MASTER PLAN

FOR

KODUNGALLUR TOWN

Prepared by

KODUNGALLUR MUNICIPALITY &

DEPARTMENT OF TOWN AND COUNTRY PLANNING, – GOVERNMENT OF KERALA

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Master Plan for Kodungallur Town

FOREWORD

Kodungallur is a Town with a glorious past and a most sought after trade centre in the olden times. Muziris port was the contributing factor which boosted the growth of trade in Kodungallur. Later when the port got silted up Cochin port gained significance and this port lost its glory. The lost name was later revived by the Kodungallur Kovilakom and made this place a centre of learning. The inland water transport also contributed to this growth. In the modern times Kodungallur became a Municipality in 1978 and later it got further expanded with the addition of Methala Gramapanchayat in 2010. Kodungallur Town now has an area of 27.81 sqkm. To face the challenges associated with the fast pace of development anticipated and to ensure planned development of the Town as a whole necessity of a Master Plan was felt and thus the council unanimously decided to prepare a Master Plan vide resolution No. 36 dated: 18/06/2012. Now the Plan is prepared and I am sure that this Plan can definitely help Kodungallur to grow into a more livable space for the generations to come. The various proposals in the production sectors are productive enough to strengthen the economic base of the town and can succeed in fetching good opportunities to the people. The suggestions in the service sectors are sure shot solutions towards ensuring peaceful and healthy living atmosphere for the inmates of the town. The calculated efforts, in this Plan for protecting our mother nature are worth noting. The provision for new roads and widening of existing roads, and flyovers effectively decongest the core area and provide thoroughgoing traffic without any hindrance and delay.

All the members of the present council have actively participated in the discussions for finalizing the Plan. I take this opportunity to appreciate the efforts put in by them in this regard. Special acknowledgements are due to Smt. Suma Sivan and Smt.Maheswari.K.B, the former Chairpersons and the Standing Committee Chairpersons for their guidance and involvement in the work. Members of the Spatial Integration Committee (SIC) and working group members also put in considerable efforts in materializing this Plan. I also appreciate the sincere efforts put in by the officials of the Department of Town and Country Planning for materializing this Plan in its present form within the timeframe.

The Plan becomes fruitful only when the provisions and proposals envisaged in the Plan are implemented. To fulfill the vision of this Plan i.e. 'to ensure physical and economic growth of the Town in a sustainable manner and provide a decent standard of living and quality of life to the inmates', I request all the development partners to own it and be part of its implementation.

C.C.Vipinchandran
Chairman
Kodungallur Municipality

PREFACE

Kodungallur situated on the west coast of Kerala was known to the Greeks as Muziris and is a place immersed in rich history. Kodungallur paved the gateway to world-trade through its famous harbor at the mouth of the river Periyar. Kodungallur is basically a Temple Town with heritage importance. The regional importance of the Town as revealed from the Integrated District Development Plan for Thrissur and the State Urbanization Report, indicate that the town is part of a thriving development corridor in the State, which will surely act as a catalyst for the fast paced development of the Town. A multifaceted development incorporating the Towns heritage importance, environmental sensitivity and development potentials in a sustainable manner need to be modeled which underlines the need for a Master Plan. It is in this regard the preparation of a Master Plan for the Town was initiated under the Governments scheme of preparation of Master Plans and DTP Schemes. The preparation of the Master Plan was taken up as a joint exercise by the Kodungallur Municipality and the Department of Town and Country Planning.

The draft Master Plan for Kodungallur Town is prepared after conducting extensive discussions with Council members as well as Spatial Integration Committee members. The participation and co-operation received from the SIC and working group members were unparallel. The Vikasana Seminar conducted to include the aspirations of the people had a good response. Thus a good level of community involvement was ensured in this Plan.

The process of preparation was comprehensive with land use survey at cadastral level, Traffic and Transportation studies, socio economic survey, extensive secondary data collection, heritage, environment and slum surveys etc. The study was followed by detailed analysis, both sectoral and cross sectoral leading to the envisioning followed by identification and detailing of specific projects. The findings of the analysis revealed the problems and potentials of the town. Based on the projection of requirements for the year 2031 various proposals were carved out. These proposals are sure to stream line the tremendous developments that the town will witness in future and will improve the livability of the town.

I take this opportunity to express my appreciation for the initiative, co-operation and enthusiasm shown by the Council and SIC towards this work. The hard work, spirit and the sincerity of the planning team in the Thrissur District Office, of the Department of Town and Country Planning, headed by Shri. K.M.Gopakumar Town Planner, in bringing this draft Plan within the scheduled time is highly appreciated. The contributions of Shri V.K.Mohandas and Shri V.A.Gopi, the former District Town Planners is also to be mentioned at this juncture.

Certainly, the Master Plan for Kodungallur will provide a framework for development of the Town for years to come.

Shaji Joseph
Chief Town Planner (Planning)

ACKNOWLEDGEMENTS

The preparation of Master Plan for Kodungallur Town was initiated with Council resolution No. 36 in the Council dated: 18th June 2012. The works for the preparation of Master Plan for Kodungallur was taken up as a joint exercise of the Kodungallur Municipality and the Department of Town and Country Planning under the Scheme of preparation Master Plans and DTP Schemes as envisaged in the guidelines of the scheme issued vide G.O. (Rt) No. 1376/2012/LSGD dated: 17th May 2012. The Master Plan for Kodungallur Town (Draft) is now completed. The draft Plan prepared is sure to streamline growth of the Town in a planned and organized manner.

First and foremost I thank, Shri.C.C.Vipin Chandran, the Municipal Chairperson of Kodungallur Municipality. I also wish to thank Smt. K.B. Maheswari and Smt. Suma Sivan the former Municipal Chairpersons and all the members of the Municipal Council for their immense support and co-operation to this endeavor. The efforts and enthusiasm of the SIC members and all the members of the working groups are highly appreciated. I take this opportunity to express my gratitude to the conveners of all the working groups. The sincere efforts put in by the Secretary and Municipal Engineer needs special mention here.

I express my sincere gratitude to Shri. Shaji Joseph, Chief Town Planner (Planning) and Smt. Darley D.S Mony, former Chief Town Planner (Planning) for their unmatched support and guidance in bringing out this draft plan, in the scheduled time. I also thank for the timely guidance and co-operation imparted by the team in the Project Cell.

I sincerely appreciate the hard work and unequivocal sincerity of the planning team in the district office comprising of Smt. Jinumole Varughese, former Deputy Town Planner, Smt. Jeeva Liza Xavier, Assistant Town Planner and Shri. K.S. Radhakrishna 1st Grade Surveyor / Draughtsman in completing all the works in a time bound and organized manner and bringing out the draft Plan with in the stipulated time. I am also indebted to the statistical team of this office for the supports rendered in data collection and compilation. I also thank all other staff members, both in the technical and non technical streams, for all the co-operation and support extended in this endeavor. The services of Smt. P.V. Mary , Shri. V.K. Mohandas and Shri V.A.Gopi , former District Town Planners, Thrissur are also remembered with gratitude on this occasion.

Thrissur *K.M.Gopakumar*
27-01-2017 *Town Planner*

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PROLOGUE

Any human settlement, urban or rural needs a Plan to guide its overall development and judicious use of resources. The focus of such a Development Plan is on improving the infrastructure and the orderly use of land and other natural resources on the belief that such a planned approach for the physical improvements shall directly contribute to the economic and social well-being of the people living and working in the settlement area. Moreover such an orderly forward looking plan and the ensuing development may contribute to the State as a whole in its social progress.

As per the Town Planning Acts in the State Town and Country planning department, Kerala Government has been instrumental in the preparation of master plans in the state. Government have vide order G.O.(Rt) No. 1376/2012/LSGD dated 17.05.2012 directed the department to prepare master plans for 29 towns in the state as phase II in the scheme for preparation of master plans for towns. Phase I of the above scheme was preparation of master plans for 32 towns.

The preparation of master plan for Kodungallur town was initiated as per the government order GO(Rt) No.1376/2012/LSGD dated 17.05.2012 and the resolution no: 36 dated 18.06.2012 of the Kodungallur municipal council. The Spatial Integration Committee was formed in July 2012. The works for land use survey and socio-economic survey started in the month of August 2012. The process of preparation was so elaborate and exhaustive with land use survey, preparing survey number based land use map of the area, socio economic survey conducted in more than 10% of households, secondary data collection, heritage, environment and slum surveys etc. Detailed analysis, both inter and intra sector were done in modern customized systems. The findings of the analysis revealed the problems and potentials of the town.





The draft Master Plan for Kodungallur Town was prepared after conducting exhaustive discussion with Council members as well as Spatial Integration Committee members. Many workshops and training sessions were conducted for the SIC members and working groups. Workshops for the SIC members were conducted on 17/09/2012, 11/10/2012 and 08/03/2013. The participation and co-operation received from the SIC and working group members were unparalleled. The Vikasana Seminar conducted on 03rd November 2012 to include the aspirations of the people had a good response. Thus a good level of people's participation was ensured in this plan.





A development concept was formulated after the study of data obtained through surveys, secondary data collection and local level analysis, and the concept was presented before SIC members on 21/08/2013. A meeting was again conducted on 11/09/2013 for carving the sector-wise proposals.





A draft report was prepared based on the analysis conducted and concept envisioned along with existing and proposed land use maps. The report was extensively vetted and approved

by the Chief Town Planner after incorporating changes. The approved report was presented before the Municipal Council on 09./08/2016. After a detailed discussion on the report held on 29/09/2016 , the Municipal Council approved the Master plan and decided to forward the same to Government for approval for publication.

The proposals in the Master plan are sure to streamline the tremendous developments that this town will witness in future. It also can improve the livability of the town. The master plan can be seen as an elaborate set of do's and dont's , and its success depends on conversion of the policies and strategies outlined in it into time bound action plans with periodic reviews and close monitoring , and on the people's will and willingness to adhere to discipline in use of land, roads, public space and infrastructure.

CHAPTER 1

INTRODUCTION

Kodungallur municipality was formed in the year 1978. In the last three decades, Kodungallur has developed into a pilgrim centre and a residential settlement and holds the potential for a major tourism destination. This development has been in a haphazard manner. The need now is to take into account the existing scenario and to try and introduce approaches which will ensure that further development is in consonance with the requisites of modern living and within acceptable environmental parameters. At present the area of the town is 27.81 sq km and population as per 2011 census is 71440.

1.1. Need For A Master Plan

1.1.1 Growth of town

Any human settlement, urban or rural needs a Plan to guide its overall development and judicious use of its resources. A master plan is designed to promote and accomplish the following objectives:

1. Encourage use of land in accordance with their character and adaptability thereby ensuring that uses of land be situated in appropriate locations and relationships.
2. Meet the needs of residents for food, drinking water, housing, recreation, industry, trade, service and other uses of land.
3. Avoid overcrowding of population and lesson congestion of transportation systems, and other public facilities.
4. Facilitate provision for a system of transportation, sewage disposal, water supply, recreation, education & other public improvements.
5. Promote public health, safety and general welfare.
6. Conserve heritage, natural resources & energy.

The master plan can be seen as an elaborate set of do's and dont's , and its success depends on conversion of the policies and strategies outlined in it into time bound action plans with periodic reviews and close monitoring , and on the people's will and willingness to adhere to discipline in use of land, roads, public space and infrastructure.

Kodungallur is one of the fast developing towns of Kerala along the National Highway 66. It acts as a major hub in the road network connecting Kochi,Thrissur and other prominent coastal towns.

The presence of famous religious centres like Kodungallur Bhagavathy temple, CheramanJumaMasjid ,St.Thomas Shrine etc in and around Kodungallur has created an atmosphere of religious reverence in the town attracting devotees from all around the world. Added to this is the glorious history and heritage which also fascinates tourists and researchers. The development of the town into a pilgrim centre, and a major residential settlement, has been in a haphazard manner. It is necessary to guide these developments in an orderly manner based on a Plan.

The increasing population and its impacts like traffic congestion, lack of proper sewerage and drinking water facilities, absence of parking spaces, insufficient solid waste management system etc are major concerns regarding this area.

Growing at an unprecedented pace, the town needs to imbibe and integrate its elegant past as well as the modern developments into an organic whole, which may involve a purposeful transformation of the socio-economic, natural and built environment. An integrated planning for up-gradation of physical infrastructure, provision of basic amenities, various housing options and preservation of natural environs, will help Kodungallur to portray a "world class" image in the coming years.

For achieving a coveted goal, coordinated and integrated approach amongst several agencies involved with urban services and development along with a participatory planning process at local level is needed.

1.1.2 Present Planning Efforts

As per the Integrated District Development Plan a development concept for Thrissur District is derived which divided the district into eight development zones. Kodungallur town comes under **Multifunctional zone II.** In this zone, all types of 2nd order urban activities, 2nd order educational and healthcare facilities and transportation facilities are to be provided. This zone will act as a service centre for the hinter lands and this zone is very much suitable for industries utilising agricultural products of hinter land. The development of Kodungallur town has to be planned in accordance with the above concept so that the development of the town also contributes to the development of the district as a whole.

As per the census 2011, Kodungallur forms part of the Kochi Urban agglomeration. Also as envisaged by the State Urbanisation Report (Urban profile for 2021), Kodungallur is the northern tip of the Kochi Urban Cluster. Hence, it is clear that the city of Kochi exerts its influence on this Town, which may be considered as a potential for the future development of Kodungallur. In this respect as per the draft Development Plan for Kochi City Region 2031, Kodungallur is the starting point of the envisaged TOD Corridor that surrounds the Kochi City Region connecting major settlements around. The mentioned facts act as a catalyst for the future expansion of Kodungallur there by increasing the need for a planned development. Kodungallur Town does not have a master plan till date. Hence a Master plan for Kodungallur Town will form the basic guideline for planned development of the area.

An effort for preparation of a development plan for Kodungallur Town involving Lokamaleswaram and Pullut villages had occurred during the early nineties with the horizon year as 2001.

1.2 Methodology

The methodology adopted with the participation of peoples representation for identifying problems and potentials in different sectors helped in adopting people's aspirations for the making of Master plan. The following figure describes the methodology adopted for the Master plan preparation.





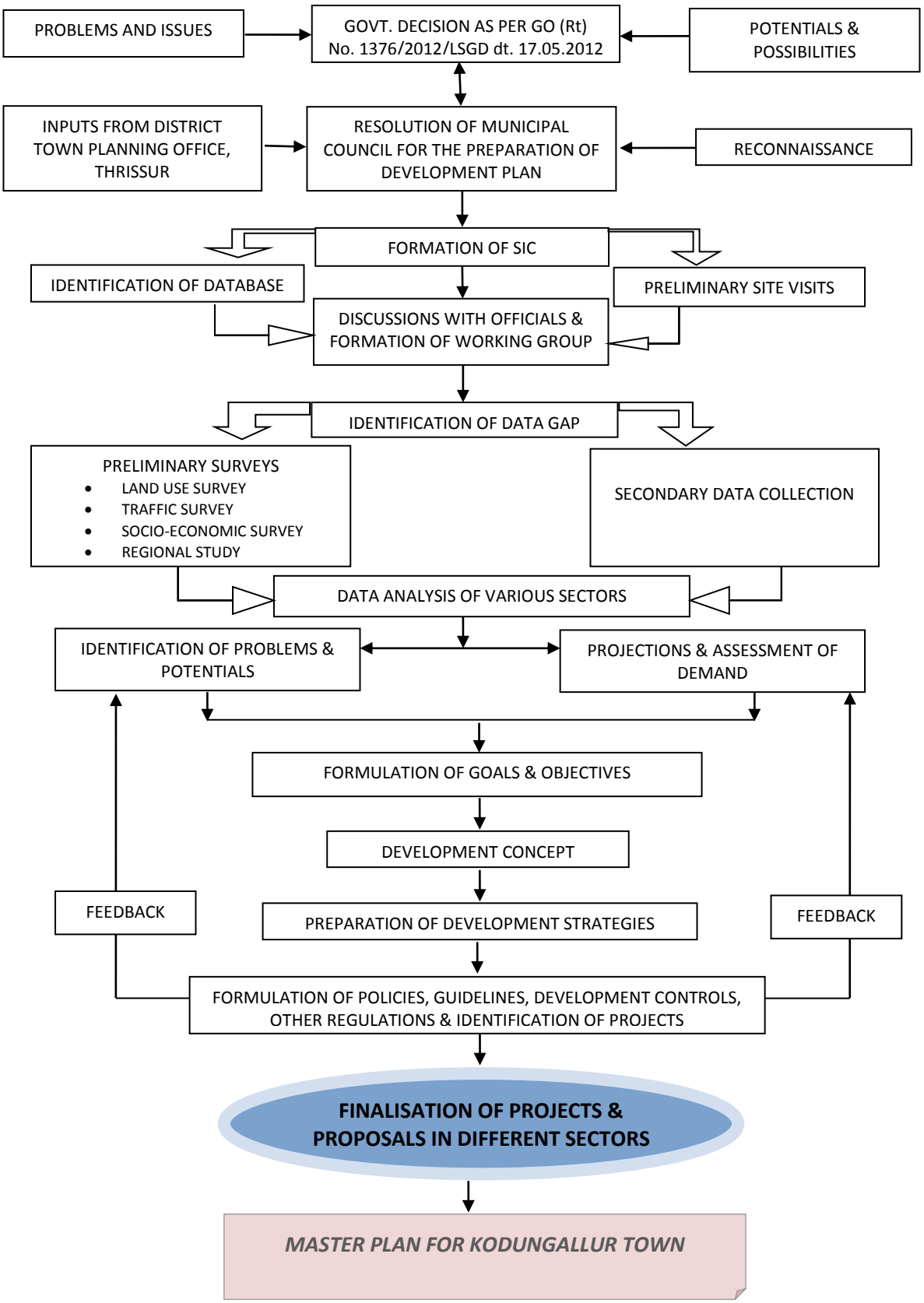


Fig1.1 Diagrammatic representation of Methodology for preparation of Master Plan

1.3 Planning area

Delineation of planning area for a mastert plan depends on the depth of growth and expansion towards the surrounding areas and the character of the nearby areas are studied for this purpose. The table 1.1 below gives the details of the surrounding LSGIs arrived at in the settlement study of IDDP Thrissur.

Table 1.1 Details of the nearby LSGIs

Sl. No.	LSGI	Functional character of settlement	Hierarchy of settlement	Urban profile	Activity pattern	Development zone
1	Kodungallur municipality	Urban	III Order	--	Urban activity	Multi functional zone II
2	Methala	Urban	IV Order	Future probable Urban within 10 years	Urban activity	Multi functional zone II
3	Eriyad	Urban	IV Order	Future probable Urban within 10 years	Urban activity	Multi functional zone II
4	Edavilangu	Urban	IV Order	Future probable Urban within 10 years	Urban activity	Accelerated growth zone marine
5	S.N.Puram	Rural	IV Order	--	Secondary activity	Accelerated growth zone marine
6	Poyya	Semi - Rural	IV Order	--	Secondary activity	--
7	Vellangallur	Rural	IV Order	--	Secondary activity	Economic development corridor
8	Puthenchira	Rural	IV Order	--	Secondary activity	--

From the table it is evident that Methala and Eriyad Gramapanchayats are the two LSGIs which exibit an Urban nature with a probability of achieving Urban status in 10 years.Of this Methala is already merged with the Kodungallur town. Eriyad is a coastal Gramapanchayath and the actual physical developments are not taking place in the direction of becoming an Urban area as a whole. Hence planning area is limited to Kodungallur Town.

1.4 Profile of the town

1.4.1 Location

Kodungallur is located in Thrissur district in the state of Kerala, on the Malabar coast. Kodungallur is 29 km northwest of Kochi, the industrial and commercial hub of Kerala, and 38km southwest of Thrissur, the cultural capital of Kerala. It is bounded by Edavilangu, Sreenarayanapuram and Vellangallur GramaPanchayaths in the North; tributary of Periyar in the East; estuary of Periyar in the South and Eriyad and EdavilanguGramaPanchayaths in the West. It is located at N 10°13' latitude and E 76°13' longitude. Fig. 1.2 shows the location of Kodungallur Municipality and fig1.3 shows Kodungallur with surrounding LSGIs.

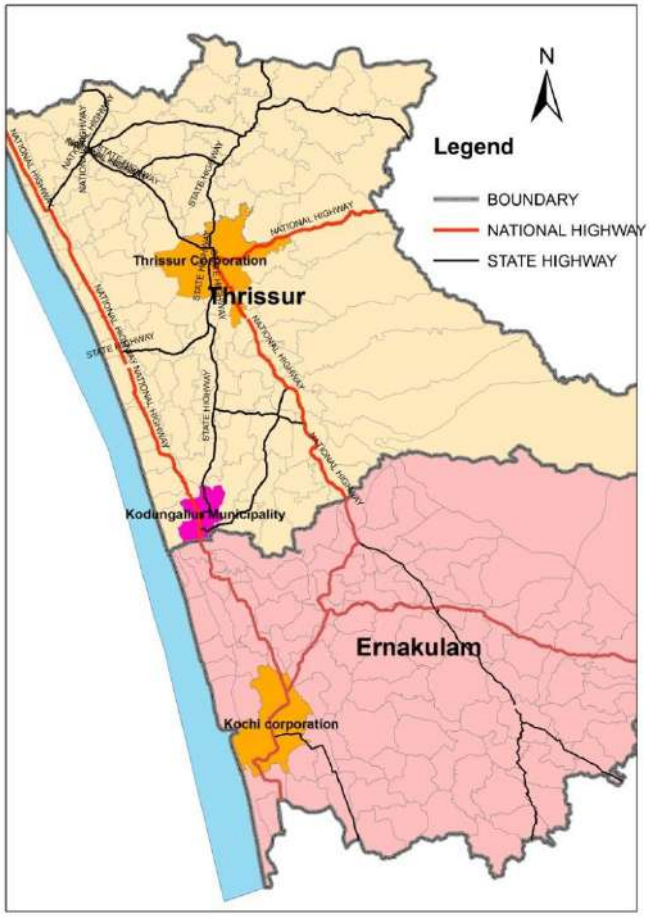


Fig. 1.2 Location of Kodungallur Town



Fig. 1.3 Kodungallur with surrounding LSGIs

1.4.2 Area and Population

During the year 2010, Methala Grama Panchayath was merged to Kodungallur municipality. The total area of Kodungallur Municipality now is 27.81sq. km., and has a population of 71440 with a density of 2456persons/ sq. km, as per 2011 census (including Methala Panchayath). The Revenue villages that comprise Kodungallur are Pullut, Lokamaleswaram and Methala. The fig. 1.4 and table 1.2 gives the details.

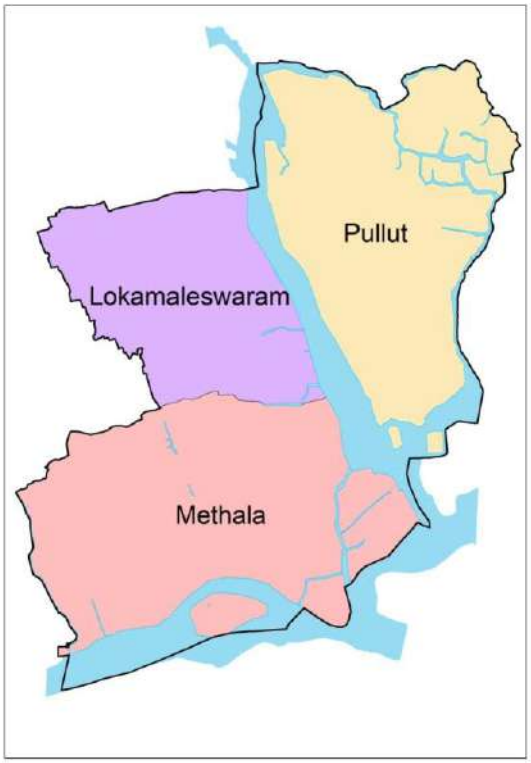


Fig 1.4 Revenue Villages in Kodungallur Town

Table 1.2Villages in Kodungallur Town

Sl.No	Revenue Villages	Area in sqkm
1	Pullut	**6.51**
2	Lokamaleswaram	**10.62**
3	Methala	**11.97**

1.4.3 Climate

Kodungallur has a tropical and humid climate The maximum average temperature of the city in the summer season is 39°Celsius while the minimum temperature is 22°C. The winter season is pleasant with temperature between 22°C to 32°C. There occurs heavy rainsin the monsoon season. The average rain fall is 2468mm.

1.4.4 Physiography

Kodungallur is a town situated on the banks of the river Periyar where it joins the Arabian Sea. Kodungallur has quite a number of streams and ponds. The Canoli canal and Kottappuram Kayal are integral parts of Kodungallur. The Thodus and ponds in Kodungallur municipal area are mostly saline in nature. Physiographically, Kodungallur can be divided into 5 regions

i) Highlands :Parts of Pulloot area like Chappara, Neelakkampara come under this character.

ii) Plains : Western areas of Lokamaleswaram and Methala villages come under this category

iii) Backwater-linked plains : Major areas of Pulloot village, nearby areas of Kodungallur Kayal&PadannaPerumthodu, Southern and Eastern portions of Methala village come under this category. Ponds, streams and backwaters have important presence in these areas. Water in these areas are found to be saline in nature.

iv) Marshy lands : The eastern portions of Pulloot village, with saline water comprises of these areas.

v) Islands : Land along Canoli Can

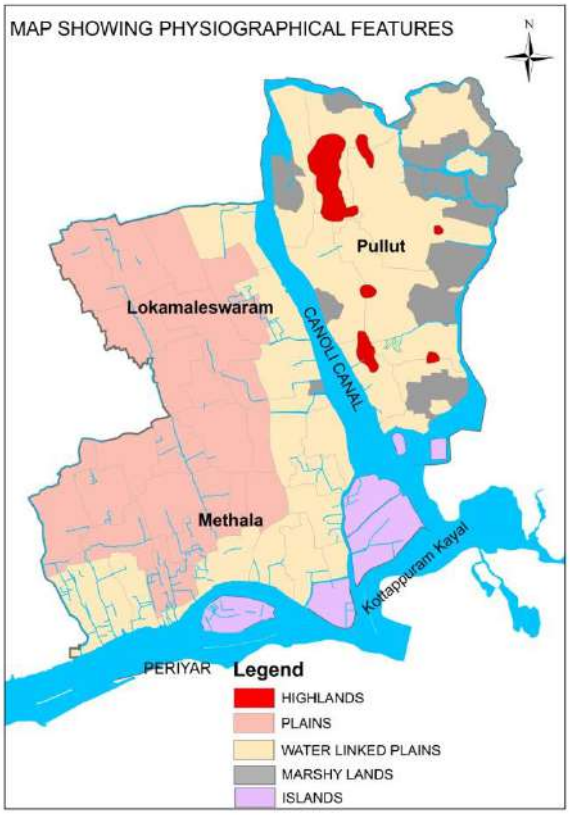


Fig.1.5 Physiographical features of Kodungallur.

1.5 History

The history of Kodungallur dates back to ancient times. The name Kodungallur is derived from *Kodi-linga-puram* ("the land of 10 million Sivalingas") according to common belief. Kodungallur was perhaps the revenue collection center of Kuda-kons (the Chera rulers) for the goods coming to the nearby port, hence the name Kudakonallur, which later shortened to Kodungallur. Kodungallur has had many names over the centuries. During the rule of the Chera dynasty, Muziris near present day Kodungallur was an important trade link in Indian maritime history. The region around Kodungallur can claim to have played a significant part in fostering the trade relations between Cheras and the foreign world in the ancient and medieval periods. It also claims to have played an important part in fostering cultural relations and in laying the foundation of a composite culture in this part of the Chera kingdom.

1.5.1 History of Governance

Kodungallur traces its ancestry back to the powerful Chera dynasty of the Tamil Sangam Age. There is evidence in support of the view that Vanchimutur, the original capital of the first Chera Empire should have been near Thiruvanchikulam near modern Kodungallur. Among the ports of ancient Kerala, Muziris was the gate of ancient India serving as an emporium of trade with foreign countries as early as the 2nd century of the Christian era. Some recent archaeological studies and evidences from excavations suggest that the location of the port could have been close to the present day Kodungallur.

Kodungallur was an integral part of Mahodayapuram, the capital city of the kingdom of Second Cheras. The age of Kulasekharas of Mahodayapuram is known in history as the *Golden Age of Kerala*. MahodayaPuram , the capital city of Chera dynasty between 8th and 12th century AD was spread around present day Kodungallur . The city was built around Tiruvanchikkulam temple and was protected by high fortress on all sides and had extensive pathways and palaces. The royal palace was at Gotramalleswaram, which is now popularly known as CheramanParambu. No trace of the palace remains today. The city located on the seashore and the river bank enjoyed the natural advantages of a harbour from the beginning of the Christian era, and a hinterland of rich paddy fields and hill produce well-served by the Periyarriver and its tributaries. One of the busiest ports of ancient eastern world, Muziris, was under their control and is situated on the outskirts of their capital city.

In the 12th century AD ,the capital city of Mahodayapuram (present Kodungallur) and surrounding places were devastated, looted and burned down in the long war with the Cholas and Rama Varman Kulashekhara. Without even a palace of his own, he shifted the capital from ruined Mahodayapuram to Kollam . In the absence of a central power at Mahodayapuram, the divisions of the Later Chera kingdom soon emerged as partitions under separate 'Naaduvaazhis'.

In the post-Chera period, the area was a feudal principality ruled by a royal family, Kodungallur Kovilakam(also known in the past as Padinjattedathu Swaroopam), subordinated at early stages to the kingdom of Zamorin, and on later stages to the kingdom of Kochi. During the end of 15th century while under the rule of Padinjattedathu Swaroopam , Portuguese conquered Kodungallur and rebuilt the city adding a fort to protect it. In 1662, Dutch took control of Kodungallur. Kodungallur Valiya Thampuran Kovilakam was built by

the Dutch. In 1755, The Zamorin and in 1790, Tipu Sultan conquered Kodungallur. In 1791, when the ruler of Cochin obliged to be a subsidiary ally of British, Kodungallur also became under the control of East India Company.

1.5.2 History of Development

Situated on the coast, eighteen miles to the north of Cochin, at a place where the great rivers that form the only means of communication with the interior merged with the sea, Kodungallur continued to be prosperous and important almost from pre-historic times till the middle of the 14th century. There was a flourishing sea trade with the Egyptians, Greeks, Romans and the Chinese from the beginning of the Christian era.

During the rule of Second Chera dynasty,MahodayaPuram , the capital citywas built around Tiruvanchikkulam temple and was protected by high fortress on all sides and had extensive pathways and palaces. The local merchants engaged in the foreign trade were organized into guilds and they wielded considerable political influence with the rulers by aiding them with money, ships and even soldiers in times of need. The famous Jewish Copper Plate grant (1000 AD) was issued from Muyirikkode (Mahodayapuram).



In 1341 heavy floods silted up the mouths of the Muzirisharbour and the surging water forced a channel past the present inlet into the sea forming a new port at Kochi. The old merchants of Muziris shifted to Kochi and thus Kodungalloor lost its commercial importance.

During the colonial period ,Kodungallur's lost glory was revived by the influence of Kodungallur Kovilakam. The Kodungallur Kovilakam was renowned as a "Gurukulam", centre of learning. Scholars from all over present day Kerala state used to come to live in the palaces and study Sanskrit and Vedic science. Eminent scholars from this Kovilakam has contributed to Malayalam and Sanskrit literature According to Kodungallur KovilakamVenmaniAchanNamboodiribad, Kerala's 'Guru Kulams' or the famed centres of learning were for many decades centred around the KodungalloorKovilakam. All those who were born there contributed immensely to Malayalam literature.

Inland Water transport used to be the primary communication route until 1950s. With the development of speedier systems like roads, this mode of transport lost its charm. The highways and bridges connecting Kodungallur to nearby places has contributed in the fast development of the town. The Pullootbridge constructed in 1964 and the Kottappuram Bridge constructed in 1984 helped in the development of transportation facilities to distant places.

In 1978 before being declared as a municipality, Kodungallur remained as a Panchayath area. During formation, it had an area 17.4 sq.km with 28334 populations with 20 wards. In 2010, MethalaPanchayath was added to it thus increasing its area to 27.81 sq.km as per census data.

The Govt Boy's Higher Secondary School established in 1889 and The Govt. Girl's School established in 1896 has grown through the years imparting the light of knowledge to many including famous personalities like Mahakavi Kunjukkuttan Thampuran,P.Bhaskaran and many more. The Taluk Headquarters Hospital in Kodungallur was established in 1890 by RamavarmaThirunal.

1.5.3 Socio – Cultural History



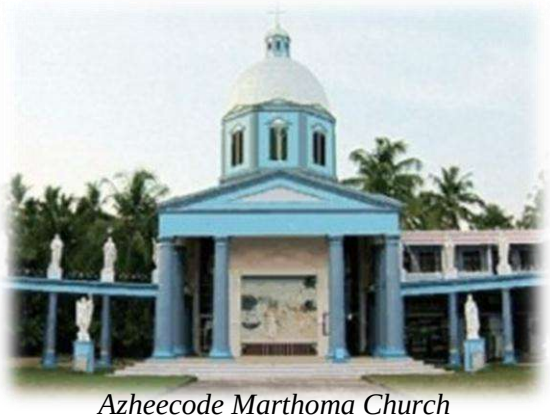
Cheraman Juma Masjid

Kodungallur is important not only in the history of Kerala but also of India. It has reference in the epics Ramayana and Mahabharatha. The poets Pathanjali and Karthiyayan have referred to it in their poems; it also finds reference in the Chilappathikaram. Kodungallur is mentioned in the stone writings of Asoka as well and mention is found in the travelogues of both Plieni and Ptolemy under different names. Being a town near to the sea and a geographically strategic place, it became the largest and most important harbour of ancient India. Kodungallur was known as one of the four gates to India along with Chennai (Madras) on the east coast, Kolcotta (Calcutta) in the northeast and Mumbai (Bombay) in the west.



Kodungallur Temple

It had trade relations and the accompanying cultural exchanges with such civilizations as Rome, Babylonia, Egypt, Phoenicia, Alexandria, Arabia, China, Siam and Greece. Kodungallur was the capital of kings and dukes for several centuries in modern times, and they maintained its cultural uniqueness and traditional gaiety.



Azheecode Marthoma Church

Kodungallur is the meeting place of all of the world's religions and cultures. The first Christian church, the first Muslim mosque and the first Jewish synagogue in India were built in Kodungallur. Because of its importance, several wars were fought on its soil. The Zamorins, the British, the Portuguese, the Dutch and the Tippu sultan attacked Kodungallur. Still, it maintained its uniqueness. It is said that Ilamkovadigal wrote Silappathikaram in Kodungallur, and it is from here the poet KunjikuttanThampuran rendered the epic Mahabharatha into Malayalam. Kodungallur Bhagavathy temple is a memorial built by a Chera king to Kannaki, heroine of Ilamkovadigal's Tamil classic *Silappathikaram*. It is believed to be a former Budhhist shrine, later converted as a Hindu temple. The Bharani festival at the Kodungallur Bhagawati temple is one of the grandest in Kerala.TheGurukulam in Kodungallur under the Kodungallur Kovilakam was as famous as the Nalanda, Thakshsila and SreeKasi.

1.6 Biodiversity



Mangroves - Narayanamangalam

The presence of Periyar river, Canoli Canal and various streams and ponds and the mangroves in the waterlogged areas makes Kodungallur the habitat for many flora and fauna. The lower reaches of Periyar was well known for easy availability of various types of

fishes like Pearlspot, Palankanni, Kanambu, Thirutha, Koori etc. along with a variety of shell fishes which includes crab, prawn, konchu and so on. However, this has become an old story due to the severe impact of pollution from different sources.

CHAPTER 2

REGIONAL SETTING

This chapter deals with the location, linkages and development scenario of Kodungallur Town.

2.1 Location

Kodungallur Town is located in the South western part of Thrissur district. It lies 29 km northwest of Kochi and 38km southwest of Thrissur. It is bounded by Edavilangu, Sreenarayanapuram and Vellangallur Grama Panchayats in the North; tributary of Periyar in the East; estuary of Periyar in the South and Eriyad and Edavilangu Grama Panchayaths in the West. It is located at 10°13' N latitude and 76°13'E longitude. Kodungallur acts as a connecting hub between Kochi and Thrissur along the National Highway 66. It also connects the coastal towns to Thrissur city via State Highways (SH22, SH 51) and other major roads. Fig. 2.1 shows the locational aspects of Kodungallur Town.

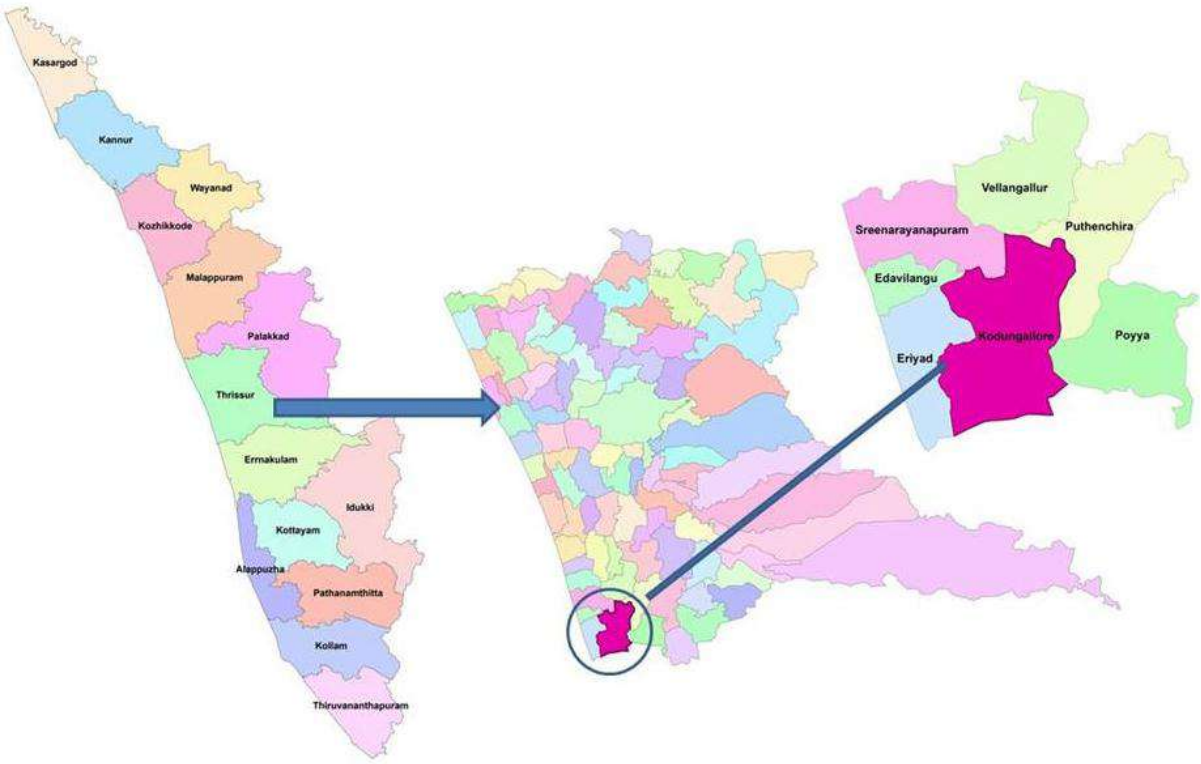


Fig.2.1 – Location of Kodungallur Town

2.2 Linkages

The road network is the most important mode of transportation in the Town connecting almost all important nodes. Kodungallur is well connected with almost all the major towns and cities of the state. The town has comparatively good connectivity due to the presence of National Highway (NH-66), two State Highways (SH22-Kodungallur-Shornur and SH 51-Kodakara-Kodungallur) and other major district roads. NH-66 acts as a coastal corridor connecting coastal belt of Kerala. It also facilitates transportation of perishable coastal goods.The nearest railhead to Kodungallur is located at Irinjalakkuda, at a distance of 22 km. The nearest major railway station is Aluva Railway Station. The nearest airport is Cochin International Airport, Nedumbassery, at a distance of 35 km.

VNBBefore the construction of roads in the latter half of 19th century, inland traffic in the district was carried on almost entirely over backwaters and rivers. With the development of speedier systems like roads and railways, inland water transport lost its charm. With reduced usage, the canals have become neglected without periodical maintenance. Realising its importance as an alternative mode of transport, vast potential in energy conservation and employment generation, the Government of India declared a section of West Coast Canal between Kollam and Kottappuram(in Kodungallur) as National Waterway No:3 in 1993. Developmental works on this project are in progress. A terminus is located close to Kottapuram bridge in Kodungallur.The above details are given in fig 2.2

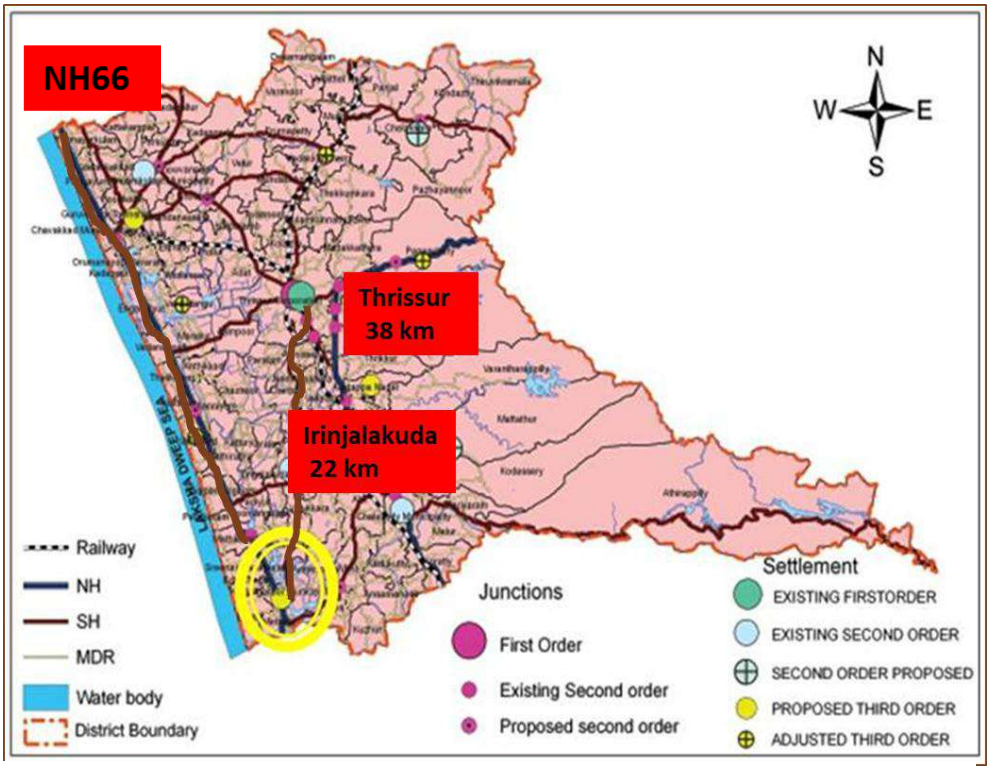


Fig.2.2 Linkages of Kodungallur Town

2.3 Activity pattern of the town

Existing activity pattern is derived based on the land use concentration pattern, functional character and urban profile. These are combined to evolve the activity pattern. Functional character is determined based on population distribution and land use, Urban profile is derived taking into account occupational structure and hierarchy of settlements. The land use concentration pattern is studied based on the land use analysis. Along with these the real ground scenario is also taken into consideration.

Since the character of Kodungallur town is urban as per urban profile, non agricultural as per land use concentration and urban as per functional classification, that

settlement has been termed as an urban activity area – mainly service sector activities. The activity pattern of the district is given in fig. 2.3

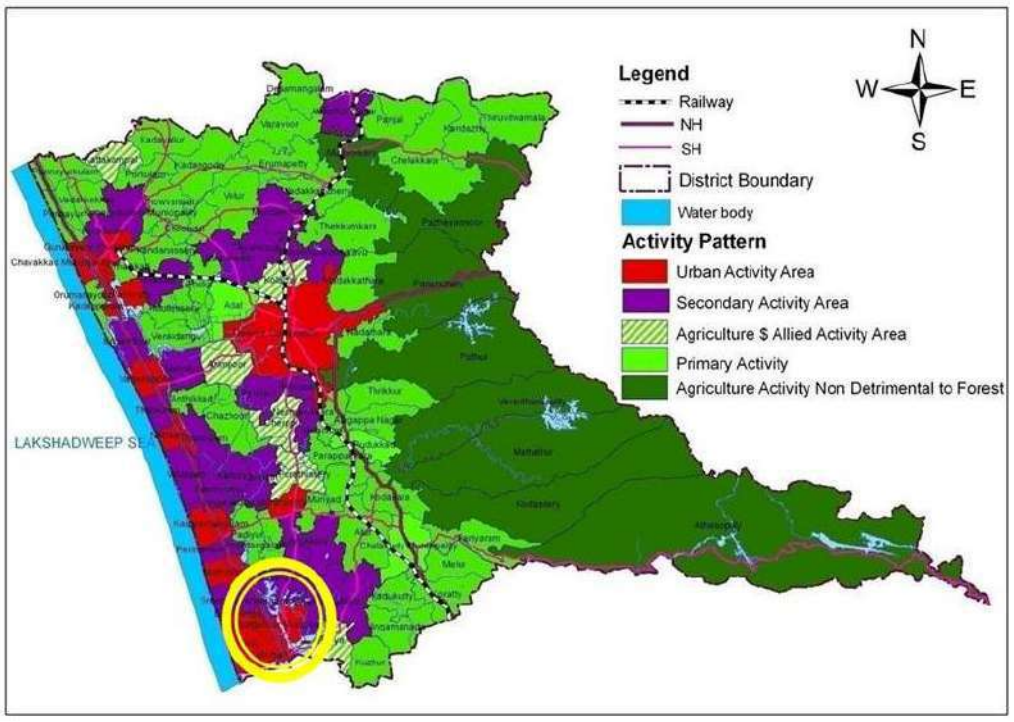


Fig. 2.3 Activity Pattern of the District based on IDDP

2.4 Functional character of the town

The function of a settlement is the major activity within the settlement, be it primary sector activities (rural), secondary sector / tertiary sector activities (urban activities) or the

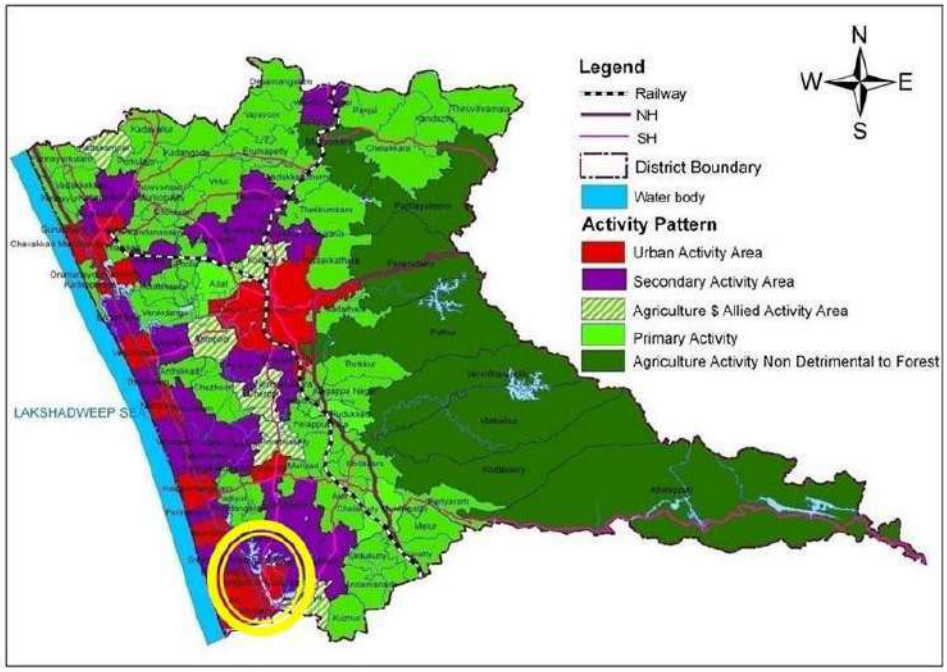


Fig.2.4 Functional classification of settlements based on IDDP

combination of above. As per the Integrated District Development Plan, the functional character of Kodungallur town is classified as URBAN derived by studying the major land use and the average plot size within the settlement. The functional classification is given in fig 2.4.

2.5 Role of Kodungallur Town as per the District Development concept

As per the development concept of integrated district development plan, the district is divided in to eight development zones and future hierarchy of each settlement and node are set and a future transportation network connecting the higher order settlements and nodes are planned. A development zone is delineated by grouping the settlements possessing similar major economic activity pattern as per the Spatial Analysis. In other words, the thrust development sector of each Grama Panchayat or Municipal Council is specified. The Development Concept of the district based is given in fig. 2.5.As per the development concept, Kodungallur town falls under the Multifunctional zone II. This zone will act as a service centre for the hinterlands and this zone is very much suitable for industries utilizing agricultural produces of hinter land. The development concept of the district is given in fig. 2.5.

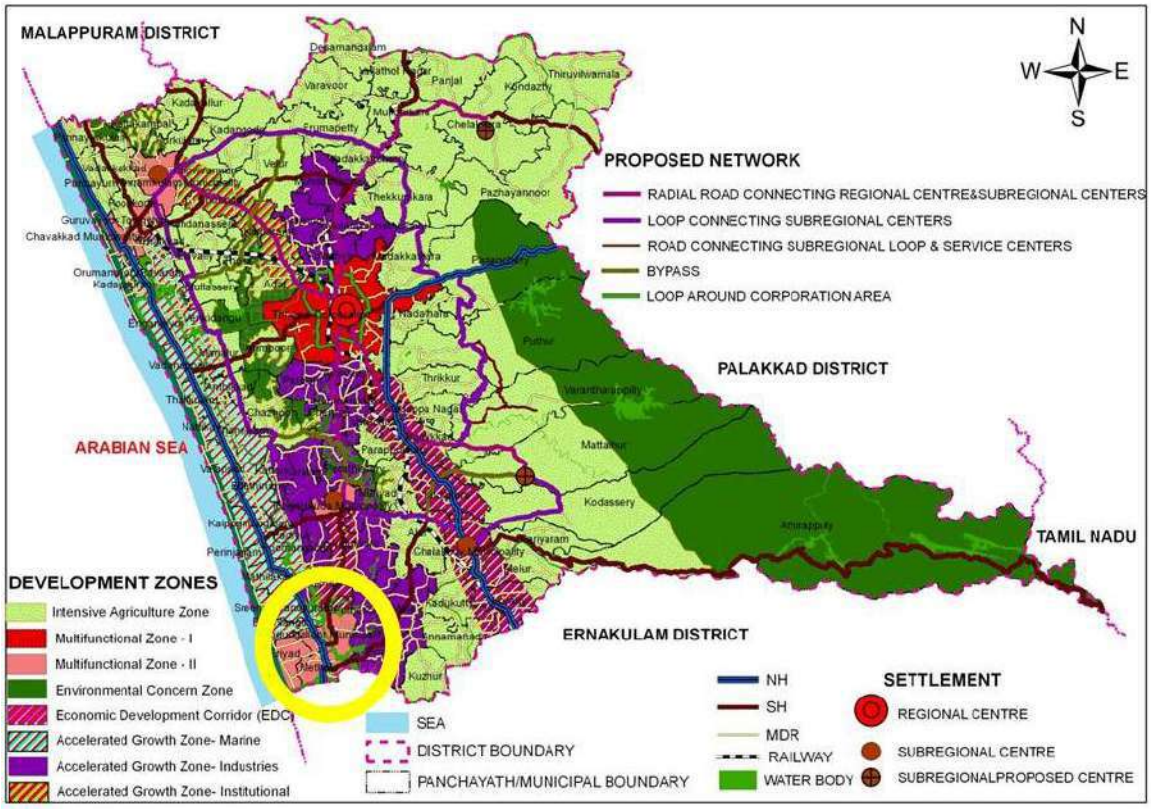


Fig 2.5. Development Concept based on Integrated district development plan

2.6 Regional Role of Kodungallur as per the State Urbanisation Report and other plans

State Urbanisation study envisages a fifth order hierarchy for Kodungallur town in future. In 2021 Kodungallur Urban agglomerate is expected to be a part of Kochi cluster. Also Kodungallur will form a constituent LSGI in the Alappuzha – Ernakulam – Thrissur – Palakkad corridor.

The development plan for Kochi region 2031(draft) Kodungallur is envisaged as a second order Urban centre. Also the tentative alignment of transit corridor mentioned in the above plan has termination at Kodungallur.

2.7 Conclusion

From the forgone discussions it can be seen that Kodungallur town is showing a strong urban character. Various results from several studies conducted concerning this region, also project a future urban character for the town. Hence it may be concluded that in future urbanisation of this place will increase and thus service sector activities need to be focused here.

CHAPTER 3

DEMOGRAPHY

The objective of any planning effort is to provide fair facilities to all class of people and to ensure the well-being of the inmates of the planning area. Hence it is essential to conduct an analysis regarding the size, density, growth rate and such characteristics of population. This chapter details out the demographic characteristics of Kodungallur Town in comparison with, Thrissur district, and other Local Self Government Institutions within the district. The study is based on the census report 2001 and provisional census data 2011.

3.1 Population

According to 2001 census the total population of Kodungallur town was 33539. In 2010 Methala Gramapanchayath having a total population of 36120 was added to Kodungallur town. As per the provisional data of 2011 census, the total population of Kodungallur town is 71440. Kodungallur town shares 2.24% of population of Thrissur district. The total number of households in the town is 17950. Figure 3.1 shows the decadal variation of population in Kodungallur town area through the years 1971 - 2011. Town is showing an increasing trend in population.

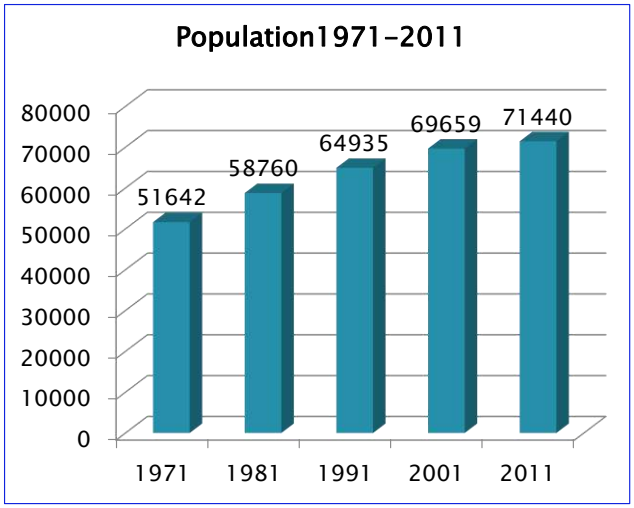


Fig 3.1 Population 1971 - 2011

Source: Census 2011

Table 3.1 Comparison of population with other Urban LSGIs

Name	Total population				
	1971	1981	1991	2001	2011
Trissur Corporation	234650	263584	292963	317526	315957
Kodungallur	51642	58760	64935	69659	71440
Chavakkad	29443	34344	37789	38138	39098
Kunnamkulam	39598	45691	49398	51592	54071
Chalakudy	37562	41894	45069	48380	49525
Irinjalakkuda	46743	51565	56509	60507	62532

Source: Census reports 1971, 1981, 1991, 2001, 2011 provisional

Table 3.1 shows a comparative study of population in Kodungallur. From the table it can be seen that Kodungallur town has the highest population among the Towns in all the decades from 1971 - 2011.

