renovated later. Many stone inscriptions were encountered from the church compound during the exploration done here in 1935. The remains of the Seminary were declared as a protected monument in 1935.

In 1420, the Jews who came from Kodungallur or Palayur to Chennoth (Chendamangalam) built a Synagogue, a place of worship for the Malabari Jews. This synagogue built in the model of Jerusalem Temple was destroyed in a fire, and was rebuilt in 1614, and renovated several times. In the 1960s when the Jews in Kerala returned to Israel the worship here came to a stop. The synagogue is located inside high walls that surround it. The wall in front is as high as the front elevation. This synagogue has been renovated and revived to its former glory by the Government of Kerala, and now houses a small museum of early Jewish life in Kerala.

Kottayil Kovilakam at Chendamangalam, which was the seat of Kshatriya chieftains of Villarvattom is situated near the ancient *Kunnathuthali temple*. Kottayil Kovilakam, the headquarters of the Villarvattom Swarupam, was a local fiefdom in Kochi. Chendamangalam is an important center of hand loom weaving and coir manufacturing. Near the Krishna temple on one side Tipu Sultan's cave and on either side Arabs cemetery. On the riverside a group of huge rocks known as 'ANAPARA' is the main highlight. The Kunnathuthali temples were constructed 400 years ago.

Bastion Bungalow, located near Vasco da Gama square in Fort Kochi, is a sea-facing Dutch heritage structure built in 1667. This elegant bungalow features an Indo-European style of architecture with Kerala tile roofing and a wooden verandah on the first floor. Bastion Bungalow witnessed Kochi's colonial history. From the 16th to the 19th centuries, Kochi was colonised by

three European powers in turn—initially the Portuguese, then the Dutch, and finally, the British. In 1503, the Portuguese built Fort Emmanuel featuring seven bastions in Kochi. The Kerala government converted the Bastion Bungalow into a heritage museum, which was open to public since February 2016. The state department of archaeology in Kerala has declared the bungalow a protected monument.

Built around 1555, the Mattancherry Palace, popularly known as the Dutch Palace was originally built by the Portuguese. This was a gift for Raja Veera Kerala Varma, who was then the King of Kochi. Later, when the Dutch took over, they renovated this Palace around 1663. Since then it has been referred to as the Dutch Palace. The Dutch Palace was used as the 'Royal House' by the Royal families of Kochi. It is said that they used this building to conduct many important ceremonies associated with the coronation of the new king. The Palace has typical Kerala style architecture and is a two-storeyed structure. It is a *naalukettu*, which means a central courtyard and four separate wings opening out into this courtyard. The rooms of the women of the Palace is on the ground floor, while there is a huge coronation hall, dining hall, assembly hall, and Royal bed chamber upstairs. It also has a *kovinithalam* staircase room.

St. Sebastian's Church was built in 1833 at Thoppumpady. It is an active church in Edappally Forane with architectural excellence under the Diocese of Cochin.

Traditional home of the Paliathu Achans (Prime Ministers to the Kings of Kochi), it came to be called 'Kovilakam' or palace after the then Paliath Achan hid the King in his home, when the royal house was threatened by the Portuguese. In appreciation of the Paliath Achan's services, the Dutch renovated the home in Chendamangalam. He used it as his official residence, where a lot of major decisions were made and put into action. The architectural style of Paliath Kovilakam is a hybrid of Kerala and Dutch styles. 'Paliathachan' is the title given to the Karanavar (Head of the Family) of Paliath Noble Family. During the 17th and 18th centuries, they held the posts of Prime Minister and Chief of Army of the kingdom of Kochi.

Paliath Nalukettu's are the traditional homesteads (tharavads) where several generations of a matrilineal joint family lived together. Nalukettu consists of a main house along with a few

satellite houses. Portico, Inner Hall, Kitchen and four blocks - Northern, Southern, Eastern and Western - constitute the different parts of a traditional Nalukettu. The design and construction pattern are closely linked to the life cycle of women in the family, their rituals, beliefs and celebrations. Nalukettu was occupied by the women of Paliam Noble family who followed matrilineal system. This structure is also an epitome of the traditional housing architecture of Kerala.

5.3. Turtle Nesting Grounds

No turtle nesting site has been identified along the Ernakulam District coast.

5.4. Inter-Tidal Zone

Tides play very important role in determining the biodiversity of and fertility of coastal and estuarine ecosystems. Intertidal zone is the area between the high tide (HTL) and low tide lines (LTL) as per the CRZ Notification. Intertidal zone exists wherever the tidal effects are experienced. The intertidal zone is an ecosystem where a multitude of organisms living on the shore/banks survive changes between high and low tides. The tidal ranges are low in the southern side of the west coast of India and as we move northward, its amplitude increases. At Kochi, the ranges are of the order of 1m. The tidal range increases northward and reaches to more than 2m at Marmagao. At Mumbai, maximum ranges in tidal elevations are of about 5 m. Kerala coast being microtidal in nature with tidal amplitude around 1m with slight increase from south to north, the extent of intertidal area by the sea and inland water bodies are limited. In the case of Ernakulam District, intertidal area within the CRZ-IB category is bifurcated into the intertidal areas by the sea coast as well as the tidal waterbodies which accounts for 1930.71 ha. Apart from this, vast expanse of pokkali fields are available in the Ernakulam district accounting for an area of 4752.47 ha (provided in the Table in the Annexure-2), where alternating seasonal practices of aquaculture and paddy cultivation is being done. Elamkunnappuzha Panchayat tops the list with 246.55 ha spread of intertidal area, followed by Edavanakkad Panchayat with 176.89 ha. With varying aerial extent, all the local bodies in Ernakulam District have intertidal areas. In the case of Pokkali category of CRZ

IB, Chellanam Panchayat (845.28 ha) followed by Ezhikkara Panchayat (697.44 ha) have wide spread.

5.5.Salt pan / Aquaculture ponds

Though aquaculture ponds are available in Ernakulam District, they are mostly classified under the intertidal areas (CRZ IB) or as CRZ IVB due to their alternating use for aquaculture and agriculture. The same sort of categorization adopted with the approved CZMP of 2011 is being followed in the updation process.

6. METHODOLOGY FOR PREPARATION OF CZMP

As outlined in the Annexure-IV, preparation of the CZMP has been undertaken in 1:25000 scale using the base grids of the Survey of India (SOI) topographic sheets. Wherever 1:25000 scaled toposheets are not available, the 1:50000 SOI toposheets were enlarged accordingly to compose the base maps. The base maps were georeferenced as per the datum and projections specified in the guidelines. The cadastral maps of the villages (1:3960 or nearest scales as per availability) likely to be within the purview of CRZ have been appropriately georeferenced to maintain the horizontal accuracy required. To minimize the RMS error during the georeferencing, maximum number of control points were obtained from the field using GPS (combination of methods using long static DGPS, short static DGPS and RTK obtaining acceptable precision resolving ambiguities in the post-processing techniques) to define the location in terms of latitude and longitude geodetic points in DMS format with second decimal accuracy in seconds (X & Y as cartesian coordinates with submeter accuracy). Wherever, disparity has been noticed in the hardcopy scanned cadastral image, georeferencing has been done by seeding maximum control points adjusting with the physical signatures discernible on the high-resolution satellite image which has been used as a reference image.

6.1. Field mapping and map preparation

The field mapping has been performed with hard copy of the georeferenced cadastral sheets to match the mapping scale with the ground space distance. Hard copy of the satellite images to a matchable scale has also been printed out to refer simultaneously during the field

survey which comes handy in matching with the co-locatable ground features. The field surveying becomes confident with the combination of both cadastral and satellite images as well as with tying up the coordinates obtained from the GPS. All the essential features and lines are captured using the GPS by tagging attributes while carrying out the field work so that it becomes easy collate the information into maps without any confusion or missing. The guidelines issued subsequent to the notification specifically clarifies that HTL, LTL, ESAs and Critically Vulnerable Coastal Areas (CVCAs) demarcated by the NCSCM, Chennai, and the Hazard Line as demarcated by the SOI, shall be used in preparation/updation of the CZMPs as required under the provisions of the CRZ Notification, 2019.

Timeline satellite images were verified for any considerable change in the HTL/LTL/ESAs. Significant changes in the terms of the reduction or increase of mangroves have been noticed at a number of places in the State, which has been verified in the field intensively. Based on the ground condition, the variations in the extent of mangroves as well as the changes in HTL/LTL has been marked using the GPS tracking *in situ*. Apart from digesting the changes in the CZMP, separate table has been created to mark the changes at each location for scrutinizing the same at the vetting stage.

7. CRZ CLASSIFICATION

The CRZ Notification 2019 has classified the CRZ area in the following manner for the purpose of conserving and protecting the coastal areas and marine waters.

7.1. CRZ-I

CRZ-I areas are environmentally most critical and are further classified as under:

7.1.1. CRZ-I A

CRZ-I A shall constitute the following ecologically sensitive areas (ESAs) and the geomorphological features which play a role in maintaining the integrity of the coast viz.:

- (i) Mangroves (in case mangrove area is more than 1000 square meters, a buffer of 50 meters along the mangroves shall be provided and such area shall also constitute CRZ–IA);

- (ii) Corals and coral reefs;
- (iii) Sand dunes;
- (iv) Biologically active mudflats;
- (v) National parks, marine parks, sanctuaries, reserve forests, wildlife habitats and other protected areas under the provisions of Wild Life (Protection) Act, 1972 (53 of 1972), Forest (Conservation) Act, 1980 (69 of 1980) or Environment (Protection) Act, 1986 (29 of 1986), including Biosphere Reserves;
- (vi) Salt marshes;
- (vii) Turtle nesting grounds;
- (viii) Horse shoe crabs' habitats;
- (ix) Sea grass beds;
- (x) Nesting grounds of birds;
- (xi) Areas or structures of archaeological importance and heritage sites.

7.1.2. CRZ-I B:

The intertidal zone i.e. the area between Low Tide Line and High Tide Line constitute the CRZ-IB.

7.2. CRZ-II

CRZ-II constitute the developed land areas up to or close to the shoreline, within the existing municipal limits or in other existing legally designated urban areas, which are substantially built-up with a ratio of built-up plots to that of total plots being more than 50 per cent and have been provided with drainage and approach roads and other infrastructural facilities, such as water supply, sewerage mains, etc.

7.3. CRZ-III

Land areas that are relatively undisturbed (viz. rural areas, etc.) and those which do not fall under CRZ-II, shall constitute CRZ-III, and CRZ-III shall be further classified into following categories: -

7.3.1 CRZ-III A:

Such densely populated CRZ-III areas, where the population density is more than 2161 per square kilometre as per 2011 census base, shall be designated as CRZ-III A and in CRZ-III A, area up

to 50 meters from the HTL on the landward side shall be earmarked as the 'No Development Zone (NDZ)', provided the CZMP as per this notification, framed with due consultative process, have been approved, failing which, a NDZ of 200 meters shall continue to apply.

7.3.2 CRZ-III B:

All other CRZ-III areas with population density of less than 2161 per square kilometre, as per 2011 census base, shall be designated as CRZ-III B and in CRZ-III B, the area up to 200 meters from the HTL on the landward side shall be earmarked as the 'No Development Zone (NDZ)'.

7.4. CRZ-IV

The CRZ- IV constitutes the water area and shall be further classified as under:-

7.4.1 CRZ- IVA:

The water area and the sea bed area between the Low Tide Line up to twelve nautical miles on the seaward side shall constitute CRZ-IV A.

7.4.2 CRZ- IVB:

CRZ-IV B areas shall include the water area and the bed area between LTL at the bank of the tidal influenced water body to the LTL on the opposite side of the bank, extending from the mouth of the water body at the sea up to the influence of tide, i.e., salinity of five parts per thousand (ppt) during the driest season of the year.

7.5. Regulation limits/lines

The CRZ limits has been revised or updated as per the provisions contained in the CRZ Notification 2019. A 50 meters No Development Zone (NDZ) in the case of CRZ-III areas/ a 50 meters buffer line (CRZ limit) in the case of CRZ-II areas or the width of the creeks that are influenced by tidal from sea in the bays, estuaries, rivers, creeks, backwaters, lagoons, ponds have been drawn. The landward extent of NDZ/Buffer by the creek is up to the location where the salinity limit of 5 part per thousand is encountered.

By the sea coast, a 500 meter line from HTL is drawn as CRZ limit irrespective of whether the area is under CRZ-III or CRZ-II. As per the CRZ Notification 2019, a new sub-category of CRZ-IIIA by the coast is introduced, where the NDZ is limited to 50 meters and the same has been updated. Similarly, as in the case of the previous CZMP, the 200 meter line of NDZ by the seacoast has been drawn for the CRZ-IIIB areas.

The NDZ of the islands in the coastal backwaters has been limited to 20 meters, the same has been updated in the CZMP being prepared according to the CRZ Notification 2019.

Subject to the information to be provided by the State Government on the details of village-wise survey numbers pertaining to government land for deciding/enabling ease in demarcation of buffers around mangrove areas, a uniform buffer of 50 meters have been demarcated in case of mangrove area having extent more than 1000 square meters.

7.6. CVCA and IIMP

Critically Vulnerable Coastal Areas (CVCA):

Sundarban region of West Bengal and other ecologically sensitive areas identified as under Environment (Protection) Act, 1986 such as Gulf of Khambat and Gulf of Kutchh in Gujarat, Malvan, Achra-Ratnagiri in Maharashtra, Karwar and Coondapur in Karnataka, Vembanad in Kerala, Gulf of Mannar in Tamil Nadu, Bhaitarkanika in Odisha, Coringa, East Godavari and Krishna in Andhra Pradesh shall be treated as Critical Vulnerable Coastal Areas (CVCA) and managed with the involvement of coastal communities including fisher folk who depend on coastal resources for their sustainable livelihood.

CVCA locations as provided by the NCSCM is marked in the Ernakulam District which are spread along certain parts around Vembanad Lake.

Integrated Island Management Plan (IIMP):

The islands demarcated in Ernakulam District as inland islands in the coastal backwaters need to have Integrated Island Management Plans (IIMPs), as applicable to smaller islands in

Lakshadweep and Andaman & Nicobar, as per Island Protection Zone Notification, 2011 number S.O. 20(E), dated the 6th January, 2011, to be formulated by the Kerala State. This would be carried out with the help of NCSCM, once all such islands marked in this CZMP are approved by the Ministry of Environment, Forest and Climate Change. There are 1074 backwater islands in the Ernakulam district. The islands are numbered and depicted in a map with a connecting table attached with the report for ease of locating. The dimensions of backwater islands show wide variation in the district, ranging area from <0.004 ha (Chellanam) to 3367.52 ha (Island near Thathappally – Karumallur, Paravur Municipality, Kottuvally, Alangadu and Varappuzha). All together the area of islands in the district account for 15810.15 ha

8. HAZARD LINE

A 'Hazard line' has been demarcated by the Survey of India (SOI) taking into account the extent of the flooding on the land area due to water level fluctuations, sea level rise and shoreline changes(erosion or accretion) occurring over a period of time. The hazard line mapped by SOI has been shared by NCSCM as part of the previous CZMP prepared. The hazard line is to be used as a tool for disaster management plan for the coastal environment, including planning of adaptive and mitigation measures. With a view to reduce the vulnerability of the coastal communities and ensuring sustainable livelihood, while drawing the CZMP, the land use planning for the area between the Hazard line and HTL need to be take into account such impacts of climate change and shoreline changes.

9. CRZ CATEGORIES OF ERNAKULAM DISTRICT

The CRZ of the Ernakulam District consist CRZ-IA, CRZ-IB/CRZ-IB Pokkali, CRZ-II, CRZ-IIIA, CRZ-IIIB, CRZ-IVA, CRZ-IVB and the islands with their NDZ areas. Altogether 34 local bodies are covered under the CRZ area of which 30 are Grama Panchayaths and 4 are Municipal Council areas. Altogether 42 villages are under the purview of CRZ in Ernakulam District. The details are provided in the table annexed (Annexure-2).

9.1. CRZ categories and ESAs (Panchayat/Village-wise) in Ernakulam District

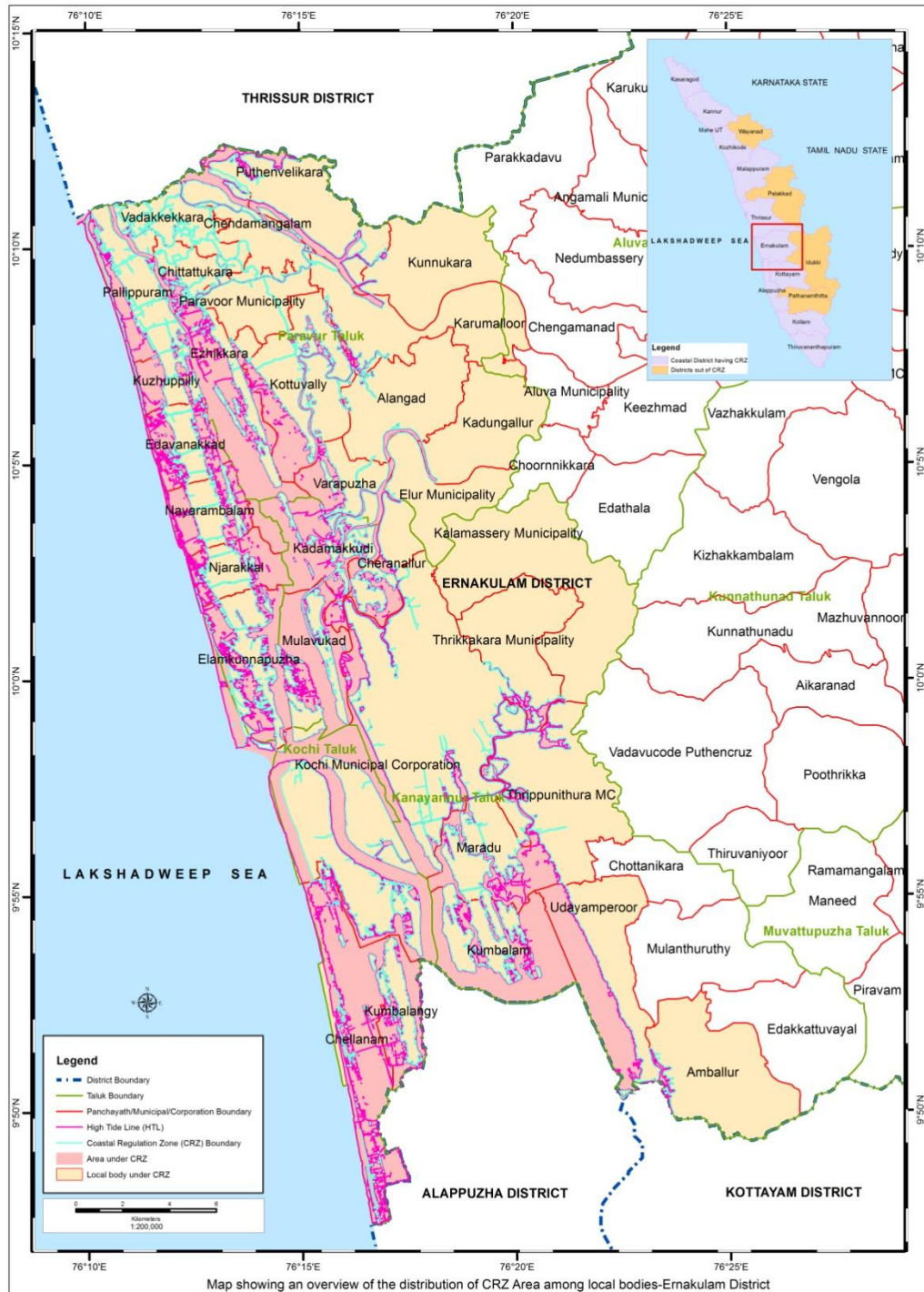
A detailed table is annexed (Annexure-3) along with this report separately on the Panchayath/Village-wise statistics of HTL, ESAs, intertidal area, mangrove buffer, area covered under each CRZ category.

10. CONCLUSION

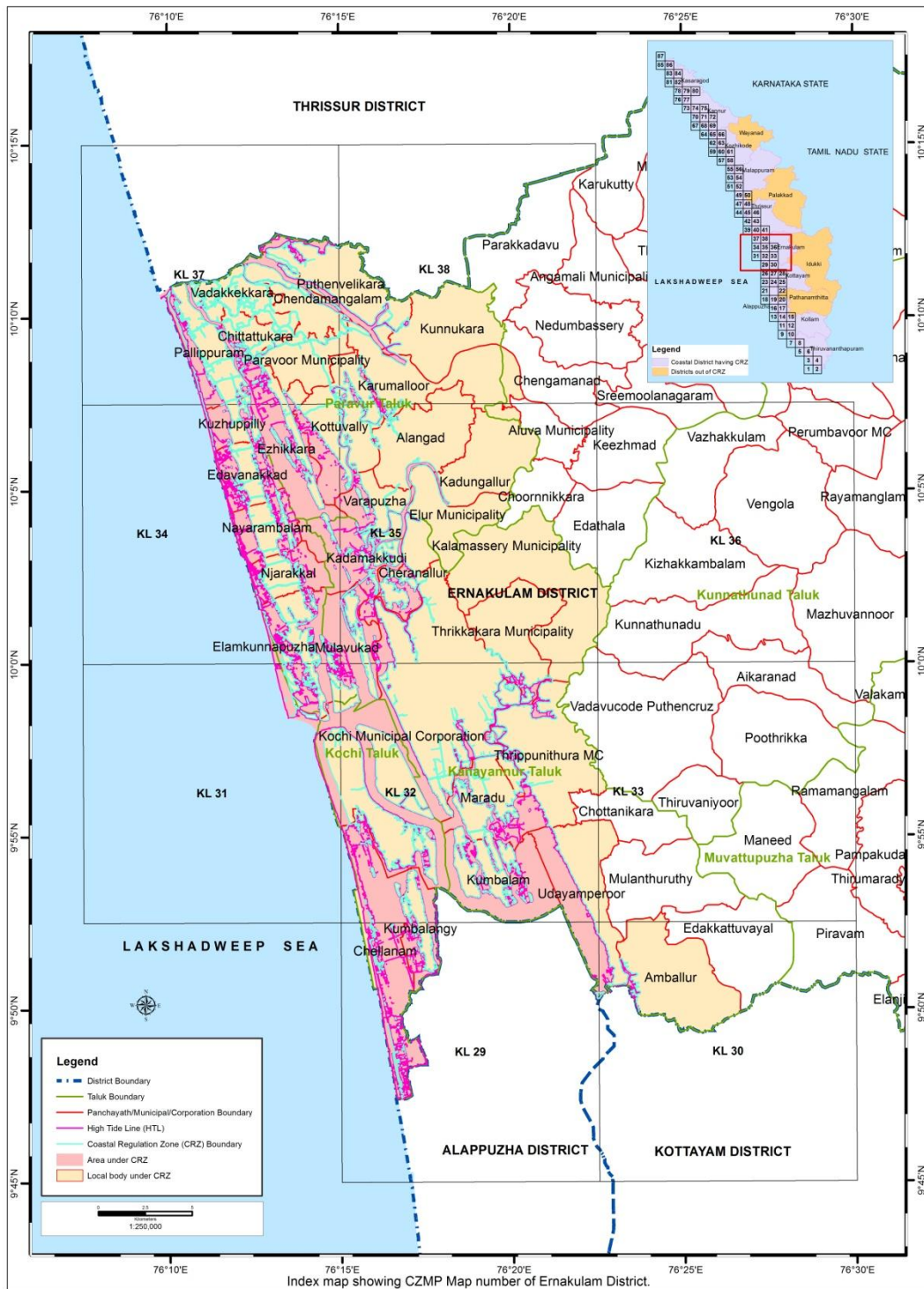
Statistics of the CRZ status of Ernakulam District is summarized below:

Total length of HTL along the Seacoast	: 46.33 km
Total length of HTL along the inland water bodies	: 1965.45 km
Total Area under the Archeological/Historical sites	: 0.38 hectares
Total Area under the Turtle Nesting Sites	: NIL
Total area under mangrove extent	: 530.18 hectares
Total area under mangrove buffer	: 1264.38 hectares
Total area under intertidal zone (CRZ-IB)	: 1930.71 hectares
Total area under intertidal zone (CRZ-IB) Pokkali	: 4752.47 hectares
Total area under CRZ-II along the Seacoast	: 277.83 hectares
Total area under CRZ-II along the inland water bodies	: 526.42 hectares
Total area in No Development Zone in CRZ-III along Seacoast	: 418.73 hectares
Total area in No Development Zone in CRZ-III along water bodes	: 524.09 hectares
Total area in CRZ-IIIA along the coast between 50-500 meters	: 238.11 hectares
Total area in CRZ-IIIB along the coast between 200-500 meters	: 60.63 hectares
Total Area of No Development Zone in the 1078 islands demarcated:	2180.01 hectares
Total area under the CRZ-IVB category	: 9806.93 hectares

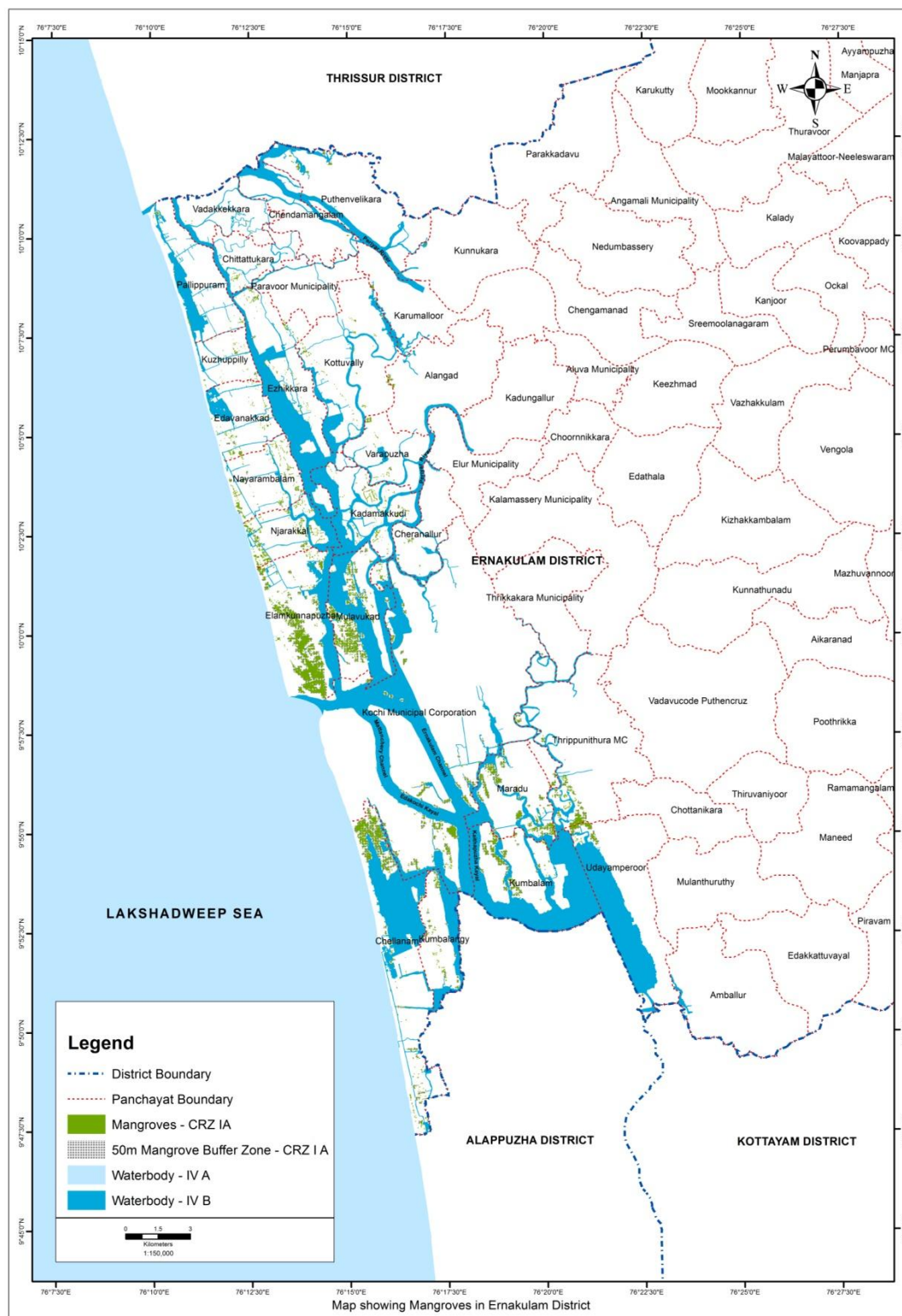
ANNEXURE-1: MAPS

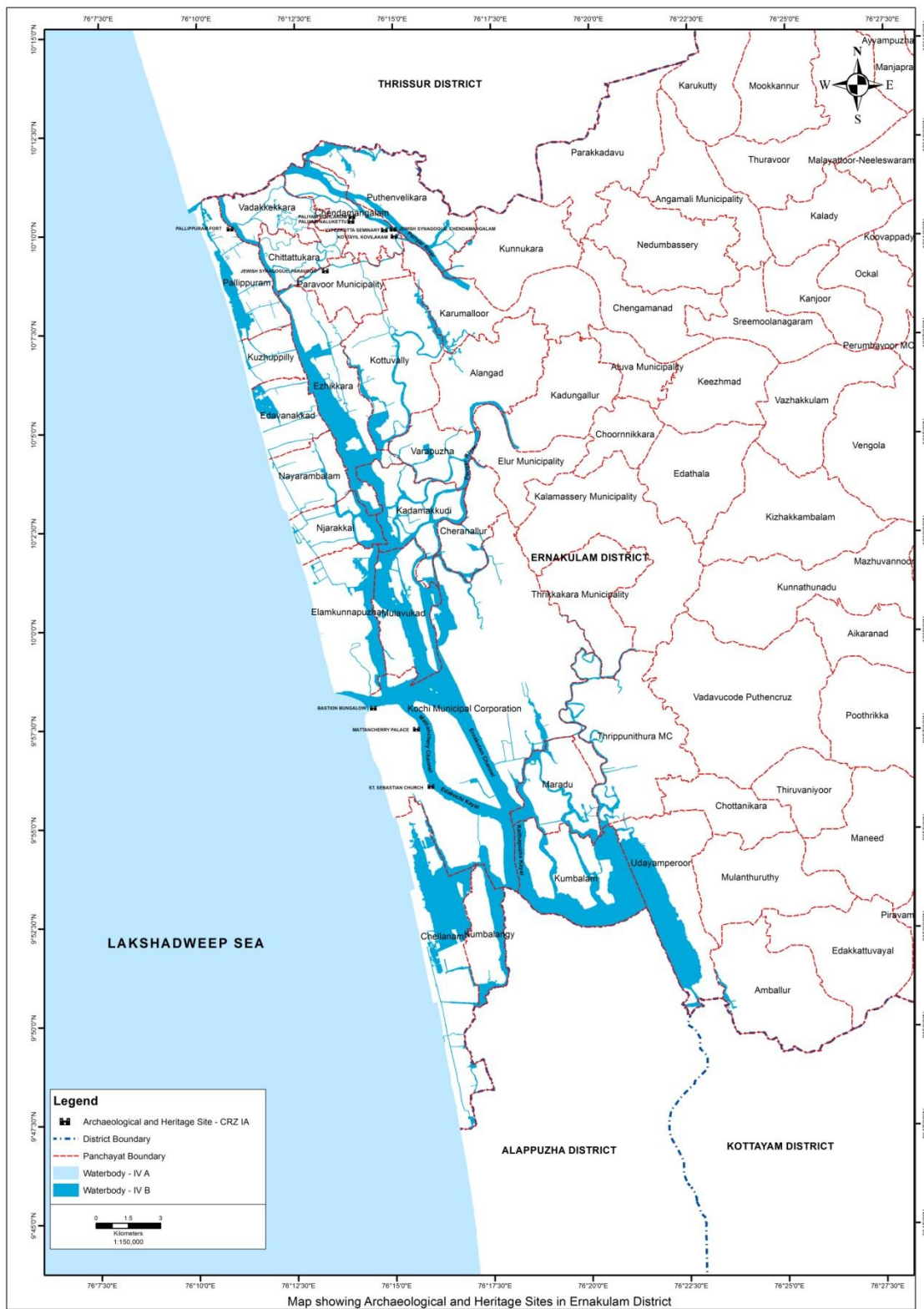


Map 1: An overview of distribution of CRZ (HTL) within the Ernakulam District

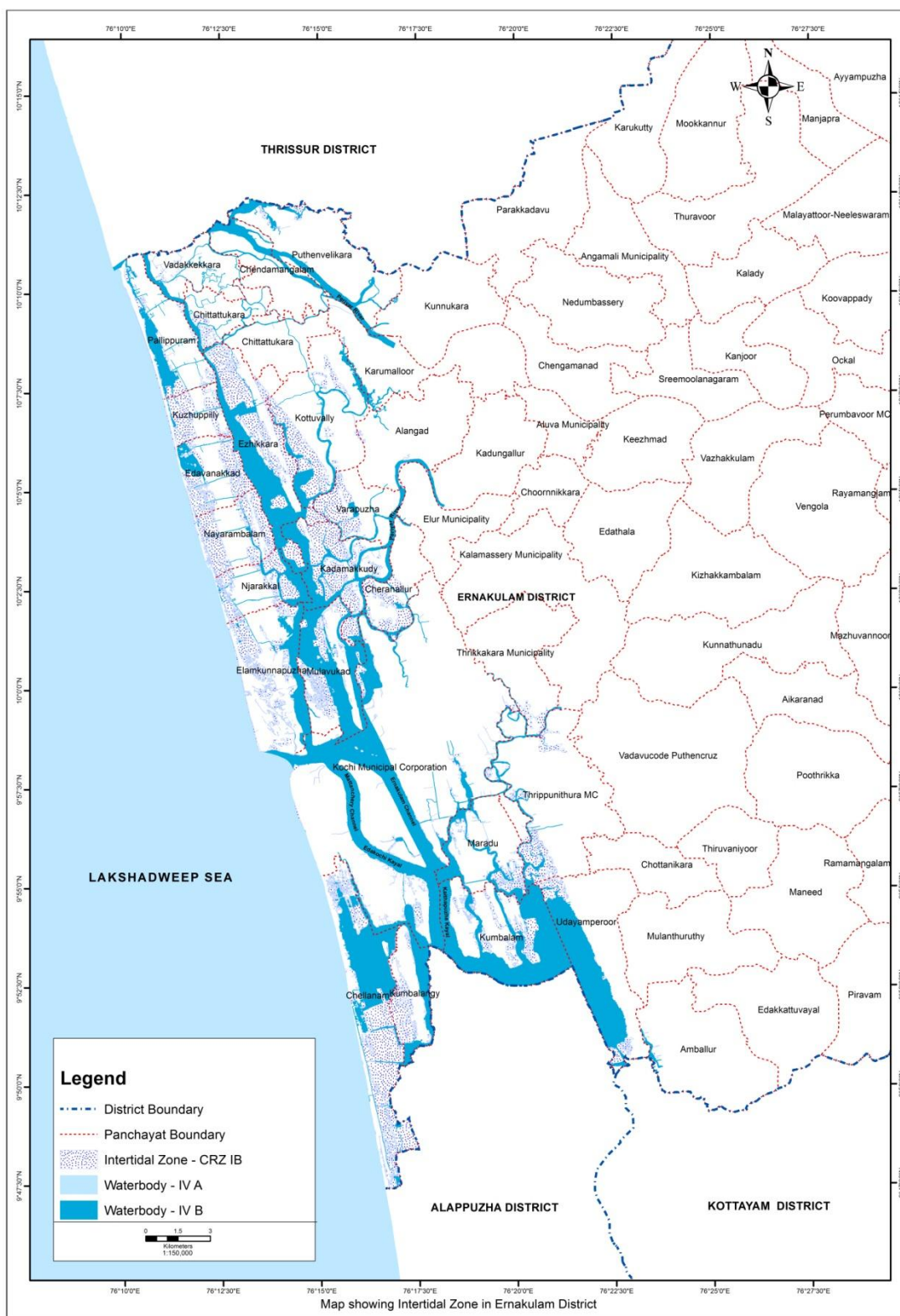


Map 2: Map grids with their numbers covering Ernakulam District (10 map frames bearing Map Numbers KL-29, KL-30, KL-31, KL-19, KL-21, KL-23, KL-24, KL-26, KL-27, KL-29, KL-30, KL-32)

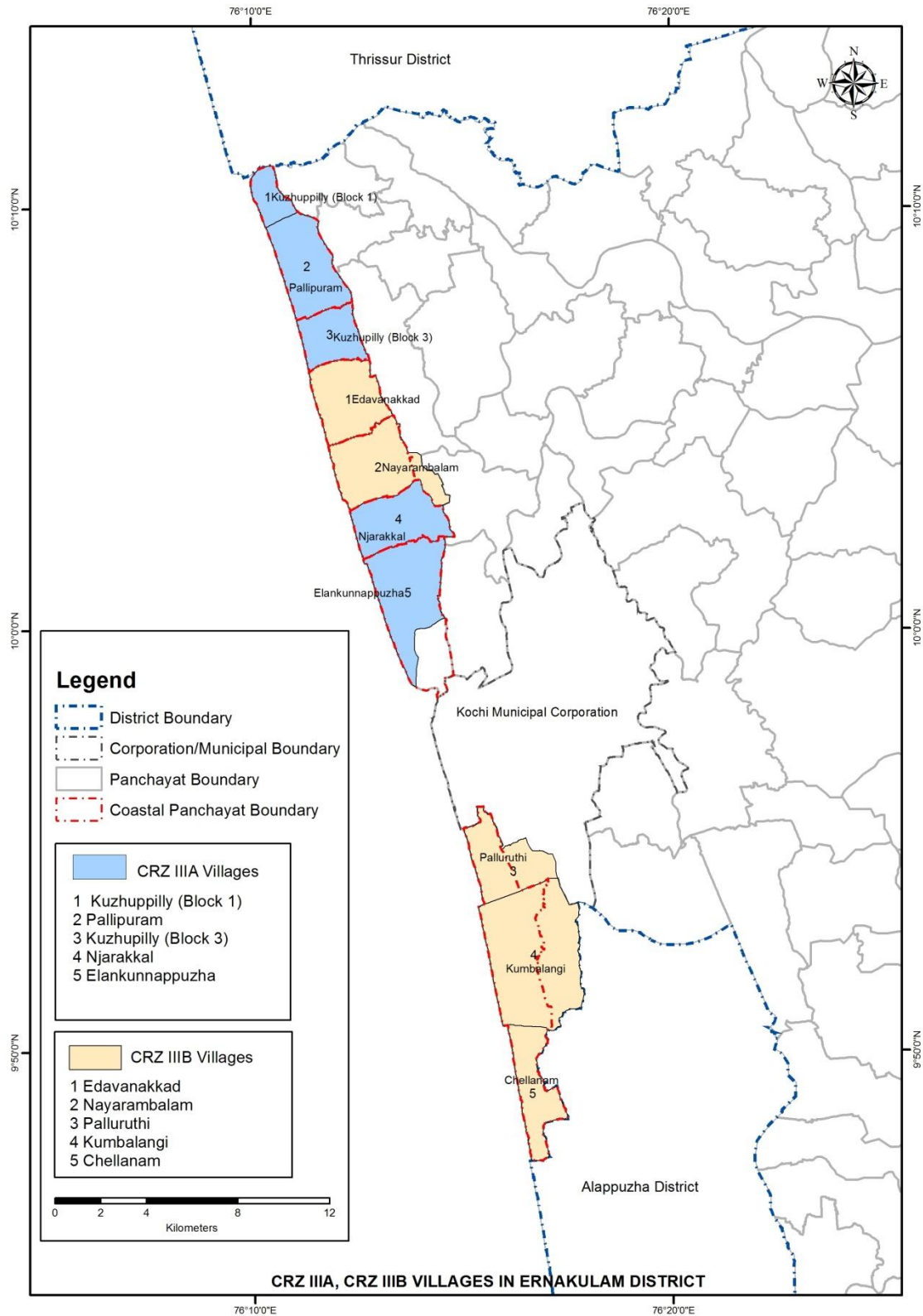




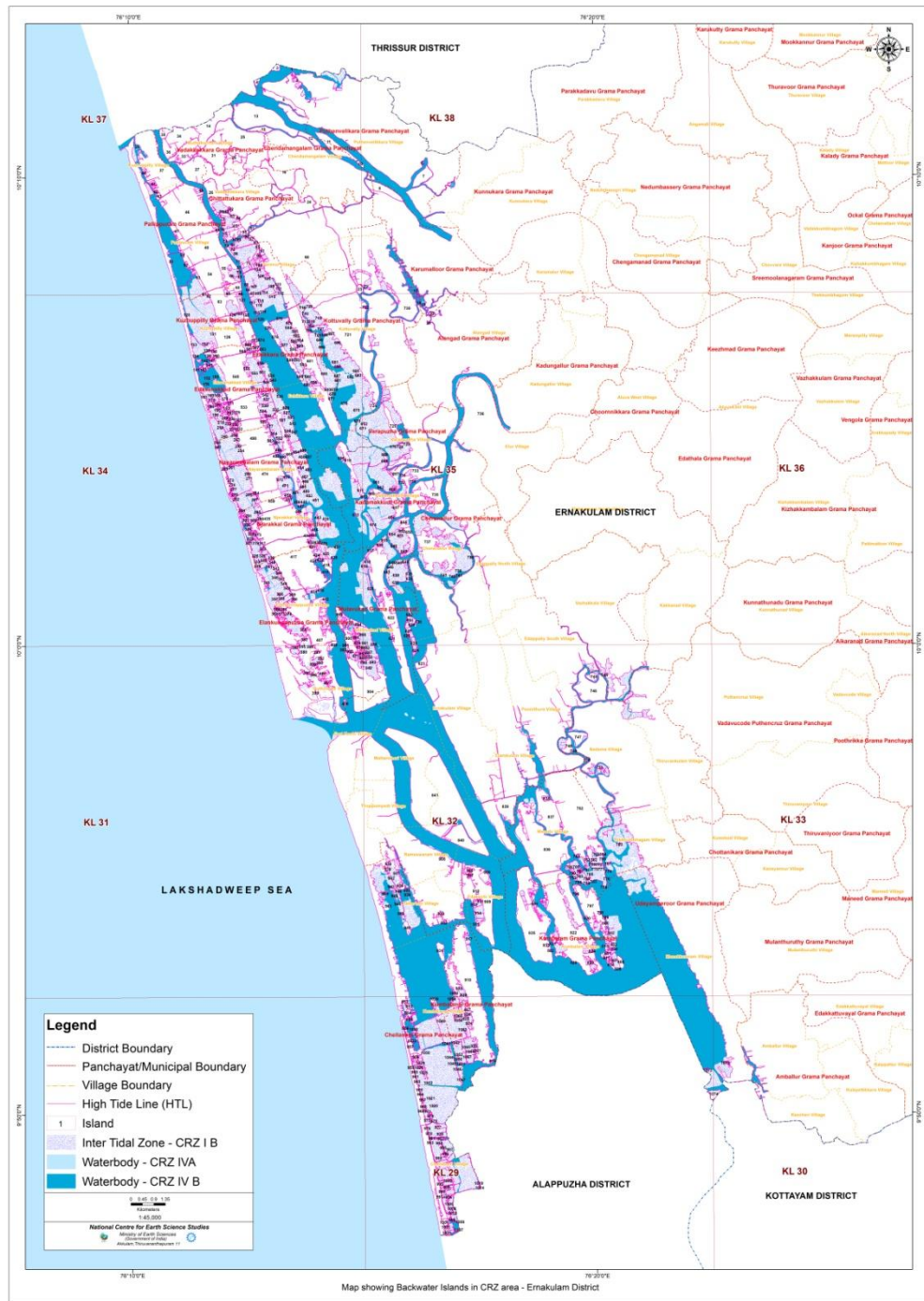
Map 4: Archaeological and Heritage sites in Ernakulam District



Map 5: Inter Tidal Zone in Ernakulam District



Map 6: Coastal villages categorized as CRZ-III A and CRZ-III B in Ernakulam District



Map 7: Distribution of Backwater Islands in CRZ area -Ernakulam District

ANNEXURE-2: TABLES

Table-1: Variations in HTL/ESA (Including Mangroves) from the 2011 KCZMP – Ernakulam District

