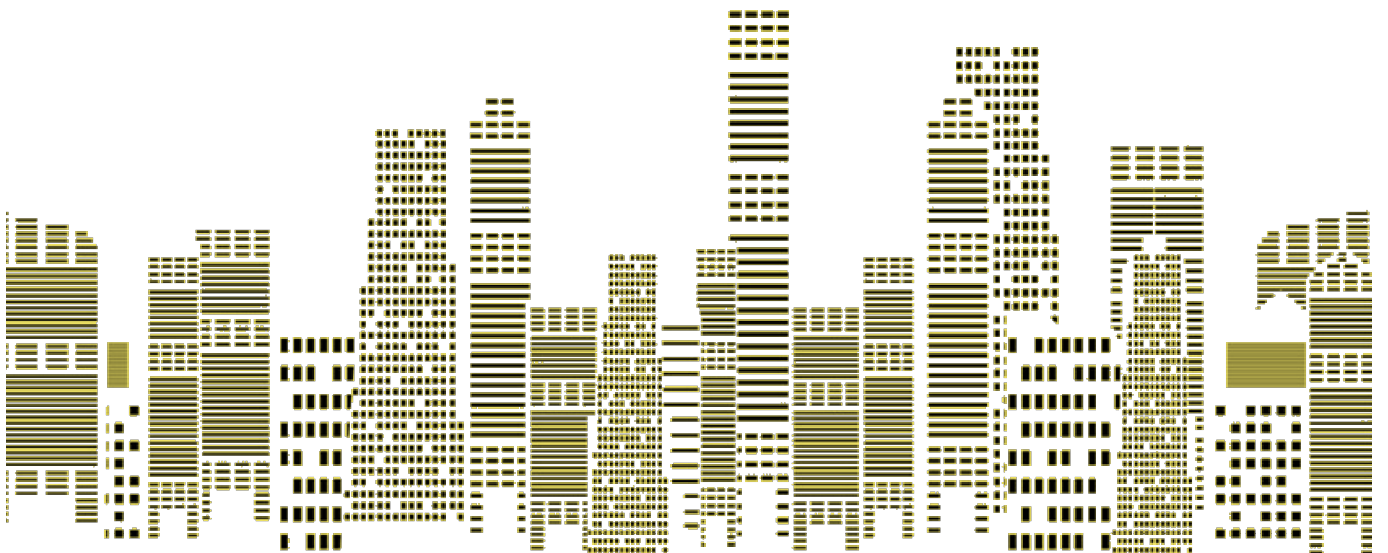


*PART III*

*LAND USE PLAN*  
*&*  
*SECTORAL PROPOSALS*





## CHAPTER 28

# PROPOSED LAND USE PLAN

### 28.1 EXISTING SCENARIO

The existing land use analysis indicates that highest distribution is residential land 41.478 km<sup>2</sup> (52.92%) followed by dry agriculture 15.339 km<sup>2</sup> (19.57%). Total water body, paddy field and vacant land constitute 3.45 km<sup>2</sup> (4.40%), 2.916 km<sup>2</sup> (3.72%) and 2.53 km<sup>2</sup> (3.20%) respectively.

### 28.2 PROPOSED LAND USE PATTERN

To facilitate the future development as per the concept, the existing land use pattern is to be altered and the

proposed land use pattern is to be located spatially. In this chapter, the proposed land use pattern for the horizon period is arrived and presented. The proposed land use break-up, proposed land use map and the area break up of each of the land use zones are given in Figure.28.1, Figure.28.2 and Table.28.1 respectively.

The proposed land use zones are mainly classified into Built-up Zone, Green-Blue Zone and Special Zone and are further subdivided as per the development concept formulated.