3.2 Population Growth Rate

Even though the population of Kodungallur Town goes on increasing and still is having the highest value among other LSGIs, the growth rate of population in a decade is low. The population growth rate of Kodungallur Town in the current decade is 2.56. Fig.3.2 shows the variation of decadal population growth rate. It can be seen that from the 1971 – 1981 decade to this date, growth rate keeps on decreasing. Fig 3.3 shows the comparison of variation in growth rate of population of Kerala state, Thrissur District and Kodungallur Town. Fig 3.4 shows the comparison with other urban local bodies in the district.

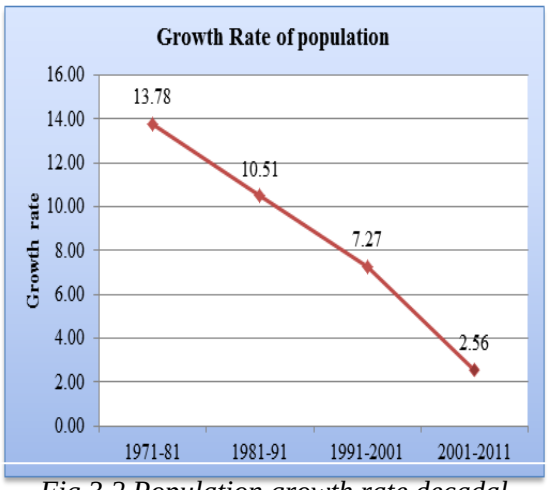


Fig 3.2 Population growth rate decadal variation Source: Census 2011

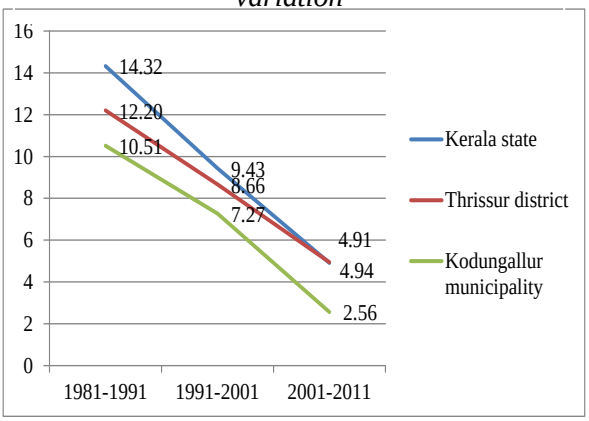


Fig 3.3 Decadal variation of population growth rate comparison

Source: Census 2011

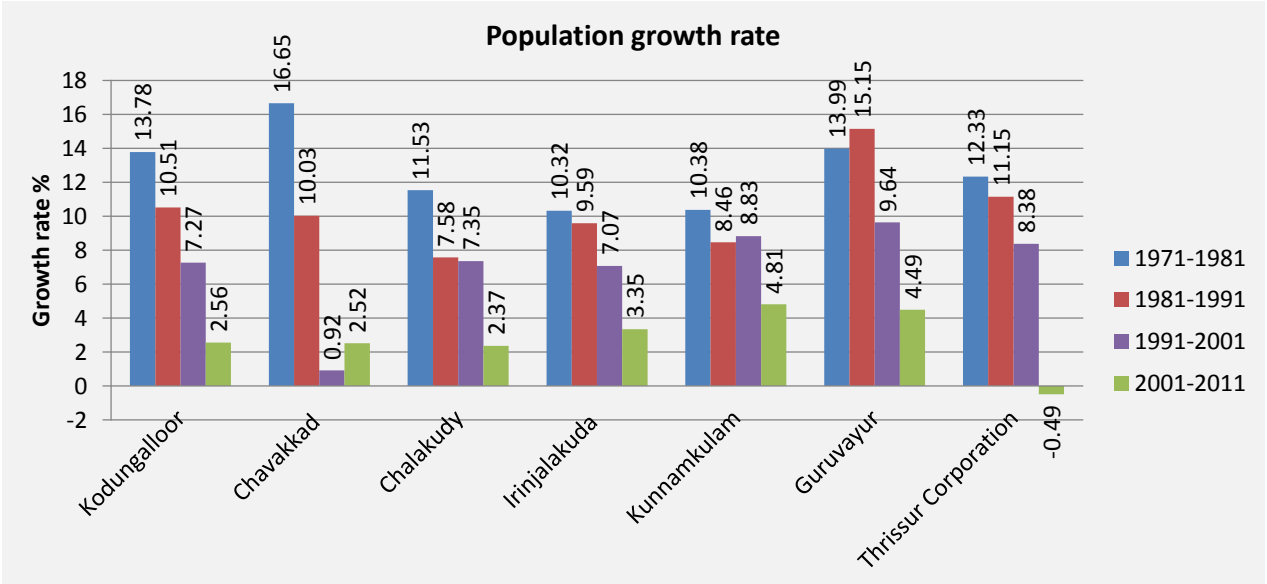


Fig 3.4 Decadal variation of population growth rate-Urban LSGIs comparison

Source: Census 2011

Figure 3.5 shows the comparison of population growth rate with the nearby local bodies.

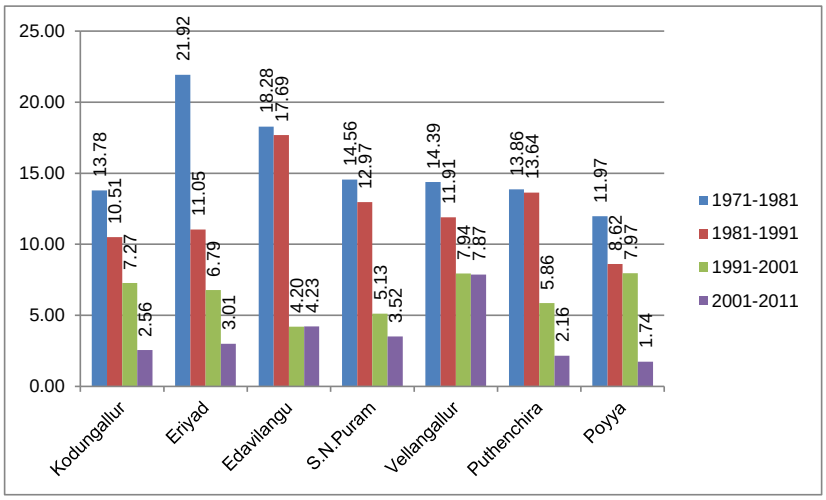


Fig 3.5 Decadal variation of population growth rate-Nearby LSGIs- comparison
Source: Census 2011

It is clear from the figures that the growth rate of all local bodies is showing a declining trend. Vellangallur panchayath is showing an almost equal growth rate. The panchayath lying to the north side of Kodungallur town along the State highway 22 to Thrissur with another major road between Mala and Mathilakam connecting the SH 22 to NH 66 traversing through the panchayath and being a part of the inland devoid of any physical constraints like marshy lands has made itself an ideal location for in migration from nearby localities. This can be considered the reason for the higher growth rate in this panchayath compared to the nearby LSGIs. The growth rate of Kodungallur town is in the lower range when compared with the State, the District , urban LSGIs and nearby LSGIs.

3.3 Population Density

Gross population density of Kodungallur town is found to be 2456 persons per sq. km as per 2011 census. Population density has been showing an increasing trend in Kodungallur town through the years (Fig 3.6). Fig 3.7 shows the comparison of population density with other urban local bodies in the district as per 2011 census.

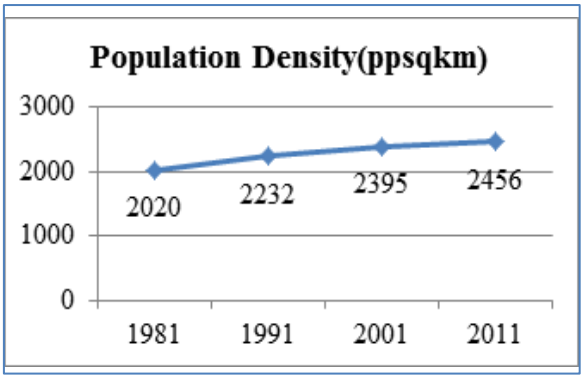


Fig 3.6 Variation in population density
Source: Census 2011

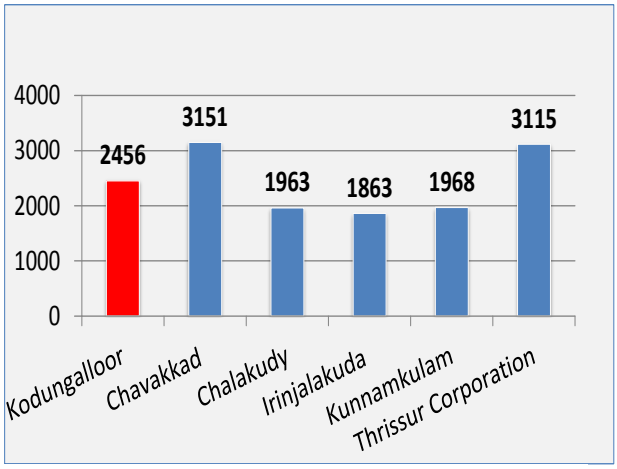


Fig 3.7 Comparison of population density 2011 with urban LSGI

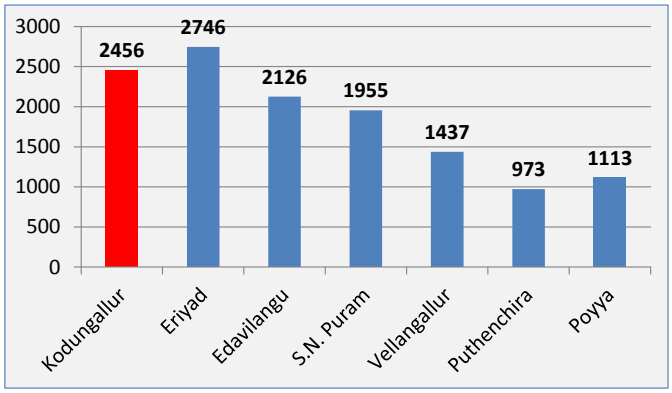


Fig 3.8 Comparison of population density 2011 with nearby LSGI

From the figure it may be inferred that the population density of the town is on the higher side. Only Thrissur Corporation & Chavakkad Municipality has density greater that Kodungallur town. The proximity to the commercial capital of the State, Ernakulam contributes to this high density. Among the other nearby LSGIs only Eriyad has a higher population density than Kodungalloor, which is a coastal panchayat lying to the west of Kodungalloor. Fig. 3.8 shows the comparison with nearby LSGIs using 2011 Census data.

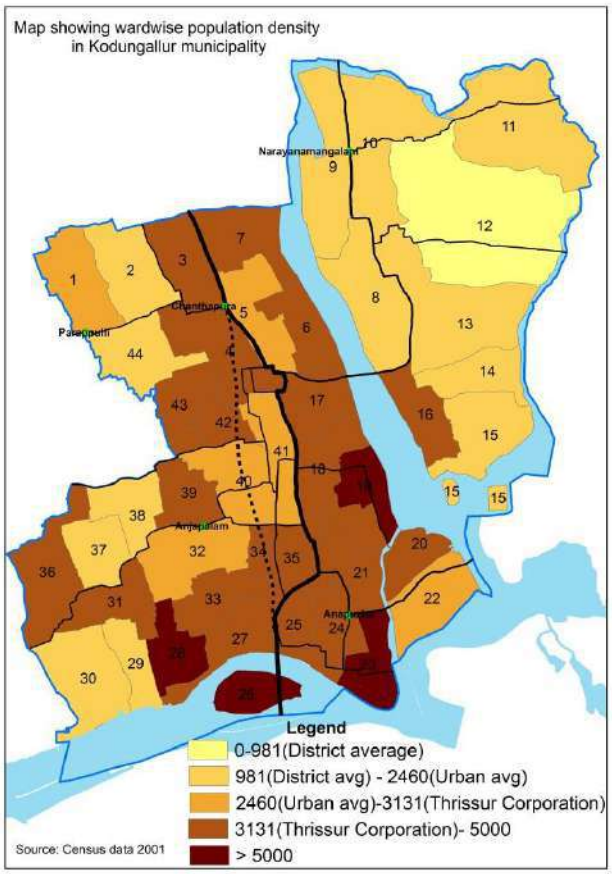


Fig 3.9 Ward-wise population density as per 2001 census data

The variation of gross population density through the different wards in Kodungallur town is shown in figure 3.9. It can be seen that the wards 3, 4, 6, 7, 16, 17, 18, 19, 20, 21, 23, 24, 25, 26, 27, 28, 31, 33, 34, 35, 36, 39, 42, 43 are having population density greater than the density of Thrissur Corporation. Generally the eastern part of the town shows lower

population density. The wards lying by the sides of main roads show a higher density of population.

3.4 Net Population Density

Net population density is arrived at considering only the inhabitable area in the town . The uninhabitable areas as water bodies, marshy land, forest etc. are omitted from the total area to calculate the net population density. A high difference in gross & net densities indicates the presence of more non usable area in the region. The net population density of Kodungallur town as per 2011 census comes to 3165 persons/sq.km. A comparison of the net population density of urban local bodies is shown in fig 3.10. Kodungallur Town shows the highest net density. The variation of net population density through the different wards in Kodungallur town is shown in figure 3.11. Comparing ward wise gross and net population densities, it is clear that Kodungallur town shows a major difference between gross and net population density in the eastern sides. This is due to the presence of wetlands, marshy lands and water bodies covering a major area of land in the eastern side of the town.

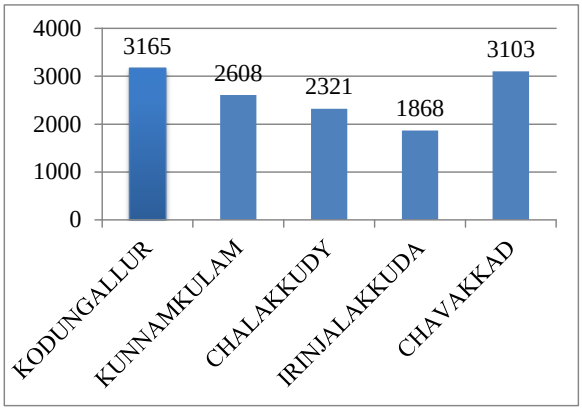


Fig 3.10 Net population density

Source: Census 2011

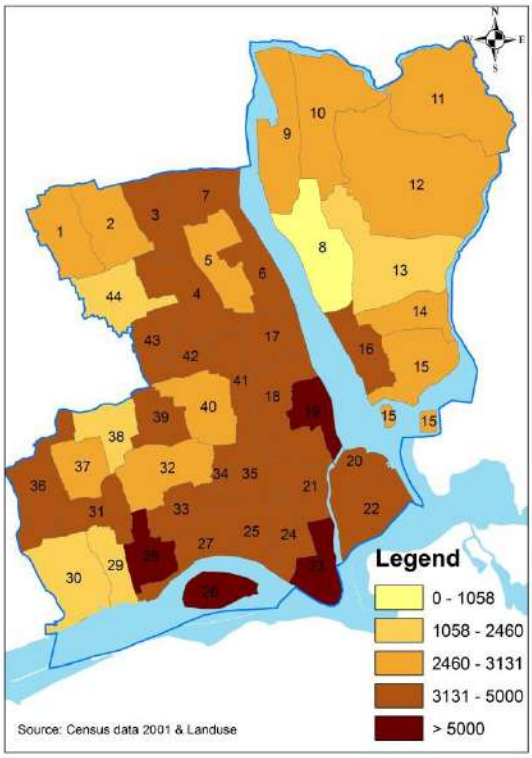


Fig 3.11 Ward-wise net population density

Source: Census 2011

3.5 SEX RATIO & AGE-SEX PYRAMID

Gender composition of population is one of the primary demographic characteristic of human population. Sex ratio is one of the widely used tools to measure

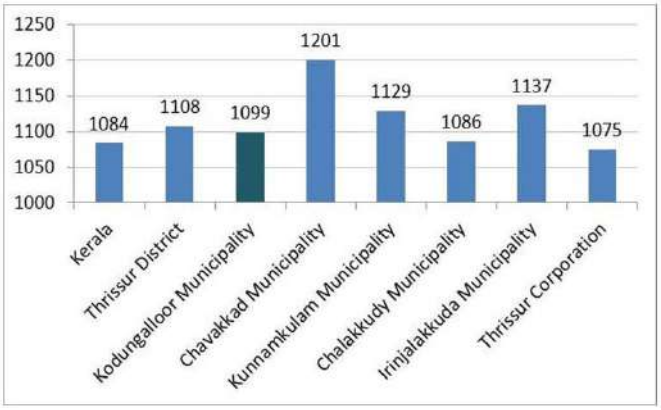


Fig 3.12 Sex ratio -comparison

Source: Census 2011

gender distribution of population. Kerala is the only State in India where females have predominance over males. Fig 3.12 shows the comparison of sex-ratio during 2011 between Kerala state, Thrissur district and other urban local bodies in the district. The total population of Kodungallur Town in 2011 is 71440 consisting 34042 males and 37398 females. The sex ratio is 1099 females for 1000 males. It is a lower value when compared with Thrissur district, Chavakkad, Kunnamkulam and Irinjalakkuda towns.

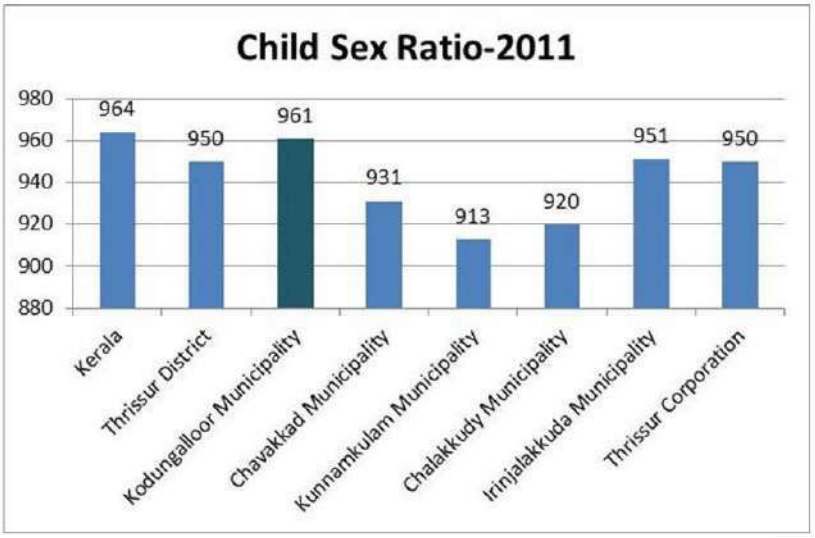


Fig 3.13 Child Sex ratio -comparison

Source: Socioeconomic survey-2012

The child sex ratio of Kodungallur town as per 2011 provisional census data is 961. Comparison with Kerala state, Thrissur district and other urban local bodies in the district is shown in fig 3.13. It can be seen that Kodungallur has the highest child sex ratio among the urban local bodies in Thrissur district. The ratio shows that male children is more but as the life expectancy of females is long the number of females is more among grown up population.

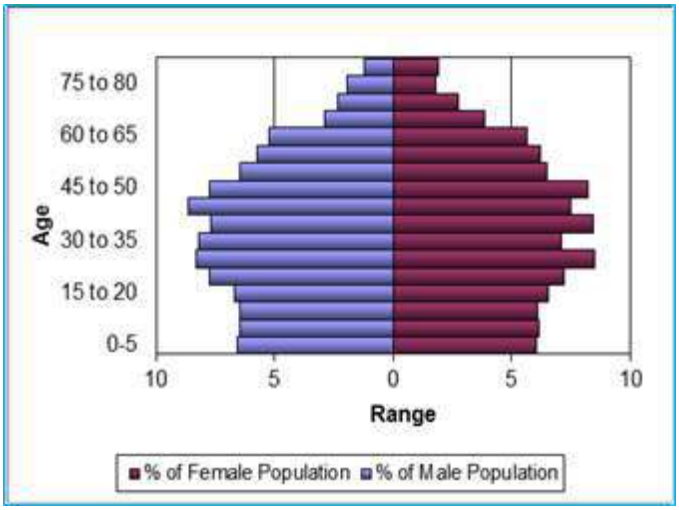


Fig 3.14 Age Sex pyramid

Source: Socioeconomic survey-2012

Age-sex pyramid of Kodungallur Town arrived at from the socio-economic survey is shown in figure 3.14. Age structure pyramid gives the population composition of the Town. For

Table 3.2 House hold size - Comparison

Name	Household size
Kerala	4.25
Thrissur District	4.11
Kodungallur Municipality	3.98
Chavakkad Municipality	4.73
Kunnamkulam Municipality	4.11
Chalakudy Municipality	3.94
Irinjalakkuda Municipality	3.92
Thrissur Corporation	4.03

Source: Census 2011

Kodungallur, the productive population (between age group 20-60) is more.

3.6 Household Size

House hold is a domestic unit consisting of the members of a family who live together along with non-relatives such as servants. The average household size is an important indicator of social and housing characteristics of the town. As per 2011 census, the house hold size of Kodungallur Town is 3.98. Comparison with Kerala state, Thrissur district and other urban local bodies in the district is shown in table 3.2.The figure 3.15 shows the decadal variation of household size of Kodungallur Town from 1981 – 2011. The household size of Kodungallur shows a gradual decline from 1981 to 2011. It shows that the nuclear family system which became typical in Kerala is prevailing in Kodungallur Town also. This sharp reduction in household size is also reflected in the growth of population during that period.

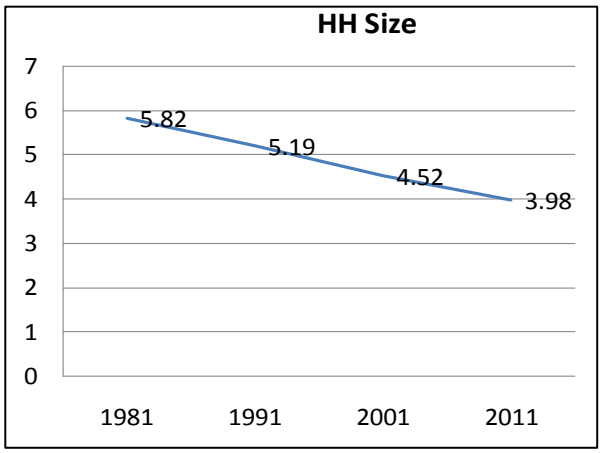


Fig 3.15 Household size - Variation

Source: Census 2011

3.7 Population Concentration Pattern

The population concentration pattern of Kodungallur Town in 2001 is shown in figure 3.16. From the figure it is clear that 1/3rd of the population is concentrated in wards 3,6,19,21,23,24,26,27,28,31, 34,35,42 and 43. 2/3rd of the population is distributed in wards 3, 4, 6, 7, 16, 17, 18, 19, 20, 21, 22, 23,24,25,26,27,28,31,33,34,35,36,39,40,41,42 and 43. It can be seen that higher concentration is found in the southern wards.

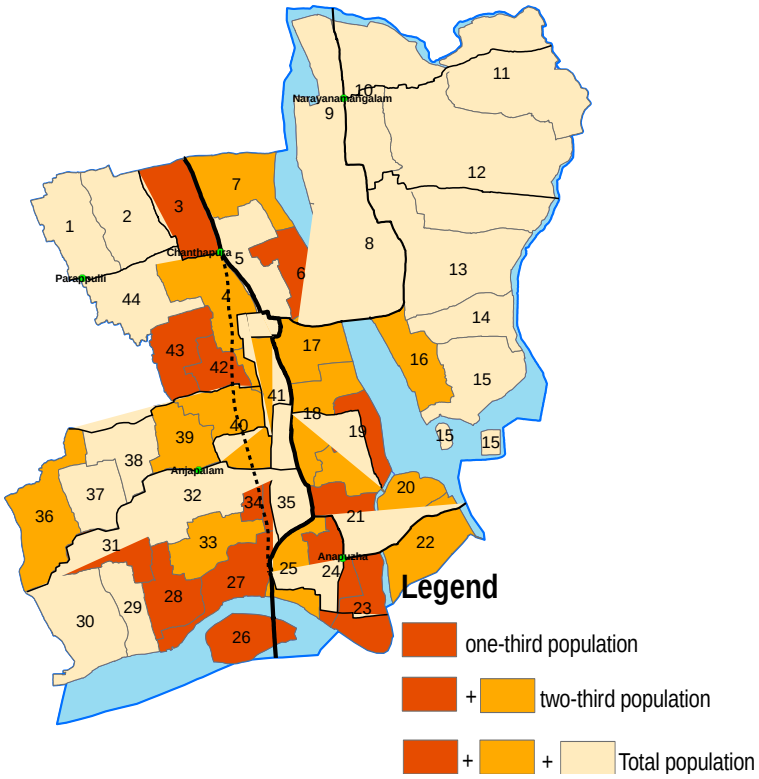


Fig 3.16 Population Concentration Pattern

Source: Census 2001

3.8 Conclusion

From the foregone analysis, it may be concluded that **t**he total population of the LSGI shows an increasing trend and constitute nearly 2.24% of that of the district. Among the nearby LSGIs and other municipalities, Kodungallur has the highest population. Population growth rate is decreasing and is lower than the urban and district average values. It can also be seen that there is a marked difference between gross Population density and net Population density which indicates the presence of non-utilisable land. From the ward wise density distribution, it is seen that certain wards are having very high density, and also the eastern wards are seen to be of low density.

CHAPTER 4

OCCUPATIONAL STRUCTURE

This chapter reveals the existing pattern of occupational structure of Kodungallur Town and the percentage of workers within the local body. The details regarding Economic base of a place is obtained from the workforce participation of the people of that place. 2011 census provisional data and 2001 census details are taken for the analytical purpose of occupational pattern. The analysis also provides an insight into the types of jobs, in which people of Kodungallur are engaged in.

4.1 Workers

The details of population and workers in Kodungallur town area during 1981, 1991, 2001&2011 are shown in table 4.1 and the decadal variation in Workforce Participation Rate(WPR) is shown in fig 4.1. The increase in WPR indicates that people are increasingly engaged in productive economic activities for most of the year. The WPR in the last decades shows a steep increase from 32.78 to 38.12. Out of the total population of 71440,27230 are engaged in some or other jobs.All comparing the District WPR of 35.11, Kodungallur has a higher value.

Table 4.1 Details of population, workers and WPR

Year	Total Population	Total Workers	WPR
1981	58760	17415	29.64
1991	64935	20943	32.25
2001	69659	22832	32.78
2011	71440	27230	38.12

Source: Census 2011

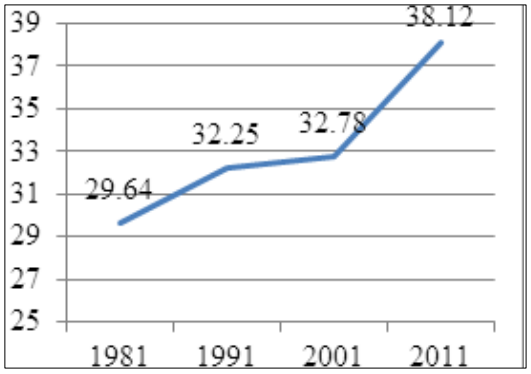


Fig.4.1 Decadal Variation of WPR

Source: Census 2011

Fig 4.2 shows the decadal variation in male and female WPR. It can be seen that male WPR has been increasing in a gradual nature while female WPR has had a sudden increase in the last decade after a gradual decrease. This means that in the last decade women got more involved in economic activities as compared to previous decades.

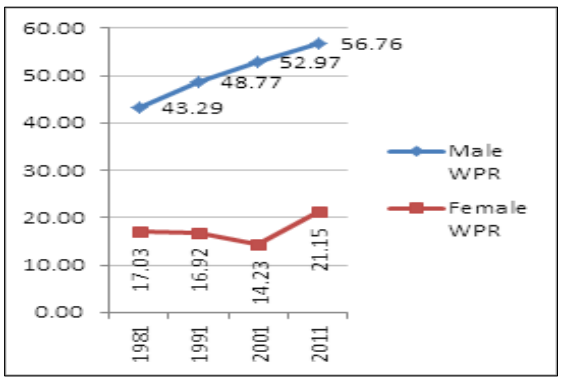


Fig.4.2 WPR Variation(Male and Female)

Source: Census 2011

Fig 4.3 shows the comparison of WPR with the urban local bodies in the district as per 2011 census data and Fig 4.4 shows the comparison with neighbouring local bodies as per 2001 census data. It can be seen that Kodungallur has the highest WPR among the urban local bodies. It also shows a moderate value among neighbouring local bodies. EdavilanguGrama Panchayath has the highest WPR in the locality, with a concentration of Agriculture related activities.

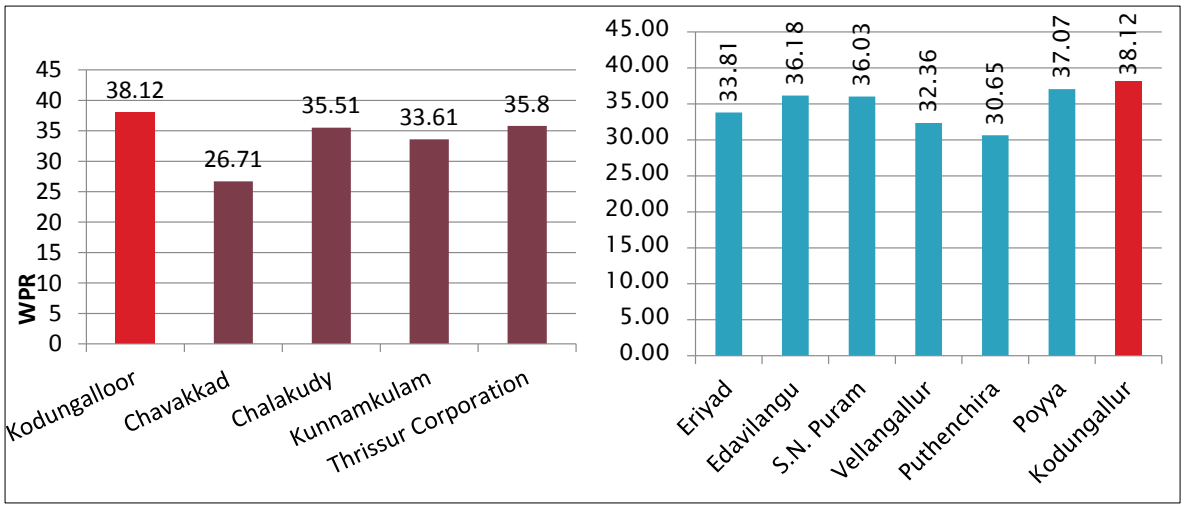


Fig.4.3 WPR Variation (Urban LSGIs)

Source: Census 2011

Fig.4.4 WPR Variation (nearby LSGIs)

Source: Census 2011

As per 2011 census provisional data, the total number of workers in Kodungallur Town is 27230. About 82% of the total workers are main workers (22820) while marginal workers come to 18% (4410) of the total. Fig 4.5 shows the decadal variation of total and main workers. It can be seen that both total and main workers are showing an increasing trend. Also it shows that the new workers/job opportunities added are of a permanent nature.

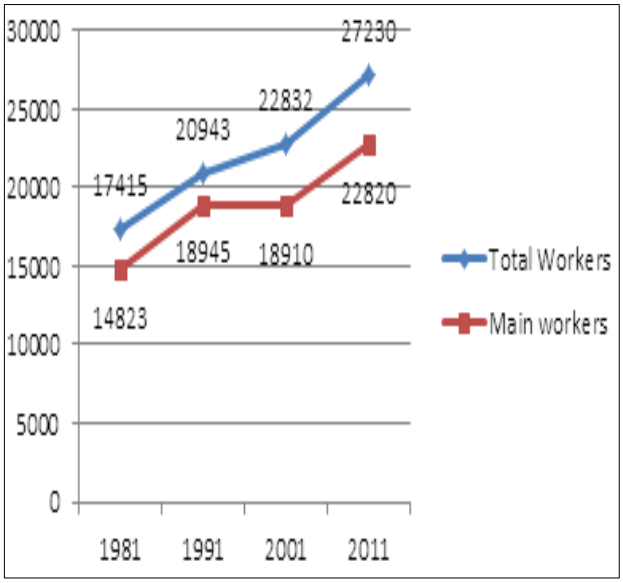


Fig.4.5 Decadal variation of main and total workers

Source: Census 2011

4.2 Occupational Structure

As per census data, workers are classified into four categories, namely, cultivators, agricultural labourers, household industrial labourers and other workers. Figures 4.6 shows the percentage of each category of main workers, for the years 1981,1991,2001 and 2011 respectively.

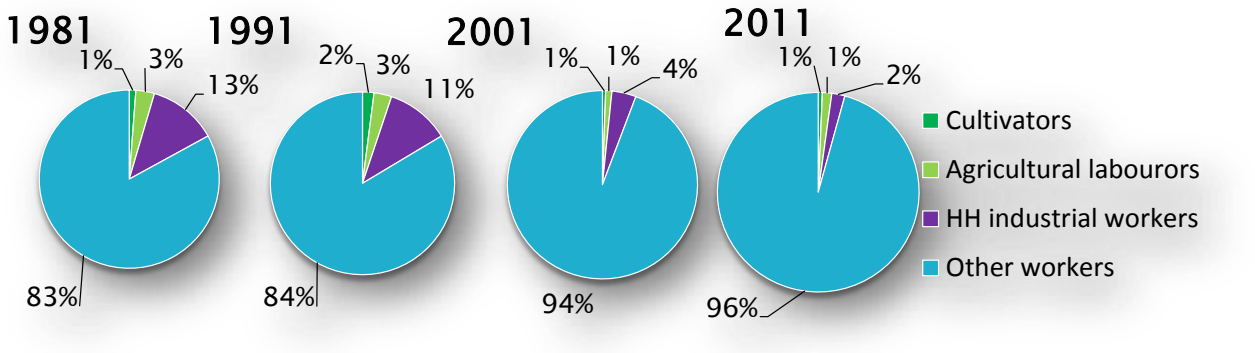


Fig.4.6 Occupational structure – Decadal

Source: Census 2011

From the fourfold classification of workers in Kodungallur Town, it can be seen that there is a decrease in cultivators and agricultural labourers between1981- 2011. This shows the diminishing nature of agricultural activities in this area. The conversion of agricultural lands for other uses, lack of labour force, reduced value for the goods produced, etc. has led to the reduction in agricultural activities. Fig 4.7 shows the comparison of percentage of other workers as per 2011 census. It can be seen that Kodungallur is among those urban local bodies which have the highest percentage of other workers. The higher percentage of other workers depicts an urban peculiar character of the area.

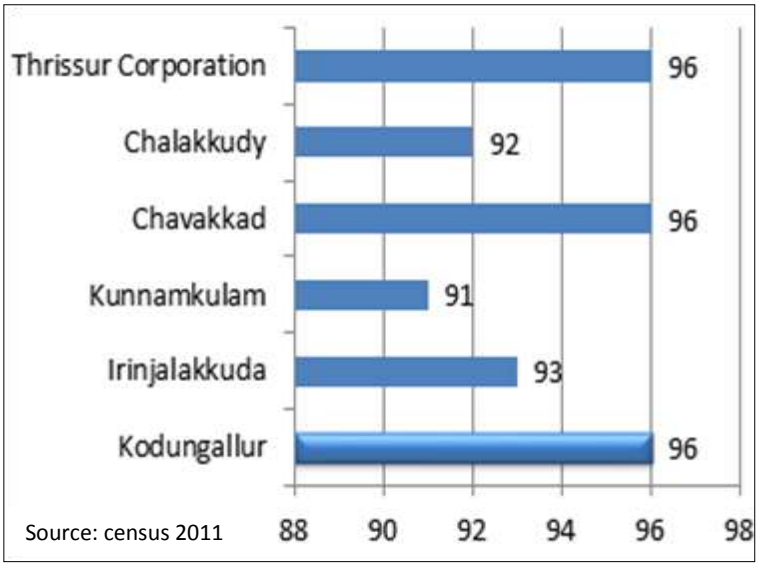


Fig.4.7 Comparison of percentage of other workers

Source: Census 2011

Fourfold classification of workers obtained from Socio-economic survey conducted in 2012 is shown in fig 4.8. It can be seen that the percentage of other workers is high as per this survey result also. Percentage of workers in each category obtained from Socio Economic Survey is shown in table 4.2. It can be seen that about 9.07% of workers are in government sector and about 7.54% of people are working abroad. About 21.71% of people are in construction field.

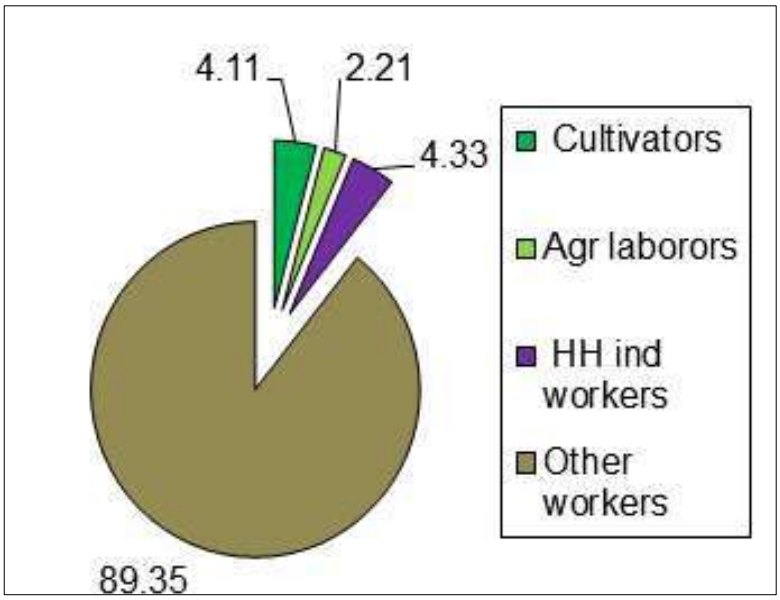
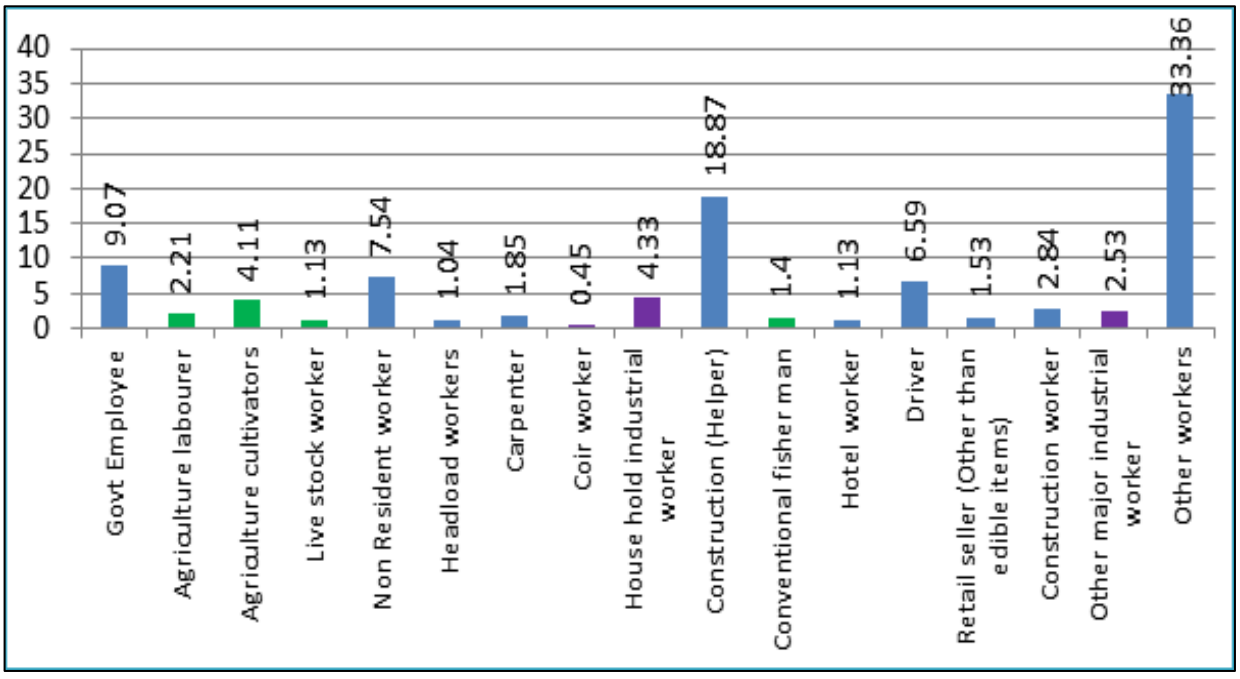


Fig.4.8 Occupational structure –
Source: Socio Economic Survey 2012

Table.4.2 Occupational structure



Source: Socio Economic Survey 2012

Concentration pattern of the workers through the wards is studied and detailed out here. Concentration Index of cultivators distributed through the wards is shown in fig.4.9. It can be seen that the available cultivators are concentrated in wards 1, 2, 5, 6, 8, 9, 13, 17, 27, 31, 33, 40, 41, 44 and on comparison with land use, is showing a matching pattern. The concentration Index distribution of Agricultural labourers is given in fig.4.10. Concentration is seen in wards 1, 2, 4, 7, 9, 17, 26, 40, 41, 42, 43. The concentration of house hold Industrial workers is shown in fig. 4.11. Concentration is seen in wards 1, 2, 4, 8, 13, 18, 19, 21, 26, 27, 29, 30, 33, 37, 38, 40 and 42 .

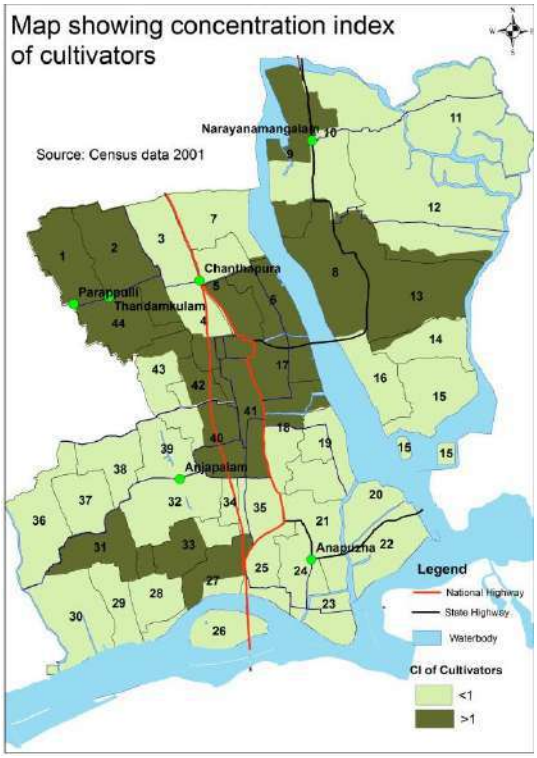


Fig.4.9 Distribution of concentration index of cultivators

Source: Socio Economic Survey 2012

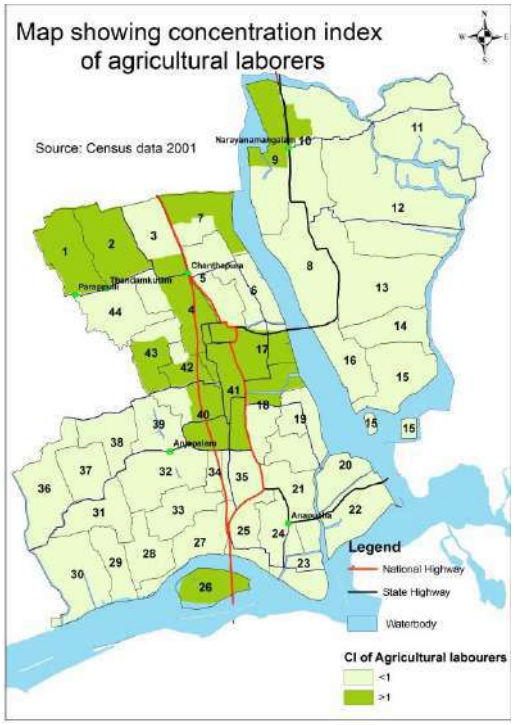


Fig.4.10 Distribution of concentration index of Agricultural labourers

Source: Socio Economic Survey 2012

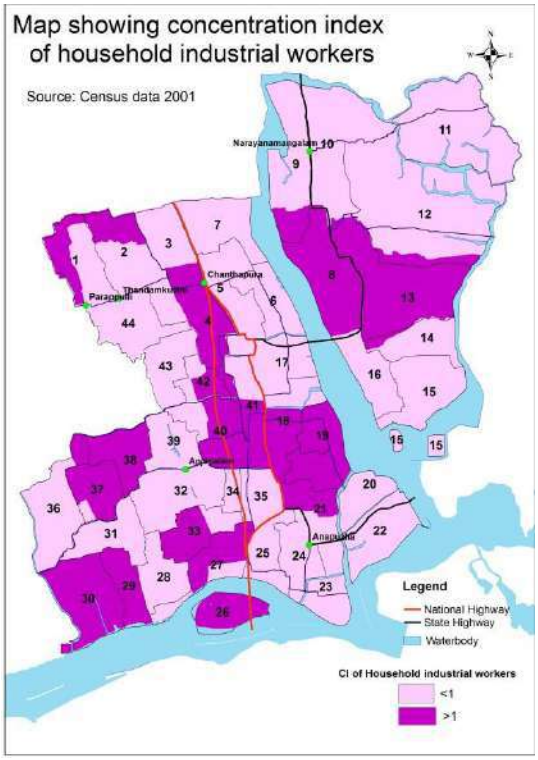


Fig.4.11 Distribution of concentration index of Household Industrial workers

Source: Socio Economic Survey 2012

4.3 CONCLUSION

From the foregone analysis, it is clear that WPR of Kodungallur has increased considerably in the last decade. It is also evident that the female distribution has increased and that reflected in the WPR increase. Majority of the workers are engaged in other workers category and the once predominant sectors on Agriculture and Industry are declining. It is also found that the distribution of workers are in accordance with the land utilization pattern.

CHAPTER 5

LANDUSE

The pattern of existing land use gives an idea regarding the uses that could be brought here in future. Existing land use of Kodungallur Town area and land use analysis is detailed out in this chapter. The study is based on the land use survey conducted in the year 2012. The use to which each and every parcel of land is put to is detailed out here. The analysis provides an insight into the structure of land.

5.1 Existing Land use Pattern

Existing land use of Kodungallur Municipal area based on land use survey conducted in 2012 is shown in figure 5.1.

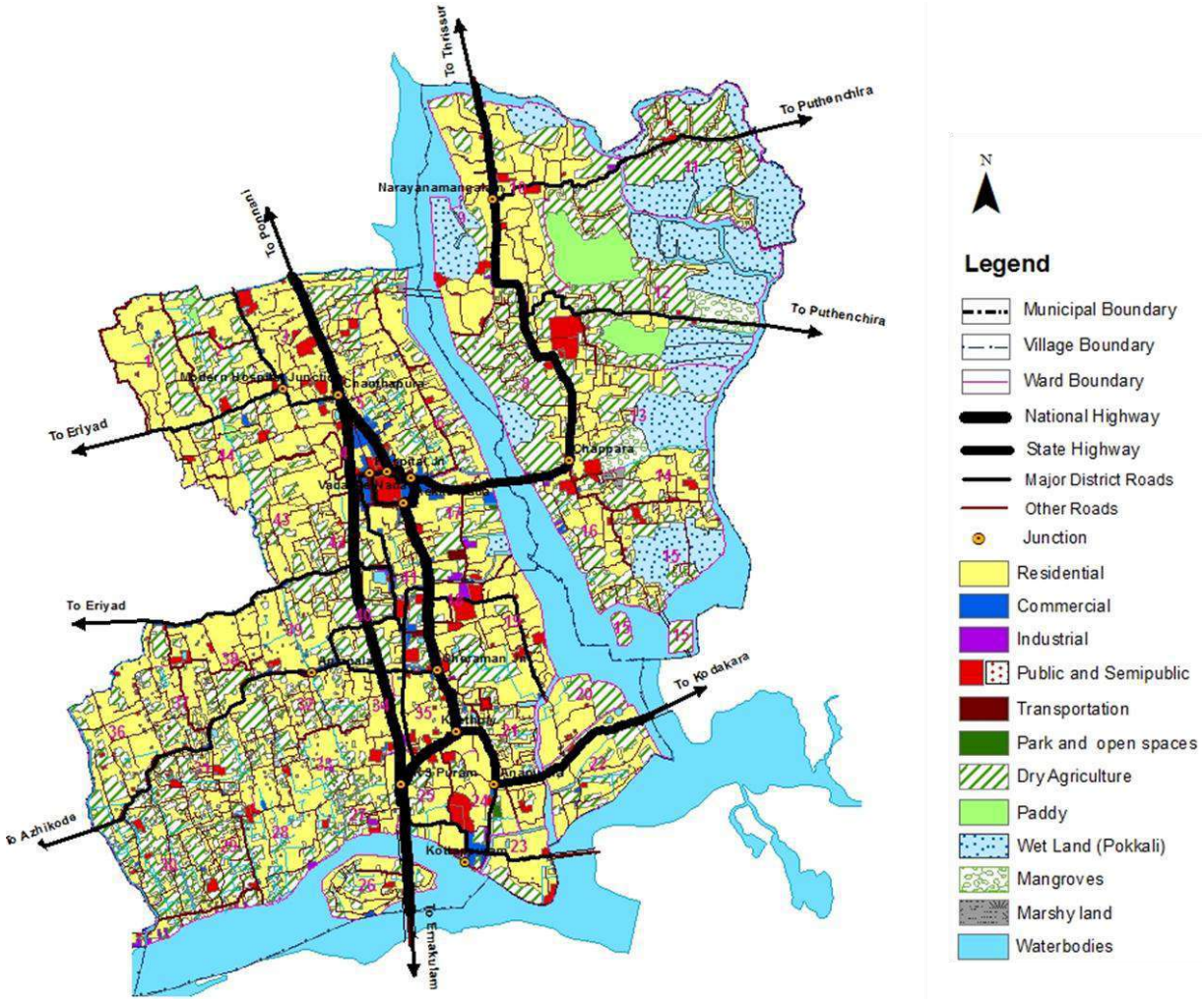


Fig 5.1 Existing Land Use -2012

Kodungallur town having an area of 29.10 sq.km of land is utilised for various uses like residential, commercial, industrial, agricultural etc. Land use breakup is shown in table 5.1 and percentage of land use is shown in figure 5.2.

Table 5.1 shows that about 41.36% of the land is occupied for residential purposes. The next highest single land use is dry agriculture which comes to about 23.60% of the area. Third biggest land use is Waterbody constituting around 14.31% of the land use. Wet agriculture constitutes 9.74% of the land use which comprises of Paddy and fish culture. Marshy lands and Mangroves occupy a big share of land. Commercial, Industrial and Public land uses are also present in the municipality. Land used for Transport and communication purpose occupies about 4.29%. Figure 5.2 shows the ward-wise land use breakup for 44 wards of the municipality. From the above figure it is very clear that the western part of the Kodungallur, that lies to the west of Canoli canal is very densely occupied and the eastern portions has lower residential intensity with majority of land area being low lying and marshy.

Table 5.1 Existing Land Use Break up

Type	Area (Sq.km.)	%
Residential	12.04	41.36
Commercial	0.61	2.10
Industrial	0.11	0.36
Public and Semi Public	0.95	3.25
Transport & Communication	1.25	4.29
Park & Open Spaces	0.01	0.04
Dry Aggriculture	6.87	23.60
Paddy	0.47	1.61
Mangroves	0.24	0.82
Marshy land	0.03	0.11
Water bodies	4.16	14.31
Wet land (Pokkali)	2.37	8.13
TOTAL	**29.11**	**100.00**

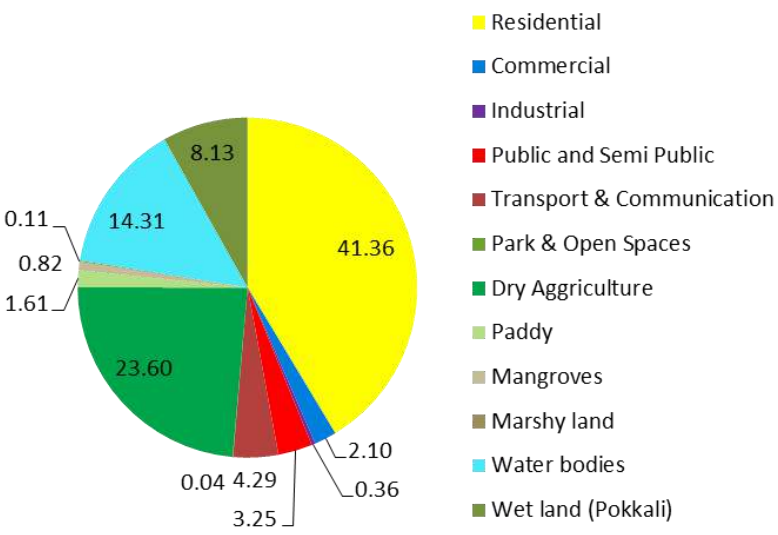


Fig 5.2. Existing Land Use Break up-2012

Source: Land use Survey 2012

Table 5.2 Existing Land Use Break up- Wardwise

Ward no	Ward name	Residential	Commercial	Industrial	Public	Agricultural	Park & Open Space	Vacant & Marshy land	Transportation	Water bodies	Mangroves
1	Parappully	0.469	0.003	0	0.004	0.098			0.019	0.003	
2	Kanniyath	0.312	0.006	0.001	0.024	0.259			0.019	0.001	
3	JTS	0.386	0.015	0	0.073	0			0.019	0.005	
4	Temple	0.375	0.103	0	0.097	0.039		0	0.071	0.005	
5	Town hall	0.308	0.057	0.004	0.025	0.097			0.052	0.002	
6	Society	0.274	0.004	0.003	0.008	0.103			0.019	0.011	
7	Vayalar	0.288	0.011	0	0.015	0.2		0.009	0.03	0.015	
8	Thyveppu	0.151	0.012	0.003	0.008	0.604			0.048	0.001	
9	Viyathukulam	0.422	0.008	0.003	0.033	0.322			0.019	0.008	
10	Kannakkan kadavu	0.657	0.013	0.01	0.03	0.285			0.036	0	
11	Narayanamangalam	0.114	0.001	0	0.013	1.132			0.019	0.037	
12	Naykkulam	0.191	0.002	0.001	0.008	1.765			0.019	0.127	0.15
13	K.K.T.M	0.352	0.005	0.001	0.105	0.626			0.019	0.001	0.09
14	Chappara	0.223	0.005	0	0.022	0.129	0.001	0.023	0.019	0.003	
15	Panthirampala	0.143	0	0	0.013	0.556			0.019	0	
16	Powerhouse	0.188	0.012	0.006	0.017	0.179			0.02	0	
17	Park	0.237	0.067	0.001	0.011	0.1	0.003		0.033		
18	Nalukandam	0.252	0.022	0.028	0.069	0.105			0.021	0.022	
19	Elthuruth	0.295	0.001	0	0.015	0.018			0.019	0.001	
20	Paliamthuruthu	0.337	0.004	0	0.013	0.19			0.019	0.002	
21	Thiruvanchikulam	0.222	0.007	0	0.01	0.089			0.024	0.011	
22	Kakkamadanthuruthu	0.355	0.009	0	0.008	0.146			0.019	0.023	
23	Kotta	0.278	0.005	0.001	0.023	0.063			0.02	0.02	

24	Anapuzha	0.195	0.038	0.004	0.062	0.028	0.008	0.022	0.034	0.001	
25	Kottapuram	0.237	0.017	0.006	0.017	0.046		0.016	0.021		
26	V.P. Thuruthu	0.254	0.006	0	0.006	0.071			0.019	0.001	
27	Chalakulam	0.232	0.006	0.009	0.01	0.167			0.046	0.018	
28	Kunnamkulam	0.284	0.005	0	0.007	0.07			0.019	0.003	
29	Kandamkulam	0.136	0.002	0.002	0.004	0.154			0.019	0.005	
30	Padanna	0.278	0.007	0.011	0.024	0.393			0.022	0.029	
31	Methalappadam	0.187	0.008	0	0.025	0.195			0.031	0.01	
32	Anchapalam	0.37	0.006	0	0.001	0.27			0.031	0.01	
33	Kadukkachuvadu	0.295	0.005	0.002	0.022	0.066			0.019	0.007	
34	Sreenagar	0.068	0	0	0	0.001			0.041	0.002	
35	T.K.S.puram	0.214	0.012	0.006	0.025	0.016			0.046	0.002	
36	Perumthodu	0.428	0.011	0.001	0.014	0.199			0.021	0.024	
37	Parambikulam	0.252	0.005	0	0.005	0.115			0.019	0.005	
38	Keraleshwapuram	0.296	0.008	0	0.016	0.058			0.027	0.006	
39	Katholiparambu	0.276	0.018	0	0.007	0.051			0.022	0.01	
40	Padakulam	0.235	0.01	0	0.002	0.246			0.072	0.011	
41	Cheraman Masjid	0.203	0.059	0.002	0.044	0.07		0.002	0.067	0.007	
42	Karoor	0.101	0.001	0	0.003	0.094		0.001	0.036	0.001	
43	Aikkaraparambu	0.298	0.002	0	0	0.089			0.023	0.002	
44	O.K.	0.367	0.007	0	0.011	0.158			0.019	0	
	Total	**12.039**	**0.611**	**0.105**	**0.947**	**9.663**	**0.012**	**0.072**	**1.258**	**0.447**	**0.238**

Source: Land use Survey 2012

From the table it can be seen that major land use is residential in majority of wards. Some exceptions are seen in certain wards like 8, 11, 12, 13, 15 and 30. These wards are showing majority of agricultural land use. Wardwise concentration indicies of residential ,agricultural,commericial,industrial and public landuses are detailed in figure 5.3.