LocNo	Change	Village	LSGD	Map no	Sheet no	Latitude	Longitude	Landmarks
1	New Mangrove	Puthenvelikara Village	Puthenvelikara	37	C43K4/NE	10° 12' 8.31" N	76° 14' 34.35" E	Near to Sree Bhairava Temple Poyya
2	No Mangrove	Puthenvelikara Village	Puthenvelikara	37	C43K4/NE	10° 12' 7.86" N	76° 14' 29.98" E	Near to Sree Bhairava Temple Poyya
3	No Mangrove	Puthenvelikara	Puthenvelikara	37	C43K4/NE	10° 11' 52.51" N	76° 14' 25.80" E	Near to St.Jude Chapel
4	Decrease in Mangrove	Pallipuram	Pallipuram	37	C43K4/NE	10° 8' 19.22" N	76° 11' 9.60" E	Near to Boat House Cherai
5	NewMangrove	Vadakkekkara	Chittattukara	37	C43K4/NE	10° 8' 48.20" N	76° 12' 23.67" E	Near to Rudhiramala Annapoorneswary Temple
6	New Mangrove	Paravur	Ezhikkara	37	C43K4/NE	10° 8' 45.43" N	76° 12' 27.12" E	Near to Rudhiramala Annapoorneswary Temple
7	New Mangrove	Paravur	Ezhikkara	37	C43K4/NE	10° 8' 41.96" N	76° 12' 32.95" E	Near to Ettiyodam Rudhiramala Bhagavathy Temple
8	New Mangrove	Paravur	Ezhikkara	37	C43K4/NE	10° 8' 40.88" N	76° 12' 33.11" E	Near to Perumpadanna Bridge
9	New Mangrove	Paravur	Ezhikkara	37	C43K4/NE	10° 8' 40.30" N	76° 12' 33.07" E	Near to Perumpadanna Bridge
10	New Mangrove	Paravur	Ezhikkara	37	C43K4/NE	10° 8' 38.39" N	76° 12' 33.96" E	Near to Perumpadanna Bridge
11	New Mangrove	Paravur	Ezhikkara	37	C43K4/NE	10° 8' 38.64" N	76° 12' 34.96" E	Near to Perumpadanna Bridge
12	New Mangrove	Paravur	Ezhikkara	37	C43K4/NE	10° 8' 35.44" N	76° 12' 37.50" E	Near to Perumpadanna Bridge
13	New Mangrove	Pallipuram	Pallipuram	37	C43K4/NE	10° 7' 54.91" N	76° 12' 20.95" E	Near to Mangatt Sree Bhadrakali Temple
14	New Mangrove	Pallipuram	Pallipuram	37	C43K4/NE	10° 7' 54.69" N	76° 12' 20.33" E	Near to Mangatt Sree Bhadrakali Temple
15	New Mangrove	Pallipuram	Pallipuram	37	C43K4/NE	10° 7' 54.31" N	76° 12' 19.51" E	Near to Kaaraalam Bhagavathy Temple
16	New Mangrove	Pallipuram	Pallipuram	37	C43K4/NE	10° 7' 53.20" N	76° 12' 21.21" E	Near to Mangatt Sree Bhadrakali Temple
17	New Mangrove	Pallipuram	Pallipuram	37	C43K4/NE	10° 7' 53.09" N	76° 12' 20.80" E	Near to Mangatt Sree Bhadrakali Temple
18	New Mangrove	Pallipuram	Pallipuram	37	C43K4/NE	10° 7' 52.92" N	76° 12' 19.57" E	Near to Kaaraalam Bhagavathy Temple
19	New Mangrove	Pallipuram	Pallipuram	37	C43K4/NE	10° 7' 52.74" N	76° 12' 18.80" E	Near to Mangatt Sree Bhadrakali Temple
20	New Mangrove	Pallipuram	Pallipuram	37	C43K4/NE	10° 7' 52.66" N	76° 12' 18.24" E	Near to Mangatt Sree Bhadrakali Temple
21	New Mangrove	Pallipuram	Pallipuram	37	C43K4/NE	10° 7' 52.32" N	76° 12' 18.61" E	Near to Mangatt Sree Bhadrakali Temple
22	Increase in Mangrove	Pallipuram	Pallipuram	37	C43K4/NE	10° 7' 52.82" N	76° 12' 15.69" E	Near to Mangatt Sree Bhadrakali Temple
23	New Mangrove	Pallipuram	Pallipuram	37	C43K4/NE	10° 7' 54.12" N	76° 12' 1.18" E	Near to Papparakkal Bhagavathi Temple
24	New Mangrove	Pallipuram	Pallipuram	37	C43K4/NE	10° 7' 54.09" N	76° 12' 0.47" E	Near to Papparakkal Bhagavathi Temple

25	New Mangrove	Kuzhupilly	Kuzhupilly	34	C43K4/NE	10° 7' 15.84" N	76° 12' 21.97" E	Near to Gregorian Bethlehem Yackobaya Suriyani Chappal
26	Decrease in Mangrove	Paravur	Ezhikkara	37	C43K4/NE	10° 7' 48.48" N	76° 13' 23.40" E	Near to Ezhikkara KSEB Section Office
27	Decrease in Mangrove	Paravur	Ezhikkara	37	C43K4/NE	10° 7' 47.99" N	76° 13' 23.37" E	Near to Kudiakkulangara Temple
28	Decrease in Mangrove	Paravur	Ezhikkara	37	C43K4/NE	10° 7' 47.39" N	76° 13' 22.80" E	Near to Kudiakkulangara Temple
29	Decrease in Mangrove	Paravur	Ezhikkara	37	C43K4/NE	10° 7' 47.32" N	76° 13' 27.70" E	Near to Pallithara Chammundesweri Temple
30	Decrease in Mangrove	Paravur	Ezhikkara	37	C43K4/NE	10° 7' 44.23" N	76° 13' 24.17" E	Near to Kudiakkulangara Temple
31	New Mangrove	Paravur	Ezhikkara	37	C43K4/NE	10° 7' 43.00" N	76° 13' 26.17" E	Near to Kudiakkulangara Temple
32	New Mangrove	Paravur	Ezhikkara	37	C43K/NE	10° 7' 42.72" N	76° 13' 25.40" E	Near to Kudiakkulangara Temple
33	New Mangrove	Paravur	Ezhikkara	37	C43K4/NE	10° 7' 42.31" N	76° 13' 25.76" E	Near to Kudiakkulangara Temple
34	Decrease in Mangrove	Paravur	Ezhikkara	37	C43K4/NE	10° 7' 41.47" N	76° 13' 26.41" E	Near to Kudiakkulangara Temple
35	No Mangrove	Paravur	Ezhikkara	34	C43K4/NE	10° 7' 23.60" N	76° 13' 42.28" E	Near to Alinkal Devi Temple
36	New Mangrove	Paravur	Ezhikkara	34	C43K4/NE	10° 7' 25.57" N	76° 13' 43.76" E	Near to Nikathil bhuvaneswari Temple
37	Decrease in Mangrove	Kottuvally	Kottuvally	34	C43K4/NE	10° 7' 20.15" N	76° 13' 47.47" E	Near to Nikathil bhuvaneswari Temple
38	Decrease in Mangrove	Kottuvally	Kottuvally	34	C43K4/SE	10° 7' 19.73" N	76° 13' 51.26" E	Near to Alinkal Devi Temple
39	Decrease in Mangrove	Kottuvally	Kottuvally	34	C43K4/SE	10° 7' 19.21" N	76° 13' 51.38" E	Near to Alinkal Devi Temple
40	No Mangrove	Kottuvally	Kottuvally	34	C43K4/SE	10° 7' 11.27" N	76° 13' 51.82" E	Near to Alinkal Devi Temple
41	No Mangrove	Kottuvally	Kottuvally	34	C43K4/SE	10° 7' 11.00" N	76° 13' 51.37" E	Near to Nikathil bhuvaneswari Temple
42	No Mangrove	Kottuvally	Kottuvally	34	C43K4/SE	10° 7' 10.41" N	76° 13' 50.41" E	Near to Nikathil bhuvaneswari Temple
43	No Mangrove	Kottuvally	Kottuvally	34	C43K4/SE	10° 6' 25.50" N	76° 14' 14.77" E	Near to Kudiyakulangara Devi Temple
44	New Mangrove	kuzhapilly/ Paravur	Kuzhapilly/ Ezhikkara	34	C43K4/SE	10° 6' 36.78" N	76° 12' 42.24" E	Near to Sree Rajalankaramurthi Subrahmanyaswamy Temple
45	Increase in Mangrove	Kuzhupilly	Kuzhupilly	34	C43K4/SE	10° 6' 35.55" N	76° 12' 38.59" E	Near to Sree Rajalankaramurthi Subrahmanyaswamy Temple
46	No Mangrove	Kuzhapilly	Kuzhapilly	34	C43K4/SE	10° 6' 32.66" N	76° 12' 39.93" E	Near to Sree Rajalankaramurthi Subrahmanyaswamy Temple
47	Decrease in Mangrove	Kuzhupilly	Kuzhapilly	34	C43K4/SE	10° 6' 31.83" N	76° 12' 41.01" E	Near to Sree Rajalankaramurthi Subrahmanyaswamy Temple
48	Decrease in Mangrove	Kuzhupilly	Kuzhapilly	34	C43K4/SE	10° 6' 31.55" N	76° 12' 40.42" E	Near to Sree Rajalankaramurthi Subrahmanyaswamy Temple

49	No Mangrove	Kuzhupilly	Kuzhapilly	34	C43K4/SE	10° 6' 28.53" N	76° 12' 39.93" E	Near to Nikathuthara Sree Balabadra Vishnu Maya Temple
50	No Mangrove	Kuzhupilly	Kuzhapilly	34	C43K4/SE	10° 6' 28.31" N	76° 12' 39.53" E	Near to Nikathuthara Sree Balabadra Vishnu Maya Temple
51	No Mangrove	Kuzhupilly	Kuzhapilly	34	C43K4/SE	10° 6' 27.52" N	76° 12' 41.21" E	Near to Nikathuthara Sree Balabadra Vishnu Maya Temple
52	No Mangrove	Kuzhupilly	Kuzhapilly	34	C43K4/SE	10° 6' 27.04" N	76° 12' 41.30" E	Near to Nikathuthara Sree Balabadra Vishnu Maya Temple
53	No Mangrove	Kuzhupilly	Kuzhapilly	34	C43K4/SE	10° 6' 25.61" N	76° 12' 41.33" E	Near to Nikathuthara Sree Balabadra Vishnu Maya Temple
54	No Mangrove	Kuzhupilly	Kuzhupilly	34	C43K4/SE	10° 6' 37.91" N	76° 11' 18.17" E	Near to Kuzhuppilly Beach
55	No Mangrove	Kuzhupilly	Kuzhupilly	34	C43K4/SE	10° 6' 37.98" N	76° 11' 18.71" E	Near to Kuzhupilly Beach
56	Decrease in Mangrove	Kuzhupilly	Kuzhapilly	34	C43K4/SE	10° 6' 17.74" N	76° 11' 22.79" E	Near to Makara Vilakku Maholsava Mandapam
57	Decrease in Mangrove	Edavanakkad	Edavanakkade	34	C43K4/SE	10° 5' 29.69" N	76° 11' 34.42" E	Near to Kavungal Temple, Edavanakad
58	Increase in Mangrove	Edavanakkad	Edavanakkade	34	C43K4/SE	10° 5' 27.17" N	76° 11' 31.77" E	Near to Kavungal Temple, Edavanakad
59	No Mangrove	Edavanakkad	Edavanakkade	34	C43K4/SE	10° 5' 14.18" N	76° 12' 57.30" E	Near to Edavanakad Service Co-Operative Bank, Edavanakad,
60	Increase in Mangrove	Edavanakkad	Edavanakkade	34	C43K4/SE	10° 5' 16.09" N	76° 12' 57.57" E	Near to Pazhangattu Dharma Daiva Temple
61	Increase in Mangrove	Edavanakkad	Edavanakkade	34	C43K4/SE	10° 5' 18.50" N	76° 13' 1.73" E	Near to Pazhangattu Dharma Daiva Temple
62	New Mangrove	Kottuvally	Kottuvally	38	C43K8/NE	10° 7' 31.30" N	76° 15' 43.18" E	Near to Thathappilly Government School
63	Decrease in Mangrove	Karumalur	Karumalloor	35	C43K8/SW	10° 7' 20.62" N	76° 16' 18.70" E	Near to Thaithara Kadavu
64	No Mangrove	Karumalur	Karumalloor	35	C43K8/SW	10° 7' 20.16" N	76° 16' 19.23" E	Near to Thaithara Kadavu
65	Decrease in Mangrove	Karumalur	Karumalloor	35	C43K8/SW	10° 7' 19.57" N	76° 16' 19.37" E	Near to Thaithara Kadavu
66	No Mangrove	Karumalur	Karumalloor	35	C43K8/SW	10° 7' 19.45" N	76° 16' 20.35" E	Near to Thaithara Kadavu
67	No Mangrove	Karumalur	Karumalloor	35	C43K8/SW	10° 7' 19.22" N	76° 16' 21.60" E	Near to Thaithara Kadavu
68	No Mangrove	Karumalur	Karumalloor	35	C43K8/SW	10° 7' 19.21" N	76° 16' 22.65" E	Near to Thaithara Kadavu
69	Decrease in Mangrove	Karumalur	Karumalloor	35	C43K8/SW	10° 7' 19.31" N	76° 16' 18.56" E	Near to Vezhaparambu Madathil Temple
70	Decrease in Mangrove	Karumalur	Karumalloor	35	C43K8/SW	10° 7' 18.55" N	76° 16' 18.71" E	Near to Thaithara Kadavu
71	HTL Change/New creek	Kottuvally	Kottuvally	35	C43K8/SW	10° 7' 11.72" N	76° 15' 10.70" E	Near to Kuriyil Durga Bhagavathi Temple

72	HTL Change/New creek	Kottuvally	Kottuvally	35	C43K8/SW	10° 7' 9.15" N	76° 15' 9.28" E	Near to Kuriyil Durga Bhagavathi Temple
73	HTL Change	Kottuvally	Kottuvally	34/ 37	C43K4/NE / C43K4/SE	10° 7' 29.45" N	76° 14' 41.56" E	Near to Kandakarnan Temple
74	New Mangrove	Kottuvally	Kottuvally	35	C43K8/SW	10° 6' 23.53" N	76° 16' 0.97" E	Near to Chengothkunnu Kapela
75	No Mangrove	Alangad	Alangad	35	C43K8/SW	10° 6' 14.17" N	76° 16' 9.81" E	Near to Edakkathod Bridge
76	New Mangrove	Kottuvally	Kottuvally	35	C43K8/SW	10° 5' 46.56" N	76° 15' 22.28" E	Near to Sree Bhadrakali Lakshmi Narayana Temple
77	Decrease in Mangrove	Kottuvally	Kottuvally	35	C43K8/SW	10° 5' 45.86" N	76° 15' 25.48" E	Near to Sree Bhadrakali Lakshmi Narayana Temple
78	Decrease in Mangrove	Varapuzha	Varapuzha	35	C43K8/SW	10° 5' 23.83" N	76° 15' 34.02" E	Near to Arattu kadavu bridge
79	Decrease in Mangrove	Varapuzha	Varapuzha	35	C43K8/SW	10° 5' 22.67" N	76° 15' 34.71" E	Near to Arattu kadavu bridge
80	New Mangrove	Varapuzha	Varapuzha	35	C43K8/SW	10° 4' 5.38" N	76° 16' 0.73" E	Near to Thundathum Kadavu Fishing Fields
81	New Mangrove	Varapuzha	Varapuzha	35	C43K8/SW	10° 4' 1.99" N	76° 15' 58.53" E	Near to St. Joseph Chapel
82	HTL change	Varapuzha	Varapuzha	35	C43K8/SW	10° 4' 26.36" N	76° 16' 49.81" E	Near to Varapuzha Bridge
83	HTL Change/New Creek	Elur	Elur Municipality	35	C43K8/SW	10° 4' 21.93" N	76° 17' 3.30" E	Near to Varapuzha Bridge
84	HTL Change/New Creek	Cheranallur	Cheranallur	35	C43K8/SW	10° 4' 7.19" N	76° 17' 15.04" E	Near to Aruna Promoters Pvt.Ltd
85	HTL Change/New Creek	Cheranallur	Cheranallur	35	C43K8/SW	10° 4' 8.59" N	76° 17' 11.13" E	Near to Aruna Promoters Pvt.Ltd
86	HTL Change	Cheranallur	Cheranallur	35	C43K8/SW	10° 4' 10.96" N	76° 17' 6.94" E	Near to St. Mary's Church Kottaparambu
87	HTL Change/New Creek	Cheranallur	Cheranallur	35	C43K8/SW	10° 4' 14.00" N	76° 17' 3.58" E	Near to St. Mary's Church Kottaparambu
88	HTL Change	Cheranallur	Cheranallur	35	C43K8/SW	10° 4' 17.99" N	76° 16' 54.71" E	Near to St. Mary's Church Kottaparambu
89	HTL Change/New Creek	Cheranallur	Cheranallur	35	C43K8/SW	10° 4' 15.16" N	76° 16' 54.18" E	Near to St. Mary's Church Kottaparambu
90	No Mangrove	Kadamakkudy	Kadamakkudy	35	C43K8/SW	10° 3' 12.49" N	76° 16' 22.38" E	Near to St Joseph's Chapel
91	Decrease in Mangrove	Kadamakkudy	Kadamakkudy	35	C43K8/SW	10° 3' 9.89" N	76° 16' 23.58" E	Near to Kurisady Of Sacred Heart Church
92	Decrease in Mangrove	Kadamakkudy	Kadamakkudy	35	C43K8/SW	10° 3' 8.72" N	76° 16' 23.80" E	Near to Kurisady Of Sacred Heart Church
93	New Mangrove	Kadamakkudy	Kadamakkudy	35	C43K8/SW	10° 3' 4.48" N	76° 16' 19.50" E	Near to Panamittom Vettaykorappan Temple
94	New Mangrove	Kadamakkudy	Kadamakkudy	35	C43K8/SW	10° 3' 3.45" N	76° 16' 19.59" E	Near to Panamittom Vettaykorappan Temple

95	New Mangrove	Kadamakkudy	Kadamakkudy	35	C43K8/SW	10° 3' 2.47" N	76° 16' 20.09" E	Near to Panamittom Vettaykorappan Temple
96	New Mangrove	Kadamakkudy	Kadamakkudy	35	C43K8/SW	10° 3' 2.45" N	76° 16' 17.29" E	Near to Panamittom Vettaykorappan Temple
97	New Mangrove	Kadamakkudy	Kadamakkudy	35	C43K8/SW	10° 3' 1.65" N	76° 16' 17.89" E	Near to St Joseph's Chapel
98	New Mangrove	Kadamakkudy	Kadamakkudy	35	C43K8/SW	10° 3' 0.61" N	76° 16' 17.20" E	Near to Panamittom Vettaykorappan Temple
99	New Mangrove	Kadamakkudy	Kadamakkudy	35	C43K8/SW	10° 3' 0.00" N	76° 16' 15.54" E	Near to Panamittom Vettaykorappan Temple
100	Increase in Mangrove	Kadamakkudy	Kadamakkudy	35	C43K8/SW	10° 2' 58.53" N	76° 16' 13.11" E	Near to Fathima Matha Chapel
101	New Mangrove	Cheranallur	Cheranallur	35	C43K8/SW	10° 2' 25.00" N	76° 16' 37.02" E	Near to Chittoorappan Indane Services
102	New Mangrove	Cheranallur	Cheranallur	35	C43K8/SW	10° 2' 21.83" N	76° 16' 34.82" E	Near to Chittoorappan Indane Services
103	Decrease in Mangrove	Cheranallur	Cheranallur	35	C43K8/SW	10° 2' 23.87" N	76° 16' 30.07" E	Near to Chittoorappan Indane Services
104	Decrease in Mangrove	Cheranallur	Cheranallur	35	C43K4/SW	10° 1' 44.41" N	76° 16' 48.62" E	Near to St. Augustine Kapela
105	Increase in Mangrove	Cheranallur	Cheranallur	35	C43K8/SW	10° 1' 54.60" N	76° 16' 15.18" E	Near to Chittoor Kottaram – CGH Earth
106	New Mangrove	Kadamakkudy	Kadamakkudy	35	C43K8/SW	10° 2' 2.43" N	76° 15' 59.19" E	Near to Moolampilly Boat Builders
107	New Mangrove	Kadamakkudy	Kadamakkudy	35	C43K8/SW	10° 2' 21.73" N	76° 15' 39.75" E	Near to Mulavukad Bridge
108	New Mangrove	Kadamakkudy	Kadamakkudy	35	C43K8/SW	10° 2' 24.23" N	76° 15' 43.05" E	Near to Pizhala Bridge
109	New Mangrove	Kadamakkudy	Kadamakkudy	35	C43K8/SW	10° 2' 29.38" N	76° 15' 41.89" E	Near to Mulavukad Bridge
110	New Mangrove	Kadamakkudy	Kadamakkudy	35	C43K8/SW	10° 2' 30.06" N	76° 15' 42.75" E	Near to Mulavukad Bridge
111	New Mangrove	Kadamakkudy	Kadamakkudy	35	C43K8/SW	10° 2' 23.01" N	76° 15' 37.11" E	Near to Mulavukad Bridge
112	No mangrove	Kadamakkudy	Kadamakkudy	35	C48K8/SW	10° 2' 38.10" N	76° 15' 15.02" E	Near to Pizhala Bridge
113	No Mangrove	Kadamakkudy	Kadamakkudy	35	C43K8/SW	10° 2' 44.79" N	76° 15' 7.29" E	Near to Cheriya kadamakudy old bridge
114	Decrease in Mangrove	Elamkunnappuzha	Elamkunnappuzha	34	C43K4/SE	10° 2' 5.26" N	76° 14' 20.93" E	Near to Pukkad Temple
115	New Mangrove	Elamkunnappuzha	Elamkunnappuzha	34	C43K4/SE	10° 1' 55.58" N	76° 14' 12.33" E	Near to Pukkad Temple
116	No Mangrove	Elamkunnappuzha	Elamkunnappuzha	34	C43K4/SE	10° 1' 50.24" N	76° 14' 9.12" E	Near to Government Higher Secondary School
117	Decrease in Mangrove	Elamkunnappuzha	Elamkunnappuzha	34	C43K4/SE	10° 1' 43.22" N	76° 14' 8.33" E	Near to Pokkalezhathu Temple
118	Decrease in Mangrove	Elamkunnappuzha	Elamkunnappuzha	34	C43K4/SE	10° 1' 45.98" N	76° 14' 0.08" E	Near to GHSS School Ground
119	Decrease in Mangrove	Elamkunnappuzha	Elamkunnappuzha	34	C43K4/SE	10° 1' 47.48" N	76° 14' 0.55" E	Near to Government Higher Secondary School

120	Decrease in Mangrove	Elamkunnappuzha	Elamkunnappuzha	34	C43K4/SE	10° 1' 48.91" N	76° 13' 58.72" E	Near to Government Higher Secondary School
121	Decrease in Mangrove	Elamkunnappuzha	Elamkunnappuzha	34	C43K4/SE	10° 1' 52.96" N	76° 14' 6.48" E	Near to Pukkad Temple
122	Increase in Mangrove	Elamkunnappuzha	Elamkunnappuzha	34	C43K4/SE	10° 2' 8.52" N	76° 13' 58.95" E	Near to Anglo Indian School
123	Decrease in Mangrove	Elamkunnappuzha	Elamkunnappuzha	34	C43K4/SE	10° 2' 5.52" N	76° 14' 3.00" E	Near to Anglo Indian School
124	No Mangrove	Elamkunnappuzha	Elamkunnappuzha	34	C43K4/SE	10° 2' 2.89" N	76° 14' 4.16" E	Near to Anglo Indian School
125	New Mangrove	Elamkunnappuzha	Elamkunnappuzha	34	C43K4/SE	10° 2' 0.86" N	76° 14' 1.78" E	Near to Anglo Indian School
126	New Mangrove and HTL Change	Elamkunnappuzha	Elamkunnappuzha	34	C43K4/SE	10° 2' 3.22" N	76° 14' 1.23" E	Near to Anglo Indian School
127	Decrease in Mangrove	Elamkunnappuzha	Elamkunnappuzha	34	C43K4/SE	10° 2' 5.14" N	76° 13' 55.75" E	Near to Anglo Indian School
128	No Mangrove	Elamkunnappuzha	Elamkunnappuzha	34	C43K4/SE	10° 2' 10.67" N	76° 14' 7.98" E	Near to Naranathu Sri Krishna Temple
129	Decrease in Mangrove	Njarakal	Njarakal	34	C43K4/SE	10° 2' 51.50" N	76° 13' 55.96" E	Near to Manjanakkad Boat Jetty
130	Decrease in Mangrove	Njarakal	Njarakal	34	C43K4/SE	10° 2' 50.65" N	76° 13' 48.77" E	Near to Manjanakad LP School
131	Decrease in Mangrove	Njarakal	Njarakal	34	C43K4/SE	10° 2' 47.67" N	76° 13' 46.95" E	Near to Manjanakad LP School
132	New Mangrove	Njarakal	Njarakal	34	C43K4/SE	10° 2' 33.70" N	76° 13' 51.78" E	Near to St. Francis Xavier Church
133	New Mangrove	Njarakal	Njarakal	34	C43K4/SE	10° 2' 33.48" N	76° 13' 51.32" E	Near to St. Francis Xavier Church
134	Increase in Mangrove	Njarakal	Njarakal	34	C43K4/SE	10° 2' 32.37" N	76° 13' 51.34" E	Near to St. Francis Xavier Church
135	Increase in Mangrove	Njarakal	Njarakal	34	C43K4/SE	10° 2' 33.39" N	76° 13' 50.92" E	Near to St. Francis Xavier Church
136	New Mangrove	Njarakal	Njarakal	34	C43K4/SE	10° 2' 34.26" N	76° 13' 50.53" E	Near to St. Francis Xavier Church
137	New Mangrove	Njarakal	Njarakal	34	C43K4/SE	10° 2' 34.15" N	76° 13' 49.38" E	Near to St. Francis Xavier Church
138	New Mangrove	Njarakal	Njarakal	34	C43K4/SE	10° 2' 35.74" N	76° 13' 48.29" E	Near to St. Francis Xavier Church
139	Increase in Mangrove	Njarakal	Njarakal	34	C43K4/SE	10° 2' 34.69" N	76° 13' 47.69" E	Near to St Francis Chappel Manjanakad
140	New Mangrove	Njarakal	Njarakal	34	C43K4/SE	10° 2' 34.52" N	76° 13' 47.40" E	Near to St. Francis Xavier Church
141	Increase in Mangrove	Njarakal	Njarakal	34	C43K4/SE	10° 2' 33.01" N	76° 13' 44.85" E	Near to St. Francis Xavier Church
142	New Mangrove	Njarakal	Njarakal	34	C43K4/SE	10° 2' 33.97" N	76° 13' 44.74" E	Near to St. Francis Xavier Church
143	New Mangrove	Njarakal	Njarakal	34	C43K4/SE	10° 2' 35.80" N	76° 13' 43.07" E	Near to St. Francis Xavier Church
144	New Mangrove	Nayarambalam	Nayarambalam	34	C43K4/SE	10° 3' 14.44" N	76° 13' 19.48" E	Near to Koloth Siva Temple

145	New Mangrove	Nayarambalam	Nayarambalam	34	C43K4/SE	10° 3' 15.96" N	76° 13' 18.31" E	Near to Manakottu Temple
146	Decrease in Mangrove	Nayarambalam	Nayarambalam	34	C43K4/SE	10° 3' 25.06" N	76° 13' 45.61" E	Near to Komath Bhagavathi Kshethram
147	No Mangrove	Nayarambalam	Nayarambalam	34	C43K4/SE	10° 3' 26.26" N	76° 13' 45.65" E	Near to Komath Bhagavathi Kshethram
148	Decrease in Mangrove	Nayarambalam	Nayarambalam	34	C43K4/SE	10° 3' 27.31" N	76° 13' 45.39" E	Near to Komath Bhagavathi Kshethram
149	Decrease in Mangrove	Nayarambalam	Nayarambalam	34	C43K4/SE	10° 3' 51.32" N	76° 13' 40.80" E	Near to Chittoothara Balabadhra temple
150	New Mangrove	Nayarambalam	Nayarambalam	34	C43K4/SE	10° 3' 51.01" N	76° 13' 40.47" E	Near to Chittoothara Balabadhra temple
151	Increase in mangrove	Nayarambalam	Nayarambalam	34	C43K4/SE	10° 4' 47.29" N	76° 12' 52.40" E	Near to Aniyal Shree Krishna Swami Temple
152	No Mangrove	Nayarambalam	Nayarambalam	34	C43K4/SE	10° 4' 46.75" N	76° 12' 51.12" E	Near to Aniyal Shree Krishna Swami Temple
153	New Mangrove	Njarakal	Njarakal	34	C43K4/SE	10° 2' 58.06" N	76° 12' 44.68" E	Near to Sub Registrar Office Njarakkal
154	Decrease in Mangrove	Nayarambalam	Nayarambalam	34	C43K4/SE	10° 3' 53.91" N	76° 12' 21.96" E	Near to Nayarambalam Bagavathy Temple
155	Mangrove Change	Nayarambalam	Nayarambalam	34	C43K4/SE	10° 4' 17.50" N	76° 12' 20.00" E	Near to pulikkal bhagavathi temple
156	Increase in Mangrove	Nayarambalam	Nayarambalam	34	C43K4/SE	10° 4' 18.71" N	76° 12' 19.38" E	Near to Sree Ayyappan Temple
157	New Mangrove	Nayarambalam	Nayarambalam	34	C43K4/SE	10° 4' 22.30" N	76° 12' 19.26" E	Near to Sree Ayyappan Temple
158	Increase in Mangrove	Edavanakkad	Edavanakkad	34	C43K4/SE	10° 4' 33.20" N	76° 12' 15.27" E	Near to St. Sebastians Chapel
159	New Mangrove	Edavanakkad	Edavanakkad	34	C43K4/SE	10° 4' 36.34" N	76° 12' 17.43" E	Near to St. Sebastians Chapel
160	New Mangrove	Edavanakkad	Edavanakkad	34	C43K4/SE	10° 4' 37.10" N	76° 12' 17.10" E	Near to Sree Ayyappan Temple
161	Increase in Mangrove	Edavanakkad	Edavanakkad	34	C43K4/SE	10° 4' 37.86" N	76° 12' 17.15" E	Near to Sree Ayyappan Temple
162	No Mangrove	Edavanakkad	Edavanakkad	34	C43K4/SE	10° 4' 38.83" N	76° 12' 15.52" E	Near to St. Sebastians Chapel
163	No Mangrove	Edavanakkad	Edavanakkad	34	C43K4/SE	10° 4' 33.92" N	76° 12' 11.44" E	Near to St. Sebastians Chapel
164	Decrease in Mangrove	Edavanakkad	Edavanakkad	34	C43K4/SE	10° 4' 34.17" N	76° 12' 0.93" E	Near to St. Sebastians Chapel
165	Decrease in Mangrove	Edavanakkad	Edavanakkad	34	C43K4/SE	10° 4' 35.33" N	76° 11' 59.25" E	Near to St. Sebastians Chapel
166	Decrease in Mangrove	Edavanakkad	Edavanakkad	34	C43K4/SE	10° 4' 36.69" N	76° 11' 58.09" E	Near to St. Sebastians Chapel
167	Decrease in Mangrove	Edavanakkad	Edavanakkad	34	C43K4/SE	10° 4' 36.97" N	76° 11' 59.36" E	Near to St. Sebastians Chapel
168	Decrease in Mangrove	Edavanakkad	Edavanakkad	34	C43K4/SE	10° 4' 38.52" N	76° 11' 57.60" E	Near to Agasthya Sidha Vaidya Ashramam

169	New Mangrove	Edavanakkad	Edavanakkad	34	C43K4/SE	10° 4' 24.50" N	76° 11' 50.77" E	Near to Malaveettil. Bhadrakali kshethram
170	No Mangrove	Nayarambalam	Nayarambalam	34	C43K4/SE	10° 4' 16.60" N	76° 11' 54.55" E	Near to Malaveettil. Bhadrakali kshethram
171	Decrease in Mangrove	Nayarambalam	Nayarambalam	34	C43K4/SE	10° 4' 12.81" N	76° 11' 53.34" E	Near to Malaveettil. Bhadrakali kshethram
172	Decrease in Mangrove	Nayarambalam	Nayarambalam	34	C43K4/SE	10° 3' 56.84" N	76° 11' 59.01" E	Near to Sree Balasubramanya Temple
173	Decrease in Mangrove	Nayarambalam	Nayarambalam	34	C43K4/SE	10° 3' 44.28" N	76° 12' 3.82" E	Near to Trishakti bagavathi temple
174	Decrease in Mangrove	Nayarambalam	Nayarambalam	34	C43K4/SE	10° 3' 36.38" N	76° 12' 5.26" E	Near to Trishakti bagavathi temple
175	Increase in Mangrove	Nayarambalam	Nayarambalam	34	C43K4/SE	10° 3' 32.48" N	76° 12' 8.29" E	Near to Thayattuparambil Sree Bhadrakali Temple
176	No Mangrove	Nayarambalam	Nayarambalam	34	C43K4/SE	10° 3' 29.54" N	76° 12' 9.93" E	Near to Thayattuparambil Sree Bhadrakali Temple
177	Decrease in Mangrove	Nayarambalam	Nayarambalam	34	C43K4/SE	10° 3' 30.67" N	76° 12' 8.44" E	Near to Thayattuparambil Sree Bhadrakali Temple
178	Increase in Mangrove	Nayarambalam	Nayarambalam	34	C43K4/SE	10° 3' 29.74" N	76° 12' 7.03" E	Near to Thayattuparambil Sree Bhadrakali Temple
179	Decrease in Mangrove	Nayarambalam	Nayarambalam	34	C43K4/SE	10° 3' 29.21" N	76° 12' 6.92" E	Near to Thayattuparambil Sree Bhadrakali Temple
180	Decrease in Mangrove	Nayarambalam	Nayarambalam	34	C43K4/SE	10° 3' 18.29" N	76° 12' 13.12" E	Near to Veliyathamparamb Beach Bridge
181	Increase in Mangrove	Nayarambalam	Nayarambalam	34	C43K4/SE	10° 3' 14.57" N	76° 12' 13.86" E	Near to Veliyathamparamb Beach Bridge
182	Decrease in Mangrove	Nayarambalam	Nayarambalam	34	C43K4/SE	10° 3' 13.85" N	76° 12' 11.20" E	Near to Puthan Kadappuram Church
183	Increase in Mangrove	Nayarambalam	Nayarambalam	34	C43K4/SE	10° 3' 14.08" N	76° 12' 9.62" E	Near to Puthan Kadappuram Church
184	New Mangrove	Nayarambalam	Nayarambalam	34	C43K4/SE	10° 3' 12.76" N	76° 12' 11.91" E	Near to Puthan Kadappuram Church
185	New Mangrove	Nayarambalam	Nayarambalam	34	C43K4/SE	10° 3' 11.75" N	76° 12' 12.36" E	Near to Puthan Kadappuram Church
186	No Mangrove	Nayarambalam	Nayarambalam	34	C43K4/SE	10° 3' 9.62" N	76° 12' 10.51" E	Near to Puthan Kadappuram Church
187	Decrease in Mangrove	Nayarambalam	Nayarambalam	34	C43K4/SE	10° 3' 8.95" N	76° 12' 11.35" E	Near to Puthan Kadappuram Church
188	Decrease in Mangrove	Nayarambalam	Nayarambalam	34	C43K4/SE	10° 2' 59.09" N	76° 12' 21.51" E	Near to Njarakkal Beach
189	No Mangrove	Nayarambalam	Nayarambalam	34	C43K4/SE	10° 2' 54.62" N	76° 12' 23.24" E	Near to Njarakkal Beach
190	HTL Change	Nayarambalam	Nayarambalam	34	C43K4/SE	10° 2' 52.14" N	76° 12' 19.36" E	Near to Njarakkal Beach
191	Decrease in Mangrove	Njarakal	Njarakal	34	C43K4/SE	10° 2' 48.86" N	76° 12' 22.64" E	Near to Njarakkal Beach

192	Decrease in Mangrove	Njarakal	Njarakal	34	C43K4/SE	10° 2' 48.30" N	76° 12' 22.65" E	Near to Njarakkal Beach
193	New Mangrove	Njarakal	Njarakal	34	C43K4/SE	10° 2' 50.17" N	76° 12' 25.56" E	Near to Njarakkal Beach
194	No Mangrove	Njarakal	Njarakal	34	C43K4/SE	10° 2' 49.62" N	76° 12' 25.37" E	Near to Njarakkal Beach
195	Increase in Mangrove and HTL change	Njarakal	Njarakal	34	C43K4/SE	10° 2' 44.01" N	76° 12' 23.86" E	Near to sree kirathamoorthis temple
196	New Mangrove	Njarakal	Njarakal	34	C43K4/SE	10° 2' 41.59" N	76° 12' 28.84" E	Near to sree kirathamoorthis temple
197	Mangrove change	Njarakal	Njarakal	34	C43K4/SE	10° 2' 43.33" N	76° 12' 31.85" E	Near to sree kirathamoorthis temple
198	No Mangrove	Njarakal	Njarakal	34	C43K4/SE	10° 2' 37.78" N	76° 12' 32.51" E	Near to sree kirathamoorthis temple
199	No Mangrove	Njarakal	Njarakal	34	C43K4/SE	10° 2' 34.92" N	76° 12' 34.92" E	Near to Krishi Vigyan Kendra
200	Increase In Mangrove	Njarakal	Njarakal	34	C43K4/SE	10° 2' 38.95" N	76° 12' 42.80" E	Near to Krishi Vigyan Kendra
201	No mangrove	Njarakal	Njarakal	34	C43K4/SE	10° 2' 32.17" N	76° 12' 33.05" E	Near to Krishi Vigyan Kendra
202	HTL change	Njarakal	Njarakal	34	C43K4/SE	10° 2' 38.26" N	76° 12' 22.83" E	Near to Krishi Vigyan Kendra
203	Decrease in mangrove	Njarakal	Njarakal	34	C43K4/SE	10° 2' 29.92" N	76° 12' 35.15" E	Near to Krishi Vigyan Kendra
204	No Mangrove	Njarakal	Njarakal	34	C43K4/SE	10° 2' 28.11" N	76° 12' 33.20" E	Near to Krishi Vigyan Kendra
205	No Mangrove	Njarakal	Njarakal	34	C43K4/SE	10° 2' 28.39" N	76° 12' 36.42" E	Near to Green aqua fish farm
206	No Mangrove	Njarakal	Njarakal	34	C43K4/SE	10° 2' 22.77" N	76° 12' 43.27" E	Near to Christ The King Youth Center
207	New Mangrove	Njarakal	Njarakal	34	C43K4/SE	10° 2' 18.55" N	76° 12' 46.68" E	Near to Talent Public school
208	Mangrove change	Njarakal	Njarakal	34	C43K4/SE	10° 2' 17.39" N	76° 12' 46.82" E	Near to Talent Public school
209	Mangrove change	Njarakal	Njarakal	34	C43K4/SE	10° 2' 16.59" N	76° 12' 43.27" E	Near to Talent Public school
210	HTL Change	Njarakal	Njarakal	34	C43K4/SE	10° 2' 15.59" N	76° 12' 41.82" E	Near to Christ The King Youth Center
211	Decrease in Mangrove	Njarakal	Njarakkal	34	C43K4/SE	10° 2' 14.83" N	76° 12' 40.27" E	Near to Talent Public school
212	No Mangrove	Njarakal	Njarakal	34	C43K4/SE	10° 2' 11.84" N	76° 12' 42.79" E	Near to Talent Public school
213	New Mangrove and HTL change	Njarakal	Njarakal	34	C43K4/SE	10° 2' 10.19" N	76° 12' 52.68" E	Near to Talent Public school
214	Mangrove change	Njarakal	Njarakal	34	C43K4/SE	10° 2' 8.46" N	76° 12' 49.40" E	Near to Talent Public school
215	Decrease in Mangrove	Njarakal	Njarakal	34	C43K4/SE	10° 1' 58.93" N	76° 12' 36.29" E	Near to Sree balasubramanya temple aarattuvazhy
216	New Mangrove	Njarakal	Njarakal	34	C43K4/SE	10° 1' 55.25" N	76° 12' 38.62" E	Near to Kanjirakkattu Temple

217	No Mangrove	Njarakal	Njarakal	34	C43K4/SE	10° 1' 51.72" N	76° 12' 49.36" E	Near to Lourde Matha Church
218	No Mangrove	Elamkunnappuzha	Elamkunnappuzha	34	C43K4/SE	10° 1' 44.83" N	76° 12' 50.07" E	Near to Sree Murukan Temple
219	Decrease in Mangrove	Njarakal	Njarakal	34	C43K4/SE	10° 1' 54.54" N	76° 12' 38.70" E	Near to Kanjirakkattu Temple
220	No Mangrove	Elamkunnappuzha	Elamkunnappuzha	34	C43K4/SE	10° 1' 46.34" N	76° 12' 57.45" E	Near to Lourde Matha Church
221	Mangrove change	Elamkunnappuzha	Elamkunnappuzha	34	C43K4/SE	10° 1' 32.27" N	76° 13' 12.25" E	Near to Mepparambil Thamburan Muthappan, Vishnumaya , Devi Temple
222	Decrease in Mangrove	Elamkunnappuzha	Elamkunnappuzha	34	C43K4/SE	10° 1' 22.95" N	76° 12' 50.76" E	Near to Matsyafed Malipuram Fish Farm-Aqua Tourism
223	HTL Change	Elamkunnappuzha	Elamkunnappuzha	34	C43K4/SE	10° 1' 17.23" N	76° 12' 46.15" E	Near to Mangrove Information Park
224	New Mangrove	Elamkunnappuzha	Elamkunnappuzha	34	C43K4/SE	10° 1' 5.38" N	76° 13' 21.60" E	Near to Elamkunnappuzha Grama Panchayat
225	Decrease in Mangrove	Ezhukunnappuzha	Ezhukunnappuzha	34	C43K4/SE	10° 1' 8.69" N	76° 14' 3.16" E	Near to Karthedom St. George Church
226	Decrease in Mangrove	Elamkunnappuzha	Elamkunnappuzha	34	C43K4/SE	10° 0' 47.30" N	76° 13' 13.41" E	Near to Thayattu Parambil Devi Temple
227	New Mangrove	Elamkunnappuzha	Elamkunnappuzha	34	C43K4/SE	10° 0' 41.46" N	76° 13' 12.67" E	Near to Thayattu Parambil Devi Temple
228	Decrease in Mangrove	Elamkunnappuzha	Elamkunnappuzha	34	C43K4/SE	10° 0' 34.38" N	76° 13' 14.66" E	Near to Thayattu Parambil Devi Temple
229	Decrease in Mangrove	Elamkunnappuzha	Elamkunnappuzha	34	C43K4/SE	10° 0' 30.41" N	76° 13' 33.61" E	Near to St. Mary's Chappel
230	No Mangrove	Elamkunnappuzha	Elamkunnappuzha	34	C43K4/SE	10° 0' 28.79" N	76° 13' 32.03" E	Near to St. Mary's Chappel
231	Decrease in Mangrove	Elamkunnappuzha	Elamkunnappuzha	34	C43K4/SE	10° 0' 22.99" N	76° 13' 42.57" E	Near to Elankunnappuzha SCST Bank
232	Decrease in Mangrove	Elamkunnappuzha	Elamkunnappuzha	34	C43K4/SE	10° 0' 15.70" N	76° 13' 42.96" E	Near to Puthuyudu Church
233	Decrease in Mangrove	Elamkunnappuzha	Elamkunnappuzha	34	C43K4/SE	10° 0' 14.88" N	76° 13' 44.91" E	Near to Elankunnappuzha SCST Bank
234	Decrease in Mangrove	Elamkunnappuzha	Elamkunnappuzha	34	C43K4/SE	10° 0' 12.61" N	76° 13' 44.56" E	Near to Puthuyudu Church
235	Decrease in Mangrove	Elamkunnappuzha	Elamkunnappuzha	34	C43K4/SE	10° 0' 14.18" N	76° 14' 11.57" E	Near to Poopady Bridge
236	No Mangrove	Elamkunnappuzha	Elamkunnappuzha	34	C43K4/SE	10° 0' 2.25" N	76° 14' 18.11" E	Near to INFANT JESUS CONVENT (Near Kurisinkal Church)
237	Decrease in Mangrove	Puthuvype	Elamkunnappuzha	31	C43Q1/NE	9° 59' 58.13" N	76° 14' 15.95" E	Near to Cruz Milagres Church
238	Increase in Mangrove and HTL change	Elamkunnappuzha	Elamkunnappuzha	31	C43Q1/NE	9° 59' 59.40" N	76° 13' 29.86" E	Near to Sri Bala Subramanya Temple
239	Decrease in Mangrove	Elamkunnappuzha	Elamkunnappuzha	34	C43K4/SE	10° 0' 6.24" N	76° 13' 16.82" E	Near to St. Sebastian's Roman Catholic Church