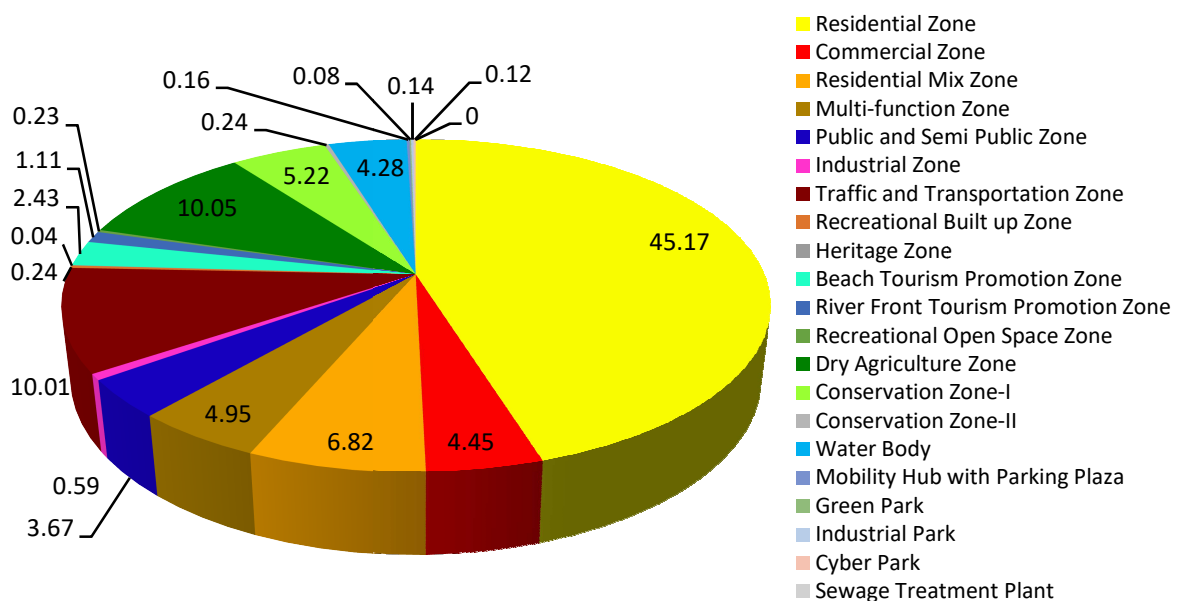


Figure 28. 1 Proposed land use break-up

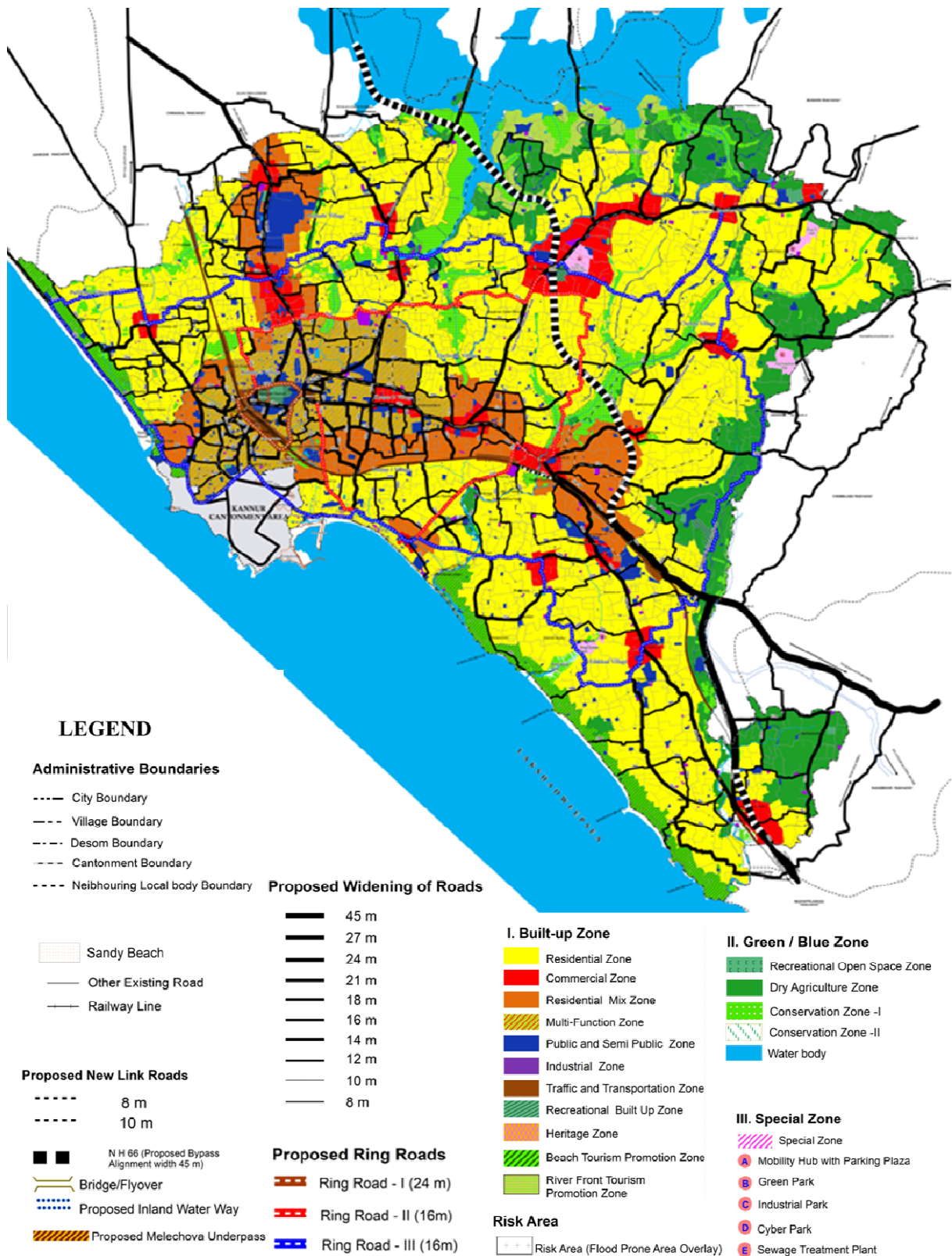


Figure 28. 2 Proposed land use map

Table 28. 1 Proposed land use break-up

Sl. No.	Land Use	Area in km <sup>2</sup>	% of Total Area
<b>I. BUILT-UP ZONE</b>			
1	Residential Zone	35.406	45.17
2	Commercial Zone	3.490	4.45
3	Residential Mix Zone	5.347	6.82
4	Multi-function Zone	3.884	4.95
5	Public and Semi Public Zone	2.881	3.67
6	Industrial Zone	0.459	0.59
7	Traffic and Transportation Zone	7.847	10.01
8	Recreational Built up Zone	0.188	0.24
9	Heritage Zone	0.028	0.04
10	Beach Tourism Promotion Zone	1.907	2.43
11	River Front Tourism Promotion Zone	0.875	1.11
<b>Total for Built-up Zone</b>		<b>62.312</b>	<b>79.48</b>
<b>II. GREEN-BLUE ZONE</b>			
12	Recreational Open Space Zone	0.178	0.23
13	Dry Agriculture Zone	7.876	10.05
14	Conservation Zone-I	4.089	5.22
15	Conservation Zone-II	0.186	0.24
16	Water Body	3.354	4.28
<b>Total for Green-Blue Zone</b>		<b>15.683</b>	<b>20.02</b>
<b>III. SPECIAL ZONE</b>			
A	Mobility Hub with Parking Plaza	0.123	0.16
B	Green Park	0.061	0.08
C	Industrial Park	0.107	0.14
D	Cyber Park	0.093	0.12
E	Sewage Treatment Plant	0.001	0.00
<b>Total For Special Zone</b>		<b>0.385</b>	<b>0.50</b>
<b>Total</b>		<b>78.38</b>	<b>100</b>

## I. Built-up Zone

These are the land use zones where urban activities are concentrated. Built-up zone is essential for sustaining the urban nature and urban status of the planning area. In Kannur Corporation area, total built up zone includes residential zone, residential mix zone, commercial zone, multi-function zone, public and semi-public zone, industrial zone, traffic and transportation zone, recreational built up zone, heritage zone, beach tourism promotion zone and river front tourism promotion zone. Total share of built-up land use zone comprises 79.48% of total area of the planning area.