Municipal park

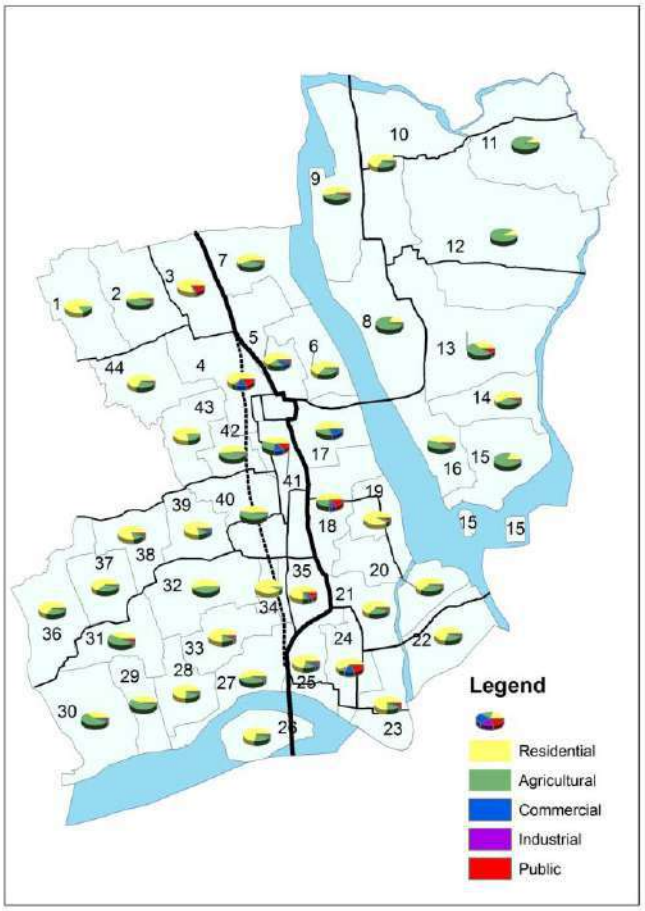


Fig 5.3. Existing Land Use Break up – ward wise-2012



Kodungallur Town Centre



Canoli Canal

5.2 Comparison of Land Use Pattern

A percentage comparison of the land use pattern among the urban LSGIs of Thrissur district is shown in table 5.3. It may be seen that residential use holds a major share in Kodungallur town.

Table 5.3Percentage Comparison of Land use pattern among Urban LSGIs

LSGI	Residential	Commercial	Industrial	Public and Semi Public	Transportation	Park & Open Space	Vacant space	Dry Agriculture	Wet Agriculture	Mangroves	Marshy land	Water body
Kodungallur	41.36	2.10	0.36	3.25	4.32	0.04	0.14	23.44	9.75	0.82	0.11	14.31
Kunnamkulam	32.27	1.72	0.68	3.75	5.56	1.09		30.38	23.34			1.19
Chalakkudy	37.83	1.85	0.77	5.41	3.22	0.02	3.49	32.02	14.87			0.51
Irinjalakkuda	42.04	1.56	0.79	3.71	4.89	0.39	0.39	18.47	25.81			1.95
Chavakkad	61.41	1.29	0.19	3.98	3.89	0.34	0.53	21.25	4.17	0.35		2.61

Table also reveals that Commercial land use% is higher in Kodungallur, Wet agriculture is comparatively lower and this region has certain special land uses as mangroves and Marshy lands. On comparing with the land uses it can be inferred that the wet agriculture here constitutes not only paddy, but fish culture as well.

5.3 Concentration Index of Different Land Uses

The concentration index (CI) quantifies the extent of concentration of a particular land use in a ward.

$$\text{The concentration index of a particular land use in a ward} = \frac{\%\text{ of that particular land use in the ward}}{\%\text{ of that particular land use in the local body area}}$$

Concentration index can be less than one, equal to one or greater than one. CI less than one indicate that there is no concentration of that particular land use in that ward. But CI equal to or greater than one indicates that there is concentration of that particular land use. The concentration indices of Residential, Agricultural, Commercial, Industrial and Public land uses are detailed here.

5.3.1 Concentration Pattern of Agricultural Land Use

Figure 5.4 shows the ward wise distribution of concentration index of agricultural land use. The spatial distribution of agricultural land use is given in figure 5.5. Generally the concentration is towards the periphery of the municipality that too towards the eastern side of the Canoli canal.



Fig 5.4 Ward wise CI of agricultural land use

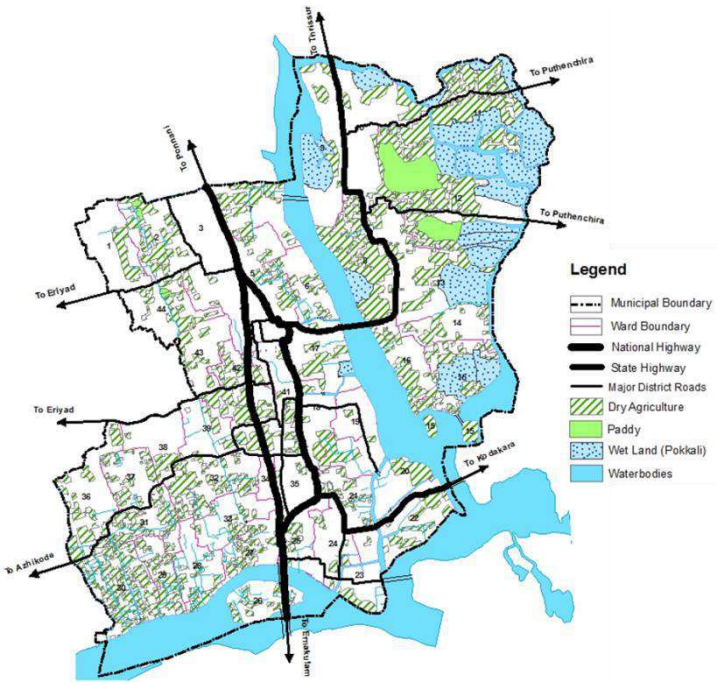


Fig 5.5 Distribution of agricultural land use

The eastern portions of the town are having paddy lands and prawn filtration ponds as wetlands. Dry agriculture is found in all parts of the town. It exists mostly as homestead cultivation. Wards 2,12and 13 have paddy concentration. 10 wards on the western side have a dry agriculture concentration. Wards 9,11,12 and 15 have a concentration of fish culture.

5.3.2 Concentration Pattern of Residential Land Use

Figure 5.6 shows the ward wise distribution of concentration index of residential land use. The spatial distribution of residential land use is given in figure 5.7.

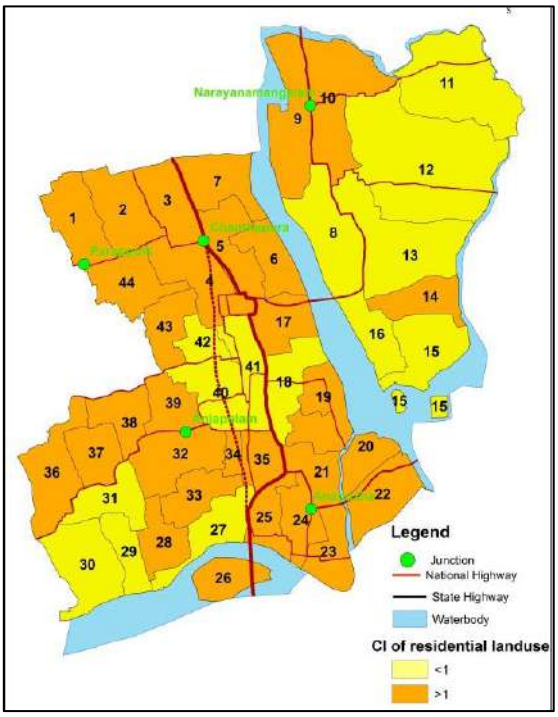


Fig 5.6 Ward wise CI of residential land use

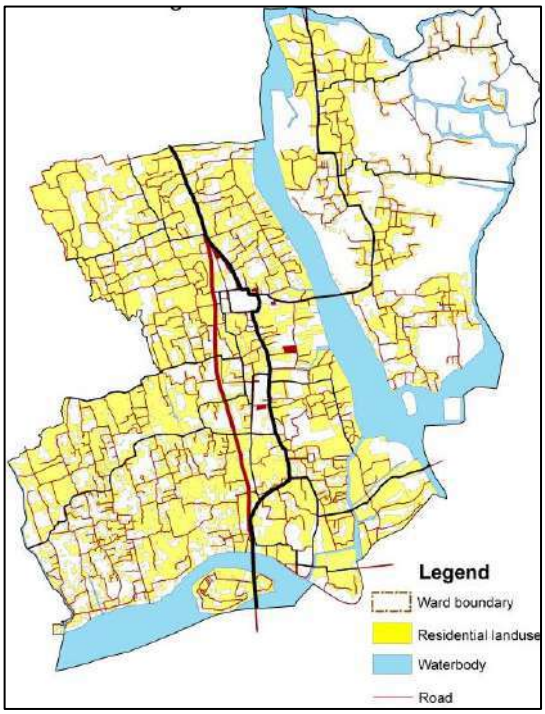


Fig 5.7 Distribution of residential land use

It can be seen that residential concentration index is greater than 1 in most of the wards. The wards having less concentration are those having more agricultural concentration or those in the eastern area occupied by marshy lands. These wards are lying towards the western side of Canoli canal. This again reiterates the fact that western side of the town is more densely populated.

5.3.3 Concentration Pattern of Commercial Land Use

Figure 5.9 shows the ward wise distribution of concentration index of commercial land use. It is seen that the commercial land use in Kodungallur is higher than other urban local bodies. The spatial distribution of commercial land use is given in figure 5.8.it can be seen that commercial activity is more intense by the sides of the NH 66 and near to the Kodungallur temple. Kottappuram market in ward 24 is a commercially important centre.

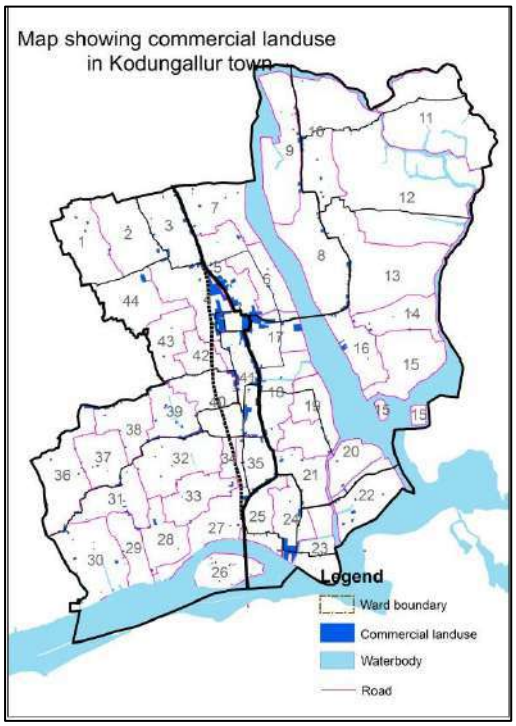


Fig 5.8 Distribution of commercial land use

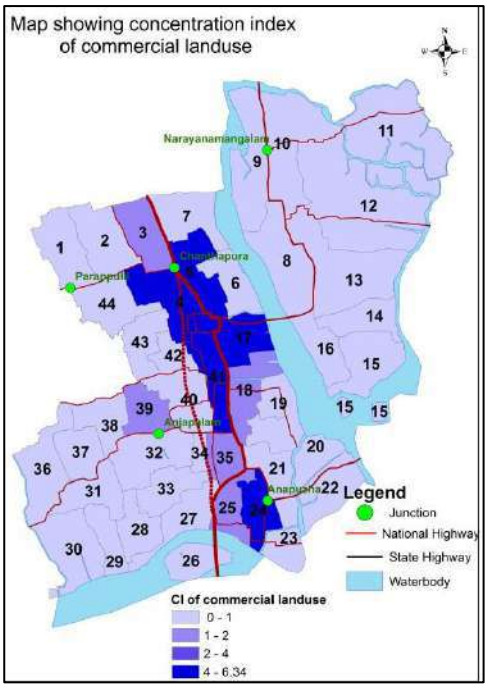


Fig 5.9 Spatial Distribution of commercial land use

5.3.4 Concentration Pattern of Industrial Land Use

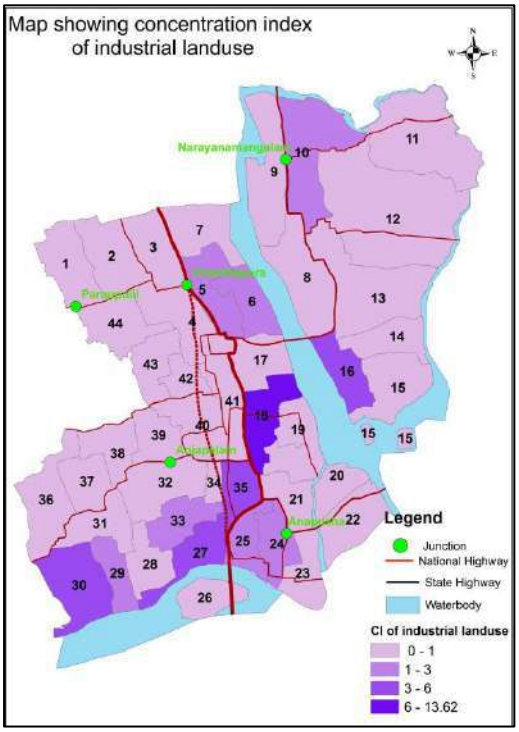


Fig 5.10 Spatial Distribution of CI of Industrial land use



Fig 5.11 Distribution of Industrial land use

Figure 5.10 shows the ward wise distribution of concentration index of industrial land use. The spatial distribution of industrial land use is given in figure 5.11. It can be seen that the industrial land use also is concentrated towards the western side of Canoli canal. Industrial units are found in wards 18,27,29,30 and 35 of Kodungallur municipality. It consists of flour mill, boat building yards, prawn hatchery, saw mills, fertilizer unit etc. It constitutes only 0.36% of the land use.

5.3.5 Concentration Pattern of Public Land Use

Figure 5.12 shows the ward wise distribution of concentration index of public land use. The spatial distribution of public land use is given in figure 5.13.

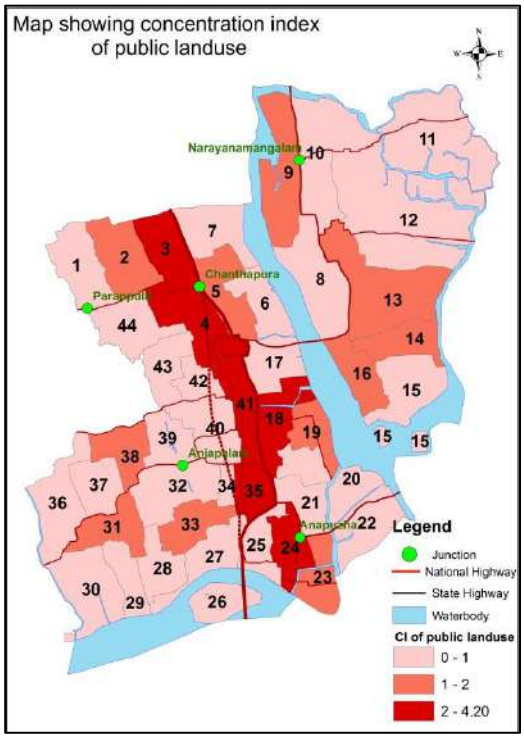


Fig 5.12 Spatial Distribution of CI of Public land use

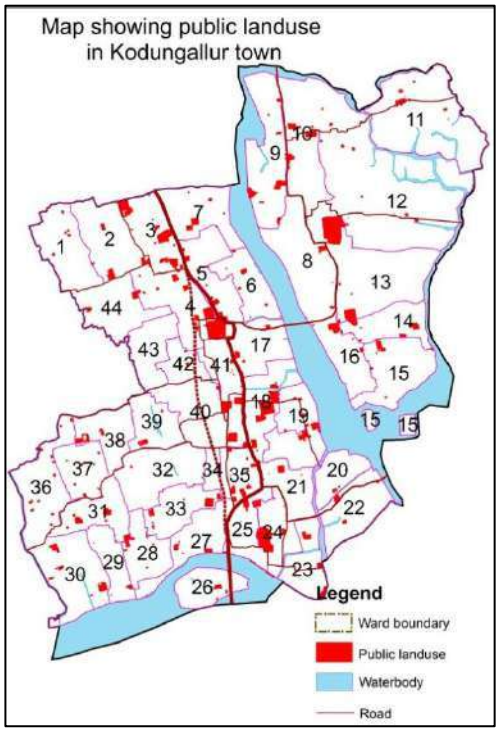


Fig 5.13 Spatial Distribution of Public land use

Public use is found mostly near to the highway. It constitutes about 3.25% of the total land use. The major public land uses include KKTM college, Kodungallur temple, Mini civil station, Kottappuram fort, Church and Cheraman Masjid.

5.4 Other Major Land uses

One of the remaining major land uses is transportation which comes to about4.32% of the total area. The three major regional roads passing through Kodungallur are National Highway 66 (Kanyakumari-Panvel) , State highway 51(Kodungallur-Kodakara) and State highway 22(Kodungallur – Shornur). Other major roads are Eriyad road, Azheekkode road and road to Puthenchira. The bypass for National highway from Kottappuram to Chanthappura is also nearing completion. A private bus stand at Chanthappura, a KSRTC stand at Sringapuram and a proposed bus stand under construction at Sringapuram also constitutes this landuse.

Another land use worth mentioning here is water bodies. This constitutes to around 14.31% of the total area. This is due to the presence of backwaters, natural channels and large number of ponds in municipal area. The major water courses are KodungallurKayal, Canoli Canal, Vijayanthodu,Perumthodu,ThachappillyThodu etc. About 0.11% of land is occupied by marshy areas. These are present in the eastern areas of Pullut village. Mangroves(0.82%) are also found along with prawn filtration fields and marshy lands in the eastern areas of the municipal area. The eastern side of the Canoli canal, further east towards the Thrissur road has the presence of Waterbodies, Mangroves and Marshy lands.

5.5 Activity Pattern

The pattern of major activities as per the land use survey data is shown in fig 5.14. It can be seen that most of the area is occupied by residential activity. Intensive commercial activity is found in town centre. Commercial activities also exist in the sides of major roads and at Kottappuram market. Agricultural activity is found mainly in the periphery of the town. Marshy lands, mangroves and wetlands constitutes the environmentally sensitive areas in the eastern side of the municipal area.

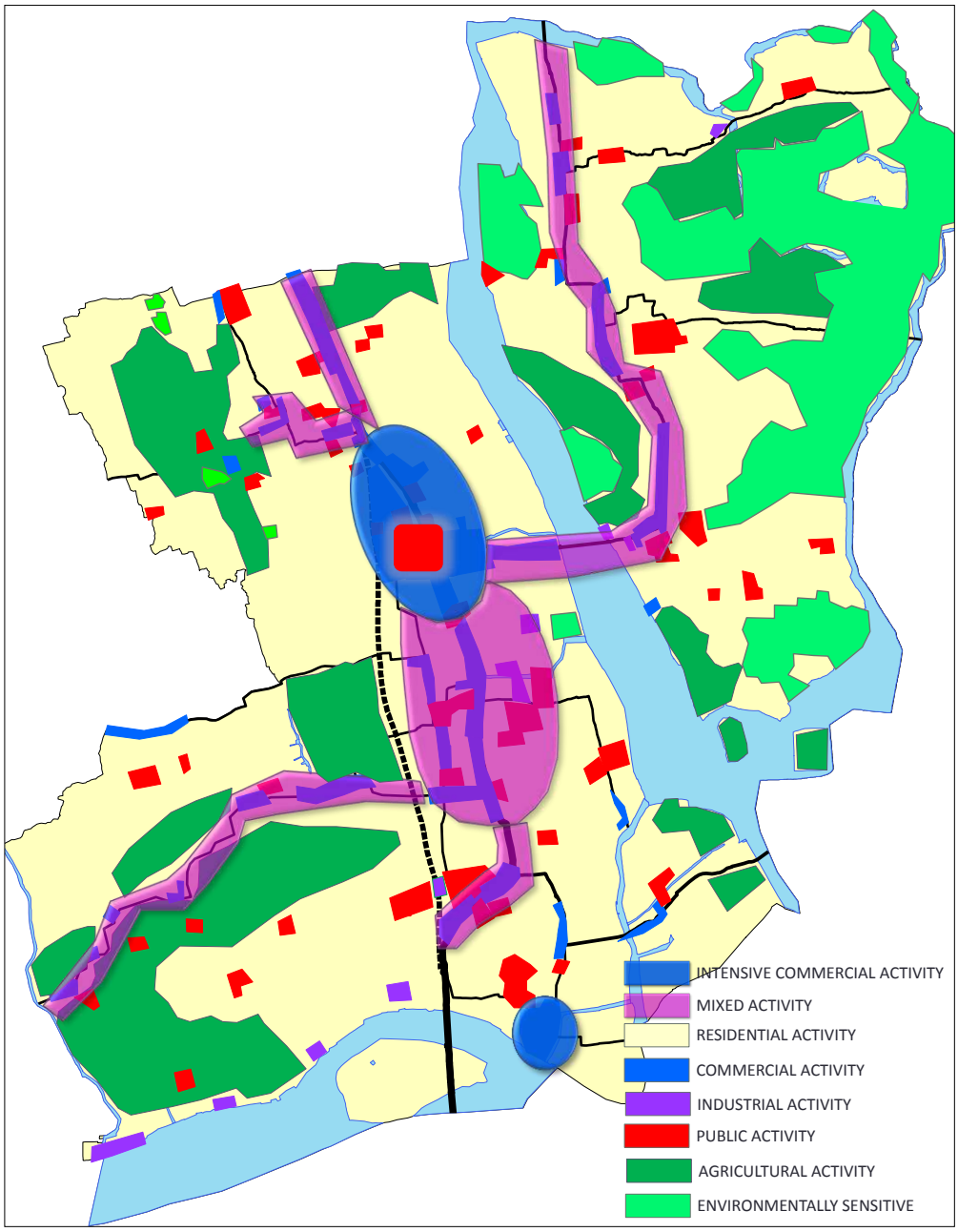


Fig 5.14 Activity Pattern based on landuse

Source: Land use Survey 2012

5.6 Functional Character of Wards

The functional character of a local body is determined by the major activity within the LSGI, The character may be of a rural nature if primary activites are predominanat, urban nature if secondary or tertiary activities are predominant or may be a combination of both. The functional character of Thrissur District as per IDDP Perspective plan is shown in figure 5.15.

Analysis based on land use and average plot size (methodology adopted for IDDP, Thrissur report) shows that there exists semi urban and semi-rural character in settlements in addition to the urban and rural character. An area is classified as Semi Urban, if there exists (or it is likely to introduce) both urban and rural activities with predominance to urban activities. If the predominant activity is rural, in the area where both urban and rural activities co-exist; it is classified as a semi-rural area.

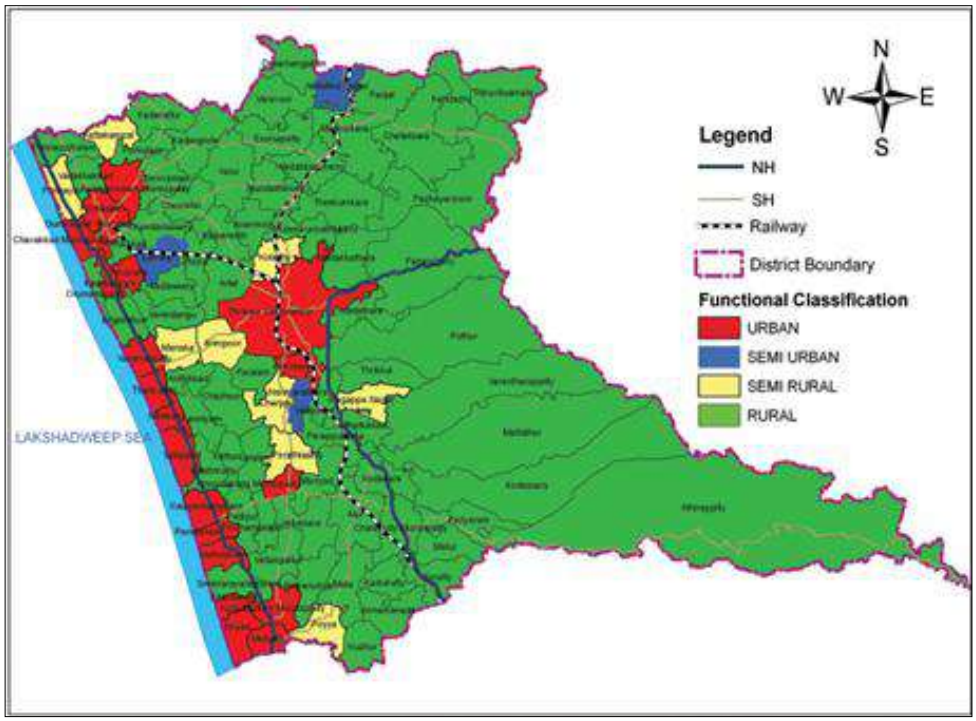


Fig 5.15 Functional Character of Thrissur District based on IDDP
Source: - IDDP Thrisuur

The spatial distribution of the settlements based on its character shows a clear demarcation in the pattern of the settlements in four categories. Thrissur Corporation and municipalities except Chalakudy show urban character. Some of coastal LSGI's also show urban character. Semi urban character is exhibited by LSGI's that have urban influence like Vallathole Nagar (located near Shornur Municipality in Palakkad District), Elavally and Vallachira. Most of the LSGI's in the midland and high land region of the District exhibit rural character. Semi-rural character is seen in those LSGI's which are in a transition zone between LSGI's of urban and rural character. According to the analysis of functional character of District, Kodungallur Municipality as a whole shows urban functional character.

The same methodology as done for the LSGIs of the district is applied for the wards of the municipality to assess the ward wise functional character. The result of this analysis is shown in figure 5.16 which shows that the majority of municipal wards are showing urban character.

The wards having agricultural concentration ie, wards 8,11,12,15 show rural character. Wards 13, 29, 30 and 31 have Industrial, Public and Residential activity along with predominant Agricultural activity. Hence these wards show semi-rural character. Wards 1, 2, 9, 10, 14,33,37,38 and 44 show both agriculture and residential land use mix with predominance in residential land use indicating semi urban character. The remaining 27 wards, most of them lying near to the highway, are showing urban character. It can be seen that only very few wards are showing rural character which shows the decline in primary sector and the development of the town as a residential settlement depending mostly on tertiary sector.

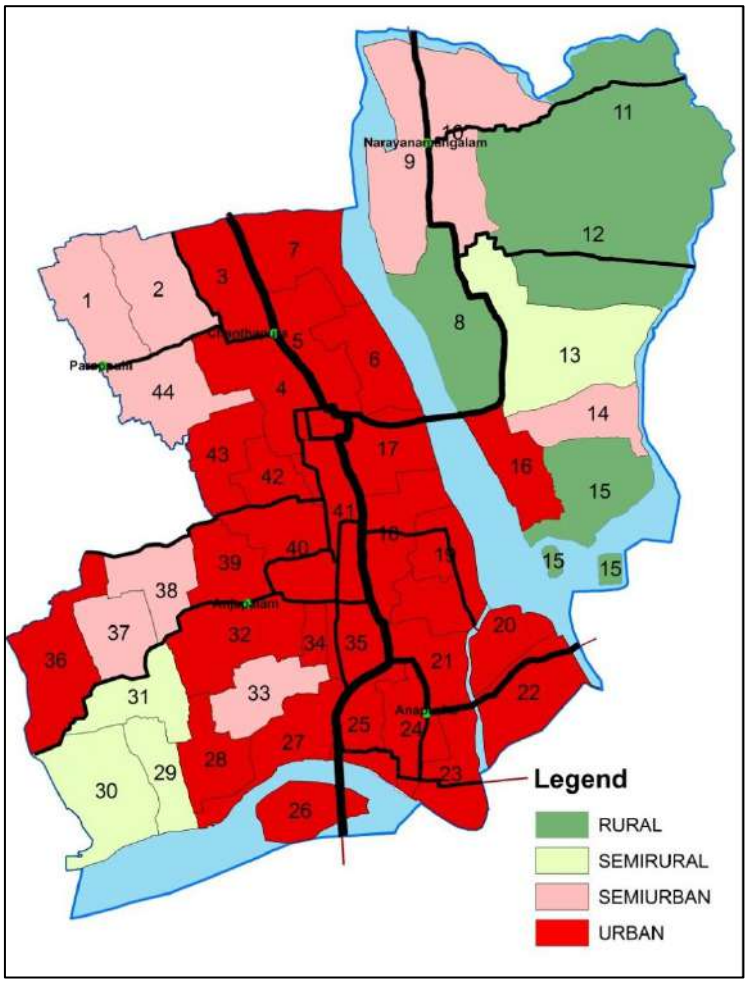


Fig 5.16 Functional Character

CHAPTER 6

INDUSTRY

Secondary activities mainly industry was one of the economic bases of urban settlements in the earlier days. But the scenario has changed drastically now. Industrial activities now take place only as a household activity or at a micro level. Rising land value may be one of the hurdles that come in the way of industrial development. The existing industrial scenario of Kodungallur Town area is explained in this chapter.

6.1 Introduction

Industrial growth is a key factor in the development of an urban area. Large,medium,small and micro industries contribute to the physical, social and economic upliftment of the area. An industry can be called as a large scale one if it has an investment of more than 10 crores for setting up the plant and machinery. Industry with 5 to 10 crore investment is said to be a medium one and that having an investment between 25 lakhs and 5 crores is called a small scale industry. Microindustries are small enterprises having an overall investment of about 25 lakhs.

Kodungallur did not have a buzzing industrial activity even in the olden days. Industries incidental to fishing and coir had its presence a few years back. From the census data it can be seen that only 2% of workers are engaged in any kind of industrial activity. That too had been diminishing from 13% to 2% during the period 1981- 2011. Socio economic survey records that the people here are engaged in industrial activities such as carpentry, coir, house hold activities and construction field.

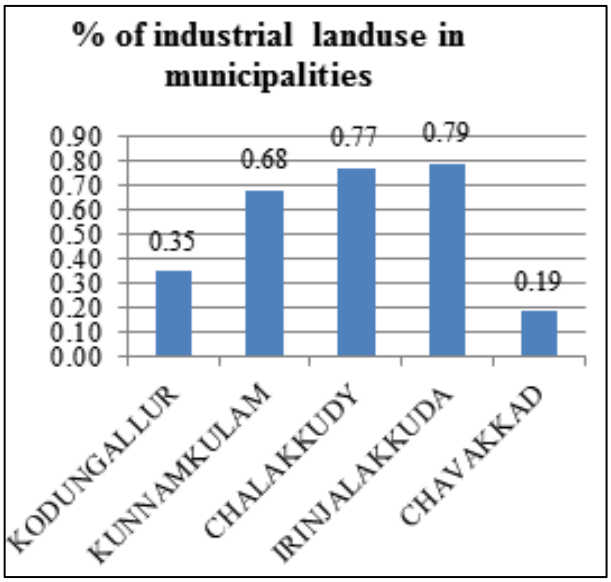


Fig 6.1 Comparison of % of industrial land use

6.2 Existing Scenario

Although urban in nature, industrial activity is not prominent in Kodungallur Town area. There are no large or medium scale industries in the area. Two small scale industries and 120 micro industries exist in the town. The two mini industrial estates owned

by the municipality are not occupied by any industrial units. Traditional industries like coir, screw-pine, handloom etc. had a significant role in the past industrial scenario of the town although these are found to be in a declining stage in the present times. Only 0.35% of the landuse is occupied for industrial use. The comparison of percentage of industrial landuse between urban local bodies of Thrissur district is shown in fig 6.1

The industrial land use comprises of the two industrial estates and the boat building yards. As per the UDPFI guidelines an urban area with an industrial thrust should have around 8-10% of industrial land use. This itself gives an evidence regarding the vibrancy of industrial activity.

As per the studies conducted for the preparation of Development plan for Kochi city region, Kodungallur town has to be strengthened as one of the major second order urban centres in the influence region of Kochi, in order to reduce the severe stress on the existing infrastructure in Kochi city due to the floating population. To play its part as a major second order urban centre, Kodungallur is expected to accommodate major facilities, viz. Centres of Excellence, non-polluting hi-tech industries, major employment centres and other ancillary use facilities.

6.2.1.Micro Small Medium Enterperises

Considering the registered MSME units in the State, Thrissur district holds the 2nd largest position. Thrissur Corporation has the maximum concentration in the district. Comparing with the other municipalities in Thrissur District, Kodungallur town holds the second lowest position with only 2 Small scale and 120 micro industries. Major small scale industries are an agro-product exporting company and a Tubular batteries unit.Fig 6.2 shows the

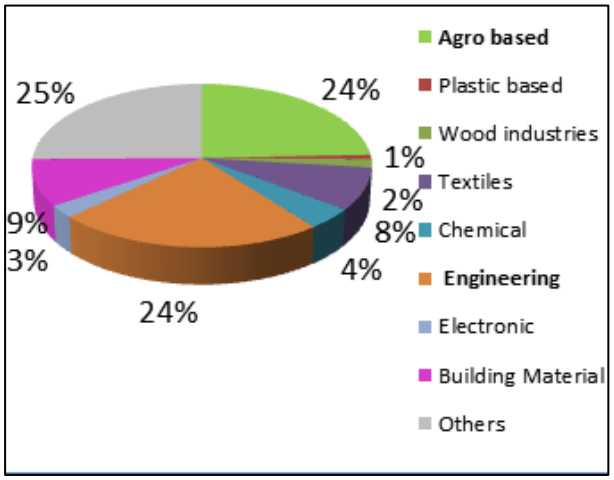


Fig 6.2 % of micro industries (category wise)

Source: District Industry Office Thrissur- 2012

Table 6.1 Details of small scale industries

Details of small scale industries			
Name of industry	**Type of product**	**Quantity per annum**	**No of workers**
Jay Ke Exports	Products based on black gram	723.5 Tonne	8
Micro Power industries	Tubular Batteries, Automotive Batteries, Battery Plate	3000 Nos	8

Source: District Industry Office,Thrissur- 2012

category-wise percentage of micro industries.

Among the micro industries agro based and engineering based industries are more in number. About 24% of micro industries registered in the municipal area are agro and food based industries. This includes oil and flour mills, food products and coir industries. The engineering based industries include Tubular battery unit, Boat yard unit and other general engineering industries. This constitutes another 24% of the industries in the area. The saw mills functioning in the municipality contribute to nearly 2% of the total number. Textile based industries amounting to 8% are mainly tailoring units manufacturing readymade garments. 9% of construction based industries are primarily cement brick manufacturing units. Apart from the above there are plastic based, chemical based and electronic based micro enterprises.

6.2.2 Traditional Industry

The major traditional industries in the Municipality are handloom, coir and Screwpine. Coir flourished as a traditional industry due to the nature of the land here. The Canoli canal, Kodungallur kayal and the many watercourses here promoted the activity. The land being adjoining to the coastal area, raw material for this was available in abundance. This activity as in any other part of Kerala has declined now. Hand loom industrial units are sustaining with government aids only. Screwpine based industries also flourished as Screw pine was abundantly cultivated in low lying areas. This can even now be promoted so that plastic articles may be replaced with this. Present status of these traditional industries is given below.

6.2.3 Coir Industry

Coir industry in Thrissur District is under severe crisis and struggling for existence. This industry is mostly concentrated in the coastal GramaPanchayats under both Co-operative and private sectors.

Coir manufacturing in Kodungallur municipality exists through Coir co-operative societies at Kavilkadavu,Chappara, Elthuruthu and Parambikulam. A total no. of 40 full time and 1600 seasonal workers producesabout 500 quintals of coir annually from these societies. As the land condition is favorable, if raw material is available, this activity can be revitalized with sufficient promotional measures for the products.

6.2.4 Screwpine Based Industry

One of the oldest crafts and cottage industry of Kodungallur, the screwpine mat(thazhapaya) is a product of daily use.The plant which grows locally is used after processing to create products of daily use.Processed leaves are woven,hand embroidered and shaped to make bed mats,carry bags,table mats,boxes etc.Screwpine was abundantly found in Kodungallur.Its fine natural fibre,one of the best of its kind in the world,has been in use for centuries for making bed mats.The emergence of cheaper plastic mats paved the way for it to be forced out of houses.In Kodungallur Town,Thazhapaya making was being done by the women in Methala and Lokamaleswaram villages. Unavailability of screwpine and low income are the major reasons for the decline of the industry. Screw pine cultivation may be rejuvenated as it may be used to protect the sides of water courses. The products may also be used with an eye on reducing environment pollution.

6.2.5 Handlooms

Handloom is one of the major traditional industries concentrated in Thrissur District. This industry is mainly under the Co-operative Sector. It was a major traditional industry which flourished in Kodungallur town. The workers were mainly from Chaliya community. At present times, this sector is in a decline due to increased cost of thread, less demand for handloom products. The Kodungallur handloom industrial co-operative society started in 1954 has 10 workers and has a production of 1231 metres.

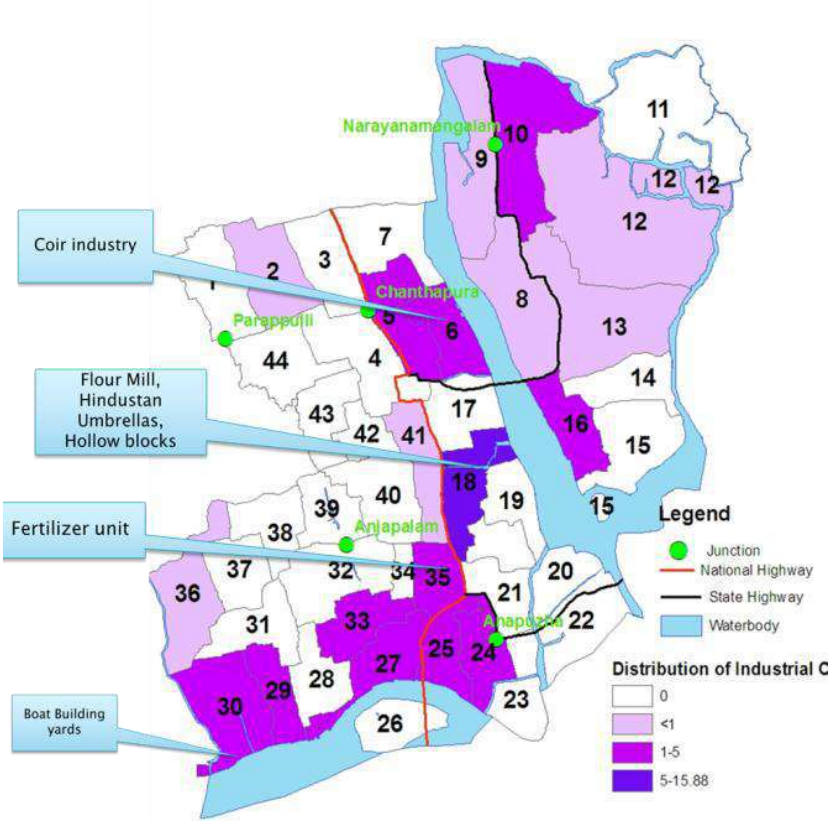


Fig 6.3 Spatial distribution of industrial land use

6.3. Mini Industrial Estates

The details of mini industrial estates in Kodungallur town is listed below in table 6.2.As seen in the table6.2, no industrial units are present in the mini estates. 1.5 acres of land available in the industrial sector may be effectively utilized to revitalize the industrial scenario in the town area.

As per land use survey conducted in the town area, few industrial units are found in wards 6, 18,27,29,30 and 35. Fig 6.3 shows the wardwise spatial distribution of industrial landuse in Kodungallur town.

Table 6.2 Details of mini industrial estates

Location	Area	No.Of Industrial Units	Details
METHALA	50 cents	NIL	Occupied by SCIENCE CENTRE(educational organization)
NARAYANAMANGALAM	1 acre	NIL	-

Source: DIC,Thrissur and Taluk Industrial Office, Kodungallur

6.4. Conclusion

The following conclusions may be arrived at after the foregone analysis.

- Most of the Micro industries are agro based, engineering based and others.
- Industrial use constitutes only 0.35% of the total land area
- Being in the influence area of Kochi city, Kodungallur town has to be strengthened as a major second order urban centres, promoting development of certain higher order facilities and supporting services.
- Traditional industry is facing extinction due to scarcity of expert workers, high cost of production, environmental problems. Potential for production of value added items.
- There is a potential for fish processing units and fish manure production units.
- Potential for coconut based processing units.
- Small scale industries with Household units have more potential as the town is thickly residential.
- Industrial estates are not utilized to its full potential

Chapter 7

TRADE & COMMERCE

In the modern era trade and commerce activities are flourishing in Kodungallur. Apart from catering to the needs of the hour, this sector is now emerging as a major employment provider. Instead of developing in an organized manner it happens as a ribbon type of development along the major traffic corridors. As far as Kodungallur is concerned, trading activities had been a prominent activity from olden times. As a part of the historical trade route, port at Kodungallur has promoted the growth of trading to a great extent. In the recent times Kottappuram market was a busy activity area. But that too is in the declining stage. Study of Trade and Commerce in Kodungallur Town is included in this chapter.

7.1 Introduction

During the time of the Chera Empire, Kodungallur was an important trade route in Indian Ancient Maritime History. The whole of the present Thrissur district was included in the early Chera empire. The district can claim to have played a significant part in fostering the trade relations between Kerala and the outside world in the ancient and medieval period. Muziris is a lost port city in Kodungallur and was a major center of trade in Kerala between the Chera Empire and the Roman Empire. Roman empire had continuous trading connection with this region. Along with Pepper, commodities such as Pearls, Muslin, Ivory, Diamond, Silk and Perfumes were exported using the maritime facilities of Kodungallur.The glory of Kodungallur, as a global trade centre, is believed to be destroyed by natural calamities. The misfortune of Kodungallur helped other major ports of Malabar Coast, such as the one at Kochi, to rise to prominence.

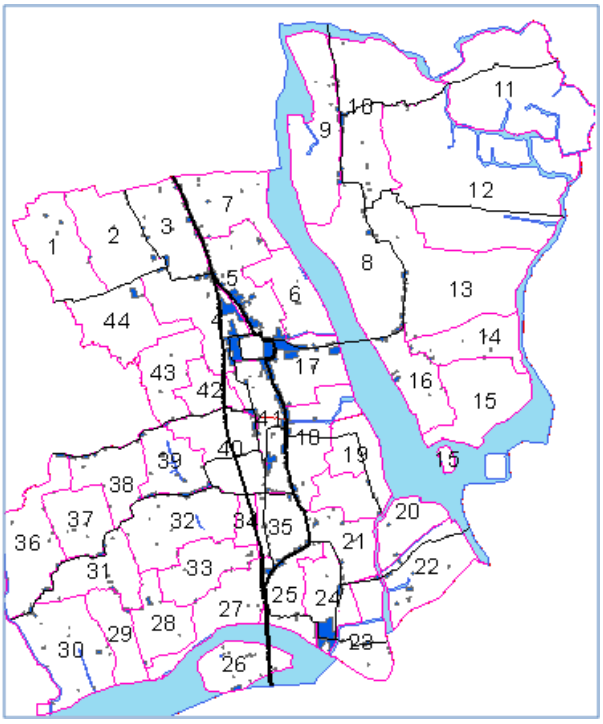


Fig 7.1 Ward-wise distribution of commercial land use

7.2 Existing Scenario

On a detailed study of the land use of Kodungallur, it can be seen that only 2.10% of the municipal area is used for commercial purposes. The map showing the distribution of commercial centres in Kodungallur is given in figure7.1, and figure 7.2 shows the spatial concentration of commercial activities. From these figures it is clear that commercial activities are spread along the sides of the National Highway extending throughout the municipality. It is also concentrated in the premises of the temple and at the Kottappuram market.

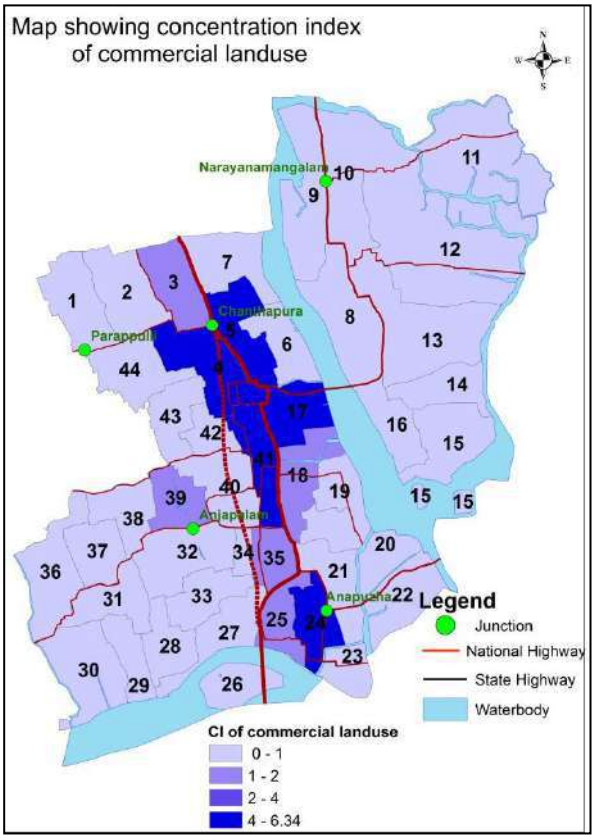


Fig 7.2 Ward-wise distribution of CI- comericial land use

Apart from having this concentration there is a ribbon pattern of development along all the roads. From the Socio economic survey conducted here it is seen that around 335 numberof the workers are engaged in other category. It is inferred that a vast majority of these are in commercial sector.

7.3 Hierarchy in the District

In the Integrated District Development Plan for Thrissur the nodes in the district are classified into orders based on certain criteria. As per Integrated District Development Plan ofThrissur district, East Nada, Cheraman Junction, Keetholi and TKS Puram are the existing third order nodes in Kodungallur municipality. Importance of these nodes is mainly due to



Fig 7.3 Commercial nodes

- Meeting of State Highways (SH 22 , SH 51) and other major district roads with the National Highway 66
- Presence of wholesale and retail commercial centres.
- Better accessibility and transportation facilities available to important destinations like Kochi, Thrissur and Guruvayur.

7.4 Major centres and Nodes

Fig 7.3 shows the major nodes in Kodungallur Municipality. Out of these Kodungallur, Sringapuram and TKS Puram are in the National highway. Narayanamangalam and Chappara are in the State highway. Modern junction is in the Eriyad road which is one of the secondary roads. Anchappalam junction is in the Azheekkode road which is also a secondary road. Kottappuram junction is the main market in this town.

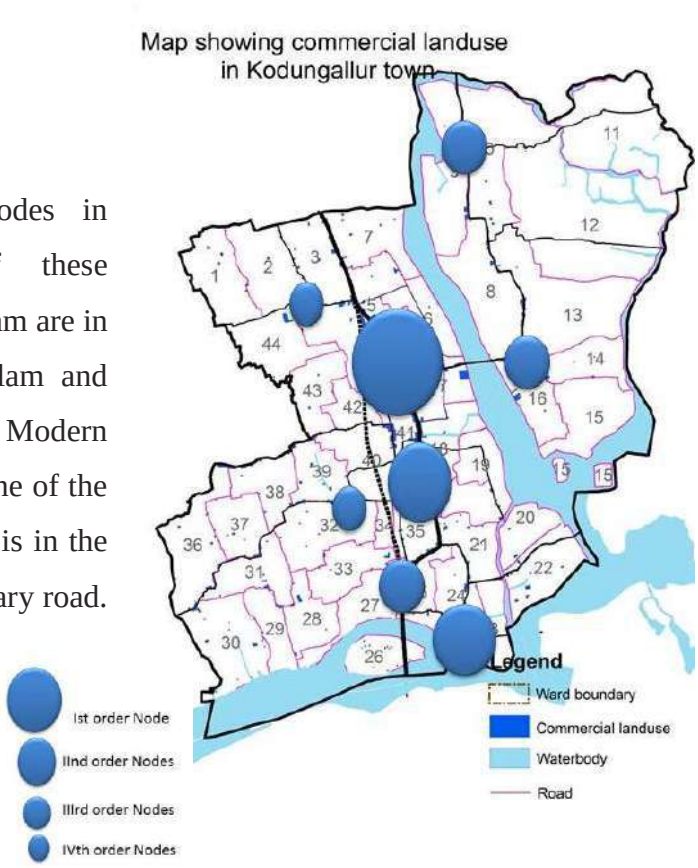


Fig 7.4 Hierarchy of nodes

7.5 Hierarchy of nodes

According to the intensity of commercial activities and facilities available, the hierarchy of existing nodes is worked out and is shown in fig 7.4. Kodungallur area is a 1st order node while Sringapuram and Kottappuram are considered as secondorder nodes. Chappara, Narayanamangalam and TKS



Kodungallur and Sringapuram junctions

puram are 3rd order nodes and Modern Hospital Junction and Anchappalamjn.are 4th order nodes.

Table 7.1 Infrastructure facilities in nodes

Sl. No.	Node	Hierarchy	separate parking area	auto Stand	taxi stand	Lorry/tempo stand	Public comfort station	proper Drainage
1	Kodungallur	1	No	Yes	Yes	Yes	Nil	Partial
2	Sringapuram	2	No	Yes	Nil	Nil	Nil	Partial
3	Kottappuram Market	2	No	Yes	Nil	Yes	Yes	Partial
4	TKS Puram	3	No	Yes	Yes	Nil	Nil	Partial
5	Chappara	3	No	Yes	Yes	Yes	Yes	Partial
6	Narayanamangalam	3	No	Yes	Yes	Nil	Nil	Partial

Source: Municipal office

The infrastructural facilities and hierarchy of the first, second and third order nodes are shown in table 7.1 from the table it can be seen that all the nodes lack proper drainage and good parking facilities**.**



7.6 Markets

Apart from the trading activities in the above mentioned nodes, organized trading is being carried out in various markets in Kodungallur as Kottappuram market, Anappuzha fish market and Kodungallur Market Complex.

7.6.1 Kottappuram Market

Situated at the southern end of the municipality (fig7.5), Kottappuram market has a glorious past as a principal landing place for

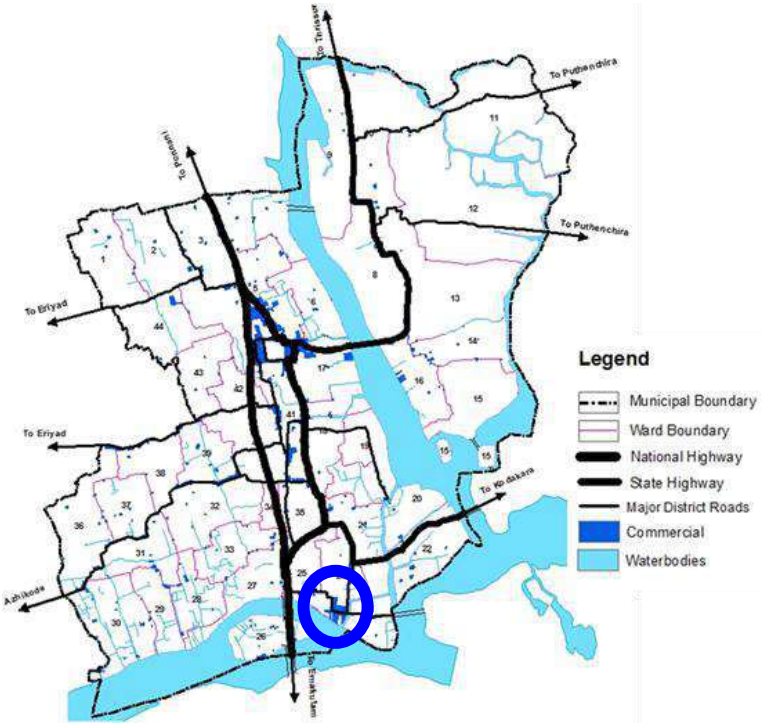


Fig 7.5 Location of Kottappuram Market

wholesale trade of commodities like rice and other agricultural produces. Coconut, Arecanut, Coir, Fish, Prawns, Tapioca, Vegetables etc. were some of the major commodities which were carried by the waterway from Kottappuram landing place to the Southern parts of the state.Until the commissioning of the KottappuramBridge this market was buzzing with activities.