240	HTL change	Elamkunnappuzha	Elamkunnappuzha	31	C43Q1/NE	9° 59' 55.46" N	76° 13' 8.80" E	Near to Sri Bala Subramanya Temple
241	HTL Change	Elamkunnappuzha	Elamkunnappuzha	31	C43Q1/NE	9° 59' 57.43" N	76° 13' 13.51" E	Near to Puthiya Post Office
242	HTL Change	Elamkunnappuzha	Elamkunnappuzha	31	C43Q1/NE	9° 59' 54.11" N	76° 13' 9.09" E	Near to Puthiya Post Office
243	Decrease in Mangrove	Puthuvype	Elamkunnappuzha	31	C43Q1/NE	9° 59' 37.66" N	76° 13' 59.17" E	Near to Rajagiri Seashore CMI School
244	Decrease in Mangrove	Puthuvype	Elamkunnappuzha	31	C43Q1/NE	9° 59' 38.53" N	76° 13' 53.02" E	Near to Rajagiri Seashore CMI School
245	New Mangrove	Puthuvype	Elamkunnappuzha	31	C43Q1/NE	9° 59' 33.70" N	76° 13' 59.64" E	Near to Kamal Uddin Islam Masjid
246	New Mangrove	Puthuvype	Elamkunnappuzha	31	C43Q1/NE	9° 59' 31.00" N	76° 14' 1.49" E	Near to Rajagiri Seashore CMI School
247	No Mangrove	Puthuvype	Elamkunnappuzha	31	C43Q1/NE	9° 59' 25.81" N	76° 14' 2.70" E	Near to Kamal Uddin Islam Masjid
248	Decrease in Mangrove	Elamkunnappuzha	Elamkunnappuzha	31	C43Q1/NE	9° 59' 35.69" N	76° 13' 41.90" E	Near to Salafi Juma Masjid
249	Decrease in Mangrove	Elamkunnappuzha	Elamkunnappuzha	31	C43Q1/NE	9° 59' 30.69" N	76° 13' 50.49" E	Near to Rajagiri Seashore CMI School
250	No Mangrove	Elamkunnappuzha	Elamkunnappuzha	31	C43Q1/NE	9° 59' 21.21" N	76° 13' 51.82" E	Near to Salafi Juma Masjid
251	Decrease in Mangrove	Elamkunnappuzha	Elamkunnappuzha	31	C43Q1/NE	9° 59' 22.36" N	76° 13' 48.40" E	Near to Salafi Juma Masjid
252	HTL Change/New Creek	Elamkunnappuzha	Elamkunnappuzha	31	C43Q1/NE	9° 58' 54.92" N	76° 13' 20.55" E	Near to Petronet LNG Limited
253	HTL Change	Elamkunnappuzha	Elamkunnappuzha	31	C43Q1/NE	9° 58' 27.61" N	76° 13' 38.83" E	Near to Puthuvype Petroleum Terminal Jetty
254	HTL Change	Elamkunnappuzha	Elamkunnappuzha	31	C43Q1/NE	9° 58' 27.63" N	76° 13' 58.68" E	Near to Puthuvype Petroleum Terminal Jetty
255	Decrease in Mangrove	Elamkunnappuzha	Elamkunnappuzha	34	C43K4/SE	10° 0' 41.05" N	76° 14' 25.83" E	Near to Shri Subrahmanya Temple
256	Decrease in Mangrove	Mulavukad	Mulavukad	34	C43K4/SE	10° 0' 37.78" N	76° 14' 33.95" E	Near to Shri Subrahmanya Temple
257	Decrease in mangrove	Mulavukad	Mulavukad	34	C43K4/SE	10° 0' 28.38" N	76° 14' 43.71" E	Near to Shri Subrahmanya Temple
258	Decrease in Mangrove	Mulavukad	Mulavukad	34	C43K4/SE	10° 0' 25.20" N	76° 14' 43.19" E	Near to Panmbukad Statue Junction
259	Decrease in Mangrove	Mulavukad	Mulavukad	34	C43K4/SE	10° 0' 24.60" N	76° 14' 41.82" E	Near to Panmbukad Statue Junction
260	Decrease in Mangrove	Mulavukad	Mulavukad	34	C43K4/SE	10° 0' 25.03" N	76° 14' 45.31" E	Near to Panmbukad Statue Junction
261	Decrease in Mangrove	Mulavukad	Mulavukad	34	C43K4/SE	10° 0' 24.44" N	76° 14' 48.67" E	Near to Panmbukad Statue Junction
262	Decrease in Mangrove	Mulavukad	Mulavukad	34	C43K4/SE	10° 0' 23.11" N	76° 14' 40.88" E	Near to Panmbukad Statue Junction

263	Decrease in Mangrove	Mulavukad	Mulavukad	34	C43K4/SE	10° 0' 20.33" N	76° 14' 43.79" E	Near to Panmbukad Statue Junction
264	Decrease in Mangrove	Mulavukad	Mulavukad	34	C43K4/SE	10° 0' 20.51" N	76° 14' 45.81" E	Near to Panmbukad Statue Junction
265	Decrease in Mangrove	Mulavukad	Mulavukad	34	C43K4/SE	10° 0' 11.74" N	76° 14' 45.82" E	Near to Panmbukad Statue Junction
266	Decrease in Mangrove	Mulavukad	Mulavukad	35	C43K8/SW	10° 0' 17.78" N	76° 15' 8.81" E	Near to Sree Subrahmanya Kshethram
267	No mangrove	Mulavukad	Mulavukad	31	C43Q1/NE	9° 59' 56.20" N	76° 14' 38.09" E	Near to Punnakkattuthara vishnumaya bhadrakali temple
268	Decrease in Mangrove	Mulavukad	Mulavukad	31	C43Q1/NE	9° 59' 54.29" N	76° 14' 37.67" E	Near to Punnakkattuthara vishnumaya bhadrakali temple
269	Decrease in Mangrove	Mulavukad	Mulavukad	31	C43Q1/NE	9° 59' 55.20" N	76° 14' 40.96" E	Near to Punnakkattuthara vishnumaya bhadrakali temple
270	Decrease in Mangrove	Mulavukad	Mulavukad	31	C43Q1/NE	9° 59' 44.51" N	76° 14' 47.33" E	Near to Punnakkattuthara vishnumaya bhadrakali temple
271	Decrease in Mangrove	Mulavukad	Mulavukad	31	C43Q1/NE	9° 59' 42.26" N	76° 14' 45.89" E	Near to St. SEBASTAIN'S Anglo Indian Chappel
272	Decrease in Mangrove	Mulavukad	Mulavukad	32	C43Q5/NW	9° 59' 31.56" N	76° 15' 1.95" E	Near to Vallarpadam Basilica
273	Decrease in Mangrove	Mulavukad	Mulavukad	32	C43Q5/NW	9° 59' 20.72" N	76° 15' 13.25" E	Near to Vallarpadam International Container Transhipment Terminal
274	Decrease in Mangrove	Mulavukad	Mulavukad	32	C43Q5/NW	9° 59' 18.49" N	76° 15' 17.51" E	Near to EMPIRE CONTAINER TERMINAL
275	Decrease in Mangrove	Mulavukad	Mulavukad	32	C43Q5/NW	9° 59' 25.55" N	76° 15' 10.00" E	Near to Vallarpadam Basilica
276	Decrease in Mangrove	Mulavukad	Mulavukad	32	C43Q5/NW	9° 59' 30.84" N	76° 15' 12.66" E	Near to Sree Kalarisastha Temple
277	New Mangrove	Mulavukad	Mulavukad	35	C43K8/SW	10° 0' 42.34" N	76° 15' 36.44" E	Near to Stella Marys Monastery
278	Decrease in Mangrove	Mulavukad	Mulavukad	35	C43K8/SW	10° 1' 1.87" N	76° 15' 33.14" E	Near to Chungath- Manalil Kudumba kaav
279	New Mangrove	Mulavukad	Mulavukad	35	C43K8/SW	10° 1' 9.95" N	76° 15' 7.87" E	Near to Thaippadath Fish Farm
280	New Mangrove	Mulavukad	Mulavukad	35	C43K8/SW	10° 1' 13.82" N	76° 15' 8.11" E	Near to Mulavukad Police Station
281	New Mangrove	Mulavukad	Mulavukad	35	C43K8/SW	10° 1' 30.21" N	76° 15' 3.91" E	Near to St. Sebastine Church
282	New Mangrove	Mulavukad	Mulavukad	34	C43K4/SE	10° 1' 31.42" N	76° 14' 59.50" E	Near to Mulavukad Vadakkumbhagam Juma masjid
283	Decrease in Mangrove	Mulavukad	Mulavukad	35	C43K8/SW	10° 1' 37.79" N	76° 15' 8.46" E	Near to Cheppayil Temple
284	Increase in Mangrove	Mulavukad	Mulavukad	34	C43K4/SE	10° 1' 40.42" N	76° 14' 58.27" E	Near to Mulavukad Curve Brige
285	Increase in Mangrove	Mulavukad	Mulavukad	34	C43K4/SE	10° 1' 41.99" N	76° 14' 59.93" E	Near to Mulavukad Curve Brige

286	New Mangrove	Mulavukad	Mulavukad	35	C43K8/SW	10° 1' 44.35" N	76° 15' 0.42" E	Near to Mulavukad Curve Brige
287	New Mangrove	Mulavukad	Mulavukad	35	C43K8/SW	10° 1' 45.63" N	76° 15' 3.75" E	Near to Mulavukad Curve Brige
288	Decrease in Mangrove	Mulavukad	Mulavukad	35	C43K8/SW	10° 1' 46.59" N	76° 15' 3.81" E	Near to Mulavukad Curve Brige
289	Increase in Mangrove	Mulavukad	Mulavukad	35	C43K8/SW	10° 1' 48.82" N	76° 15' 3.15" E	Near to Mulavukad Curve Brige
290	No Mangrove	Cheranallur	Kochi Municipal Corporation	35	C43K8/SW	10° 0' 5.25" N	76° 16' 5.80" E	Near to Sree Rudhiramala Bhagavathi temple
291	Increase in Mangrove	Ernakulam	Kochi Municipal Corporation	32	C43Q5/NW	9° 59' 55.42" N	76° 16' 6.18" E	Near to Sree Rudhiramala Bhagavathi temple
292	New Mangrove	Ernakulam	Kochi Municipal Corporation	32	C43Q5/NW	9° 59' 53.95" N	76° 16' 6.71" E	Near to Sree Rudhiramala Bhagavathi temple
293	HTL Change/New Creek	Thiruvankulam	Thrippunithura MC	32	C43Q5/NW	9° 58' 47.19" N	76° 20' 36.67" E	Near to Sree Madathil bagavathi temple
294	HTL Change/New Creek	Vazhakkala	Thrikkakara Municipality	32	C43Q5/NW	9° 58' 46.59" N	76° 20' 35.74" E	Near to Sree Madathil bagavathi temple
295	New Mangrove	Nadama	Thrippunithura	32	C43Q5/NW	9° 57' 57.09" N	76° 19' 14.17" E	Near to Silversand Island
296	New Mangrove	Nadama	Thrippunithura	32	C43Q5/NW	9° 57' 56.15" N	76° 19' 14.65" E	Near to Silversand Island
297	New Mangrove	Nadama	Thrippunithura	32	C43Q5/NW	9° 57' 52.50" N	76° 19' 13.36" E	Near to Silversand Island
298	Decrease in Mangrove	Nadama	Thrippunithura	32	C43Q5/NW	9° 57' 50.03" N	76° 19' 13.17" E	Near to Silversand Island
299	New Mangrove	Nadama	Thrippunithura	32	C43Q5/NW	9° 57' 49.62" N	76° 19' 16.65" E	Near to Silversand Island
300	Decrease in Mangrove	Nadama	Thrippunithura	32	C43Q5/NW	9° 57' 51.06" N	76° 19' 20.77" E	Near to Asian School of Architecture and Design Innovation
301	Increase in Mangrove	Nadama	Thrippunithura	32	C43Q5/NW	9° 57' 46.86" N	76° 19' 17.93" E	Near to Silversand Island
302	Increase in Mangrove	Nadama	Thrippunithura	32	C43Q5/NW	9° 57' 48.40" N	76° 19' 17.13" E	Near to Asian School of Architecture and Design Innovation
303	New Mangrove	Nadama	Thrippunithura	32	C43Q5/NW	9° 57' 46.93" N	76° 19' 14.86" E	Near to Silversand Island
304	Decrease in Mangrove	Nadama	Thrippunithura	32	C43Q5/NW	9° 57' 27.20" N	76° 19' 55.40" E	Near to Sree Vanadurga Bagavathi Temple
305	No Mangrove	Nadama	Thrippunithura	32	C43Q5/NW	9° 57' 24.98" N	76° 19' 57.98" E	Near to Sree Muthappan temple
306	No mangrove	Thekkumbhagam	Thrippunithura MC	32	C43Q5/NW	9° 56' 6.91" N	76° 20' 38.70" E	Near to Saraswathi Vilasam School
307	No Mangrove	Thekkumbhagam	Thrippunithura MC	32	C43Q5/NW	9° 56' 6.62" N	76° 20' 37.96" E	Near to Panakkal Bhagavathi Temple
308	Decrease in Mangrove	Thekkumbhagam	Thrippunithura MC	32	C43Q5/NW	9° 56' 5.65" N	76° 20' 37.29" E	Near to Panakkal Bhagavathi Temple
309	New Mangrove	Thekkumbhagam	Thrippunithura MC	32	C43Q5/NW	9° 55' 47.61" N	76° 20' 39.99" E	Near to Valiyathara Sreedevi Kshethram
310	New Mangrove	Thekkumbhagam	Thrippunithura MC	32	C43Q5/NW	9° 55' 46.60" N	76° 20' 42.95" E	Near to Panakkal Bhagavathi Temple

311	New Mangrove	Thekkumbhagam	Thrippunithura MC	32	C43Q5/NW	9° 55' 45.79" N	76° 20' 40.87" E	Near to Valiyathara Sreedevi Kshethram
312	Decrease in Mangrove	Thekkumbhagam	Thrippunithura MC	32	C43Q5/NW	9° 55' 45.82" N	76° 20' 49.04" E	Near to Valiyathara Sreedevi Kshethram
313	Decrease in Mangrove	Thekkumbhagam	Thrippunithura MC	32	C43Q5/NW	9° 55' 44.88" N	76° 20' 50.25" E	Near to Valiyathara Sreedevi Kshethram
314	No Mangrove	Thekkumbhagam	Thrippunithura MC	32	C43Q5/NW	9° 55' 43.56" N	76° 20' 50.13" E	Near to Valiyathara Sreedevi Kshethram
315	Decrease in Mangrove	Thekkumbhagam	Thrippunithura MC	32	C43Q5/NW	9° 55' 43.17" N	76° 20' 51.17" E	Near to Valiyathara Sreedevi Kshethram
316	No Mangrove	Thekkumbhagam	Thrippunithura MC	32	C43Q5/NW	9° 55' 42.05" N	76° 20' 52.21" E	Near to Valiyathara Sreedevi Kshethram
317	No mangrove	Thekkumbhagam	Thrippunithura MC	32	C43Q5/NW	9° 55' 41.94" N	76° 20' 50.62" E	Near to Valiyathara Sreedevi Kshethram
318	Decrease in Mangrove	Thekkumbhagam	Thrippunithura MC	32	C43Q5/NW	9° 55' 42.95" N	76° 20' 50.24" E	Near to Valiyathara Sreedevi Kshethram
319	Decrease in Mangrove	Thekkumbhagam	Thrippunithura MC	32	C43Q5/NW	9° 55' 42.04" N	76° 20' 48.68" E	Near to Valiyathara Sreedevi Kshethram
320	No Mangrove	Thekkumbhagam	Thrippunithura MC	32	C43Q5/NW	9° 55' 42.05" N	76° 20' 46.97" E	Near to Valiyathara Sreedevi Kshethram
321	Decrease in Mangrove	Thekkumbhagam	Thrippunithura MC	32	C43Q5/NW	9° 55' 41.07" N	76° 20' 47.17" E	Near to Valiyathara Sreedevi Kshethram
322	No Mangrove	Thekkumbhagam	Thrippunithura MC	32	C43Q5/NW	9° 55' 41.03" N	76° 20' 44.84" E	Near to Valiyathara Sreedevi Kshethram
323	No Mangrove	Thekkumbhagam	Thrippunithura MC	32	C43Q5/NW	9° 55' 20.15" N	76° 20' 28.18" E	Near to Kokku Thuruthu
324	No Mangrove	Thekkumbhagam	Thrippunithura MC	32	C43Q5/NW	9° 55' 20.33" N	76° 20' 27.20" E	Near to Kokku Thuruthu
325	No Mangrove	Thekkumbhagam	Thrippunithura MC	32	C43Q5/NW	9° 55' 22.89" N	76° 20' 23.67" E	Near to Kokku Thuruthu
326	No Mangrove	Thekkumbhagam	Thrippunithura MC	32	C43Q5/NW	9° 55' 26.12" N	76° 20' 17.56" E	Near to Kokku Thuruthu
327	No Mangrove	Thekkumbhagam	Thrippunithura MC	32	C43Q5/NW	9° 55' 29.62" N	76° 20' 20.21" E	Near to Kokku Thuruthu
328	Decrease in Mangrove	Maradu	Maradu	32	C43Q5/NW	9° 55' 41.36" N	76° 20' 6.16" E	Near to South Indian Bank - Extension Counter
329	Mangrove removed	Maradu	Maradu	32	C43Q5/NW	9° 55' 38.50" N	76° 19' 56.46" E	Near to South Indian Bank - Extension Counter
330	No Mangrove	Maradu	Maradu	32	C43Q5/NW	9° 55' 39.91" N	76° 19' 56.28" E	Near to South Indian Bank - Extension Counter
331	No Mangrove	Maradu	Maradu	32	C43Q5/NW	9° 55' 39.79" N	76° 19' 49.59" E	Near to Juma Masjid Maradu
332	No Mangrove	Maradu	Maradu	32	C43Q5/NW	9° 55' 36.21" N	76° 19' 47.75" E	Near to Bhardrapuram Pezhangathara Sri Bhadrakali Kshethram
333	Decrease in Mangrove	Maradu	Maradu	32	C43Q5/NW	9° 55' 22.44" N	76° 19' 48.48" E	Near to Bhardrapuram Pezhangathara Sri Bhadrakali Kshethram
334	Decrease in Mangrove	Maradu	Maradu	32	C43Q5/NW	9° 55' 20.08" N	76° 19' 48.53" E	Near to Bhardrapuram Pezhangathara Sri Bhadrakali Kshethram
335	Decrease in Mangrove	Maradu	Maradu	32	C43Q5/NW	9° 55' 22.03" N	76° 19' 44.35" E	Near to Bhardrapuram Pezhangathara Sri Bhadrakali Kshethram

336	Decrease in Mangrove	Maradu	Maradu	32	C43Q5/NW	9° 55' 3.94" N	76° 19' 48.23" E	Near to Valanthakkad SreeBadraKali Temple (Thamburan Chaithanya Trust)
337	Decrease in Mangrove	Maradu	Maradu	32	C43Q5/NW	9° 55' 3.40" N	76° 19' 37.12" E	Near to Valanthakkad SreeBadraKali Temple (Thamburan Chaithanya Trust)
338	Decrease in Mangrove	Kumbalam	Kumbalam	32	C43Q5/NW	9° 54' 44.75" N	76° 19' 49.60" E	Near to Prime Meridian Boat House
339	Decrease in Mangrove	Kumbalam	Kumbalam	32	C43Q5/NW	9° 54' 43.65" N	76° 19' 46.53" E	Near to Cheppanam Juma Masjid
340	No Mangrove	Kumbalam	Kumbalam	32	C43Q5/NW	9° 54' 12.54" N	76° 19' 47.61" E	Near to Cheppanam Bridge
341	Decrease in Mangrove	Kumbalam	Kumbalam	32	C43Q5/NW	9° 53' 32.54" N	76° 19' 57.28" E	Near to St. Mary's Chapel
342	Increase in Mangrove	Kumbalam	Kumbalam	32	C43Q5/NW	9° 53' 31.19" N	76° 19' 56.74" E	Near to St. Mary's Chapel
343	Increase in Mangrove	Kumbalam	Kumbalam	32	C43Q5/NW	9° 53' 43.45" N	76° 19' 12.48" E	Near to Sree Parameswara Bhadrakali Temple
344	Decrease in Mangrove	Kumbalam	Kumbalam	32	C43Q5/NW	9° 54' 48.72" N	76° 18' 52.27" E	Near to St. Sebastian's Roman Chatholic Church
345	Decrease in Mangrove	Maradu	Maradu	32	C43Q5/NW	9° 55' 8.08" N	76° 18' 40.26" E	Near to Kumbalam North Railway Overbridge
346	Decrease in Mangrove	Maradu	Maradu	32	C43Q5/NW	9° 55' 48.74" N	76° 19' 20.57" E	Near to SHM Ship Care
347	Decrease in Mangrove	Maradu	Maradu	32	C43Q5/NW	9° 55' 56.62" N	76° 18' 54.98" E	Near to Thattakkattu Shri Krishna Temple
348	Decrease in Mangrove	Maradu	Maradu	32	C43Q5/NW	9° 56' 22.21" N	76° 18' 40.47" E	Near to Kootunkal Bhagavathi Temple.
349	Decrease in Mangrove	Maradu	Maradu	32	C43Q5/NW	9° 56' 24.42" N	76° 18' 30.95" E	Near to St Sebastian Syrian Church
350	Decrease in Mangrove	Maradu	Maradu	32	C43Q5/NW	9° 56' 26.87" N	76° 18' 32.30" E	Near to Kootunkal Bhagavathi Temple.
351	Decrease in Mangrove	Maradu	Maradu	32	C43Q5/NW	9° 56' 27.51" N	76° 18' 35.39" E	Near to Kootunkal Bhagavathi Temple.
352	Decrease in Mangrove	Maradu	Maradu	32	C43Q5/NW	9° 56' 32.21" N	76° 18' 35.70" E	Near to St Sebastian Syrian Church
353	Decrease in Mangrove	Maradu	Maradu	32	C43Q5/NW	9° 56' 33.54" N	76° 18' 28.43" E	Near to Kootunkal Bhagavathi Temple.
354	No Mangrove	Maradu	Maradu	32	C43Q5/NW	9° 55' 49.97" N	76° 18' 33.48" E	Near to Tirunettur Mahadeva Temple
355	No Mangrove	Maradu	Maradu	32	C43Q5/NW	9° 55' 51.23" N	76° 18' 33.09" E	Near to Tirunettur Mahadeva Temple
356	No Mangrove	Maradu	Maradu	32	C43Q5/NW	9° 55' 53.09" N	76° 18' 32.10" E	Near to Arrakkal Sree Mahakali Temple
357	No Mangrove	Maradu	Maradu	32	C43Q5/NW	9° 56' 7.93" N	76° 18' 25.14" E	Near to Kundannoor Bridge
358	Increase in Mangrove	Elamkulom	Kochi Municipal Corporation	32	C43Q5/NW	9° 56' 40.41" N	76° 17' 51.62" E	Near to Thevara Juma Masjid

359	Decrease in Mangrove	Elamkulom	Kochi Municipal Corporation	32	C43Q5/NW	9° 56' 32.93" N	76° 17' 33.42" E	Near to Thevara Juma Masjid
360	Decrease in Mangrove	Elamkulom	Kochi Municipal Corporation	32	C43Q5/NW	9° 56' 26.99" N	76° 17' 36.71" E	Near to Mattammal Sree Subramaniya Swami Temple
361	New Mangrove	Kumbalam	Kumbalam	32	C43Q5/NW	9° 54' 57.62" N	76° 18' 38.12" E	Near to Kumbalam Panchayath SC Community Hall
362	Decrease in Mangrove	Kumbalam	Kumbalam	32	C43Q5/NW	9° 54' 43.27" N	76° 18' 33.23" E	Near to Kumbalam Panchayath SC Community Hall
363	Increase in Mangrove	Kumbalam	Kumbalam	32	C43Q5/NW	9° 54' 26.75" N	76° 18' 41.91" E	Near to Shappupadi Overbridge
364	New Mangrove	Kumbalam	Kumbalam	32	C43Q5/NW	9° 53' 50.96" N	76° 18' 54.30" E	Near to N.I.J.L.P.School
365	Decrease in Mangrove	Kumbalam	Kumbalam	32	C43Q5/NW	9° 53' 47.06" N	76° 18' 53.79" E	Near to Al-Falah Juma Masjid
366	New Mangrove	Kumbalam	Kumbalam	32	C43Q5/NW	9° 53' 44.44" N	76° 18' 54.74" E	Near to Kumbalam Juma Masjid
367	Decrease in Mangrove	Kumbalam	Kumbalam	32	C43Q5/NW	9° 53' 42.84" N	76° 18' 54.79" E	Near to Al-Falah Juma Masjid
368	Decrease in Mangrove	Edakochi	Kochi Municipal Corporation	32	C43Q5/NW	9° 54' 35.58" N	76° 17' 32.29" E	Near to Sri Parameshwara Kumaramangala Maha Kshethram
369	Decrease in Mangrove	Edakochi	Kochi Municipal Corporation	32	C43Q5/NW	9° 54' 34.89" N	76° 17' 29.53" E	Near to Sri Parameshwara Kumaramangala Maha Kshethram
370	Decrease in Mangrove	Edakochi	Kochi Municipal Corporation	32	C43Q5/NW	9° 54' 38.04" N	76° 17' 25.76" E	Near to Siena College of Professional Studies
371	Decrease in Mangrove	Edakochi	Kochi Municipal Corporation	32	C43Q5/NW	9° 54' 51.14" N	76° 17' 22.76" E	Near to BSNL Edakochi Exchange
372	Increase in Mangrove	Edakochi	Kochi Municipal Corporation	32	C43Q5/NW	9° 54' 54.04" N	76° 17' 25.71" E	Near to St. Mary's Chapel
373	Decrease in Mangrove	Rameswaram	Kochi Municipal Corporation	32	C43Q5/NW	9° 55' 51.03" N	76° 16' 49.11" E	Near to Dream Catcher Bridge, Kochi
374	Decrease in Mangrove	Rameswaram	Kochi Municipal Corporation	32	C43Q5/NW	9° 55' 54.07" N	76° 16' 38.36" E	Near to Tropicana Logistics Private Limited (Cold Storage)
375	Decrease in Mangrove	Rameswaram	Kochi Municipal Corporation	32	C43Q5/NW	9° 56' 16.18" N	76° 16' 51.34" E	Near to Cochin Air Cargo Clearing House
376	Decrease in Mangrove	Palluruthi	Kochi Municipal Corporation	32	C43Q5/NW	9° 54' 24.46" N	76° 17' 4.72" E	Near to Govt. HSS Thazathu Vadakara Pathanad
377	Decrease in Mangrove	Palluruthi	Kochi Municipal Corporation	32	C43Q5/NW	9° 54' 18.00" N	76° 17' 5.85" E	Near to Mahalaleel A.G Chruch, Perumpadappu
378	New Mangrove	Palluruthi	Kochi Municipal Corporation	32	C43Q5/NW	9° 54' 19.43" N	76° 17' 7.66" E	Near to Govt. HSS Thazathu Vadakara Pathanad
379	New Mangrove	Palluruthi	Kochi Municipal Corporation	32	C43Q5/NW	9° 54' 5.43" N	76° 16' 42.03" E	Near to Ooralakkamsseri Temple
380	Decrease in Mangrove	Palluruthi	Kochi Municipal Corporation	32	C43Q5/NW	9° 54' 32.16" N	76° 16' 6.78" E	Near to St. Jacob's Chapel

381	Mangrove change	Palluruthi	Kochi Municipal Corporation	32	C43Q5/NW	9° 54' 32.57" N	76° 16' 7.62" E	Near to St. Jacob's Chapel
382	No Mangrove	Palluruthi	Kochi Municipal Corporation	32	C43Q5/NW	9° 54' 36.50" N	76° 16' 4.63" E	Near to St. Jacob's Chapel
383	No Mangrove	Palluruthi	Kochi Municipal Corporation	32	C43Q5/NW	9° 54' 47.24" N	76° 16' 0.52" E	Near to Indian Marine Industries
384	Decrease in Mangrove	Palluruthi	Chellanam	32	C43Q5/NW	9° 55' 22.18" N	76° 15' 44.23" E	Near to Chirakkal Bridge
385	Decrease in Mangrove	Palluruthi	Chellanam	32	C43Q5/NW	9° 54' 54.58" N	76° 15' 11.50" E	Near to St. Francis Assisi Roman Catholic Latin Church
386	Mangrove Change	Palluruthi	Chellanam	32	C43Q5/NW	9° 54' 53.44" N	76° 15' 13.35" E	Near to St Jude Church Judanagar Kattiparambu
387	Decrease in Mangrove	Palluruthi	Chellanam	32	C43Q5/NW	9° 54' 51.78" N	76° 15' 15.83" E	Near to St Jude Church Judanagar Kattiparambu
388	New Mangrove	Palluruthi	Chellanam	32	C43Q5/NW	9° 54' 51.00" N	76° 15' 16.32" E	Near to St. Francis Assisi Roman Catholic Latin Church
389	Decrease in Mangrove	Palluruthi	Chellanam	32	C43Q5/NW	9° 54' 43.47" N	76° 15' 42.96" E	Near to Kalathara Bridge
390	Decrease in Mangrove	Palluruthi	Chellanam	32	C43Q5/NW	9° 54' 25.38" N	76° 15' 58.69" E	Near to Mangroove Resort Kari
391	Decrease in Mangrove	Palluruthi	Chellanam	32	C43Q5/NW	9° 54' 24.04" N	76° 15' 55.39" E	Near to Kuthirakoor Kari Fathima Matha Church
392	No Mangrove	Palluruthi	Chellanam	32	C43Q5/NW	9° 54' 6.68" N	76° 15' 49.49" E	Near to Kuthirakoor Kari Fathima Matha Church
393	Decrease in Mangrove	Kumbalangy	Kumbalangy	32	C43Q5/NW	9° 53' 47.44" N	76° 17' 13.66" E	Near to St. Joseph's Church
394	New Mangrove	Kumbalangy	Kumbalangy	32	C43Q5/NW	9° 53' 44.65" N	76° 17' 12.93" E	Near to Shri Bhuvaneswary Temple
395	Decrease in Mangrove	Kumbalangy	Kumbalangy	32	C43Q5/NW	9° 53' 42.32" N	76° 17' 11.23" E	Near to Shri Bhuvaneswary Temple
396	Decrease in Mangrove	Kumbalangy	Kumbalangy	32	C43Q5/NW	9° 53' 30.54" N	76° 17' 17.78" E	Near to Sree Narayana Bhajan Madom
397	New Mangrove and HTL Change	Kumbalangy	Chellanam	32	C43Q5/NW	9° 53' 15.38" N	76° 15' 41.40" E	Near to Sri Navadurga Temple
398	Decrease in Mangrove and HTL Change	Kumbalangi	Chellanam	32	C43Q5/NW	9° 53' 14.37" N	76° 15' 41.76" E	Near to Sri Navadurga Temple
399	Decrease in Mangrove	Kumbalangi	Chellanam	32	C43Q5/NW	9° 52' 37.15" N	76° 15' 53.96" E	Near to Kingdom Hall Of Jehovah's Witnesses
400	Decrease in Mangrove	Kumbalangi	Chellanam	32	C43Q5/NW	9° 52' 28.78" N	76° 15' 58.02" E	Near to St. Joseph's Miraculous Shrine Kannamaly
401	Increase in Mangrove	Kumbalangi	Chellanam	29	C43Q5/SW	9° 52' 29.30" N	76° 15' 54.26" E	Near to St. Joseph's Miraculous Shrine Kannamaly

402	Decrease in Mangrove	Kumbalangi	Chellanam	29	C43Q5/SW	9° 52' 15.15" N	76° 16' 3.32" E	Near to Krishi Bhavan
403	Decrease in Mangrove	Kumbalangi	Chellanam	29	C43Q5/NW	9° 52' 14.13" N	76° 16' 0.37" E	Near to Puthenthode Bridge
404	Decrease in Mangrove	Kumbalangi	Chellanam	29	C43Q5/SW	9° 51' 52.01" N	76° 16' 24.09" E	Near to St. John The Baptist Church
405	Decrease in Mangrove	Kumbalangi	Chellanam	29	C43Q5/NW	9° 51' 27.89" N	76° 16' 25.40" E	Near to Aadhar Enrollment Centre
406	Decrease in Mangrove	Chellanam	Chellanam	29	C43Q5/SW	9° 49' 25.86" N	76° 16' 40.60" E	Near to St. Sebastian's Church Chellanam
407	New Mangrove	Chellanam	Chellanam	29	C43Q5/SW	9° 48' 25.03" N	76° 16' 30.88" E	Near to St. Xavier's Roman Catholic Latin Church
408	New Mangrove	Chellanam	Chellanam	29	C43Q5/SW	9° 48' 21.54" N	76° 16' 31.57" E	Near to Church of God Companyppadi
409	New Mangrove	Chellanam	Chellanam	29	C43Q5/SW	9° 48' 11.40" N	76° 16' 33.79" E	Near to St. Xavier's Roman Catholic Latin Church
410	New Mangrove	Chellanam	Chellanam	29	C43Q5/SW	9° 47' 49.97" N	76° 16' 39.38" E	Near to South Chellanam POSTOFFICE
411	Decrease in Mangrove	Chellanam	Chellanam	29	C43Q5/SW	9° 47' 44.34" N	76° 16' 38.43" E	Near to South Chellanam postoffice
412	New Mangrove	Chellanam	Chellanam	29	C43Q5/SW	9° 48' 13.45" N	76° 16' 46.13" E	Near to Kondai Lip Backwater Heritage Resort
413	Decrease in Mangrove	Chellanam	Chellanam	29	C43Q5/SW	9° 47' 42.98" N	76° 16' 44.70" E	Near to South Chellanam postoffice
414	Decrease in Mangrove	Chellanam	Chellanam	29	C43Q5/SW	9° 47' 33.11" N	76° 16' 52.98" E	Near to LEO ENGLISH MEDIUM SCHOOL
415	Increase in Mangrove	Chellanam	Chellanam	29	C43Q5/SW	9° 47' 30.70" N	76° 16' 54.28" E	Near to LEO ENGLISH MEDIUM SCHOOL
416	HTL Change	Kochi Municipal Corporation	Edakochi	32	C43Q5/NW	9°55'17.25"N	76°17'20.54"E	Near Kannangatu Bhagavathy Temple
417	HTL Change	Kochi Municipal Corporation	Ernakulam	32	C43Q5/NW	9°56'39.47"N	76°17'39.53"E	Near Thevara Canal/Bridge
418	New Archaeology Site Added	Rameswaram	Kochi Municipal Corporation	32	C43Q5/NW	9°56'2.39"N	76°15'53.52"E	St.Sebastian Chruch
419	New Archaeology Site Added	Mattancherry	Kochi Municipal Corporation	32	C43Q5/NW	9°57'30.03"N	76°15'33.84"E	Mattancherry Palace
420	New Archaeology Site Added	Fort Kochi	Kochi Municipal Corporation	31	C43Q1/NE	9°58'2.97"N	76°14'27.86"E	Bastion Bangalow
421	New Archaeology Site Added	Kuzhupilly	Pallipuram	37	C43K4/NE	10°10'12.12"N	76°10'51.35"E	Pallipuram Fort
422	New Archaeology Site Added	Paravur	Paravoor	37	C43K4/NE	10°9'7.09"N	76°13'17.01"E	Jewish Synagogue,Paravoor
423	New Archaeology Site Added	Chendamangalam	Chendamangalam	37	C43K4/NE	10°10'8.05"N	76°14'49.63"E	Vypeekotta Seminary

424	New Archaeology Site Added	Chendamangalam	Chendamangalam	37	C43K4/NE	10°10'8.08"N	76°14'54.45"E	Jewish Synagogue,Chendamangalam
425	New Archaeology Site Added	Chendamangalam	Chendamangalam	38	C43K8/NW	10°10'0.08"N	76°15'0.85"E	kottayil Kovilakam
426	New Island/New HTL Added	Puthenvelikara	Puthenvelikara	38	C43K4/NE	10°12'17.90"N	76°13'30.94"E	Near SSDP Saba Temple
427	New Archaeology Site Added	Chendamangalam	Chendamangalam	37	C43K4/NE	10°10'24.946"N	76°13'55.353"E	Paliyam Nalukettu
428	New Archaeology Site Added	Chendamangalam	Chendamangalam	37	C43K4/NE	10°10'27.331"N	76°13'57.095"E	Paliyam Kovilakom

Table-2: Comparison of CZMP 2011 and draft CZMP based on CRZ Notification 2019 in Ernakulam District

Local Bodies under CRZ (CZMP 2011)	Local Bodies under CRZ (CZMP 2019)	Remarks
Corporation: Kochi(1) Municipalities: Paravur, Eloor, Thrikkakara, Kalamassery, Thrippunithura,Maradu (6) Grama Panchayats: Vadakkekara,Chendamangalam, Puthenvelikara, Chittattukara, Pallipuram, Kunnukara, Karumalloor, Kottuvally, Ezhikkara, Kuzhappilly, Edavanakkade,Alangad, Nayarambalam, Varapuzha, Kadungallur,Kadamakkudy, Njarakkal, Cheranallur, Elamkunnappuzha, Mulavukade, Chellanam, Kumbalam, Kumbalangy,Udayamperoor, Amballur (25)	Corporation: Kochi(1) Municipalities: Paravur, Eloor, Thrikkakara, Kalamassery, Thrippunithura, Maradu (6) Grama Panchayats: Vadakkekara,Chendamangalam, Puthenvelikara, Chittattukara, Pallipuram, Kunnukara, Karumalloor, Kottuvally, Ezhikkara, Kuzhappilly, Edavanakkade, Alangad, Nayarambalam, Varapuzha, Kadungallur,Kadamakkudy, Njarakkal, Cheranallur, Elamkunnappuzha, Mulavukade, Chellanam, Kumbalam, Kumbalangy,Udayamperoor, Amballur (25)	<ul style="list-style-type: none"> ❖ Coastal Village such as Kuzhuppilly (Block 1), Pallipuram, Kuzhupilly (Block 3), Njarakkal, Elankunnappuzha, which are parts of Pallipuram Panchayat, Kuzhuppilly Panchayat, Njarakkal Panchayat, Elankunnappuzha Panchayat respectively are classified into CRZ III A based on the guideline of CZMP preparation as per CRZ Notification 2019. In such villages, NDZ has been redrawn as 50 meters from the HTL against 200 meters stipulated in the previous CRZ Notification, 2011. ❖ 20meter CRZ limit landward of HTL has been drawn for backwater islands instead of 50 m line in the approved CZMP prepared as per CRZ Notification 2011 ❖ 1074 islands are listed as per the CRZ 2019 Notification ranging in area from 0.004 to 3367.52ha andtheir cumulative area is 15810.15ha ❖ As per CRZ Notification 2019, 50m NDZ/CRZ limit (for tidal water bodies) has been demarcated instead of 100m in the previous notification, however retained width of the creek less than 50m.