## II. Green-Blue Zone

Green-blue zones which are the lungs of the city constitute 20.02% of the planning area. It consists of Recreational Open Space Zone, Dry Agriculture Zone, Conservation Zone-I will act as a sponge city consisting of Paddy and Wetlands, Conservation Zone II (Mangroves) and Water Body. Green-blue zones are essential for sustaining the urban life with recreation, leisure and refreshment. Extensive built-up development is not allowed in this zone and these zones are essential for keeping the environmental quality of the city.

## III. Special Zone

Special zones are those which are proposed to be acquired by the LSGI or any other agency concerned within a specific period to implement specific projects.

Special zone of the proposed land use map consists of a total area of 38.5 Ha which occupies 0.50% of the total planning area, The projects in Special Zone include the proposed Mobility Hub with Parking Plaza at Mundayad, Green Park at Thottada, Industrial Park at Pallipoyil, Cyber park at Eachur, and Sewage Treatment Plant at Neerchal.

### 28.3 BUILT-UP ZONE

#### 1. Residential Zone

The area set aside as exclusive residential zone in the proposed land use plan is 35.406 sq.km and this constitutes 45.17% of total area of the town. Most of the existing residential areas, located away from the core centre of the town and major traffic corridors are retained as residential zone in the proposed land use plan. All sorts of residential buildings consisting of single or multifamily dwellings, residential flats/apartments, residential quarters, night shelters, orphanages, old age homes etc. are permitted in this zone to cater to all future housing demands. Necessary incidental uses like commercial activities service industries, etc, essential for the



residential community are also permitted in residential zone.

## 2. Commercial Zone

Urban activities are mainly concentrated in Caltex, South Bazar, Plaza, Market area, Old bus stand and New bus stand area and their surrounding regions. Hence this area can be considered as the Central Business District (CBD) of the Corporation area. Caltex junction has numerous public buildings such as Civil Station, Collectorate, District Treasury etc. In this context, this area is set aside as multi-function zone in the proposed land use map.

Apart from this CBD area, Thana, Mele Chovva, Thazhe Chovva, are the other major commercial centres in the planning area.

The NH bypass road intersects the Kannur-Mattannur airport road at Indoor Stadium, Mundayad and a mobility hub is suggested near this junction which throws enormous opportunity for this region to grow up as a commercial node in the recent future.

Since Kunjippally junction is the major tri-junction from which the roads to Kakkad, Puthiyatheru and Pulloopikadavu emerge, it is the major serving area for Kakkad, Kottali, Pallipram areas. And hence it can be suggested as a second order commercial node.

Similarly junctions and nodes like Kakkad, Manal Junction, Pallikkunnu area, Podikundu Junction, Mathukoth Junction, Kappad, Thilanur, Mathrubhumi Junction, S.N.College-JTS area, Thottada Junction, Dineshmukku Junction, Edakkad area, Thayyil Junction, etc have great potential for growing as commercial centres to cater to the needs of surrounding area.

All the above said places except the CBD area having commercial growth potential are zoned as commercial zones in the proposed land use plan. The total land use area under commercial zone is 3.490 sq.km and it constitutes 4.45% of Kannur Corporation area.

All existing residences and a limited extend of new residential buildings are also permitted here.