Kottappuram Market

Presently, trade through the waterway using the landing place is not active. Commodities reach the market by road. Around 44 shop rooms owned by the town and many numbers owned by private persons exist in the area. A common marketing space for Kaya(Banana) , dry fish and other commodities exist in the market. Space constraint for loading and unloading of goods is a major problem being faced here. Nowadays Market function only on Mondays and Thursdays. The market area is not modernized due to CRZ restrictions and hence not utilized to its full potential.

7.6.2 Anappuzha Fish Market

The fish market in Anappuzha acts as a sale centre for the local fishermen in the area to sell their daily catch. A landing place, processing centre and an ice plant exist in the locality. The location and the scenario is shown in figure 7.6.



Anappuzha Fish Market

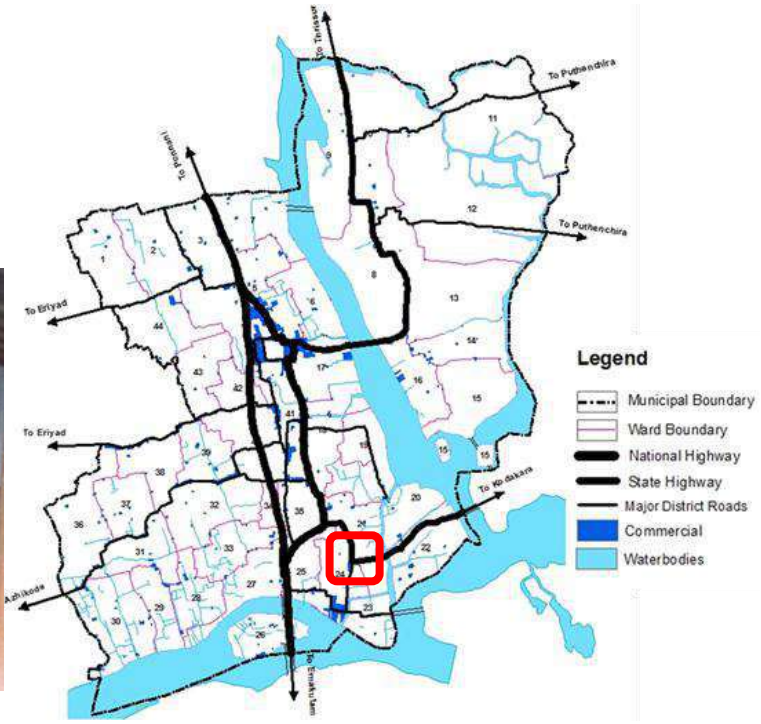


Fig 7.6 Location of Anappuzha Fish Market

Kodungallur Market Complex

A fish and meat market was proposed under the IDSMT Scheme. Presently fish and meat stalls are not functioning in the market complex constructed in this area. The location is shown in figure 7.7. It is functioning as a commercial centre. As envisaged in the scheme stalls for vending of fish and meat are constructed. Parking and loading facility is there. Also a sewage treatment plant is also completely constructed in this market. But it is not functioning

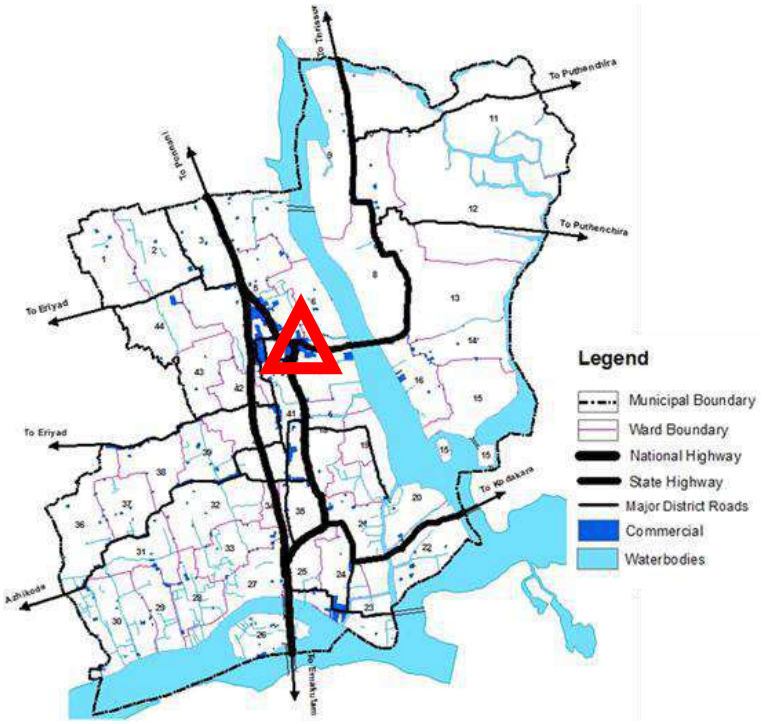


Fig 7.7 Kodungallur Market Complex

7.7 Street Vendors

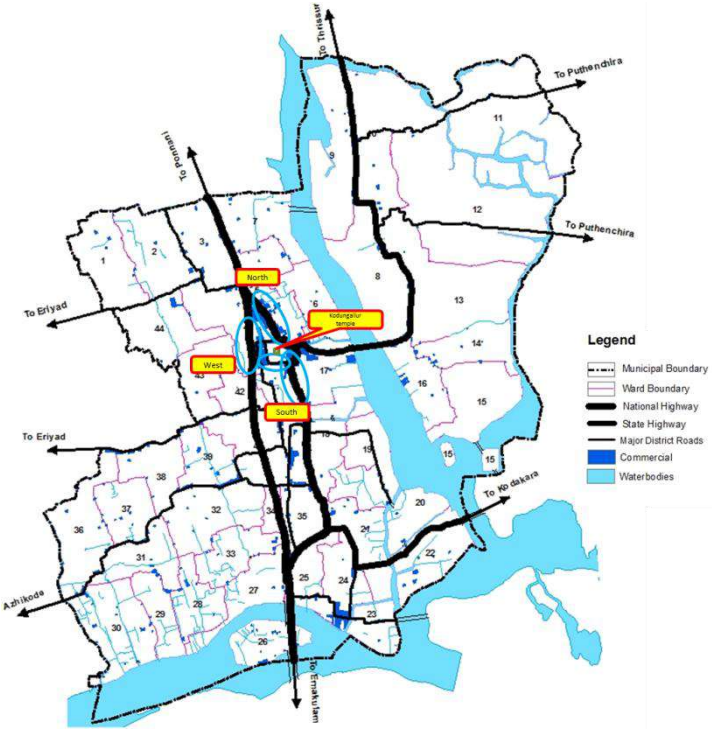
Street vendors are an integral component of urban economies around the world. As distributors of affordable goods and services, they provide consumers with convenient and accessible retail options and form a vital part of the social and economic life of a city. Street vending as an occupation has existed for hundreds of years and is considered a cornerstone of many cities' historical and cultural heritage. The academic literature on street vending commonly treats street vendors broadly as those who sell goods or services in public space. A variety of employment statuses can be found among street vendors as well. There are about 25 street vendors in Kodungallur Municipality. They are concentrated mostly along the streets near the temple. About 86 % of the labourers are males. Although income levels vary, surveys have shown that the overwhelming majority of street vendors lack access to social protection and are subject to a range of employment

Table 7.2Street Vendors

Type of activity	No
Garments	1
Tea and snacks	14
Fruits	2
Vegetables	1
Others	7

Source : Municipal Office

risks. The products mainly sold by street vendors include tea, snacks, fruits and garments.The details of street vendors are given below in Table 7.2. The location of street vending are shown in figure 7.8



Sl No	Area of concentration	Type of activity
1	West Nada	Garments,Tea and snacks
2	South Nada	Tea and Snacks
3	North Nada	Fruits, vegetables,Tea and snacks
4	Surrounding the temple	Tea and Snacks, other items

Fig 7.8 Street Vending activity

7.8 Conclusion

It can be seen that nearly 2.10% of the municipal land is utilized for Commercial activities. The analysis reveals that these commercial centres lack many amenities as parking, comfort stations, loading and unloading spaces etc. All the markets have many infrastructure facilities which are not utilized to the optimum level. Also street vending activities are happening in an un organized manner. The existing set up may be revitalized to rejuvenate the lost glory as a commercial centre in the bygone era.

CHAPTER 8

TOURISM

In Kodungallur, tourism sector is in the initial stages of development. The existing scenario of tourism sector in Kodungallur and the potentials of Tourism Development here are detailed in this chapter.

8.1 Existing Scenario

Kodungalloor is a small town in Thrissur District, with a glorious historical past. Kodungalloor has picturesque places with back waters and places of interest to people of all tastes.It can be called as the cradle of Islam, Christianity and Jewishreligions in India. It was the capital of the then rulers of the region 'CheramanPerumals' during the 9th century. During the rule of the Chera dynasty, the port of 'Muziris' near present day Kodungallur was an important trade link in Indian maritime historyhaving trade relations with various European and Arabic countries of the world. Various heritage sites and pilgrim sites add to the tourism relevance of the area.

At present very minimal tourism related activities are taking place in Kodungallur. A project, named *Muziris Heritage Project*, was launched by the Department of Cultural Affairs, Kerala in 2006 to scientifically retrieve and preserve the historical heritage of the region extending from North Paravur to Kodungallur.

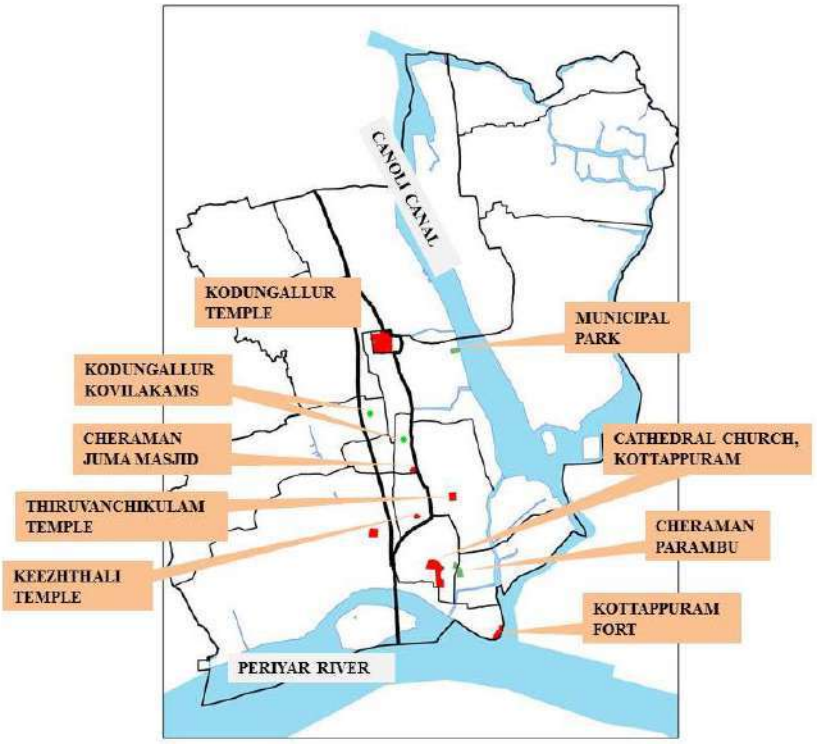


Fig. 8.1Tourist spots in Kodungallur Town

8.2 Tourist Spots In Kodungallur

8.2.1 Natural & Manmade

8.2.1.1 Periyar river & Kottappuram old boat jetty



Kottappuram Boat Jetty

Among all the rivers flowing across Kerala, the longest river is the Periyarriver, flowing in to the Kodungallur Kayal before meeting the sea at Azheekkode.Kodungallur municipality shares its southern boundary with Kodungallur Kayal. The old Kottappuram boat jetty on the banks of Kodungallur Kayal has been converted to a tourist spotunder the ongoing Muziris Heritage project. Location is shown.

8.2.1.2 Canoli canal (Pullut river)



Canoli Canal

Another river named Pullut River flows from the north of Kerala passing through the present Kodungallur municipality and then turns around this region to the west and falls into the same Kodungallur Kayal. The PullutPhuzha was the former AanPorunai River(in Tamil) mentioned in many Tamil Literary works of the early period, and positively confirmed by Silappathikaaram as surrounding the Vanji Nagar of Cheras, and is of much importance in the study of Kerala (Chera) history. It is linked to the Canoli Canal extending up to Ponnani in Malappuram district. Location is shown.



Municipal Park

8.2.1.3 Municipal Park

The only organized active recreation spot in Kodungallur is a park that is built by the municipality in ward 17 on the banks of the Pullut river.It is presently in a dilapidated stage and has to be renovated. Once renovated, it can be a hot spot for both active and passive recreation.

8.2.2 Heritage Locations

8.2.2.1 Kottappuram Fort



Kottapuram fort

Cranganore Fort, also known as *Kottappuram Fort*, was built by Portuguese in 1523 and later in 1565 it was enlarged. The fort was named as Fortaleza Sao Tome, by the Portuguese. The Dutchtook possession of the fort in 1663. The remains of the fort show that the original fort wall was 18 feet in thickness. The ruin is also known as Tipu's fort. It exists in ward 23 of the municipality. Works related to pathway,toilet blocks and boat jetty and landscaping is being carried out under the ongoing Muziris Heritage project. Location is shown.

8.2.2.2 Cheramanparambu



Cheramanparambu

CheramanParambu is an important focal point in the Muziris Heritage Project, as it portrays the history of Kerala through the ages. It is spread over an area of about 3 acres at Methala, around 3 km from Kodungalloor.

It is generally regarded as the royal seat of the CheramanPerumals, the kings of the Chera dynasty. This site was declared as a protected monument by the department of Archaeology in 1936. There is a strong tradition that the Cheradynasty of the Sangam Age had its headquarters at Kodungalloor. The Archaeological Department excavated to a depth of 1.5 meters and various kinds of potsherds, copper and iron implements, bangles and beads and small lead balls were found. And loose sand was found below the occupation layers. The majority of the potsherds belonged to a group called Celadon ware, a pottery made in China

during the Sung period, between the 10th and 12th centuries AD.Fig.8.4 shows the location of CheramanParambu.

8.2.2.3 Kodungallur Kovilakams

Kodungallur Kovilakam is the palace (Kovilakam) of Kodungallur royal family. It was also known in the past by the name 'Padinjattedathuswaroopam'. It is one of the major Kovilakams in Kerala. **Vidyasmat Paradevatha!'(knowledge is our Supreme divinity)** has been Kodungallur Kovilakam's motto.

Kodungallurkovilakam is remembered for its contributions in art, literature and culture. In due recognition of this contribution, Kodungallur Kovilakam came to be known as Gurukulam (centre of learning like Nalanda and Takshasila). Kodungallur Kovilakam has two branches called ChirakkalKovilakam and PuthenKovilakam



Chirakkal Kovilakam



Puthen Kovilakam

8.2.3 PilgrimCentres

8.2.3.1 Sreekurumba Temple

This Temple is supposed to have been built in the Sangam age by a Chera king in devotion toKannaki, heroine of Ilamkovadigal's Tamil classic Silappathikaram. It is believed to be a former Budhhist shrine, later converted as a Hindu temple. This temple is believed to be more than 1500 years old. This is the most ancient temple in the central and northern part of Kerala. It was one among the earlier temples which removed the caste and religion restrictions for worshipping temple.

The temple is dedicated to the goddess Durga – Bhadrakali. The main event of this temple is the annual Bharani festival in the Malayalam month of Meenam (March – April). This festival at the Kodungallur Bhagavathi Temple is one of the grandest in Kerala. During this occasion, one can also witness the largest congregation of oracles (Velichappadus), not seen anywhere else. This temple is having a prominent location in the heart of the town. It can be believed that the town started developing arround the temple from olden times, which is a general pattern of Kerala in the earlier times.



KodungallurBhagavathyTemple

8.2.3.2 Cheraman Juma Masjid

Cheraman Juma Masjid in Methala in Kodungallur municipal area is said to be the very first mosque in India, built in 629 AD by Malik lbn Dinar. It is believed that this mosque was first renovated and reconstructed in the 11th century AD. Many non-Muslims conduct initiation ceremonies to the world of letters fortheir children here. The mosque is built in the traditional Hindu architectural style using brass oil lamps. The rosewood pulpit, from where the imam recites the Friday Jumu'ah, is covered with carvings. A block of white marble in the mosque is believed to have been brought from Makkah. An Islamic traditional museum also exists near to the masjid. Location of the masjid is shown.



CheramanJuma Masjid



ThiruvanchikulamMahadeva Temple

8.2.3.3 Thiruvanchikulam Mahadeva Temple

Thiruvanchikulam Mahadeva Temple lies in Methala village, south of Kodungallur. It is one among the four Tali temples of Kodungallur, which retains its ancient Tamil flavour and connections and is dedicated to Lord Shiva. This is an ancient temple which is about 2000 years old. The Mahadeva temple date back to the period of CheramanPerumalNaayanar (9th century).The temple has a connection with the Nataraja temple at Chidambaram. There is a NamaskaraMandapam in front of the shrikovil with 16 pillars. The specialty of the mandapam is the dvitala roof, which is a landmark in contrast to the simple pyramidal roofs of namaskaramandapams in other temples. In the west base of the shrine is a vattezhuttu inscription that refers about a garden. The shrikovil walls bear murals portraying Lord Ram and other mythological characters in five panels. The exterior of Palliyara walls also have mural paintings. Out of 274 Shaivite temples in India, this is the only one in Kerala.

8.2.3.4 Keezhthali Siva Temple

This is one of the Eighteen Thali temples in Kerala believed to have been built in early 13th-14th century AD. It is dedicated to Siva. The old temple is in ruins and a new structure in its place has been put up. The area is marked by the presence of several broken and damaged idols of gods and goddesses and some of them have been removed to museums. The idol in the structure probably represents the one in the original temple. Due to its structural importance, the Archeological department has declared it as a protected monument in 1937.



Keezhthali Siva Temple

8.2.3.5 St.Michael's cathedral church, Kottappuram

Kottapuram cathedral is situated



St.*Michael's cathedral*

on the banks of river Periyar. This particular church has a deep relationship with the ancient port city Cranganore(Muziris). Cathedral is in the name of Arch Angel Saint Michael.

8.3 Ttourist spots near Kodungallur

Apart from tourists potential location in Kodungallur, there are quite a number of tourist destinations around this municipality. Being near to Kerala coast, several Beaches also falls in this list.

St.Thomas' Church

Christ's apostle St Thomas is believed to have landed in Kodungalloor (formerly called Muziris) in 52 AD. The St.Thomas Church established by him houses ancient relics. It is situated at Azheekkode which is at a distance of about 5 kilometres from Kodungallur. This is now a very important pilgrim centre in Kerala for catholics.



St,Thomas's Church

Koodalmanikyam Temple

Koodalmanikyam Temple is situated at Irinjalakudawhich is only 16 Km north of Kodungallur. Koodalmanickyam is the Malayalam translation of the Sanskrit word Sangameswara. This is a unique Vaishnava Temple. The temple draws huge crowds all over the year. This is the only temple in India dedicated to Lord Bharata. The temple architecture is known for its marvelous beauty and craftsmanship. The temple has impressive gateways; calm and eco friendly premises and a round shaped



Koodalmanikayam Temple

Sanctum Sanctorum. There is an attractive Koothambalam used for art performances. This temple posses a main role during the event called 'NalambalaDarshanam' during the month of' Karkkadakam' nowadays dedicated to reciting 'Ramayanam'.

Beaches around Kodungallur.

Cherai Beach a prominent one is located in Vypin island, Kochi, India. Cherai Beach is just 12 km from Kodungallur. It is a long golden sandy beach extending for 10 kilometers, famous for its ideal wind conditions and clean premises. The place is a unique combination of sea and backwaters rimmed by lush green coconut palms and paddy fields. The backwaters are a combination of lakes, lagoons, and canals. Dolphins can often be seen playing just off the coast. Thick coconut groves and Chinese fishing nets on the waterfront are added attractions.



Cherai beach

AzhikodeMunakkal Beach is situated at a distance of 9 kilometres from Kodungallur. This also is a sought after location for its peculiar beauty.



KaraBeach is just 8km away from Kodungallur.Devotees throng Kara beach near Kodungallur as part of preparation for the renowned 'Kavutheendal' ceremony of the annual Bharani festival at the Kodungallur Bhagavathi temple.



Kara Beach

Pattanam

It is a village located in the Periyar delta in Ernakulam district. It is located 2 km north

of North Paravur, 9 km south of Kodungallur and 25 km north of Kochi.According to the recent archaeological excavations, Pattanam seems to have been first occupied by an indigenous population around 1000 BC and continued to be active till the 10th century AD. The residents of Pattanam regularly used to find a large amount of broken pottery shards and ancient fired bricks while digging the ground. Archeological investigations are being conducted by the Kerala Council for Historical Research (KCHR)

Fish farm Poyya

Fish farm at Poyya is situated at a distance of 5km away from Kodungallur.Agency for Development of Aquaculture, Kerala – ADAK has established a fish farm spread over 58.71 hectares with net pond area of 39.15 ha at scenic, back water location of Poyya, Mala.



Fish farm poyya

8.4 Festivals

Kodungallur is well known to the outer world in the name of its two major festivals, Kumbhabharani and ThalappoliMahotsawam. The attraction in these two festivals is detailed here.

8.4.1 Kumbabharani

The Bharani festival at the KodungallurBhagawati temple is one of the grandest in Kerala. It is a month of festivities from the Bharani asterism in the month of Kumbham to 7 days after the Bharani asterism in the month of Meenam. It normally falls between the months of March and April. The festival usually starts with the ritual called 'Kozhikkallumoodal' which involved the sacrifice of cocks and shedding of their blood.



Kumbabharani fesival

Symbolical rituals are done now-a-days since cock sacrifice has been banned. The members of the Kodungallur Bhagavathy temple are allowed to participate in this ritual. It is to appease the goddess Kali and her demons who take delight in blood offerings.

'KavuTheendal' is another important event of the festival, overseen by the King of Kodungallur where Vellichapads (oracles) make a run around the temple waving their sabres in the air while the members of their retinue offer reverence over the inner quadrangle. They make cry of abuse at the goddess in bawdy language. Their abuse is said to be accepted by the goddess followed by the purification ceremony the next day. ChandanapotiCharthal is yet another ritual of smearing the image with sandal paste.

About 6-8 lakhs devotees from all parts of the state arrive at Kodungallur for Aswathykavutheendal during the festival. Devotees also visit Thiruvanchikulam temple and Pambumekkadukavu in Mala.

8.4.2 Thalappoli festival

The Thalappoli festival is in the month of Makaram (January–February). The four day Thalappoli commences from the evening of MakaraSankranthi with religious rituals. Big procession headed by richly caparisoned elephants is taken out accompanied with PanchaVadyam, Paancari, Paandi, etc.It is the main celebration of KudumbiCommunity.About1- 1.5 lakhs devoteesfrom all parts of the state arrive at Kodungallur during the Thalappolifestival.



Thalappoli festival

Insufficient parking & accommodation facilities and low sanitation facilities are major problems affecting the devotees during the festivals.

8.5 Tourism Infrastructure

Infrastructure is a very critical component in the tourism sector. Infrastructure such as accommodation, restaurants, built attractions, tours and transport are to be primarily developed. The details of infrastructure facilities available in Kodungallur Municipality are given below.

8.5.1 Transportation

Two state highways , SH 22 connecting to shornur and SH 51 extending to Mala also passes through Kodungallur.

8.5.1.1 Roads

The coastal highway NH 66 connecting Kanyakumari to Mumbai passes through this town.Connectivity by all modes of transport is an important aspect governing tourism development.Kodungallur is blessed with a good regional road net work, which can boost the potential in this sector. Kodungallur is well connected by KSRTC buses and private transport buses. Kodungallur has a private bus stand and KSRTC bus stand in the town. The town is well connected to Kochi (30 km), Thrissur (38 km) and Guruvayur (50 km). There are frequent bus services from here to North Paravur, Ernakulam, Thrissur, Guruvayoor, Mala, Chalakudy, Calicut etc. There are also long distance private bus services from and towards places like Kottayam, Pala and towards northern towns like Iritty, Payyanur, Kasaragod etc.

8.5.1.2 Railways

The nearest railhead to Kodungallur is located at Irinjalakuda Railway Station, at a distance of 22 km away. Only a few express trains stop here. The major railway station near to Kodungallur is Aluva Railway Station. Aluva and Irinjalakuda railway stations lies in the busy Shoranur-Cochin Harbour section. It is in the main route connecting Kochi and Palakkad.

8.5.1.3 Inland water transport

The Kollam – KottapuramNational Waterway 3 (India) ends at Kodungallur. The West Coast Canal, maintained by Inland Waterways Authority of India, is one of the most

navigable and tourism potential area in India and has much to offer to the potential tourist. A terminus is located close to Kottapuram bridge.

8.5.1.4 Airports

The nearest airport to Kodungallur is Cochin International Airport, Nedumbassery, at a distance of 35 km. The airport is well connected to all major airports in India and also connected to many foreign cities. Direct flights are available to Chennai, New Delhi, Mumbai and Bangalore.

8.5.2 Accommodation

Only one 3star hotel , one resort and six economy hotels are situated in KodungallurMunicipality which provides accommodation to tourists. This is highly insufficient during festival season.

8.6 Ongoing project in the tourism sector

Muziris heritage project

The project envisages a combination of heritage management initiatives in its restoration, conservation and access to the public. Kerala Council for Historical Research

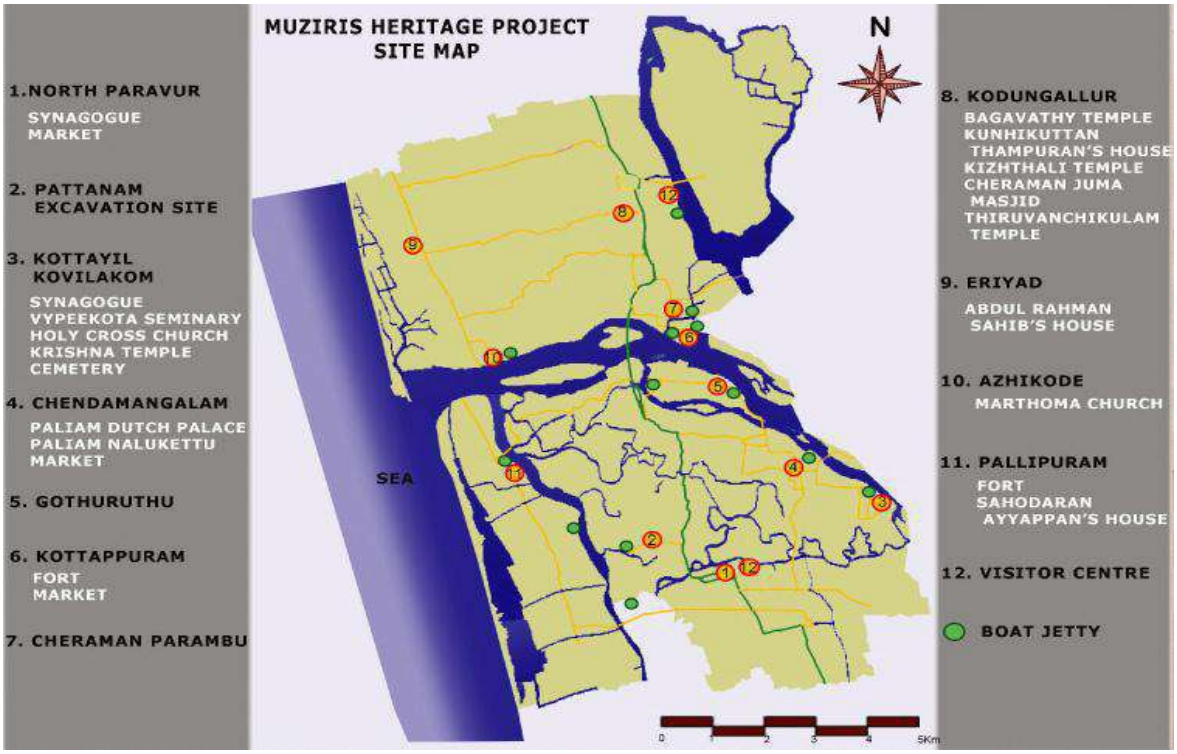


Fig. 8.2 Muziris heritage Project site map

(KCHR), identified as the nodal agency for Muziris Heritage Project, provides academic guidance and undertakes archaeological and historical research in the region. The site map of muziris heritage project is shown in fig 8.2.

The Muziris Heritage Projectarea covers 9 local Governments in 2 districts. North Paravurmunicipality,Chendamangalam panchayath, Chittattukara panchayath,Vadakekkara panchayath and Pallippuram panchayath in Ernakulam District. Kodungalloor municipality, Azhikode panchayath, SN Puram panchayth and Mathilakam panchayath in Thrissur District are the Local bodies considered for this project

The following works related to development and renovation of various sites in Kodungallur is in progress under this project. Location of the works is shown in fig 8.3

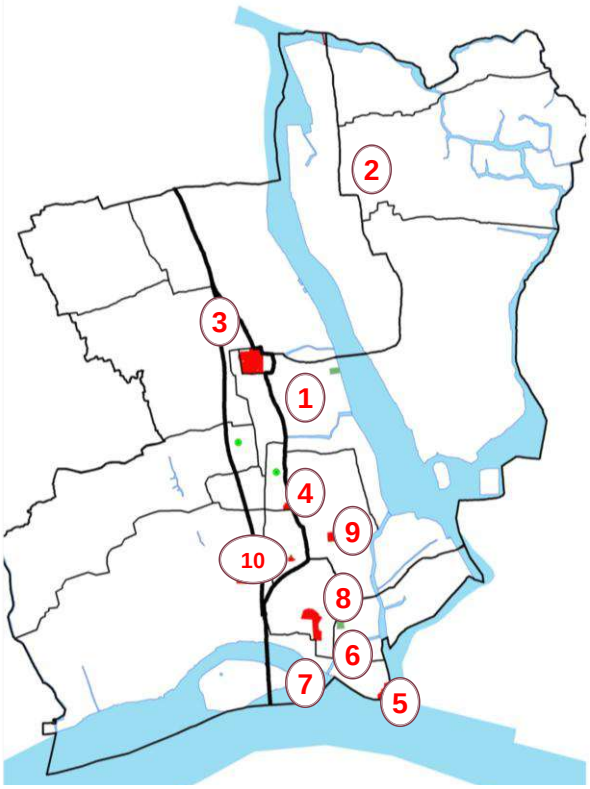


Fig 8.3 Location of works under Muziris heritage project

1. Proposed municipal bus stand cum visitor centre located at Sringapuram
2. International convention centre cum digital library located at KKTM college campus
3. Kodungallur temple :Road paving & toilet block in the vicinity.
4. Islamic traditional museum in Cheraman Masjid.
5. Boat jetty, Road paving,Landscapping and toilet block located at Kottappuram Fort.
6. Conservation of Kottappuram market.
7. Development of waterfront area in the Kottappuram old boat jetty.
8. Museum cum activity centre at Cheramanparambu.
9. Granite paving & toilet block in the premises of Thiruvanchikulam temple.
10. Conservation of Keezhthali Siva temple.

8.7 Conclusion

From the forgone analysis it can be understood that the potential in the tourism sector in Kodungallur is not tapped to the maximum. Even though connectivity is very good, parking facilities are insufficient. Infrastructural facilities are at a minimum. Accommodation requirements are not met with, for the festival seasons. Providing all the required facilities the potential in Kodungallur can be utilized to the optimum level, there by strengthening the economy of the LSGI.

CHAPTER 9

AGRICULTURE, ANIMAL HUSBANDRY & DAIRY DEVELOPMENT

Kodungallur being an Urban area does not seem to have much relevance for agriculture .Even then, there are traces of agriculture which have not given in while passing way for urbanisation. Land use of Kodungallur shows patches of such areas still existing here. This chapter analyses the existing status and development issues of Agriculture and allied sectors in the Kodungallur Town area.

9.1 Introduction

In the early 1900s paddy was the major crop in these areas. While puncha cultivation was adopted in Lokamaleswaram and Methala villages, Pokkali cultivation was being done in Pullut village. Agriculture mainly depended on rain. Water stored in ponds and streams was used for irrigation. As per the development report prepared during 9th plan period, only 8.4 % of land was remaining fallow. Through the years, paddy cultivation underwent serious decline and was replaced by coconut in many areas.

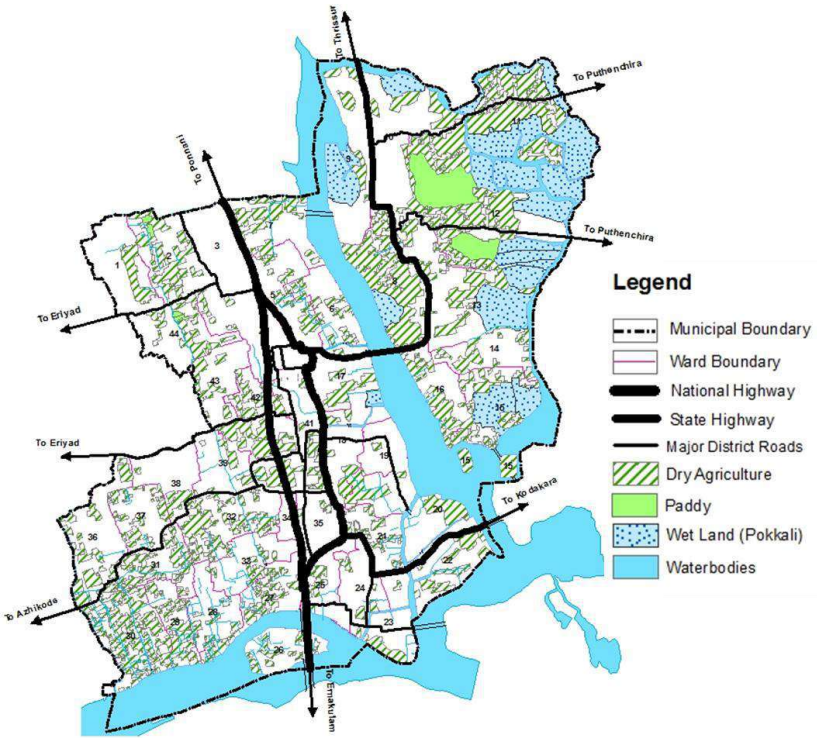


Fig 9.1.Spatial distribution of dry and wet agriculture

Varying soil characteristics are found in different areas of the Town. The western and southern areas of the Town has Coastal sandy soil while eastern areas show gravelly clay loam in plains and alluvial clay in the marshy lands . Coconut, paddy vegetables, cashew and banana are cultivated in these areas, along with shrimp and crab cultivation in the marshy lands.

Cattle rearing for milk, ploughing in field, pulling the bullock carts were prevalent as allied activities to agriculture in Kodungallur. Animal Husbandry related activities were

promoted as a source of bio fertilizer for agriculture. The decrease in area of paddy cultivating lands, modernisation of cultivation methods andnon-availability of workers resulted in the decrease of cattle rearing.

9.2 Agriculture - existing scenario

As per the land use survey data **33.19%** (9.70 sq. km) of the land is used for agricultural purposes, out of which **23.45%** is dry agriculture and 9.74**%** is paddy and wetland (pokkali). About **8%** of the existing dry agriculture can be considered as being done as homestead cultivation and the remaining **16%** as agricultural area.. Spatial distribution is shown in fig 9.1. Coconut is the major crop in dry agriculture cultivation. Arecanut, Banana,vegetables,pepper and nutmeg is also cultivated in these areas. Wetlands are found mostly in the eastern side of the town. These consist of paddy lands- both mundakan and pokkali and also fallow lands.

The details of area and production of crops are shown below in table 9.1 and the percentage wise cultivation of different crops in Kodungallur area is shown below in fig 9.2.

Table 9.1 Area and productivity of crops in 2012

Type of Crop	Area (Ha)	Production/yr
Coconut	2094	6764 Nuts/Ha
Arecanut	131	889 Kg/Ha
Banana	32	25000 Kg/Ha
Vegetables	40	9250 Kg/Ha
Pepper	12	217 Kg/Ha
Nutmeg	11	261 Kg/Ha
Paddy Pokkali	42	2200 Kg/Ha
Paddy Mundakan	10	2800 Kg/Ha

Source :KrishiBhavan,Kodungallur&Methala

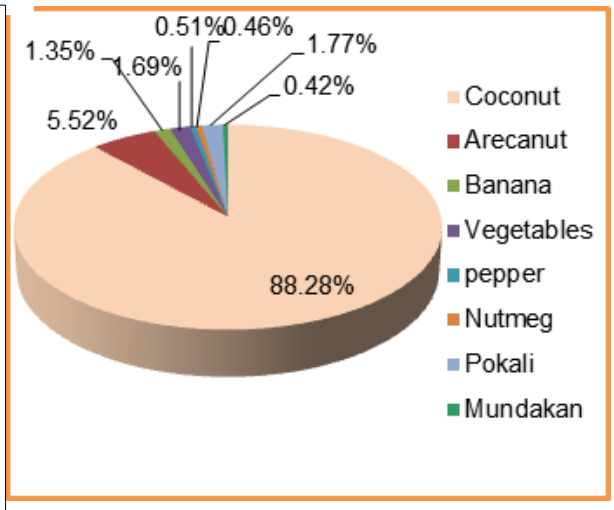


Fig. 9.2 Percentage wise area of cultivation of different crops in 2012

Source :KrishiBhavan,Kodungallur&Methala

9.2.1 Paddy

In Thrissur district Pokkali cultivation is found in Kodungallur and Methala areas, but it is found to be declining due to many reasons.

Pokkali lands are narrow strips of paddy fields which lie near the coastal belt. Sea water inundation is the major feature of this area and paddy cultivation is feasible only by the end of monsoon rains, when the salinity will be washed away to a great extent. Paddy cultivation is alternated with prawn culture.Productivity from Pokkali lands is much less when compared to that of Kole lands.

The marshy lands in the eastern region of Kodungallur Town being used mainly as prawn filtration ponds were cultivated as Pokkali lands in alternate seasons. Presently due to unpredictable variations in monsoon rains not much yield is obtained. Farmers sow the pokkali seeds as the stems act as a feed to prawn. Pokkali area has come down from 66 hectare during 2005 to 42 hectare during 2012.



Pokkali land

Paddy cultivation is only for namesake in Kodungallur. A total mundakan cultivation of 10 hectares of land is found in Arakkathazham in ward 2 and Perinkalppadam in ward 12. A total production of 2650kg per hectare per year is obtained from these lands. An area of about 50 hectares is found to be lying fallow in ward 12. Salinewater intrusion is a serious problem affecting the agricultural potential in these areas.

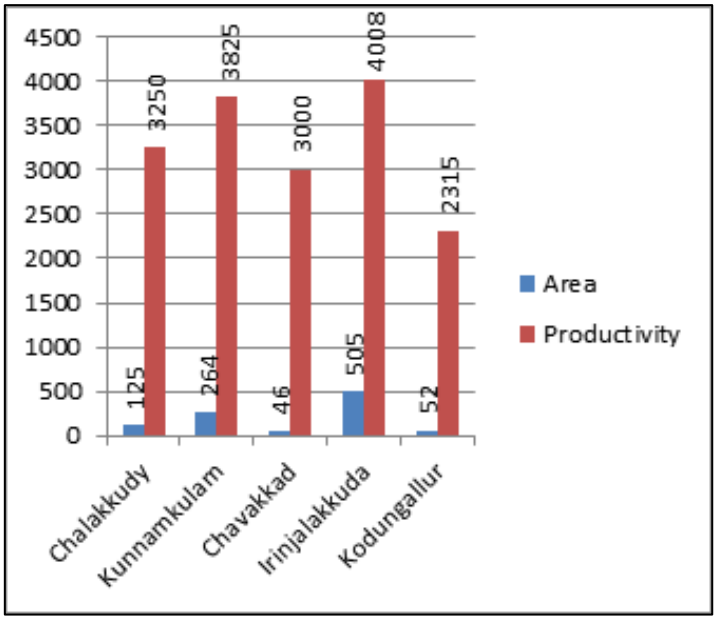


Fig 9.3 Comparison of Paddy- area & productivity

A comparison with other urban local bodies in the district in fig 9.3, shows that agricultural activity related to paddy is in a

decline in Kodungallur Town. Conversion of land, unavailability of laborers and other climatic and physiographical limitations has caused the decline. Necessary steps have to be taken to rejuvenate the potentials available at places like Pullut and Thiruvallur.

9.2.2 Coconut

In the district as a whole Kodungallur Town does not show a higher productivity in the case of coconut. In Kodungallur Town area 2094 hectares of land is under coconut cultivation. The yield from this is 6764 nuts per hectare per year. Coconut cultivation is present in wards 1,4,11,25,26,27,29,31,43 and as homestead cultivation all over the Town. The main problems faced are diseases affected to the palms and the unavailability of coconut climbers,soil erosion,low irrigaation facilities and unscientific methods in the cultivation.

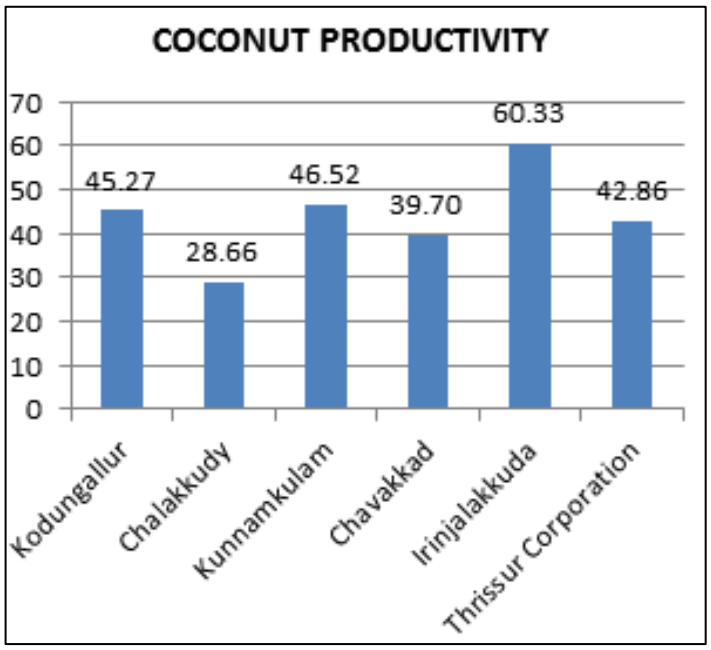


Fig 9.4 Comparison of coconut productivity

A comparison with other urban local bodies in the district regarding coconut productivity according to the district plan data is given in fig 9.4. It shows that Kodungallur retains an average level of productivity among urban areas in coconut cultivation.

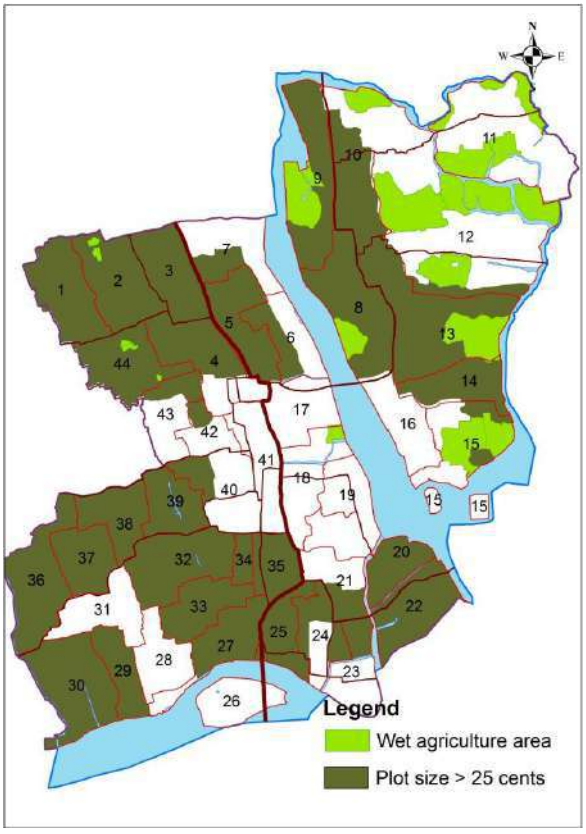


Fig.9.5 Wards with average plot size > 25

9.2.3 Other Crops

Other cash crops like pepper,nutmeg and arecanut are cultivated in small scale in town area. Vegetable cultivation is also being done in different areas. Fig 9.5 shows the wards with average plot size greater than 25 cents.This indicates there is a potential for homestead cultivation in the wards along the periphry of the LSGI.

9.2.4 Irrigation facilities

As per the existing scenario the Town area is irrigated mainly through rain water collected in wells and ponds. The main problem is intrusion of saline water through the water channels connected to Pullut river and Kodungallur Kayal.A regulater cum bridge is located near paddy in Pullut to avoid saline water intrusion.

9.3 Animal husbandry & Dairy development –Existing scenario

The livestock strength is analyzed based on 19th livestock census. It mainly includes cattle, buffalo, hen, duck, goat, pig and others. Livestock population of Kodungallur Town for the year 2012 is given in table 9.2 below.

Table 9.2 Live stock population 2012

Year	Cow	Buffalo	Goat	Hen	Duck	Pig
2012	1271	390	1665	13919	2395	10

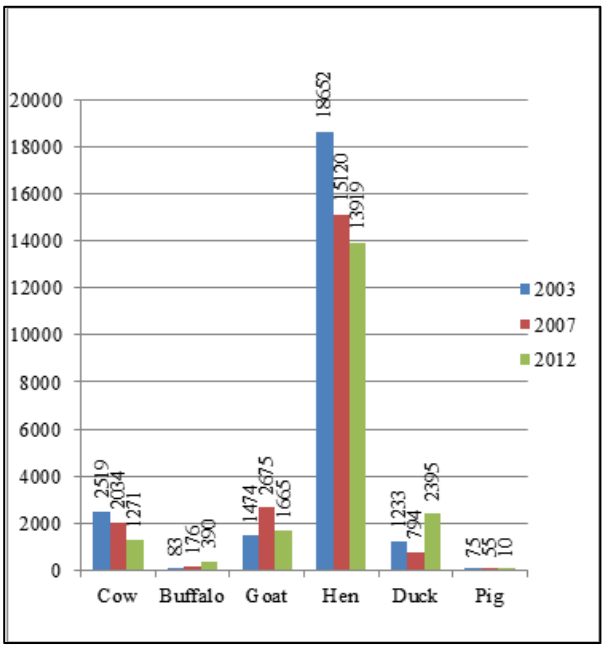
Source: Animal husbandry office

Table 9.3. Details of domestic animals as per Socio-economic survey 2012

Type of animal	Hen	Duck	Rabbit	Goat	Ox	Cow	Buffalo	Pig	Others
Percentage of domestic animals ward wise	50.79	12.44	0.95	18.76	0.69	6.57	1.71	0.76	6.51

Source: Animal husbandry office

Fig 9.6 shows the variation in livestock through the years 2003 to 2012. A study of the chart explains that there is a marked increase in the number of buffalo and duck. The details of domestic animals obtained from socio economic survey is shown in table 9.3. It can be seen that about 50.79% of houses have hen at their houses. It was found that about 19.14 % of houses has at least one domestic animal other than dog.



Source: Animal husbandry office

Fig 9.6 Variation in number of livestock – 2003

In the area of milk production and its sales, there are no organized efforts in Kodungallur. There are three dairy farms one each in wards 7, 39 and 43 and eleven collection centres. Normally 3080litres of milk per day is collected through the collection centres. Major portion of the milk so collected is utilised for internal consumption.

Poultry farms are present in the town area at Lokamaleswaram and Pantheerampala producing about 1500 poultries per month. Duck rearing also is prevalent in Kodungallur town area. The presence of backwaters makes duck rearing a preferred segment.The meat production process adopted now in Kodungallur is unhygienic and unscientific. This is mainly because of the absence of a slaughter house in the Town.

The bio-fertilizer requirements of agricultural activity are fulfilled through Animal Husbandry activities. The reduction of farms for cultivation of paddy has also reduced the Animal Husbandry activity in Kodungallur Town area and this in turn has affected the animal husbandry sector. Rabbit, quail and turkey rearing is also seen in small scale in Kodungallur.

One Veterinary Polyclinic at Padakulam Junction and one veterinary hospital at Narayanamangalam is existing in Kodungallur town area.

Indian council of Medical Research (ICMR) recommends 280 ml of milk, 16 gms of meat and 0.25 eggs per day/ person respectively. Based on this, the likely requirement of Animal husbandry products in Kodungallur are calculated and is given in table 9.3.

Table 9.4 Requirements in the Animal husbandry sector

Category	Approximate monthly requirement of animal husbandry products
Milk & Milk products	6,00,000 litres
Egg	5,35,800 Nos
Meat	34291 Kg

Source: Animal husbandry office

The Animal Husbandry sector in Kodungallur is not capable of supplying the required quantities of animal husbandry products. Therefore there is immense potential for improvement of Animal Husbandry sector in Kodungallur.

9.4 Conclusion

From the forgone discussion, it is clear that agricultural activity is on the decline. Salinewater intrusion is the major issue affecting agriculture. Necessary steps are to be taken to rejuvenate the potentials available at places like Pullut and Thiruvallur. There is immense potential for homestead cultivation and floriculture nurseries. Pokkali rice cultivation that is being done in a very small scale may be retained for its ecological significance and to produce good quality organic rice. There is a potential for fodder cultivation in fallow lands and various other Animal husbandry activities. The absence of a licensed slaughter house poses a problem as far as health and hygiene is concerned.

CHAPTER 10

FISHERIES

Kodungallur municipality is burdened by water bodies in the eastern and southern boundaries. Hence fishing both inland and marine had been a major activity of the people from olden times. This chapter analyses the existing status and development issues of Fisheries sector inthe Kodungallur Town area.

10.1 Introduction

Thrissur district is abundantly rich with marine, brackish water and fresh water resources. Kodungallur is one of the inland fishing villages in Thrissur district. Fig 10.1 shows the inland fishing villages in Thrissur district. The presence of Kodungallur kayal, Pullut river, various channels and other low lying areas in the town has made fisheries a means of livelihood to the people in this area. Fig 10.2 shows the waterbodies in Kodungallur town.



Fig 10.1 Inland fishing villages

10.2 Existing scenario

Inland fisheries include both inland capture and aquaculture in brackish water. The brackishwater resources include the lower reaches of rivers, low-saline lakes and lagoons, back-waters, adjacent low lying field and mangrove swamps. There are three back waters or kayals in Thrissur District, occupied over an area of 1410 ha. They are Azheekode Kayal (82.02

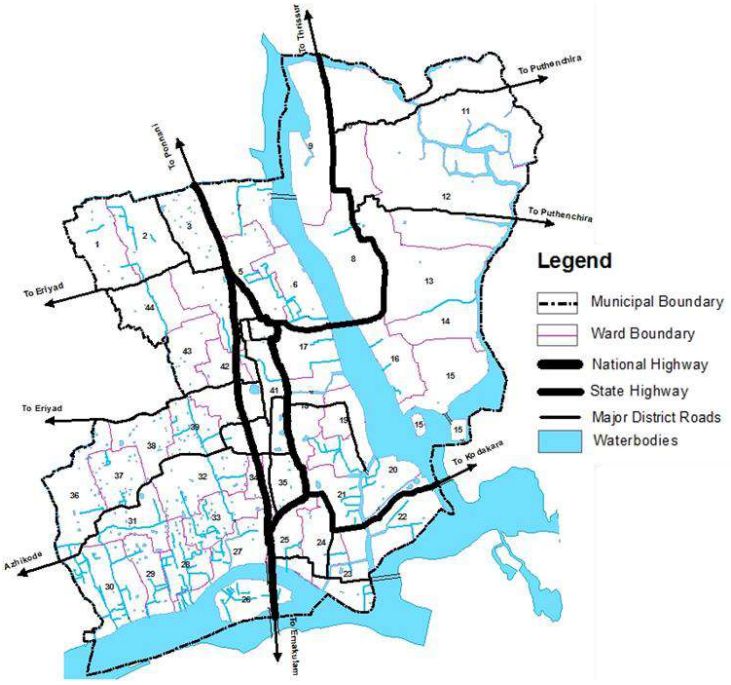


Fig 10.2 Waterbodies in Kodungallur

ha.), Kodungallur Kayal(613.81 ha.) and Chettuvakayal (713.87 ha.).The total brackishwater area (excluding kayals) of the District is estimated at 2862 ha and majority of this areais distributed in GramaPanchayats of Puthenchira,Vellangallur, Mala, Padiyur, SN Puram and Kodungallur Town of Thrissur District.

10.2.1 Inland fisheries

Fishing using stakenets and Chinese nets is being carried out from Kodungallur Kayal by local fishermen in wards 14,19,20,21,22,26,30 of Kodungallur Town. Pearlspot, Mullet, Red Snapper, shrimp, crabmilk fish and prawn are the main variety of fish catches. Inland fishing activities are mainly concentrated in the Anappuzha area, The southern portion of town (fig. 10.3)



Anappuzha- fisheries activity

There are about 1000 persons engaged in fishing activity. About 800 people are engaged in actual fish catching. Others are working on processing, sales and other ancillary sectors.

Mechanization in fishing has badly affected the fishing activity of traditional fisher men. This has affected exports of fish items from Kodungallur. Also pollution of water bodies has created a serious decline in the fish catch.

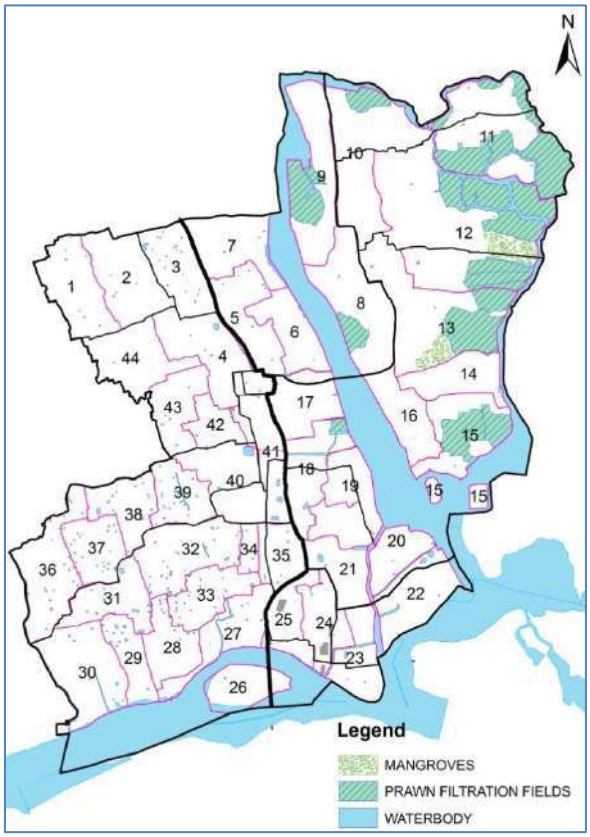


Fig 10.3 Brackish water resources

10.2.2 Aquaculture



Pullut area

In Thrissur district, a total of 1012 ha area were surveyed as ideal for brackish water aquaculture (PANFISH Book, Thrissur District). Of this, more than 987 ha are now utilized for traditional prawn filtration/extensive brackish water shrimp farming. At present there are more than 80 brackish water fish farms at Kodungallur town covering almost 200 hectares of area. It also consists of the Pokkali paddy fields, a unique ecosystem distributed in the coastal villages of the Thrissur Districts , present in Pullut area in wards 8,9,10,11,12,13,15 of Kodungallur Town where the age old shrimp filtration practices known as 'Chemmeenkettu' is carried out after the harvest of Paddy. Prawn, Crab, Milkfish, Mullet, Pearlspot are the main variety of fish catches. Fig 10.3 shows the brackish water farms, mangroves and marshy lands in the Kodungallur town.