Table 3. Showing the Village-wise population statistics for identifying the CRZ-III A category – Ernakulam district:

Sl. No:	Village	Population	Area (Sq.km)	Population density/Sq.km	Category	Grama Panchayat	Remarks/Source
1	Kuzhuppilly	23858	8.52	2800.23	CRZ III A	Pallippuram, Kuzhuppilly	Census 2011, Part B
2	Pallippuram	32321	11.52	2805.64	CRZ III A	Pallippuram	Census 2011, Part B
3	Edavanakkad	21787	11.24	1938.35	CRZ III B	Edavanakkadu	Census 2011, Part B
4	Nayarambalam	24127	12.19	1979.25	CRZ III B	Nayarambalam	Census 2011, Part B
5	Njarackal	23760	8.63	2753.19	CRZ III A	Njarackal	Census 2011, Part B
6	Elamkunnappuzha	26997	8.72	3095.99	CRZ III A	Elamkunnappuzha	Census 2011, Part B
7	Palluruthi	8352	5.2	1606.15	CRZ III B	Chellanam	Computed
8	Kumbalangy	42367	21.14	2004.12	CRZ III B	KumbalangyChellanam	Census 2011, Part B
9	Chellanam	14928	8.12	1838.42	CRZ III B	Chellanam	Census 2011, Part B

Table-4: List of backwater islands in Ernakulam District

Sl. no	Local body	Village	Island no	Map no	Sheet No	Place/Landmark	Area	Longitude	Latitude
1	Puthenvelikara	Puthenvelikara	1	37	C43K4/NE	Island In Periyar River(BW) near Thuruthipuram Bridge	0.14	76° 13' 30.90" E	10° 12' 17.93" N
2	Puthenvelikara	Puthenvelikara	2	37	C43K4/NE	Island near Periyar River(BW)	0.32	76° 13' 37.72" E	10° 12' 3.883" N
3	Puthenvelikara	Puthenvelikara	3	37	C43K4/NE	Island In Periyar River,Vijayan Thodu(BW)	5.92	76° 13' 10.80" E	10° 12' 19.56" N
4	Puthenvelikara	Puthenvelikara	4	37	C43K4/NE	Anjangadi Island in Periyar River(BW)	3.65	76° 12' 45.78" E	10° 12' 1.97" N
5	Chendamangalam	Chendamangalam	5	37	C43K4/NE	Thiruthipuram Island in Periyar River(BW)	37.66	76° 13' 20.52" E	10° 11' 36.62" N
6	Puthenvelikara	Puthenvelikara	6	38	C43K8/NW	Island in Chalakudy River(BW)	1.00	76° 16' 19.81" E	10° 10' 17.06" N
7	Puthenvelikara	Puthenvelikara	7	38	C43K8/NW	Kunnukara Island in Chalakudy River(BW)	32.27	76° 16' 19.36" E	10° 9' 59.61" N
8	Chendamangalam	Chendamangalam	8	38	C43K8/NW	Mattupuram Island in Periyar River	41.22	76° 15' 27.60" E	10° 9' 43.63" N
9	Chendamangalam	Chendamangalam	9	38	C43K8/NW	CR Thuruth in Periyar River(BW)	5.69	76° 15' 12.26" E	10° 9' 59.85" N
10	Puthenvelikkara	Puthenvelikkara	10	37,38	C43K4/NE, C43K8/NW	Darma Thuruth in Periyar River(BW)	3.09	76° 14' 59.03" E	10° 10' 16.28" N
11	Chendamangalam	Chendamangalam	11	37	C43K4/NE	Pazampilly Thuruth in Periyar River(BW)	51.88	76° 14' 25.56" E	10° 10' 38.98" N
12	Chendamangalam	Chendamangalam	12	37	C43K4/NE	Cheriya Pazhampilly Thuruth in Periyar River(BW)	17.58	76° 13' 53.54" E	10° 10' 49.36" N
13	Chendamangalam	Chendamangalam	13	37	C43K4/NE	Gothuruth in Periyar River, Thekkathuruth River(BW)	168.05	76° 12' 48.52" E	10° 11' 15.53" N
14	Vadakkekkara	Muthakunnam	14	37	C43K4/NE	Moothakunnam Island in Periyar River(BW)	90.6	76° 11' 48.43" E	10° 11' 7.56" N
15	Chendamangalam	Chendamangalam	15	37	C43K4/NE	Thekkethuruth in Thekkethuruth River(BW)	15.46	76° 12' 50.89" E	10° 11' 0.83" N
16	Chendamangalam	Chendamangalam	16	37	C43K4/NE	Bharanimukku Island in Periyar River(BW)	784.51	76° 13' 58.28" E	10° 10' 6.10" N
17	Karumaloor	Karumalur	17	35	C43K8/SW	Thathappilly island in Koomullamparab(BW)	0.92	76° 16' 10.12" E	10° 7' 30.76" N
18	Karumaloor	Karumalur	18	35	C43K8/SW	Thattampady Island in Koomullamparab, Periyar River(BW)	0.18	76° 16' 14.71" E	10° 7' 19.03" N
19	Karumaloor	Karumalur	19	35	C43K8/SW	Island in Koomullamparab, Periyar River(BW)	0.33	76° 16' 18.46" E	10° 7' 15.58" N
20	Karumaloor	Karumalur	20	35	C43K8/SW	Karumaloor Island in Koomullamparab(BW)	2.88	76° 16' 30.53" E	10° 7' 3.98" N

21	Karumaloor	Karumalur	21	35	C43K8/SW	Karingamthuruth(BW)	0.12	76° 16' 26.40" E	10° 6' 52.42" N
22	Kottuvally	Kottuvally	22	37	C43K4/NE	Island in Pashni Thod(BW)	1.09	76° 15' 5.26" E	10° 7' 39.32" N
23	Kottuvally	Kottuvally	23	37,38	C43K4/NE, C43K8/NW	Island in Pashni Thod(BW)	7.06	76° 14' 57.64" E	10° 7' 36.08" N
24	Paravoor Municipality/ Chittattukara	Paravur	24	37	C43K4/NE	Cheriyapallam Thuruth(BW)	110.06	76° 13' 30.14" E	10° 9' 28.05" N
25	Vadakkekara	Muthakunnam	25	37	C43K4/NE	Madalapla Thuruth in Thekkethuruth River(BW)	228.83	76° 12' 25.91" E	10° 10' 43.63" N
26	Vadakkekara	Chittattukara	26	37	C43K4/NE	Vadakkekara Island In Chendamangalam Lake(BW)	388.21	76° 12' 32.71" E	10° 9' 34.44" N
27	Vadakkekara	Chittattukara	27	37	C43K4/NE	northwest of Paliathuruth-Machanthuruth Bridge(BW)	199.42	76° 11' 49.53" E	10° 10' 6.18" N
28	Vadakkekara	Muthakunnam	28	37	C43K4/NE	Island near Thuruthipuram(BW)	13.32	76° 12' 15.22" E	10° 10' 24.84" N
29	Vadakkekara	Muthakunnam	29	37	C43K4/NE	Island near Oravanthuruth-Vavakkad Bridge(BW)	0.03	76° 12' 5.51" E	10° 10' 31.12" N
30	Vadakkekara	Muthakunnam	30	37	C43K4/NE	Island near Gothuruth Bridge,Thekkathuruth River(BW)	1.90	76° 12' 1.98" E	10° 10' 44.56" N
31	Vadakkekara	Muthakunnam	31	37	C43K4/NE	Island near Vavakkad(BW)	93.26	76° 11' 51.21" E	10° 10' 27.89" N
32	Vadakkekara	Muthakunnam	32	37	C43K4/NE	Island near Maliyankara(BW)	2.31	76° 11' 29.17" E	10° 10' 37.08" N
33	Vadakkekara	Muthakunnam	33	37	C43K4/NE	Island near Chettikad(BW)	56.14	76° 11' 13.90" E	10° 10' 32.67" N
34	Vadakkekara	Muthakunnam	34	37	C43K4/NE	Island near Maliyankara,Periyar River(BW)	68.51	76° 11' 7.98" E	10° 10' 52.76" N
35	Vadakkekara	Muthakunnam	35	37	C43K4/NE	Island near Moothakunnam,Periyar River(BW)	12.97	76° 10' 45.71" E	10° 10' 57.27" N
36	Vadakkekara	Muthakunnam	36	37	C43K4/NE	Island near Maliankara Bridge(BW)	28.21	76° 10' 51.68" E	10° 10' 36.41" N
37	Kuzhippilly	Pallipuram	37	37	C43K4/NE	Island near Munambam(BW)	222.29	76° 10' 34.56" E	10° 10' 16.75" N
38	Kuzhippilly	Pallipuram	38	37	C43K4/NE	Island near Munambam Beach Bridge(BW)	0.37	76° 10' 9.84" E	10° 10' 38.88" N
39	Kuzhippilly	Pallipuram	39	37	C43K4/NE	Island near Munambam(BW)	0.03	76° 10' 13.05" E	10° 10' 15.41" N
40	Kuzhippilly	Pallipuram	40	37	C43K4/NE	Island near Kuzhippilly(BW)	0.03	76° 10' 19.18" E	10° 10' 5.63" N
41	Kuzhippilly	Pallipuram	41	37	C43K4/NE	Island near Pallippuram(BW)	0.14	76° 10' 31.08" E	10° 9' 51.61" N
42	Kuzhippilly	Pallipuram	42	37	C43K4/NE	Island near Pallippuram(BW)	0.09	76° 10' 33.94" E	10° 9' 41.54" N
43	Pallipuram	Pallipuram	43	37	C43K4/NE	Island near Kadathu(BW)	3.96	76° 10' 38.18" E	10° 9' 35.82" N
44	Pallipuram	Pallipuram	44	37	C43K4/NE	Island near Kadathu(BW)	0.07	76° 11' 35.13" E	10° 9' 42.72" N

45	Pallipuram	Pallipuram	45	37	C43K4/NE	Island near Kadathu(BW)	0.56	76° 11' 32.99" E	10° 9' 43.09" N
46	Pallipuram	Pallipuram	46	37	C43K4/NE	Island near Kadathu,cherai(BW)	292.63	76° 11' 15.68" E	10° 9' 15.50" N
47	Pallipuram	Pallipuram	47	37	C43K4/NE	Island near Kadathu,cherai(BW)	14.52	76° 10' 59.89" E	10° 8' 51.17" N
48	Pallipuram	Pallipuram	48	37	C43K4/NE	Island near Kadathu,cherai,Karuthala Canal(BW)	0.60	76° 11' 53.96" E	10° 8' 52.78" N
49	Pallipuram	Pallipuram	49	37	C43K4/NE	Island near cherai,Vastheri(BW)	159.49	76° 11' 34.44" E	10° 8' 28.81" N
50	Pallipuram	Pallipuram	50	37	C43K4/NE	Island near cherai(BW)	0.95	76° 11' 8.50" E	10° 8' 20.79" N
51	Pallipuram	Pallipuram	51	37	C43K4/NE	Island near cherai(BW)	0.18	76° 10' 54.08" E	10° 8' 12.08" N
52	Pallipuram	Pallipuram	52	37	C43K4/NE	Island near cherai(BW)	0.09	76° 11' 12.79" E	10° 8' 7.68" N
53	Pallipuram	Pallipuram	53	37	C43K4/NE	Island near Gowreeswara,Cherai(BW)	10.96	76° 11' 26.13" E	10° 7' 51.89" N
54	Pallipuram	Pallipuram	54	37	C43K4/NE	Island near Gowreeswara,Cherai(BW)	97.59	76° 11' 43.91" E	10° 7' 56.04" N
55	Pallipuram	Pallipuram	55	37	C43K4/NE	Island near Gowreeswara,Cherai(BW)	48.7	76° 12' 5.99" E	10° 8' 3.27" N
56	Pallipuram	Pallipuram	56	37	C43K4/NE	Island near Gowreeswara,Cherai(BW)	0.09	76° 12' 12.23" E	10° 7' 54.01" N
57	Pallipuram	Pallipuram	57	37	C43K4/NE	Island near Gowreeswara,Cherai(BW)	0.10	76° 12' 21.50" E	10° 8' 1.43" N
58	Pallipuram	Pallipuram	58	37	C43K4/NE	Island near Cherai,Vypin(BW)	0.90	76° 12' 21.25" E	10° 7' 58.26" N
59	Pallipuram	Pallipuram	59	37	C43K4/NE	Island near Cherai,Kochi(BW)	1.08	76° 12' 22.41" E	10° 7' 52.51" N
60	Kuzhappilly	Kuzhupilly	60	37	C43K4/NE	Island near Ayyampilly,Vypin(BW)	20.37	76° 12' 15.19" E	10° 7' 38.70" N
61	Kuzhappilly	Kuzhupilly	61	34	C43K4/SE	Island near Ayyampilly,Vypin(BW)	2.16	76° 11' 36.48" E	10° 7' 30.33" N
62	Kuzhappilly	Kuzhupilly	62	34	C43K4/SE	Island near Ayyampilly,Vypin(BW)	0.35	76° 11' 42.40" E	10° 7' 27.71" N
63	Kuzhappilly	Kuzhupilly	63	34	C43K4/SE	Island near Ayyampilly,Vypin(BW)	84.9	76° 12' 0.38" E	10° 7' 20.58" N
64	Kuzhappilly	Kuzhupilly	64	37	C43K4/NE	Island near Ayyampilly,Vypin(BW)	0.06	76° 12' 6.19" E	10° 7' 31.01" N
65	Kuzhappilly	Kuzhupilly	65	37	C43K4/NE	Island near Ayyampilly,Vypin(BW)	0.10	76° 12' 7.30" E	10° 7' 31.02" N
66	Kuzhappilly	Kuzhupilly	66	37	C43K4/NE	Island near Ayyampilly,Vypin(BW)	0.15	76° 12' 23.61" E	10° 7' 30.60" N
67	Ezhikkara	Paravur	67	37	C43K4/NE	Island near Kadamangalam(BW)	0.48	76° 12' 35.25" E	10° 7' 31.60" N
68	Ezhikkara	Paravur	68	37	C43K4/NE	Island near Kadamangalam(BW)	0.41	76° 12' 32.86" E	10° 7' 37.80" N
69	Ezhikkara	Paravur	69	37	C43K4/NE	Island near Kadamangalam(BW)	0.60	76° 12' 30.76" E	10° 7' 52.97" N
70	Ezhikkara	Paravur	70	37	C43K4/NE	Island near Ernakulam,Puthen Thodu(BW)	14.81	76° 12' 39.13" E	10° 8' 11.54" N
71	Ezhikkara	Paravur	71	37	C43K4/NE	Island near Puliyampully(BW)	0.33	76° 12' 20.73" E	10° 8' 12.29" N
72	Ezhikkara	Paravur	72	37	C43K4/NE	Island near Cherai Bridge(BW)	6.45	76° 12' 13.80" E	10° 8' 27.72" N

73	Ezhikkara	Paravur	73	37	C43K4/NE	Island in Chendamangalam Lake,near Cherai Bridge(BW)	0.22	76° 12' 5.75" E	10° 8' 33.32" N
74	Vadakkekara	Chittattukara	74	37	C43K4/NE	Island near Pattanam(BW)	1.44	76° 12' 4.63" E	10° 8' 38.09" N
75	Vadakkekara	Chittattukara	75	37	C43K4/NE	Island near Pattanam(BW)	2.12	76° 12' 3.44" E	10° 8' 46.07" N
76	Vadakkekara	Chittattukara	76	37	C43K4/NE	Island near Pattanam(BW)	0.07	76° 12' 0.13" E	10° 8' 55.45" N
77	Vadakkekara	Chittattukara	77	37	C43K4/NE	Island near Pattanam(BW)	1.67	76° 12' 1.09" E	10° 9' 1.55" N
78	Vadakkekara	Chittattukara	78	37	C43K4/NE	Island near Pattanam(BW)	2.23	76° 12' 0.97" E	10° 9' 6.82" N
79	Vadakkekara	Chittattukara	79	37	C43K4/NE	Island near Pattanam(BW)	0.55	76° 12' 0.19" E	10° 9' 15.98" N
80	Vadakkekara	Chittattukara	80	37	C43K4/NE	Island near Pattanam(BW)	0.81	76° 12' 6.13" E	10° 9' 16.32" N
81	Vadakkekara	Chittattukara	81	37	C43K4/NE	Island near Pattanam(BW)	0.66	76° 12' 9.13" E	10° 9' 15.86" N
82	Vadakkekara	Chittattukara	82	37	C43K4/NE	Island near Pattanam(BW)	1.27	76° 12' 10.94" E	10° 9' 19.13" N
83	Vadakkekara	Chittattukara	83	37	C43K4/NE	Island near Ernakulam(BW)	8.92	76° 12' 9.44" E	10° 9' 10.10" N
84	Vadakkekara	Chittattukara	84	37	C43K4/NE	Island near Vadakkekara(BW)	0.17	76° 12' 20.94" E	10° 9' 7.68" N
85	Vadakkekara	Chittattukara	85	37	C43K4/NE	Island near Pattanam(BW)	10.00	76° 12' 16.74" E	10° 8' 57.40" N
86	Vadakkekara	Chittattukara	86	37	C43K4/NE	Island near Pattanam(BW)	16.12	76° 12' 20.84" E	10° 8' 48.75" N
87	Vadakkekara	Chittattukara	87	37	C43K4/NE	Island near Pattanam(BW)	0.07	76° 12' 15.98" E	10° 8' 40.39" N
88	Ezhikkara	Paravur	88	37	C43K4/NE	Island near Kalluchira(BW)	0.38	76° 12' 13.55" E	10° 8' 31.63" N
89	Ezhikkara	Paravur	89	37	C43K4/NE	Island near Kalluchira(BW)	2.44	76° 12' 21.79" E	10° 8' 39.24" N
90	Vadakkekara	Chittattukara	90	37	C43K4/NE	Island near Vadakkekara(BW)	0.58	76° 12' 31.75" E	10° 8' 45.95" N
91	Paravoor Municipality	Paravur	91	37	C43K4/NE	Island in Chendamangalam Lake,near Mattumal Bridge(BW)	3.10	76° 12' 38.77" E	10° 8' 54.30" N
92	Ezhikkara	Paravur	92	37	C43K4/NE	Island near Ernakulam(BW)	4.35	76° 12' 37.90" E	10° 8' 40.89" N
93	Ezhikkara	Paravur	93	37	C43K4/NE	Island near Prumpadana Bridge,Puthen Thodu(BW)	1.76	76° 12' 43.48" E	10° 8' 35.17" N
94	Ezhikkara	Paravur	94	37	C43K4/NE	Island near Kalluchira(BW)	0.07	76° 12' 17.26" E	10° 8' 23.38" N
95	Ezhikkara	Paravur	95	37	C43K4/NE	Island near north Paravur(BW)	1.91	76° 12' 45.83" E	10° 8' 30.51" N
96	Ezhikkara	Paravur	96	37	C43K4/NE	Island near north Paravur,Puthen Thodu(BW)	1.00	76° 12' 47.36" E	10° 8' 18.94" N
97	Ezhikkara	Paravur	97	37	C43K4/NE	Island near north Paravur,Puthen Thodu(BW)	0.11	76° 12' 48.94" E	10° 8' 22.43" N
98	Ezhikkara	Paravur	98	37	C43K4/NE	Island near north Paravur(BW)	1014.0 ₉	76° 13' 46.94" E	10° 8' 17.20" N
99	Ezhikkara	Paravur	99	37	C43K4/NE	Island near north Paravur(BW)	0.15	76° 12' 47.30" E	10° 8' 7.23" N

100	Ezhikkara	Paravur	100	37	C43K4/NE	Island near north Paravur(BW)	0.24	76° 12' 49.46" E	10° 8' 5.52" N
101	Ezhikkara	Paravur	101	37	C43K4/NE	Island near north Paravur(BW)	0.07	76° 12' 52.39" E	10° 8' 7.10" N
102	Ezhikkara	Paravur	102	37	C43K4/NE	Island near north Paravur(BW)	0.30	76° 12' 54.22" E	10° 8' 7.58" N
103	Ezhikkara	Paravur	103	37	C43K4/NE	Island near north Paravur(BW)	0.16	76° 12' 53.32" E	10° 8' 5.64" N
104	Ezhikkara	Paravur	104	37	C43K4/NE	Island near Ernakulam,Puthen Thodu(BW)	1.84	76° 12' 46.35" E	10° 8' 1.21" N
105	Ezhikkara	Paravur	105	37	C43K4/NE	Island near Ernakulam,Puthen Thodu(BW)	0.85	76° 12' 58.39" E	10° 7' 53.70" N
106	Ezhikkara	Paravur	106	37	C43K4/NE	Island near Ernakulam,Puthen Thodu(BW)	0.37	76° 12' 49.84" E	10° 7' 53.41" N
107	Ezhikkara	Paravur	107	37	C43K4/NE	Island near Kadamangalam,Puthen Thodu(BW)	0.36	76° 12' 40.63" E	10° 7' 43.40" N
108	Ezhikkara	Paravur	108	37	C43K4/NE	Island near Kadamangalam,Puthen Thodu(BW)	0.24	76° 12' 43.83" E	10° 7' 31.24" N
109	Ezhikkara	Paravur	109	37	C43K4/NE	Island near Kadamangalam,Puthen Thodu(BW)	0.64	76° 13' 3.17" E	10° 7' 35.82" N
110	Ezhikkara	Paravur	110	37	C43K4/NE	Island near Kadamangalam,Puthen Thodu(BW)	0.20	76° 13' 8.05" E	10° 7' 41.56" N
111	Ezhikkara	Paravur	111	37	C43K4/NE	Island near Kadamangalam,Puthen Thodu(BW)	0.25	76° 13' 12.60" E	10° 7' 36.89" N
112	Ezhikkara	Paravur	112	37	C43K4/NE	Island near Kadamangalam,Puthen Thodu(BW)	0.02	76° 13' 15.36" E	10° 7' 32.41" N
113	Ezhikkara	Paravur	113	34	C43K4/SE	Island near Kadamangalam,Puthen Thodu(BW)	0.24	76° 13' 4.37" E	10° 7' 27.45" N
114	Ezhikkara	Paravur	114	37	C43K4/NE	Island near Kadamangalam,Puthen Thodu(BW)	0.08	76° 12' 53.83" E	10° 7' 32.41" N
115	Ezhikkara	Paravur	115	34	C43K4/SE	Island near Kadamangalam,Puthen Thodu(BW)	0.29	76° 12' 48.19" E	10° 7' 21.51" N
116	Ezhikkara	Paravur	116	34	C43K4/SE	Island near Kadamangalam(BW)	0.29	76° 12' 46.93" E	10° 7' 20.02" N
117	Ezhikkara	Paravur	117	34	C43K4/SE	Island near Kadamangalam(BW)	1.02	76° 12' 38.67" E	10° 7' 18.95" N
118	Ezhikkara	Paravur	118	34	C43K4/SE	Island near Kadamangalam(BW)	0.81	76° 12' 44.13" E	10° 7' 6.46" N
119	Ezhikkara	Paravur	119	34	C43K4/SE	Island near Kadamangalam(BW)	0.28	76° 12' 52.36" E	10° 7' 8.01" N
120	Ezhikkara	Paravur	120	34	C43K4/SE	Island near Kadamangalam(BW)	0.17	76° 12' 47.40" E	10° 6' 57.97" N
121	Kuzhappilly	Kuzhupily	121	34	C43K4/SE	Island near Ayyampilly,north Paravoor(BW)	2.48	76° 12' 25.11" E	10° 7' 22.77" N
122	Kuzhappilly	Kuzhupily	122	34	C43K4/SE	Island near Vypin,Kuzhipilly(BW)	4.75	76° 12' 30.36" E	10° 7' 1.70" N
123	Kuzhappilly	Kuzhupily	123	34	C43K4/SE	Island near Vypin,Kuzhipilly(BW)	0.48	76° 12' 22.05" E	10° 7' 5.29" N
124	Kuzhappilly	Kuzhupily	124	34	C43K4/SE	Island near Ayyampilly,north Paravoor(BW)	0.06	76° 12' 14.75" E	10° 7' 3.57" N

125	Kuzhappilly	Kuzhupily	125	34	C43K4/SE	Island near Vypin,Kochi(BW)	0.35	76° 12' 21.78" E	10° 6' 55.50" N
126	Kuzhappilly	Kuzhupily	126	34	C43K4/SE	Island near Vypin,Kochi(BW)	186.86	76° 12' 9.87" E	10° 6' 35.42" N
127	Kuzhappilly	Kuzhupily	127	34	C43K4/SE	Island near Ayyampilly,Vypin(BW)	0.15	76° 11' 46.46" E	10° 6' 57.52" N
128	Kuzhappilly	Kuzhupily	128	34	C43K4/SE	Island near Ayyampilly,Vypin(BW)	0.05	76° 11' 13.82" E	10° 7' 2.17" N
129	Kuzhappilly	Kuzhupily	129	34	C43K4/SE	Island near Vypin,Kochi(BW)	0.13	76° 11' 44.27" E	10° 6' 50.05" N
130	Kuzhappilly	Kuzhupily	130	34	C43K4/SE	Island near Ayyampilly,Vypin(BW)	0.03	76° 11' 43.29" E	10° 6' 49.76" N
131	Kuzhappilly	Kuzhupily	131	34	C43K4/SE	Island near Vypin,Kochi(BW)	0.03	76° 11' 47.73" E	10° 6' 39.34" N
132	Kuzhappilly	Kuzhupily	132	34	C43K4/SE	Island near Vypin,Kochi(BW)	0.51	76° 11' 37.09" E	10° 6' 26.54" N
133	Kuzhappilly	Kuzhupily	133	34	C43K4/SE	Island near Vypin,Kochi(BW)	0.05	76° 11' 22.61" E	10° 6' 25.61" N
134	Kuzhappilly	Kuzhupily	134	34	C43K4/SE	Island near Vypin,Kochi(BW)	0.02	76° 11' 24.70" E	10° 6' 11.18" N
135	Kuzhappilly	Kuzhupily	135	34	C43K4/SE	Island near Vypin,Kochi(BW)	0.03	76° 11' 39.78" E	10° 6' 18.11" N
136	Edavanakkad	Edavanakkad	136	34	C43K4/SE	Island In Edavanakkad,Vypin(BW)	0.03	76° 11' 45.58" E	10° 6' 16.32" N
137	Edavanakkad	Edavanakkad	137	34	C43K4/SE	Island In Edavanakkad,Vypin(BW)	0.16	76° 11' 41.00" E	10° 6' 10.54" N
138	Edavanakkad	Edavanakkad	138	34	C43K4/SE	Island In Edavanakkad,Vypin(BW)	0.16	76° 11' 40.61" E	10° 6' 9.17" N
139	Edavanakkad	Edavanakkad	139	34	C43K4/SE	Island In Edavanakkad,Vypin(BW)	0.02	76° 11' 41.87" E	10° 6' 8.66" N
140	Edavanakkad	Edavanakkad	140	34	C43K4/SE	Island In Edavanakkad,Vypin(BW)	0.69	76° 11' 36.98" E	10° 6' 2.30" N
141	Edavanakkad	Edavanakkad	141	34	C43K4/SE	Island In Edavanakkad,Vypin(BW)	0.06	76° 11' 30.08" E	10° 5' 53.53" N
142	Edavanakkad	Edavanakkad	142	34	C43K4/SE	Island In Edavanakkad,Vypin(BW)	0.17	76° 11' 34.95" E	10° 5' 54.09" N
143	Edavanakkad	Edavanakkad	143	34	C43K4/SE	Island In Edavanakkad,Vypin(BW)	0.02	76° 11' 37.33" E	10° 5' 54.79" N
144	Edavanakkad	Edavanakkad	144	34	C43K4/SE	Island In Edavanakkad,Vypin(BW)	0.07	76° 11' 38.13" E	10° 5' 56.30" N
145	Edavanakkad	Edavanakkad	145	34	C43K4/SE	Island In Edavanakkad,Vypin(BW)	1.71	76° 11' 43.12" E	10° 5' 58.85" N
146	Edavanakkad	Edavanakkad	146	34	C43K4/SE	Island In Edavanakkad,Vypin(BW)	0.27	76° 11' 46.25" E	10° 6' 4.55" N
147	Edavanakkad	Edavanakkad	147	34	C43K4/SE	Island In Edavanakkad,Vypin(BW)	0.40	76° 11' 44.42" E	10° 6' 6.70" N
148	Edavanakkad	Edavanakkad	148	34	C43K4/SE	Island In Vypin,kochi(BW)	0.01	76° 11' 44.40" E	10° 6' 7.78" N
149	Edavanakkad	Edavanakkad	149	34	C43K4/SE	Island In Edavanakkad,Vypin(BW)	0.04	76° 11' 46.21" E	10° 6' 8.77" N
150	Edavanakkad	Edavanakkad	150	34	C43K4/SE	Island In Edavanakkad,Vypin(BW)	0.34	76° 11' 51.37" E	10° 6' 10.53" N
151	Edavanakkad	Edavanakkad	151	34	C43K4/SE	Island In Edavanakkad,Vypin(BW)	0.14	76° 11' 36.12" E	10° 5' 44.33" N
152	Edavanakkad	Edavanakkad	152	34	C43K4/SE	Island In Edavanakkad,Vypin(BW)	0.33	76° 11' 39.85" E	10° 5' 42.85" N
153	Edavanakkad	Edavanakkad	153	34	C43K4/SE	Island In Edavanakkad,Vypin(BW)	0.08	76° 11' 41.43" E	10° 5' 39.40" N

154	Edavanakkad	Edavanakkad	154	34	C43K4/SE	Island In Edavanakkad,Vypin(BW)	0.16	76° 11' 45.74" E	10° 5' 41.25" N
155	Edavanakkad	Edavanakkad	155	34	C43K4/SE	Island In Edavanakkad,Vypin(BW)	0.52	76° 11' 50.84" E	10° 5' 41.13" N
156	Edavanakkad	Edavanakkad	156	34	C43K4/SE	Island In Edavanakkad,Vypin(BW)	0.35	76° 11' 38.56" E	10° 5' 34.45" N
157	Edavanakkad	Edavanakkad	157	34	C43K4/SE	Island In Edavanakkad,Vypin(BW)	0.12	76° 11' 35.16" E	10° 5' 28.52" N
158	Edavanakkad	Edavanakkad	158	34	C43K4/SE	Island In Edavanakkad,Vypin(BW)	0.02	76° 11' 33.51" E	10° 5' 24.52" N
159	Edavanakkad	Edavanakkad	159	34	C43K4/SE	Island In Edavanakkad,Vypin(BW)	0.05	76° 11' 35.87" E	10° 5' 26.52" N
160	Edavanakkad	Edavanakkad	160	34	C43K4/SE	Island In Edavanakkad,Vypin(BW)	0.10	76° 11' 40.20" E	10° 5' 27.58" N
161	Edavanakkad	Edavanakkad	161	34	C43K4/SE	Island In Edavanakkad,Vypin(BW)	0.02	76° 11' 38.68" E	10° 5' 21.89" N
162	Edavanakkad	Edavanakkad	162	34	C43K4/SE	Island In Edavanakkad,Vypin(BW)	0.05	76° 11' 35.58" E	10° 5' 20.06" N
163	Edavanakkad	Edavanakkad	163	34	C43K4/SE	Island In Edavanakkad,Vypin(BW)	0.07	76° 11' 36.42" E	10° 5' 18.71" N
164	Edavanakkad	Edavanakkad	164	34	C43K4/SE	Island In Edavanakkad,Vypin(BW)	0.02	76° 11' 40.43" E	10° 5' 16.04" N
165	Edavanakkad	Edavanakkad	165	34	C43K4/SE	Island In Edavanakkad,Vypin(BW)	0.02	76° 11' 41.10" E	10° 5' 17.23" N
166	Edavanakkad	Edavanakkad	166	34	C43K4/SE	Island In Edavanakkad,Vypin(BW)	0.05	76° 11' 44.43" E	10° 5' 19.60" N
167	Edavanakkad	Edavanakkad	167	34	C43K4/SE	Island In Edavanakkad,Vypin(BW)	0.03	76° 11' 47.98" E	10° 5' 22.17" N
168	Edavanakkad	Edavanakkad	168	34	C43K4/SE	Island In Edavanakkad,Vypin(BW)	2.07	76° 11' 53.04" E	10° 5' 20.79" N
169	Edavanakkad	Edavanakkad	169	34	C43K4/SE	Island In Edavanakkad,Vypin(BW)	0.10	76° 11' 47.15" E	10° 5' 18.47" N
170	Edavanakkad	Edavanakkad	170	34	C43K4/SE	Island In Edavanakkad,Vypin(BW)	8.07	76° 12' 0.32" E	10° 5' 16.35" N
171	Edavanakkad	Edavanakkad	171	34	C43K4/SE	Island In Edavanakkad,Vypin(BW)	0.42	76° 12' 9.21" E	10° 5' 11.57" N
172	Edavanakkad	Edavanakkad	172	34	C43K4/SE	Island In Edavanakkad,Vypin(BW)	0.12	76° 11' 45.67" E	10° 5' 17.12" N
173	Edavanakkad	Edavanakkad	173	34	C43K4/SE	Island In Edavanakkad,Vypin(BW)	0.08	76° 12' 8.73" E	10° 5' 9.31" N
174	Edavanakkad	Edavanakkad	174	34	C43K4/SE	Island In Edavanakkad,Vypin(BW)	0.07	76° 11' 48.47" E	10° 5' 15.60" N
175	Edavanakkad	Edavanakkad	175	34	C43K4/SE	Island In Edavanakkad,Vypin(BW)	0.01	76° 12' 14.16" E	10° 5' 0.35" N
176	Edavanakkad	Edavanakkad	176	34	C43K4/SE	Island In Edavanakkad,Vypin(BW)	0.03	76° 11' 47.59" E	10° 5' 14.62" N
177	Edavanakkad	Edavanakkad	177	34	C43K4/SE	Island In Edavanakkad,Vypin(BW)	0.02	76° 12' 15.56" E	10° 4' 58.69" N
178	Edavanakkad	Edavanakkad	178	34	C43K4/SE	Island In Edavanakkad,Vypin(BW)	0.07	76° 11' 50.61" E	10° 5' 14.60" N
179	Edavanakkad	Edavanakkad	179	34	C43K4/SE	Island In Edavanakkad,Vypin(BW)	0.03	76° 12' 14.67" E	10° 4' 58.85" N
180	Edavanakkad	Edavanakkad	180	34	C43K4/SE	Island In Edavanakkad,Vypin(BW)	0.06	76° 11' 49.39" E	10° 5' 11.66" N
181	Edavanakkad	Edavanakkad	181	34	C43K4/SE	Island In Edavanakkad,Vypin(BW)	0.02	76° 12' 15.10" E	10° 4' 57.35" N
182	Edavanakkad	Edavanakkad	182	34	C43K4/SE	Island In Edavanakkad,Vypin(BW)	0.03	76° 11' 45.97" E	10° 5' 7.08" N

183	Edavanakkad	Edavanakkad	183	34	C43K4/SE	Island In Edavanakkad,Vypin(BW)	0.01	76° 12' 13.77" E	10° 4' 56.88" N
184	Edavanakkad	Edavanakkad	184	34	C43K4/SE	Island In Edavanakkad,Vypin(BW)	0.07	76° 11' 44.76" E	10° 5' 6.45" N
185	Edavanakkad	Edavanakkad	185	34	C43K4/SE	Island In Edavanakkad,Vypin(BW)	0.05	76° 12' 19.58" E	10° 4' 50.64" N
186	Edavanakkad	Edavanakkad	186	34	C43K4/SE	Island In Edavanakkad,Vypin(BW)	0.03	76° 11' 39.98" E	10° 5' 6.80" N
187	Edavanakkad	Edavanakkad	187	34	C43K4/SE	Island In Edavanakkad,Vypin(BW)	0.16	76° 12' 17.29" E	10° 4' 47.20" N
188	Edavanakkad	Edavanakkad	188	34	C43K4/SE	Island In Edavanakkad,Vypin(BW)	0.43	76° 11' 53.08" E	10° 5' 10.14" N
189	Edavanakkad	Edavanakkad	189	34	C43K4/SE	Island In Edavanakkad,Vypin(BW)	0.14	76° 12' 19.15" E	10° 4' 46.07" N
190	Edavanakkad	Edavanakkad	190	34	C43K4/SE	Island In Edavanakkad,Vypin(BW)	0.14	76° 11' 58.16" E	10° 5' 9.09" N
191	Edavanakkad	Edavanakkad	191	34	C43K4/SE	Island In Edavanakkad,Vypin(BW)	0.03	76° 11' 54.66" E	10° 5' 6.46" N
192	Edavanakkad	Edavanakkad	192	34	C43K4/SE	Island In Edavanakkad,Vypin(BW)	9.62	76° 12' 2.44" E	10° 5' 3.98" N
193	Edavanakkad	Edavanakkad	193	34	C43K4/SE	Island In Edavanakkad,Vypin(BW)	0.04	76° 11' 58.66" E	10° 5' 2.27" N
194	Edavanakkad	Edavanakkad	194	34	C43K4/SE	Island In Edavanakkad,Vypin(BW)	0.02	76° 11' 56.28" E	10° 5' 1.89" N
195	Edavanakkad	Edavanakkad	195	34	C43K4/SE	Island In Edavanakkad,Vypin(BW)	0.07	76° 11' 52.99" E	10° 5' 1.59" N
196	Edavanakkad	Edavanakkad	196	34	C43K4/SE	Island In Edavanakkad,Vypin(BW)	0.02	76° 11' 50.36" E	10° 4' 57.77" N
197	Edavanakkad	Edavanakkad	197	34	C43K4/SE	Island In Edavanakkad,Vypin(BW)	0.04	76° 11' 55.47" E	10° 4' 59.02" N
198	Edavanakkad	Edavanakkad	198	34	C43K4/SE	Island In Edavanakkad,Vypin(BW)	0.02	76° 11' 57.01" E	10° 4' 59.44" N
199	Edavanakkad	Edavanakkad	199	34	C43K4/SE	Island In Edavanakkad,Vypin(BW)	0.02	76° 11' 57.11" E	10° 5' 0.54" N
200	Edavanakkad	Edavanakkad	200	34	C43K4/SE	Island In Edavanakkad,Vypin(BW)	0.02	76° 11' 58.98" E	10° 5' 0.60" N
201	Edavanakkad	Edavanakkad	201	34	C43K4/SE	Island In Edavanakkad,Vypin(BW)	0.02	76° 11' 59.17" E	10° 5' 0.30" N
202	Edavanakkad	Edavanakkad	202	34	C43K4/SE	Island In Edavanakkad,Vypin(BW)	0.07	76° 12' 9.53" E	10° 4' 58.51" N
203	Edavanakkad	Edavanakkad	203	34	C43K4/SE	Island In Edavanakkad,Vypin(BW)	0.05	76° 12' 9.30" E	10° 4' 55.89" N
204	Edavanakkad	Edavanakkad	204	34	C43K4/SE	Island In Edavanakkad,Vypin(BW)	4.71	76° 12' 10.54" E	10° 4' 50.21" N
205	Edavanakkad	Edavanakkad	205	34	C43K4/SE	Island In Edavanakkad,Vypin(BW)	0.03	76° 12' 7.01" E	10° 4' 57.21" N
206	Edavanakkad	Edavanakkad	206	34	C43K4/SE	Island In Edavanakkad,Vypin(BW)	0.03	76° 12' 5.28" E	10° 4' 53.17" N
207	Edavanakkad	Edavanakkad	207	34	C43K4/SE	Island In Edavanakkad,Vypin(BW)	0.02	76° 12' 5.49" E	10° 4' 52.58" N
208	Edavanakkad	Edavanakkad	208	34	C43K4/SE	Island In Edavanakkad,Vypin(BW)	0.02	76° 12' 4.69" E	10° 4' 52.17" N
209	Edavanakkad	Edavanakkad	209	34	C43K4/SE	Island In Edavanakkad,Vypin(BW)	0.08	76° 12' 6.32" E	10° 4' 51.73" N
210	Edavanakkad	Edavanakkad	210	34	C43K4/SE	Island In Edavanakkad,Vypin(BW)	0.04	76° 12' 6.79" E	10° 4' 50.73" N
211	Edavanakkad	Edavanakkad	211	34	C43K4/SE	Island In Edavanakkad,Vypin(BW)	0.13	76° 12' 8.27" E	10° 4' 48.69" N

212	Edavanakkad	Edavanakkad	212	34	C43K4/SE	Island In Edavanakkad,Vypin(BW)	1.29	76° 12' 6.02" E	10° 4' 47.03" N
213	Edavanakkad	Edavanakkad	213	34	C43K4/SE	Island In Edavanakkad,Vypin(BW)	0.03	76° 12' 3.35" E	10° 4' 50.48" N
214	Edavanakkad	Edavanakkad	214	34	C43K4/SE	Island In Edavanakkad,Vypin(BW)	0.04	76° 12' 0.64" E	10° 4' 49.06" N
215	Edavanakkad	Edavanakkad	215	34	C43K4/SE	Island In Edavanakkad,Vypin(BW)	0.07	76° 11' 57.59" E	10° 4' 48.22" N
216	Edavanakkad	Edavanakkad	216	34	C43K4/SE	Island In Edavanakkad,Vypin(BW)	0.04	76° 12' 0.13" E	10° 4' 44.30" N
217	Edavanakkad	Edavanakkad	217	34	C43K4/SE	Island In Edavanakkad,Vypin(BW)	0.02	76° 11' 55.87" E	10° 4' 41.66" N
218	Edavanakkad	Edavanakkad	218	34	C43K4/SE	Island In Edavanakkad,Vypin(BW)	0.18	76° 11' 56.51" E	10° 4' 39.53" N
219	Edavanakkad	Edavanakkad	219	34	C43K4/SE	Island In Edavanakkad,Vypin(BW)	0.13	76° 11' 57.85" E	10° 4' 38.06" N
220	Edavanakkad	Edavanakkad	220	34	C43K4/SE	Island In Edavanakkad,Vypin(BW)	0.01	76° 11' 59.88" E	10° 4' 39.34" N
221	Edavanakkad	Edavanakkad	221	34	C43K4/SE	Island In Edavanakkad,Vypin(BW)	3.07	76° 12' 12.27" E	10° 4' 39.37" N
222	Edavanakkad	Edavanakkad	222	34	C43K4/SE	Island In Edavanakkad,Vypin(BW)	0.02	76° 12' 1.18" E	10° 4' 39.59" N
223	Edavanakkad	Edavanakkad	223	34	C43K4/SE	Island In Edavanakkad,Vypin(BW)	0.03	76° 12' 2.30" E	10° 4' 37.55" N
224	Edavanakkad	Edavanakkad	224	34	C43K4/SE	Island In Edavanakkad,Vypin(BW)	0.01	76° 12' 4.16" E	10° 4' 40.48" N
225	Edavanakkad	Edavanakkad	225	34	C43K4/SE	Island In Edavanakkad,Vypin(BW)	0.01	76° 12' 5.00" E	10° 4' 38.74" N
226	Edavanakkad	Edavanakkad	226	34	C43K4/SE	Island In Edavanakkad,Vypin(BW)	0.02	76° 12' 5.52" E	10° 4' 37.74" N
227	Edavanakkad	Edavanakkad	227	34	C43K4/SE	Island In Edavanakkad,Vypin(BW)	0.03	76° 12' 6.23" E	10° 4' 36.88" N
228	Edavanakkad	Edavanakkad	228	34	C43K4/SE	Island In Edavanakkad,Vypin(BW)	0.01	76° 12' 8.78" E	10° 4' 38.13" N
229	Edavanakkad	Edavanakkad	229	34	C43K4/SE	Island In Edavanakkad,Vypin(BW)	0.09	76° 12' 12.59" E	10° 4' 44.12" N
230	Edavanakkad	Edavanakkad	230	34	C43K4/SE	Island In Edavanakkad,Vypin(BW)	0.65	76° 12' 15.77" E	10° 4' 44.17" N
231	Edavanakkad	Edavanakkad	231	34	C43K4/SE	Island In Edavanakkad,Vypin(BW)	0.11	76° 12' 16.19" E	10° 4' 42.23" N
232	Edavanakkad	Edavanakkad	232	34	C43K4/SE	Island In Edavanakkad,Vypin(BW)	0.41	76° 12' 18.58" E	10° 4' 37.54" N
233	Edavanakkad	Edavanakkad	233	34	C43K4/SE	Island In Edavanakkad,Vypin(BW)	0.05	76° 12' 13.52" E	10° 4' 36.51" N
234	Edavanakkad	Edavanakkad	234	34	C43K4/SE	Island In Edavanakkad,Vypin(BW)	0.06	76° 12' 10.85" E	10° 4' 35.51" N
235	Edavanakkad	Edavanakkad	235	34	C43K4/SE	Island In Edavanakkad,Vypin(BW)	0.02	76° 12' 11.22" E	10° 4' 34.11" N
236	Edavanakkad	Edavanakkad	236	34	C43K4/SE	Island In Edavanakkad,Vypin(BW)	0.02	76° 12' 12.90" E	10° 4' 33.48" N
237	Edavanakkad	Edavanakkad	237	34	C43K4/SE	Island In Edavanakkad,Vypin(BW)	0.02	76° 12' 12.27" E	10° 4' 31.65" N
238	Nayarambalam	Nayarambalam	238	34	C43K4/SE	Island near nayarambalam(BW)	0.05	76° 12' 14.91" E	10° 4' 29.68" N
239	Nayarambalam	Nayarambalam	239	34	C43K4/SE	Island near nayarambalam(BW)	0.01	76° 12' 15.32" E	10° 4' 28.55" N
240	Edavanakkad	Edavanakkad	240	34	C43K4/SE	Island In Edavanakkad,Vypin(BW)	0.02	76° 12' 1.86" E	10° 4' 28.04" N

241	Edavanakkad	Edavanakkad	241	34	C43K4/SE	Island In Edavanakkad,Vypin(BW)	0.02	76° 12' 2.49" E	10° 4' 26.28" N
242	Nayarambalam	Nayarambalam	242	34	C43K4/SE	Island near nayarambalam,Vypin(BW)	0.03	76° 12' 16.37" E	10° 4' 25.80" N
243	Nayarambalam	Nayarambalam	243	34	C43K4/SE	Island near nayarambalam,Vypin(BW)	0.05	76° 12' 17.97" E	10° 4' 24.58" N
244	Nayarambalam	Nayarambalam	244	34	C43K4/SE	Island near nayarambalam,Vypin(BW)	0.14	76° 11' 52.44" E	10° 4' 20.93" N
245	Nayarambalam	Nayarambalam	245	34	C43K4/SE	Island near nayarambalam,Vypin(BW)	0.38	76° 11' 53.42" E	10° 4' 18.97" N
246	Nayarambalam	Nayarambalam	246	34	C43K4/SE	Island near nayarambalam,Vypin(BW)	0.10	76° 11' 54.19" E	10° 4' 17.13" N
247	Nayarambalam	Nayarambalam	247	34	C43K4/SE	Island near nayarambalam,Vypin(BW)	0.38	76° 11' 52.84" E	10° 4' 14.63" N
248	Nayarambalam	Nayarambalam	248	34	C43K4/SE	Island near nayarambalam,Vypin(BW)	0.06	76° 11' 54.65" E	10° 4' 13.73" N
249	Nayarambalam	Nayarambalam	249	34	C43K4/SE	Island near nayarambalam,Vypin(BW)	0.02	76° 12' 20.01" E	10° 4' 19.00" N
250	Nayarambalam	Nayarambalam	250	34	C43K4/SE	Island near nayarambalam,Vypin(BW)	0.05	76° 12' 19.12" E	10° 4' 17.79" N
251	Nayarambalam	Nayarambalam	251	34	C43K4/SE	Island near nayarambalam,Vypin(BW)	0.02	76° 12' 19.65" E	10° 4' 16.50" N
252	Nayarambalam	Nayarambalam	252	34	C43K4/SE	Island near nayarambalam,Vypin(BW)	0.06	76° 12' 20.01" E	10° 4' 15.65" N
253	Nayarambalam	Nayarambalam	253	34	C43K4/SE	Island near nayarambalam,Vypin(BW)	0.03	76° 12' 16.45" E	10° 4' 13.39" N
254	Nayarambalam	Nayarambalam	254	34	C43K4/SE	Island near nayarambalam,Vypin(BW)	0.03	76° 12' 23.24" E	10° 4' 9.80" N
255	Nayarambalam	Nayarambalam	255	34	C43K4/SE	Island near nayarambalam,Vypin(BW)	0.37	76° 12' 26.29" E	10° 3' 57.89" N
256	Nayarambalam	Nayarambalam	256	34	C43K4/SE	Island near nayarambalam,Vypin(BW)	0.26	76° 12' 21.24" E	10° 3' 55.92" N
257	Nayarambalam	Nayarambalam	257	34	C43K4/SE	Island near nayarambalam,Vypin(BW)	0.12	76° 12' 15.72" E	10° 3' 54.22" N
258	Nayarambalam	Nayarambalam	258	34	C43K4/SE	Island near nayarambalam,Vypin(BW)	0.15	76° 12' 9.67" E	10° 3' 52.86" N
259	Nayarambalam	Nayarambalam	259	34	C43K4/SE	Island near nayarambalam,Vypin(BW)	0.99	76° 12' 3.66" E	10° 3' 45.44" N
260	Nayarambalam	Nayarambalam	260	34	C43K4/SE	Island near nayarambalam,Vypin(BW)	0.06	76° 12' 8.78" E	10° 3' 48.84" N
261	Nayarambalam	Nayarambalam	261	34	C43K4/SE	Island near nayarambalam,Vypin(BW)	0.28	76° 12' 10.14" E	10° 3' 50.58" N
262	Nayarambalam	Nayarambalam	262	34	C43K4/SE	Island near nayarambalam,Vypin(BW)	0.14	76° 12' 12.42" E	10° 3' 52.35" N
263	Nayarambalam	Nayarambalam	263	34	C43K4/SE	Island near nayarambalam,Vypin(BW)	0.04	76° 12' 16.47" E	10° 3' 52.61" N
264	Nayarambalam	Nayarambalam	264	34	C43K4/SE	Island near nayarambalam,Vypin(BW)	0.04	76° 12' 16.63" E	10° 3' 53.69" N
265	Nayarambalam	Nayarambalam	265	34	C43K4/SE	Island near nayarambalam,Vypin(BW)	0.06	76° 12' 19.26" E	10° 3' 54.4" N
266	Nayarambalam	Nayarambalam	266	34	C43K4/SE	Island near nayarambalam,Vypin(BW)	0.02	76° 12' 10.14" E	10° 3' 48.27" N
267	Nayarambalam	Nayarambalam	267	34	C43K4/SE	Island near nayarambalam,Vypin(BW)	0.06	76° 12' 31.53" E	10° 3' 41.93" N
268	Nayarambalam	Nayarambalam	268	34	C43K4/SE	Island near nayarambalam,Vypin(BW)	0.09	76° 12' 31.88" E	10° 3' 40.70" N
269	Nayarambalam	Nayarambalam	269	34	C43K4/SE	Island near nayarambalam,Vypin(BW)	0.05	76° 12' 32.77" E	10° 3' 39.67" N