## 3. Residential Mix Zone

Residential mix zones are provided along the NH, major roads and adjacent to the proposed multifunction zone. It is also proposed around the major commercial nodes as per their hierarchy. This mix zone can create a platform for the future expansion of the commercial zone in that direction and also accommodate the development needs around city core and other commercial nodes. In residential mix zone residential uses and commercial uses are permitted but with prime importance for

residential use. Mixing of uses in the same building can also be encouraged in this zone if such option arises. The total land use area earmarked for this zone is 5.347 sq.km which accounts to 6.82% of total area of the city.

#### 4. Multi-function Zone

Multi-function zone is proposed in and around the city core area and consists of 3.884 sq.km area, which is about 4.95% of the total planning area. This zone with multifunction activities is essential for the expansion of the city from its growth centre to the surrounding area. Public activities, commercial activities and limited residential activities can co-exist here. In this zone, service industries, commercial activities like trade and commerce, automobile workshops, service industries, educational institutions, hospitals, transport terminals, social welfare centres, higher order residential developments like flats and apartments etc. are expected to flourish.

The Shoranur-Mangalore railway line and NH 66 are passing through the centre of this zone which will help the area to develop as a multi-function zone exactly.

#### 5. Public and Semi Public Zone

The importance of the city as a regional centre and as a District Headquarters is to be enhanced by

providing maximum public services within the Corporation boundary. All existing public and semi-public land uses are to be retained as such and this zone includes the Central/State/Local Government offices and buildings, public institutions, educational buildings, religious buildings and hospitals scattered throughout the city. The total land use area under public and semi-public zone is 2.881sq.km and it constitutes 3.67% of Kannur Corporation area.

#### 6. Industrial Zone

In order to promote the industrial activities for the economic growth of the city, all existing industrial premises are retained as such in the proposed land use also. The mini industrial estates at Marakkarkandy and Edakkad as well as the industrial unit at Chelora, the large industries like Kerala State Handloom Development Corporation Limited, Cannanore Co-operative Spinning Mills, Limited and Milma Unit at Podikkundu etc. can be utilized for a giant leap in the industrial sector. For these, more infrastructural facilities are to be provided and new industrial ventures are to be set up. The total land use area set aside as industrial zone in the proposed land use plan is 0.459sq.km which has a share of 0.59% of total area of the city.



## 7. Traffic and Transportation

The traffic and transportation zone includes the proposed road network area, the proposed mobility hub, existing bus stands, parking bays and lots, improved road junctions, bus bays, railway station, traffic islands, truck terminals etc.

An efficient transportation network is to be materialized for accommodating the heavy traffic flow expected in the coming years. The widened existing roads as well as proposed roads including NH bypass and other link roads are included in this zone. This is to obtain a smooth conveyance facility for the city.

The total area of traffic and transportation land use proposed is 7.847sq.km which contributes to 10.01% of total municipal land area.

## 8. Recreational Built-up Zone

Recreational built-up zone which includes built-up spaces like stadiums, indoor stadiums, swimming pools, clubs and all other buildings associated with recreational activities. This zone in a city provides the necessary facilities for amusement, leisure, recreation and refreshment etc. to the public.

The existing recreational built-up zone in Kannur Municipal Corporation includes Indoor Stadium at Mundayad, Jawahar Municipal

Stadium, Cannanore District Badminton Indoor Court, Indoor Badminton Court at Kakkad, Tennis Court etc.

The total land use area falling in this recreational built-up zone is 0.188sq.km and constitutes of 0.24% of Kannur Corporation area.

## 9. Heritage Zone

The Arakkal Dynasty was the one and only one Muslim Dynasty in Kerala who ruled Kannur area and Lakshadweep for centuries. The Arakkal palace is a historically valuable monument and is now functioning as a museum. It is also a well-known tourist spot within the Kannur Municipal Corporation area. The building kept as museum is to be protected and preserved for the generation to come. Therefore this monumental building is earmarked as heritage zone. The total area of this zone is 0.028sq.km and constitutes of 0.04% of Kannur Corporation area.