Attack of diseases and viruses on the fish population and unpredicted changes in the salinity of water due to climatic changes are serious problems affecting this farming. Majority of the farms adopt traditional methods. Scientific methods may rectify many of the problems associated with this.

Another important potential available in the town is the presence of more than 200 ponds , both public and private which can be utilized for inland fish farming.

10.3 Physical Infrastructure

A private fish landing centre is present in Anappuzha. There is also a fish market, peeling shed and ice plant near to the fish landing centre. The marketing place for dry prawns is present at Kottappuram. Fish sales stalls exist at various localities in the municipality having fish obtained from Anappuzha and Azhikkode in the nearby Eriyad Grama panchayath. As per data available in District PANFISH data, physical infrastructure is as given in table 10.1

Table 10.1 Fixed fishing crafts

SL. No.	Facility	Location	Nos.	No. of workers	Govt./Private	No.of vendors	Capacity
1	Fishlanding centre	Anappuzha		100	Private	-	-
2	Dry prawn Market	Kottappuram		100	Private	-	-
3	Fish Market	Methala fish stall		-	-	-	-
		Anappuzha fish stall		-	-	11	-
		Kodungallur fish stall		-	-	not functioning	-
4	Ice Plant	Anappuzha		4	-	-	1.25ton/day
5	Peeling Shed	Anappuzha		-	-	-	-
6	Chinese dipnet	-	4	-	-	-	-
7	Stake net	-	120	-	-	-	-
8	Thoombuvala	-	2	-	-	-	-
9	Madavala	-	1	-	-	-	-
10	Kannadivala	-	1	-	-	-	-

Source :District Panfish Data

10.4 Conclusion

From the analyses done above, it can be estimated that the ample potential available in Kodungallur is not exploited to the fullest. The existing opportunities may be exploited to develop tourism fisheries and sport fishing. Integrated fish farming is another option which need to be promoted here. Utilising the available fisheries infrastructure and diversification of products and practices, this sector may be developed. Great care need to be taken in preventing pollution of waterbodies and spread of fish diseases to promote this sector and support the common folk depending on fishing.

CHAPTER 11
TRAFFIC AND TRANSPORTATION

11.1 Introduction

Modes of traffic and transport available in a town play a pivotal role in making the town livable. Also the network facilities available in a town determine the height of its future growth. The traffic network of a town functions as arterial system of a human body. Kodungallur is one of the few Municipalities of Kerala blessed with connection to other parts by major modes of transport like road and water. NH 66, SH 22 and SH51and the Kollam – Kottapuram National Waterway 3 are passing through Kodungallur. A terminal of the National waterway is also located close to Kottapuram Bridge.

11.2 Road Network of Kodungallur Town

1) Highways

One National Highway NH 66 and two state highways SH 22 and SH 51 pass through Kodungallur Town. The NH - 66 passes through the CBD area of Kodungallur and has got a length of 5.52 km within the Town, the two ends being Kothaparambuand Kottapuram. TKSPuram, Keezhthali, Cheraman, Sringapuram, Chanthapuraetc are some of the major junctions enroute the corridor. The land use along the stretch is predominated with commercial activities. The Kodungallur–Shornur State Highway(SH 22), starts off from Pump Junction near the Kodungallur Temple and leaves the town at Karoopadanna bridge. The section has got a length of 5.01 km. This road section includes two bridges viz. Pulloot Bridge and Karoopadanna Bridge.The SH 51 (Mala – Kodakara road) which starts at Keezhthali junction and leaves the town at Krishnan kottabridge also passes through the town. The three arterial roads are shown in figure 11.1.

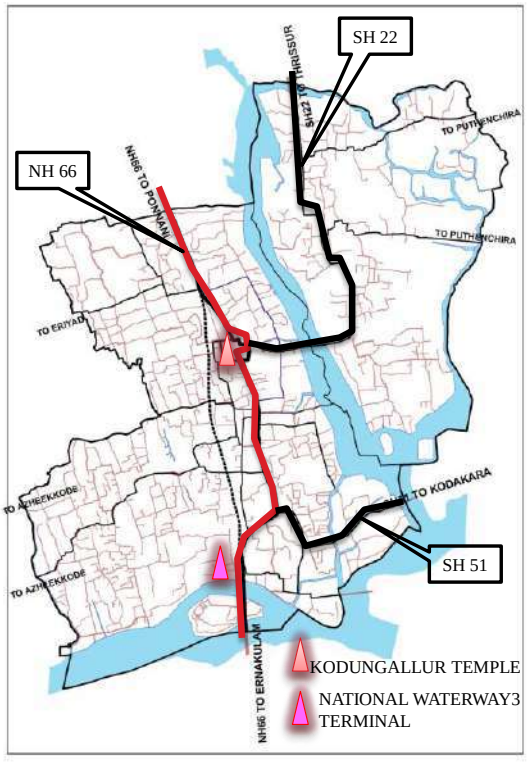


Fig.11.1 Road net work

2) Other Major Roads

The major district roads connect Kodungallur to other parts of the district.Other major roads in the Town are the Cheraman – Azheekode Road, Kottappuram-Thuruthipuram Road, Eriyad Road , Scout road, Narayanamangalam-Puthenchira Road, Modern Hospital – JTS Road etc.The road network of Kodungallur Town is shown in fig 11.1

3) The much hyped and anticipated Kollam -Kottapuram National waterway 3 ends at Kodungallur. A terminal of the national waterway is located to close to Kottapurambridge. The location of the terminal is also shown in fig 11.1.

11.3 Bus routes of Kodungallur Town

As mentioned in the linkage analysis in Chapter 2, Kodungallur is connected to other places by quite a good number of roads. There are bus services through majority of these roads. The major bus route is the national high way 66 which connects Kodungallur to Kochi and Ponnani. The next order bus route is the State highway 22, which is depended by a vast majority of the population, to commute to Thrissur, as well as to execute several other activities. The other two major bus routes are those from Chanthapura to Eriyad and from Keezhthaly to Azheekode. Apart from the above 4 major roads, there are three minor bus routes viz.SH51, the road originating from Keezhthaly and going towards Kodakara, road connecting SH22 to Puthenchira and road connecting Narayanamangalam in SH22 to Puthenchira. These bus routes run through the length and breadth of the LSGI and ensure good connectivity. The bus routes are given in fig 11.2

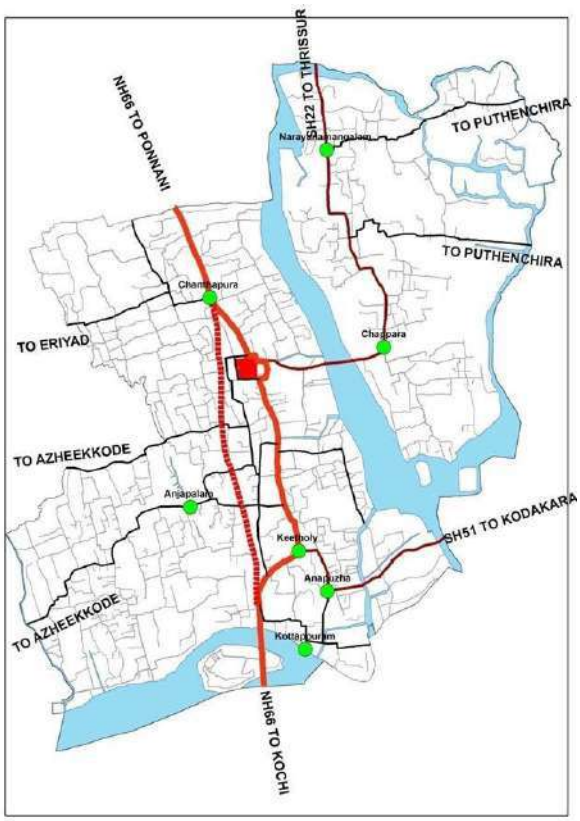


Fig.11.2 Bus routes in Kodungallur town

11.4 Traffic Surveys

The existing traffic characteristics in Kodungallur town area were studied to identify the main problems and potentials here. To compile necessary inputs for the study, various primary surveys were conducted in the study area. Surveys carried out are as follows

- Speed and Delay Characteristics
- Traffic Volume survey
- Parking Survey
- Pedestrian Volume Survey
- Origin Destination survey
-

11.4.1 Speed and Delay characteristics

As part of the study, speed and delay survey was carried out on four major road stretches within the Kodungallur study area, viz.NH66, SH51, SH22 and Chandapura – Eriyad road.

- The Speed and Delay survey was conducted on the NH section, fromKothaparambuto Kottappuram. The journey speed for the section was found to be 26.83 kmph against a running speed of 28.99 kmph. The major reasons for the delay are heavy traffic congestion and the presence of intersections.
- For the Kodungallur - Shornur Road, the journey speed and running speed were 34.05 kmph and 36.79 kmph respectively, the length of the section being 2. 8 km. The major reason for delay is the presence of intersections.

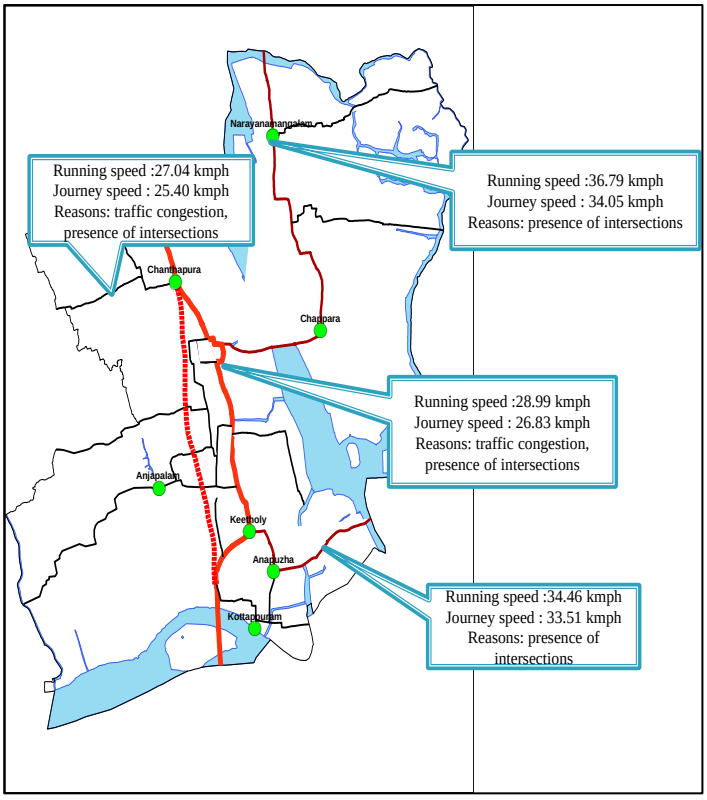


Fig.11.3 Speed and Delay Characteristics

Source: Traffic&Transportation study -2012

- On the Kodungallur - Eriyad Road, for the section from Chanthapura toMadavana (1.75 km long), the running speed was27.04 kmph and the journey speed was 25.40 kmph.The reason for the delay are the traffic congestions and the presence of intersections.
- On the Kodungallur- Kodakara state highway, for the section from Keezhthali Junction to Krishnankottabridge, journey speed and running speed were 33.51 kmph and 34.46 kmph respectively. The speed and delay characteristics of Kodungallur Town is shown in fig 11.3

11.4.2 Link volumes and capacity utilisation

It is the procedure to determine the volume of traffic moving on the roads at a particular section at a particular time. Traffic survey is very important for development of better infrastructure in the cities.A maximum daily traffic of 35,000 PCU was observed in the Chanthappura – Bus stand junction link. The Vadakkenada - Bus stand junction link had a daily traffic volume of 29,500 PCU followed closely by Chanthappura – Kothaparambu link with 28,000 PCU. The traffic along other links in the NH varied in the range of 23,000 to 25,000 PCU. The Kodungallur – Shornur SH had daily traffic as 15,000 PCU while Kodungallur – Kodakara SH had a daily traffic of about 6,500 PCU.

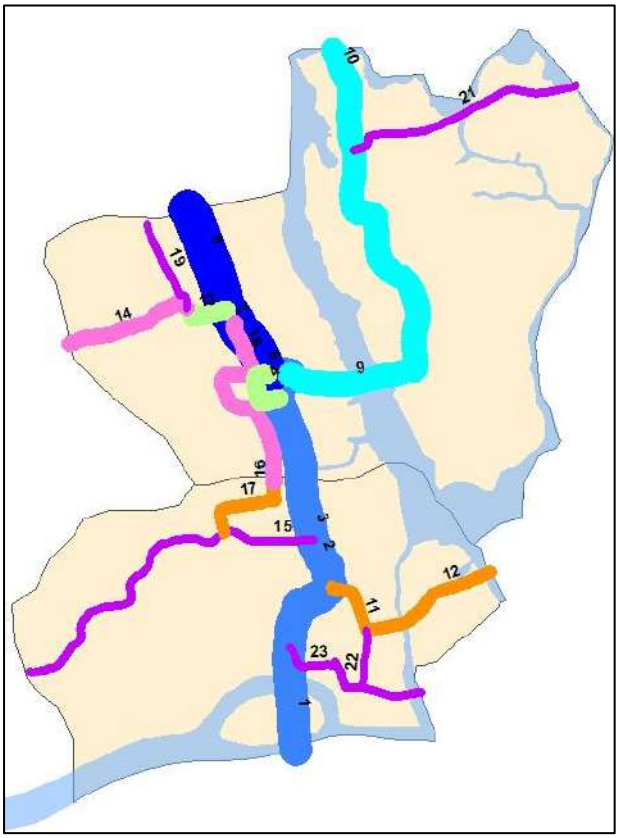


Fig.11.4 Traffic volume in various roads

Source: Traffic&Transportation study -2012

The daily traffic along other roads varied from 3000 PCU to 11,000 PCU. High volume of traffic is experienced in Vadakkenada– Kothaparambu section. Map showing traffic volumes at major roads in Kodungallur town area are given in fig 11.4.C apacity utilization of the road stretches was measured by volume-capacity ratio (V/C Ratio). It is the ratio of volume

Table11.1 the volume –capacity ratio of major roads

Road/ Link No.	Road Link	Capacity (PCU/ day)	Volume (PCU/ day)	Volume-capacity ratio
I	National Highway 66 (Kottappuram – Kothaparambu)			
1	Kottappuram - Keezhthali	15,000	24,765	1.65
2	Keezhthali - Cheraman	15,000	23,175	1.54
3	Cheraman - Thekkenada	15,000	22,905	1.53
4	Thekke nada - Pump junction	19,000	25,045	1.32
5	Pump junction - Vadakkenada	19,000	23,778	1.25
6	Vadakkenada - Bus stand junction	36,000	29,441	0.82
7	Bus stand junction - Chanthappura	24,000	34,929	1.46
8	Chanthappura - Kothaparambu	24,000	28,006	1.17
II	Kodungallur – Shornur State Highway (Kodungallur – Karoopadanna)			
9	Pump junction - Narayanamanglam	12,000	15,806	1.32
10	Narayanamanglam - Karoopadanna	12,000	15,229	1.27
III	Kodungallur - Mala Road			
11	Keezhthali - Anapuzha	12,000	6,213	0.52
12	Anapuzha - Krishnan kotta bridge	12,000	6,703	0.56
IV	Eriyad Road			
13	Chanthappura - Modern Hospital	9,000	10,924	1.21
14	Modern Hospital - Madavana	9,000	5,844	0.65
V	Other Major Roads			
15	Cheraman – Azheekode Road	9,000	4,870	0.54
16	Padakulam-Arakulam Road	9,000	7,397	0.82
17	Padakulam – Azheekode Road	9,000	5,658	0.63
18	Hospitalpadi – Bus Stand	9,000	8,628	0.96
19	Modern Hospital – JTS Road	9,000	4,463	0.50
20	Scout Road	12,000	10,922	0.91
21	Narayanamangalam-Puthenchira	9,000	3,137	0.35
22	Anapuzha-Kottappuram Market Road	9,000	2,960	0.33
23	Kottappuram-Thiruthipuram Road	12,000	3,027	0.25

Source: Traffic&Transportation study -2012

of traffic plying on the road stretch to the capacity of the road stretch. The volume capacity ratio of major roads within the Kodungallur Study area is given in table11.1. It is seen that many sections in the study area has been utilized to almost twice its capacity. It can be seen that national highway in general and the stretch from Thekkenada to Kottappuram in

particular are over utilised. State highways are also carrying more vehicles than they can carry.

This suggest for a need to widen the roads. Based on the reconnaissance survey, turning movement surveys at 10 major intersections in thestudy area were conducted to ascertain the peak hour demands. The summarized traffic flow in PCU shows that the Thekkenada Junction witnessed the maximum peak hour traffic flow by 3,252 PCU followed by ChanthappuraJunction by 3,179 PCU. For the other intersections, the peak hour traffic flow varied between 1,000 to 3,000 PCU. The traffic volume at major intersections is given in fig 11.5 and table 11.2.



Fig.11.5 Traffic volume at major intersections

Source: Traffic&Transportation study -2012

11.4.3. Parking Characteristics

Parking surveys were carried out on major road sections of Kodungallur study area to obtain the peak parking demand and parking duration of various categories of vehicles on these road sections. Major road stretches/locations selected for parking survey is North Nada to Village office, Village Office to Allieds,Allieds to Bus Stand Junction and Thekkanada to Lalithakala Academy.

Table 11.2 Traffic volume at major intersections

Sl. No.	Name of Intersection	Peak Hour	PCU
1	**Chanthapura**	**5:15 PM to 6:15 PM**	**3179**
2	Bus Stand Junction	5:15 PM to 6:15 PM	3079
3	Vadakenada Jn	10:45 AM to 11:45 AM	2824
4	Pump Junction	10:45 AM to 11:45 AM	2616
5	**Thekkenada Jn**	**10:15 AM to 11:15 AM**	**3252**
6	Padinjarenada Jn	10:00 AM to 11:00 AM	1031
7	Modern Hospital Jn	5:45 PM to 6:45 PM	1090
8	Cheraman Jn	4:30 PM to 5:30 PM	1965
9	Keethali Junction	9:45 AM to 10:45 AM	2355
10	Narayanamangalam	4:15 PM to 5:15 PM	1574

Source: Traffic&Transportation study -2012

- *Parking Accumulation*

The space fromAllieds Mall to Bus Stand Junction is utilized as a major parking area. A total of 155 vehicles, consisting of 129 two wheelers, 11 passenger autorickshaws and 15 cars were found to be parked in this road. In the Village Office to Allieds section of NH, 116 vehicles were parked and in the North Nada to Village Office Road, a total of 86

vehicles were parked. A total of 73 vehicles, comprising of 18 cars, 5 passenger autorickshaws, 47 two wheelers and three Goods Autorickshaws were parked in Thekkanada to Lalithakala Academy section.

- *Duration of Parking*

Majority of the vehicles parked at most of parking corridors were found to be for short duration of less than 30 minutes. 60 to 70 per cent of the vehicles parked on selected parking corridors were found to be parked for duration less than 30 minutes. 10 to 25 per cent of these vehicles were parked for a period ranging between 30 minutes and one hour. Long duration vehicles constituted only around ten per cent of the total vehicles.

11.4.4 Pedestrian survey

Pedestrian surveys were conducted at major locations where the pedestrian cross movements were found to be high. The locations identified for pedestrian surveys are Chanthappura Junction, Police Station, Allieds, West Nada, Pump Junction, Bus Stand, Guest House and South Nada.Analysis of the pedestrian cross movement at major activity/traffic generation areas revealed that a maximum of 1331 pedestrian movements occurredin front of the Police Station. Also high volume of pedestrian cross movements, in the order of 500, occurred at various points in the CBD area viz, Allieds, at West Nada, Bus Stand and near Guest House. Peak hour pedestrian cross movements observed at major locations

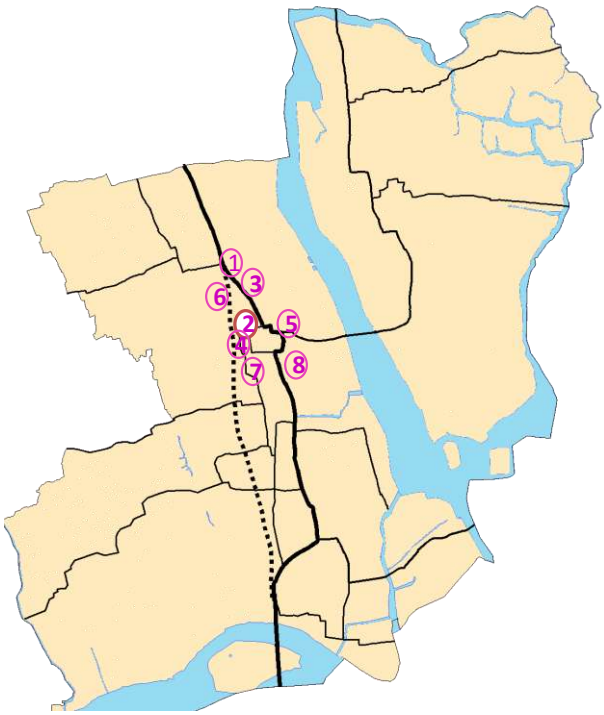


Fig 11 6.Peak hour pedestrian cross movements

Source: Traffic&Transportation study -2012

Table 11.3. Peak hour pedestrian cross movements

Sl. No.	Name of location	Peak time		No. of Pedestrians		
				Up	Down	Total
1	Chanthappura	3:15 PM	4:15 PM	130	144	274
2	Police Station	5:00 PM	6:00 PM	676	655	1331
3	Allieds	5:00 PM	6:00 PM	260	303	563
4	West Nada	4:00 PM	5:00 PM	260	255	515
5	Pump Junction	9:30 AM	10:30 AM	113	76	189
6	Bus Stand	8:00 AM	9:00 AM	259	261	520
7	Guest House	4:15 PM	5:15 PM	199	281	480
8	South Nada	8:30 AM	9:30 AM	171	126	297

Source: Traffic&Transportation study -2012

inKodungallur are given in below in fig.11.6 and table 11.3.

11.4.5 Origin – Destination Survey of passenger traffic and Goods transportation

Base year inter-town travel characteristics of passenger and goods movements were obtained by conducting origin-destination survey of a sample number of motor vehicles passing through major outer cordon locations on roads in Kodungallur. The locations selected are given in table 11.4. The maximum daily traffic volume of 28,000 PCU was observed at Kothaparambu, followed by 24,700 PCU at Kottappuram, both locations are on the NH 66. Two wheelers constituted the maximum followed by four wheelers at all the locations. As many as 13,900 vehicles were observed at Karoopadanna survey location on Kodungallur – Shornur SH 51.

Table11.4. Origin- Destination survey

Sl.	Name of Location	Road Name
1	Kottappuram	NH 66
2	Kothaparambu	
3	Karoopadanna	Thrissur
4	Krishnankotta	Mala Road
5	Madavana	Eriyad Road

Source: Traffic&Transportation study -2012

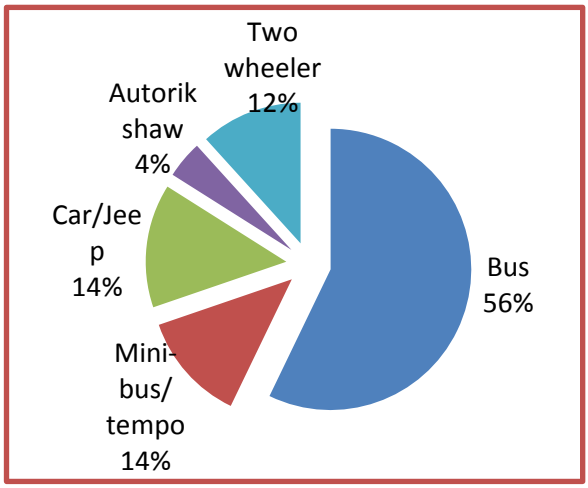


Fig 11 7.O-D Survey Passenger traffic

Source: Traffic&Transportation study -2012

11.4.5.1 Characteristics of Inter-town Passenger Traffic

The inter-town passenger transport in Kodungallur is met mostly by road based KSRTC buses, private buses, mini-buses, and a host of personalized vehicles like four-wheelers, two-wheelers etc.

An analysis of the O-D survey data collected from outer cordon survey locations revealed that an estimated 382,391 inter-town passenger trips

Table11.5 Origin- Destination survey locations

Sl.No.	Mode of travel	No.of Passengers	% of Passengers
1	Bus	214,900	56.20
2	Mini-bus/ tempo	53,750	14.06
3	Car/ Jeep	53,466	13.98
4	Autorikshaw	16,180	4.23
5	Two wheeler	44,094	11.53
	Total	**375,991**	**100.00**

Source: Traffic&Transportation study -2012

were performed in the study region on a reference day consisting of 214,900 bus passenger trips , 53,750 mini-bus trips, 53,466 car trips, 44,094 two-wheeler trips and 16180 auto trips. It could be inferred that public transport hasa significant role in meeting the inter-town passenger demand. Table 11.5 gives the modal split of inter-town passenger traffic in Kodungallur. Figure 11.7 represents the same in a pie diagram.

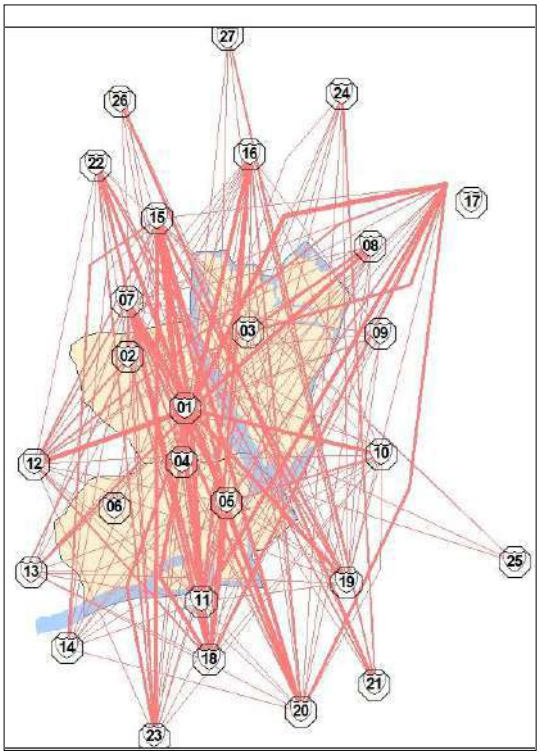


Fig 11 8.Desire lines of passenger trips

Source: Natpac survey

A total of 382931 passenger trips were performed as inter-town trips on a reference day .The major traffic generating zones within the study region was the CBD area with 93505 trips constituting 24.5 percent of the total trips. About 1.6 nerated from the remaining area of Thrissur district and trip generated from other districts constituted 21.9% of the total trips. The CBD area attracted 11568 inter-town passenger trips from various zones. In Kodungallur, an estimated 1.24 lakh inter-town passenger trips were performed for work or related purpose, which constituted almost 32.50% of the total inter-town passenger movements. This was followed by 99,780 personal trips and 53,000 back home trips. The desire lines of inter-town passenger trips are shown in figure11. 8.

The O-D pattern of inter-town passenger traffic revealed that there were 1.20 lakh internal - external trips (Study region to outside study region), out of 3.82 inter-town passenger trips and constituted 31.35 per cent of total trips. A total of 1.39 lakhs trips were external – internal trips (outside study region to study region) constituting 36.5 per cent of the total trips. External – external trips to the tune of 1.22 lakhs trips were performed through the study region and they were 32.2 per cent of the total trips.

11.4.5.2 Characteristics of Inter-town Goods Traffic

A total of 9,760 goods vehicles passed through the outer cordon points in Kodungallur Town on the reference day.The total goods volume comprised of 3877 trucks followed by 3220 Mini trucks and 2663 goods autorickshaws. The quantum of goods handled by the goods vehicles was to the tune of 19013 tonnes. Trucks carried the maximum volume of goods traffic (72.4%), followed by mini-trucks (20.4%). The remaining seven per cent of goods traffic was handled by goods autos. The details are given in table 11.6.

Table 11.6: Modal Spilt of inter-town Daily Goods Traffic in Kodungallur

Sl.No.	Mode of travel	No. of vehicles		Qantity carried	
		No.	Percent	Tons	Percent
1	Tuck	401	30.97	13766	72.4
2	Mini Truck/Tempo	382	29.5	3885	20.43
3	Goods Autorikshaw	512	39.53	1362	7.17
Total		1295	100	19013	100

Source: Traffic&Transportation study -2012

Inter-town movement of goods to the tune of 19013 tonnes was carried out over the study region. The major traffic generator of goods traffic within the study region was the CBD area with 1127 tonnes (5.9%) most of them bound for other Districts within the State. A total of 4862 tonnes of goods traffic was generated from remaining Thrissur area. Goods generated from other districts formed 52.8% of the total volume, while the goods generated from other states was to the tune of 2618 tonnes. In the case

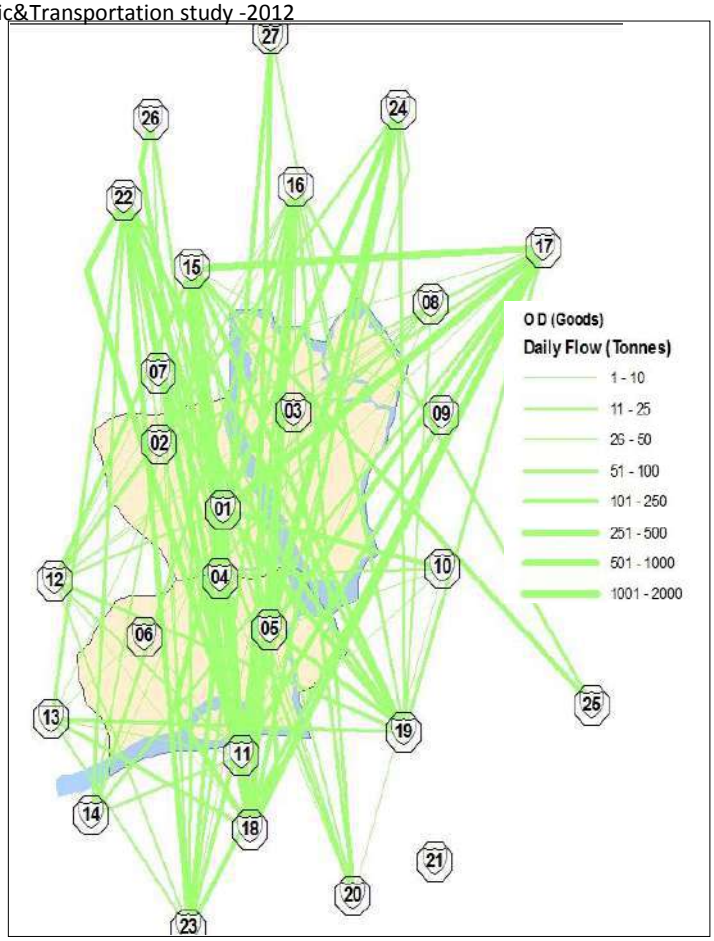


Fig 11 9.Desire lines of goods traffic

of goods traffic attraction, CBD area had the dominant share with 5656 tonnes. Among the external zones, 27.1% of the traffic terminated in Thrissur District, while 27% formed the volume to other districts. Goods bound to other states was 823 tonnes constituting to 4.3% of the total volume.The desire lines of inter-town goods traffic is shown in Figure 11. 9.

A further study of the goods traffic pattern observed within the study region vis-a-vis the outside study region revealed that 1496 tonnes of goods originated from the study region and 7896 tonnes of goods terminated in the study region. About 9619tonnes of traffic are of divertible nature, which, are passing through the CBD area of the town**.**

11.5 TOD Corridor

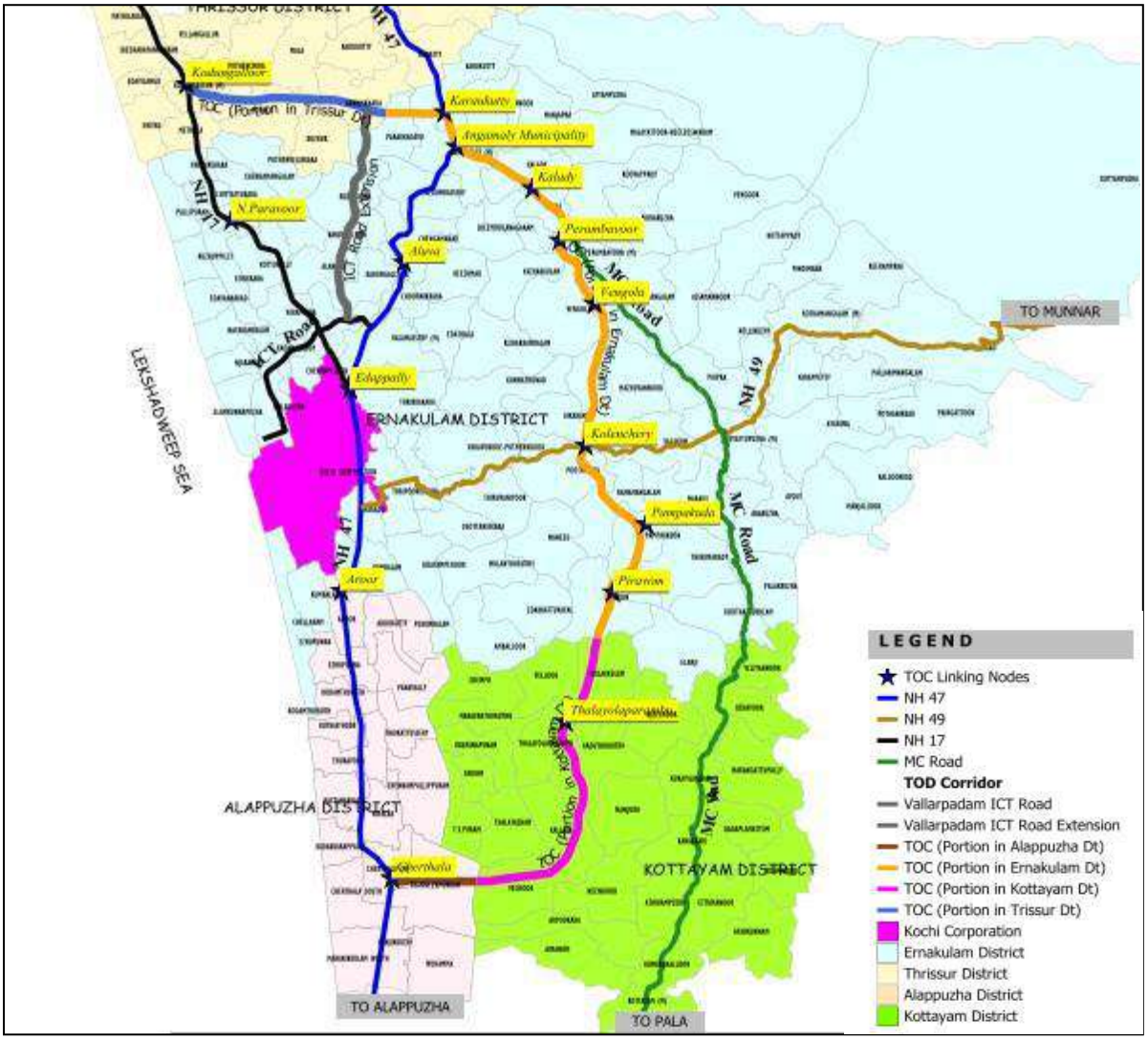


Fig 11 10 .Tentative alignment of TOD Corridor

The Transit Oriented Development Corridor around Kochi City, proposed in the Draft Master Plan for Kochi City Region will act as an outer ring road to the city of Kochi and as per the tentative alignment of the TOD corridor suggested by NATPAC in this regard, it will start from Kodungallur, and will connect the Towns of Angamaly, Kalady, Perumbavoor, Kolenchery, Pirvaom, Thalayolaparambu and ends at Cherthala in Alappuzha District. Figure 11.10 shows the tentative alignment of TOD Corridor. This proposal once materialized will further enhance the regional connectivity of Kodungallur Town.

11.6 Conclusion

The Kodungallur Town has developed into a disintegrated urban form spreading along major traffic corridors. Congestion on arterial roads is due to haphazard development, narrow streets, congested junction, unorganized parking etc. which creates hindrance to the smooth flow of traffic. Most of the bridges and major corridors are no longer able to cope up with even the present traffic demand. High travel time and congestions have created an adverse effect on the economic and environmental health of this city.

The major traffic and transportation problems facing Kodungallur town are:

i) Heavy movement of vehicular traffic along the NH 66 and inadequate carriageway width.

ii) Inter-mixing of intra-town and inter-town traffic on the NH road corridor in the absence of alternate road links.

iii) Unorganized on-street parking in the absence of proper parking lots.

iv) Movement of inter-town bus traffic due to the location of inter town-bus station within the central area of the town.

v) Encroachment of right-of-way by hawkers, parking of vehicles.

vi) High safety risk to pedestrian crossing the NH 66 in front of the police station.

vii) Absence of adequate design for major junctions along NH 66 and around the temple like Pump junction, Bus Stand junction, Chanthappura junction, Cheraman junction etc.

Since the most important problem of Kodungallur town is high traffic load along the NH 66, especially near the CBD area, emphasis is to be given to develop alternative links to divert the by-passable traffic passing through the NH stretch. This would also help to reduce the inter mixing of intra-town and inter-town traffic on roads within the central part of the town.

The possibility of extending the National Waterway No. 3 from Kottappuram to Kasargode is on the anvil and it is expected that substantial amount of goods traffic will be diverted to this waterway once it becomes fully operational.

As the level of service of urban roads are dictated to a great extent by the capacity of intersections, the development proposals should give importance to increase the capacity of major intersections by properly planning and designing these junctions. Special emphasis should also be given to improve the pedestrian facilities and also developing off-street parking lots.

CHAPTER 12

DRINKING WATER

Availability of safe and potable drinking water forms one of the conditions for a healthy and hygienic living of a community. Pollutions of water sources has now become a global issue and hence the immediate need of the hour is to ensure the safety of drinking water. This chapter analyses the existing status and development issues of provision of safe drinking water in the Kodungallur Town area.

12.1 Introduction

Water has always been an important and life sustaining necessity to humans and is essential to the survival of all organisms. But only less than 1% of the whole water on earth is accessible to man and other living beings in the form of fresh water found in lakes, rivers and underground aquifers. The average annual rainfall of the State is estimated at 3000 mm. However, its spatial and temporal distribution pattern is mainly responsible for the frequent floods and droughts in Kerala. About 60% of the annual rainfall in the state is received during the South-West Monsoon (June – August), 25% during North – East Monsoon (September – November) and the remaining during the summer months.

Kodungallur has a tropical and humid climate. The maximum average temperature of the city in the summer season is 39°C while the minimum temperature is 22°C. The winter season is pleasant with temperature between 22°C to 32°C. There occur heavy rains in the monsoon season. The average rain fall is 2468mm.

12.2 Drinking water- existing scenario

12.2.1 Sources of water

As per Socio-Economic survey 2012 data, the percentage of major water sources in Kodungallur town area is shown in fig 12.1. From the survey it was found that about 54.39% of households depend on KWA water supply to meet their domestic water demand. In most of

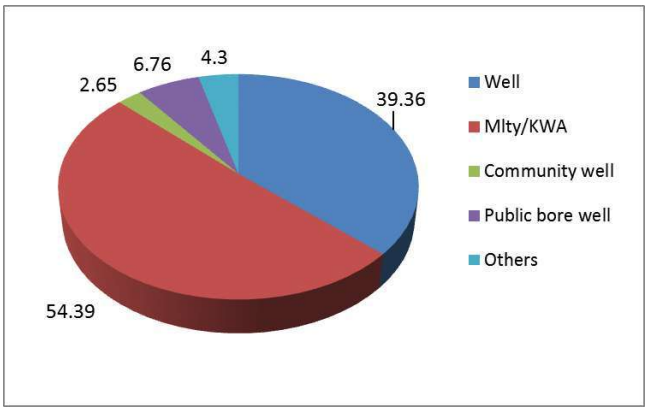


Fig. 12.1 Water sources

Socio economic survey-2012

the areas saline water intrusion is a major threat to wells and channels. Hence most of the people depend on KWA.

12.2.2 Drinking water supply schemes.

The main source of drinking water schemes in Kodungallur Town area is from Chalakkudy river. Water is supplied from the pumping station at Vainthala in Mala Grama Panchayat. The plant having a capacity of 6 million litres per day pumps water using 2 Nosof 180 HP pumps through the pumping main laid via Vadama, Karingachira to the overhead tank at Narayanamangalam in ward no. 10 of Kodungallur Town. The capacity of the OHT is 18 lakh litres. A total quantity of 38.4 lakh litres of water is supplied per day. Supply is being done on alternate days to all wards of the town area.

Table 12.1 Details of drinking water supply

Area	House Connections	Public Taps
Kodungallur Municipal area	2703	2170
Methala Old Panchayat Area	710	365

Source:KWA,Kodungallur

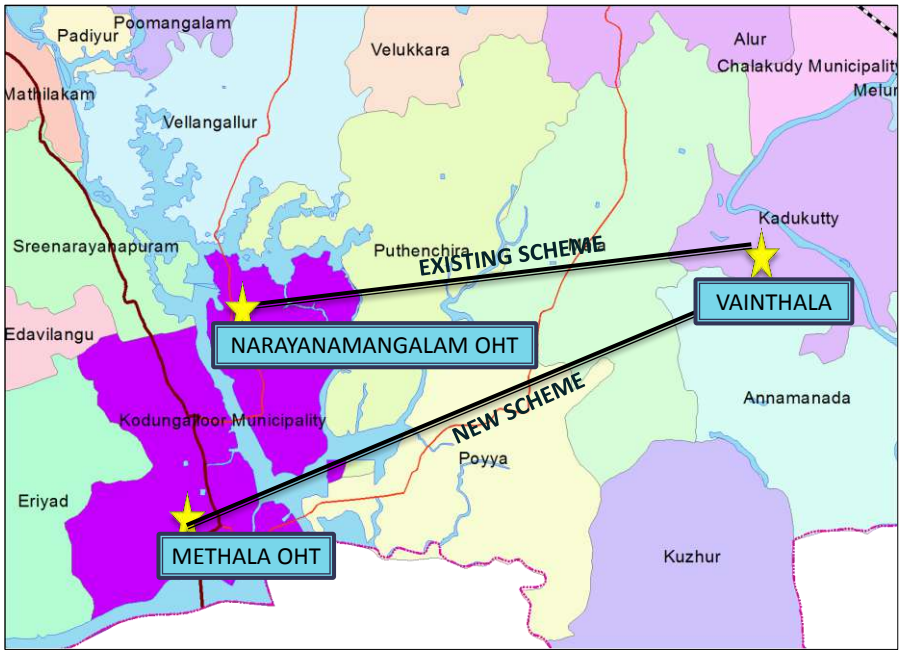


Fig. 12.2 Water source and OHT locations.

In addition to the above, a new scheme is being commissioned from Vainthala for water supply to Eriyad, Edavilangupanchayaths and the old Methala panchayat area. The plant, having a capacity of 15 million litres per day, pumps water using 2 Nos of 135 HP pumps through the pumping main laid via Thachappilly to the overhead tank at Methala in ward no. 41 of Kodungallur Town. The capacity of the OHT under construction is 22 lakh litres. A total quantity of 50 lakh litres of water is proposed to be supplied per day

from this tank. The number of house connections and public taps in Kodungallur and Methala area is shown in table 12.1. This scheme is presently partially commissioned and water is being supplied by directly pumping to the distribution network. The location of source and OHTS are shown in fig.12.2.

One of the problems affecting water supply is discontinuous power supply. Also the transmission losses amount to about 2 lakh litres per day. The priority is clearly a program of leak detection to reduce losses and plant optimization to increase efficiency together with the replacement of the distribution network.

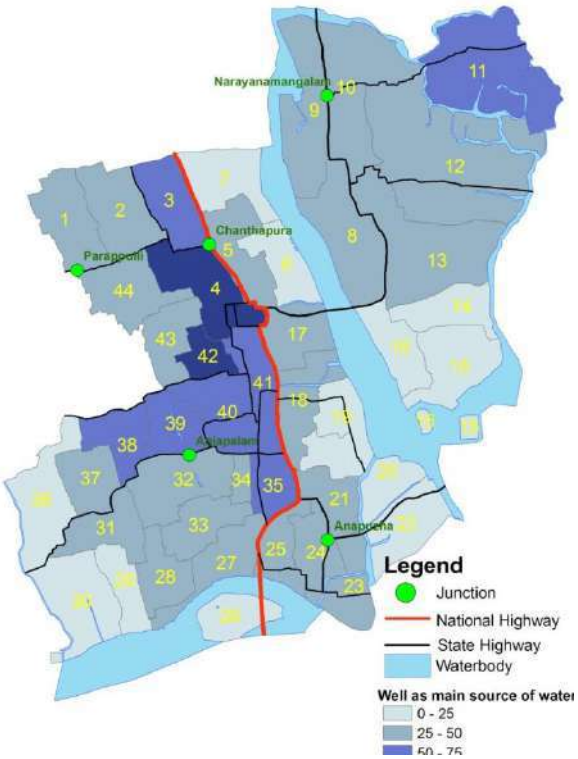


Fig.12.3 Wards having well as main source

Source: Socio economic survey-2012

Analysing the Socio –Economic survey data, it is found that wells are used as main source of water mainly in 9 wards ie, 3, 4, 11, 35, 38, 39, 40, 41, 42 as shown in fig.12.3 remaining wards depend on KWA for drinking water as shown in fig 12.4. Hence it is evident that enhancement of drinking water supply schemes is necessary to satisfy the increasing demand of water

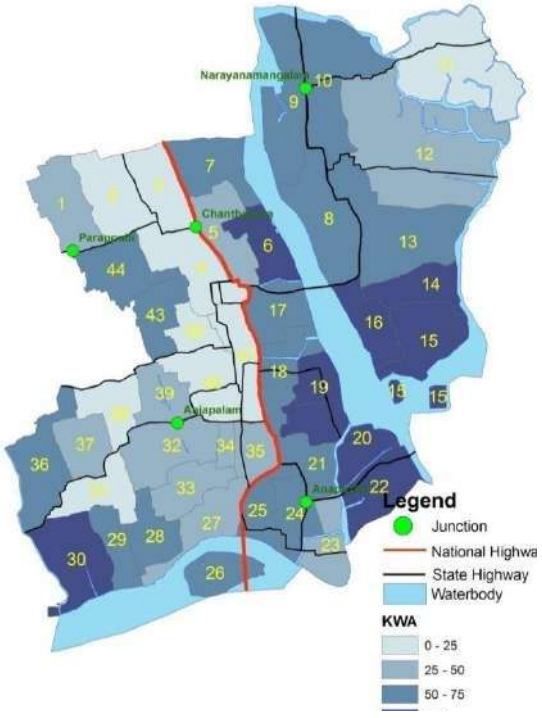


Fig.12.4 Wards having KWA as main source

Source: Socio economic survey-2012

12.2.3 Water scarcity

A study regarding the proximity of water sources to households conducted in Socio economic survey reveals that in Kodungallur town almost 100% of population has water sources within

0.5km from their houses. It also reveals that 8.47% of families suffer from water shortage for 1 to 6 months. (fg 12.5)

As per analysis of data collected from office of Kerala Water Authority, presently water is being supplied to Pullut, Lokamaleswaram and Methala areas on alternate basis. Hence each area is receiving water once in 3 days. As per local analysis , scarcity is felt at times when this supply is interrupted owing to pipe breakage or discontinuous power supply.

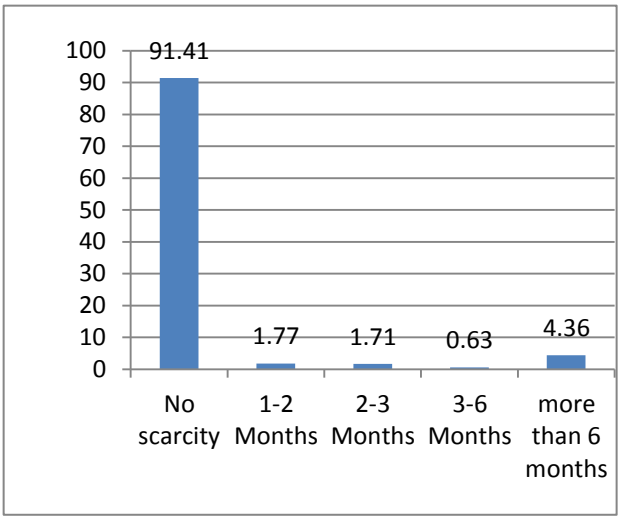


Fig.12.5 WaterScarcity

Source: Socio economic survey-2012

As per socio-economic survey, about 35.12% of people have expressed drinking water availability as their topmost priority of development. The ward wise distribution of water scarcity is given in fig.12.6 Wards 3 and 9 experience shortage of drinking water scarcity.

12.2.4 Alternate sources

To tackle with the shortage of drinking water, suggestions were made in the local level analysis to renovate a few ponds in the town to be used as drinking water sources. They are Dhalavakulam, Padakkulam and Arakulam. The locations are as given in figure 12.7

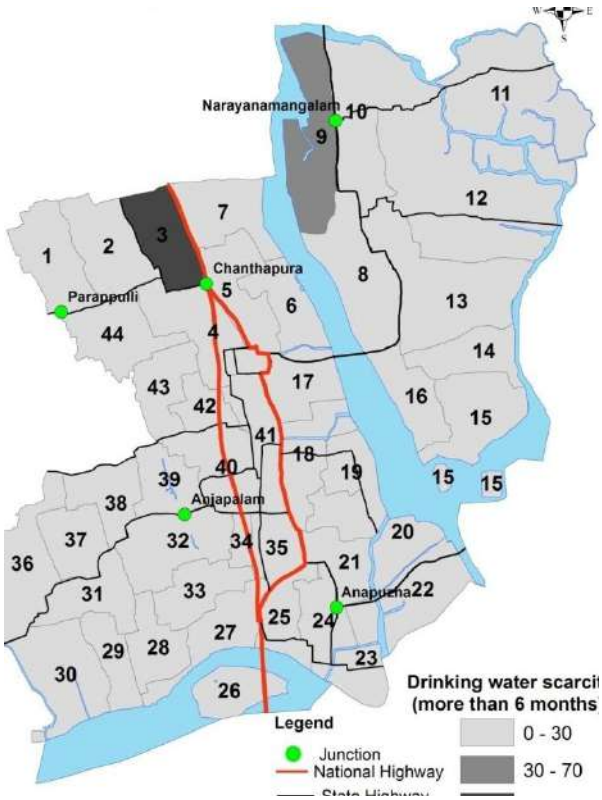


Fig.12.6 Ward wise distribution of Water

Source :Socio economic survey-2012

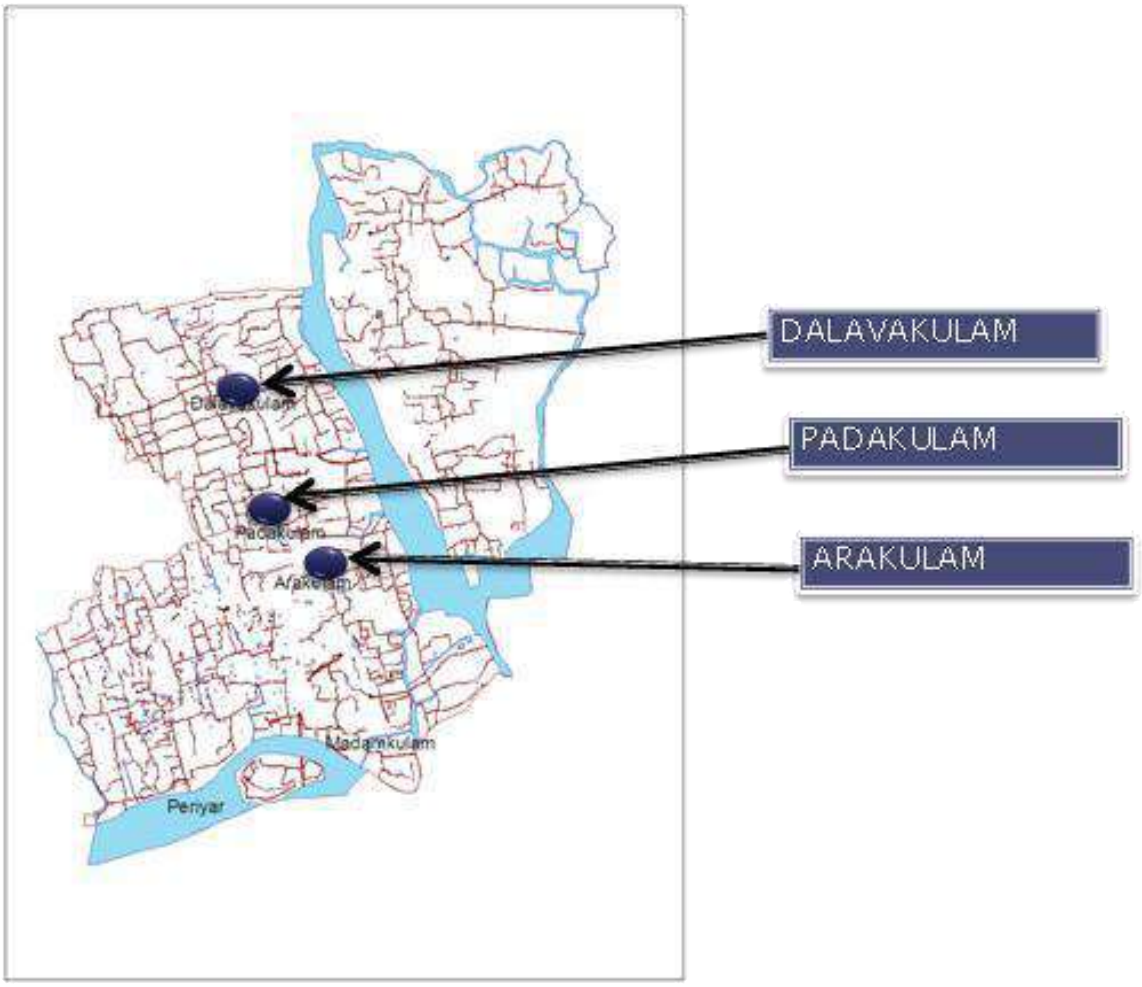


Fig. 12.7 Location of alternate sources for drinking water

12.3 Conclusion

As per a report from Groundwater department regarding the hydrogeological aspects of Kodungallur block area, groundwater exploitation in these areas is mainly from the surface water level by constructing open wells, filter point wells and also by constructing ponds. As per the studies by State and Central agencies, the deep sedimentary formation in the above areas are not yielding potable water and are mainly brackish in nature. Water level fluctuation in the surface water level varies from 3 to 7 metres in the area. The extensive exploitation of ground water by the construction of filter point wells, open wells and ponds has led to a significant drop in the pre-monsoon and post-monsoon water level trends and the development of groundwater is more than 100%. Hence as per the latest Groundwater Estimation Committee norms, the area is being treated as critical category. Govt of Kerala based on the recommendation of Kerala Ground water authority has declared Kodungallur block as a notified area.