270	Nayarambalam	Nayarambalam	270	34	C43K4/SE	Island near nayarambalam,Vypin(BW)	0.04	76° 12' 33.01" E	10° 3' 37.30" N
271	Nayarambalam	Nayarambalam	271	34	C43K4/SE	Island near nayarambalam,Vypin(BW)	0.07	76° 12' 33.67" E	10° 3' 35.88" N
272	Nayarambalam	Nayarambalam	272	34	C43K4/SE	Island near nayarambalam,Vypin(BW)	0.03	76° 12' 7.57" E	10° 3' 30.13" N
273	Nayarambalam	Nayarambalam	273	34	C43K4/SE	Island near nayarambalam,Vypin(BW)	0.07	76° 12' 9.75" E	10° 3' 29.75" N
274	Nayarambalam	Nayarambalam	274	34	C43K4/SE	Island near nayarambalam,Vypin(BW)	0.13	76° 12' 11.66" E	10° 3' 26.14" N
275	Nayarambalam	Nayarambalam	275	34	C43K4/SE	Island near nayarambalam,Vypin(BW)	0.13	76° 12' 12.78" E	10° 3' 23.50" N
276	Nayarambalam	Nayarambalam	276	34	C43K4/SE	Island near nayarambalam,Vypin(BW)	0.14	76° 12' 13.14" E	10° 3' 21.59" N
277	Nayarambalam	Nayarambalam	277	34	C43K4/SE	Island near nayarambalam,Vypin(BW)	0.19	76° 12' 13.46" E	10° 3' 20.32" N
278	Nayarambalam	Nayarambalam	278	34	C43K4/SE	Island near nayarambalam,Vypin(BW)	0.35	76° 12' 14.38" E	10° 3' 13.52" N
279	Nayarambalam	Nayarambalam	279	34	C43K4/SE	Island near nayarambalam,Vypin(BW)	0.04	76° 12' 11.95" E	10° 3' 12.21" N
280	Nayarambalam	Nayarambalam	280	34	C43K4/SE	Island near nayarambalam,Vypin(BW)	0.03	76° 12' 12.77" E	10° 3' 11.54" N
281	Nayarambalam	Nayarambalam	281	34	C43K4/SE	Island near nayarambalam,Vypin(BW)	0.09	76° 12' 15.32" E	10° 3' 9.75" N
282	Nayarambalam	Nayarambalam	282	34	C43K4/SE	Island near nayarambalam,Vypin(BW)	0.1	76° 12' 16.72" E	10° 3' 10.49" N
283	Nayarambalam	Nayarambalam	283	34	C43K4/SE	Island near nayarambalam,Vypin(BW)	0.05	76° 12' 34.73" E	10° 3' 14.63" N
284	Nayarambalam	Nayarambalam	284	34	C43K4/SE	Island near nayarambalam,Vypin(BW)	0.05	76° 12' 40.84" E	10° 3' 15.55" N
285	Nayarambalam	Nayarambalam	285	34	C43K4/SE	Island near nayarambalam,Vypin(BW)	1.08	76° 12' 39.04" E	10° 3' 13.45" N
286	Nayarambalam	Nayarambalam	286	34	C43K4/SE	Island near nayarambalam,Vypin(BW)	0.08	76° 12' 43.77" E	10° 3' 8.00" N
287	Nayarambalam	Nayarambalam	287	34	C43K4/SE	Island near nayarambalam,Vypin(BW)	0.10	76° 12' 41.11" E	10° 3' 6.94" N
288	Nayarambalam	Nayarambalam	288	34	C43K4/SE	Island near nayarambalam,Vypin(BW)	0.17	76° 12' 23.41" E	10° 2' 53.94" N
289	Nayarambalam	Nayarambalam	289	34	C43K4/SE	Island near nayarambalam,Vypin(BW)	0.20	76° 12' 23.93" E	10° 2' 52.94" N
290	Njarakkal	Njarakkal	290	34	C43K4/SE	Island near nayarambalam,Vypin(BW)	0.03	76° 12' 30.98" E	10° 2' 48.06" N
291	Njarakkal	Njarakkal	291	34	C43K4/SE	Island near nayarambalam,Vypin(BW)	0.06	76° 12' 32.87" E	10° 2' 45.43" N
292	Njarakkal	Njarakkal	292	34	C43K4/SE	Island near nayarambalam,Vypin(BW)	0.01	76° 12' 41.22" E	10° 2' 52.64" N
293	Njarakkal	Njarakkal	293	34	C43K4/SE	Island near nayarambalam,Vypin(BW)	0.02	76° 12' 41.55" E	10° 2' 52.17" N
294	Njarakkal	Njarakkal	294	34	C43K4/SE	Island near nayarambalam,Vypin(BW)	0.05	76° 12' 41.47" E	10° 2' 50.87" N
295	Njarakkal	Njarakkal	295	34	C43K4/SE	Island near nayarambalam,Vypin(BW)	0.16	76° 12' 44.37" E	10° 2' 50.63" N
296	Njarakkal	Njarakkal	296	34	C43K4/SE	Island near njarackal,Vypin(BW)	0.05	76° 12' 44.61" E	10° 2' 47.08" N
297	Njarakkal	Njarakkal	297	34	C43K4/SE	Island near njarackal,Vypin(BW)	0.06	76° 12' 45.83" E	10° 2' 41.70" N
298	Njarakkal	Njarakkal	298	34	C43K4/SE	Island near njarackal,Vypin(BW)	1.82	76° 12' 47.92" E	10° 2' 37.82" N

299	Njarakkal	Njarakkal	299	34	C43K4/SE	Island near njarackal,Vypin(BW)	0.06	76° 12' 44.59" E	10° 2' 38.52" N
300	Njarakkal	Njarakkal	300	34	C43K4/SE	Island near njarackal,Vypin(BW)	0.03	76° 12' 42.81" E	10° 2' 39.67" N
301	Njarakkal	Njarakkal	301	34	C43K4/SE	Island near njarackal,Vypin(BW)	0.01	76° 12' 29.19" E	10° 2' 39.61" N
302	Njarakkal	Njarakkal	302	34	C43K4/SE	Island near njarackal,Vypin(BW)	0.02	76° 12' 29.70" E	10° 2' 39.20" N
303	Njarakkal	Njarakkal	303	34	C43K4/SE	Island near njarackal,Vypin(BW)	0.19	76° 12' 28.86" E	10° 2' 38.05" N
304	Njarakkal	Njarakkal	304	34	C43K4/SE	Island near njarackal,Vypin(BW)	0.02	76° 12' 31.02" E	10° 2' 37.66" N
305	Njarakkal	Njarakkal	305	34	C43K4/SE	Island near njarackal,Vypin(BW)	0.04	76° 12' 31.85" E	10° 2' 36.58" N
306	Njarakkal	Njarakkal	306	34	C43K4/SE	Island near njarackal,Vypin(BW)	0.27	76° 12' 30.38" E	10° 2' 34.88" N
307	Njarakkal	Njarakkal	307	34	C43K4/SE	Island near njarackal,Vypin(BW)	0.06	76° 12' 33.46" E	10° 2' 34.41" N
308	Njarakkal	Njarakkal	308	34	C43K4/SE	Island near njarackal,Vypin(BW)	0.02	76° 12' 32.12" E	10° 2' 31.59" N
309	Njarakkal	Njarakkal	309	34	C43K4/SE	Island near njarackal,Vypin(BW)	4.46	76° 12' 37.63" E	10° 2' 21.63" N
310	Njarakkal	Njarakkal	310	34	C43K4/SE	Island near njarackal,Vypin(BW)	0.01	76° 12' 34.58" E	10° 2' 29.44" N
311	Njarakkal	Njarakkal	311	34	C43K4/SE	Island near njarackal,Vypin(BW)	0.01	76° 12' 33.93" E	10° 2' 29.07" N
312	Njarakkal	Njarakkal	312	34	C43K4/SE	Island near njarackal,Vypin(BW)	0.03	76° 12' 39.80" E	10° 2' 23.84" N
313	Njarakkal	Njarakkal	313	34	C43K4/SE	Island near njarackal,Vypin(BW)	0.13	76° 12' 40.64" E	10° 2' 22.20" N
314	Njarakkal	Njarakkal	314	34	C43K4/SE	Island near njarackal,Vypin(BW)	0.08	76° 12' 41.62" E	10° 2' 20.71" N
315	Njarakkal	Njarakkal	315	34	C43K4/SE	Island near njarackal,Vypin(BW)	0.05	76° 12' 44.30" E	10° 2' 16.50" N
316	Njarakkal	Njarakkal	316	34	C43K4/SE	Island near njarackal,Vypin(BW)	0.03	76° 12' 45.19" E	10° 2' 15.36" N
317	Njarakkal	Njarakkal	317	34	C43K4/SE	Island near njarackal,Vypin(BW)	0.04	76° 12' 48.44" E	10° 2' 11.15" N
318	Njarakkal	Njarakkal	318	34	C43K4/SE	Island near njarackal,Vypin(BW)	0.02	76° 12' 41.99" E	10° 2' 10.84" N
319	Njarakkal	Njarakkal	319	34	C43K4/SE	Island near njarackal,Vypin(BW)	0.12	76° 12' 35.39" E	10° 2' 13.48" N
320	Njarakkal	Njarakkal	320	34	C43K4/SE	Island near njarackal,Vypin(BW)	0.22	76° 12' 35.22" E	10° 2' 14.97" N
321	Njarakkal	Njarakkal	321	34	C43K4/SE	Island near njarackal,Vypin(BW)	0.40	76° 12' 33.11" E	10° 2' 11.33" N
322	Njarakkal	Njarakkal	322	34	C43K4/SE	Island near perumpilly,njarackal(BW)	0.08	76° 12' 51.47" E	10° 2' 7.02" N
323	Njarakkal	Njarakkal	323	34	C43K4/SE	Island near perumpilly,njarackal(BW)	0.98	76° 12' 50.63" E	10° 2' 2.96" N
324	Njarakkal	Njarakkal	324	34	C43K4/SE	Island near perumpilly,njarackal(BW)	0.01	76° 12' 46.65" E	10° 2' 0.83" N
325	Njarakkal	Njarakkal	325	34	C43K4/SE	Island near perumpilly,njarackal(BW)	0.03	76° 12' 48.18" E	10° 1' 58.03" N
326	Njarakkal	Njarakkal	326	34	C43K4/SE	Island near perumpilly,njarackal(BW)	0.05	76° 12' 41.18" E	10° 1' 54.96" N
327	Njarakkal	Njarakkal	327	34	C43K4/SE	Island near perumpilly,njarackal(BW)	0.05	76° 12' 43.07" E	10° 1' 52.63" N

328	Njarakkal	Njarakkal	328	34	C43K4/SE	Island near perumpilly,njarackal(BW)	0.05	76° 12' 50.21" E	10° 1' 54.49" N
329	Njarakkal	Njarakkal	329	34	C43K4/SE	Island near perumpilly,njarackal(BW)	0.05	76° 12' 45.17" E	10° 1' 50.70" N
330	Njarakkal	Njarakkal	330	34	C43K4/SE	Island near perumpilly,njarackal(BW)	0.04	76° 12' 45.87" E	10° 1' 49.39" N
331	Njarakkal	Njarakkal	331	34	C43K4/SE	Island near perumpilly,njarackal(BW)	0.02	76° 12' 46.31" E	10° 1' 48.38" N
332	Njarakkal	Njarakkal	332	34	C43K4/SE	Island near perumpilly,njarackal(BW)	0.09	76° 12' 46.74" E	10° 1' 47.38" N
333	Njarakkal	Njarakkal	333	34	C43K4/SE	Island near perumpilly,njarackal(BW)	0.01	76° 12' 47.26" E	10° 1' 46.70" N
334	Njarakkal	Njarakkal	334	34	C43K4/SE	Island near perumpilly,njarackal(BW)	0.06	76° 12' 53.11" E	10° 1' 52.13" N
335	Njarakkal	Njarakkal	335	34	C43K4/SE	Island near perumpilly,njarackal(BW)	0.55	76° 12' 51.89" E	10° 1' 49.23" N
336	Njarakkal	Njarakkal	336	34	C43K4/SE	Island near perumpilly,njarackal(BW)	2.93	76° 12' 57.15" E	10° 1' 53.64" N
337	Elamkunnappuzha	Elamkunnappuzha	337	34	C43K4/SE	Island near perumpilly,njarackal(BW)	0.06	76° 12' 55.92" E	10° 1' 47.76" N
338	Elamkunnappuzha	Elamkunnappuzha	338	34	C43K4/SE	Island near perumpilly,njarackal(BW)	0.01	76° 12' 44.89" E	10° 1' 42.98" N
339	Elamkunnappuzha	Elamkunnappuzha	339	34	C43K4/SE	Island near perumpilly,njarackal(BW)	0.03	76° 12' 44.11" E	10° 1' 42.29" N
340	Elamkunnappuzha	Elamkunnappuzha	340	34	C43K4/SE	Island near perumpilly,njarackal(BW)	2.69	76° 13' 2.33" E	10° 1' 47.58" N
341	Elamkunnappuzha	Elamkunnappuzha	341	34	C43K4/SE	Island near Elamkunnappuzha,Vypin(BW)	0.40	76° 13' 0.38" E	10° 1' 42.03" N
342	Elamkunnappuzha	Elamkunnappuzha	342	34	C43K4/SE	Island near Elamkunnappuzha,Vypin(BW)	0.04	76° 13' 1.54" E	10° 1' 38.48" N
343	Elamkunnappuzha	Elamkunnappuzha	343	34	C43K4/SE	Island near Elamkunnappuzha,Vypin(BW)	2.96	76° 13' 7.82" E	10° 1' 39.72" N
344	Elamkunnappuzha	Elamkunnappuzha	344	34	C43K4/SE	Island near Elamkunnappuzha,Vypin(BW)	1.47	76° 13' 10.62" E	10° 1' 34.12" N
345	Elamkunnappuzha	Elamkunnappuzha	345	34	C43K4/SE	Island near Elamkunnappuzha,Vypin(BW)	0.18	76° 12' 55.86" E	10° 1' 20.54" N
346	Elamkunnappuzha	Elamkunnappuzha	346	34	C43K4/SE	Island near Elamkunnappuzha,Vypin(BW)	0.95	76° 13' 12.56" E	10° 1' 30.75" N
347	Elamkunnappuzha	Elamkunnappuzha	347	34	C43K4/SE	Island near Elamkunnappuzha,Vypin(BW)	2.06	76° 13' 15.12" E	10° 1' 25.30" N
348	Elamkunnappuzha	Elamkunnappuzha	348	34	C43K4/SE	Island near Elamkunnappuzha,Vypin(BW)	2.86	76° 13' 18.37" E	10° 1' 19.39" N
349	Elamkunnappuzha	Elamkunnappuzha	349	34	C43K4/SE	Island near Maliapuram,Vypin(BW)	1.13	76° 13' 22.31" E	10° 1' 13.85" N
350	Elamkunnappuzha	Elamkunnappuzha	350	34	C43K4/SE	Island near Maliapuram,Vypin(BW)	0.01	76° 13' 10.21" E	10° 1' 7.27" N
351	Elamkunnappuzha	Elamkunnappuzha	351	34	C43K4/SE	Island near Maliapuram,Vypin(BW)	0.09	76° 13' 10.34" E	10° 1' 6.37" N
352	Elamkunnappuzha	Elamkunnappuzha	352	34	C43K4/SE	Island near Maliapuram,Vypin(BW)	0.03	76° 13' 12.63" E	10° 1' 6.69" N
353	Elamkunnappuzha	Elamkunnappuzha	353	34	C43K4/SE	Island near Maliapuram,Vypin(BW)	0.01	76° 13' 12.35" E	10° 1' 5.37" N

354	Elamkunnappuzha	Elamkunnappuzha	354	34	C43K4/SE	Island near Maliapuram, Vypin(BW)	0.03	76° 13' 11.64" E	10° 1' 5.42" N
355	Elamkunnappuzha	Elamkunnappuzha	355	34	C43K4/SE	Island near Maliapuram, Vypin(BW)	0.02	76° 13' 11.30" E	10° 1' 5.03" N
356	Elamkunnappuzha	Elamkunnappuzha	356	34	C43K4/SE	Island near Maliapuram, Vypin(BW)	0.18	76° 13' 12.81" E	10° 1' 4.64" N
357	Elamkunnappuzha	Elamkunnappuzha	357	34	C43K4/SE	Island near Maliapuram, Vypin(BW)	0.19	76° 13' 7.63" E	10° 0' 59.32" N
358	Elamkunnappuzha	Elamkunnappuzha	358	34	C43K4/SE	Island near Maliapuram, Vypin(BW)	2.32	76° 13' 16.25" E	10° 1' 0.42" N
359	Elamkunnappuzha	Elamkunnappuzha	359	34	C43K4/SE	Island near Maliapuram, Vypin(BW)	0.52	76° 13' 28.78" E	10° 1' 4.03" N
360	Elamkunnappuzha	Elamkunnappuzha	360	34	C43K4/SE	Island near Maliapuram, Vypin(BW)	0.81	76° 13' 30.72" E	10° 0' 59.19" N
361	Elamkunnappuzha	Elamkunnappuzha	361	34	C43K4/SE	Island near Maliapuram, Vypin(BW)	5.52	76° 13' 17.21" E	10° 0' 50.57" N
362	Elamkunnappuzha	Elamkunnappuzha	362	34	C43K4/SE	Island near Maliapuram, Vypin(BW)	0.02	76° 13' 19.59" E	10° 0' 45.62" N
363	Elamkunnappuzha	Elamkunnappuzha	363	34	C43K4/SE	Island near Maliapuram, Vypin(BW)	0.02	76° 13' 13.49" E	10° 0' 49.71" N
364	Elamkunnappuzha	Elamkunnappuzha	364	34	C43K4/SE	Island near Valappu, Vypin(BW)	0.01	76° 13' 11.93" E	10° 0' 49.55" N
365	Elamkunnappuzha	Elamkunnappuzha	365	34	C43K4/SE	Island near Valappu, Vypin(BW)	0.30	76° 13' 10.80" E	10° 0' 51.03" N
366	Elamkunnappuzha	Elamkunnappuzha	366	34	C43K4/SE	Island near Valappu, Vypin(BW)	0.40	76° 13' 9.31" E	10° 0' 48.69" N
367	Elamkunnappuzha	Elamkunnappuzha	367	34	C43K4/SE	Island near Valappu, Vypin(BW)	0.04	76° 13' 9.25" E	10° 0' 44.94" N
368	Elamkunnappuzha	Elamkunnappuzha	368	34	C43K4/SE	Island near Valappu, Vypin(BW)	0.15	76° 13' 6.60" E	10° 0' 42.97" N
369	Elamkunnappuzha	Elamkunnappuzha	369	34	C43K4/SE	Island near Valappu, Vypin(BW)	0.01	76° 13' 12.85" E	10° 0' 43.40" N
370	Elamkunnappuzha	Elamkunnappuzha	370	34	C43K4/SE	Island near Valappu, Vypin(BW)	0.02	76° 13' 12.21" E	10° 0' 42.34" N
371	Elamkunnappuzha	Elamkunnappuzha	371	34	C43K4/SE	Island near Valappu, Vypin(BW)	0.07	76° 13' 10.08" E	10° 0' 40.74" N
372	Elamkunnappuzha	Elamkunnappuzha	372	34	C43K4/SE	Island near Valappu, Vypin(BW)	0.06	76° 13' 11.90" E	10° 0' 40.90" N
373	Elamkunnappuzha	Elamkunnappuzha	373	34	C43K4/SE	Island near Valappu, Vypin(BW)	0.02	76° 13' 13.18" E	10° 0' 41.17" N
374	Elamkunnappuzha	Elamkunnappuzha	374	34	C43K4/SE	Island near Valappu, Vypin(BW)	0.27	76° 13' 14.40" E	10° 0' 28.49" N
375	Elamkunnappuzha	Elamkunnappuzha	375	34	C43K4/SE	Island near Valappu, Vypin(BW)	0.41	76° 13' 23.58" E	10° 0' 30.82" N
376	Elamkunnappuzha	Elamkunnappuzha	376	34	C43K4/SE	Island near Valappu, Vypin(BW)	0.18	76° 13' 23.91" E	10° 0' 41.89" N
377	Elamkunnappuzha	Elamkunnappuzha	377	34	C43K4/SE	Island near Valappu, Vypin(BW)	0.13	76° 13' 37.10" E	10° 0' 28.28" N
378	Elamkunnappuzha	Elamkunnappuzha	378	34	C43K4/SE	Island near Valappu, Vypin(BW)	0.03	76° 13' 37.82" E	10° 0' 27.75" N
379	Elamkunnappuzha	Elamkunnappuzha	379	34	C43K4/SE	Island near Vypin, Kochi(BW)	0.07	76° 13' 40.85" E	10° 0' 23.40" N
380	Elamkunnappuzha	Elamkunnappuzha	380	34	C43K4/SE	Island near Vypin, Kochi(BW)	1.30	76° 13' 43.02" E	10° 0' 20.80" N
381	Elamkunnappuzha	Elamkunnappuzha	381	34	C43K4/SE	Island near Puthuvype, kochi(BW)	0.11	76° 13' 46.94" E	10° 0' 8.61" N
382	Elamkunnappuzha	Elamkunnappuzha	382	34	C43K4/SE	Island near Puthuvype, kochi(BW)	0.13	76° 13' 44.70" E	10° 0' 7.77" N

383	Elamkunnappuzha	Elamkunnappuzha	383	34	C43K4/SE	Island near Puthuvype,kochi(BW)	0.13	76° 13' 42.98" E	10° 0' 7.03" N
384	Elamkunnappuzha	Elamkunnappuzha	384	34	C43K4/SE	Island near Puthuvype,kochi(BW)	0.05	76° 13' 40.36" E	10° 0' 5.38" N
385	Elamkunnappuzha	Elamkunnappuzha	385	34	C43K4/SE	Island near Puthuvype,kochi(BW)	0.09	76° 13' 43.73" E	10° 0' 1.28" N
386	Elamkunnappuzha	Elamkunnappuzha	386	34	C43K4/SE	Island near Puthuvype,kochi(BW)	0.87	76° 13' 36.10" E	9° 59' 59.48" N
387	Elamkunnappuzha	Elamkunnappuzha	387	31	C43Q1/NE	Island near Puthuvype,kochi(BW)	1.79	76° 13' 32.62" E	9° 59' 57.01" N
388	Elamkunnappuzha	Elamkunnappuzha	388	31	C43Q1/NE	Island near Puthuvype,kochi(BW)	0.05	76° 13' 43.39" E	9° 59' 51.76" N
389	Elamkunnappuzha	Elamkunnappuzha	389	31	C43Q1/NE	Island near Puthuvype,kochi(BW)	0.03	76° 13' 51.56" E	9° 59' 58.31" N
390	Elamkunnappuzha	Puthuvype	390	31	C43Q1/NE	Island near Puthuvype,kochi(BW)	0.01	76° 13' 52.53" E	9° 59' 58.33" N
391	Elamkunnappuzha	Puthuvype	391	31	C43Q1/NE	Island near Puthuvype,kochi(BW)	1.13	76° 14' 0.37" E	9° 59' 51.59" N
392	Elamkunnappuzha	Puthuvype	392	31	C43Q1/NE	Island near Puthuvype,kochi(BW)	0.27	76° 14' 5.20" E	9° 59' 41.46" N
393	Elamkunnappuzha	Puthuvype	393	31	C43Q1/NE	Island near Puthuvype,kochi(BW)	0.50	76° 14' 2.25" E	9° 59' 37.79" N
394	Elamkunnappuzha	Puthuvype	394	31	C43Q1/NE	Island near Puthuvype,kochi(BW)	0.08	76° 13' 59.82" E	9° 59' 36.53" N
395	Elamkunnappuzha	Puthuvype	395	31	C43Q1/NE	Island near Puthuvype,kochi(BW)	0.02	76° 13' 57.77" E	9° 59' 35.43" N
396	Elamkunnappuzha	Puthuvype	396	31	C43Q1/NE	Island near Puthuvype,kochi(BW)	1.20	76° 13' 55.24" E	9° 59' 36.18" N
397	Elamkunnappuzha	Elamkunnappuzha	397	31	C43Q1/NE	Island near Puthuvype,kochi(BW)	0.43	76° 13' 47.46" E	9° 59' 24.93" N
398	Elamkunnappuzha	Elamkunnappuzha	398	31	C43Q1/NE	Island near Puthuvype,kochi(BW)	0.18	76° 13' 54.20" E	9° 59' 22.53" N
399	Elamkunnappuzha	Puthuvype	399	31	C43Q1/NE	Island near Puthuvype,kochi(BW)	0.17	76° 13' 58.35" E	9° 59' 1.44" N
400	Elamkunnappuzha	Puthuvype	400	31	C43Q1/NE	Island near Puthuvype,kochi(BW)	0.03	76° 14' 7.39" E	9° 59' 24.09" N
401	Elamkunnappuzha	Puthuvype	401	31	C43Q1/NE	Island near Murikumpadam,Kochi(BW)	0.43	76° 14' 12.40" E	9° 59' 11.28" N
402	Elamkunnappuzha	Puthuvype	402	31	C43Q1/NE	Island near Murikumpadam,Kochi(BW)	0.39	76° 14' 14.27" E	9° 59' 8.82" N
403	Elamkunnappuzha	Puthuvype	403	31	C43Q1/NE	Island near Murikumpadam,Kochi(BW)	0.03	76° 14' 12.21" E	9° 59' 6.84" N
404	Elamkunnappuzha	Puthuvype	404	31	C43Q1/NE	Island near Kalamukku,kochi(BW)	0.14	76° 14' 16.20" E	9° 59' 6.38" N
405	Elamkunnappuzha	Puthuvype	405	31	C43Q1/NE	Island near Kalamukku,Vypin(BW)	0.20	76° 14' 14.77" E	9° 59' 5.65" N
406	Elamkunnappuzha	Puthuvype	406	31	C43Q1/NE	Island near Kalamukku,kochi(BW)	0.81	76° 14' 18.58" E	9° 59' 4.72" N
407	Elamkunnappuzha	Elamkunnappuzha/ Puthuvype	407	31	C43Q1/NE	Ochanthuruth(BW)	335.47	76° 14' 2.28" E	10° 0' 5.07" N
408	Kochi Municipal Corporation	Fort Kochi Village	408	31	C43Q1/NE	Gundu Island(BW)	1.46	76° 14' 36.79" E	9° 58' 46.26" N
409	Elamkunnappuzha	Puthuvype	409	31	C43Q1/NE	Ochanthuruth(BW)	6.27	76° 14' 20.80" E	10° 0' 0.66" N
410	Elamkunnappuzha	Elamkunnappuzha	410	34	C43K4/SE	Island near Schoolmuttam,Vypin(BW)	0.10	76° 14' 12.08" E	10° 0' 53.88" N

411	Elamkunnappuzha	Elamkunnappuzha	411	34	C43K4/SE	Island near Schoolmuttam, Vypin(BW)	0.13	76° 14' 8.00" E	10° 0' 54.53" N
412	Elamkunnappuzha	Elamkunnappuzha	412	34	C43K4/SE	Island near Schoolmuttam, Vypin(BW)	0.34	76° 14' 11.55" E	10° 0' 56.70" N
413	Elamkunnappuzha	Elamkunnappuzha	413	34	C43K4/SE	Island near Vypin, Kochi(BW)	0.08	76° 14' 11.72" E	10° 0' 59.22" N
414	Elamkunnappuzha	Elamkunnappuzha	414	34	C43K4/SE	Island near Malippuram, Vypin(BW)	2.91	76° 13' 55.10" E	10° 1' 9.24" N
415	Elamkunnappuzha	Elamkunnappuzha	415	34	C43K4/SE	Island near Schoolmuttam, Vypin(BW)	0.04	76° 14' 3.24" E	10° 1' 8.94" N
416	Elamkunnappuzha	Elamkunnappuzha	416	34	C43K4/SE	Island near Elamkunnappuzha, Vypin(BW)	0.08	76° 14' 5.34" E	10° 1' 10.73" N
417	Elamkunnappuzha	Elamkunnappuzha	417	34	C43K4/SE	Island near Elamkunnappuzha, Vypin(BW)	319.55	76° 13' 35.72" E	10° 1' 46.09" N
418	Elamkunnappuzha	Elamkunnappuzha	418	34	C43K4/SE	Island near Elamkunnappuzha, Vypin(BW)	0.05	76° 14' 11.82" E	10° 1' 34.02" N
419	Elamkunnappuzha	Elamkunnappuzha	419	34	C43K4/SE	Island near Elamkunnappuzha, Vypin(BW)	12.65	76° 14' 14.41" E	10° 1' 42.96" N
420	Elamkunnappuzha	Elamkunnappuzha	420	34	C43K4/SE	Island near Elamkunnappuzha, Vypin(BW)	0.06	76° 14' 3.65" E	10° 1' 47.04" N
421	Elamkunnappuzha	Elamkunnappuzha	421	34	C43K4/SE	Island near Elamkunnappuzha, Vypin(BW)	0.34	76° 14' 0.57" E	10° 1' 48.01" N
422	Elamkunnappuzha	Elamkunnappuzha	422	34	C43K4/SE	Island near Vypin, Kochi(BW)	0.88	76° 14' 5.05" E	10° 1' 49.90" N
423	Elamkunnappuzha	Elamkunnappuzha	423	34	C43K4/SE	Island near perumpilly, njarackal(BW)	0.04	76° 14' 0.20" E	10° 1' 50.64" N
424	Elamkunnappuzha	Elamkunnappuzha	424	34	C43K4/SE	Island near perumpilly, Vypin(BW)	0.06	76° 14' 0.32" E	10° 1' 53.50" N
425	Elamkunnappuzha	Elamkunnappuzha	425	34	C43K4/SE	Island near perumpilly, Vypin(BW)	1.91	76° 14' 12.79" E	10° 1' 57.42" N
426	Elamkunnappuzha	Elamkunnappuzha	426	34	C43K4/SE	Island near perumpilly, Vypin(BW)	0.03	76° 14' 22.93" E	10° 1' 52.79" N
427	Elamkunnappuzha	Elamkunnappuzha	427	34	C43K4/SE	Island near Kochi(BW)	0.14	76° 14' 27.23" E	10° 2' 5.92" N
428	Elamkunnappuzha	Elamkunnappuzha	428	34	C43K4/SE	Island near perumpilly, njarackal(BW)	0.03	76° 14' 9.49" E	10° 2' 10.63" N
429	Elamkunnappuzha	Elamkunnappuzha	429	34	C43K4/SE	Island near perumpilly, Vypin(BW)	0.04	76° 14' 4.45" E	10° 2' 13.15" N
430	Njarakkal	Njarakkal	430	34	C43K4/SE	Island near perumpilly, Vypin(BW)	0.07	76° 13' 58.23" E	10° 2' 12.11" N
431	Elamkunnappuzha	Elamkunnappuzha	431	34	C43K4/SE	Island near perumpilly, njarackal(BW)	0.06	76° 13' 54.96" E	10° 2' 6.28" N
432	Njarakkal	Njarakkal	432	34	C43K4/SE	Island near perumpilly, njarackal(BW)	0.84	76° 13' 53.09" E	10° 2' 12.05" N
433	Njarakkal	Njarakkal	433	34	C43K4/SE	Island near East Appangad Bridge, Appangad Canal(BW)	0.24	76° 13' 56.54" E	10° 2' 21.18" N
434	Njarakkal	Njarakkal	434	34	C43K4/SE	Island near East Appangad Bridge, Appangad Canal(BW)	0.14	76° 13' 52.73" E	10° 2' 20.84" N
435	Njarakkal	Njarakkal	435	34	C43K4/SE	Island near njarackal, Kochi(BW)	236.25	76° 13' 16.94" E	10° 2' 34.85" N
436	Njarakkal	Njarakkal	436	34	C43K4/SE	Island near Manjanakad(BW)	0.06	76° 13' 58.32" E	10° 2' 28.29" N

437	Njarakkal	Njarakkal	437	34	C43K4/SE	Island near Manjanakad Boat Jetty(BW)	0.23	76° 14' 15.52" E	10° 2' 32.49" N
438	Njarakkal	Njarakkal	438	34	C43K4/SE	Island near Manjanakad Boat Jetty(BW)	0.23	76° 14' 13.99" E	10° 2' 36.03" N
439	Njarakkal	Njarakkal	439	34	C43K4/SE	Island near Manjanakad Boat Jetty(BW)	0.14	76° 14' 12.42" E	10° 2' 39.14" N
440	Njarakkal	Njarakkal	440	34	C43K4/SE	Island near Manjanakad Boat Jetty(BW)	0.01	76° 14' 5.04" E	10° 2' 34.96" N
441	Njarakkal	Njarakkal	441	34	C43K4/SE	Island near njarackal,Kochi(BW)	0.07	76° 13' 49.73" E	10° 2' 31.37" N
442	Njarakkal	Njarakkal	442	34	C43K4/SE	Island near njarackal,Vypin(BW)	0.04	76° 13' 50.31" E	10° 2' 33.29" N
443	Njarakkal	Njarakkal	443	34	C43K4/SE	Island Manjanakkad Boat Jetty(BW)	1.96	76° 14' 2.16" E	10° 2' 44.00" N
444	Njarakkal	Njarakkal	444	34	C43K4/SE	Island near njarackal,Vypin(BW)	0.07	76° 13' 38.30" E	10° 2' 39.57" N
445	Njarakkal	Njarakkal	445	34	C43K4/SE	Island near Vypin,Kochi(BW)	0.04	76° 13' 40.53" E	10° 2' 42.80" N
446	Njarakkal	Njarakkal	446	34	C43K4/SE	Island near njarackal,Vypin(BW)	0.17	76° 13' 37.57" E	10° 2' 51.79" N
447	Njarakkal	Njarakkal	447	34	C43K4/SE	Island near nedungad,Vypin(BW)	0.42	76° 13' 40.29" E	10° 2' 59.65" N
448	Njarakkal	Njarakkal	448	34	C43K4/SE	Island near nedungad,Vypin(BW)	0.04	76° 13' 43.70" E	10° 3' 1.46" N
449	Njarakkal	Njarakkal	449	34	C43K4/SE	Island near nedungad,Vypin(BW)	0.02	76° 13' 46.02" E	10° 3' 2.96" N
450	Njarakkal	Njarakkal	450	34	C43K4/SE	Island near nedungad,Vypin(BW)	0.03	76° 13' 50.85" E	10° 3' 5.22" N
451	Njarakkal	Njarakkal	451	34	C43K4/SE	Island near nedungad,Vypin(BW)	0.28	76° 13' 59.76" E	10° 3' 6.28" N
452	Njarakkal	Njarakkal	452	34	C43K4/SE	Island near nedungad,Vypin(BW)	0.03	76° 13' 52.25" E	10° 3' 10.80" N
453	Njarakkal	Njarakkal	453	34	C43K4/SE	Island near nedungad,Vypin(BW)	0.05	76° 13' 51.55" E	10° 3' 12.08" N
454	Njarakkal	Njarakkal	454	34	C43K4/SE	Island near nedungad,Vypin(BW)	0.03	76° 13' 47.65" E	10° 3' 13.97" N
455	Njarakkal	Njarakkal	455	34	C43K4/SE	Island near nedungad,Vypin(BW)	0.31	76° 13' 47.09" E	10° 3' 17.53" N
456	Njarakkal	Njarakkal	456	34	C43K4/SE	Island near nedungad,Vypin(BW)	0.64	76° 13' 35.43" E	10° 3' 3.70" N
457	Njarakkal	Njarakkal	457	34	C43K4/SE	Island near nyarambalam,Kochi(BW)	1.24	76° 13' 25.23" E	10° 3' 9.17" N
458	Nayarambalam	Nayarambalam	458	34	C43K4/SE	Island near nyarambalam,Kochi(BW)	2.33	76° 13' 23.49" E	10° 3' 12.39" N
459	Njarakkal	Njarakkal	459	34	C43K4/SE	Island near njarackal,Kochi(BW)	72.39	76° 13' 3.02" E	10° 3' 5.88" N
460	Nayarambalam	Nayarambalam	460	34	C43K4/SE	Island near nyarambalam,Vypin(BW)	0.02	76° 13' 28.95" E	10° 3' 17.96" N
461	Njarakkal	Njarakkal	461	34	C43K4/SE	Island near nedungad,Kochi(BW)	0.31	76° 13' 33.52" E	10° 3' 15.72" N
462	Njarakkal	Njarakkal	462	34	C43K4/SE	Island near nedungad,Kochi(BW)	0.11	76° 13' 36.75" E	10° 3' 15.87" N
463	Njarakkal	Njarakkal	463	34	C43K4/SE	Island near nedungad,Vypin(BW)	0.02	76° 13' 39.62" E	10° 3' 15.13" N
464	Njarakkal	Njarakkal	464	34	C43K4/SE	Island near nedungad,Vypin(BW)	0.04	76° 13' 39.75" E	10° 3' 20.56" N
465	Nyarambalam	Nyarambalam	465	34	C43K4/SE	Island near nedungad,Vypin(BW)	0.04	76° 13' 43.23" E	10° 3' 23.01" N

466	Nyarambalam	Nyarambalam	466	34	C43K4/SE	Island near nedungad,Vypin(BW)	0.07	76° 13' 45.93" E	10° 3' 30.33" N
467	Nyarambalam	Nyarambalam	467	34	C43K4/SE	Island near nedungad,Vypin(BW)	0.64	76° 13' 45.83" E	10° 3' 35.93" N
468	Nyarambalam	Nyarambalam	468	34	C43K4/SE	Island near nedungad,Kochi(BW)	0.02	76° 13' 42.48" E	10° 3' 33.82" N
469	Nyarambalam	Nyarambalam	469	34	C43K4/SE	Island near nedungad,Kochi(BW)	72.80	76° 13' 26.05" E	10° 4' 5.08" N
470	Nyarambalam	Nyarambalam	470	34	C43K4/SE	Island near njarambalam,Vypin(BW)	0.06	76° 13' 23.33" E	10° 3' 22.17" N
471	Nyarambalam	Nyarambalam	471	34	C43K4/SE	Island near njarambalam,Vypin(BW)	0.28	76° 13' 20.47" E	10° 3' 24.85" N
472	Nyarambalam	Nyarambalam	472	34	C43K4/SE	Island near njarambalam,Vypin(BW)	0.03	76° 13' 18.67" E	10° 3' 26.36" N
473	Nyarambalam	Nyarambalam	473	34	C43K4/SE	Island near njarambalam,Vypin(BW)	0.09	76° 13' 13.25" E	10° 3' 32.48" N
474	Nyarambalam	Nyarambalam	474	34	C43K4/SE	Island near njarambalam,Vypin(BW)	172.13	76° 12' 53.25" E	10° 3' 41.36" N
475	Nyarambalam	Nyarambalam	475	34	C43K4/SE	Island near njarambalam,Vypin(BW)	0.07	76° 13' 19.80" E	10° 3' 33.41" N
476	Nyarambalam	Nyarambalam	476	34	C43K4/SE	Island near njarambalam,Vypin(BW)	0.09	76° 13' 19.36" E	10° 3' 35.37" N
477	Nyarambalam	Nyarambalam	477	34	C43K4/SE	Island near njarambalam,Vypin(BW)	0.03	76° 13' 22.11" E	10° 3' 33.94" N
478	Nyarambalam	Nyarambalam	478	34	C43K4/SE	Island near njarambalam,Vypin(BW)	0.13	76° 13' 21.97" E	10° 3' 35.93" N
479	Nyarambalam	Nyarambalam	479	34	C43K4/SE	Island near nayarambalam,Vypin(BW)	0.01	76° 13' 24.58" E	10° 3' 34.68" N
480	Nyarambalam	Nyarambalam	480	34	C43K4/SE	Island near nedungad,Vypin(BW)	0.04	76° 13' 26.14" E	10° 3' 37.43" N
481	Nyarambalam	Nyarambalam	481	34	C43K4/SE	Island near nedungad,Vypin(BW)	0.02	76° 13' 24.22" E	10° 3' 38.81" N
482	Nyarambalam	Nyarambalam	482	34	C43K4/SE	Island near nedungad,Vypin(BW)	0.21	76° 13' 41.21" E	10° 3' 45.95" N
483	Nyarambalam	Nyarambalam	483	34	C43K4/SE	Island near nedungad,Vypin(BW)	0.14	76° 13' 50.31" E	10° 3' 46.16" N
484	Nyarambalam	Nyarambalam	484	34	C43K4/SE	Island near Chitoothara,nedungad(BW)	0.26	76° 13' 40.21" E	10° 3' 48.94" N
485	Nyarambalam	Nyarambalam	485	34	C43K4/SE	Island near nedungad,Vypin(BW)	0.40	76° 13' 38.95" E	10° 3' 52.26" N
486	Nyarambalam	Nyarambalam	486	34	C43K4/SE	Island near nedungad,Vypin(BW)	0.04	76° 13' 48.02" E	10° 3' 58.11" N
487	Nyarambalam	Nyarambalam	487	34	C43K4/SE	Island near nedungad,Vypin(BW)	0.03	76° 13' 46.98" E	10° 3' 59.82" N
488	Nyarambalam	Nyarambalam	488	34	C43K4/SE	Island near nedungad,Vypin(BW)	0.04	76° 13' 41.88" E	10° 4' 0.05" N
489	Nyarambalam	Nyarambalam	489	34	C43K4/SE	Island near nedungad,Vypin(BW)	0.02	76° 13' 16.64" E	10° 3' 58.58" N
490	Nyarambalam	Nyarambalam	490	34	C43K4/SE	Island near nedungad,Vypin(BW)	0.24	76° 13' 17.09" E	10° 4' 1.77" N
491	Nyarambalam	Nyarambalam	491	34	C43K4/SE	Island near nayarambalam,Vypin(BW)	0.05	76° 13' 12.64" E	10° 4' 2.96" N
492	Nyarambalam	Nyarambalam	492	34	C43K4/SE	Island near nayarambalam,Vypin(BW)	0.04	76° 13' 12.36" E	10° 4' 3.64" N
493	Nyarambalam	Nyarambalam	493	34	C43K4/SE	Island near nayarambalam,Vypin(BW)	0.06	76° 13' 10.20" E	10° 4' 2.65" N
494	Nyarambalam	Nyarambalam	494	34	C43K4/SE	Island near nayarambalam,Vypin(BW)	0.06	76° 13' 32.57" E	10° 4' 7.93" N