## 10. Beach Tourism Promotion Zone

Payyambalam beach with its surrounding area is the major tourist attraction in Kannur Corporation area limits. The lengthy beach from Payyambalam to the northern border Palliyanmoola and the beaches and seashore areas from Kanampuzha to the Ayyarath River (Nadalppuzha) at

the southern border provides immense tourism potential to the city. Many tourist resorts and home stay facilities hadf already started in Adikadalayi, Kizhunna, Thottada, Edakkad, Payyambalam, Panjikkai and Palliyanmoola areas. These beach side areas are designated as Beach Tourism Promotion Zone in the proposed land use plan where all tourism facilities are to be promoted for the enhancement of local economy.

The total area set aside as Beach Tourism Promotion Zone is 1.907sq.km which constitutes 2.43% of Corporation area.

#### **11. River Front Tourism Promotion Zone**

Kannur Municipal Corporation has Kattampally River at the middle north border which creates beautiful water front areas in a vast extent of land. The so called Kaippad fields in this region are famous for fishing activities and it is an abode for many bird species including migratory birds. The river front areas at Kallukettuchira, Athazhakkunnu, Pulluppikkadavu, Kakkad, Pallipram, Varamkadavu, Purathiyil, etc have got tourism potential and this region can be earmarked for river front tourism promotion zone. Tourism promotion activities along with existing inland fishing and other activities are suggested here.

The total area set aside as River Front Tourism Promotion Zone is 0.875sq.km which constitutes 1.11% of Corporation area.

### **28.4 GREEN-BLUE ZONE**

#### **12. Recreational Open Space Zone**

Recreational open space zone which includes mainly parks and open space in a city provides the necessary facilities for amusement, leisure, recreation and refreshment etc. to the public.

The existing parks and play grounds include Police Maidan, Town Square, Collectorate Maidan, S.N. Park, Dr. Rajendra Prasad Prak, Anakkulam Park, etc and also the available open spaces like beaches etc. within the city. Most of them are concentrated in the core area itself. The proposed parks like River side Park at Kakkad Puzha etc. are also included in this zone. The total land use area falling in this recreational open space is 0.178 sqkm and constitutes of 0.23% of Kannur Corporation area.

#### **13. Dry Agriculture Zone**

In the existing land use map, the dry agriculture areas are scattered in all wards and shows higher concentration in Chelora, Macheri, Pallipoyil, Kappad, Attadappa,

Kizhunna, and Edakkad wards. Retaining of agricultural activities in the existing lands can bring economic growth through cash crops. In addition to this, the dry agriculture zone is helpful in enriching the greenery of the city. A green belt area is provided as Dry Agriculture zone along the eastern side border and also at some other portions of the Corporation area. As residential pockets are already developed in this zone, residential use and its incidental uses are also to be allowed under unavoidable circumstances. The total area of dry agriculture land is 7.876sq.km which comes to 10.05% of total study area.

#### 14. Conservation Zone-I

The existing paddy fields widely spread throughout the city are retained as such in the proposed land use plan also. The Kappadvayal with Kanam Puzha flowing through it was once considered as the granary of Kannur. At present, most of the paddy fields are lying uncultivated, but offers enough scope for agriculture development. In order to conserve these areas, active paddy cultivation need to be promoted and also strict control on conversion of paddy lands need to be exercised. All land use in this zone should be in conformation with the Paddy Land and Wetland Act in force in the State.

The wetlands are areas which are flooded with water seasonally or

permanently. Kattampally river front areas, low lying areas of Thavakkara, Irattakkannan Palam at Talap, Edakkad river side etc. come under this zone. It is necessary to protect these areas as they are environmentally sensitive and feeding and breeding ground for many bird species. The total area of this zone is 4.089sq.km which constitutes 5.22% of total area of the city.