The overexploitation of groundwater from the area is aggravating the saline water intrusion in the area. Hence rainwater harvesting schemes should have to be practiced in the area for flushing out the transgressing saline water by replacing it with fresh water.

Kodungallur meets the drinking water requirement from wells as well as from the KWA water supply. Saline water intrusion is the main problem with regard to wells in this area. Severe water scarcity is not repeated here. But the over exploitation of ground water is an issue which needs to be addressed urgently. There are a few alternate sources in the town which can be used for drinking water after renovation.

CHAPTER 13

SANITATION

Sanitation is an important factor which when ignored leads to an explosive situation in any place. For a healthy and hygienic environment, sanitation holds a foremost place. This chapter analyses the existing status and development issues of provision of sanitation in the Kodungallur Town area.

13.1 Introduction

For any society craving for better hygienic and health conditions, proper sanitation facilities are indispensable. Providing good sanitation is an obligatory function of the LSGI. This includes providing good sanitary facilities in households, markets, public places and proper solid as well as liquid waste disposal and treatment systems.

13.2 Drainage – Existing Scenario

Kodungallur is blessed with a number of natural drains. Earlier these acted as channels to hold the run off. Natural channels in the area drain water into Pullut river and Periyar(Fig 13.1).

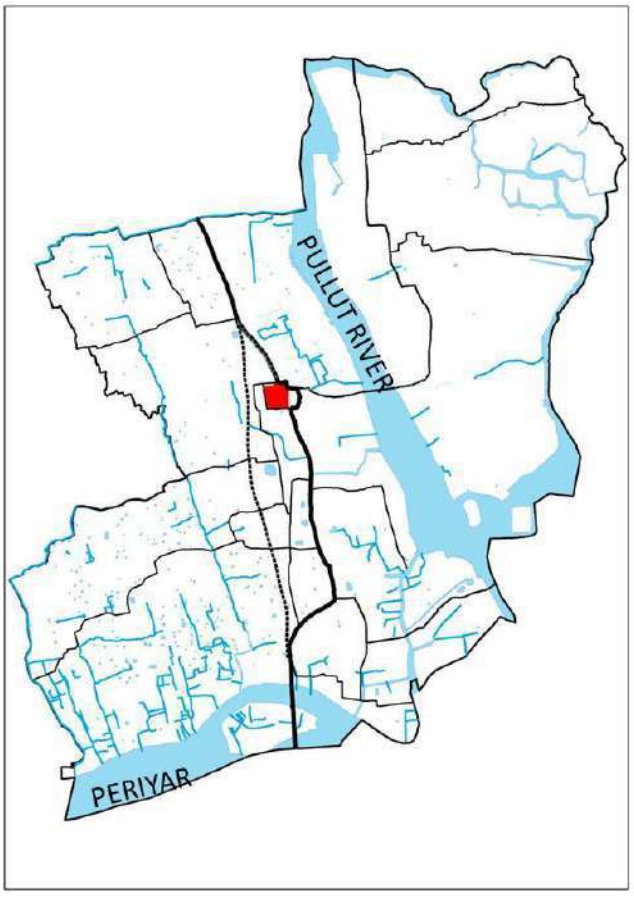


Fig 13.1 Map showing natural drains

For drainage of surface water in Kodungallur town area, drains are constructed but this is not based on any pre-determined plan. In certain places there is no continuity for the drains. The hotels and other traders are using the drains for liquid waste disposal. There are no treatment plants for treating the liquid waste before disposal. Presently the existing drains from the town area are connected to the Kavilkadavu thodu and Sringapuram thodu, both of which are draining into Pullut river (Fig 13.2). This has caused polluted water to be flowing into the river. There is a liquid waste treatment plant set

up near the Kavilkadavuthodu in the market proposed in IDSMT Scheme. As per the proposal all the waste water from the town area will be collected here and treated in the plant and drained to the thodu. But this has not become functional till now. The filling up of natural drains and the discontinuity due to the roads etc have resulted in water logging in the drains and also flooding in other areas. The pollution of river is another problem with respect to liquid waste disposal.

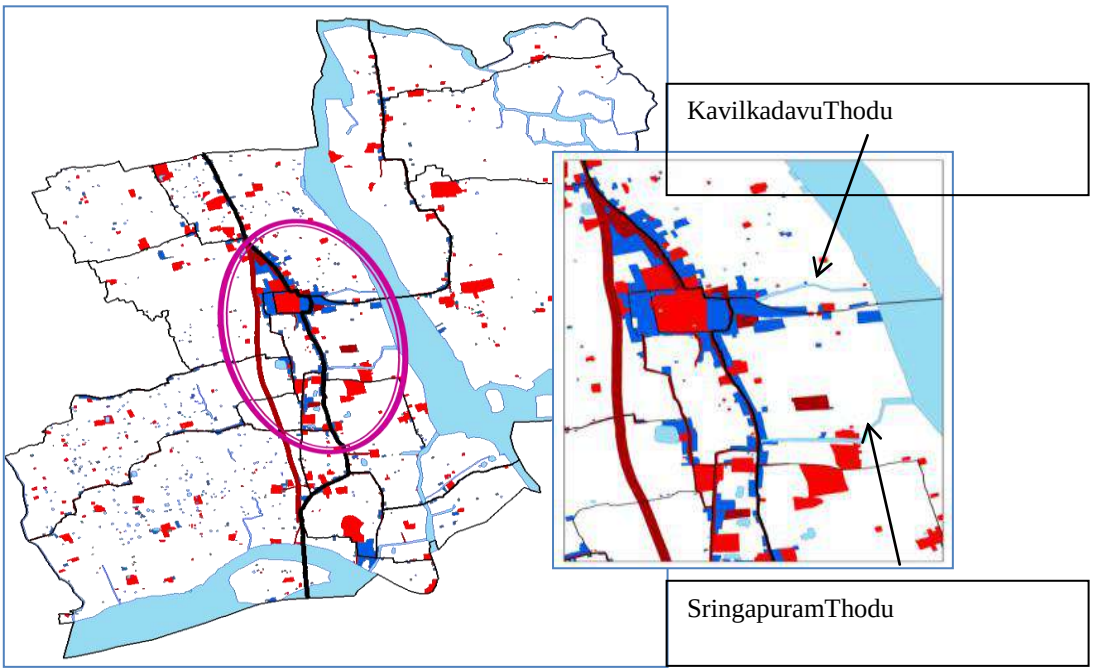


Fig. 13.2 Channels that carry town waste water to river

13.3 Sewage – Existing Scenario

The present system of sewage disposal and treatment is through septic tanks. As per the Socio-economic survey 2012 it can be seen that 96.59% of the families use septic tank and 1.9% use pit latrine. The remaining 1.51% do not have either septic tank or pit latrine. This percentage of people may be those living in sub-standard areas near to the water bodies where hanging toilets are observed to exist. Presently there is no



Polluted kavilkadavu thodu

sewerage system in the town area.

The residential density of Kodungallur is 5934 which being a higher value demands the need of a sewerage system. The soil type of most areas of the town being Coastal Sandy, the percolation of the wastewater from the soak pits can cause the contamination of the underground water sources. The effect of sewage on ground water sources have to be studied due to the peculiarity of soil to assess the type and capacity of an exclusive sewerage system.

13.4 Solid Waste – Existing Scenario

Kodungallur town has a Solid waste treatment plant having a capacity of treating 6 tonnes of solid waste per hour at Chappara in ward 14 of the town area. The treatment plant, a PPP project between municipality and an agency named M/s Eco Health Centre, Edavilangu ,was partially commissioned in 2008. As per the agreement, the land and infrastructure was provided by the town and the machinery was erected by the agency.

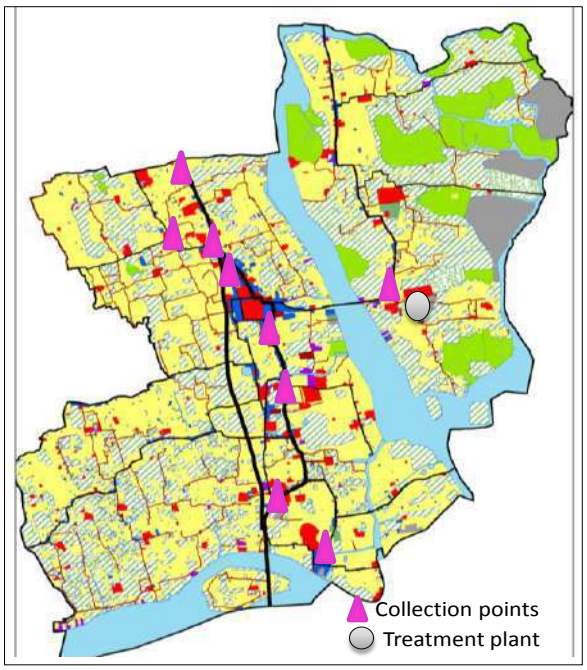


Fig 13.3 Location of treatment plant & secondary storage locations

Presently, a total quantity of 3 tonnes of waste is collected daily from the secondary storage locations (fig 13.3), markets and hotels in various parts of the town. Domestic collection is not being done. Plastic is separated using the automatic plastic separating module in the plant and the biodegradable waste is treated by anaerobic composting. Biogas plant and plastic shredding unit proposed in the agreement have not been implemented.



Solid waste treatment plant-Chappara

During festivals like Bharani and Thalappoli upto 10 tonnes of waste generated is collected and treated. The potential of the

treatment plant is not fully utilized. The erection of biogas plant and plastic shredding unit can make the system more efficient. The place does not have a proper drainage facility, hence during heavy rains there is a potential danger of waste water leaching out. The fragile structure of the plant is also a problem.

13.5 Conclusion

Even though there are a good number of channels, surface drainage is a problem here. Occasional flooding during rainy season has lent a hazardous character to certain areas of the town. The solid waste treatment plant in the town is also not functioning to the fullest capacity. Since the residential density is on the higher side and the type of soil is sandy, there is a need for a sewerage system. Also the natural drains in the town should be cleared of the clutter to ensure a smooth run off.

CHAPTER 14

POWER

This chapter analyses the existing status and development issues of Power sector in Kodungallur muncipality. Existing status, the overall development trend, problems faced, development issues pertaining to the sector and the evaluation of ongoing and committed projects are discussed here.

14.1 Existing scenario

The power requirements of Kodungallur town are met through the supply by Kerala State Electricity Board. It has an existing 66 KV sub-station at Chappara and a 33KV substation is under construction in Methala. In Kodungallur Town the distribution and supply is being carried out by the KSEB through the 11KV feeders at Kodungallur, Mathilakam, Konathukkunnu, Poyya, Paravoor and Azheekode. The distribution network of Kodungallur town is shown in the fig.14.1. The locations of the substations are also shown in the figure. From the figure it is clear that the Konathukunnu and Poyya feeders supply electricity to the wards on the eastern side of canoli canal. Mathilakam, Azheekkode and Paravoor feeder together effect supply to the rest of the wards.

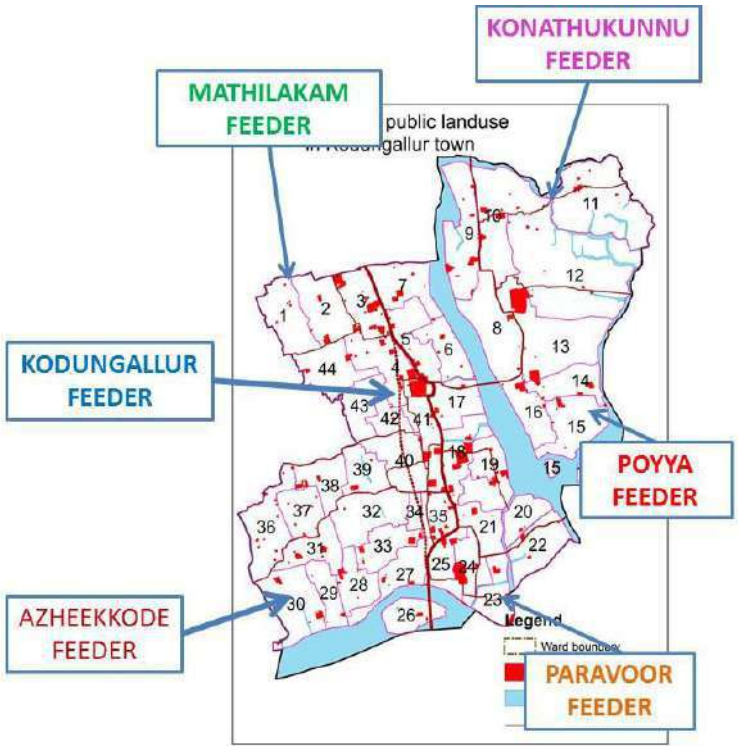


Fig 14.1 Distribution network and locations of substations

14.2 Connections & consumption

The category wise details of connection and consumption of energy is as shown in table14.1 and 14.2.It is represented graphically in the figure 14.3 below. As per the table Kodungallur I and Kodungallur II are the Methala and old town areas respectively.

Table 14.1 Connection details of Kodungallur town area

Sl. No.	Locality	Total No. of connections	Category wise break - up of connections				
			Domes-tic	Industrial	Commer-cial	Agricul-tural	Others
1	No.I Kodungallur	16218	11842	179	2513	1678	6
2	No.II Kodungallur	18617	12553	229	3485	2340	10
Total		**34835**	**24395**	**408**	**5998**	**4018**	**16**

Source: Electrical office

Table 14.2 Consumption details of Kodungallur town area

Sl.No.	Locality	Total consumptions(KWH)	Category wise break - up of consumption				
			Domestic	Industrial	Commercial	Agricultural	Others
1	No.I Kodungallur	3269906	2388892	46992	762340	36689	34993
2	No.II Kodungallur	2830677	2090195	68529	421964	34363	215626
Total		**6100583**	**4479087**	**115521**	**1184304**	**71052**	**250619**

Source: Electrical office

Category wise energy consumption in Kodungallur town shows that the maximum consumption is in domestic sector (73%), followed by commercial sector (19%). Power consumption in industrial sector is only 1.89% and that in agricultural sector is in the range of 1.16%. Other categories consume about 4% of power. The figure also shows that the maximum power connections are in the domestic category (70%) followed by commercial (17%) and agriculture (12%).

Govt. of India, vide order dated 19.9.2008, had announced Restructured Accelerated Power Development and Reforms Program (RAPDRP) for strengthening of State Power utilities and bringing down the Aggregate Technical and commercial (AT&C) losses to 15% by the end of the project period. Under this program, scheme for the upgradation of 66KVsub

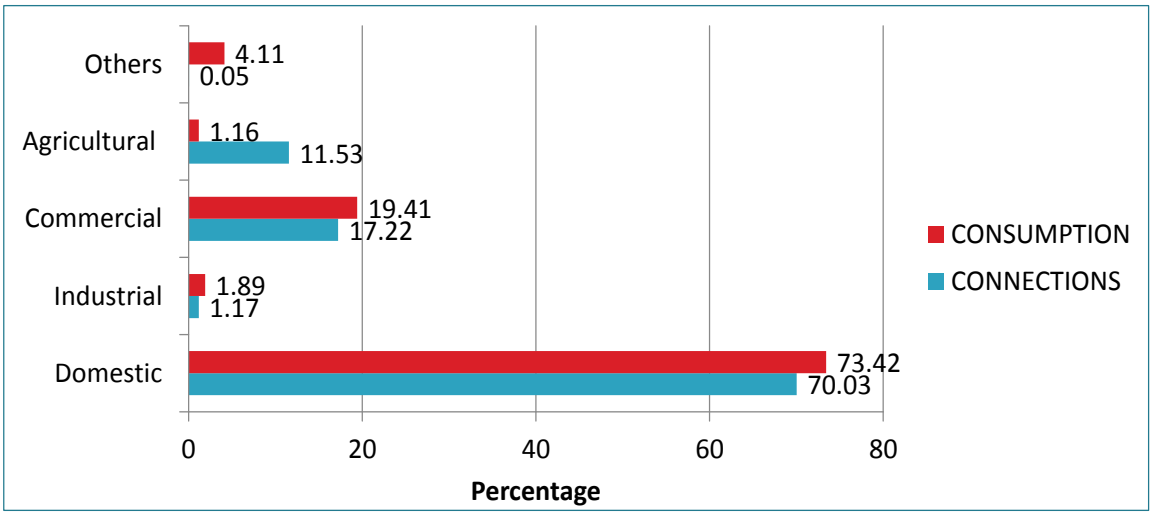


Fig 14.2 Connections Vs Consumption

Source: Electrical office

station to 110KV for Kodungallur area has been sanctioned. Proposal for converting overhead lines to aerial bunched cables near temple areas has been submitted by KSEB. Posts can be shifted nearer to buildings thus making road development possible. Presently underground cabling has not been adopted in the town area.

14.3 Conclusion

As far as the power sector in Kodungallur town is concerned, it can be seen that the major power consumers are in domestic sector. Power consumed for industrial and agricultural purposes is very low. Also use of non-conventional energy sources is not found to be very common in this area. Considering the growing power demand, schemes for capacity addition, transmission loss reduction and increased use of renewable energy sources

have to be adopted. As a measure to adopt renewable sources, all the public buildings may be encouraged to make use of solar power.

CHAPTER 15

EDUCATION

Education is regarded as the measure of civilization in the modern society. Considering the importance right to education has been now made a fundamental right of an Indian citizen by the constitutional amendment in 2010. This chapter details out the existing educational status, basic infrastructural facilities available in this sector and development issues of Educational sector in Kodungallur Town area.

15.1 Existing Scenario

15.1.1 Literacy rate

As per 2011 Census the literacy rate of Kodungallur town is higher than that of state and district, it stands at a lower position when compared to other urban LSGIs in the district. The comparison is shown in fig .15.1 & 15.2. fig 15.1 shows the comparison of literacy rate of Kerala, Thrissur district and Kodungallur town for the year 2011. It shows that the female literacy rate of Kodungallur town is higher than that of Kerala state and Thrissur district. But it can be seen that the female literacy in town area is behind the male literacy level. To equalize male and female literacy level, greater care has to be given in girl child education.

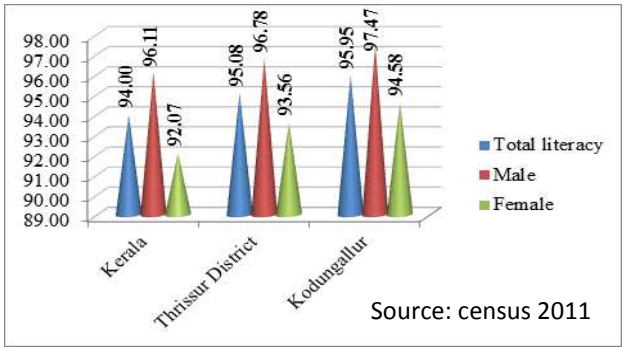


Fig. 15.1 Literacy rate-Comparison with District & State

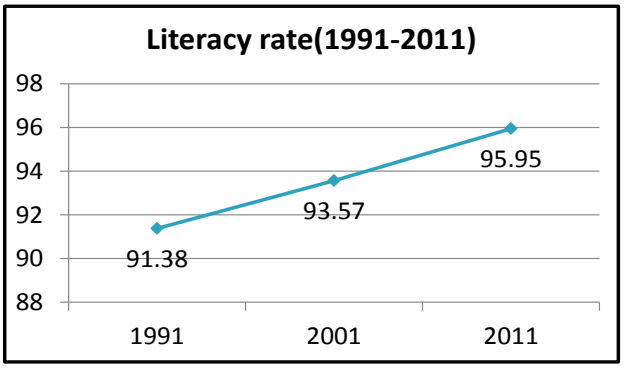


Fig.15.3 Literacy rate- Temporal variation

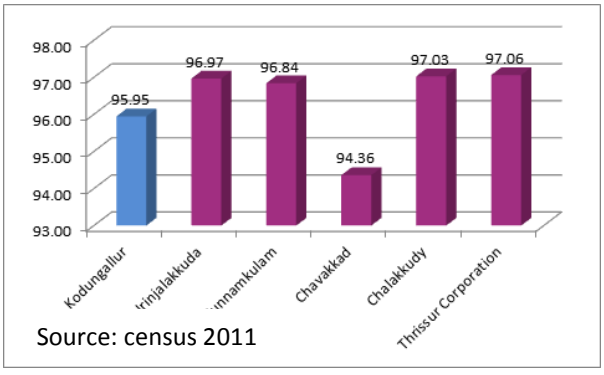


Fig.15.2 Literacy rate-comparison among Urban local bodies

The literacy rate of people in Kodungallur town area during the past decades (fig15.3) shows that the literacy rate of Kodungallur Town area is showing an increasing trend from 1991 to 2011.

15.1.2 Educational Status

The percentage share of people possessing different educational qualification in Kodungallur as per Socio-economic survey 2012 is shown in fig15.4. About 28% of people are having primary education, 36% have high school education, 13% with plus two and 12% with degree qualification. 2.8% of residents have post graduate degree and 0.86% of people acquired technical education. Only 0.97% has achieved Professional graduation.

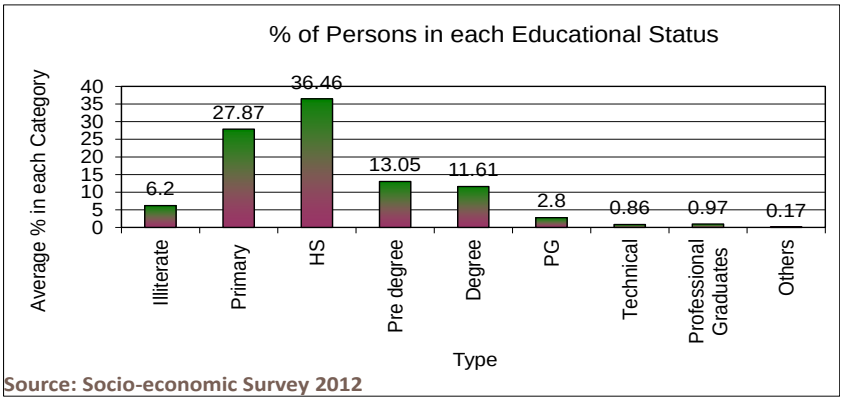


Fig.15.4 Literacy rate-temporal variation

15.1.3 Educational facilities

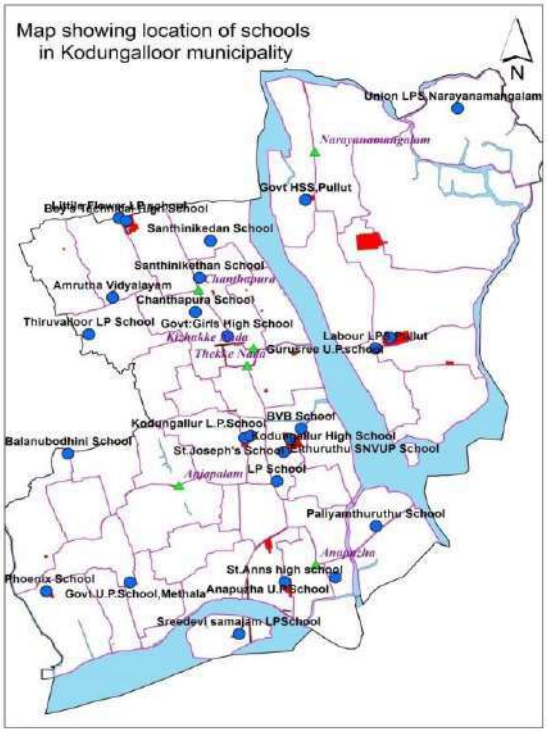
- **Schools**

Kodungallur Town area has 44 schools under different categories. Category wise list is shown in table 15.1 and the map showing location of different schools is shown in fig 15.4

Table 15.1 Categorywise schools

	Category	Govt	Aided	Unaided	Total
1	Primary	9	14	6	29
2	HS	4	1	4	9
3	HSS	3	0	3	6
4	VHSS	0	0	0	0

Source: AEO, DD of education



15.5 Locations of schools

Govt. Girls HSS Kodungallur was established as 'Crangannore Elementary School' in 1896 in 'Sathram Hall' which was connected with the historically famous Kodungallur Sree Kurumba Temple. The School was upgraded as High School in 1925 and later as Higher Secondary in 1998-99.Pullut Govt HSS was established as an LP school in 1911 to accommodate the student population in Pullut area who had to cross the river to come to Kodungallur school. A Junior Technical School for boys also exists in the town area in ward 3.

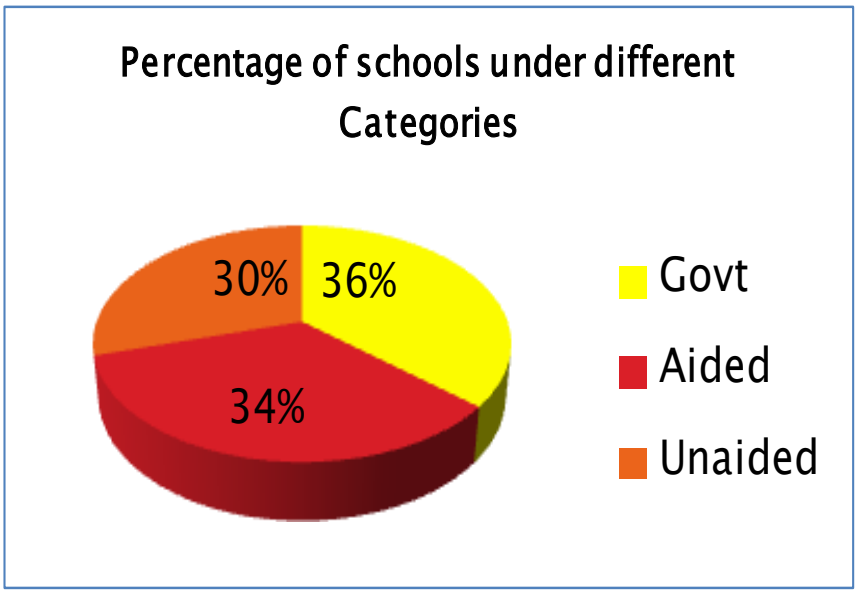


Fig.15.6 Comparison of schools

While comparing the percentage of schools and students in Govt,aided and unaided sectors, it can be seen that all the three categories are equally significant in the town area(fig 15.6)

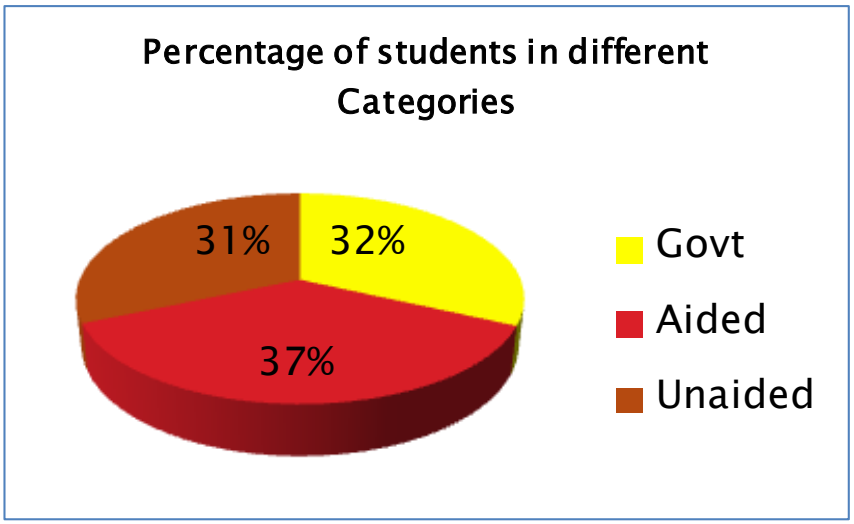


Fig.15.7 Comparison of percentage of schools and students

Many schools in the area lack proper infrastructure facilities. The details are given in Table 15.2. The Govt. Girls HSS functioning in the centre of the town area has serious space constraints. Also inefficient drainage facilities in many schools cause flooding during rainy seasons.

Table.15.2 Infrastructural facilities of schools

Sl. No	Name of School	Avalability of facility		
		Computer Lab	Internet Facility	Play ground
1	St.Thomas.School Sringapuram			✓
2	Govt LPS, Paliamthuruthu	✓		✓
3	Govt LPS, Kodungallur	✓		✓
4	Labour LPS, Pullut	✓		
5	SNVUPS, Elthuruthu	✓		✓
6	Govt UPS ,Pullut	✓		✓
7	KPM.UPS ,Thrikulasekharapuram	✓		✓
8	Sridevisamajam LPS ,VP Thuruthu	✓		
9	CMMO LPS, Kodungallur	✓		✓
10	LFALPS ,Lokamaleswaram	✓		
11	St.Micheals.LPS ,Kottappuram	✓		✓
12	Govt LPS, Thiruvallur	✓		✓
13	Avila Convent LPS, Kodungallur	✓		✓
14	Union.LPS ,Narayanamangalam	✓		✓
15	Santha Mariya EMS ,Kodungallur	✓		✓
16	Govt LPS, Pullut	✓		✓

Source: AEO, DD of education, BRC and direct enquiry

- **Higher & Professional Educational Institutions**

The higher educational institutions and technical institutions available in the municipal area are given in table 15.3 and the location is shown in fig15.7

Table 15.3 Details of higher educational institutions

Arts and Science Colleges

Sl No.	Name of College	Location	Number of students course wise (UG)				Number of students course wise (PG)				Govt/ Aided/ Unaided
			BA	B.Sc	B.Com	Total	MA	M.Sc	M.Com	Total	
1	KKTM Govt. College	Pullut	210	385	Nil	595	54 (Malayalam and History)	Nil	Nil	54	Govt

Technical institutions

Sl No.	Name of College	Details of ownership	Location	Specify the professional course offered	Number of students course wise
1	Dr. Palpu Memorial SNDP Yogam college of education	SNDP Yogam	Undekadavu-elthuruth	B.Ed; Med	B.Ed - 82 ; M.Ed - 16
2	Hindi prachara kendra college of Teacher Education	Charitable trust	Chandappura	B.Ed;	B.Ed - 85
3	St.Thomas ITC, Kottappuram	Charitable trust	Kottappuram	Drafts man civil	42
4	HM ITC Cheraman malik manzil	Charitable trust		Civil & Fitter	68

5	Indian institute of Engineering and techonology	Private	South Nada	Automobile Engineering	53
6	KIDS ITC	Private	Kottappuram	Mechanical Engineering & electrical Engineering	ME-21, EE-42
7	Govt.ITC	Govt	Pullut	Carpentry	21
8	Jnana Deepa Vidyapeedham	Charitable trust	T.K.S Puram	MBA,BBA,BCA,B.Com with CA	MBA-20,BBA-30,BCA-20,B.Com with CA-60

Source: AEO, DD of education, BRC and direct enquiry

Govt. KKTM College in Kodungallur Town area was named after the famous scholar and poet Kunjhikuttan Thampuran. He is also known as The Kerala Vyasan for his great epic poem 'The Maha Bharatha'. It is a B grade college that comes under University of Calicut. The college was established on 1st July 1965,to commemorate the services rendered by the late poet Kunhikuttan Thampuran to Malayalam literature. The inspiration behind KKTM Govt. College is the belief that an educational institution would be a fitting memorial for his enviable literary achievements. The college was managed by a trust, Kodungallur Kunhikuttan Thampuran Education Trust, until it was taken over by the Govt. of Kerala in 1972.

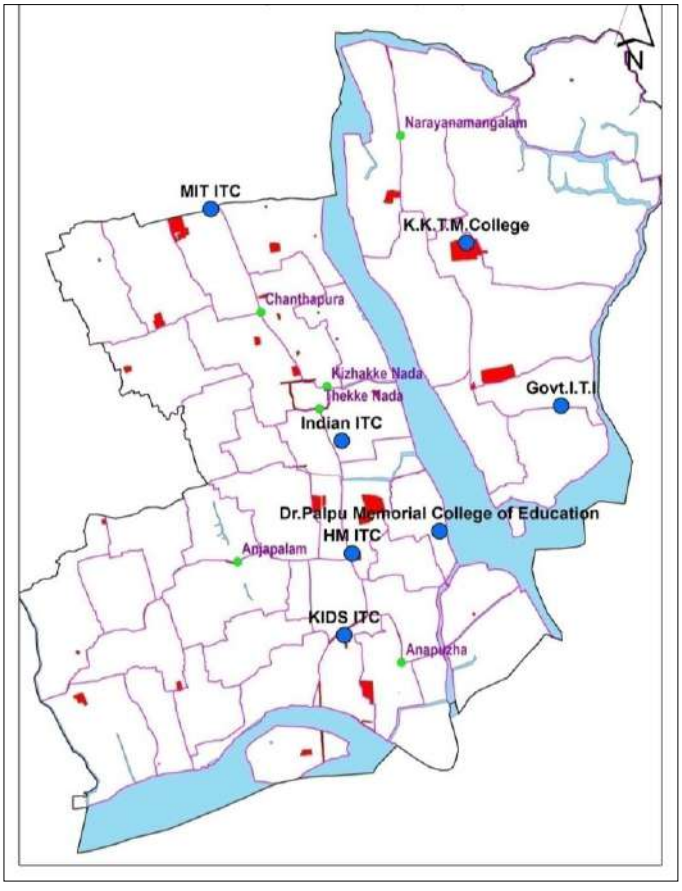


Fig 15.8Locations of higher educational facilities

Other higher educational institutions available in the nearby areas of Kodungallur town are shown in table 15.4.

Table 15.4 Nearby higher education institutions

Name	**Category**	**Local body**
MES Asmabi College,Vemballur	Arts & Science College	Edavilangu
Sreerama Polytechnic,Thriprayar	Technical	
Govt. Polytechnic,Koratty	Technical	
Universal Engg College,Vallivattom	Professional	
Sahrudaya College of Engg & Tech.,Kodakara	Professional	
SNM Institute of Management & Tech,Moothakunnam	Professional	
Presentation College of Applied Sciences,Puthenvelikkara	Professional	
SNG Institute of Science & Tech, N.Paravur	Professional	
Sree Narayana Institute of Medical Sciences,Chalakka	Professional	

Source: AEO, DD of education, BRC and direct enquiry

- **Other facilities**

Science Centre

It is a registered organization working in the field of Science & Technology,established in the Industrial estate at Methala. The centre conducts Science camps, Science day celebrations and other projects under Town and Science & Technology Dept. It is also involved in development of science exhibitions, mobile science museum, low-cost technology for livelihood projects etc.

- **Observatories**

There are two observatories of medium type set up to help the innovative students develop their interest in astronomical science at Thiruvallur School and Science Centre, Methala.

15.2 Educational facilities as per planning standard.

The educational facilities required as per planning standards is given in Table 15.5

Table 15.5 Planning standards and requirements

	Category	No of students	Index	Required	Available
1	High school	700 students	1 HS for 13000 ppn	6	9
2	Higher secondary	400 students	1 HSS with 8 div: for 13000 ppn	6	6
3	Arts and Science college	500 students	1 Arts and Science college for 80,000 ppn	1	1
4	Professional college	250 students	1 professional college for 2,50,000 ppn		
5	Polytechnic College	150 students	1 polytechnic for 36000 ppn	1	Not available
6	ITC/ITI	300 students	1 ITC/ITI for 35000 ppn	2	5

Source: AEO, DD of education, BRC and direct enquiry

It is observed from the table that basic educational facilities available in the Town area are sufficient in quantitative terms. But in qualitative terms the facilities are below standard. Professional colleges are available in the nearby areas of the town. A polytechnic is required in the town area as per planning standards.

15.3 Conclusion

The average literacy rate of the town is higher than that of the state as well as the district. But among the urban LSGIs, Kodungallur has a lower literacy. Even though, a good number of educational institutions are there in the town, the infrastructural facilities available in them are yet to be improved. For all the needs for higher educational facilities people can depend on the next higher order settlements like Ernakulam or Thrissur. Planning standards reveal that there is a need for a polytechnic in the LSGI.

CHAPTER 16

HEALTH

The development of a region and its people are directly linked with healthy and hygienic ways practiced there. Hence providing for all health related facilities to its people free of cost should be one of the prime goals of the development plan. This chapter analyses the existing status of the health sector in Kodungallur Town. It includes Allopathy, Ayurveda and Homeo sectors both Government and Private sector in the Town area.

16.1 Introduction

Human development and improvement in quality of life are the basic aims of any planning process. Health facilities if provided on prescribed norms and standards within any settlement helps in improving the quality of life of inhabitants. Again availability of Govt Hospitals are important as it is affordable for all income groups. The progress of a city largely depends on the quality of health enjoyed by its citizens, besides its location and accessibility to the community at large.

16.2 Existing Scenario

16.2.1. Health indicators

Integrated disease surveillance program (IDSP) enables the reporting of diseases on a daily basis. This gives an idea about the occurrence of various diseases in different parts of the district. It also enables to understand the pattern of diseases. The demographic indicators available at the district level are given in table 16.1. This shows that the district itself is in a good position in

Table 16.1 Demographic Indicators

DEMOGRAPHIC INDICATORS (2009-2010)			
HEALTH INDICATORS	THRISSUR	KERALA	INDIA
Life Expectancy	73	74	63.5
Infant mortality rate('000 Population)	3.8	12	53
Postnatal Mortality Rate (PMR)	3.78	12	37
Maternal mortality rate (MMR) (*lakh live births)	53	110	301
Birth rate ('000 population)	17	14.6	22.8
Death rate ('000 population)	4.1	6.6	7.4
Total fertility rate (Children / Women)	1.7	1.7	2.9
Couple protection rate (%)	64	62.3	52
Sex Ratio (M/F)	1000/1109	1000/1084	1000/940
Sex Ratio (M/F) 0-6 years	1000/948	1000/959	1000/914

Source : Municipal office Kodungallur &Primary enquiry

comparison with the state and the country. The maternity mortal rate and the infant mortality rate available at the block level is consulted and is seen that both the indicators are reasonably lower which shows the better health standards prevalent in the area (Table16.2)

Table 16.2 Blockwise MMR & IMR

No	NAME	MMR 2009-2010	IMR 2009-2010
1	CHAVAKKAD BLOCK	1.1	12.1
2	CHOWANNUR BLOCK	0.33	1.5
3	WADAKKANCHERY BLOCK	0	10.5
4	PAZHAYANNUR BLOCK	0.58	1.7
5	MULLASSERY BLOCK	1.22	4.9
6	PUZHAKKAL BLOCK	0.3	1.8
7	OLLUKKARA BLOCK	0.19	1.9
8	ANTHIKKAD BLOCK	0	11.5
9	CHERPU BLOCK	0	0.4
10	MATHILAKOM BLOCK	0.76	10.7
11	IRINJALAKUDA BLOCK	0	12.6
12	KODUNGALLUR BLOCK	0	1.6
13	VELLANGALLUR BLOCK	4.61	20.7
14	MALA BLOCK	1.09	9.8
15	KODAKARA BLOCK	1	7.5
16	CHALAKUDY BLOCK	0.43	6.9
17	THALIKULAM BLOCK	0	4

Source: Socio Economic Survey 2012

16.2.2 Health Infrastructure

Kodungallur Town has one hospital and four dispensaries under Government sector, nine hospitals and 29 clinics under private sector out of which 27 are in Allopathic sector, 7 are in Homoeopathy system and 6 are in Ayurveda. The details are given in table 16.3

- **Allopathic system of medicine**

Started in 1890 by His Highness RamavarmaThirunal, the Taluk hospital has been a major health institution benefitting people in and around Kodungallur. It holds a total number of 176 beds with 19 doctors. It has facilities like X-ray, ECG, Laboratory, Blood bank, Operation



Theatre etc.

This is located in the town centre which makes it accessible from all places.

There is a primary health centre functioning in the Methala area. The dispensary has one doctor catering to the people in Methala and surrounding areas.

Apart from the above facilities in the Government sector, Kodungallur town has 8 hospitals and about 17 clinics serving the area in the private sector. The hospitals here are categorised based on the facilities available as given in the table 16.4. There are two superspeciality hospitals functioning in Kodungallur, the details of which are given in table 16.5

Table 16.3 Hospitals in Kodungallur Town

Type of hospital	No of Hospital/ dispensary	No of Doctors	No. of Beds
Allopathic	27	130	912
Ayurveda	6	9	51
Homeopathic	7	8	0
Others	3	4	0

Source: Taluk Hospital Kodungallur

Table 16.4 Categorywise classification of allopathic hospitals

Categorywise number of allopathic hospitals		
Category 1	Clinics only OP	17
Category 2	Hospitals with 24 hrs service	1
Category 3	Hospitals with single Operation theatre	4
Category 4	Hospitals with more than one OT	3
Category 5	Hospitals with advanced diagnostic facilities like CT scan, EEG	0
Category 6	Super specialty hospitals	2
Category 7	Referral Hospital (Govt. Sector)	0

Source : Municipal office Kodungallur &Primary enquiry

Table 16.5 Super speciality hospitals in Kodungallur

Sl NO	Name of Hospital	Location	Number of beds	Number of Doctors	Remarks
1	Craft Hospital	Lokamaleswaram	150	18	Super specialty in Gynecology and pediatrics
2	Modern Hospital	Chanthappura	180	20	Superspecialty in Urology and Neurology

Source : Municipal office Kodungallur &Primary enquiry

- **Ayurvedic& Homeopathic systems of medicine.**

Two Government ayurvedic dispensaries and four other ayurvedic clinics under private sector are functioning in the municipality. Because of the growing popularity and awareness on its safety, people are turning to ayurvedic treatment. Hence it is inevitable to strengthen the Government Ayurveda institutions. One govt homeopathic dispensary and 6 private clinics are functioning at Kodungallur. Fig 16.1 shows the spatial distribution of major government and private hospitals. From the figure it can be inferred that people from all parts of the municipality has access to either of the form of treatment facility. For higher order treatment facility people of this LSGI are depending on Kochi or Thrissur where there are facilities including medical colleges. The wards on the eastern side of canoli canal do not seen to have the presence of a health centre or a hospital.



Craft Hospital Kodungallur

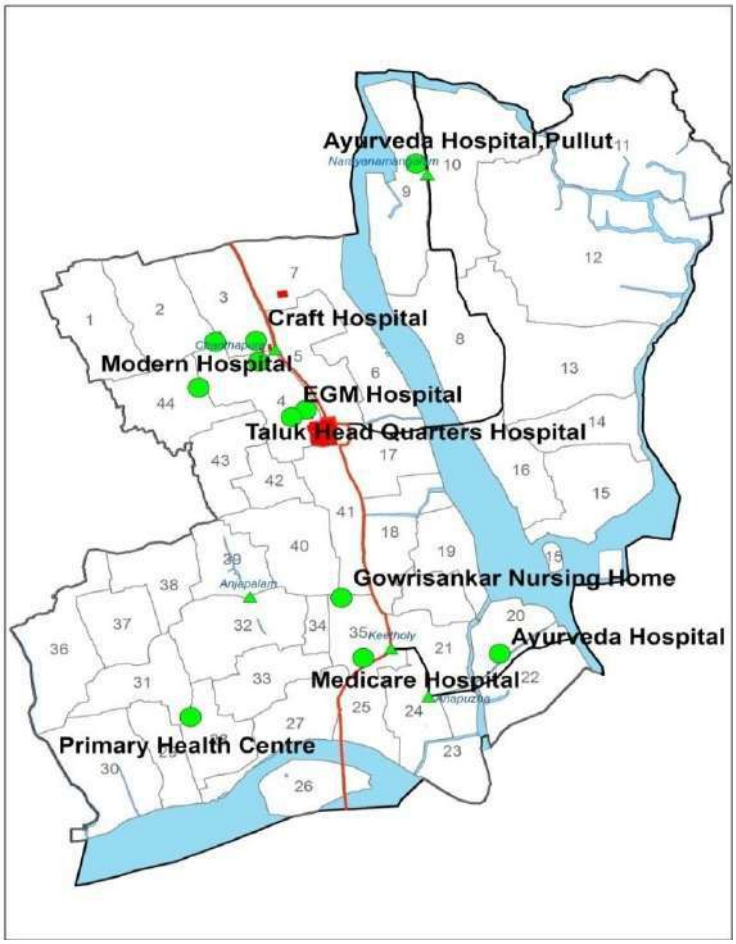


Fig.16.1 Location of hospitals

16.2.3 Disease pattern

As per the data obtained from the health department, the incidences of epidemics found in Kodungallur town during the last year is shown in table 16.6 and their spatial distribution is shown in fig 16.2

It can be seen that instances of Leptospirosis was found mostly near the banks of the Pullut river in wards 6,7. Also few instances of Dengue fever and Chikun guinea was also found in the municipal area. These locations are found to low lying and included in flood zonation area. Hence the hygienic practices there must be having an influence on this.

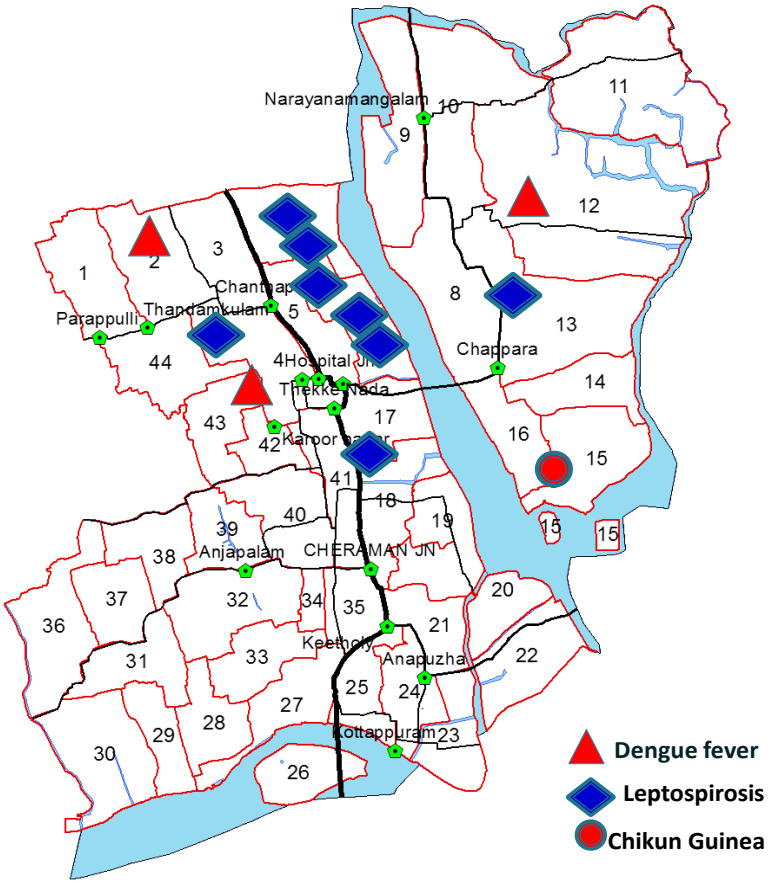


Fig. 16.2 Incidence of epidemics

Table 16.6 Occurrence of Diseases

Name of disease	No. of persons affected	% of curing
Denku fever	3	100
lepto	8	62.5
Chicken guinia	1	100
Malaria	1	100

Source : Socio Economic data 2012

16.3 Planning standards

As per the planning standards (table 16.6) health facilities are sufficient in Kodungallur Town area. The planning standard as per the UDPFI Guidelines are given below in table 16.7

Table 16.7 Planning standards

Category	No. of Beds	Standard as per UDPFI	Required no of beds	Available no of beds-govt	Available no of beds-pvt
General Hospital	500	1 for 2.5 lakh population	-		
Intermediate Hospital (Category A)	200	1 for 1 lakh population	200	-	539
Intermediate Hospital (Category B)	80	1 for 1 lakh population	-	160	156
Nursing home, Child welfare and Maternity centre	30	1 for 0.45 lakh population	30	15	41

On primary verification it can be seen that the infrastructural facilities available in the government institutions are not upto the mark and hence need to be improved.

16.4 Conclusion

From the foregone discussions, it is evident that there are sufficient facilities in all the three systems of medicine in the LSGI. There are even super specialty hospitals here. But the physical condition of the institutions needs to be upgraded to meet the rising demand.

CHAPTER 17

SOCIAL INFRASTRUCTURE

This chapter deals with the infrastructure facilities provided in the town for the safe and comfortable living of the residents. This covers housing sector, recreational facilities and other civic amenities. Recreation is an important aspect for a healthy mind. There can be both active and passive recreation. The various possibilities for recreation available here are discussed. The amenities provided by the authority for the wellbeing of the people are civic amenities. The various are discussed here. Also the housing scenario and condition of housing are looked into.

17.1 Recreational Facilities

Recreational facilities constitute an important element of physical and social development of an individual and for that reason, their provision and balanced spatial distribution at the local, sub-city and city level assumes importance. Accordingly, it would be important that city is divided into compact and sustainable communities and recreational facilitiesof appropriate order is made

Table 17.1 List of Cinema halls

Name	Location	Plot area	Capacity
Asoka	Thekkenada	35 cents	555 seats
Menaka	Kottappuram	30 cents	417 seats
Silpi	Methala	32 cents	470 seats
Sri Kaliswary	Thekkenada	56.5 cents	464 seats



Municipal park - Kodungallur

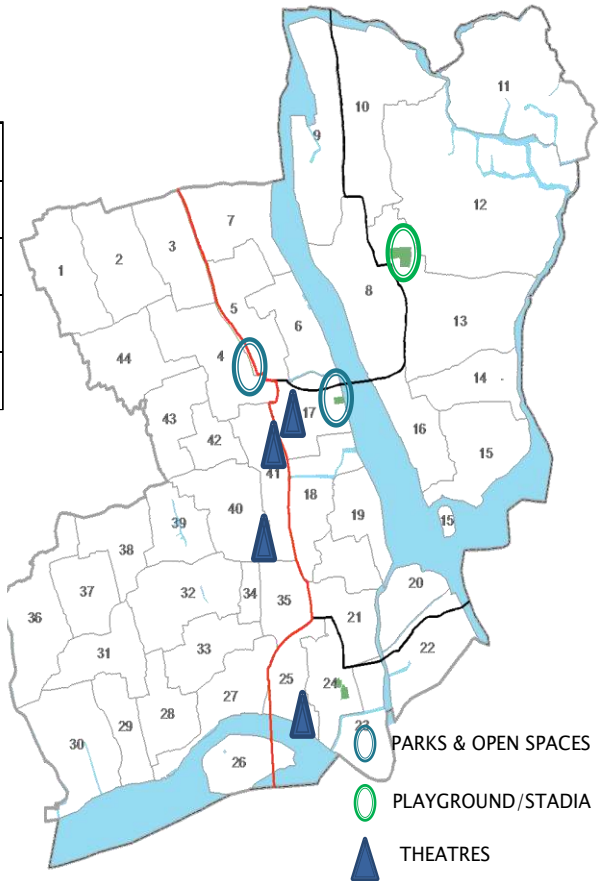


Fig 17.1 Location of recreational facilities

available to these communities to serve the population residing there. Recreational areas in town include parks, open spaces, recreational club, and cinema halls etc. In Kodungallur town, parks and open spaces constitute only 0.15% of the land use. A Municipal park of area about 60 cents in ward 17 is in a dilapidated condition and requires maintenance. The Police Maidani at Vadakkenada is a small ground used for purposes of holding meetings and melas. A playground is there in the KKTM College campus. Also the open space along with the Cheraman Parambu is also being utilized as a public ground. Figure 17.1 shows the location of various facilities.The various cinema halls in the town are listed in table 17.1

17.2 Civic Amenities

The other amenities of the city include Town hall, police stations, fire station, fuel station, cremation grounds etc. Each urban area must have these amenities to serve its growing population. As the city expands and its function increases, so do the requirement for such amenities.The various civic amenities provided in the town are detailed below.

The Municipal Town hall is situated near Chanthappura. It has a hall and dining hall of total area 3000Sft. The building is in a bad condition and renovation is

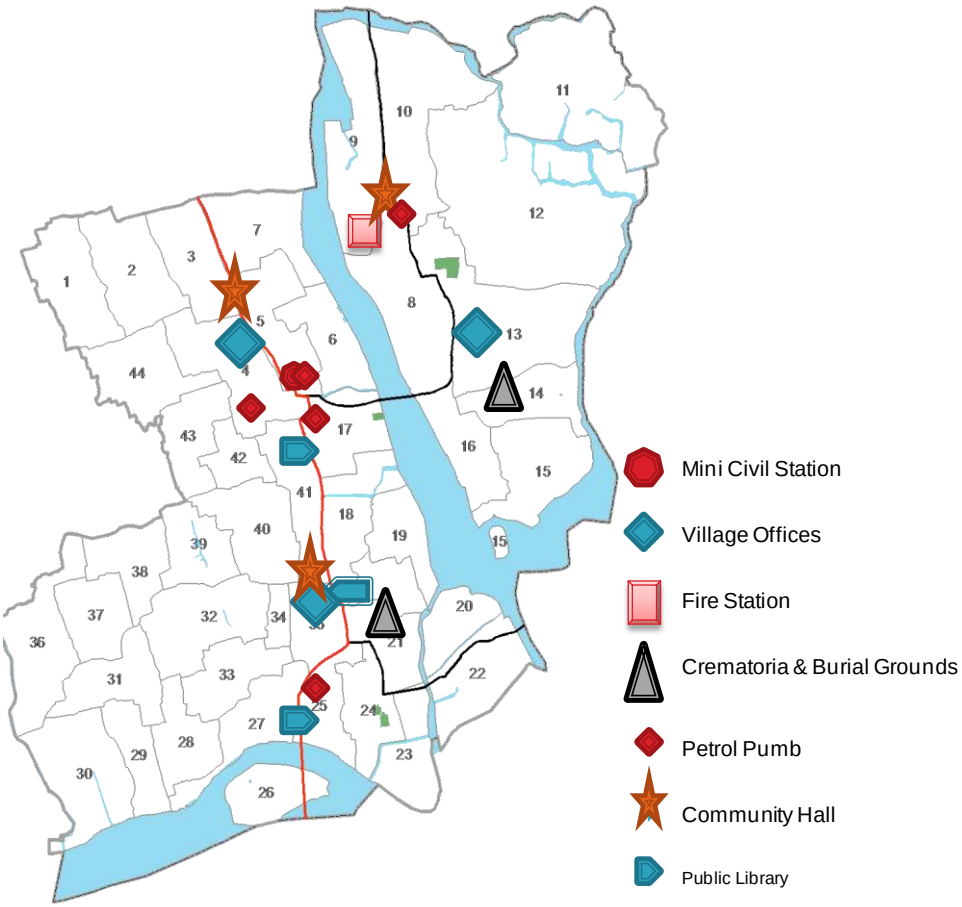


Fig 17.2 Location of civic amenities

necessary. Community halls owned by the town are there at Pullut and Methala. The municipal library is at Thekkenada at the old municipal building. It houses around 10000 books and is in need of renovation. Public Libraries are also present at Methala, Kottappuram and Pullut. The Mini Civil Station occupying several Taluk level offices and the Munsiff Court is at Vadakkenada.