495	Nyarambalam	Nyarambalam	495	34	C43K4/SE	Island near nayarambalam,Vypin(BW)	0.03	76° 13' 42.02" E	10° 4' 9.86" N
496	Nyarambalam	Nyarambalam	496	34	C43K4/SE	Island near nayarambalam,Vypin(BW)	0.21	76° 13' 11.50" E	10° 4' 10.28" N
497	Nyarambalam	Nyarambalam	497	34	C43K4/SE	Island near nayarambalam,Vypin(BW)	0.16	76° 13' 10.59" E	10° 4' 12.70" N
498	Nyarambalam	Nyarambalam	498	34	C43K4/SE	Island near nayarambalam,Vypin(BW)	181.31	76° 12' 41.17" E	10° 4' 24.86" N
499	Nyarambalam	Nyarambalam	499	34	C43K4/SE	Island near nayarambalam,Vypin(BW)	0.09	76° 13' 8.10" E	10° 4' 17.53" N
500	Nyarambalam	Nyarambalam	500	34	C43K4/SE	Island near nayarambalam,Vypin(BW)	0.16	76° 13' 6.34" E	10° 4' 18.86" N
501	Nyarambalam	Nyarambalam	501	34	C43K4/SE	Island near nedungad,Vypin(BW)	0.34	76° 13' 10.12" E	10° 4' 19.39" N
502	Nyarambalam	Nyarambalam	502	34	C43K4/SE	Island near nedungad,Vypin(BW)	0.23	76° 13' 12.55" E	10° 4' 24.09" N
503	Nyarambalam	Nyarambalam	503	34	C43K4/SE	Island near nedungad,Vypin(BW)	0.13	76° 13' 5.27" E	10° 4' 22.44" N
504	Nyarambalam	Nyarambalam	504	34	C43K4/SE	Island near nedungad,Vypin(BW)	0.11	76° 13' 7.66" E	10° 4' 29.75" N
505	Nyarambalam	Nyarambalam	505	34	C43K4/SE	Island near nedungad,Vypin(BW)	1.00	76° 13' 23.76" E	10° 4' 27.04" N
506	Nyarambalam	Nyarambalam	506	34	C43K4/SE	Island near nedungad,Vypin(BW)	0.02	76° 13' 25.33" E	10° 4' 31.45" N
507	Nyarambalam	Nyarambalam	507	34	C43K4/SE	Island near Veeran Puzha(Old Boat Jetty)(BW)	0.12	76° 13' 32.25" E	10° 4' 33.34" N
508	Nyarambalam	Nyarambalam	508	34	C43K4/SE	Island near nedungad,Vypin(BW)	0.07	76° 13' 26.55" E	10° 4' 34.68" N
509	Nyarambalam	Nyarambalam	509	34	C43K4/SE	Island near nedungad,Vypin(BW)	0.05	76° 13' 24.97" E	10° 4' 35.31" N
510	Nyarambalam	Nyarambalam	510	34	C43K4/SE	Island near nedungad,Vypin(BW)	0.05	76° 13' 26.71" E	10° 4' 36.70" N
511	Nyarambalam	Nyarambalam	511	34	C43K4/SE	Island near nedungad,Vypin(BW)	0.04	76° 13' 31.67" E	10° 4' 37.58" N
512	Nyarambalam	Nyarambalam	512	34	C43K4/SE	Island near nedungad,Vypin(BW)	0.02	76° 13' 31.36" E	10° 4' 40.21" N
513	Nyarambalam	Nyarambalam	513	34	C43K4/SE	Island near nedungad,Vypin(BW)	0.07	76° 13' 30.26" E	10° 4' 44.24" N
514	Nyarambalam	Nyarambalam	514	34	C43K4/SE	Island near nedungad,Vypin(BW)	0.46	76° 13' 6.02" E	10° 4' 29.82" N
515	Nyarambalam	Nyarambalam	515	34	C43K4/SE	Island near nyarambalam,Vypin(BW)	0.05	76° 13' 2.55" E	10° 4' 31.42" N
516	Nyarambalam	Nyarambalam	516	34	C43K4/SE	Island near nyarambalam,Vypin(BW)	0.29	76° 13' 4.89" E	10° 4' 35.75" N
517	Nyarambalam	Nyarambalam	517	34	C43K4/SE	Island near nedungad,Vypin(BW)	0.39	76° 13' 0.99" E	10° 4' 41.05" N
518	Nyarambalam	Nyarambalam	518	34	C43K4/SE	Island near nyarambalam,Vypin(BW)	0.04	76° 12' 58.67" E	10° 4' 43.79" N
519	Nyarambalam	Nyarambalam	519	34	C43K4/SE	Island near nyarambalam,Vypin(BW)	0.06	76° 12' 52.15" E	10° 4' 46.67" N
520	Nyarambalam	Nyarambalam	520	34	C43K4/SE	Island near nedungad,Vypin(BW)	0.02	76° 13' 17.58" E	10° 4' 46.29" N
521	Nyarambalam	Nyarambalam	521	34	C43K4/SE	Island near nedungad,Vypin(BW)	0.21	76° 13' 17.25" E	10° 4' 48.93" N
522	Nyarambalam	Nyarambalam	522	34	C43K4/SE	Island near nedungad,Vypin(BW)	0.06	76° 13' 19.87" E	10° 4' 50.17" N
523	Nyarambalam	Nyarambalam	523	34	C43K4/SE	Island near nedungad,Vypin(BW)	0.23	76° 13' 30.00" E	10° 4' 51.93" N

524	Nyarambalam	Nyarambalam	524	34	C43K4/SE	Island near nyarambalam, Vypin(BW)	0.02	76° 13' 26.99" E	10° 4' 54.79" N
525	Nyarambalam	Nyarambalam	525	34	C43K4/SE	Island near nedungad, Vypin(BW)	0.04	76° 13' 19.86" E	10° 4' 54.02" N
526	Nyarambalam	Nyarambalam	526	34	C43K4/SE	Island near nedungad, Vypin(BW)	0.10	76° 13' 25.78" E	10° 4' 56.57" N
527	Nyarambalam	Nyarambalam	527	34	C43K4/SE	Island near nedungad, Vypin(BW)	0.23	76° 13' 22.66" E	10° 4' 58.23" N
528	Nyarambalam	Nyarambalam	528	34	C43K4/SE	Island near nedungad, Vypin(BW)	0.17	76° 13' 19.04" E	10° 4' 57.28" N
529	Nyarambalam	Nyarambalam	529	34	C43K4/SE	Island near nedungad, Vypin(BW)	0.18	76° 13' 21.78" E	10° 5' 4.20" N
530	Nyarambalam	Nyarambalam	530	34	C43K4/SE	Island near Edavanakkad, Vypin(BW)	0.32	76° 12' 58.46" E	10° 4' 55.75" N
531	Nyarambalam	Nyarambalam	531	34	C43K4/SE	Island near Edavanakkad, Vypin(BW)	0.03	76° 12' 55.56" E	10° 4' 56.47" N
532	Edavanakkad	Edavanakkad	532	34	C43K4/SE	Island near Edavanakkad, Vypin(BW)	0.02	76° 12' 55.60" E	10° 5' 0.91" N
533	Edavanakkad	Edavanakkad	533	34	C43K4/SE	Island near Edavanakkad, Vypin(BW)	95.16	76° 12' 31.88" E	10° 5' 5.50" N
534	Edavanakkad	Edavanakkad	534	34	C43K4/SE	Island near Edavanakkad, Vypin(BW)	0.07	76° 12' 51.86" E	10° 5' 0.51" N
535	Edavanakkad	Edavanakkad	535	34	C43K4/SE	Island near Edavanakkad, Vypin(BW)	1.02	76° 13' 8.30" E	10° 5' 2.30" N
536	Edavanakkad	Edavanakkad	536	34	C43K4/SE	Island near Edavanakkad, Vypin(BW)	0.04	76° 12' 54.28" E	10° 5' 7.16" N
537	Edavanakkad	Edavanakkad	537	34	C43K4/SE	Island near Edavanakkad, Vypin(BW)	0.50	76° 12' 56.41" E	10° 5' 19.13" N
538	Edavanakkad	Edavanakkad	538	34	C43K4/SE	Island near Edavanakkad, Vypin(BW)	0.06	76° 13' 13.66" E	10° 5' 19.23" N
539	Edavanakkad	Edavanakkad	539	34	C43K4/SE	Island near Edavanakkad, Vypin(BW)	0.05	76° 13' 7.31" E	10° 5' 28.11" N
540	Edavanakkad	Edavanakkad	540	34	C43K4/SE	Island near Edavanakkad, Vypin(BW)	0.06	76° 12' 56.94" E	10° 5' 25.14" N
541	Edavanakkad	Edavanakkad	541	34	C43K4/SE	Island near Edavanakkad, Vypin(BW)	0.05	76° 12' 55.91" E	10° 5' 25.06" N
542	Edavanakkad	Edavanakkad	542	34	C43K4/SE	Island near Edavanakkad, Vypin(BW)	0.88	76° 12' 51.77" E	10° 5' 23.33" N
543	Edavanakkad	Edavanakkad	543	34	C43K4/SE	Island near Edavanakkad, Vypin(BW)	0.02	76° 12' 59.56" E	10° 5' 23.41" N
544	Edavanakkad	Edavanakkad	544	34	C43K4/SE	Island near Edavanakkad, Vypin(BW)	0.26	76° 12' 51.71" E	10° 5' 32.16" N
545	Edavanakkad	Edavanakkad	545	34	C43K4/SE	Island near Edavanakkad, Vypin(BW)	183.00	76° 12' 17.96" E	10° 5' 45.94" N
546	Edavanakkad	Edavanakkad	546	34	C43K4/SE	Island near Edavanakkad, Vypin(BW)	1.81	76° 12' 56.54" E	10° 5' 37.42" N
547	Edavanakkad	Edavanakkad	547	34	C43K4/SE	Island near Edavanakkad, Vypin(BW)	0.02	76° 13' 4.08" E	10° 5' 33.50" N
548	Edavanakkad	Edavanakkad	548	34	C43K4/SE	Island near Edavanakkad, Vypin(BW)	0.06	76° 13' 3.31" E	10° 5' 37.23" N
549	Edavanakkad	Edavanakkad	549	34	C43K4/SE	Island near Edavanakkad, Vypin(BW)	0.30	76° 13' 2.58" E	10° 5' 39.88" N
550	Edavanakkad	Edavanakkad	550	34	C43K4/SE	Island near Edavanakkad, Vypin(BW)	0.02	76° 13' 3.00" E	10° 5' 43.63" N
551	Edavanakkad	Edavanakkad	551	34	C43K4/SE	Island near Edavanakkad, Vypin(BW)	2.49	76° 12' 51.41" E	10° 5' 51.45" N
552	Edavanakkad	Edavanakkad	552	34	C43K4/SE	Island near Edavanakkad, Vypin(BW)	0.08	76° 12' 49.44" E	10° 5' 49.71" N

553	Edavanakkad	Edavanakkad	553	34	C43K4/SE	Island near Edavanakkad,Vypin(BW)	0.16	76° 12' 41.41" E	10° 5' 48.75" N
554	Edavanakkad	Edavanakkad	554	34	C43K4/SE	Island near Edavanakkad,Vypin(BW)	0.01	76° 12' 49.60" E	10° 5' 51.11" N
555	Edavanakkad	Edavanakkad	555	34	C43K4/SE	Island near Edavanakkad,Vypin(BW)	0.04	76° 12' 30.81" E	10° 5' 54.89" N
556	Edavanakkad	Edavanakkad	556	34	C43K4/SE	Island near Edavanakkad,Vypin(BW)	0.07	76° 12' 47.68" E	10° 5' 56.36" N
557	Edavanakkad	Edavanakkad	557	34	C43K4/SE	Island near Edavanakkad,Vypin(BW)	0.23	76° 12' 46.33" E	10° 5' 59.91" N
558	Edavanakkad	Edavanakkad	558	34	C43K4/SE	Island near Edavanakkad,Vypin(BW)	0.12	76° 12' 52.56" E	10° 5' 57.63" N
559	Edavanakkad	Edavanakkad	559	34	C43K4/SE	Island near Edavanakkad,Vypin(BW)	0.48	76° 12' 48.51" E	10° 6' 1.32" N
560	Edavanakkad	Edavanakkad	560	34	C43K4/SE	Island near Edavanakkad,Vypin,Kuzhipilly Thodu(BW)	0.10	76° 12' 35.73" E	10° 6' 14.19" N
561	Edavanakkad	Edavanakkad	561	34	C43K4/SE	Island near Edavanakkad,Vypin,Kuzhipilly Thodu(BW)	1.15	76° 12' 41.51" E	10° 6' 15.93" N
562	Edavanakkad	Edavanakkad	562	34	C43K4/SE	Island near Edavanakkad,Vypin,Kuzhipilly Thodu(BW)	0.09	76° 12' 45.32" E	10° 6' 16.34" N
563	Edavanakkad	Edavanakkad	563	34	C43K4/SE	Island near Edavanakkad,Vypin,Kuzhipilly Thodu(BW)	0.16	76° 12' 46.83" E	10° 6' 17.92" N
564	Edavanakkad	Edavanakkad	564	34	C43K4/SE	Island near Vypin,Kuzhipilly,Kuzhipilly Thodu(BW)	0.11	76° 12' 30.33" E	10° 6' 17.30" N
565	Edavanakkad	Edavanakkad	565	34	C43K4/SE	Island near Vypin,Kuzhipilly,Kuzhipilly Thodu(BW)	0.23	76° 12' 33.79" E	10° 6' 19.45" N
566	Edavanakkad	Edavanakkad	566	34	C43K4/SE	Island near Vypin,Kuzhipilly,Kuzhipilly Thodu(BW)	0.09	76° 12' 35.10" E	10° 6' 20.76" N
567	Edavanakkad	Edavanakkad	567	34	C43K4/SE	Island near Vypin,Kuzhipilly,Kuzhipilly Thodu(BW)	3.53	76° 12' 44.02" E	10° 6' 21.77" N
568	Edavanakkad	Edavanakkad	568	34	C43K4/SE	Island near Vypin,Kuzhipilly,Kuzhipilly Thodu(BW)	0.11	76° 12' 36.30" E	10° 6' 22.84" N
569	Edavanakkad	Edavanakkad	569	34	C43K4/SE	Island near Vypin,Kuzhipilly,Kuzhipilly Thodu(BW)	0.37	76° 12' 33.57" E	10° 6' 24.55" N
570	Kuzhappilly	Kuzhipilly	570	34	C43K4/SE	Island near Kuzhipilly,Kuzhipilly Thodu(BW)	0.03	76° 12' 35.40" E	10° 6' 25.54" N
571	Kuzhappilly	Kuzhipilly	571	34	C43K4/SE	Island near Kuzhipilly,Kuzhipilly Thodu(BW)	0.12	76° 12' 40.61" E	10° 6' 26.58" N
572	Kuzhappilly	Kuzhipilly	572	34	C43K4/SE	Island near Kuzhipilly,Kuzhipilly Thodu(BW)	0.01	76° 12' 39.27" E	10° 6' 27.35" N
573	Kuzhappilly	Kuzhipilly	573	34	C43K4/SE	Island near Kuzhipilly,Kuzhipilly Thodu(BW)	0.40	76° 12' 41.47" E	10° 6' 29.48" N
574	Kuzhappilly	Kuzhipilly	574	34	C43K4/SE	Island near Kuzhipilly,Kuzhipilly Thodu(BW)	0.16	76° 12' 46.07" E	10° 6' 31.33" N

575	Ezhikkara	Paravur	575	34	C43K4/SE	Island near Kadamangalam(BW)	0.11	76° 12' 58.74" E	10° 6' 46.50" N
576	Ezhikkara	Paravur	576	34	C43K4/SE	Island near Kadamangalam(BW)	15.71	76° 13' 7.78" E	10° 6' 36.91" N
577	Ezhikkara	Paravur	577	34	C43K4/SE	Island near Kadamangalam(BW)	0.03	76° 13' 20.11" E	10° 6' 25.05" N
578	Ezhikkara	Paravur	578	34	C43K4/SE	Island near Ayyampilly, Kadamangalam(BW)	0.93	76° 13' 18.94" E	10° 6' 58.68" N
579	Ezhikkara	Paravur	579	34	C43K4/SE	Island near Ayyampilly, Kadamangalam(BW)	0.97	76° 13' 25.75" E	10° 6' 53.46" N
580	Ezhikkara	Paravur	580	34	C43K4/SE	Island near Ayyampilly, Kadamangalam(BW)	0.14	76° 13' 28.42" E	10° 6' 46.90" N
581	Ezhikkara	Ezhikkara	581	34	C43K4/SE	Island near Lanka Bridge, north Paravur, Kottuvally(BW)	0.61	76° 13' 33.79" E	10° 6' 42.37" N
582	Ezhikkara	Ezhikkara	582	34	C43K4/SE	Island near Lanka Bridge, north Paravur, Kottuvally(BW)	0.37	76° 13' 35.28" E	10° 6' 38.25" N
583	Ezhikkara	Ezhikkara	583	34	C43K4/SE	Island near north Paravur, Kottuvally(BW)	0.16	76° 13' 36.44" E	10° 6' 35.08" N
584	Ezhikkara	Ezhikkara	584	34	C43K4/SE	Island near north Paravur, Kottuvally(BW)	0.11	76° 13' 37.87" E	10° 6' 31.76" N
585	Ezhikkara	Paravur	585	34	C43K4/SE	Island near north Paravur, Kottuvally(BW)	0.03	76° 13' 34.72" E	10° 6' 32.18" N
586	Ezhikkara	Paravur	586	34	C43K4/SE	Island near north Paravur, Kottuvally(BW)	0.29	76° 13' 31.93" E	10° 6' 29.49" N
587	Ezhikkara	Paravur	587	34	C43K4/SE	Island near north Paravur, Kottuvally(BW)	0.12	76° 13' 31.08" E	10° 6' 28.77" N
588	Ezhikkara	Paravur	588	34	C43K4/SE	Island near north Paravur, Kottuvally(BW)	11.59	76° 13' 31.18" E	10° 6' 20.96" N
589	Ezhikkara	Paravur	589	34	C43K4/SE	Island near north Paravur, Kottuvally(BW)	16.19	76° 13' 26.23" E	10° 6' 6.51" N
590	Ezhikkara	Paravur	590	34	C43K4/SE	Island near north Paravur, Kadamangalam(Bw)	5.21	76° 13' 39.92" E	10° 5' 45.08" N
591	Ezhikkara	Ezhikkara	591	34	C43K4/SE	Island near north Paravur, Kottuvally(BW)	0.03	76° 13' 44.21" E	10° 5' 59.72" N
592	Ezhikkara	Paravur	592	34	C43K4/SE	Island near north Paravur, Kottuvally(BW)	0.06	76° 13' 36.31" E	10° 6' 7.13" N
593	Ezhikkara	Paravur	593	34	C43K4/SE	Island near north Paravur, Kottuvally(BW)	0.08	76° 13' 34.22" E	10° 6' 7.65" N
594	Ezhikkara	Paravur	594	34	C43K4/SE	Island near north Paravur, Kottuvally(BW)	0.13	76° 13' 39.88" E	10° 6' 9.91" N
595	Ezhikkara	Ezhikkara	595	34	C43K4/SE	Island near north Paravur, Kottuvally(BW)	0.04	76° 13' 41.88" E	10° 6' 15.30" N
596	Ezhikkara	Ezhikkara	596	34	C43K4/SE	Island near north Paravur, Kottuvally(BW)	0.09	76° 13' 40.90" E	10° 6' 17.07" N
597	Ezhikkara	Ezhikkara	597	34	C43K4/SE	Island near north Paravur, Kottuvally(BW)	0.06	76° 13' 40.33" E	10° 6' 19.40" N

598	Ezhikkara	Ezhikkara	598	34	C43K4/SE	Island near north Paravur,Kottuvally(BW)	0.24	76° 13' 38.64" E	10° 6' 22.25" N
599	Ezhikkara	Ezhikkara	599	34	C43K4/SE	Island near north Paravur,Kottuvally(BW)	0.28	76° 13' 37.79" E	10° 6' 23.71" N
600	Ezhikkara	Paravur	600	34	C43K4/SE	Island near north Paravur,Kottuvally(BW)	0.07	76° 13' 36.34" E	10° 6' 23.14" N
601	Ezhikkara	Ezhikkara	601	34	C43K4/SE	Island near Paravur,Kottuvally(BW)	215.03	76° 13' 58.19" E	10° 5' 53.13" N
602	Ezhikkara	Ezhikkara	602	34	C43K4/SE	Island near Paravur,Kottuvally(BW)	0.20	76° 13' 50.10" E	10° 5' 44.12" N
603	Ezhikkara	Ezhikkara	603	34	C43K4/SE	Island near Paravur,Kottuvally(BW)	0.11	76° 13' 52.05" E	10° 5' 40.37" N
604	Ezhikkara	Ezhikkara	604	34	C43K4/SE	Island near Paravur,Kottuvally(BW)	0.05	76° 13' 56.27" E	10° 5' 37.08" N
605	Ezhikkara	Ezhikkara	605	34	C43K4/SE	Island near Paravur,Kottuvally(BW)	0.05	76° 13' 48.82" E	10° 5' 38.19" N
606	Kadamakkudy	Kadamakkudi	606	34	C43K4/SE	Island near Paravur,Kottuvally(BW)	0.14	76° 13' 48.27" E	10° 5' 35.79" N
607	Kadamakkudy	Kadamakkudi	607	34	C43K4/SE	Island near Paravur,Kottuvally(BW)	0.22	76° 13' 47.69" E	10° 5' 33.79" N
608	Kadamakkudy	Kadamakkudi	608	34	C43K4/SE	Island near Valiya Kadamakkudy,Kochi(BW)	0.09	76° 14' 33.04" E	10° 3' 59.81" N
609	Kadamakkudy	Kadamakkudi	609	34	C43K4/SE	Island near Valiya Kadamakkudy,Kochi(BW)	0.05	76° 14' 36.76" E	10° 3' 58.94" N
610	Kadamakkudy	Kadamakkudi	610	34	C43K4/SE	Island near Valiya Kadamakkudy,Kochi(BW)	32.39	76° 14' 41.28" E	10° 3' 57.76" N
611	Kadamakkudy	Kadamakkudi	611	34	C43K4/SE	Island near Valiya Kadamakkudy,Kochi(BW)	5.90	76° 14' 57.60" E	10° 3' 18.42" N
612	Kadamakkudy	Kadamakkudi	612	35	C43K8/SW	Island near Murikkal(BW)	0.40	76° 15' 2.00" E	10° 3' 7.37" N
613	Kadamakkudy	Kadamakkudi	613	34	C43K4/SE	Island near Pulikkappuram,Ernakulam(BW)	0.76	76° 14' 51.14" E	10° 2' 47.29" N
614	Kadamakkudy	Kadamakkudi	614	35	C43K8/SW	Island near Cheriya Kadamakkudy,Chakkarachal	4.98	76° 15' 13.24" E	10° 2' 34.56" N
615	Mulavukad	Mulavukad	615	35	C43K8/SW	Island near Mulavuklad Bridge(BW)	1.34	76° 15' 27.97" E	10° 2' 14.39" N
616	Mulavukad	Mulavukad	616	35	C43K8/SW	Island near Mulavuklad Bridge(BW)	1.02	76° 15' 22.41" E	10° 2' 10.36" N
617	Mulavukad	Mulavukad	617	35	C43K8/SW	Island near Mulavuklad(BW)	4.28	76° 15' 10.57" E	10° 2' 1.57" N
618	Mulavukad	Mulavukad	618	35	C43K8/SW	Island near Mulavuklad(BW)	0.03	76° 15' 6.07" E	10° 1' 47.11" N
619	Mulavukad	Mulavukad	619	35	C43K8/SW	Island near Mulavuklad(BW)	4.00	76° 15' 2.65" E	10° 1' 41.29" N
620	Mulavukad	Mulavukad	620	35	C43K8/SW	Island near Mulavuklad(BW)	6.98	76° 15' 9.95" E	10° 1' 14.22" N
621	Mulavukad	Mulavukad	621	35	C43K8/SW	Island near Mulavuklad(BW)	1.15	76° 15' 37.49" E	10° 0' 8.75" N
622	Mulavukad	Mulavukad	622	35	C43K8/SW	Island near Mulavuklad(BW)	251.49	76° 15' 33.70" E	10° 0' 44.30" N
623	Kochi Municipal Corporation	Ernakulam	623	32	C43Q5/NW	Island near Ayyappankavu,Ernakulam(BW)	12.73	76° 16' 15.41" E	9° 59' 36.96" N

624	Mulavukad	Mulavukad	624	32	C43Q5/NW	Thanthonni Thuruth(BW)	0.03	76° 16' 8.19" E	9° 59' 53.38" N
625	Kochi Municipal Corporation	Cheranallur	625	35	C43K8/SW	Thanthonni Thuruth(BW)	6.14	76° 16' 5.17" E	10° 0' 1.46" N
626	Kochi Municipal Corporation	Cheranallur	626	35	C43K8/SW	Thanthonni Thuruth(BW)	0.04	76° 15' 56.73" E	10° 0' 15.22" N
627	Kochi Municipal Corporation	Cheranallur	627	35	C43K8/SW	Island near Mulavukad,Ernakulam(BW)	0.56	76° 15' 58.90" E	10° 0' 22.01" N
628	Kochi Municipal Corporation	Cheranallur	628	35	C43K8/SW	Island near Mulavukad,Ernakulam(BW)	0.01	76° 16' 3.47" E	10° 0' 26.26" N
629	Kochi Municipal Corporation	Cheranallur	629	35	C43K8/SW	Island near Mulavukad,Ernakulam(BW)	0.04	76° 16' 10.03" E	10° 0' 27.82" N
630	Kochi Municipal Corporation	Cheranallur	630	35	C43K8/SW	Island near Mulavukad,Ernakulam(BW)	0.06	76° 16' 11.52" E	10° 0' 29.88" N
631	Kochi Municipal Corporation	Cheranallur	631	35	C43K8/SW	Island near Mulavukad,Ernakulam(BW)	1.47	76° 16' 0.92" E	10° 0' 31.18" N
632	Mulavukad	Mulavukad	632	35	C43K8/SW	Island near Mulavukad,Ernakulam(BW)	1.88	76° 16' 0.02" E	10° 0' 44.43" N
633	Kadamakkudy	Cheranallur	633	35	C43K8/SW	Island near Mulavukad,Ernakulam(BW)	0.21	76° 15' 35.30" E	10° 1' 20.32" N
634	Kadamakkudy	Cheranallur	634	35	C43K8/SW	Island near Mulavukad,Ernakulam(BW)	0.03	76° 15' 44.19" E	10° 1' 20.98" N
635	Kadamakkudy	Cheranallur	635	35	C43K8/SW	Korangotta Island,near Mulavukad(BW)	0.42	76° 15' 58.00" E	10° 1' 25.12" N
636	Kadamakkudy	Cheranallur	636	35	C43K8/SW	Korangotta Island,near Mulavukad(BW)	0.14	76° 15' 56.10" E	10° 1' 26.32" N
637	Kadamakkudy	Cheranallur	637	35	C43K8/SW	Korangotta Island,near Mulavukad(BW)	0.04	76° 15' 55.84" E	10° 1' 28.57" N
638	Kadamakkudy	Cheranallur	638	35	C43K8/SW	Korangotta Island,near Mulavukad(BW)	0.22	76° 15' 42.88" E	10° 1' 29.68" N
639	Kadamakkudy	Cheranallur	639	35	C43K8/SW	Korangotta Island,near Mulavukad(BW)	0.04	76° 15' 59.59" E	10° 1' 31.45" N
640	Kadamakkudy	Cheranallur	640	35	C43K8/SW	Korangotta Island,near Mulavukad(BW)	3.77	76° 15' 55.22" E	10° 1' 44.51" N
641	Kadamakkudy	Cheranallur	641	35	C43K8/SW	Korangotta Island,near Mulavukad(BW)	0.30	76° 15' 47.67" E	10° 1' 45.39" N
642	Kadamakkudy	Cheranallur	642	35	C43K8/SW	Korangotta Island,near Mulavukad(BW)	0.01	76° 15' 45.02" E	10° 1' 42.78" N
643	Mulavukad	Mulavukad	643	35	C43K8/SW	Korangotta Island,near Mulavukad(BW)	0.43	76° 15' 31.07" E	10° 1' 34.49" N
644	Mulavukad	Mulavukad	644	35	C43K8/SW	Korangotta Island,near Mulavukad(BW)	0.01	76° 15' 33.98" E	10° 1' 38.94" N
645	Mulavukad	Mulavukad	645	35	C43K8/SW	Korangotta Island,near Mulavukad(BW)	0.03	76° 15' 35.53" E	10° 1' 41.35" N
646	Kadamakkudy	Kadamakkudi	646	35	C43K8/SW	Korangotta Island,near Mulavukad(BW)	0.05	76° 15' 40.43" E	10° 1' 45.88" N
647	Kadamakkudy	Kadamakkudi	647	35	C43K8/SW	Korangotta Island,near Mulavukad(BW)	0.02	76° 15' 44.68" E	10° 1' 47.96" N
648	Kadamakkudy	Kadamakkudi	648	35	C43K8/SW	Island near Moolampilly(BW)	0.37	76° 15' 40.16" E	10° 2' 7.02" N
649	Kadamakkudy	Kadamakkudi	649	35	C43K8/SW	Island near Moolampilly(BW)	0.70	76° 15' 51.72" E	10° 2' 1.32" N
650	Kadamakkudy	Kadamakkudi	650	35	C43K8/SW	Island near Moolampilly(BW)	21.81	76° 16' 1.02" E	10° 2' 15.35" N

651	Kadamakkudy	Kadamakkudi	651	35	C43K8/SW	Island near Moolampilly(BW)	1.69	76° 15' 48.85" E	10° 2' 20.23" N
652	Kadamakkudy	Kadamakkudi	652	35	C43K8/SW	Island near Moolampilly(BW)	0.16	76° 15' 50.79" E	10° 2' 25.74" N
653	Kadamakkudy	Kadamakkudi	653	35	C43K8/SW	Island near Moolampilly(BW)	0.13	76° 15' 49.18" E	10° 2' 27.02" N
654	Kadamakkudy	Kadamakkudi	654	35	C43K8/SW	Island near Mulavukad Bridge(BW)	3.58	76° 15' 38.27" E	10° 2' 23.08" N
655	Kadamakkudy	Kadamakkudi	655	35	C43K8/SW	Island near Moolampilly(BW)	12.96	76° 15' 53.42" E	10° 2' 36.82" N
656	Kadamakkudy	Kadamakkudi	656	35	C43K8/SW	Island near Moolampilly(BW)	0.46	76° 15' 37.26" E	10° 2' 41.16" N
657	Kadamakkudy	Kadamakkudi	657	35	C43K8/SW	Island near Pizhala(BW)	28.22	76° 15' 44.15" E	10° 2' 59.41" N
658	Kadamakkudy	Kadamakkudi	658	35	C43K8/SW	Island near Pizhala,Paliyamthuruthu Boat Jetty(BW)	0.02	76° 15' 29.68" E	10° 3' 14.17" N
659	Kadamakkudy	Kadamakkudi	659	35	C43K8/SW	Island near Pizhala,Paliyamthuruthu (BW)	0.92	76° 15' 27.26" E	10° 3' 9.34" N
660	Kadamakkudy	Kadamakkudi	660	35	C43K8/SW	Island near Pizhala,Paliyamthuruthu (BW)	11.20	76° 15' 15.48" E	10° 3' 14.21" N
661	Kadamakkudy	Kadamakkudi	661	35	C43K8/SW	Chariyam Thuruthu(BW)	0.01	76° 15' 17.88" E	10° 3' 28.78" N
662	Kadamakkudy	Kadamakkudi	662	35	C43K8/SW	Chariyam Thuruthu(BW)	0.26	76° 15' 23.64" E	10° 3' 22.22" N
663	Kadamakkudy	Kadamakkudi	663	35	C43K8/SW	Chariyam Thuruthu(BW)	0.08	76° 15' 30.49" E	10° 3' 17.03" N
664	Kadamakkudy	Kadamakkudi	664	35	C43K8/SW	Chariyam Thuruthu(BW)	0.12	76° 15' 34.82" E	10° 3' 16.50" N
665	Kadamakkudy	Kadamakkudi	665	35	C43K8/SW	Chariyam Thuruthu(BW)	0.06	76° 15' 36.13" E	10° 3' 20.34" N
666	Kadamakkudy	Kadamakkudi	666	35	C43K8/SW	Chariyam Thuruthu(BW)	1.59	76° 15' 39.35" E	10° 3' 20.93" N
667	Kadamakkudy	Kadamakkudi	667	35	C43K8/SW	Chariyam Thuruthu(BW)	21.83	76° 15' 44.08" E	10° 3' 39.43" N
668	Kadamakkudy	Kadamakkudi	668	35	C43K8/SW	Chariyam Thuruthu(BW)	4.04	76° 15' 28.24" E	10° 3' 55.51" N
669	Kadamakkudy	Kadamakkudi	669	35	C43K8/SW	Chariyam Thuruthu(BW)	0.63	76° 15' 29.04" E	10° 4' 4.04" N
670	Kadamakkudy	Kadamakkudi	670	35	C43K8/SW	Island near Thundathumkadavu Fishing Fields(BW)	0.17	76° 15' 41.06" E	10° 4' 14.37" N
671	Kadamakkudy	Kadamakkudi	671	35	C43K8/SW	Island near kodavakad Bridge(BW)	0.04	76° 15' 1.03" E	10° 4' 38.96" N
672	Varappuzha	Varappuzha	672	35	C43K8/SW	Island near kodavakad Bridge(BW)	0.28	76° 15' 2.46" E	10° 4' 43.61" N
673	Kadamakkudy	Kadamakkudi	673	34	C43K4/SE	Island near kodavakad Bridge(BW)	0.04	76° 14' 53.90" E	10° 4' 47.33" N
674	Kadamakkudy	Kadamakkudi	674	34	C43K4/SE	Island near kodavakad Bridge(BW)	0.03	76° 14' 50.81" E	10° 4' 47.66" N
675	Kadamakkudy	Kadamakkudi	675	34	C43K4/SE	Island near kodavakad Bridge(BW)	0.04	76° 14' 52.67" E	10° 5' 1.15" N
676	Kottuvally	Kottuvally	676	34	C43K4/SE	Island near Paravur,Kottuvally(BW)	0.03	76° 14' 37.13" E	10° 5' 9.89" N
677	Kottuvally	Kottuvally	677	34	C43K4/SE	Island near Paravur,Kottuvally(BW)	0.03	76° 14' 20.48" E	10° 5' 16.80" N
678	Kottuvally	Kottuvally	678	34	C43K4/SE	Island near Paravur,Kottuvally(BW)	0.05	76° 14' 22.26" E	10° 5' 23.99" N

679	Ezhikkara	Ezhikkara	679	34	C43K4/SE	Island near Paravur,Kottuvally(BW)	0.09	76° 14' 24.38" E	10° 5' 27.60" N
680	Ezhikkara	Ezhikkara	680	34	C43K4/SE	Island near Paravur,Kottuvally(BW)	0.03	76° 14' 19.13" E	10° 5' 26.50" N
681	Kottuvally	Kottuvally	681	34	C43K4/SE	Island near Paravur,Kottuvally(BW)	0.08	76° 14' 28.57" E	10° 5' 39.36" N
682	Kottuvally	Kottuvally	682	34	C43K4/SE	Island near Paravur,Kottuvally(BW)	0.04	76° 14' 45.13" E	10° 5' 43.66" N
683	Kottuvally	Kottuvally	683	34	C43K4/SE	Island near Paravur,Kottuvally(BW)	0.39	76° 14' 54.94" E	10° 5' 45.63" N
684	Kottuvally	Kottuvally	684	34	C43K4/SE	Island near Paravur,Kottuvally(BW)	0.03	76° 14' 58.53" E	10° 5' 46.79" N
685	Kottuvally	Kottuvally	685	34	C43K4/SE	Island near Paravur,Kottuvally(BW)	0.13	76° 14' 52.21" E	10° 5' 50.21" N
686	Kottuvally	Kottuvally	686	34	C43K4/SE	Island near Paravur,Kottuvally(BW)	0.03	76° 14' 28.21" E	10° 5' 41.36" N
687	Kottuvally	Kottuvally	687	34	C43K4/SE	Island near Paravur,Kottuvally(BW)	0.06	76° 14' 27.79" E	10° 5' 43.69" N
688	Ezhikkara	Ezhikkara	688	34	C43K4/SE	Island near Paravur,Kottuvally(BW)	0.02	76° 14' 11.07" E	10° 5' 47.95" N
689	Kottuvally	Kottuvally	689	34	C43K4/SE	Island near Paravur,Kottuvally(BW)	0.03	76° 14' 32.07" E	10° 5' 57.38" N
690	Kottuvally	Kottuvally	690	34	C43K4/SE	Island near Paravur,Kottuvally(BW)	0.61	76° 14' 29.20" E	10° 5' 56.69" N
691	Kottuvally	Kottuvally	691	34	C43K4/SE	Island near Paravur,Kottuvally(BW)	0.12	76° 14' 25.18" E	10° 6' 1.60" N
692	Kottuvally	Kottuvally	692	34	C43K4/SE	Island near Ezhikkara,Kottuvally(BW)	0.15	76° 14' 14.86" E	10° 6' 11.39" N
693	Kottuvally	Kottuvally	693	34	C43K4/SE	Island near Ezhikkara,Kottuvally(BW)	0.04	76° 14' 7.52" E	10° 6' 11.55" N
694	Kottuvally	Kottuvally	694	34	C43K4/SE	Island near Ezhikkara,Kottuvally(BW)	0.12	76° 14' 13.97" E	10° 6' 13.44" N
695	Kottuvally	Kottuvally	695	34	C43K4/SE	Island near Ezhikkara,Kottuvally(BW)	0.12	76° 14' 8.15" E	10° 6' 21.80" N
696	Kottuvally	Kottuvally	696	34	C43K4/SE	Island near Ezhikkara,Kottuvally(BW)	0.19	76° 14' 28.16" E	10° 6' 27.64" N
697	Kottuvally	Kottuvally	697	34	C43K4/SE	Island near Kaitharam South,Kottuvally(BW)	0.27	76° 14' 19.63" E	10° 6' 39.13" N
698	Kottuvally	Kottuvally	698	34	C43K4/SE	Island near Kaitharam South,Kottuvally(BW)	0.41	76° 14' 12.01" E	10° 6' 37.91" N
699	Kottuvally	Kottuvally	699	34	C43K4/SE	Island near Ezhikkara,Kottuvally(BW)	0.08	76° 14' 5.50" E	10° 6' 31.04" N
700	Kottuvally	Kottuvally	700	34	C43K4/SE	Island near Ezhikkara,Kottuvally(BW)	0.03	76° 14' 5.24" E	10° 6' 34.18" N
701	Ezhikkara	Ezhikkara	701	34	C43K4/SE	Island near Ezhikkara,Kottuvally(BW)	0.05	76° 14' 4.70" E	10° 6' 36.96" N
702	Ezhikkara	Ezhikkara	702	34	C43K4/SE	Island near Ezhikkara,Kottuvally(BW)	0.05	76° 14' 4.20" E	10° 6' 38.96" N
703	Ezhikkara	Ezhikkara	703	34	C43K4/SE	Island near Ezhikkara Bridge,Kottuvally(BW)	0.05	76° 13' 59.21" E	10° 6' 39.88" N
704	Ezhikkara	Ezhikkara	704	34	C43K4/SE	Island near Ezhikkara Bridge,Kottuvally(BW)	0.03	76° 13' 51.50" E	10° 6' 43.68" N
705	Kottuvally	Kottuvally	705	34	C43K4/SE	Island near Ezhikkara,Kottuvally(BW)	0.02	76° 14' 0.47" E	10° 6' 44.40" N

706	Kottuvally	Kottuvally	706	34	C43K4/SE	Island near Kaitharam South,Kottuvally(BW)	0.03	76° 14' 3.13" E	10° 6' 45.58" N
707	Kottuvally	Kottuvally	707	34	C43K4/SE	Island near Kaitharam South,Kottuvally(BW)	0.11	76° 14' 6.88" E	10° 6' 45.07" N
708	Kottuvally	Kottuvally	708	34	C43K4/SE	Island near Kaitharam South,Ezhikkara Bridge,Kottuvally(BW)	0.24	76° 13' 55.01" E	10° 6' 51.24" N
709	Kottuvally	Kottuvally	709	34	C43K4/SE	Island near Ezhikkara Bridge,Kottuvally(BW)	0.09	76° 13' 52.49" E	10° 6' 49.96" N
710	Kottuvally	Kottuvally	710	34	C43K4/SE	Island near Ezhikkara Bridge,Kottuvally(BW)	0.03	76° 13' 50.46" E	10° 6' 49.97" N
711	Kottuvally	Kottuvally	711	34	C43K4/SE	Island near Ezhikkara Bridge,Kottuvally(BW)	0.07	76° 13' 54.16" E	10° 6' 52.80" N
712	Kottuvally	Kottuvally	712	34	C43K4/SE	Island near Ezhikkara Bridge,Kottuvally(BW)	0.12	76° 13' 50.66" E	10° 6' 53.34" N
713	Kottuvally	Kottuvally	713	34	C43K4/SE	Island near Kaitharam South,Kottuvally(BW)	0.58	76° 13' 55.41" E	10° 6' 54.86" N
714	Kottuvally	Kottuvally	714	34	C43K4/SE	Island near Kaitharam South,Kottuvally(BW)	0.09	76° 14' 6.12" E	10° 6' 58.84" N
715	Kottuvally	Kottuvally	715	34	C43K4/SE	Island near Kaitharam South,Kottuvally(BW)	0.10	76° 14' 3.37" E	10° 6' 59.19" N
716	Kottuvally	Kottuvally	716	34	C43K4/SE	Island near Kaitharam South,Kottuvally(BW)	0.08	76° 13' 49.85" E	10° 6' 59.23" N
717	Kottuvally	Kottuvally	717	34	C43K4/SE	Island near Kaitharam South,Kottuvally(BW)	0.10	76° 13' 47.06" E	10° 6' 59.17" N
718	Kottuvally	Kottuvally	718	34	C43K4/SE	Island near nandhiattukunnam,Kaitharam South,Kottuvally(BW)	0.29	76° 13' 46.83" E	10° 7' 5.11" N
719	Ezhikkara	Ezhikkara	719	34	C43K4/SE	Island near Kaitharam South,Kottuvally(BW)	0.13	76° 13' 45.13" E	10° 7' 12.65" N
720	Kottuvally	Kottuvally	720	34	C43K4/SE	Island near nandhiattukunnam,Kaitharam South,Kottuvally(BW)	0.14	76° 13' 52.46" E	10° 7' 14.26" N
721	Kottuvally	Kottuvally	721	34	C43K4/SE	Island near Ezhikkara ,Kottuvally(BW)	392.94	76° 14' 44.56" E	10° 6' 41.71" N
722	Kottuvally	Kottuvally	722	35	C43K8/SW	Island near Kaitharam South,Kottuvally(BW)	0.30	76° 15' 4.72" E	10° 7' 12.98" N
723	Kottuvally	Kottuvally	723	35	C43K8/SW	Island near Kaitharam South,Cheriyapally Bridge,Kottuvally(BW)	0.18	76° 15' 5.26" E	10° 7' 11.68" N
724	Kottuvally	Kottuvally	724	35	C43K8/SW	Island near Kodavakkad Bridge(BW)	6.15	76° 15' 13.91" E	10° 5' 6.69" N
725	Varappuzha	Varappuzha	725	35	C43K8/SW	Island near devasampadam,Varapuzha(BW)	30.39	76° 15' 39.84" E	10° 4' 41.59" N
726	Varappuzha	Varappuzha	726	35	C43K8/SW	Island near devasampadam,Varapuzha(BW)	0.05	76° 15' 50.84" E	10° 4' 19.97" N