#### 15. Conservation Zone-II

Mangrove forests are the breeding and feeding space for many species of marine life. The mangrove areas are considered as one of the most environmentally sensitive areas of wetland as per "Ramsar Convention". All existing mangrove areas in the river side and islands should be protected and plantation of new saplings should be done for mangrove afforestation. Mangroves that are identified in the portion of Kanam Puzha River and Ayyarath Puzha (Nadal Puzha) come under the preview of CRZ Act and hence CRZ Rules are in force in such areas. All possible measures should be taken for the conservation of this distinctive ecosystem. The total land use area identified for this zone is 0.186sq.km which is 0.24% of total area of the city.

#### 16. Water Body

Measures should be taken for retaining and protecting all existing

water bodies within the city. The area covered by water bodies is comprised of Kanam Puzha, Kattampally River and tributaries (Kakkad, Varamkadavu, Purathiyil and Pullooppikadavu), natural drains like Andathodu, Padannathodu, Ammayithodu, Valiyathodu, Chelorravayalthodu, Macheryvayalthodu, Thottada Puzha, Ayyarath Puzha (Nadal Puzha) and other minor streams, and ponds like Anakulam, Chettiyarkulam, Valiyakulam etc.

The Kanam Puzha, Ayyarath Puzha (Nadal Puzha) and Padannathode come under the purview of CRZ Act and hence CRZ Rules in force should be strictly enforced in such areas. All possible measures should be taken for the prevention of water pollution and contamination. The total area of this zone is 3.354sq.km which constitutes 4.28% of total area of the city.

## 28.5. SPECIAL ZONE

The areas specially demarcated for certain specific projects are the following.

### A. Mobility Hub with Parking Plaza

Kannur district has Airport at Mattannur, sea port at Azheekode, National Highway and State

Highways leading to other districts and States. Similarly Kannur Station is a major Railway station in the Corporation area and it connects with most of the cities in India. Moreover, the alignment of proposed Inland Navigation Canal of National Waterways will also be passing through Kannur Corporation area. In this context, for connecting and interchanging all these modes of transport a mobility hub with parking plaza is proposed near Mundayad Indoor Stadium, where the National Highway bypass crosses the Kannur Mattannur Airport road.

### B. Green Park

Most of the parks in the Kannur Municipal Corporation are located within core area of the city, and newly added zones like Edakkad and Chelora lack urban parks. A well organised park is essential for the citizens and children and can contribute to city life in many aspects.

An organised green park is suggested near Thottada Thode at Thottada.

### C. Industrial Park

Though Kannur was famous for handloom and beedi industries, modern industrial establishments are meagre in Corporation area with the exception of a few Spinning mills. All types of industries cannot be provided

in residential areas. For promoting industrial growth, an industrial park is earmarked as a special zone near Pallipoyil, where all sorts of industries can be promoted.

#### **D. Cyber Park**

No major IT park or Cyber Park has been established in Kannur district so far. The Engineering Colleges, Polytechnic and science Colleges in the district have Computer Science Departments and many students pass out every year and become jobseekers. The proximity of Kannur Airport also provides scope for a Cyber Park in Corporation area. Eachur side of Kannur Corporation area is the nearest point to airport and a Cyber Park is proposed near Eachur.

#### **E. Sewage Treatment Plant**

Neerchalthode is now functioning as waste water drain through which urban wastes are flowing to the sea and this cause pollution and related

hazards in the area. A sewage treatment plant is necessary and is proposed near the confluence of drain with sea.

#### **28.6. RISK AREA**

The areas within the Municipal Corporation falling in different zones identified as vulnerable to flood disaster are demarcated as risk area and overlaid above the respective zones. The built form regulations as listed at the end of this chapter are to be followed in this risk area.

The flood-prone areas like Kakkad, Edacheryvayal, Shadulikkadav, Athazhakkunnu, Athirakam, Pullooppikadavu, Varamkadav, Purathiyil etc. where flood water from Kattampally River enters, the low lying areas near Kappadvayal, Thazhechovva, Kuruva, Maidanappally, etc. on the banks of Kanampuzha, flood banks of Edakkad river, low lying areas around Padannathode etc. are included in risk area.