A Fire station is in the process of being erected in ward 9. The Police station is at Vadakke Nada at the town centre very near to Munsiff court, Mini civil station and Municipal office.

A gas crematorium on a 50 cent plot has been built at Chappara in ward 14. A burial ground at ward 25 at Methala is not being used presently.

Two LPG godowns, one of Indane and one of Bharath Gas, exist at Thiruvallur and Padanna respectively. 5 petrol pumps are located in and around the core area of town. It can be seen that the available social infrastructure present here are sufficient except for community hall as per UDPFI guidelines. But the physical condition of these need to be improved.

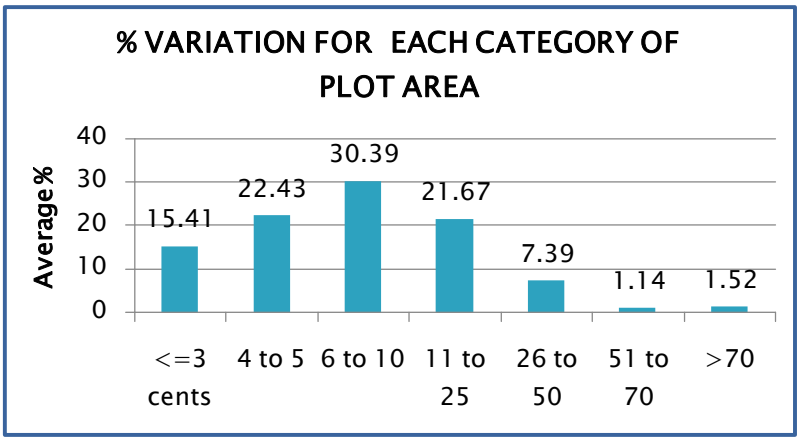


Fig. 17.3 Variation of plot area

17.3 Housing

As per the Land use survey conducted, about 41.36% of the land is used for residential purposes in Kodungallur town. Considering the fact that about 18% of the area comes under waterbodies,marshy lands and other vacant space, the residential

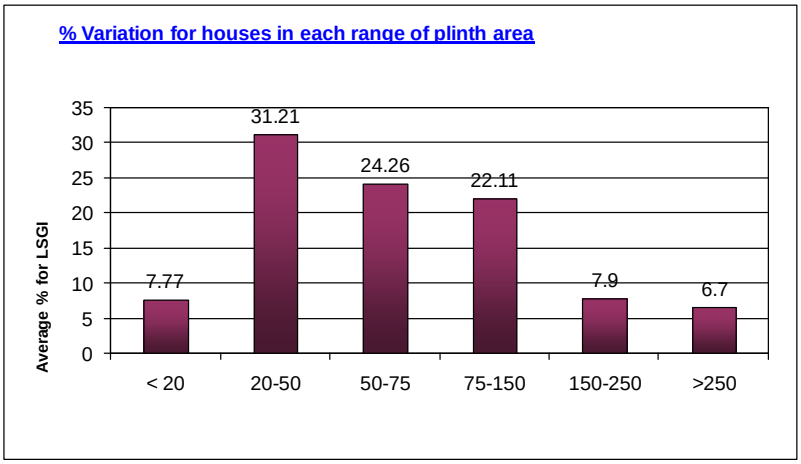


Fig. 17.4 Variation of plinth area

landuse area covers a major chunk of the utilizable area in the town. Also, the proximity to Kochi has made Kodungallur a suitable area for residential settlement for those who depend on the city for a living. The existing scenario is analysed based on two primary surveys conducted here. One is the Socio Economic survey and the other one is the Slum Survey. As per Socio-economic survey 2012, about 16% of the total households are having plot area less than 3 cents. Majority of the households are found to have between 6-25 cents of land. The details are given in figure 17.3. About 8% of the total houses are of plinth area less than 200 Sq.ft. Most of the houses are of an area around 1000 sqft. Details are given in figure 17.4. Another detail reveals that about 5% of the total buildings come under the Kutcha category. The ward-wise distribution of such houses is shown in figure 17.5. From the discussion it is clear that the general scenario of housing is satisfactory in the area.

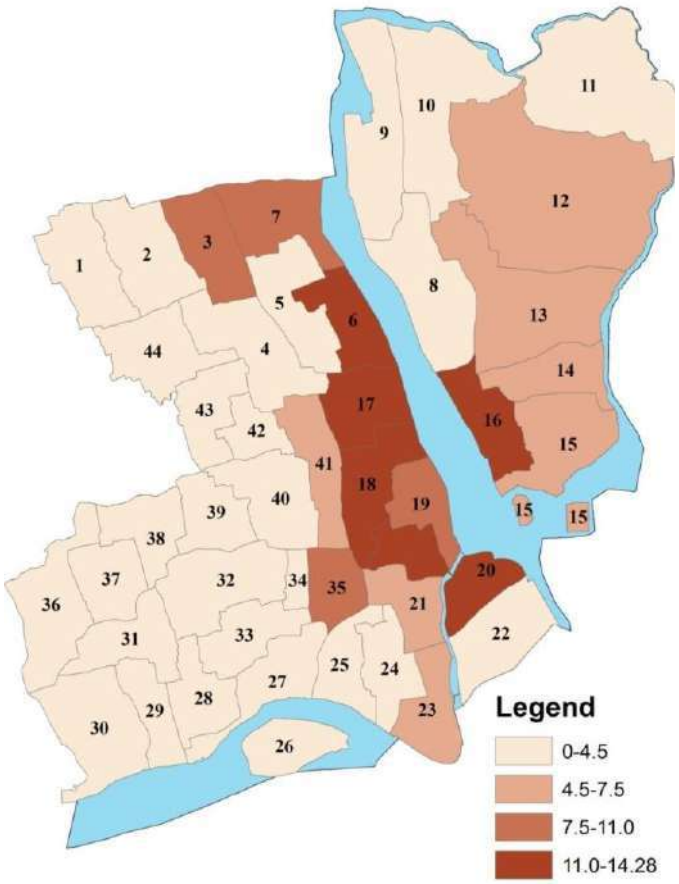


Fig 17.5 Distribution of Kutcha housing areas
Source: Socio economic survey-2012



A detailed survey to identify the sub-standard housing area was conducted covering nearly 33 colonies in the municipal area. They were then graded based on the availability of access, safe drinking water, house condition, sanitation facility available and electric supply availability. The result was recorded as follows. 1.In bad condition (grade C), 2.Medium (grade B), and 3.Better than medium (grade A).As per the slum survey conducted, the sub-standard housing areas identified in

Kodungallur town area are given below in table 17.2. The spatial distribution of these colonies is shown in fig 17.6.

Most of the B and C graded colonies had limited infrastructural facilities. Housing and sanitation conditions were found to be poor. Problems of insufficient water supply were also found. The presence of hanging toilets in some colonies was also a serious issue affecting the health and hygiene of the community.

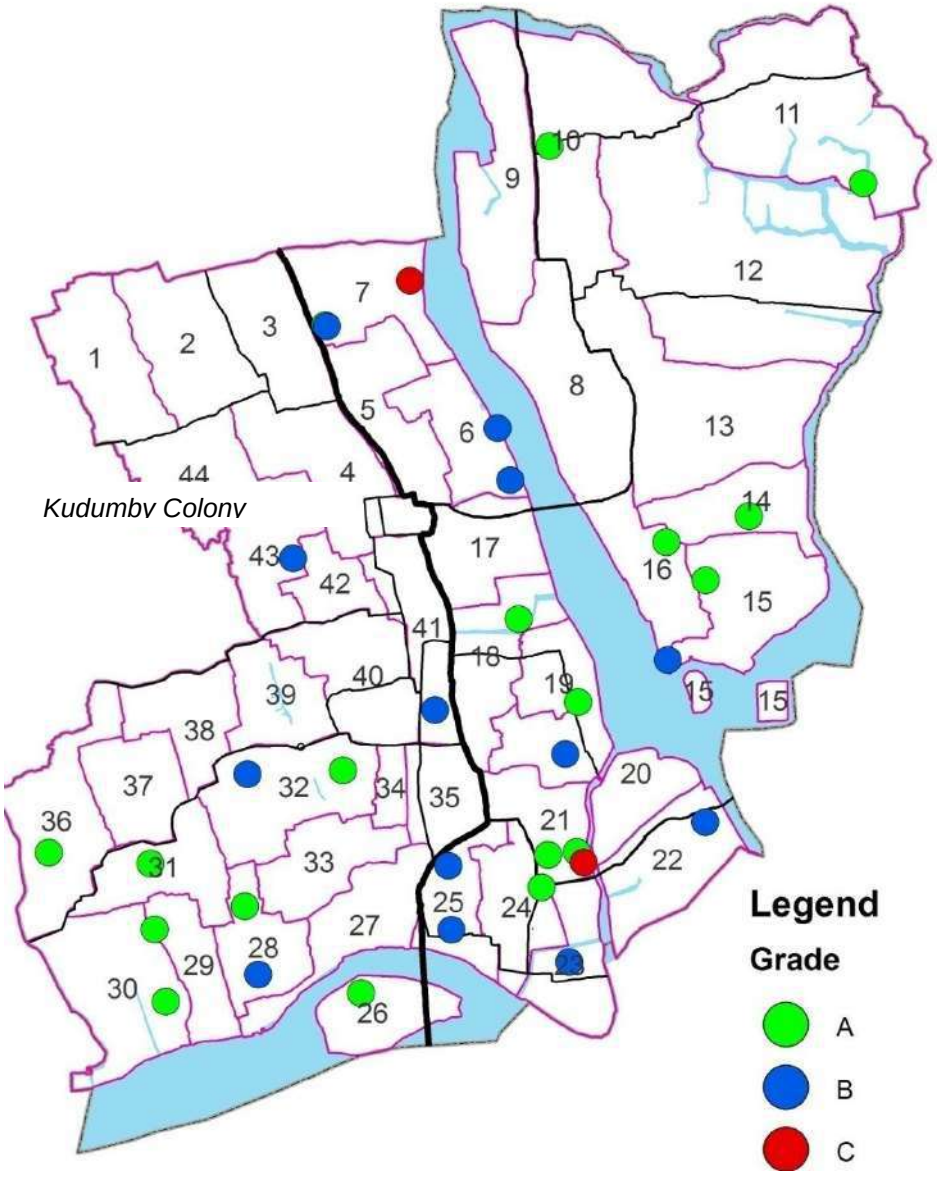


Fig 17.6 Distribution of sub-standard housing areas

Table 17.2 Sub Standard housing area - Grading

Sl No:	Name of the Settlement	Ward	Grade
1	VayalarAraamkandam SC Colony	7	C
2	Vazhippura Colony	21	C
3	Rattupura Colony	6	B
4	Kudumbi Colony	6	B
5	VayalarLakshamveedu Colony	7	B
6	Panthirampala Colony	15	B
7	Punaradhivasa Colony	20	B
8	AnapuzhaPunarathivasa Colony	22	B
9	Madamkulam Colony	23	B
10	Menaka Colony	25	B
11	Vandiparambu Colony	25	B
12	Meenpattipadam Colony	28	B
13	Chandiparambu Colony	32	B
14	Arakulam colony	41	B
15	Alechumparambil Colony	43	B
16	SC colony	14	A
17	Kulaparamba Colony	15	A
18	ChapparaLakshamveedu colony	16	A
19	SNDP Colony Sringapuram	18	A
20	Elthuruthu Colony	19	A
21	Thekkekkunnu Colony	11	A
22	NarayanamangalamLakshamveedu colony	10	A
23	Anappuzha fishermen Colony	21	A
24	KaithavalappuLakshamveedu Colony	21	A
25	PC ThazhamLakshamveedu Colony	24	A
26	VP ThuruthuHarijan Colony	26	A
27	Kandamkulam Colony	29	A

28	**Ambedkar Colony**	**29**	**A**
29	**Nelliparambu Colony**	**31**	**A**
30	**Vadassery Colony**	**31**	**A**
31	**AnchappalamLakshamveedu Colony**	**32**	**A**
32	**Coir Society Colony**	**36**	**A**
33	**Kulappura Colony**	**7**	**A**

Source: Municipal Office Kodungallur

17.4 Conclusion

On a detailed analysis, it is seen that the recreational facilities and amenities like community halls and libraries are insufficient for the population residing in the town especially in the western side of Methala Village which is thickly populated. The existing facilities are in a dire need of renovation or replacement. The housing needs of the people have to be met with and necessary steps to be taken to fill the housing shortage. Providing the basic amenities like drinking water, sanitation facilities, road access to the needy has to be a main development priority. The two C grade colonies, Vayalar Arankandam SC Colony and Vazhippura Colony need to be urgently attended to.

CHAPTER 18

SPECIAL CONCERN AREAS

This chapter analyses the status of socially backward and the families below poverty line (BPL) in the town area. This includes women, children, aged, differently abled, BPL and scheduled caste people.

18.1 Existing scenario

18.1.1 Women

Women constitute 52.35% of the total population in the town. Sex ratio of 1099 and child sex ratio of 961 indicate the increased life expectancy of female population. The female literacy rate has been increasing through the years (Fig 18.1). Female workforce participation rate has also increased in the last decade. It is clearly stated that women are actively participating in the development scenario of the area.

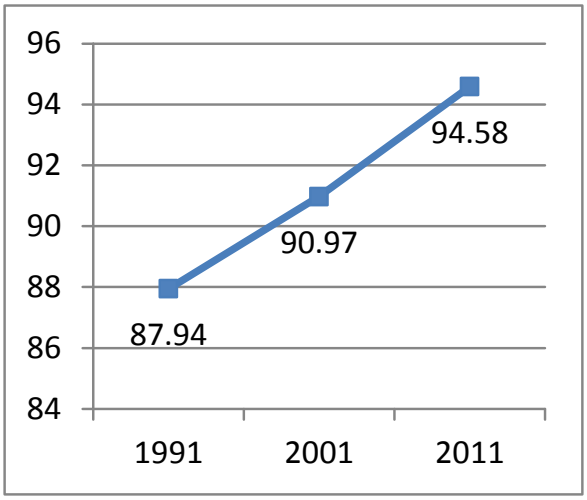


Fig 18.1 Decadal variation of Female literacy rate

State Poverty Eradication Mission otherwise known as Kudumbashree addresses poverty focusing on the empowerment of women. In Kodungallur town, Kudumbasree units have played a major role in women empowerment. More than10000women through 621 neighbourhood groupsare involved in various activities through Kudumbasree in the municipality.Considering the existing scenario, increased efforts are needed to ensure the further upliftment of women through schemes for self-employment and to provide a secure living atmosphere.

18.1.2 Children

As per Census 2011, the 0-6 age group population is 6404 which is about 9% of the total population. Out of this 3265 are males and 3139 are females. Majority of anganwadis function without own buildings. Better infrastructural facilities have to be provided in anganwadis. It is necessary that the expansion and improvement in the quality of early

childhood care, with primary attention given to the girls, be ensured through ICDS in remote and socio- economically backward areas.

childhood care, with primary attention given to the girls, be ensured through ICDS in remote and socio- economically backward areas. Prathyasa, school for the differently abled is present in the municipal area. Care need to be taken to provide necessary facilities to the institution.

18.1.3 Aged

As per Socio-economic survey 2012, about 7% of the total population consists of persons of age more than 75. An old age home at Narayanamangalam and a Pakalveedu at Methala are the facilities present in the municipal area for this age group. Proper attention should be given by providing support system and rehabilitation to the senior citizens.

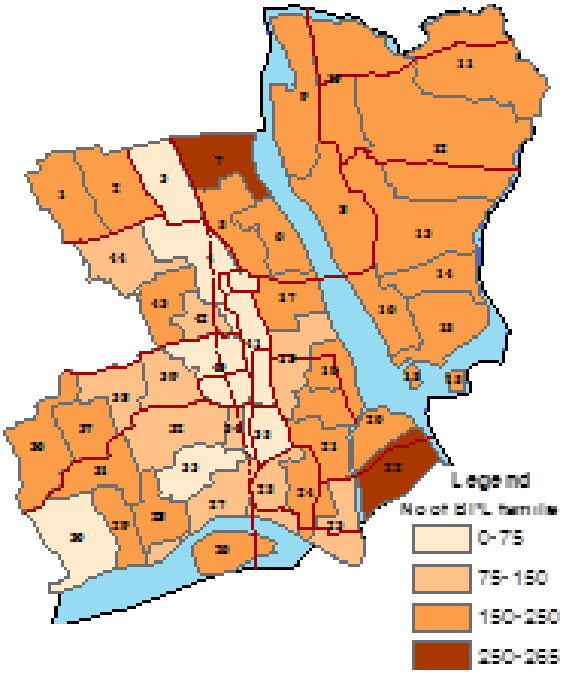


Fig 18.2 BPL Families distribution

18.1.4 Economically weaker sections (BPL)

The economic status of the BPL people is evaluated based on the occupational structure and average annual income of BPL population. The BPL survey conducted during 2011-2012 reveals that the BPL population are mainly employed as coolie and 7118 families comes below poverty line. This is about 40% of the total households in Municipal area. The BPL concentration of families in the town is given below in fig 18.2. It can be seen that wards 7 & 22 have the highest number of BPL families.

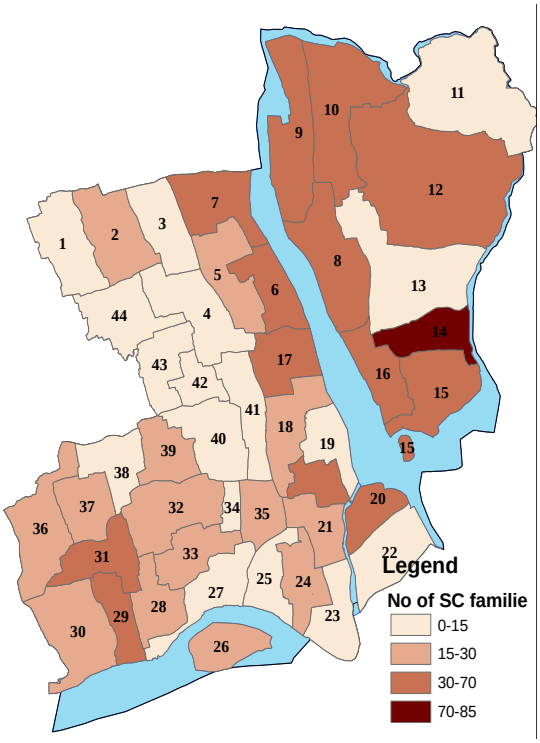


Fig 18.3 SC Families distribution

Source: BPL survey-2011-2012 by Municipality

18.1.5 Scheduled Caste/ Scheduled Tribe

As per the Survey list of SC promoters 2012,the total number of SC families is 1075. Majority of them are engaged as Coolie and average family income comes to 18000 – 21000.The ward-wise concentration of SC families in the municipality is given in fig 18.3. It can be seen that ward 14 (Chappara ward) has the highest number of SC families.

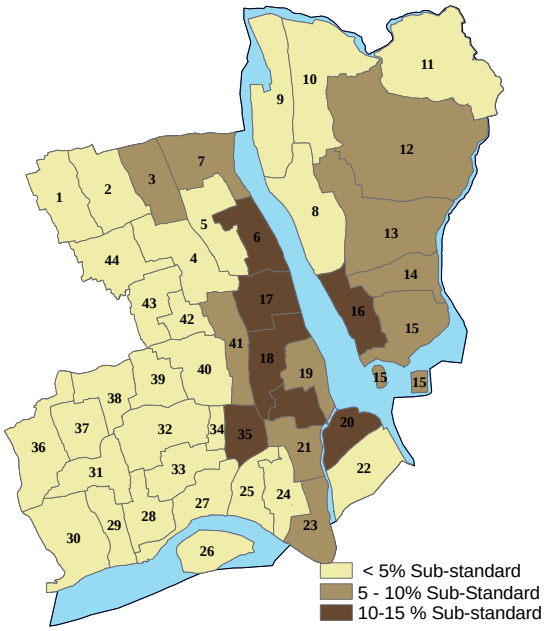


Fig 18.4 Distribution of sub-standard areas

Source: Municipal office

Fig 18.4 shows the ward-wise distribution of sub-standard housing areas as per Socio-economic survey 2012. It can be seen that the BPL and SC family concentration are also found in these areas. Hence it may be assumed that even though a number of schemes are operating for uplifting the weaker community, these programs are not achieving the required result.

18.2 Conclusion

From the discussion conducted in the chapter, it may be concluded that this growing urban area has a good share of people below poverty line. Though scheduled tribe community is absent, the plight of the scheduled caste people is not promising enough. The schemes operating for the well-being of the child population is yet to bring in good results. Women have evolved through the decades as a force in the economic scenario.

CHAPTER 19

ENVIRONMENT

From many of the earlier discussions it has been made evident that Kodungallur is blessed with a number of fragile areas. This part of land is even included in the hazard and flood zones. Environmental protection is very important for a healthy living. Air, water and land have to be protected from pollutants. The practice of preserving natural species, resources and biodiversity for the future generation has gained much significance in the present era. The back waters, paddy fields, natural channels, ponds and mangroves, the environmentally significant areas in Kodungallur, are detailed below.

19.1 Existing Scenario

Kodungallur is a town situated on the banks of the river Periyar before it joins the Arabian Sea as Kodungallur Kayal and Azheekkode Kayal with a major presence of streams and ponds. The Pullut River (Canoli canal) and Kodungallur Kayal are integral parts of Kodungallur. The natural channels connected to Periyar and Pullutriver in Kodungallur municipal area are mostly saline in nature. The presence of Periyar river, Pullut River, various streams and ponds, prawn filtration fields and mangroves in the waterlogged areas causes Kodungallur to be the habitat for many flora and fauna. The lower reaches of Periyar was well known for easy availability of various

Table 19.1 Details of environmentally sensitive areas

Details	No./Area	Location
Periyar river		
Canoli Canal		
Mangroves	21.75 Ha	Naykkulam & Nr.KKTM
Wetlands	276 Ha	Pullut
Thodu	Perumthodu	
	Vijayan thodu	
	Kavilkadavu thodu	
	Sringapuram thodu	
Ponds	200-300 Nos	

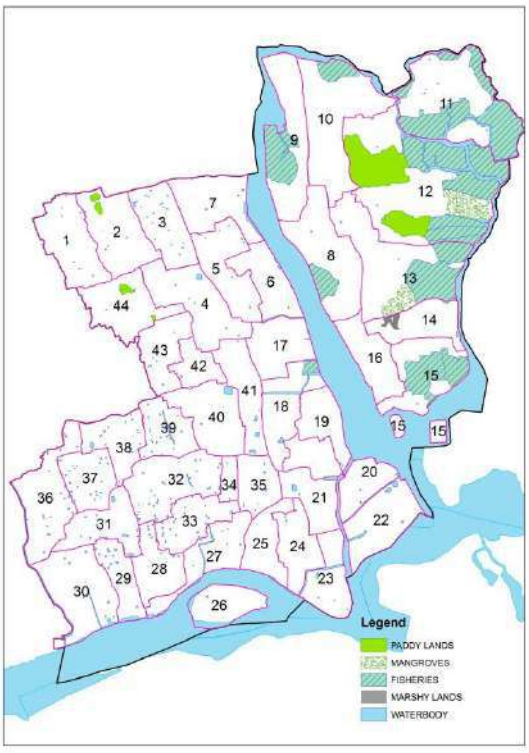


Fig. 19.1 Details of environmentally sensitive areas

types of fishes like Pearlspot, Palankanni, Kanambu, Thirutha, Koori etc. along with a variety of shell fishes which includes crab, prawn, shrimp and so on. The details of the environmentally fragile areas are given in the figure 19.1 and table 19.

19.1.1 Periyar River (Kodungallur Kayal)

River Periyar flows in to the sea throughthe southern boundary of Kodungallur town area as Kodungallur Kayal. It meets the sea at about 2kilometers after the municipal boundary at Azheekkode.The shores of the backwater are included in CRZ category 3.Also as per the multiple hazard zonation map by Centre for Earth science and studies, the southern

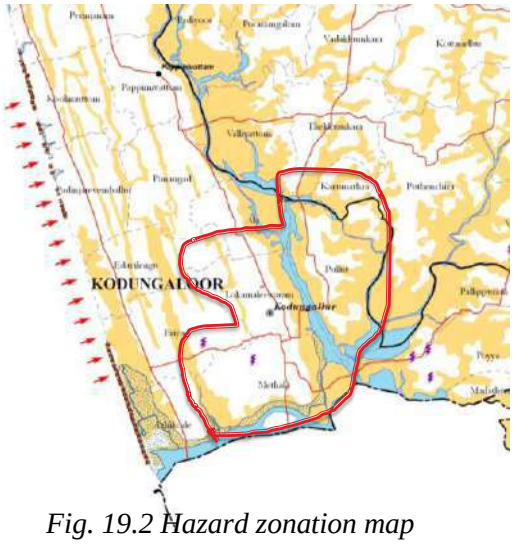


Fig. 19.2 Hazard zonation map



Kodungallur Kayal

shore areas of Kodungallur municipality is considered as vulnerable to tsunami and flood disasters. Taking into account the environmental importance, it is required to demarcate the boundaries and steps taken to protect the area. The findings of the natural hazard zonation study is given in figure 19.2.



Pullut River

19.1.2 Pullut River (Canoli Canal)

The Pullut river flows through Kodungallur municipality and joins the Kodungallur Kayal at Anappuzha. The shores of this river is also under Coastal regulation zone

Category-2. Flood hazards have been predictedas per the multiple hazard zonation maps by Centre for Earth science and studies.

19.1.3 Natural Channels

Numerous interconnected channels (thodus) exist in the town connected to the Kodungallur Kayal and Pullut River. Most of them are saline in nature. Perumthodu in the west boundary of the methala village, Vijayanthodu near ward 21, Manimakkamthodu near ward 27, Sringapurathodu in ward 18, Kavilkadavu thodu in ward 17 and Thachappilly thodu near ward 12 are some of the major channels.

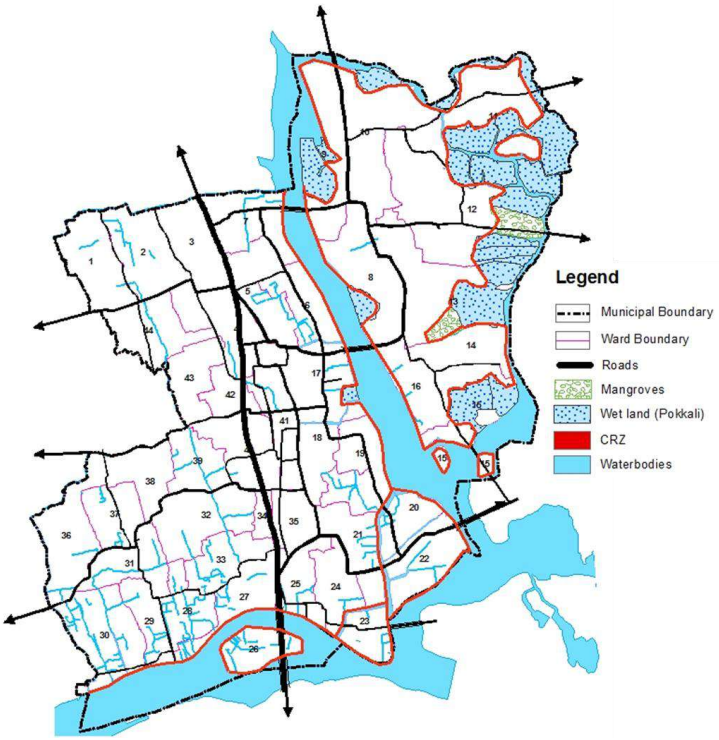


Fig 19.3 Mangroves

19.1.4. Mangroves & Marshy Lands

Marshy lands are situated in the eastern regions of Pullut village in ward 11, 12,13 and 15 which are being utilized as prawn filtration fields. Mangroves also exist in various parts of these areas. The prawn filtration fields have been classified as CRZ Category 1. Flood hazards have been predicted through the natural channels existing in these areas.(figure 19.3)

19.1.5 Wetlands

Paddy lands exist in wards 2,12 and 44 in the municipal area. Most of the paddy land is lying without cultivation. About 200-300 ponds both private and public exist in the town area.



Wet lands

19.2 CRZ regulations prevailing in the area

In Kodungallur municipality Mangroves and prawn filtration fields are existing at the north-eastern region of municipal area. A 50m belt around these area are categorised as CRZ-I as per the Coastal Zone Management Plan

Norms for regulations of activities permissible in CRZ-I (Existing use means existing Norms as on 19/2/1991 CRZ notification)

(1) no new construction shall be permitted in CRZ-I except,-

(a) projects relating to Department of Atomic Energy;

(b) pipelines, conveying systems including transmission lines;

(c) facilities that are essential for activities permissible under CRZ-I;

(d) installation of weather radar for monitoring of cyclones movement and predictionby Indian Meteorological Department;

(e) construction of trans harbour sea link and without affecting the tidal flow of water, between LTL and HTL.

(f) development of green field airport already approved at only Navi Mumbai;

The areas in the old municipal limits located in the shores of Pullut river is categorized under CRZ-II

Norms for regulations of activities permissible in CRZ-II (Existing use means existing Norms as on 19/2/1991 where in CRZ notification)

(1) Buildings shall be permitted only on the landward side of the existing road, or on the landward side of existing authorized structures;

(2) Buildings permitted on the landward side of the existing and proposed roads or existing authorized structures shall be subject to the existing local town and country planning regulations including the 'existing' norms of Floor Space Index or Floor Area Ratio:

Provided that no permission for construction of buildings shall be given on landward side of any new roads which are constructed on the seaward side of an existing road:

(3) reconstruction of authorized building to be permitted subject with the existing Floor Space Index or Floor Area Ratio Norms and without change in present use;

(4) facilities for receipt and storage of petroleum products and liquefied natural gas as specified in Annexure-II appended to this notification and facilities for regasification of Liquefied Natural Gas subject to the conditions as mentioned in sub-paragraph (ii) of paragraph 3;

(5) desalination plants and associated facilities;

(6) storage of non-hazardous cargo, such as edible oil, fertilizers and food grain in notified ports;

(7) facilities for generating power by non-conventional power sources and associated facilities;

The areas in the old panchayat limits of Methala located in the shores of the backwaters are included in CRZ-III.

Along tidal influenced water bodies, area upto 100mts or width of creek whichever is less is earmarked as No Development Zone.

(1) The NDZ shall not be applicable in such area falling within any notified port limits;

(2) No construction shall be permitted within NDZ except for repairs or reconstruction of existing authorized structure not exceeding existing Floor Space Index, existing plinth area and existing density and for permissible activities under the notification including facilities essential for activities;

(3) however, the following activities may be permitted in NDZ –

(a) agriculture, horticulture, gardens, pasture, parks, play field, and forestry;

(b) projects relating to Department of Atomic Energy;

(c) mining of rare minerals;

(d) salt manufacture from seawater;

(e) facilities for receipt and storage of petroleum products and liquefied natural gas as specified in Annexure-II;

(f) facilities for regasification of liquefied natural gas subject to conditions as mentioned in subparagraph (ii) of paragraph 3;

(g) facilities for generating power by non-conventional energy sources;

(h) Foreshore facilities for desalination plants and associated facilities;

(i) weather radars;

(j) construction of dispensaries, schools, public rain shelter, community toilets, bridges, roads, provision of facilities for water supply, drainage, sewerage, crematoria, cemeteries and electric sub-station which are required for the local inhabitants may be permitted on a case to case basis by CZMA;

(k) construction of units or auxiliary thereto for domestic sewage, treatment and disposal with the prior approval of the concerned Pollution Control Board or Committee;

(l) facilities required for local fishing communities such as fish drying yards, auction halls

net mending yards, traditional boat building yards, ice plant, ice crushing units, fish curing facilities and the like;

(m) development of green field airport already permitted only at Navi Mumbai.

CRZ for backwaters of Kerala

In view of the unique coastal systems of backwater and backwater islands alongwith space limitation present in the coastal stretches of the State of Kerala, the following activities in CRZ shall be regulated as follows, namely:-

(i) all the islands in the backwaters of Kerala shall be covered under the CRZ notification;

(ii) the islands within the backwaters shall have50mts width from the High Tide Line on the landward side as the CRZ area;

(iii) within 50mts from the HTL of these backwater islands existing dwelling units of local communities may be repaired or reconstructed however no new construction shall be permitted;

(iv) beyond 50mts from the HTL on the landwardside of backwater islands, dwelling units of local communities may be constructedwith the prior permission of the Gram panchayat;

(v) foreshore facilities such as fishing jetty, fish drying yards, net mending yard, fishing

processing bytraditional methods, boat building yards, ice plant, boat repairs and the like, may be taken up within 50mts width from HTL of these backwater islands.

19.3 Conclusion

From the discussion foregone it can be very well concluded that Kodungallur has a great number of fragile areas which need to be taken care of while formulating the future plan for Kodungallur. The high density of population and the flood prone nature should be carefully integrated.

CHAPTER 20

DEVELOPMENT ADMINISTRATION & FINANCE

The role of different departments in development works in Kodungallur and the details of income and expenditure incurred for development works are detailed in this chapter.

20.1 Development Administration

20.1.1 Kodungallur Municipality

Kodungallur Municipality is the major agency implementing development works in the municipal area. The development works under the responsibility of Municipal Council are detailed below.

- Construction of Municipal roads and their maintenance.
- Public health - Primary health centre, Community health centre.
- Solid waste disposal.
- Construction of public market and their maintenance.
- Public cremation ground and its construction procedures.
- Open spaces, parks and their construction works.
- Providing infrastructure in slums.
- Protection of common ponds.
- The institutions transferred to the Municipal Council are Schools, Hospitals and other institutions

20.1.2 Kerala Water Authority

Water supply to all parts of the municipality is dealt by the Kerala Water authority. Office of the KWA is situated at Narayanamangalam.

20.1.3 Kerala State Electricity Board

The Electricity distribution system is maintained by the Kerala State Electricity Board. The Assistant Executive Engineer's office of the Kerala State Electricity Board is functioning in Chappara in Kodungallur municipal area.

20.1.4 Kerala State Public Works Department

The upkeep of the highways, major district roads and other roads which are not under the municipality is done by the PWD. PWD office is present in the Mini Civil Station located in the municipal area.

20.1.5 Other institutions functioning in the municipal area

1. Munsiff court
2. Circle Inspector's office
3. Krishi Bhavan – Kodungallur,Methala
4. Food inspector's office
5. Village Offices – Lokamaleswaram, Pullut, Methala

The offices functioning in the Mini Civil Station are listed below

1	Sub Treasury
2	Town Employment Exchange
3	Assistant Public Prosecutor Office,
4	Taluk Offices
5	Taluk Supply Office
6	Sub-Registrar Office
7	P.W.D. Offices
8	Irrigation Sub-Division Office
9	Dairy Development Office
10	Coir Inspector Office
11	SC/ST Development Office
12	Commercial Taxes Office
13	Sub-Regional Transport Office
14	Bar Association Office
15	Advocate's Clerk Office
16	Legal Metrology Office
17	Minor Irrigation Office
18	Taluk Statistical Office
19	Taluk Industries Office
20	Assistant Labour Office
21	Fisheries Development Office
22	Irrigation Section Office

20.2 Municipal Fund

All cash received by the municipal corporation constitute a fund called the Municipal Fund (Fund) under the Kerala Municipality Act 1994 (KM Act 1994). The items of income credited to the Fund consist of the following:

- Own source revenue which includes taxes, duties, cess and surcharge, fees from licenses and permissions, income from municipal properties, and income from other miscellaneous items;
- Share of the taxes levied by the Government and transferred to the Municipal Corporation;
- Grants released to the municipal corporation by the Government for the implementation of schemes, projects and plans formulated by the Municipal Corporation;
- Grants released to the municipal corporation by the Government for implementation of schemes, projects and plans assigned or entrusted to the Municipal Corporation under the KM Act 1994;
- Money rose through donations and contributions from the public and non-governmental agencies.

20.3 Revenue

Revenues are recorded only when received while expenditures are only recognized when paid. The Revenue Account deals with the recurring Revenue Receipts and Expenditures of the municipal corporation. The revenue account of Kodungallur municipality for the years 2010-2011, 2011-2012 & 2012-2013 are given below.

Table 20.1 Revenue Account Income Of Kodungallur Municipality

REVENUE ACCOUNT - INCOME			
Head of Account	**2010-2011**	**2011-2012**	**2012-2013**
Taxes	13466916	21822888	25819445
Non-Tax	9014656	11350671	20073626
Grants	37744265	123553961	104652533
Assigned/Shared Revenue			
Total Revenue Income	**60225838**	**156727520**	**150545604**

Source: Municipal office, Kodungallur

Total revenue income is increasing from 2010-2011 to 2012-2013. It increased from about 6 crores to 15 crores within three years.

Table20.2 Revenue Account Expenditure Of Kodungallur Municipality

REVENUE ACCOUNT - EXPENDITURE			
Head of Account	**2010-2011**	**2011-2012**	**2012-2013**
Establishment expenses	19022048	30442003	37970201
Administrative expenses	2779491	4314707	9199281
Operation & Maintenance expenses	11522825	30588490	12311951
Interest & Finance	81734	3723	8061
Programme expenses	30516942	45113616	85073685
Revenue Grants,Contributions,Subsidies	838434	11976123	5000
Provisions & Writeoff	369924		
Depreciation	176007	430742	852347
Total Revenue Expenditure	**65307405**	**122869404**	**148031698**

As per table 20.2, revenue expenditure is also found to increase from 6.5 crores to 14.8 crores within a time period of three years. But referring table 20.1 and 20.2 there is not enough balance which can be used for development activities. Hence measures have to be taken for improving the tax collection performance.

Property Tax is the biggest source of own tax income of the Municipality. It can be seen that the main income for the Municipality is from taxes collected. It can be found from the data that the tax collected have only a slight increase from 2010 to 2013. Tax collected is the main source of income to Municipality and hence measures have to be taken to increase this so that revenue collection can be increased.

20.4 Conclusion

The key financial issues affecting the municipality that need immediate attention are

- There is significant scope for improving the tax collection performance. Municipality must exercise all its statutory powers to enforce collection from chronic defaulters. In addition, it must also explore other means like extensive public awareness campaign or reminder to settle property tax, appointment of tax collectors on commission basis, giving discounts or other incentives for early payment, full or partial condonation of surcharges if past accounts are settled in full, etc.

- The database on property holdings is outdated. The last survey of properties was carried out in late 1980's. Municipality must undertake a detailed survey to identify properties that are not included yet in the tax net. In addition, it must speed-up computerization of the database.

- Level of resource mobilization is very low.

- Central or State assistance in projects for infrastructure development is not efficiently utilized.

CHAPTER 21

FINDINGS

The major findings and inferences arrived at from both the settlements and sectoral analyses are listed here.

21.1 Regional Setting

- Kodungallur Town lies in the South western part of the district , almost equidistant from Thrissur and Kochi
- As per State Urbanisation report, town holds a future 5th order hierarchy in urban centres.
- As per IDDP of Thrissur district, Kodungallur, Methala & Eriyad LSGIs falls under multifunctional zone II and are a part of Economic Development Corridor connecting Thrissur & Ernakulam
- As per DEVELOPMENT PLAN FOR KOCHI CITY REGION 2031 (Draft), Kodungallur is envisaged to act as a second order urban cluster. A transit oriented development corridor connecting Cherthala, Piravom, Angamaly and Kodungallur is proposed.
- Both Kodungallur town and Eriyad holds urban character. Also Eriyad is a probable future urban LSGI (Within 10 years). Field visits conducted revealed that urban character was not so prominent in Eriyad Gramapanchayat. Hence the planning area was confined to Kodungallur town.

21.2 Demography

- The total population of the LSGI shows an increasing trend and constitutes nearly 2.24% of that of the district.
- Among the nearby LSGIs and other municipalities Kodungallur has the highest population.
- Population growth rate is decreasing and is lower than the urban and district average values.

- Gross population density of the town is 2456 persons per sq.km as per 2011 census which is comparatively high among the nearby LSGIs and 3rd highest among municipal towns next only to Chavakkad and Thrissur Corporation.
- Net population density is highest among municipal LSGIs of Thrissur District
- Certain wards have density lower than district average and certain wards have density higher than corporation average.
- Sex ratio is lower than district average.

21.3 Occupational Structure

- WPR in the last decades shows a steep increase which indicates that people are increasingly engaged in productive economic activities for most of the year.
- Kodungallur has the highest WPR among the urban local bodies and also shows a moderate value among neighbouring local bodies of Thrissur District
- There is a decrease in cultivators and agricultural labourers between1981- 2011. This shows the diminishing nature of agricultural activities in this area.
- Majority of workers are engaged in other workers category and the once predominant sectors of Agriculture and Industry are declining

21.4 Land use

- About 41.36% of the land is occupied for residential purposes.
- The western part of Kodungallur, that lies to the west of Canoli canal are very densely occupied and the eastern portions have lower residential intensity with majority of land area being low lying and marshy.
- As per the functional character derived, only very few wards are showing rural character which shows the decline in primary sector and the development of the town as a residential settlement depending mostly on tertiary sector.

21.5 Industry

- Most of the Micro industries are agro based, engineering based and others.
- Industrial use constitutes only 0.36% of the total land area
- Traditional industry is facing extinction due to scarcity of expert workers, high cost of production, environmental problems. Potential for production of value added items is seen here.
- There is a potential for fish processing units and fish manure production units.

- Potential for coconut based processing units is assessed.
- Small scale industries with Household units have more potential as the Municipality is thickly residential.
- Industrial estates are not utilized to its full potential.

21.6 Trade & Commerce

- 2.10% of the municipal area has been used for commercial purposes.
- There is deficiency of parking areas at major commercial nodes
- Public comfort stations are not present at major nodes.
- Insufficient space for loading and unloading at Kottappuram market is a major problem here.
- Kottappuram market area not utilised to its full potential and can be renovated/redesigned

21.7 Tourism

- Information centre not available at major centres.
- Potential for Circuit trips connecting major destinations of the city and around the town.
- Potential for aquatic games, house boats, boating trips and, farm tourism are identified.
- Public comfort stations, drinking water facilities and accommodation facilities for tourists are not sufficient.
- Low cost accommodation facilities and parking facilities for tourists during Bharani&Thalappoli are not sufficient.

21.8 Agriculture & Animal husbandry

- Agricultural activity is on the decline. Salinewater intrusion is affecting agriculture. Necessary steps are to be taken to rejuvenate the potentials available at places like Pullut and Thiruvallur.
- There is potential for homestead cultivation and floriculture nurseries

- Pokkali rice cultivation is being done in a very small scale. Efforts are to be made to retain its ecological significance and to produce good quality organic rice.
- There is a good potential for fodder cultivation in fallow lands.
- No licensed Slaughter house is there in the city.

21.9 Fisheries

- The back waters are not really exploited for its potential for species like Crab,Mussel and Oyster and for Brackishwater Farming
- Integrated fish farming can be promoted to ensure sustainability and more income.
- Development of Tourism Fisheries and sport fishing may be promoted to develop the sector.
- Development of processing centres for value addition of cultured fishes should be focussed on.
- Around 200-300 freshwater ponds present in the municipality which can be utilized for inland fisheries, should be utilized.
- Potential for ornamental fish culture is there in various parts of the town.
- Indiscriminate exploitation of young ones and juveniles of marine fishery resources from their natural nursery grounds such as backwaters and mangroves leads to depletion of fishery resources.
- Spread of fish/shrimp diseases is very prevalent.
- Lack of diversification of aquaculture practices and their allied activities such as marketing, availability of good quality seed, feed etc affect this sector badly.
- Due to pollution of waterbodies, fish catch is declining in backwaters. Exporting facilities are not available. Fish catch sold in local markets only.
- The available fisheries infrastructure is not utilised to its full potential.

21.10 Traffic & Transportation

- Heavy movement of vehicular traffic along the NH 66 and inadequate carriageway width,

- Inter-mixing of intra-town and inter-town traffic on the NH road corridor in the absence of alternate road links makes it uncontrollable.
- Unorganized on-street parking in the absence of proper parking lots creates havoc.
- Movement of inter-town bus traffic due to the location of inter town-bus station within the central area of the town increases the traffic congestion.
- Encroachment of right-of-way by hawkers, parking of vehicles reduces the effective pedestrian way.
- There is high safety risk to pedestrian crossing the NH 66 in front of the police station.
- Absence of adequate design for major junctions along NH 66 and around the temple like Pump junction, Bus Stand junction, Chanthappura junction, Cheraman junction etc. lead to unscientific crossings and dangers.
- The possibility of extending the National Waterway No. 3 from Kottappuram to Kasargode is on the anvil and it is expected that substantial amount of goods traffic will be diverted to this waterway once it becomes fully operational.

21.11 Drinking Water

- Major source of water for public distribution is Chalakkudyriver.
- 39% of people depend on domestic wells for drinking water and 54% of people depend on Water Authority supply to meet the domestic demand for water.
- As per Socio-Economic survey data, water scarcity reported only in very few wards. 35% of the people require water as the ward level priority of development.
- Groundwater table is in the critical category.
- The area is affected by tidal influx and any attempt to draw more water either by pumping or deeper extraction will result in salinity influx in wells during the dry season.

21.12 Sanitation

- Filling of natural streams and ponds for various activities has caused flooding in various parts of municipality.

- Due to the highly percolating nature of the soil ground water is polluted by sewage. These points to the need for an exclusive sewerage system.
- The Solid waste plant is not utilized to its full potential.
- Domestic collection is not being done.

21.13 Energy

- Underground cabling has not been adopted completely.
- Proposal for converting overhead lines to aerial bunched cables near temple areas has been submitted by KSEB. Posts can be shifted nearer to buildings thus making road development possible.
- Use of non-conventional energy sources not very common.

21.14 Education

- Literacy rate of the municipality is found to be less compared to other urban LSGIs.
- Necessary infrastructural facilities are not available in various schools.
- Professional courses are not available in sectors like Tourism , Journalism , Bio-technology, Information technology, agricultural studies etc.
- Centres for art and heritage studies are not there in the municipality
- As per planning standards, a Polytechnic is required at this area which is not available presently.
- The existing Technical High School can be elevated to higher standards of professional education.

21.15 Health

- Govt Health centres or hospitals are not available at Pullut area.
- Incidence of epidemics seen near waterbodies.
- The facilities available are sufficient but the standard/quality is to be increased

21.16 Social Infrastructure

- Parks and other open spaces are not available in the western side of Methala village which is thickly populated.

- The existing municipal park is not maintained properly. Potential for boating trips starting from park is seen here.
- Stadium and swimming pool are not available in the town.
- The general housing scenario is better with only 2 substandard settlements.
- About 5% of houses are Kutcha and require immediate replacement.
- Problem of hanging toilets polluting nearby waterbodies is there in colonies.

21.17 Special Concern areas

- Wards 7 & 22 have the highest number of BPL families.
- Ward 14 (Chappara ward) has the highest number of SC families.
- Even with a number of schemes operating the weaker sections of the society are unaware of the programs.

21.18 Environment

- Pollution and filling up of waterbodies and paddy lands is a major threat.
- Protection and regulation of areas vulnerable to natural disasters should be the main goal.
- Mangroves can be maintained along with prawn culture as it will provide a better living environment for the fishes.

CHAPTER 22

GOALS AND OBJECTIVES

"The Vision - 2031 is to regain the lost glory of Kodungallur thereby to make it a blessed home town for its people with a decent standard of living and quality of life in a sustainable environment and to ensure the growth of the local body through economic empowerment and self-sufficiency." Goals and objectives to be achieved during plan period are detailed out in this chapter.

22.1 Development goals

The development goals are formulated based on the observations, conclusions and inferences derived from the study and analysis of various development sectors in the municipal area. The region acts as a highly dense residential settlement and a connectivity corridor. This necessitates planning and action to meet the challenge of population growth; provision of adequate infrastructure services; provision of adequate housing, particularly for the weaker sections of the society; addressing the problems of small enterprises, particularly in the unorganized informal sector; up - gradation of old and dilapidated areas of the town; conservation of the environment; preservation of heritage and blending it with the new patterns of development; and doing all this within a framework of sustainable development, public- private and community participation and a spirit of ownership and belonging among its citizens.

From the studies conducted, it is clear that Kodungallur town definitely shows an urban character with primary activities on a very low scale. The provision of better living conditions to the people here has to be the utmost priority. The location of the town in the influence region of Kochi creates the need for strengthening and promoting higher order facilities, supporting services and adequate connectivity as a part of arresting the urban sprawl and opening up new areas for development in the region. Tourism, fisheries and commercial activities can gain momentum and become the economic base. As per IDDP, Kodungallur falls under multifunctional zone II, which indicates that it should act as a service provider for surrounding LSGIs, which is also considered as a goal. Along with developmental activities, environmental sensitive areas and heritage areas in the town has to be protected for sustainable growth of the town.

Major development goals thus are:

1. To develop Kodungallur as a major second order urban centre in the influence region of Kochi.
2. To strengthen the economic base of the town through the development of potentials available in tourism, fisheries and trade & commerce sectors.
3. To achieve spatial distribution of facilities and optimum use of resources for the total well-being of the people belonging to the area so as to develop the town as an influence city of Kochi.
4. To develop Kodungallur as a service centre for the hinterland.
5. To preserve the heritage and environmentally sensitive mangroves, wetlands and water bodies in Kodungallur

22.2 Development Objectives

Kodungallur is a major transportation node providing connectivity between Thrissur, Ernakulam and Malappuram districts through National Highway 66 and two State highways. Most of the commercial activities are found along the sides of these major roads. Creating a congestion free transportation network is necessary. As far as Kodungallur is concerned, trading activities had been a prominent activity from olden times. Presently instead of developing in an organized manner, it is flourishing as a ribbon type of development along the major traffic corridors. Planned intervention is required in this sector.

As a dense urban area, the issues related to drinking water and sanitation can become serious in the near future. Provisions for meeting the future demand have to be catered to. Being an urban centre, the dependency of people in and around the town for their educational, health and recreational needs, has to be considered.

The potentials available in the sectors of tourism, fisheries and commerce have to be utilized in a planned manner for the economic development of the town.

As per land use analysis, about 25% of land is occupied by wetlands, mangroves, marshy lands and water bodies. These environmentally sensitive areas have to be protected from all kinds of encroachment and pollution.

In view of above facts, development objectives can be summed up as:

1. To accommodate major facilities viz non-polluting hi-tech industries, tourist attractions and ancillary uses

2. To plan and implement an efficient transportation network providing better connectivity to the nearby towns.
3. To develop tourist circuits and infrastructure facilities at the destinations.
4. To make the city safe and pollution free.
5. To utilize the potential available in fisheries sector.
6. To revitalize the household and traditional industries.
7. To facilitate trade and commerce in line with the projected status of the town
8. To provide ample drinking water facilities
9. To strengthen existing solid waste management system
10. To develop mechanism for sewage treatment
11. To provide ample recreational facilities
12. Strengthen the secondary level health care facilities
13. Create ample higher education facilities in the town
14. Conserve heritage without being detrimental to developmental activities
15. To prevent encroachment and pollution of environmentally sensitive mangroves, wetlands, water bodies and other areas in Kodungallur

CHAPTER 23

DEVELOPMENT CONCEPT

This chapter explains the Development concept which focuses on a solution to utilise the opportunities, address the constraints and meet the needs identified during the analysis phase of Master plan. A development vision/concept throws light into the form into which the area may develop. It also suggests an ideal future pattern of development.

As per Integrated District Development Plan of Thrissur, Kodungallur town falls under multifunctional zone II and is a part of Economic Development Corridor connecting Thrissur & Ernakulam. Also as per the draft development plan for Kochi city region 2031, Kodungallur acts as a second order urban cluster in the city region of kochi.. The detailed settlement analysis shows that Kodungallur is a densely populated area with about 38% of the population engaged in productive economic activities. Analysis based on the landuse data shows that the majority of the land is utilized for residential purposes. Also more than 25% of the land area remains unutilisable due to physical limitations. The potentials available in tourism, fisheries and commerce sectors can be effectively utilized.

A people-oriented approach is the right key to the development of the town. Adequate and efficient infrastructure to cater to the different needs of the people can be developed. Tourism, IT related activities etc which will not adversely affect the well-being of the citizens can be developed. Municipal economy can be strengthened through efficient tax collection and optimum use of the available resources and assets. An integrated approach for the development of potentials available in the sectors of agriculture, animal husbandry, fisheries and industry is to be adopted.

In addition to this, due consideration should be given to environmental sensitive areas for proper ecological balance. All these factors are considered while formulating development concept of town. Formulation of development concept is based on spatial structure of the Kodungallur town.

23.1 Existing Spatial Structure

Existing spatial structure is formed by considering the functional character, activity pattern and spatial distribution of major activities, environmental sensitive areas and population in the town. The details are given here below:

23.1.1 Functional Character

According to the analysis of functional character of District, Kodungallur Town as a whole shows urban functional character. The same methodology as done for the LSGIs of the district is applied for the wards of the town to assess the ward wise functional character. The result of this analysis is shown in figure 23.1 which shows that the majority of town wards are showing urban character.

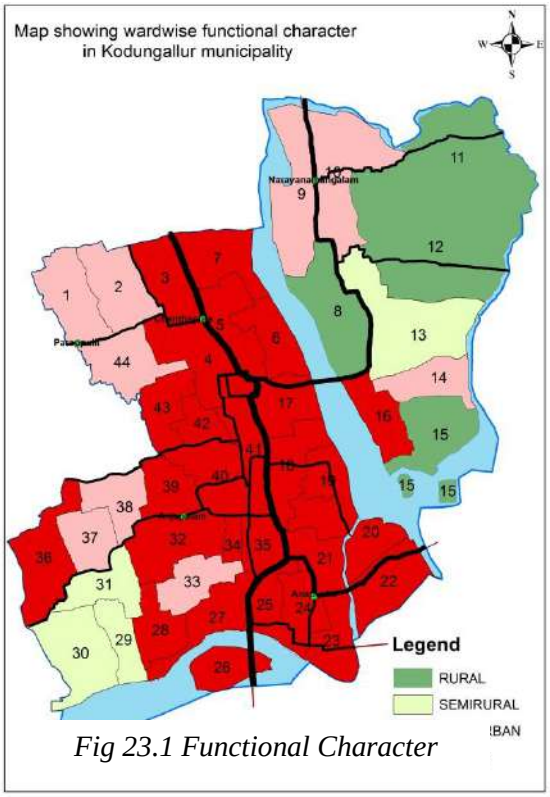


Fig 23.1 Functional Character

The wards having agricultural concentration ie, wards 8,11,12,15 show rural character. Wards 13, 29, 30 and 31 have industrial, public and residential activity along with predominant Agricultural activity. Hence these wards show semi-rural character. Wards 1, 2, 9, 10, 14,33,37,38 and 44 show both agriculture and residential land use mix with predominance in residential land use indicating semi urban character. The remaining 27 wards, most of them lying near to the highway, are showing urban character. It can be seen that only very few wards are showing rural character which shows the decline in primary sector and the development of the town as a residential settlement depending mostly on tertiary sector.