727	Varappuzha	Varappuzha	727	35	C43K8/SW	Island near devasampadam, Varapuzha(BW)	0.13	76° 15' 50.97" E	10° 4' 18.79" N
728	Varappuzha	Varappuzha	728	35	C43K8/SW	Island near Varapuzha(BW)	0.03	76° 15' 53.53" E	10° 4' 18.75" N
729	Varappuzha	Varappuzha	729	35	C43K8/SW	Island near Varapuzha(BW)	1.05	76° 15' 48.66" E	10° 4' 14.06" N
730	Karumallur, Paravur municipality, Kottuvally, Alangad, Varapuzha	Karumallur, Paravur, Kottuvally, Alangad, Varapuzha	730	35,38	C43K8/SW, C43K8/NW	Island near Thathapilly Bridge(BW)	3367.52	76° 16' 6.65" E	10° 7' 0.35" N
731	Kadamakkudy	Kadamakkudy	731	35	C43K8/SW	Island near Chennur, Ernakulam(BW)	0.71	76° 15' 52.05" E	10° 3' 37.64" N
732	Kadamakkudy	Kadamakkudy	732	35	C43K8/SW	Island near Chennur, Ernakulam(BW)	0.41	76° 15' 50.87" E	10° 3' 28.17" N
733	Kadamakkudy	Kadamakkudy	733	35	C43K8/SW	Island near Vattappotta Thundathumkadavu Ferry(BW)	128.84	76° 16' 25.78" E	10° 3' 50.67" N
734	Kadamakkudy	Kadamakkudy	734	35	C43K8/SW	Island near Chennur, Ernakulam(BW)	0.96	76° 16' 4.78" E	10° 3' 29.52" N
735	Kadamakkudy	Kadamakkudy	735	35	C43K8/SW	Island near Kothad, Ernakulam(BW)	128.15	76° 16' 23.39" E	10° 3' 10.69" N
736	Elur Municipality	Elur	736	35	C43K8/SW	Island near Verapoli, Eloor(BW)	380.33	76° 17' 28.66" E	10° 4' 56.06" N
737	Cheranallur	Cheranallur	737	35	C43K8/SW	Island near South Chittoor, Ernakulam(BW)	203.73	76° 16' 38.37" E	10° 2' 8.32" N
738	Cheranallur	Cheranallur	738	35	C43K8/SW	Island near South Chittoor, Ernakulam(BW)	0.30	76° 17' 19.18" E	10° 1' 52.22" N
739	Cheranallur	Cheranallur	739	35	C43K8/SW	Island near South Chittoor, Ernakulam(BW)	0.03	76° 17' 3.52" E	10° 1' 34.27" N
740	Cheranallur	Cheranallur	740	35	C43K8/SW	Island near South Chittoor, Ernakulam(BW)	0.05	76° 17' 1.23" E	10° 1' 30.67" N
741	Cheranallur	Cheranallur	741	35	C43K8/SW	Island near South Chittoor, Perandoor Canal, Ernakulam(BW)	0.10	76° 16' 59.62" E	10° 1' 29.23" N
742	Cheranallur	Cheranallur	742	35	C43K8/SW	Island near South Chittoor, Perandoor Canal, Ernakulam(BW)	0.15	76° 16' 56.00" E	10° 1' 27.99" N
743	Cheranallur	Cheranallur	743	35	C43K8/SW	Island near Vaduthala Bridge, Perandoor Canal(BW)	0.11	76° 16' 44.38" E	10° 1' 29.47" N
744	Cheranallur	Cheranallur	744	35	C43K8/SW	Island near Thuthiyoor, Edappally Thodu(BW)	0.47	76° 20' 12.06" E	9° 59' 20.92" N
745	Cheranallur	Cheranallur	745	35	C43K8/SW	Island near Thuthiyoor, Edappally Thodu(BW)	10.87	76° 19' 56.38" E	9° 59' 18.84" N
746	Cheranallur	Cheranallur	746	35	C43K8/SW	Island near Eroor north(BW)	101.89	76° 19' 54.37" E	9° 59' 4.52" N
747	Cheranallur	Cheranallur	747	35	C43K8/SW	Island near Eroor South, Kaniyampuzha(BW)	22.60	76° 19' 36.62" E	9° 58' 1.64" N
748	Cheranallur	Cheranallur	748	35	C43K8/SW	Silversand Island, Kaniyampuzha(BW)	15.78	76° 19' 23.85" E	9° 57' 50.22" N

749	Thrippunithura	Nadama	749	35	C43K8/SW	Silversand Island,Kaniyampuzha(BW)	0.53	76° 19' 31.55" E	9° 57' 43.93" N
750	Kochi Municipal Corporation	Poonithura	750	35	C43K8/SW	Silversand Island,Kaniyampuzha(BW)	1.11	76° 19' 48.11" E	9° 57' 32.20" N
751	Thrippunithura	Nadama	751	32	C43Q5/NW	Island near Kadakodam(BW)	6.45	76° 20' 7.50" E	9° 57' 20.19" N
752	Maradu	Maradu	752	32	C43Q5/NW	Island near Maradu(BW)	554.74	76° 19' 39.04" E	9° 56' 30.30" N
753	Thrippunithura municipality	Thekkumbhagam	753	32	C43Q5/NW	Island near Pokkali Fields(BW)	0.42	76° 20' 30.07" E	9° 55' 44.34" N
754	Maradu	Maradu	754	32	C43Q5/NW	Island near Maradu(BW)	0.11	76° 20' 8.89" E	9° 55' 30.31" N
755	Maradu	Maradu	755	32	C43Q5/NW	Island near Maradu(BW)	0.08	76° 20' 8.49" E	9° 55' 25.85" N
756	Maradu	Maradu	756	32	C43Q5/NW	Island near Maradu(BW)	0.04	76° 20' 8.43" E	9° 55' 21.66" N
757	Thrippunithura municipality	Thekkumbhagam	757	32	C43Q5/NW	Island near Maradu(BW)	0.46	76° 20' 15.12" E	9° 55' 17.65" N
758	Maradu	Maradu	758	32	C43Q5/NW	Island near Kokkuthuruthu(BW)	0.08	76° 20' 6.14" E	9° 55' 19.15" N
759	Maradu	Maradu	759	32	C43Q5/NW	Island near Maradu(BW)	0.09	76° 19' 58.18" E	9° 55' 18.99" N
760	Maradu	Maradu	760	32	C43Q5/NW	Island near Maradu(BW)	0.07	76° 20' 2.32" E	9° 55' 29.85" N
761	Maradu	Maradu	761	32	C43Q5/NW	Island near Maradu(BW)	0.02	76° 19' 56.26" E	9° 55' 26.06" N
762	Maradu	Maradu	762	32	C43Q5/NW	Island near Maradu(BW)	0.12	76° 19' 56.98" E	9° 55' 24.41" N
763	Maradu	Maradu	763	32	C43Q5/NW	Island near Maradu(BW)	0.01	76° 19' 50.46" E	9° 55' 22.80" N
764	Maradu	Maradu	764	32	C43Q5/NW	Island near Maradu(BW)	0.05	76° 19' 34.58" E	9° 55' 28.88" N
765	Maradu	Maradu	765	32	C43Q5/NW	Island near Maradu(BW)	0.02	76° 19' 32.61" E	9° 55' 29.98" N
766	Maradu	Maradu	766	32	C43Q5/NW	Island near Maradu(BW)	0.02	76° 19' 52.52" E	9° 55' 19.50" N
767	Maradu	Maradu	767	32	C43Q5/NW	Island near Maradu(BW)	0.04	76° 19' 52.10" E	9° 55' 18.35" N
768	Maradu	Maradu	768	32	C43Q5/NW	Island near Maradu(BW)	0.03	76° 19' 53.23" E	9° 55' 16.06" N
769	Maradu	Maradu	769	32	C43Q5/NW	Island near Maradu(BW)	0.02	76° 19' 53.72" E	9° 55' 14.54" N
770	Maradu	Maradu	770	32	C43Q5/NW	Island near Maradu(BW)	0.07	76° 19' 58.17" E	9° 55' 13.95" N
771	Maradu	Maradu	771	32	C43Q5/NW	Island near Maradu(BW)	0.07	76° 20' 7.17" E	9° 55' 14.26" N
772	Maradu	Maradu	772	32	C43Q5/NW	Island near Maradu(BW)	0.30	76° 20' 1.94" E	9° 55' 18.44" N
773	Maradu	Maradu	773	32	C43Q5/NW	Island near Maradu(BW)	0.05	76° 20' 9.19" E	9° 55' 17.11" N
774	Maradu	Maradu	774	32	C43Q5/NW	Island near Maradu(BW)	0.07	76° 20' 11.50" E	9° 55' 10.87" N
775	Maradu	Maradu	775	32	C43Q5/NW	Island near Maradu(BW)	0.05	76° 20' 11.47" E	9° 55' 6.28" N
776	Maradu	Maradu	776	32	C43Q5/NW	Island near Maradu(BW)	0.07	76° 20' 12.95" E	9° 55' 0.00" N

777	Maradu	Maradu	777	32	C43Q5/NW	Island near Maradu(BW)	0.02	76° 20' 13.54" E	9° 54' 55.06" N
778	Maradu	Maradu	778	32	C43Q5/NW	Island near Maradu(BW)	0.03	76° 20' 13.15" E	9° 54' 52.24" N
779	Maradu	Maradu	779	32	C43Q5/NW	Island near Maradu(BW)	0.08	76° 20' 9.68" E	9° 54' 50.80" N
780	Maradu	Maradu	780	32	C43Q5/NW	Island near Maradu(BW)	0.02	76° 20' 8.46" E	9° 54' 55.71" N
781	Maradu	Maradu	781	32	C43Q5/NW	Island near Maradu(BW)	0.03	76° 20' 6.05" E	9° 54' 57.46" N
782	Maradu	Maradu	782	32	C43Q5/NW	Island near Maradu(BW)	0.04	76° 19' 59.89" E	9° 54' 59.08" N
783	Maradu	Maradu	783	32	C43Q5/NW	Island near Maradu(BW)	0.05	76° 19' 54.57" E	9° 54' 56.85" N
784	Maradu	Maradu	784	32	C43Q5/NW	Island near Maradu(BW)	0.03	76° 19' 50.46" E	9° 54' 54.41" N
785	Maradu	Maradu	785	32	C43Q5/NW	Island near Maradu(BW)	0.39	76° 19' 51.98" E	9° 55' 2.75" N
786	Maradu	Maradu	786	32	C43Q5/NW	Island near Maradu(BW)	0.79	76° 19' 47.72" E	9° 55' 0.20" N
787	Maradu	Maradu	787	32	C43Q5/NW	Island near Maradu(BW)	0.11	76° 19' 44.16" E	9° 55' 8.94" N
788	Maradu	Maradu	788	32	C43Q5/NW	Island near Maradu(BW)	1.95	76° 19' 27.46" E	9° 55' 16.46" N
789	Maradu	Maradu	789	32	C43Q5/NW	Island near Maradu(BW)	0.22	76° 19' 28.85" E	9° 55' 12.56" N
790	Maradu	Maradu	790	32	C43Q5/NW	Island near Maradu(BW)	0.51	76° 19' 29.44" E	9° 55' 8.21" N
791	Maradu	Maradu	791	32	C43Q5/NW	Island near Maradu(BW)	1.39	76° 19' 38.57" E	9° 55' 9.68" N
792	Maradu	Maradu	792	32	C43Q5/NW	Island near Maradu(BW)	0.42	76° 19' 31.31" E	9° 55' 5.80" N
793	Maradu	Maradu	793	32	C43Q5/NW	Island near Maradu(BW)	0.06	76° 19' 36.50" E	9° 55' 2.77" N
794	Maradu	Maradu	794	32	C43Q5/NW	Island near Maradu(BW)	0.40	76° 19' 36.72" E	9° 54' 57.90" N
795	Maradu	Maradu	795	32	C43Q5/NW	Island near Maradu(BW)	0.02	76° 19' 48.69" E	9° 54' 52.55" N
796	Kumbalam	Kumbalam	796	32	C43Q5/NW	Island near Chathamma,Cheppanam,Kochi(BW)	0.09	76° 19' 33.13" E	9° 54' 41.67" N
797	Kumbalam	Kumbalam	797	32	C43Q5/NW	Island near Chathamma,Cheppanam,Kochi(BW)	96.23	76° 19' 52.70" E	9° 54' 23.96" N
798	Kumbalam	Kumbalam	798	32	C43Q5/NW	Island near Chathamma,Cheppanam,Kochi(BW)	0.35	76° 20' 5.30" E	9° 54' 16.42" N
799	Kumbalam	Kumbalam	799	32	C43Q5/NW	Island near Cheppanam,Kochi(BW)	0.32	76° 20' 11.97" E	9° 54' 10.66" N
800	Kumbalam	Kumbalam	800	32	C43Q5/NW	Island near Cheppanam,Kochi(BW)	0.06	76° 20' 11.79" E	9° 54' 3.28" N
801	Kumbalam	Kumbalam	801	32	C43Q5/NW	Island near Cheppanam Chathamma Lake(BW)	6.08	76° 20' 13.57" E	9° 53' 32.68" N
802	Kumbalam	Kumbalam	802	32	C43Q5/NW	Island near Cheppanam Chathamma Lake(BW)	0.28	76° 20' 19.03" E	9° 53' 44.93" N
803	Kumbalam	Kumbalam	803	32	C43Q5/NW	Island near Cheppanam Chathamma Lake(BW)	1.07	76° 20' 22.06" E	9° 53' 35.80" N

804	Kumbalam	Kumbalam	804	32	C43Q5/NW	Island near Cheppanam Chathamma Lake(BW)	0.55	76° 20' 22.59" E	9° 53' 31.00" N
805	Kumbalam	Kumbalam	805	32	C43Q5/NW	Island near Cheppanam Chathamma Lake(BW)	0.08	76° 20' 22.67" E	9° 53' 28.34" N
806	Kumbalam	Kumbalam	806	32	C43Q5/NW	Island near Cheppanam Chathamma Lake(BW)	0.07	76° 20' 19.15" E	9° 53' 28.90" N
807	Kumbalam	Kumbalam	807	32	C43Q5/NW	Island near Cheppanam Chathamma Lake(BW)	0.07	76° 20' 24.83" E	9° 53' 15.11" N
808	Kumbalam	Kumbalam	808	32	C43Q5/NW	Island near Cheppanam Chathamma Lake(BW)	7.37	76° 20' 31.12" E	9° 53' 13.49" N
809	Kumbalam	Kumbalam	809	32	C43Q5/NW	Island near Cheppanam,Kochi(BW)	0.06	76° 20' 27.43" E	9° 53' 4.56" N
810	Kumbalam	Kumbalam	810	32	C43Q5/NW	Island near Cheppanam,Kochi(BW)	6.34	76° 20' 18.89" E	9° 53' 12.57" N
811	Kumbalam	Kumbalam	811	32	C43Q5/NW	Island near Cheppanam Chathamma Lake(BW)	0.25	76° 20' 12.75" E	9° 53' 19.33" N
812	Kumbalam	Kumbalam	812	32	C43Q5/NW	Island near Cheppanam Chathamma Lake(BW)	0.04	76° 20' 11.64" E	9° 53' 27.68" N
813	Kumbalam	Kumbalam	813	32	C43Q5/NW	Island near Cheppanam Chathamma Lake(BW)	0.05	76° 20' 11.74" E	9° 53' 28.84" N
814	Kumbalam	Kumbalam	814	32	C43Q5/NW	Island near Cheppanam Chathamma Lake(BW)	0.05	76° 20' 13.99" E	9° 53' 29.66" N
815	Kumbalam	Kumbalam	815	32	C43Q5/NW	Island near Cheppanam Chathamma Lake(BW)	0.11	76° 20' 11.17" E	9° 53' 33.85" N
816	Kumbalam	Kumbalam	816	32	C43Q5/NW	Island near Cheppanam Chathamma Lake(BW)	0.03	76° 20' 15.35" E	9° 53' 34.29" N
817	Kumbalam	Kumbalam	817	32	C43Q5/NW	Island near Cheppanam Chathamma Lake(BW)	0.01	76° 20' 14.51" E	9° 53' 35.57" N
818	Kumbalam	Kumbalam	818	32	C43Q5/NW	Island near Cheppanam Chathamma Lake(BW)	0.05	76° 20' 12.35" E	9° 53' 36.82" N
819	Kumbalam	Kumbalam	819	32	C43Q5/NW	Island near Cheppanam Chathamma Lake(BW)	0.04	76° 20' 9.88" E	9° 53' 46.29" N
820	Kumbalam	Kumbalam	820	32	C43Q5/NW	Island near Cheppanam Chathamma Lake(BW)	0.05	76° 19' 48.25" E	9° 54' 9.48" N
821	Kumbalam	Kumbalam	821	32	C43Q5/NW	Island near Cheppanam Bridge(BW)	0.04	76° 19' 46.72" E	9° 54' 9.84" N
822	Mulavukad	Mulavukad	822	31	C43Q1/NE	Island near Panangad(BW)	397.17	76° 19' 23.31" E	9° 54' 7.36" N
823	Kumbalam	Kumbalam	823	32	C43Q5/NW	Island near Panangad(BW)	0.08	76° 19' 58.19" E	9° 53' 37.86" N
824	Kumbalam	Kumbalam	824	32	C43Q5/NW	Island near Panangad(BW)	0.24	76° 19' 54.36" E	9° 53' 30.89" N
825	Kumbalam	Kumbalam	825	32	C43Q5/NW	Island near Panangad(BW)	0.16	76° 19' 51.79" E	9° 53' 32.69" N
826	Kumbalam	Kumbalam	826	32	C43Q5/NW	Island near Panangad(BW)	0.63	76° 19' 48.67" E	9° 53' 32.89" N
827	Kumbalam	Kumbalam	827	32	C43Q5/NW	Island near Panangad(BW)	0.08	76° 19' 54.62" E	9° 53' 10.81" N

828	Kumbalam	Kumbalam	828	32	C43Q5/NW	Island near Panangad(BW)	0.14	76° 19' 52.81" E	9° 53' 12.98" N
829	Kumbalam	Kumbalam	829	32	C43Q5/NW	Island near Panangad(BW)	0.05	76° 19' 30.59" E	9° 53' 12.90" N
830	Kumbalam	Kumbalam	830	32	C43Q5/NW	Island near Panangad(BW)	0.08	76° 19' 6.86" E	9° 53' 38.16" N
831	Kumbalam	Kumbalam	831	32	C43Q5/NW	Island near Panangad(BW)	5.07	76° 19' 3.90" E	9° 53' 43.94" N
832	Kumbalam	Kumbalam	832	32	C43Q5/NW	Island near Kumbalam(BW)	0.20	76° 19' 0.81" E	9° 53' 28.38" N
833	Kumbalam	Kumbalam	833	32	C43Q5/NW	Island near Kumbalam(BW)	0.03	76° 18' 58.93" E	9° 53' 35.38" N
834	Kumbalam	Kumbalam	834	32	C43Q5/NW	Island near Kumbalam(BW)	0.09	76° 18' 40.29" E	9° 54' 28.51" N
835	Kumbalam	Kumbalam	835	32	C43Q5/NW	Island near Kumbalam(BW)	277.08	76° 18' 37.26" E	9° 54' 7.84" N
836	Maradu	Maradu	836	32	C43Q5/NW	Island near nettoor,Maradu(BW)	296.32	76° 18' 48.20" E	9° 55' 45.99" N
837	Maradu	Maradu	837	32	C43Q5/NW	Island near nettoor,Maradu(BW)	106.35	76° 18' 58.39" E	9° 56' 24.11" N
838	Maradu	Maradu	838	32	C43Q5/NW	Island near Kundanoor,Maradu(BW)	3.31	76° 18' 56.22" E	9° 56' 42.96" N
839	Kochi Municipal Corporation	Elamkulam	839	32	C43Q5/NW	Island near nettoor Bridge(BW)	140.86	76° 17' 58.16" E	9° 56' 19.58" N
840	Kochi Municipal Corporation	Rameswaram	840	32	C43Q5/NW	Willingdon Island,Kochi(BW)	85.22	76° 17' 11.17" E	9° 55' 50.07" N
841	Kochi Municipal Corporation	Mattancheri,Rameswaram	841	32	C43Q5/NW	Willingdon Island,Kochi(BW)	658.48	76° 16' 28.95" E	9° 56' 57.35" N
842	Kumbalam	Kumbalam	842	32	C43Q5/NW	Island near Vallarpadam(BW)	0.20	76° 15' 8.20" E	9° 59' 31.61" N
843	Kumbalam	Kumbalam	843	32	C43Q5/NW	Island near Vallarpadam(BW)	0.27	76° 15' 13.16" E	9° 59' 38.68" N
844	Kumbalam	Kumbalam	844	32	C43Q5/NW	Island near Vallarpadam(BW)	0.18	76° 15' 1.06" E	9° 59' 38.04" N
845	Kumbalam	Kumbalam	845	31	C43Q1/NE	Island near Vallarpadam(BW)	0.04	76° 14' 58.73" E	9° 59' 38.70" N
846	Kumbalam	Kumbalam	846	32	C43Q5/NW	Island near Vallarpadam(BW)	0.03	76° 15' 8.36" E	9° 59' 46.38" N
847	Kumbalam	Kumbalam	847	32	C43Q5/NW	Island near Vallarpadam(BW)	0.06	76° 15' 8.11" E	9° 59' 47.77" N
848	Kumbalam	Kumbalam	848	32	C43Q5/NW	Island near Vallarpadam(BW)	0.04	76° 15' 6.79" E	9° 59' 47.76" N
849	Kumbalam	Kumbalam	849	32	C43Q5/NW	Island near Vallarpadam(BW)	0.09	76° 15' 7.07" E	9° 59' 49.36" N
850	Kumbalam	Kumbalam	850	32	C43Q5/NW	Island near Vallarpadam(BW)	0.09	76° 15' 6.25" E	9° 59' 50.15" N
851	Kumbalam	Kumbalam	851	32	C43Q5/NW	Island near Vallarpadam(BW)	0.02	76° 15' 4.84" E	9° 59' 50.22" N
852	Kumbalam	Kumbalam	852	32	C43Q5/NW	Island near Vallarpadam(BW)	0.22	76° 15' 4.80" E	9° 59' 47.76" N
853	Kumbalam	Kumbalam	853	32	C43Q5/NW	Island near Vallarpadam(BW)	0.05	76° 15' 2.01" E	9° 59' 46.57" N
854	Kumbalam	Kumbalam	854	32	C43Q5/NW	Island near Vallarpadam(BW)	0.06	76° 15' 3.49" E	9° 59' 49.04" N
855	Mulavukade	Mulavukad	855	32	C43Q5/NW	Island near Vallarpadam(BW)	0.22	76° 15' 1.45" E	9° 59' 50.14" N

856	Mulavukade	Mulavukad	856	32	C43Q5/NW	Island near Vallarpadam(BW)	0.06	76° 15' 2.28" E	9° 59' 51.82" N
857	Mulavukade	Mulavukad	857	32	C43Q5/NW	Island near Vallarpadam(BW)	0.25	76° 15' 2.37" E	9° 59' 53.53" N
858	Mulavukade	Mulavukad	858	32	C43Q5/NW	Island near Vallarpadam(BW)	0.01	76° 15' 5.80" E	9° 59' 55.80" N
859	Mulavukade	Mulavukad	859	32	C43Q5/NW	Island near Vallarpadam(BW)	0.81	76° 15' 13.74" E	10° 0' 1.33" N
860	Mulavukkad	Mulavukkad	860	35	C43K8/SW	Island near Vallarpadam(BW)	0.01	76° 15' 5.76" E	10° 0' 0.47" N
861	Mulavukad	Mulavukad	861	35	C43K8/SW	Island near Vallarpadam(BW)	0.04	76° 15' 2.37" E	10° 0' 2.29" N
862	Mulavukade	Mulavukad	862	32	C43Q5/NW	Island near Vallarpadam(BW)	0.41	76° 15' 0.69" E	9° 59' 57.33" N
863	Mulavukade	Mulavukad	863	32	C43Q5/NW	Island near Vallarpadam(BW)	1.43	76° 14' 59.14" E	9° 59' 49.73" N
864	Mulavukade	Mulavukad	864	32	C43Q5/NW	Island near Vallarpadam(BW)	0.01	76° 14' 57.39" E	9° 59' 45.61" N
865	Mulavukade	Mulavukad	865	32	C43Q5/NW	Island near Vallarpadam(BW)	0.07	76° 14' 55.53" E	9° 59' 45.44" N
866	Mulavukade	Mulavukad	866	32	C43Q5/NW	Island near Vallarpadam(BW)	0.02	76° 14' 52.15" E	9° 59' 44.30" N
867	Mulavukade	Mulavukad	867	32	C43Q5/NW	Island near Vallarpadam(BW)	0.01	76° 14' 53.19" E	9° 59' 46.79" N
868	Mulavukade	Mulavukad	868	32	C43Q5/NW	Island near Vallarpadam(BW)	0.14	76° 14' 56.03" E	9° 59' 46.82" N
869	Mulavukade	Mulavukad	869	32	C43Q5/NW	Island near Vallarpadam(BW)	0.03	76° 14' 55.30" E	9° 59' 47.75" N
870	Mulavukade	Mulavukad	870	32	C43Q5/NW	Island near Vallarpadam(BW)	0.02	76° 14' 56.25" E	9° 59' 48.16" N
871	Mulavukade	Mulavukad	871	32	C43Q5/NW	Island near Vallarpadam(BW)	0.19	76° 14' 55.37" E	9° 59' 49.14" N
872	Mulavukade	Mulavukad	872	32	C43Q5/NW	Island near Vallarpadam(BW)	0.23	76° 14' 56.06" E	9° 59' 50.90" N
873	Mulavukade	Mulavukad	873	32	C43Q5/NW	Island near Vallarpadam(BW)	0.06	76° 14' 54.17" E	9° 59' 51.28" N
874	Mulavukade	Mulavukad	874	32	C43Q5/NW	Island near Vallarpadam(BW)	0.03	76° 14' 56.46" E	9° 59' 54.64" N
875	Mulavukade	Mulavukad	875	32	C43Q5/NW	Island near Vallarpadam(BW)	0.10	76° 14' 57.80" E	9° 59' 55.10" N
876	Mulavukade	Mulavukad	876	32	C43Q5/NW	Island near Vallarpadam(BW)	0.52	76° 14' 55.69" E	9° 59' 57.77" N
877	Mulavukade	Mulavukad	877	32	C43Q5/NW	Island near Vallarpadam(BW)	0.28	76° 14' 53.50" E	9° 59' 59.59" N
878	Mulavukade	Mulavukad	878	34	C43K4/SE	Island near Vallarpadam(BW)	0.01	76° 14' 56.41" E	10° 0' 1.52" N
879	Mulavukade	Mulavukad	879	34	C43K4/SE	Island near Vallarpadam(BW)	0.04	76° 14' 52.84" E	10° 0' 1.11" N
880	Mulavukade	Mulavukad	880	34	C43K4/SE	Island near Vallarpadam(BW)	0.17	76° 14' 53.38" E	10° 0' 10.03" N
881	Mulavukade	Mulavukad	881	34	C43K4/SE	Island near Vallarpadam(BW)	0.30	76° 14' 50.59" E	10° 0' 10.16" N
882	Mulavukade	Mulavukad	882	34	C43K4/SE	Island near Vallarpadam(BW)	0.18	76° 14' 48.70" E	10° 0' 10.93" N
883	Mulavukade	Mulavukad	883	34	C43K4/SE	Island near Vallarpadam(BW)	0.28	76° 14' 50.75" E	10° 0' 12.78" N
884	Mulavukade	Mulavukad	884	34	C43K4/SE	Island near Vallarpadam(BW)	0.05	76° 14' 55.42" E	10° 0' 12.99" N

885	Mulavukade	Mulavukad	885	34	C43K4/SE	Island near Vallarpadam(BW)	0.08	76° 14' 58.36" E	10° 0' 13.87" N
886	Mulavukad	Mulavukad	886	35	C43K8/SW	Island near Vallarpadam(BW)	0.02	76° 15' 2.00" E	10° 0' 13.68" N
887	Mulavukade	Mulavukad	887	34	C43K4/SE	Island near Vallarpadam(BW)	0.02	76° 14' 55.82" E	10° 0' 15.63" N
888	Mulavukade	Mulavukad	888	34	C43K4/SE	Island near Vallarpadam(BW)	0.01	76° 14' 55.28" E	10° 0' 16.18" N
889	Mulavukade	Mulavukad	889	34	C43K4/SE	Island near Vallarpadam(BW)	0.04	76° 14' 53.65" E	10° 0' 16.08" N
890	Mulavukade	Mulavukad	890	34	C43K4/SE	Island near Vallarpadam(BW)	0.02	76° 14' 54.30" E	10° 0' 15.46" N
891	Mulavukade	Mulavukad	891	34	C43K4/SE	Island near Vallarpadam(BW)	0.02	76° 14' 54.48" E	10° 0' 14.67" N
892	Mulavukade	Mulavukad	892	34	C43K4/SE	Island near Vallarpadam(BW)	0.13	76° 14' 52.70" E	10° 0' 14.80" N
893	Mulavukade	Mulavukad	893	34	C43K4/SE	Island near Vallarpadam(BW)	0.18	76° 14' 49.93" E	10° 0' 14.57" N
894	Mulavukade	Mulavukad	894	34	C43K4/SE	Island near Vallarpadam(BW)	0.06	76° 14' 53.89" E	10° 0' 25.46" N
895	Mulavukade	Mulavukad	895	34	C43K4/SE	Island near Vallarpadam(BW)	0.01	76° 14' 49.74" E	10° 0' 24.93" N
896	Mulavukade	Mulavukad	896	34	C43K4/SE	Island near Vallarpadam(BW)	0.09	76° 14' 44.28" E	10° 0' 26.11" N
897	Mulavukade	Mulavukad	897	34	C43K4/SE	Island near Vallarpadam(BW)	0.06	76° 14' 38.76" E	10° 0' 29.67" N
898	Mulavukade	Mulavukad	898	34	C43K4/SE	Island near Vallarpadam(BW)	0.03	76° 14' 36.82" E	10° 0' 32.83" N
899	Mulavukade	Mulavukad	899	34	C43K4/SE	Island near Vallarpadam(BW)	16.46	76° 14' 31.49" E	10° 0' 35.05" N
900	Mulavukade	Mulavukad	900	34	C43K4/SE	Island near Vallarpadam(BW)	39.63	76° 14' 46.13" E	10° 0' 9.26" N
901	Mulavukade	Mulavukad	901	31	C43Q1/NE	Island near Vallarpadam(BW)	0.36	76° 14' 37.67" E	10° 0' 0.04" N
902	Mulavukade	Mulavukad	902	31	C43Q1/NE	Island near Wallarpat Island,Vallarpadam(BW)	0.14	76° 14' 37.26" E	9° 59' 57.27" N
903	Mulavukade	Mulavukad	903	31	C43Q1/NE	Island near Vallarpadam(BW)	0.32	76° 14' 43.37" E	9° 59' 51.06" N
904	Mulavukade	Mulavukad	904	31	C43Q1/NE	Island near Goshree Bridge, Vallarpadam(BW)	197.92	76° 15' 4.82" E	9° 59' 6.43" N
905	Kochi Municipal Corporation	Rameswaram	905	31	C43Q1/NE	island near Cherukulam Palluruthy(BW)	0.06	76° 16' 41.09" E	9° 55' 28.37" N
906	Kochi Municipal Corporation	Edakochi	906	32	C43Q5/NW	Island near Edakochi(BW)	0.06	76° 17' 16.76" E	9° 55' 8.49" N
907	Kochi Municipal Corporation	Edakochi	907	32	C43Q5/NW	Island near Edakochi(BW)	0.24	76° 17' 17.36" E	9° 55' 4.96" N
908	Kochi Municipal Corporation	Edakochi	908	32	C43Q5/NW	Island near Edakochi(BW)	0.65	76° 17' 39.11" E	9° 55' 8.35" N
909	Kochi Municipal Corporation	Edakochi	909	32	C43Q5/NW	Island near Edakochi(BW)	187.51	76° 17' 29.49" E	9° 54' 35.22" N
910	Kochi Municipal Corporation	Edakochi	910	32	C43Q5/NW	Island near Edakochi(BW)	0.11	76° 17' 24.84" E	9° 54' 41.26" N

911	Kochi Municipal Corporation	Edakochi	911	32	C43Q5/NW	Island near Edakochi(BW)	0.52	76° 17' 27.39" E	9° 54' 34.98" N
912	Kochi Municipal Corporation	Edakochi	912	32	C43Q5/NW	Island near Edakochi(BW)	0.12	76° 17' 21.30" E	9° 54' 30.14" N
913	Kochi Municipal Corporation	Edakochi	913	32	C43Q5/NW	Island near Edakochi(BW)	0.65	76° 17' 22.32" E	9° 54' 27.42" N
914	Kochi Municipal Corporation	Edakochi	914	32	C43Q5/NW	Island near Edakochi(BW)	0.33	76° 17' 27.33" E	9° 54' 16.81" N
915	Kochi Municipal Corporation	Edakochi	915	32	C43Q5/NW	Island near Edakochi(BW)	0.02	76° 17' 24.84" E	9° 54' 2.27" N
916	Kumbalangi	Kumbalangi	916	32	C43Q5/NW	Island near Kumbalangi-Perumpadappu Bridge(BW)	0.03	76° 17' 13.52" E	9° 53' 44.81" N
917	Kumbalangi	Kumbalangi	917	32	C43Q5/NW	Island near north Kumbalangi(BW)	0.11	76° 17' 15.56" E	9° 53' 43.67" N
918	Kumbalangi	Kumbalangi	918	29	C43Q5/SW	Island near Kumbalangi(BW)	376.81	76° 17' 15.75" E	9° 52' 34.89" N
919	Kumbalangi	Kumbalangi	919	29	C43Q5/SW	Island near Kumbalangi(BW)	0.43	76° 17' 45.27" E	9° 51' 7.70" N
920	Kumbalangi	Kumbalangi	920	29	C43Q5/SW	Island near Kumbalangi(BW)	0.21	76° 17' 23.38" E	9° 51' 19.95" N
921	Kumbalangi	Kumbalangi	921	29	C43Q5/SW	Island near Kumbalangi(BW)	0.31	76° 17' 21.52" E	9° 51' 21.18" N
922	Kumbalangi	Kumbalangi	922	29	C43Q5/SW	Island near Kumbalangi(BW)	0.03	76° 17' 21.29" E	9° 51' 25.89" N
923	Kumbalangi	Kumbalangi	923	29	C43Q5/SW	Island near Kumbalangi(BW)	0.01	76° 17' 19.98" E	9° 51' 28.23" N
924	Kumbalangi	Kumbalangi	924	29	C43Q5/SW	Island near Kumbalangi(BW)	2.57	76° 17' 14.81" E	9° 51' 55.36" N
925	Kumbalangi	Kumbalangi	925	29	C43Q5/SW	Island near Kumbalangi(BW)	0.41	76° 17' 11.00" E	9° 52' 4.30" N
926	Kumbalangi	Kumbalangi	926	29	C43Q5/SW	Island near Kumbalangi(BW)	2.00	76° 17' 10.37" E	9° 52' 8.59" N
927	Kumbalangi	Kumbalangi	927	29	C43Q5/SW	Island near Kumbalangi(BW)	4.52	76° 17' 6.82" E	9° 52' 17.60" N
928	Kumbalangi	Kumbalangi	928	29	C43Q5/SW	Island near Kumbalangi(BW)	0.04	76° 17' 2.76" E	9° 52' 22.52" N
929	Kumbalangi	Kumbalangi	929	32	C43Q5/NW	Island near Kumbalangi(BW)	0.10	76° 17' 8.11" E	9° 52' 31.87" N
930	Kumbalangi	Kumbalangi	930	32	C43Q5/NW	Island near Kumbalangi(BW)	0.01	76° 17' 2.12" E	9° 52' 40.51" N
931	Chellanam	Kumbalangi	931	32	C43Q5/NW	Island near North Kumbalangi, Kumbalangi (BW)	14.21	76° 16' 38.88" E	9° 53' 28.68" N
932	Kochi Municipal Corporation	Palluruthi	932	32	C43Q5/NW	Island near Cultus Hospital (BW)	0.02	76° 16' 42.91" E	9° 54' 4.34" N
933	Kochi Municipal Corporation	Palluruthi	933	32	C43Q5/NW	Island near Velliyyathara, K R Narayanan Road, Kochi (BW)	0.52	76° 16' 39.14" E	9° 54' 16.28" N
934	Chellanam	Palluruthi	934	32	C43Q5/NW	Island near Chinmaya Vidyalaya Kalathara Bridge Road (BW)	0.05	76° 15' 56.04" E	9° 54' 40.52" N
935	Chellanam	Palluruthi	935	32	C43Q5/NW	Island near Chinmaya Vidyalaya Kalathara Bridge Road (BW)	0.05	76° 15' 55.39" E	9° 54' 43.47" N

936	Chellanam	Palluruthi	936	32	C43Q5/NW	Island near Chinmaya Vidyalaya Kalathara Bridge Road (BW)	7.19	76° 15' 48.62" E	9° 54' 53.75" N
937	Chellanam	Palluruthi	937	32	C43Q5/NW	Island near Mundamveli, Kochi (BW)	0.04	76° 15' 42.05" E	9° 55' 8.08" N
938	Chellanam	Palluruthi	938	32	C43Q5/NW	Island near MES College Thonithodu,, Chellanam (BW)	1.65	76° 15' 31.57" E	9° 55' 20.32" N
939	Chellanam	Palluruthi	939	32	C43Q5/NW	Island near MES College Thonithodu,, Chellanam (BW)	2.42	76° 15' 30.94" E	9° 55' 12.49" N
940	Chellanam	Palluruthi	940	32	C43Q5/NW	Island near MES College Thonithodu,, Chellanam (BW)	0.05	76° 15' 39.01" E	9° 55' 4.58" N
941	Chellanam	Palluruthi	941	32	C43Q5/NW	Island near MES College Thonithodu,, Chellanam (BW)	0.01	76° 15' 35.50" E	9° 55' 4.82" N
942	Chellanam	Palluruthi	942	32	C43Q5/NW	Island near Kalathara Bridge (BW)	1.09	76° 15' 35.12" E	9° 55' 1.90" N
943	Chellanam	Palluruthi	943	32	C43Q5/NW	Island near Kalathara Bridge (BW)	0.03	76° 15' 35.10" E	9° 54' 50.89" N
944	Chellanam	Palluruthi	944	32	C43Q5/NW	Island near Kalathara Bridge (BW)	4.72	76° 15' 43.60" E	9° 54' 37.82" N
945	Chellanam	Palluruthi	945	32	C43Q5/NW	Island near Kalathara Bridge (BW)	0.68	76° 15' 39.31" E	9° 54' 40.03" N
946	Chellanam	Palluruthi	946	32	C43Q5/NW	Island near Mangroove Resort Kari Kalathara Road, Kuthirakoor Kari, Palluruthy (BW)	0.07	76° 15' 43.47" E	9° 54' 28.79" N
947	Chellanam	Palluruthi	947	32	C43Q5/NW	Island near Mangroove Resort Kari Kalathara Road, Kuthirakoor Kari, Palluruthy (BW)	0.01	76° 15' 46.85" E	9° 54' 18.37" N
948	Chellanam	Palluruthi	948	32	C43Q5/NW	Island near Mangroove Resort Kari Kalathara Road, Kuthirakoor Kari, Palluruthy (BW)	0.13	76° 15' 47.61" E	9° 54' 16.49" N
949	Chellanam	Palluruthi	949	32	C43Q5/NW	Island near Kuthirakoor Kari Fathima Matha Church (BW)	7.85	76° 15' 55.84" E	9° 53' 58.38" N
950	Chellanam	Palluruthi	950	32	C43Q5/NW	Island near Kalathara Bridge (BW)	0.29	76° 15' 27.82" E	9° 54' 42.19" N
951	Chellanam	Palluruthi	951	32	C43Q5/NW	Island near Cheriakadavu, Kannamaly (BW)	0.18	76° 15' 31.86" E	9° 54' 26.00" N
952	Chellanam	Kumbalangi	952	29	C43Q5/SW	Island near Kannamaly, Chellanam (BW)	3.04	76° 15' 52.43" E	9° 52' 22.38" N
953	Chellanam	Kumbalangi	953	29	C43Q5/SW	Island near SH66, Kannamaly, Kochi (BW)	3.73	76° 15' 57.80" E	9° 52' 17.77" N
954	Chellanam	Kumbalangi	954	29	C43Q5/SW	Island near Puthenthodu Beach (BW)	7.24	76° 15' 58.58" E	9° 52' 9.37" N
955	Chellanam	Kumbalangi	955	29	C43Q5/SW	Island near Kannamaly, Koch (BW)	0.16	76° 15' 57.79" E	9° 52' 0.52" N
956	Chellanam	Kumbalangi	956	29	C43Q5/SW	Island near Kannamaly, Koch (BW)	6.76	76° 15' 53.02" E	9° 51' 49.72" N
957	Chellanam	Kumbalangi	957	29	C43Q5/SW	Island near St. Xavier's Public School Kandakkadavu, Kannamaly, Chellanam (BW)	27.97	76° 16' 3.87" E	9° 51' 26.76" N

958	Chellanam	Kumbalangi	958	29	C43Q5/SW	Island near HEBRON CHURCH (BW)	3.31	76° 16' 6.06" E	9° 51' 13.79" N
959	Chellanam	Kumbalangi	959	29	C43Q5/SW	Island near Chellanam Panchayath Office Kochi (BW)	0.08	76° 16' 3.61" E	9° 50' 59.55" N
960	Chellanam	Kumbalangi	960	29	C43Q5/SW	Island near Sri.Karthayani Temple (BW)	0.17	76° 16' 4.48" E	9° 50' 55.22" N
961	Chellanam	Kumbalangi	961	29	C43Q5/SW	Island near Sri.Karthayani Temple (BW)	0.38	76° 16' 6.27" E	9° 50' 47.55" N
962	Chellanam	Kumbalangi	962	29	C43Q5/SW	Island near Sri.Karthayani Temple (BW)	0.08	76° 16' 9.95" E	9° 50' 42.22" N
963	Chellanam	Kumbalangi	963	29	C43Q5/SW	Island near Sri.Karthayani Temple (BW)	0.10	76° 16' 7.79" E	9° 50' 41.30" N
964	Chellanam	Chellanam	964	29	C43Q5/SW	Island near Sri.Karthayani Temple (BW)	0.06	76° 16' 9.88" E	9° 50' 37.04" N
965	Chellanam	Chellanam	965	29	C43Q5/SW	Island near Chellanam (BW)	0.40	76° 16' 10.53" E	9° 50' 32.69" N
966	Chellanam	Chellanam	966	29	C43Q5/SW	Island near Exodus Public School (BW)	0.17	76° 16' 11.64" E	9° 50' 27.42" N
967	Chellanam	Chellanam	967	29	C43Q5/SW	Island near Little Flower Roman Catholic Latin Church Chellanam (BW)	1.97	76° 16' 13.97" E	9° 50' 19.85" N
968	Chellanam	Chellanam	968	29	C43Q5/SW	Island near Thravil School Stop, Our Lady of Perpetual Help Church Chellanam (BW)	1.81	76° 16' 16.14" E	9° 50' 9.24" N
969	Chellanam	Chellanam	969	29	C43Q5/SW	Island near Nithyasahaya Matha Chapel(BW)	0.16	76° 16' 19.11" E	9° 50' 6.22" N
970	Chellanam	Chellanam	970	29	C43Q5/SW	Island near Thravil School Stop, Our Lady of Perpetual Help Church (BW)	0.05	76° 16' 17.54" E	9° 50' 5.55" N
971	Chellanam	Chellanam	971	29	C43Q5/SW	Island near Chellanam (BW)	0.22	76° 16' 21.17" E	9° 50' 2.53" N
972	Chellanam	Chellanam	972	29	C43Q5/SW	Island near Chellanam (BW)	0.01	76° 16' 21.37" E	9° 50' 0.57" N
973	Chellanam	Chellanam	973	29	C43Q5/SW	Island near Sree Maruvan Temple (BW)	0.41	76° 16' 20.56" E	9° 49' 54.79" N
974	Chellanam	Chellanam	974	29	C43Q5/SW	Island near Sree Maruvan Temple (BW)	1.24	76° 16' 24.88" E	9° 49' 57.46" N
975	Chellanam	Chellanam	975	29	C43Q5/SW	Island near Sree Maruvan Temple (BW)	0.26	76° 16' 26.22" E	9° 49' 48.90" N
976	Chellanam	Chellanam	976	29	C43Q5/SW	Island near Cortina Hospital (BW)	1.97	76° 16' 28.39" E	9° 49' 42.42" N
977	Chellanam	Chellanam	977	29	C43Q5/SW	Island near Cortina Hospital (BW)	1.33	76° 16' 34.45" E	9° 49' 43.21" N
978	Chellanam	Chellanam	978	29	C43Q5/SW	Island near St. Mary's High School Chellanam (BW)	0.18	76° 16' 22.99" E	9° 49' 31.33" N
979	Chellanam	Chellanam	979	29	C43Q5/SW	Island near St. Mary's High School Chellanam (BW)	0.24	76° 16' 37.00" E	9° 49' 32.86" N
980	Chellanam	Chellanam	980	29	C43Q5/SW	Island near St. Mary's High School Chellanam (BW)	0.51	76° 16' 34.26" E	9° 49' 30.10" N
981	Chellanam	Chellanam	981	29	C43Q5/SW	Island near St. Mary's High School Chellanam (BW)	0.58	76° 16' 26.54" E	9° 49' 28.78" N
982	Chellanam	Chellanam	982	29	C43Q5/SW	Island near St. Mary's High School Chellanam (BW)	1.97	76° 16' 37.84" E	9° 49' 28.58" N

983	Chellanam	Chellanam	983	29	C43Q5/SW	Island near St. Mary's High School Chellanam (BW)	0.50	76° 16' 25.27" E	9° 49' 23.69" N
984	Chellanam	Chellanam	984	29	C43Q5/SW	Island near KSFE Chellanam (BW)	0.09	76° 16' 35.67" E	9° 49' 21.29" N
985	Chellanam	Chellanam	985	29	C43Q5/SW	Island near KSFE Chellanam (BW)	1.68	76° 16' 40.61" E	9° 49' 16.98" N
986	Chellanam	Chellanam	986	29	C43Q5/SW	Island near Chellanam Ezhupunna Road, Chellanam, (BW)	1.02	76° 16' 43.52" E	9° 49' 7.59" N
987	Chellanam	Chellanam	987	29	C43Q5/SW	Island near Chellanam Ezhupunna Road, Chellanam, (BW)	0.11	76° 16' 45.86" E	9° 49' 9.14" N
988	Chellanam	Chellanam	988	29	C43Q5/SW	Island near Chellanam Ezhupunna Road, Chellanam, (BW)	0.004	76° 16' 38.72" E	9° 49' 3.27" N
989	Chellanam	Chellanam	989	29	C43Q5/SW	Island near Chellanam (BW)	2.19	76° 16' 35.55" E	9° 48' 45.47" N
990	Chellanam	Chellanam	990	29	C43Q5/SW	Island near Chellanam (BW)	0.01	76° 16' 43.54" E	9° 48' 40.83" N
991	Chellanam	Chellanam	991	29	C43Q5/SW	Island near St. Xavier's Roman Catholic Latin Church(BW)	27.9	76° 16' 36.55" E	9° 48' 13.64" N
992	Chellanam	Chellanam	992	29	C43Q5/SW	Island near South, Chellanam Ezhupunna Road, (BW)	0.13	76° 16' 41.26" E	9° 48' 40.21" N
993	Chellanam	Chellanam	993	29	C43Q5/SW	Island near Chellanam (BW)	0.03	76° 16' 39.74" E	9° 48' 37.59" N
994	Chellanam	Chellanam	994	29	C43Q5/SW	Island near Chellanam (BW)	0.56	76° 16' 42.74" E	9° 48' 34.39" N
995	Chellanam	Chellanam	995	29	C43Q5/SW	Island near Jaimon Home, Chellanam (BW)	4.13	76° 16' 38.58" E	9° 48' 29.93" N
996	Chellanam	Chellanam	996	29	C43Q5/SW	Island near Chellanam (BW)	0.06	76° 16' 42.24" E	9° 48' 24.07" N
997	Chellanam	Chellanam	997	29	C43Q5/SW	Island near Chellanam (BW)	0.06	76° 16' 43.05" E	9° 48' 21.40" N
998	Chellanam	Chellanam	998	29	C43Q5/SW	Island near Chellanam (BW)	0.12	76° 16' 38.93" E	9° 48' 19.68" N
999	Chellanam	Chellanam	999	29	C43Q5/SW	Island near Sree Subramanya Temple Cherunkal(BW)	0.36	76° 16' 53.14" E	9° 47' 44.28" N
1000	Chellanam	Chellanam	1000	29	C43Q5/SW	Island near St. BernaRoad Chapel Chellanam (BW)	0.06	76° 16' 47.34" E	9° 48' 24.27" N
1001	Chellanam	Chellanam	1001	29	C43Q5/SW	Island near near to South Chellanam Post Office South Chellanam(BW)	0.19	76° 16' 47.80" E	9° 47' 37.62" N
1002	Chellanam	Chellanam	1002	29	C43Q5/SW	Island near St. BernaRoad Chapel Chellanam (BW)	19.04	76° 16' 47.54" E	9° 48' 37.01" N
1003	Chellanam	Chellanam	1003	29	C43Q5/SW	Island near Theo Joseph Memorial, Leo School Road, South Chellanam (BW)	0.91	76° 16' 44.23" E	9° 47' 35.00" N
1004	Chellanam	Chellanam	1004	29	C43Q5/SW	Island near Chellanam (BW)	0.03	76° 16' 45.37" E	9° 48' 13.20" N
1005	Chellanam	Chellanam	1005	29	C43Q5/SW	Island near Theo Joseph Memorial, Leo School Road, South Chellanam (BW)	3.17	76° 16' 47.31" E	9° 47' 29.61" N
1006	Chellanam	Chellanam	1006	29	C43Q5/SW	Island near Sree Bhadrakraali Temple Chellanam (BW)	0.90	76° 16' 47.69" E	9° 48' 6.26" N

1007	Chellanam	Chellanam	1007	29	C43Q5/SW	Island near Theo Joseph Memorial, Leo School Road, South Chellanam (BW)	1.15	76° 17' 0.04" E	9° 47' 31.45" N
1008	Chellanam	Chellanam	1008	29	C43Q5/SW	Island near Sree Bhadrakaali Temple Chellanam (BW)	0.22	76° 16' 51.50" E	9° 47' 58.73" N
1009	Chellanam	Chellanam	1009	29	C43Q5/SW	Island near Sree Subramanya Temple Cherunkal(BW)	0.39	76° 16' 56.23" E	9° 47' 40.37" N
1010	Chellanam	Chellanam	1010	29	C43Q5/SW	Island near Sree Bhadrakaali Temple Chellanam (BW)	0.14	76° 16' 52.83" E	9° 47' 55.05" N
1011	Chellanam	Chellanam	1011	29	C43Q5/SW	Island near Sree Bhadrakaali Temple Chellanam (BW)	0.06	76° 16' 58.05" E	9° 47' 47.96" N
1012	Chellanam	Chellanam	1012	29	C43Q5/SW	Island near Sree Bhadrakaali Temple Chellanam (BW)	0.08	76° 16' 49.98" E	9° 47' 53.71" N
1013	Chellanam	Chellanam	1013	29	C43Q5/SW	Island near Sree Bhadrakaali Temple Chellanam (BW)	0.13	76° 16' 53.66" E	9° 47' 55.05" N
1014	Chellanam	Chellanam	1014	29	C43Q5/SW	kodamthuruth (BW)	0.04	76° 17' 28.05" E	9° 48' 27.46" N
1015	Chellanam	Chellanam	1015	29	C43Q5/SW	Island near Sree Bhadrakaali Temple Chellanam (BW)	0.07	76° 16' 49.74" E	9° 47' 47.92" N
1016	Chellanam	Chellanam	1016	29	C43Q5/SW	Kodamthuruth (BW)	0.02	76° 17' 27.68" E	9° 48' 27.94" N
1017	Chellanam	Chellanam	1017	29	C43Q5/SW	Island near Sree Bhadrakaali Temple Chellanam (BW)	0.03	76° 16' 50.76" E	9° 47' 49.59" N
1018	Chellanam	Chellanam	1018	29	C43Q5/SW	Kodamthuruth (BW)	0.05	76° 17' 27.09" E	9° 48' 30.05" N
1019	Chellanam	Chellanam	1019	29	C43Q5/SW	Island near St. Jude Chapel Kodamthuruth (BW)	0.05	76° 17' 26.83" E	9° 48' 30.99" N
1020	Chellanam	Chellanam	1020	29	C43Q5/SW	Island near Chellanam (BW)	0.10	76° 16' 28.41" E	9° 50' 10.86" N
1021	Chellanam	Chellanam	1021	29	C43Q5/SW	Island near Chellanam (BW)	0.17	76° 16' 24.74" E	9° 50' 19.84" N
1022	Chellanam	Kumbalangi	1022	29	C43Q5/SW	Island near Chellanam (BW)	0.04	76° 16' 21.88" E	9° 50' 39.67" N
1023	Chellanam	Kumbalangi	1023	29	C43Q5/SW	Island near Chellanam Panchayath Office Kochi (BW)	0.18	76° 16' 13.73" E	9° 50' 55.02" N
1024	Chellanam	Kumbalangi	1024	29	C43Q5/SW	Island near Chellanam Panchayath Office Kochi (BW)	0.02	76° 16' 9.78" E	9° 50' 58.25" N
1025	Chellanam	Kumbalangi	1025	29	C43Q5/SW	Island near Chellanam Panchayath Office Kochi (BW)	1.24	76° 16' 17.25" E	9° 50' 53.65" N
1026	Chellanam	Kumbalangi	1026	29	C43Q5/SW	Island near Chellanam Panchayath Office Kochi (BW)	0.47	76° 16' 10.13" E	9° 51' 0.58" N
1027	Chellanam	Kumbalangi	1027	29	C43Q5/SW	Island near Chellanam Panchayath Office Kochi (BW)	0.02	76° 16' 8.24" E	9° 51' 2.66" N
1028	Chellanam	Kumbalangi	1028	29	C43Q5/SW	Island near Chellanam Panchayath Office Kochi (BW)	0.01	76° 16' 12.23" E	9° 51' 3.53" N
1029	Chellanam	Kumbalangi	1029	29	C43Q5/SW	Island near Chellanam Panchayath Office Kochi (BW)	0.03	76° 16' 11.80" E	9° 51' 4.95" N

1030	Chellanam	Kumbalangi	1030	29	C43Q5/SW	Island near 110KV Sub Station Chellanam, (BW)	0.03	76° 16' 18.63" E	9° 51' 18.21" N
1031	Chellanam	Kumbalangi	1031	29	C43Q5/SW	Island near Kandakkadavu, Kannamaly(BW)	0.11	76° 16' 3.38" E	9° 51' 26.15" N
1032	Chellanam	Kumbalangi	1032	29	C43Q5/SW	Island near Kandakkadavu, Kannamaly(BW)	0.03	76° 16' 2.80" E	9° 51' 27.36" N
1033	Chellanam	Kumbalangi	1033	29	C43Q5/SW	Island near Kandakkadavu, Kannamaly(BW)	0.50	76° 16' 1.49" E	9° 51' 34.14" N
1034	Chellanam	Kumbalangi	1034	29	C43Q5/SW	Island near Puthenthode Government Higher Secondary School Chellanam(BW)	0.11	76° 16' 1.40" E	9° 51' 39.67" N
1035	Chellanam	Kumbalangi	1035	29	C43Q5/SW	Island near Puthenthode Government Higher Secondary School Chellanam(BW)	0.03	76° 16' 0.78" E	9° 51' 40.97" N
1036	Chellanam	Kumbalangi	1036	29	C43Q5/SW	Island near Kandakkadavu, Kannamaly, Chellanam(BW)	0.03	76° 15' 59.31" E	9° 51' 40.36" N
1037	Chellanam	Kumbalangi	1037	29	C43Q5/SW	Island near Kannamaly(BW)	0.06	76° 16' 7.74" E	9° 51' 46.08" N
1038	Chellanam	Kumbalangi	1038	29	C43Q5/SW	Island near Kannamaly(BW)	0.08	76° 16' 1.24" E	9° 51' 48.25" N
1039	Chellanam	Kumbalangi	1039	29	C43Q5/SW	Island near , Michaels Land Homestay Resort Kumbalangi(BW)	7.05	76° 16' 29.88" E	9° 52' 18.12" N
1040	Chellanam	Kumbalangi	1040	29	C43Q5/SW	Island near St. John The Baptist Church, Kumbalangi(BW)	0.56	76° 16' 38.74" E	9° 51' 58.66" N
1041	Chellanam	Kumbalangi	1041	29	C43Q5/SW	Island near Aquatic Island by POPPYS(BW)	2.18	76° 16' 42.66" E	9° 51' 29.68" N
1042	Chellanam	Kumbalangi	1042	29	C43Q5/SW	Island near Pazhangad, Kumbalangi(BW)	0.12	76° 16' 50.75" E	9° 51' 31.07" N
1043	Chellanam	Kumbalangi	1043	29	C43Q5/SW	Island near Pazhangad, Kumbalangi(BW)	0.02	76° 16' 52.99" E	9° 51' 13.13" N
1044	Chellanam	Kumbalangi	1044	29	C43Q5/SW	Island near Pazhangad, Kumbalangi(BW)	0.09	76° 16' 54.49" E	9° 51' 12.17" N
1045	Chellanam	Kumbalangi	1045	29	C43Q5/SW	Island near Pazhangad, Kumbalangi(BW)	0.21	76° 16' 56.58" E	9° 51' 6.92" N
1046	Chellanam	Kumbalangi	1046	29	C43Q5/SW	Island near Pazhangad, Kumbalangi(BW)	0.63	76° 16' 59.58" E	9° 50' 56.99" N
1047	Chellanam	Kumbalangi	1047	29	C43Q5/SW	Island near Pazhangad, Kumbalangi(BW)	1.85	76° 17' 4.03" E	9° 50' 43.58" N
1048	Chellanam	Kumbalangi	1048	29	C43Q5/SW	Island near Pazhangad, Kumbalangi(BW)	0.04	76° 17' 0.00" E	9° 51' 5.18" N
1049	Kumbalangi	Kumbalangi	1049	29	C43Q5/SW	Island near Aquatic Island by POPPYS(BW)	0.05	76° 17' 1.64" E	9° 51' 6.76" N
1050	Kumbalangi	Kumbalangi	1050	29	C43Q5/SW	Island near Aquatic Island by POPPYS(BW)	0.25	76° 17' 0.40" E	9° 51' 9.91" N
1051	Kumbalangi	Kumbalangi	1051	29	C43Q5/SW	Island near Aquatic Island by POPPYS(BW)	0.09	76° 17' 0.69" E	9° 51' 13.51" N

1052	Kumbalangi	Kumbalangi	1052	29	C43Q5/SW	Island near Aquatic Island by POPPYS(BW)	0.19	76° 17' 0.93" E	9° 51' 14.73" N
1053	Kumbalangi	Kumbalangi	1053	29	C43Q5/SW	Island near Pazhangad, Kumbalangi(BW)	0.25	76° 17' 4.12" E	9° 51' 41.54" N
1054	Kumbalangi	Kumbalangi	1054	29	C43Q5/SW	Island near Frenzy Emu Farm(BW)	1.40	76° 16' 57.11" E	9° 52' 5.16" N
1055	Kumbalangi	Kumbalangi	1055	29	C43Q5/SW	Island near Jossey's Resort Kumbalangi(BW)	0.25	76° 16' 47.07" E	9° 52' 14.30" N
1056	Kumbalangi	Kumbalangi	1056	29	C43Q5/SW	Island near Jossey's Resort Kumbalangi(BW)	0.04	76° 16' 52.63" E	9° 52' 18.64" N
1057	Kumbalangi	Kumbalangi	1057	29	C43Q5/SW	Island near Jossey's Resort Kumbalangi(BW)	0.16	76° 16' 52.67" E	9° 52' 22.30" N
1058	Kumbalangi	Kumbalangi	1058	29	C43Q5/SW	Island near Jossey's Resort Kumbalangi(BW)	0.36	76° 16' 52.61" E	9° 52' 24.28" N
1059	Kumbalangi, Chellanam	Kumbalangi	1059	32	C43Q5/NW	Island near Sree Krishna Temple(BW)	0.31	76° 16' 55.36" E	9° 52' 34.37" N
1060	Kumbalangi	Kumbalangi	1060	29	C43Q5/SW	Island near Frenzy Emu Farm(BW)	1.76	76° 17' 0.67" E	9° 52' 11.06" N
1061	Kumbalangi	Kumbalangi	1061	29	C43Q5/SW	Island near Pazhangad, Kumbalangi(BW)	0.13	76° 17' 4.98" E	9° 52' 2.46" N
1062	Kumbalangi	Kumbalangi	1062	29	C43Q5/SW	Island near Pazhangad, Kumbalangi(BW)	0.34	76° 17' 3.08" E	9° 52' 0.78" N
1063	Kumbalangi	Kumbalangi	1063	29	C43Q5/SW	Island near Pazhangad, Kumbalangi(BW)	0.04	76° 17' 6.55" E	9° 51' 46.36" N
1064	Kumbalangi	Kumbalangi	1064	29	C43Q5/SW	Island near Pazhangad, Kumbalangi(BW)	0.03	76° 17' 9.99" E	9° 51' 24.36" N
1065	Kumbalangi	Kumbalangi	1065	29	C43Q5/SW	Island near Pazhangad, Kumbalangi(BW)	0.12	76° 17' 10.66" E	9° 51' 20.35" N
1066	Kumbalangi	Kumbalangi	1066	29	C43Q5/SW	Island near Pazhangad, Kumbalangi(BW)	1.59	76° 17' 16.13" E	9° 51' 10.79" N
1067	Kumbalangi	Kumbalangi	1067	29	C43Q5/SW	Island near Pazhangad, Kumbalangi(BW)	0.18	76° 17' 10.56" E	9° 51' 13.15" N
1068	Kumbalangi	Kumbalangi	1068	29	C43Q5/SW	Island near Pazhangad, Kumbalangi(BW)	0.03	76° 17' 7.53" E	9° 51' 18.87" N
1069	Kumbalangi	Kumbalangi	1069	29	C43Q5/SW	Island near Pazhangad, Kumbalangi(BW)	0.06	76° 17' 2.02" E	9° 51' 10.65" N
1070	Kumbalangi	Kumbalangi	1070	29	C43Q5/SW	Island near Pazhangad, Kumbalangi(BW)	0.08	76° 17' 3.84" E	9° 51' 5.52" N
1071	Kumbalangi	Kumbalangi	1071	29	C43Q5/SW	Island near Pazhangad, Kumbalangi,(BW)	0.25	76° 17' 4.27" E	9° 51' 3.68" N
1072	Udayamperoor	Manakkunnam	1072	30	C43Q5/SE	Island near Poothotta, Manakunnam,(BW)	1.34	76° 22' 47.52" E	9° 51' 3.17" N
1073	Udayamperoor	Mannakunnam	1073	29	C43Q5/SW	Vattaveli Thuruth, Manakunnam, Kerala(BW)	0.95	76° 22' 22.60" E	9° 50' 55.53" N
1074	Udayamperoor	Mannakunnam	1074	29,30	C43Q5/SW, C43Q5/SE	Amachadi Thuruthu, Manakunnam(BW)	11.02	76° 22' 30.55" E	9° 50' 24.20" N

Table-5: CRZ details in Local bodies of Ernakulam District

Localbody	HTL (Km)		CRZIA (ha)			CRZ IB (ha)		CRZII (ha)		CRZ III (ha)				NDZ for Islands (ha)	CRZ IVB (ha)
										No Development Zone		CRZ IIIA (50-500m)	CRZ IIIB (200-500M)		
	Along Coast	Along Creek	Archaeological & Heritage Site	Mangroves	50m Mangrove Buffer Zone	Intertidal Zone	Pokkali Field/ Aquaculture Ponds	Along Coast	Along creek	Along Coast	Along creek	Along Coast	Along creek		
Puthenvelikara		41.92		2.96	11.71	35.17					109.84			15.57	292.38
Kunnukara		3.58		0.20		0.35					16.19				19.19
Chendamangalam		36.36	0.11	0.34		1.43					13.39			61.13	190.32
Chittattukara		48.50		1.05	2.00	16.13	42.38							84.97	70.37
Vadakkekara		64.98		0.24		11.71								117.82	93.92
Pallippuram	6.92	80.88	0.02	1.75	4.15	68.37	57.91			33.01	40.82	53.56		119.6	237.57
Paravur Municipal Corporation		19.99	0.01	0.16		1.62								38.93	25.51
Ezhikkara		103.1		3.43	6.55	23.36	697.44							119.78	781.13
Karumalloor		24.49		1.06	2.73	1.98					3.99			40.99	67.93
Kottuvally		90.59		3.45	10.82	73.72	341.09							142.36	287.12
Kuzhappilly	2.34	37.71		1.20	3.50	96.00	195.55			11.68	14.54	5.69		52.00	18.40
Edavanakkad	3.40	102.10		4.22	6.82	176.89	180.53			33.65	9.32		0.08	101.29	108.92
Alangad		13.32		1.77	8.06	10.46								25.33	47.61
Nayarambalam	3.11	82.06		9.32	21.48	77.36	377.19			37.06	1.51			80.47	34.30
Njarakkal	2.22	60.51		15.60	41.58	96.53	168.91			10.41	15.46	3.88		66.12	175.83
Varapuzha		36.21		2.10	4.76	28.57	230.02				0.70			53.61	125.20
Kadungallur		2.52				1.54								4.66	21.24

Eloor Municipal Corporation		4.42				1.51								11.32	3.69
Kalamassery Municipal Corporation		0.71				0.40			2.00						1.79
Thrikkakara Municipal Corporation		15.79		0.05		54.13			49.02					0.41	19.69
Cheranallur		32.01		1.20	4.02	167.43	52.09				28.56			42.55	57.83
Kadamakkudy		86.86		7.65	8.77	59.99	537.69				0.72			116.91	463.79
Mulavukade		89.72		49.05	195.95	46.30	220.23							117.52	702.08
Elamkunnappu	7.67	151.20		192.84	253.48	246.55	108.19			38.93	98.09	174.98		146.15	366.04
Kochi Corporation	5.44	215.37	0.24	47.90	160.33	129.41	24.54	277.83	354.03					133.01	1920.87
Thrippunithura Municipal Corporation		61.85		24.68	57.44	99.19	160.45		121.37					32.52	184.06
Maradu Municipal Corporation		75.17		42.87	124.45	47.63	96.55							102.26	284.14
Kumbalam		104.83		26.97	87.41	119.90	97.81						27.72	142.47	1190.21
Chellanam	15.23	186.20		65.60	189.83	169.85	845.28			253.99	60.19		60.55	129.75	853.15
Kumbalangi		59.55		7.57	31.75	16.63	220.36							74.97	265.25
Udayamperoor		22.97		14.95	28.79	45.25	98.26				74.52			5.54	873.05
Amballur		9.98				5.35					36.25				24.35
SUB TOTAL	46.33	1965.45	0.38	530.18	1264.38	1930.71	4752.47	277.83	526.42	418.73	524.09	238.11	60.63	2180.01	9806.93
TOTAL	2011.78		530.56	1264.38		6683.18		804.25		942.82		238.11	60.63	2180.01	9806.93

Table-6: CRZ details in Villages of Ernakulam District

Localbody	Village	HTL (Km)		CRZ IA (ha)			CRZ IB (ha)		CRZ II (ha)	CRZ III (ha)					NDZ for Islands (ha)	CRZ IVB
		Along Coast	Along Creek	Archaeological & Heritage Site	Mangroves	50m Mangrove Buffer	Intertidal Zone	Pokkali Field/Aquaculture ponds	Along Coast	Along creek	No Development Zone		CRZ III A 50-500 m (ha)	CRZ III B 200-500m (ha)		
											Along Coast	Along creek				
Puthenvelikara	Puthenvelikara		41.92		2.96	11.71	35.17					109.84			15.57	292.38
Kunnukara	Puthenvelikara		3.58		0.20		0.35					16.19				19.19
Chendamangalam	Chendamangalam		36.36	0.11	0.34		1.43					13.39			61.13	190.32
Chittattukara	Vadakkekkara		39.72		1.05	2.00	16.13	42.38							65.56	59.71
	Paravur		8.78												19.41	10.66
Vadakkekkara	Muthakunnam		58.16		0.22		10.89								103.99	60.03
	Vadakkekkara		6.82		0.02		0.82								13.83	33.89
Pallippuram	Kuzhappilly (Block 1)	2.65	19.44	0.02	0.71	4.15	13.39	13.55			11.64	15.63	35.15		24.06	35.86
	Pallippuram	4.27	61.44		1.04		54.98	44.36			21.37	25.19	18.41		95.54	201.71
Paravur Municipal Corporation	Paravur		17.62	0.01	0.16		1.53								34.03	24.13
	Kottuvally		2.37				0.09								4.90	1.38
Ezhikkara	Ezhikkara		26.99		0.72	0.83	13.2	221.40							41.54	336.89
	Nayarambalam		0.07			0.39		70.25							0.01	99.33
	Paravur		76.04		2.71	5.33	10.16	405.79							78.23	344.91
Karumalloor	Karumalloor		24.49		1.06	2.73	1.98					3.99			40.99	67.93
Kottuvally	Kottuvally		90.25		3.45	9.91	73.72	341.09							141.55	286.62
	Paravur		0.34			0.91									0.81	0.50
Kuzhappilly	Kuzhappilly (Block 3)	2.34	37.71		1.20	3.50	96.00	195.55			11.68	14.54	5.69		52.00	18.40
Edavanakkad	Edavanakkad	3.40	102.10		4.22	6.82	176.89	180.53			33.65	9.32		0.08	101.29	108.92
Alangad	Alangad		13.32		1.77	8.06	10.46								25.33	47.61
Nayarambalam	Nayarambalam	3.11	82.06		9.32	21.48	77.36	377.19			37.06	1.51			80.47	34.30

Njarakkal	Njarakkal	2.22	60.51		15.6	41.58	96.53	168.91			10.41	15.46	3.88		66.12	175.83
Varapuzha	Varapuzha		36.21		2.10	4.76	28.57	230.02				0.70			53.61	125.20
Kadungallur	Kadungallur		2.52				1.54								4.66	21.24
Eloor Municipal Corporation	Eloor		4.42				1.51								11.32	3.69
Kalamassery Municipal Corporation	Kakkanad		0.71				0.40			2.00						1.79
Thrikkakara Municipal Corporation	Vazhakkala		15.79		0.05		54.13			49.02					0.41	19.69
Cheranallur	Cheranallur		32.01		1.20	4.02	167.43	52.09				28.56			42.55	57.83
Kadamakkudy	Kadamakkudy		81.43		6.10	7.38	59.88	473.89				0.72			113.23	439.99
	Cheranallur		5.43		1.55	1.39	0.11	63.80							3.68	23.80
Mulavukad	Mulavukad		89.72		49.05	195.95	46.30	220.23							117.52	702.08
Elamkunnappu	Elamkunnappu	7.67	115.10		91.31	163.60	208.95	108.06			38.93	78.05	174.98		101.23	189.91
	Puthuvype		36.10		101.53	89.88	37.60	0.13				20.04			44.92	176.13
Kochi Municipal Corporation	Edappally North		4.77				0.31			11.15						4.05
	Edappally South		11.61		0.26	1.55	10.22			49.15						13.38
	Ernakulam		24.89		3.27	12.51	7.43	3.05		58.09					6.74	214.83
	Elamkulam		29.98		6.94	29.74	15.55			43.20					22.66	236.20
	Poonithura		20.37		0.13	1.34	7.18			46.62					1.60	26.17
	Rameshwaram	2.39	27.36	0.04	7.87	34.78	16.89		131.62	30.67					29.52	185.14
	Cheranallur		19.11		1.81	5.03	5.97	21.49		41.24					3.75	129.98
	Fort Kochi	3.05	10.26	0.09	1.47	4.15	14.60		146.21	9.17					8.26	170.45
	Mattancherri		11.77	0.11	1.87	6.95	1.60			13.04					15.00	531.88
	Thoppumpadi		2.67				1.00			9.49						0.51
	Edakochi		37.45		20.39	49.48	39.45			6.94					44.59	339.37
	Palluruthi		15.13		3.89	14.80	9.21			35.27					0.89	68.91
Thrippunithura Municipal Corporation	Nadama		38.52		1.92	9.70	49.93			66.76					29.76	102.15
	Thiruvankulam		8.59				32.98			33.50						8.45
	Thekkumbhagam		14.74		22.76	47.74	16.28	160.45		21.11					2.76	73.46

Maradu Municipal Corporation	Maradu		75.17		42.87	124.45	47.63	96.55							102.26	284.14
Kumbalam	Kumbalam		104.83		26.97	87.41	119.90	97.81							142.47	1190.21
Chellanam	Chellanam	6.19	88.56		5.30	22.24	29.32	462.73			106.66	6.39		29.07	56.72	32.07
	Palluruthi	3.46	31.91		56.57	151.94	122.43				65.42	36.73		1.79	17.85	201.26
	Kumbalangy	5.58	65.73		3.73	15.65	18.10	382.55			81.91	17.07		29.69	55.18	619.82
Kumbalangy	Kumbalangy		59.55		7.57	31.75	16.63	220.36							74.97	265.25
Udayamperoor	Manakkunnam		22.97		14.95	28.79	45.25	98.26				74.52			5.54	873.05
Amballur	Amballur		7.21				4.89					22.65				18.83
	Keecheri		2.77				0.46					13.60				5.52
Sub Total		46.33	1965.45	0.38	530.18	1264.38	1930.71	4752.47	277.83	526.42	418.73	524.09	238.11	60.63	2180.01	9806.93
TOTAL		2011.78		530.56		1264.38	6683.18		804.25		942.82		238.11	60.63	2180.01	9806.93

ANNEXURE-3: FIELD PHOTOGRAPHS



Plate-1: Decrease in mangrove area Willingdon Island (Location: $76^{\circ}16'48.88''\text{E}$ $9^{\circ}55'50.99''\text{N}$, Cochin Municipal Corporation, Village: Rameshwaram)



Plate-2: HTL changed at Njarakkal beach (Location: $76^{\circ}12'19.31''\text{E}$ $10^{\circ}2'51.94''\text{N}$, Nayarambalam Panchayat, Village: Nayarambalam)



Plate-3: Increase in mangrove area at Netoor, (Location: 76°20'40.01"E 9°55'47.62"N, Thrippunithura, Village: Thekkumbhagam)



Plate-4: New Mangrove patch missing in Kadamangalam (Location: 76°13'25.44"E 10°7'42.70"N, Ezhikkara Panchayat, Village: Paravur)



Plate-5: Increase in mangrove area near Valappu
(Location: 76°13'40.60"E 10°0'26.05"N Elamkunnappuzha,
Village: Elamkunnappuzha)



Plate-6: Decrease in mangrove area in Puthuvype
(Location: 76°13'42.18"E 9°59'36.65"N, Elamkunnappuzha
Panchayat, Village: Elamkunnappuzha)



Plate-7: Decrease in mangrove area at Edakochi
 (Location: 76°17'23.09"E 9°54'50.65"N Cochin Municipal Corporation, Village: Edakochi)



Plate-8: Decrease in mangrove area at Edakochi.
 (Location: 76°17'25.67"E 9°54'53.95"N, Cochin Municipal Corporation, Village: Edakochi)



Plate-9: HTL changed at Elamkunnappuzha Blue waves beach
(Location: 76°12'42.84"E 10°1'31.85"N,
Elamkunnappuzha Panchayat, Village: Elamkunnappuzha)



Plate-10. HTL changed at Puthuvype beach
(Location: 76°13'8.54"E 9°59'55.68"N Elamkunnappuzha
Panchayat, Village: Elamkunnappuzha)

ANNEXURE-4

SUMMARY OF TOURISM PLAN FOR THE CRZ AREA IN ERNAKULAM DISTRICT FORWARDED BY KCZMA

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.

Ernakulam district is having a coastal length of 46 km. The existing tourism activities are identified in 21.98 km which is about 47.8% of the coastline of the district. Emerging tourism activities are proposed in 1.86 Km which is only about 4.06% of the district coastline. The total thus comes to about 23.85%, ie; 51.86%.

There exist about thirteen inland backwater tourism stretches which attracts large number of tourists. Periyar river estuary, National Waterway, Muziris Heritage Project etc. are having a number of locations which are highly attractive from a tourism point of view.

Ernakulam is a fast growing city and the recently introduced Kochi Metro Rail has given thrust to the development of the city. In order to facilitate planned development, Government initiated steps to have “Water Metro” connecting various Kochi Metro stations. This has made it imperative to have 20 locations more in Ernakulam city area which are only small stretches. Apart from that five more emerging areas are identified which has already started attracting tourists.

Table 5.1. Existing Tourism Areas along Coastal Stretches – Ernakulam District

Sl. No	Name of Stretch	Name of Local Body	Latitude Longitude/Co-ordinates of the stretch		Extent (km)	Existing tourism facilities	Proposed Tourism Facilities	Theme of tourism	Ecologically Sensitive Areas (If any)
			North	South					
1	Fort Kochi	Kochi Corporation	9°58'4.91"N 76°14'32.69"E	9°57'37.60"N 76°14'14.02"E	0.376	Fort Kochi Walkway	Walkways, Rain Shelters, Toilet facilities, Resorts,	Beach Tourism, Recreational Tourism	Nil
2	Vypin-Munambam	Elamkunnappuzha Panchayat, Njarackal Panchayat, Nayarambalam Panchayat, Edayanakkad Panchayat, Kuzhupilly Panchayat Pallipuram Panchayat	10°10'40.35N 76° 9'55.76"E	9°59'51.65"N 76°13'6.73"E	21.613	Malippuram Aqua tourism and Mangrove walks Resorts at Cherai Region	Walkways, Rain Shelters, Toilet facilities eco parks, board walks, resorts etc	Beach Tourism Aqua Tourism, Recreational Tourism, Eco Tourism	Mangroves - Puthuvypin

Table 5.2. Emerging Tourism Areas along Coastal Stretches – Ernakulam District

Sl. No	Name of Stretch	Name of Local Body	Latitude Longitude/Co-ordinates of the stretch		Extent (km)	Planned Tourism Facilities	Theme of tourism	Ecologically Sensitive Areas (If any)
			North	South				
1	Chellanam	Chellanam Panchayat	9°48'15.30"N 76°16'27.89"E	9°47'42.10"N 76°16'33.33"E	1.089	Walkways, Rain shelters, toilet facilities, resorts, jetties	Beach tourism, Recreational tourism	Nil
2	Kannamaly	Chellanam Panchayat	9°52'21.57"N 76°15'41.92"E	9°51'59.36"N 76°15'47.30"E	0.778	Walkways, Rain shelters, toilet facilities, resorts, jetties	Beach tourism	Nil

Table 5.3. Existing Tourism Areas along Inland Stretches – Ernakulam district

Sl.No	Name of River /Backwater/water body	Name of Stretch	Name of Local Body	Extent (km)	Latitude Longitude/Co-ordinates of the Stretch		Existing Tourism Facilities	Proposed Tourism Facilities	Theme of Tourism	Ecologically Sensitive Areas (if Any)
					North	South				
1	Periyar, National Waterway-III extension & Muziris heritage locations	Kottayil Kovilakam	Chendamangalam Panchayat	3.3	10°10'30.51"N 76°14'17.13"E	10°10'2.00"N 76°15'7.14"E	Boat jetty	Heritage tourism – Muziris project Amentity centre, boat jetty, Toilet blocks,	Heritage Tourism, Cruise Tourism	CRZ 1-A Jew Synagogue
		S.A Smarakam	Pallipuram Panchayat, Chittattukara Panchayat	1.07	10°10'25.54"N 76°10'40.03"E	10° 9'10.32"N 76°11'44.02"E	Museum	Muziris heritage project location – jetty, amenity centre walkways, Rain Shelters, Toilet facilities	Heritage Tourism, Cruise Tourism	Nil
		Go Thuruth	Chendamangalam Panchayat	1.4	10°11'33.55"N 76°12'38.60"E	10°11'13.11"N 76°13'18.56"E	Performance Centre	Muziris heritage project location – jetty, amenity centre	Heritage Tourism,	Nil

Sl.No	Name of River /Backwater/water body	Name of Stretch	Name of Local Body	Extent (km)	Latitude Longitude/Co-ordinates of the Stretch		Existing Tourism Facilities	Proposed Tourism Facilities	Theme of Tourism	Ecologically Sensitive Areas (if Any)
					North	South				
								walkways, Rain Shelters, Toilet facilities, s,	Cruise Tourism	
		North Paravur Boat jetty	Paravur Municipality	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	Muziris heritage project location – jetty, amenity centre walkways, Rain shelters, Toilet facilities Resorts,	Heritage Tourism, Cruise Tourism	Nil
		Pallipuram fort and Manjumatha church	Pallipuram Panchayat	3.16	10°10'25.26"N 76°10'40.12"E	10°9'10.09"N 76°11'43.23"E	Pallipuram fort	Muziris heritage project location – jetty, amenity centre walkways, Rain shelters, Toilet facilities, ,	Heritage Tourism, Cruise Tourism	CRZ 1 A Pallipuram fort
2	Ernakulam Channel	Marine Drive	Kochi Corporation	3.12	9°59'32.85"N	9°58'2.41"N 76°16'50.47"E	Marine Drive Walkway Parks	Rain Shelters, Toilet Facilities, Walkways seating arrangements, Resorts, etc	Recreational Tourism, Cruise Tourism	Nil
		Vypin	Kochi Corporation	1.1	9°58'24.42"N 76°14'23.26"E	9°58'28.91"N 76°14'39.15"E	Vypin Walkway	Toilet Facilities, Seating Arrangements, Drinking water facilities, Walkways , Rain shelters, Resorts, etc	Recreational Tourism, Cruse Tourism	Nil
		Bolgatty	Mulavukad Panchayat	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	Resorts, Walkways, Rain Shelters, Toilet facilities, Seating arrangements, Jetties, Parking etc	Recreational Tourism, Heritage Tourism	Nil
		Mangalavanam	Kochi Corporation	0.95	9°59'16.84"N 76°16'26.86"E		Bird Sanctuary	Walkways, Rain Shelters, Toilet facilities, Eco park, Board Walks, Interpretation centers parking etc	Eco Tourism	Mangroves – Bird sanctuary
		Willingdon island	Kochi Corporation	1	9°56'7.21"N 76°16'16.87"E	9°55'51.91"N 76°16'42.47"E	COPT Walkway	Seating arrangements, Rain Shelters, Walkway, Drinking Water Facilities, Resorts, Toilet Facilities etc	Recreational Tourism	Nil
3	Kaithapuzha lake	Kumbalangi Island	Kumbalangi Panchayat	12.11	9°53'55.30"N 76°17'6.76"E		Resorts-tourism village	Walkways, Toilet facilities, Rain Shelters, Jetties, shacks etc.	Recreational Tourism	Nil
		Kari island	Chellanam Panchayat	2.06	9°54'5.91"N 76°15'50.51"E	9°54'7.15"N 76°15'55.24"E	Resorts	Walkways , Rain Shelters, Seating arrangements, Shelters, Drinking Water Facilities, Toilet Facilities etc.	Recreational Tourism, Responsible Tourism	Mangroves

Table 5.4. Emerging Tourism Areas along Inland Stretches – Ernakulum District

Sl.No	Name of River /Backwater/water body	Name of Stretch	Name of Local Body	Extent (km)	Latitude Longitude/Co-ordinates of the Stretch		Planned Tourism Facilities	Theme of Tourism	Ecologically Sensitive Areas (if Any)
					North	South			
1.	Ernakulum channel	Kadamakkudy	Kadamakkudy Panchayat	2.38	10° 4'19.08"N 76°14'32.52"E	10°3'12.72"N 76°15'2.09"E	Walkways, Rain Shelters, Toilet facilities, Jetties, shacks etc	Recreational Tourism, Aqua Tourism	Nil
		Thanthonni Thuruth	Kochi Corporation	1.57	9°59'52.20"N 76°16'6.01"E		Resorts, Walkways Seating arrangements, Rain Shelters, Drinking Water Facilities, Toilet Facilities Water sports facilities etc	Recreational Tourism	Nil
2.	Vembanadu lake inland locations	Valanthakad island	Maradu Municipality	3.79	9°55'13.51"N 76°19'37.81"E	9°55'8.01"N 76°19'41.85"E	Responsible Tourism Project - , Resorts, home stays, farms, information Centers, Boat Jetties	Recreational Tourism, Responsible Tourism	Nil
		Poothotta	Udayamperoor Panchayat	4.49	9°50'49.64"N 76°23'20.91"E	9°50'39.40"N 76°22'58.39"E	Walkways Seating arrangements, Rain Shelters, Drinking Water Facilities, Toilet Facilities Water sports facilities etc	Recreational Tourism	Vembanadu wetland
		Kundanoor Maradu	Maradu Municipality	0.35	9°56'37.13"N 76°18'27.17"E	9°56'33.48"N 76°18'19.02"E	Walkways Seating arrangements, Rain Shelters, Drinking Water Facilities, Toilet Facilities etc	Recreational Tourism, Cruise Tourism	Nil
3	Ernakulam backwaters – Kochi Water Metro Locations	Cheranalloor	Cheranalloor Panchayat	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 Kochi water metro project - jetties, amenity centers, toilet blocks, walkways, Rain Shelters, and shacks.	Cruise And Recreational	Nil
		Eda Kochi ferry	Kochi Corporation	0.69	9°53'45.81"N 76°17'37.48"E	9°53'48.32"N 76°17'47.21"E			
		Eroor ferry	Kochi Corporation	0.65	9°58'48.33"N 76°19'52.77"E	9°58'49.41"N 76°20'13.47"E			
		Chittoor ferry	Cheranalloor Panchayat	0.57	10° 2'28.03"N 76°16'13.18"E	10° 2'0.33"N 76°16'11.43"E			
		Korumkotta ferry	Kadamakkudy Panchayat	0.38	10° 2'8.88"N 76°16'1.52"E	10° 2'3.33"N 76°16'6.36"E			
		Mulavukad	Mulavukad Panchayat	1	10° 1'50.77"N 76°15'34.36"E	10° 0'7.47"N 76°15'50.72"E			
		Ponnarimangalam	Mulavukad Panchayat	1	10° 0'17.63"N 76°15'47.98"E	9°59'17.77"N 76°16'2.29"E			
		Thanthonni thuruth	Mulavukad Panchayat	1.2	9°59'52.20"N 76°16'6.01"E				
		High Court Ferry	Kochi Corporation	1	9°59'32.71"N 76°16'7.30"E	9°58'42.43"N 76°16'32.26"E			
		Ernakulam jetty	Kochi Corporation	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 Corporation	0.98	9°57'5.32"N 76°17'17.18"E	9°56'37.48"N 76°17'31.91"E			

Sl.No	Name of River /Backwater/water body	Name of Stretch	Name of Local Body	Extent (km)	Latitude Longitude/Co-ordinates of the Stretch		Planned Tourism Facilities	Theme of Tourism	Ecologically Sensitive Areas (if Any)
					North	South			
		Kakkanad ferry	Thrikkakkara Municipality	0.434	9°59'31.49"N 76°20'57.32"E	9°59'31.92"N 76°21'8.71"E			
		Kumbalam ferry	Kumbalam Panchayat	1	9°55'16.16"N 76°18'32.03"E	9°54'52.72"N 76°18'19.64"E			
		Nettoor ferry	Maradu Municipality	0.97	9°55'51.06"N 76°18'19.01"E	9°55'21.12"N 76°18'34.88"E			
		Vytilla ferry	Kochi Corporation	1.07	9°58'14.20"N 76°19'25.15"E	9°57'46.46"N 76°19'31.13"E			
		Vypin	Kochi Corporation	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 Corporation	1.14	9°58'6.02"N 76°14'36.42"E	9°57'54.55"N 76°15'21.29"E			
		Mattanchery ferry	Kochi Corporation	1.1	9°57'54.55"N 76°15'21.29"E	9°57'5.73"N 76°15'42.16"E			
		Bolgatty	Mulavukad Panchayat	1	9°59'29.39"N 76°15'59.78"E	9°59'31.19"N 76°15'49.36"E			
		Thykoodam	Maradu Municipality	0.96	9°57'17.90"N 76°19'23.35"E	9°57'12.80"N 76°19'49.11"E			