23.1.2 Activity Pattern

Activity pattern of the town is derived from the analysis of the existing land use. The concentration indices of the various land uses are compared and studied for this purpose. The activity pattern is shown in the figure 23.2. According to this tertiary activity is found in the ce

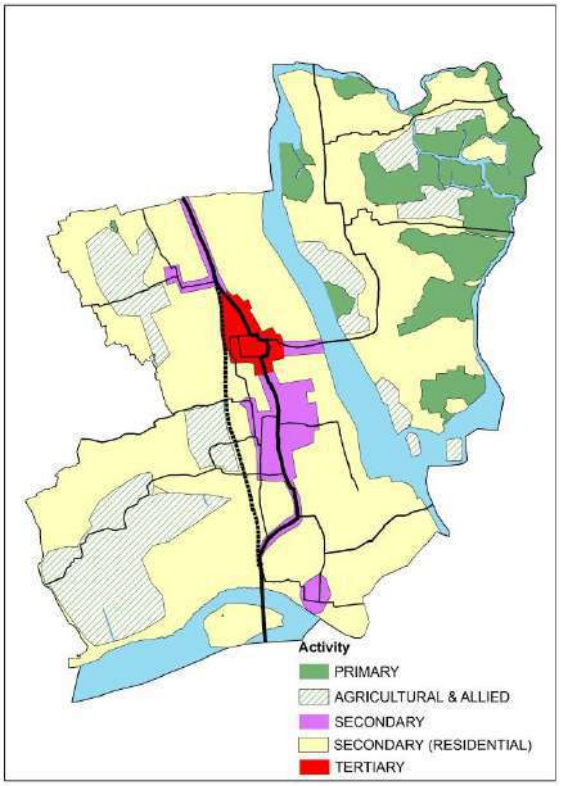


Fig 23.2 Activity Pattern

are found mainly on the sides of major roads. Residential activity covers the major portions of the town. Agricultural and primary activities are found in the periphery of the town area.

23.1.3 Road network and other sectoral concentrations

The existing road network and hierarchy of the nodes are shown in figure 23.3. Spatial distribution of development activities and environmental sensitive areas were laid over spatial distribution of population density as given in figure 23.4. This was integrated with activity pattern of the area to form existing spatial structure.

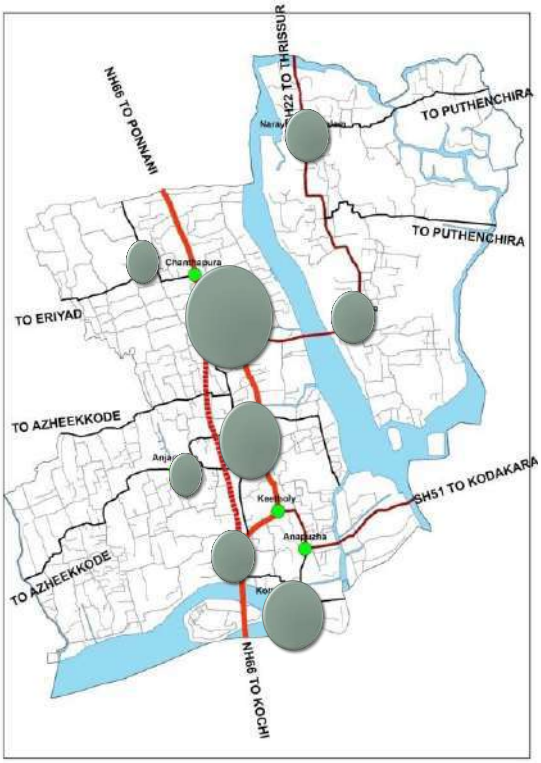


Fig 23.3 Road network and hierarchy of nodes

Existing spatial structure of Kodungallur town is shown in figure 23.5. Spatial structure depicts the present activity distribution in the Municipality. It can be seen that majority of the area are occupied by residential activity. Intensive commercial activity is found in town centre. Commercial activities also exist in the sides of major roads and at Kottappuram market. Agricultural activity is found mainly in the periphery of the town. Marshy lands, mangroves and wetlands constitute the environmentally sensitive areas in the eastern side of the town area.

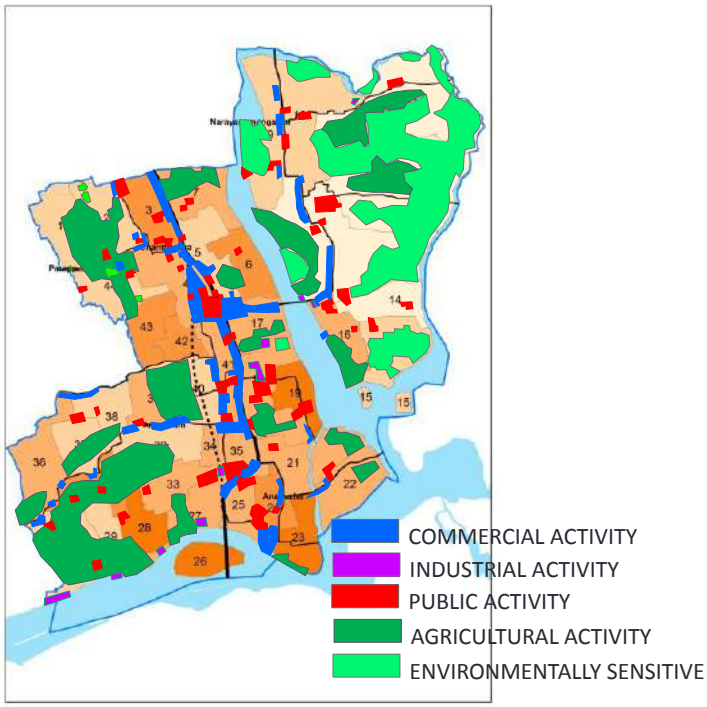


Fig 23.4 Activity pattern overlaid on population density

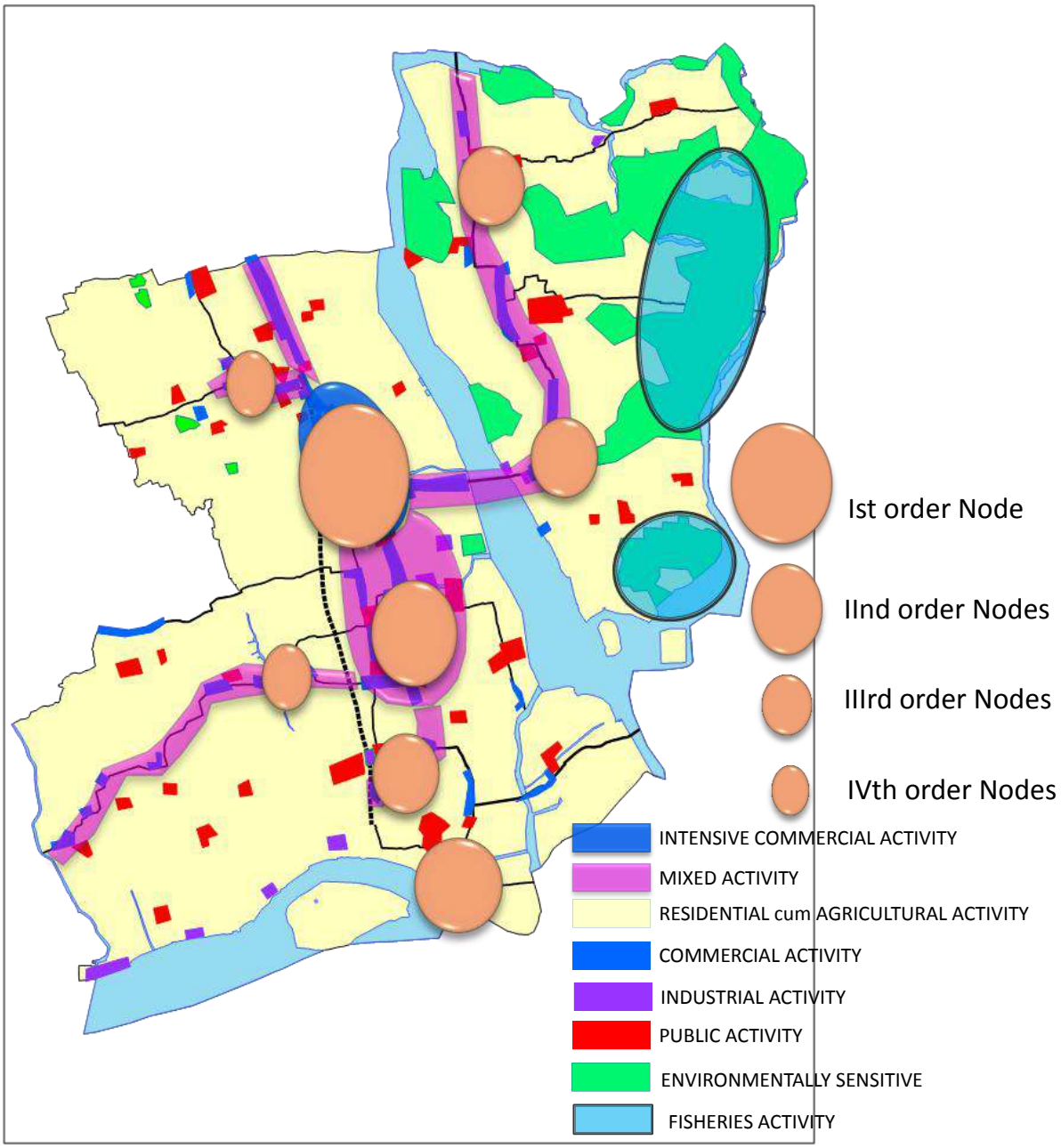


Fig 23.5 Spatial structure of Kodungallur Town

23.2 Formulation Of Development Concept

Based on the findings of the various analyses and the aspirations of the people revealed in the local level analysis, a vision for the future development of the town is formulated. The vision for future spells out every possibility of growth. Vision arrived at here, completely justifies the goals for which this document stands for. Development Concept is formed based on the existing spatial structure. The future needs of roads, widening of roads, future hierarchy of nodes, development chances of tourism and fisheries sectors are integrated with this. Along with this the coneservation of heritage precincts and the

conservation of ecologically sensitive areas are considered. Thus a future form of the town is evolved. The details of evolution of development concept is described in this chapter.

23.2.1 Proposed Road network

Concept of proposed road network for Kodungallur town is derived taking into account the existing traffic scenario and based on an evaluation of the future traffic on the base year network. Transport development schemes are formulated so as to reduce the severe strain put on the existing road network. The configuration of the existing road network within Kodungallur town resembles more or less a grid-iron pattern. The town is developed around the Kodungallur temple and the traffic is served basically by the National Highway 66, which almost bisects the total municipal area, the two State Highways viz the Kodungallur – Shornur SH and the Kodakara SH with a number of north-south and east-west corridors. Since the most important problem of Kodungallur town is high traffic load along NH 66, especially near the CBD area, emphasis is given to develop alternative links to divert the by-passable traffic passing through the NH stretch. This would also help to reduce the inter mixing of intra-town and inter-town traffic on roads within the central part of the town. Conceptual road network is as shown in figure 23.6. The proposed Transit Oriented Development Corridor will act as an outer ring road to the city and will start from Kodungallur, connecting Angamaly, Kalady, Perumbavoor, Kolenchery, Pirvaom, Thalayolaparambu and ends at Cherthala. The road linkage connecting the above centres would also function as a bypass to the Kochi Urban Agglomeration, in tune with the Kerala Road Development Policy (2009) and shall be developed in such a way that Mass Rapid Transit system (MRTS) could be introduced in this corridor at a later stage This alignment option starts near to Kottappuram bus stop on NH66 (Old NH 17) at Kodungallur and ends at km 390+900 of NH 544 (Old NH 47) near to the Xray junction at Cherthala.



Fig 23.6 Conceptual road network

Total length of this alignment is 103.622 km and is passing through mixed terrain ranging from plain to hilly terrain. .This can be make a huge development to Kodungallur road network in future. Thus to arrest the urban sprawl and opening up new areas for development in the region, it is very necessary to develop the Transit Oriented Development (TOD) affects minimum number of buildings and is also having the minimum construction and LA&RR costs. So it is recommended as transit oriented development corridor alignment corridor through the second order urban centers, thereby promoting development of certain higher order facilities and supporting services which would attract considerable amount of the floating population towards the out skirts of the city

23.2.2 Suggested population density distribution

Population is projected using three methods and the average value is taken. The distribution is carried out using the goals in mind. Projected population of the town is around 81000 in 2031. Future population density distribution was formulated on the concept that population will be shifted from CBD to suburban areas of town at the same time distrubances to the environment shall be kept minimal. Concept on suggested population density distribution is shown in figure 23.7

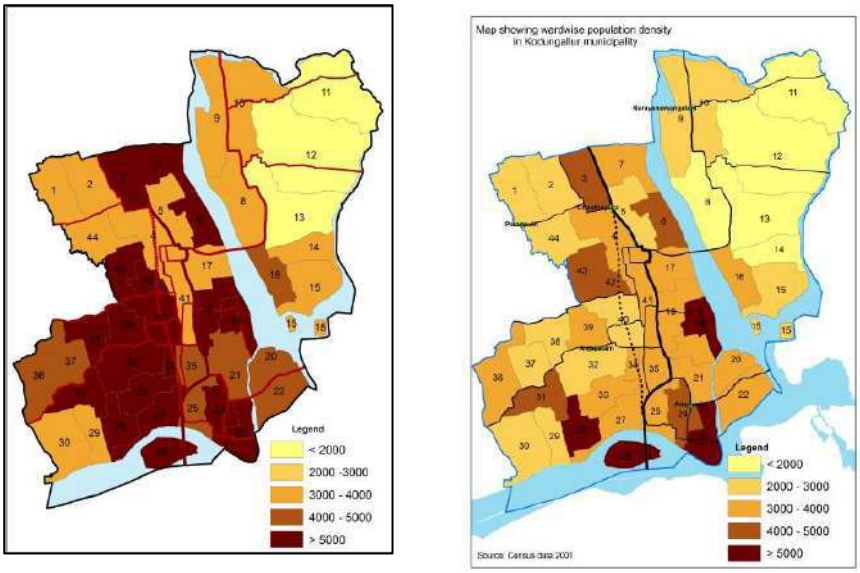


Fig 23.7 Suggested population density distribution compared to existing population density

23.2.3 Suggested hierarchy of nodes

Based on the future transportation network, commercial activities can get shifted/ originated in some other locations. The existing nodes along the national highway can merge into a commercial corridor. Nodes can originate where the North-South corridors and East-West corridors cross each other.Thus suggested heirarchy of nodes is derived and is shown in figure 23.8.

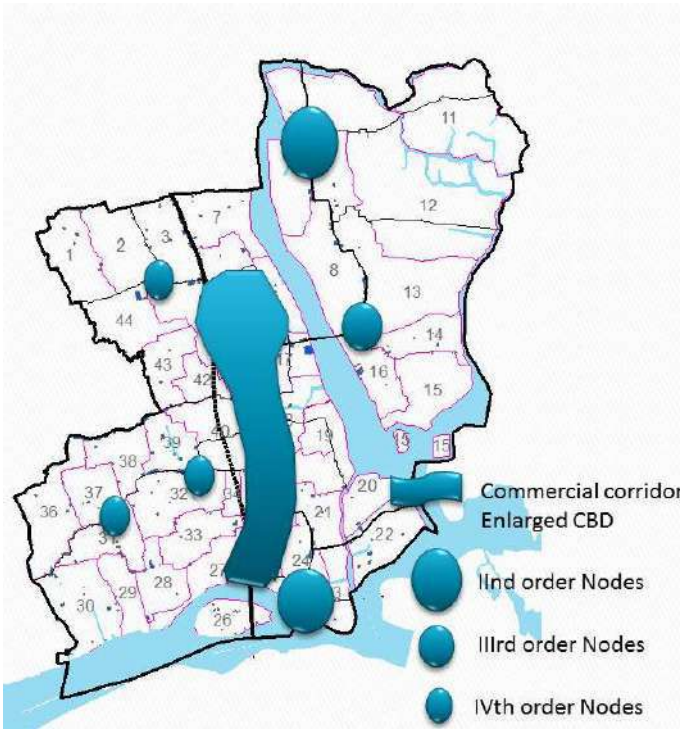


Fig 23.8 Hierarchy of nodes - Suggested

Apart from the central commercial corridor, second order nodes are proposed in Kottappuram and Naraynamangalam. The proposed third order node is Chappara and the fourth order nodes are at Anchappalam, Modern Hospital Junction and Methalappadam.

23.2.4 Concept on other development sectors

As per the studies conducted, the development sectors of tourism , heritage and fisheries were found to have potentials to support the economic base of the municipality. Hence a future tourism concept for encouraging the growth of opportunities available in this field , ensuring growth that upholds our heritage as conserving precincts and culture is considered, giving specific focus to responsible tourism aswell as heritage.

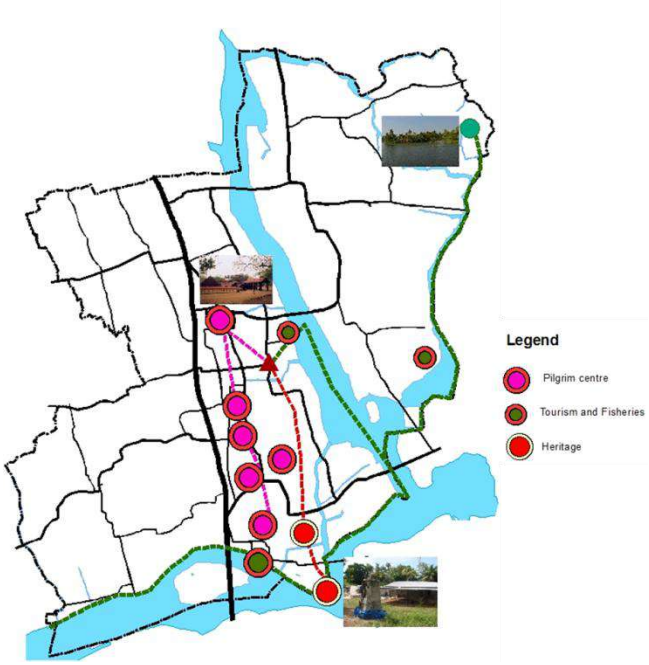


Fig 23.9 Suggested tourism network

with natural heritage ,cultural heritage has to ensure continuity between past,present,future. The utilisation of the available waterbodies for aquaculture and fishery activites in an eco friendly and sustainable manner is also considered as a part of the development concept. These are shown in figures 23.9 and 23.10. An integrated approach for the development of potentials available in the sectors of agriculture, animal husbandry, fisheries and industry is to be adopted. The protection of the environmentally sensitive areas in Kodungallur area is also considered in the development concept.

The town has been depending on Kochi area for entrepreneurial activities and employment opportunities, which is putting severe stress on the existing infrastructure of Kochi city. In order to address this issue, Kodungallur town has to be strengthened as a major second order urban centre in the influence region of Kochi by promoting development of higher order facilities and support services. A portion of the marshy lands lying fallow in the eastern areas of the town which cannot be utilized for paddy cultivation can be converted and developed as a centre for developing activities which will support the municipality in economy generation and self-sustainability.

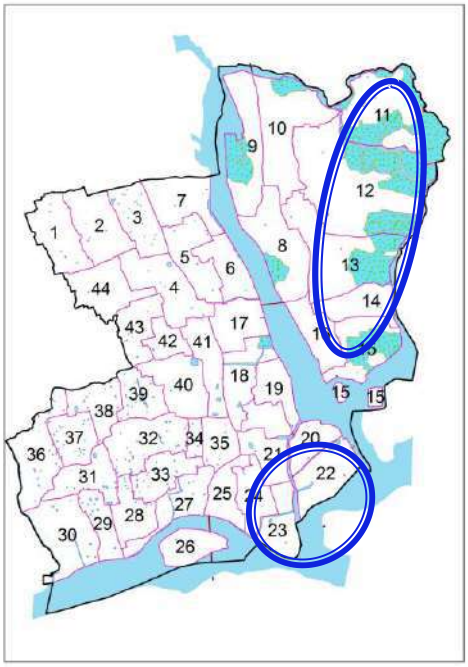


Fig 23.10 Suggested areas for fisheries development

23.3 Development Concept

Development concept was evolved by integrating all the above factors, and the process is pictorially represented in figure 23.11. Development concept formulated after integrating above discussed factors is as shown in figure 23.12, with heritage zone, commercial zone, mixed activity zone around commercial zone, intensive residential zone around mixed activity and low density residential zone and environmental sensitive zone in the eastern side of the town. Areas for tourism promotion and fisheries development have been identified. An area has been demarcated from the marshy and fallow areas in the eastern side of the town for the promotion of industrial development through the establishment of non-polluting industries and other establishments without affecting the environmental sensitiveness of the area

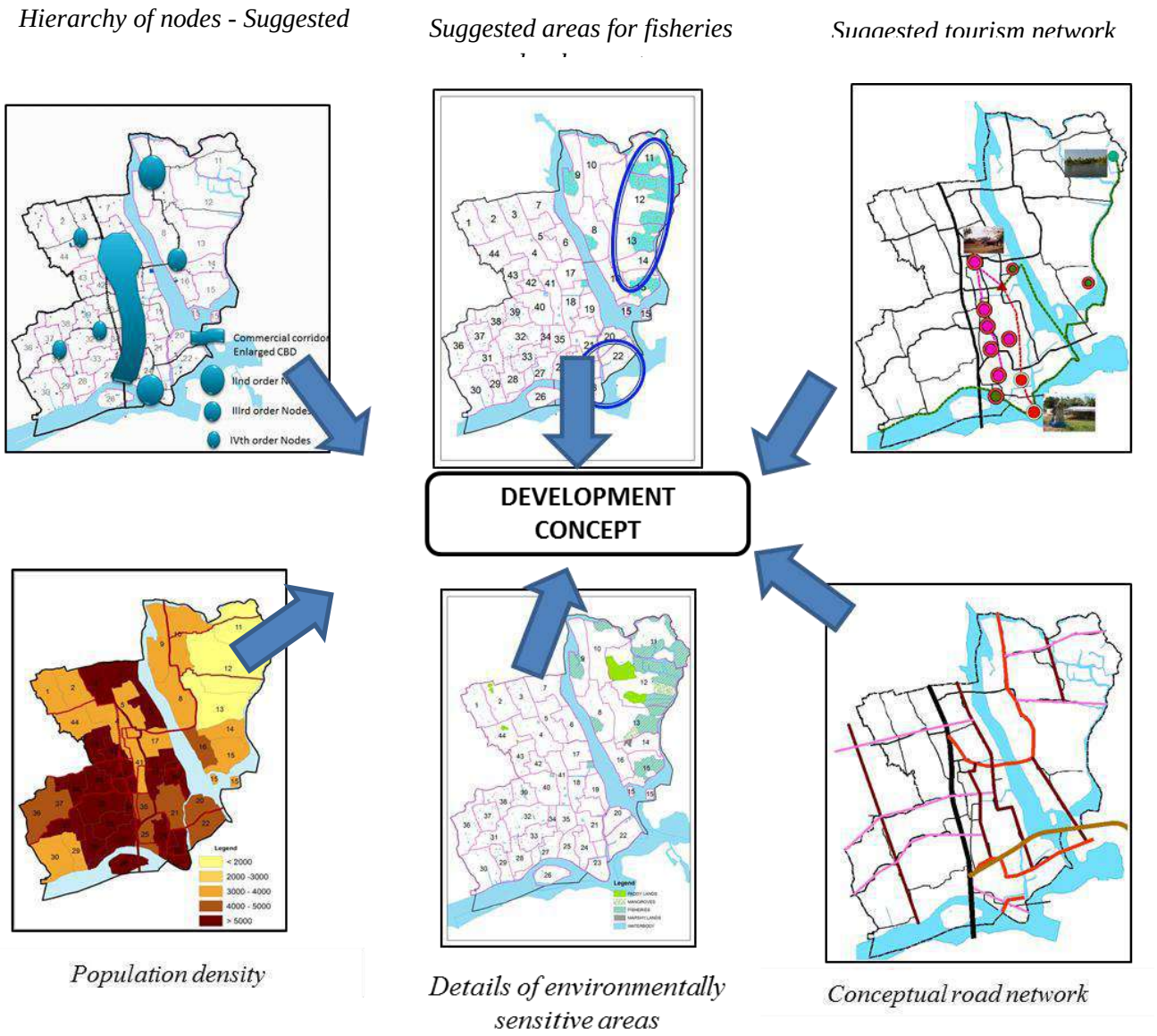


Fig 23.11 Formulation of Development Concept

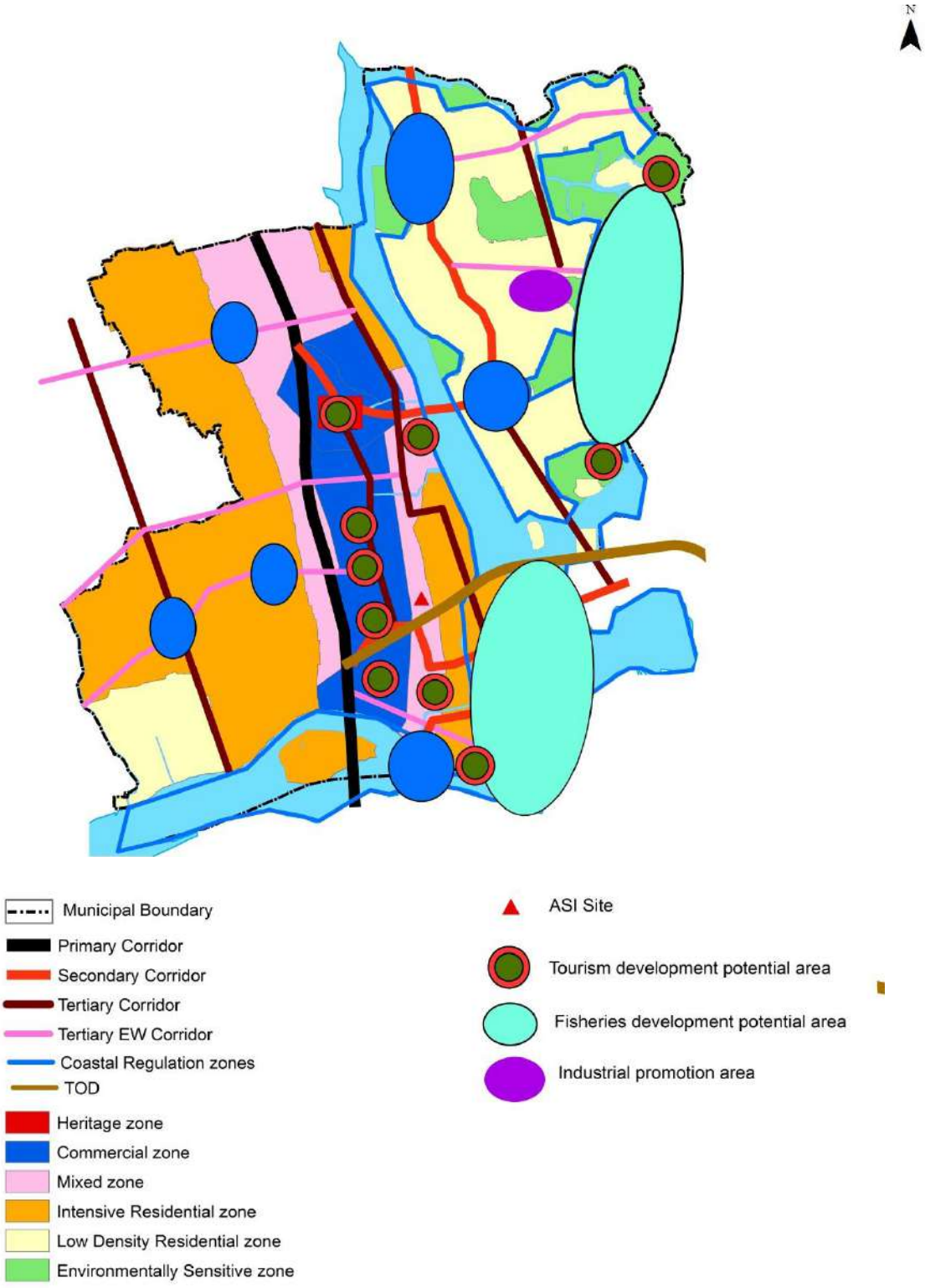


Fig 23.12 Development concept

CHAPTER 24

POLICIES AND STRATEGIES

Development Policies and Strategies include a plan of action and guidlines for the implementation of development goals and objectives. It helps in efficient ultilisation of potentials by implementing the development proposals suggested and minimizing the problems.

24.1 General development policy

To generate a process of spatial development which optimizes the utilization of resources for the well-being of the people, protects the environment and maintains an ecological balance, and to develop the potentials in tourism, fisheries and commercial sectors to boost up the economic growth of the town.

24.2 Sectoral policies and strategies

24.2.1 Tourism sector

The backwaters, ponds, water bodies and other heritage areasenhance the natural beauty of Kodungallur.By conserving the natural beauty of Kodungallur, the development of tourism sector should be achieved. Necessary infrastructural facilities for tourists are to be provided and touristcircuit connecting the major destinations are to be made part of the district tourism circuits.

The development strategy for the tourism sector is detailed below.

- Create awareness among the tourists.
- Provide infrastructural facilities at the destinations.
- To protect the cultural-heritage environment and activities to be designed to enhance the tourism potential of Kodungallur.

24.2.2 Fisheries sector

The presence of Kodungallur kayal, Pullut River, various channels and other low lying areas in the town has made fisheries a means of livelihood to the people in this area. Measures must be taken to evolve diversified practices and allied activities to utilize the potentials available in this sector.

The development strategy for the fisheries sector is detailed below

- To develop own-brand products
- To develop units for value added fishery products
- To develop processing and marketing centres
- To ensure training and support related to new techniques and methodologies

24.2.3 Industrial sector

Presently industrial activity is not prominent in Kodungallur municipal area. The unavailability of utilizable land area is also an issue. The development of processing units for the local products and support for the presently declining traditional industries is to be adopted as the policy for industrial sector

The development strategy for the industrial sector is detailed below

- Existing industrial units are to be retained and new units to support value addition of local produces (eg. Fisheries based products) are to be promoted.
- To promote agro based industries and industrial units for value addition of produces of animal husbandry sector in the mini-industrial estate.
- To promote units for value addition of products from traditional industries like coir,screwpine.
- To ensure proper storage and marketing facilities for the industrial produces.

24.2.4 Agricultural & allied sectors

The policy should be to support the agricultural activities existing in some parts of the municipal area and to encourage the home stead cultivation potential in Kodungallur. For making the homestead cultivation profitable it is tobe integrated with animal husbandry sector. The organic producesfrom the agricultural sector and the genuine produce of animal husbandry sector should be marketed under own brand name. this will eventually support tourism as well.

The development strategy for agriculture & allied sector is detailed below

- To impart concentrated efforts from the side of the municipality and Government departments concerned to support the existing agricultural activities.
- To integrate homestead cultivation and animal husbandry sector

- To establish dairy farms and increase productivity of milk through scientific methods.
- To promote fodder cultivation in the garden lands.
- To ensure the prevention of saline water intrusion to agricultural lands

24.2.5 Transportation & commercial sector

The policy is to develop alternative links to divert the by-passable traffic passing through the NH stretch. This would also help to reduce the inter mixing of intra-town and inter-town traffic on roads within the central part of the town. The diversion of roads generates new junctions which will generate new commercial centres.

The development strategy for transportation sector is detailed below

- To establish a hierarchical order in the road network of Kodungallur
- To integrate the road proposals of Kodungallur with the proposals concerned in Integrated District Development Plan for Thrissur.
- To accommodate the anticipated developments in commercial sector along the sides of major arterials and also around the first order nodes.
- To suggest the future land use for such areas in an enabling manner.
- To adopt quality improvement measures for the existing road network.

24.2.6 Other infrastructural facilities

Kodungallur being a major residential settlement, the main policy is to enhance the quality of living of the people, by providing adequate infrastructural facilities and to ensure these facilities to all sections of the society.

The development strategy is detailed below

- To assess the future needs related to drinking water, sanitation and other social and recreational amenities, and to plan accordingly
- To renovate existing facilities which are currently in a poor state of maintenance (eg.Town hall)and to develop essential facilities which are currently lacking.
- To improve the living conditions of sub-standardareas.
- To provide necessary infrastructural facilities in the educationaland health institutions.
- To evolve means for safe removal of waste;both solid and liquid.

24.2.7 Conservation of heritage & environment

About 25% of the land area of Kodungallur town is environmentally sensitive. Also areas of heritage importance lies scattered in various parts of the municipal area. The conservation and protection of these areas is a matter of urgent interest.

The development strategy is detailed below

- To protect the wetlands from encroachment and conversion
- To preserve cultural and heritage sites of town
- To protect water bodies within town

CHAPTER 25

PROJECTED REQUIREMENTS

This Chapter details out the projected population for the plan year and corresponding requirements in various development sectors.

25.1Population Projection

25.1.1 Arithmetic Method

In this method, the difference between the populations of a place at a given interval is taken and added to a later date to get the future population with the same intervals.

$$P_n = P_0 + rn$$

Where P_n is population in the nth year, P_0 is the population for base year,r is annual increase of population and n is the number of years. Using this method the projected population obtained is given below.

YEAR	Population	Increase in population	rate
1971	51642		
1981	58760	7118	711.8
1991	64935	6175	617.5
2001	69659	4724	472.4
2011	71440	1781	178.1
Total		**19798**	**1979.8**
Average		**4950**	**495**

Population for 2021, $P_{2021} = 71440 + (495 \times 10) = 76390$

Population for 2031,$P_{2031} = 76390 + (495 \times 10) = 81339$

25.1.2 Geometric Increase Method

In this method the ratio between decadal populations are taken as common and the least available population figure multiplied by the common ratio as the projected population total for the period after an equal interval.

YEAR	Population	Increase in population	rate
1971	51642		
1981	58760	7118	1.138
1991	64935	6175	1.105
2001	69659	4724	1.073
2011	71440	1781	1.026
Total			**4.341**
Average			**1.085**

Population for 2021, $P_{2021} = 71440 \times 1.085 = 77535$

Population for 2031,$P_{2031} = 77535 \times 1.085 \ = \ 84149$

25.1.3 Incremental Increase Method

In this method, the average increase / decrease during the past decades are taken and the average incremental increase is added for each consecutive decade.

YEAR	Population	Increase in population	Incremental increase
1971	51642		
1981	58760	7118	
1991	64935	6175	-943
2001	69659	4724	-1451
2011	71440	1781	-2943
Total		**19798**	**-5337**
Average		**4949.5**	**-1779**

Population at n^{th} decade, $P_n = P_0 +$ (Average increase + Incremental increase x No. of decades)

Where P_n= Population at the end of nth decade

P_0= Base year population

Population for 2021, $P_{2021} = 71440 + (4949.5 - 1779 \times 1) = 74611$

Population for 2031,$P_{2031} = 74611 + (4949.5 - 1799 \times 1) = 77781$

The perspective population is arrived by taking the average of all the population projections through the various methods discussed above and is given in table 24.1.

Table: 25.1Projected population for the

Sl No	Method	Population in 2021	Population in 2031
1	Arithmetic method	76390	81339
2	Geometric method	77535	84149
3	Incremental increase method	74611	77781
	Average	**76178**	**81090**
	Rounded to	**76200**	**81100**

The expected population of Kodungallur town is shown graphically in Fig 24.1. Population is expected to reach 81100 by 2031.

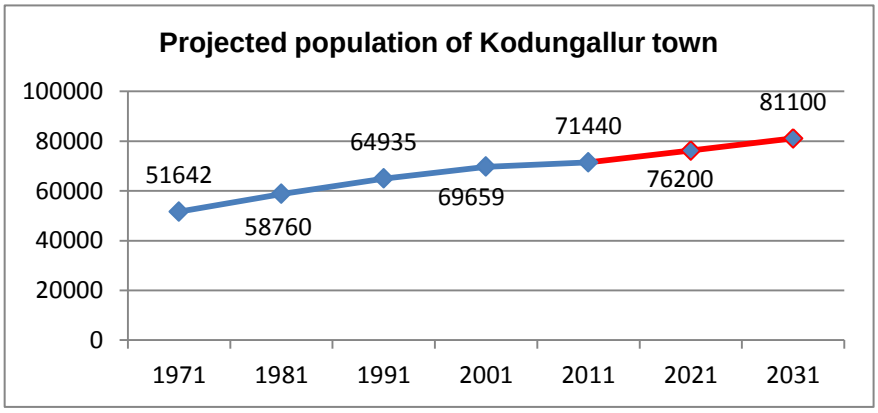


Fig 25.1 Projected Population

25.1.4 Anticipated changes in population growth rate

The growth rate of population in Kodungallur town is showing a decreasing trend. Considering this trend, the population growth rate values were extrapolated for the decades 2011-2021 and 2021-2031. It was found that the growth rate becomes negative in these decades. The fig 24.2 shows the expected variations in population growth rate.

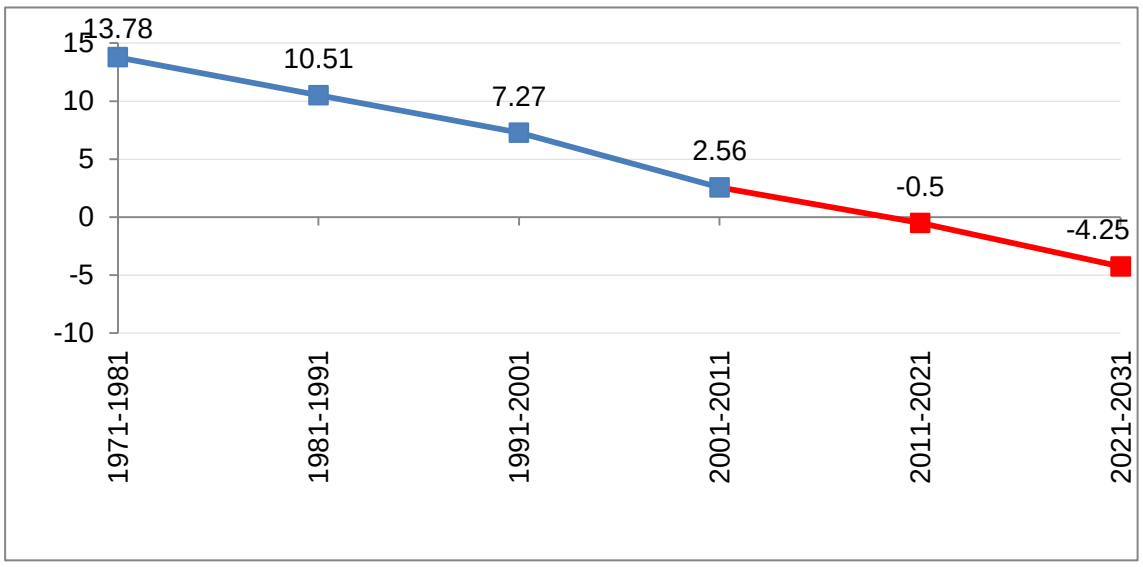


Fig 25.2 Extrapolated population growth rate

As per the development concept of the Integrated District Development Plan, LSGIs lying in the multifunctional zone II is expected to have an induced growth rate of 5.37 by the year 2021. Kodungallur town being in the multifunctional zone II ,is expected to have a high enhanced growth through the developmental activities and hence a growth rate of 5.37 can be assumed for the municipality during the decade 2011-2021. As per this growth rate, the population will reach 75276 by the year 2021. By projecting this, the population of Kodungallur town by the year 2031 will be 80530 showing a growth rate of 6.97%.

25.2 ANTICIPATED CHANGES IN OCCUPATIONAL PATTERN

The economic activities govern the occupational structure of the area.With the introduction of new development projects as per the development plan, economic base will be diversified/widened which will further result in the increase of job opportunities in the Municipal area. From the projected work force participation rate for Kodungallur Town area, it can be found that the WPR reaches about 44% by the end of 2031.(fig 24.3)

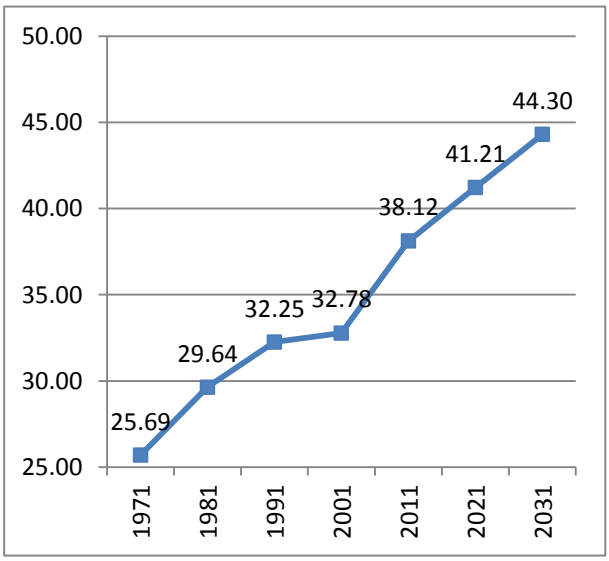


Fig 25.3 Projected WPR 2031

25.3 PROJECTION OF REQUIREMENTS

25.3.1 Area requirement for various urban uses for the plan year

Table 25.2 Area requirements for the plan year

Land use	UDPFI guideline (%)	Existing Land use 2012		Proposed Land use 2031	
		Area (sq. km)	Percentage	Area (sq. km)	Percentage
Residential	40-45	12.039	41.36	14.56	50
Commercial	3-4	0.611	2.1	1.16	4
Industrial	8-10	0.105	0.36	0.58	2
Public & Semi public	10-12	0.947	3.25	1.46	5
Transport & Communication	12-14	1.258	4.32	1.46	5
Park & Open space	18-20	0.012	0.04	0.58	2
Agriculture(Dry)	Balance	6.825	23.44	9.31	32
Paddy		2.838	9.74		
Water Bodies		4.164	14.31		
Others		0.311	1.08		
Total	100	29.11	100	29.11	100

25.3.2 Requirement of physical infrastructure

Requirements in Kodungallur Town area for 2031 according to standard guidelines are given below.

25.3.3 Trade and Commerce

Kodungallur Town is a Medium town. As per the UDPFI guidelines the trade and commercial area requirement for a medium sized town is estimated as 0.24Ha to 0.32Ha 1000

persons. Presently the area under commercial use is 61 Ha per**.**The future requirement for the year 2031 as per the UDPFI guidelines comes to only about 22 Ha. Hence the need is to take measures for providing better infrastructural facilities at the existing commercial centres.

25.3.4 Water supply

The total quantity of water supplied by KWA is about 8.8 MLD/day. The requirement of water as per UDPFI for domestic uses is135-150 lpcd. A minimum of 150 lpcd per person is considered as the future demand.From this the future demand for domestic purpose is estimated to be about 10MLD. The additional requirement is 1.2 MLD.

25.3.5 Solid waste management

Being a medium town the quantity of waste generated per day as per UDPFI guideline is estimated as 0.375kg per person. For projected population of 2031, the quantity of waste generated will be about 26 Tons/day. As per the present situation the waste processing facility available is 8tons/hr.Considering 8 hour running time /day, the waste processing is 24 tonnes/ day. If the present solid waste management system continues for the coming years, in 2031 an additional2 ton of waste will have to be treated per day.Hence an efficient waste management system has to be adopted for the waste disposal.

25.3.6 Education

The educational facilities required as per the planning standard for the year 2031 is given in Table24.3. In order to cater to the dependent population from the neighboring areas, a total projected population of 1,00,000 is considered for education and health sectors

Table 25.3 Planning standards in educational facilities

Sl No	Category	Existing Nos	Standards recommended	Demand 2031	Shortage
1.	LP School	29	1/2500 population	40	11
2.	UP School	16	1/7500 population	14	nil
3.	High School	9	1/13000 population	8	nil
4.	HSS	6	1/13000 population	8	2
5.	Arts & Science	1	1/80,000 population	1	nil

6.	Polytechnic	0	1/36,000 population	3	3
7.	I.T.C/I.T.I	5	1/35,000 population	3	nil
8.	T.T.I	1	1/1,20,000 population	1	nil

25.3.7 Health

The health facilities required as per the planning standard for the year 2031 is given in Table 24.4

Table 25.4 Planning standards in health facilities

Category	**No. of Beds**	**Existing**	**Standard recommends**	**Demand 2031**	**Shortage**
General Hospital	500	-	1 for 2.5 lakh population	-	
Intermediate Hospital (Category A)	200	1	1 for 1 lakh population	1	nil
Intermediate Hospital (Category B)	80	2	1 for 1 lakh population	1	nil
Poly-Clinic		-	1 for 1 lakh population	-	
Nursing home, Child welfare and Maternity centre	30	2	1 for 0.45 lakh population	2	nil
Dispensary		7	1 for 0.15 lakh population	7	nil

25.3.8 Recreational use

Recreational use includes parks, playfields and other open spaces. For amedium town the recreational space should be provided at the rate of 1.4-1.6 ha/1000 persons.Presently 0.04% of municipal area i.e.0.012sq.km area is used for recreational facilities. In 2031, the recreational space to be provided comes around 1.5sq.km.

25.3.9 Traffic projections

Volume-capacity ratio for the horizon year shows that major road corridors of Kodungallur town namely NH 66, and Shornur road, would be severely congested in the horizon year. For most of the other roads also, the traffic will be reaching the saturation level in the year 2031.

The projected traffic implies that the existing road network would not be able to handle the traffic in the horizon years without up gradation of the transport infrastructure facilities. Augmentation of the capacity of the existing road network by strengthening/widening and the construction of alternate link roads is a must considering the dramatic increase in the traffic volume.

CHAPTER 26

PROPOSED LAND USE PLAN

The development vision for Kodungallur town has envisaged various types and patterns of developments in different parts of the town. The vision is brought to the practical scene in the form of a land use plan. As per the land use plan, Kodungallur town area is categorised in to various zones, which are described in this chapter. The various zones are 1. Residential use zone. 2. Residential mix use zone 3. Commercial use zone. 4.Industrial use zone 5. Special zone- Green Techno Centre 6. Tourism promotion zone 7. Public and semipublic use zone 8. Transportation use zone 9. Parks and open spaces. 10. Heritage Promotion zone 11. Heritage Premise12.Environmental sensitive zone.

26.1Residential use Zone

Residential activities are seen distributed around mixed activity zone and also near to major transportation corridors of municipality. So as per development concept, these areas are proposed under residential zone. Total area is around 16.38 sq km. This use zone is primarily reserved for accommodating the future needs of residential sector. It is reserved mainly to cater to the healthy living of the people. (Figure 26.1)

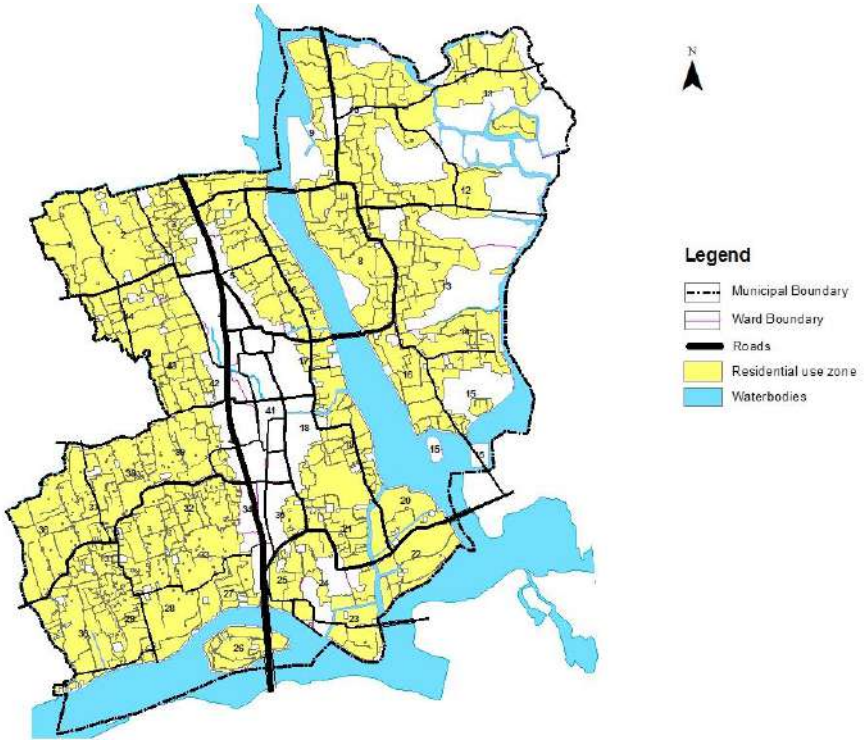


Fig 26.1 Residential use zone

26.2 Residential Mix use Zone

As per the vision for Kodungallur, a zone has been set apart for the mixed activities which are predominantly commercial, industrial and public use. After analysing the major activities taking place in municipality and also the activity pattern of the area, we can see that predominantly mixed urban activities are taking place along with residential activities in areas to the south of town centre. So area to the south of town centre is proposed as residential mix use zone. Total area is around 1.79 sq km. All the non-agricultural development can take place here. (Figure 26.2)

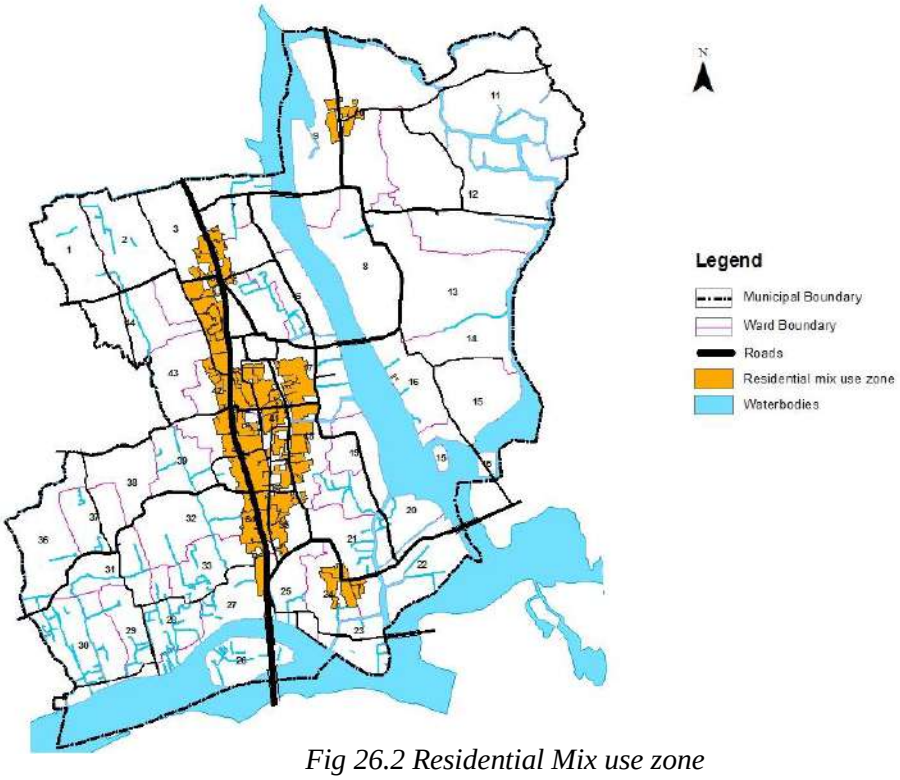


Fig 26.2 Residential Mix use zone

26.3 Commercial use Zone

Presently, intensive commercial activities are seen at town centre and as ribbon development along the major traffic corridor. As per development concept, it is proposed to concentrate commercial activities at major nodes. So these areas along with existing land under commercial use and the proposals for infrastructural developments supporting the trade and commerce sector are proposed as commercial zone in future. Even though this is commercial zone, residential activities up to 300sq.m is permissible in this zone. Total area of commercial zone is around 0.521 sq km of land as shown in figure 26.3. This comes to around 1.80% of the total area.

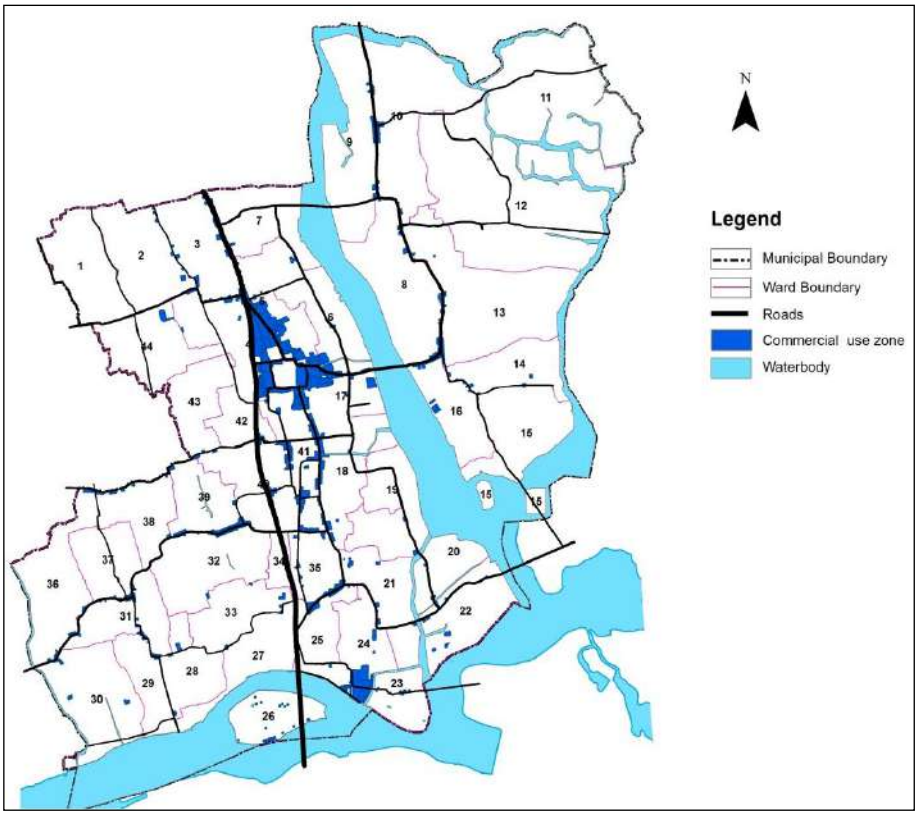


Fig 26.3 Commercial use zone

26.4 Industrial use Zone

In the vision for Kodungallur town there is no zone earmarked for industry alone. But there are quite a number of industrial concerns in the town. To support the sector and to retain the industrial activity an industrial zone mainly comprising of all the existing industrial land use, the industrial estate and the proposed industrial area is constituted. Total area covered in this zone is around 0.089 sq km. The Industrial use zone is shown in figure 26.4

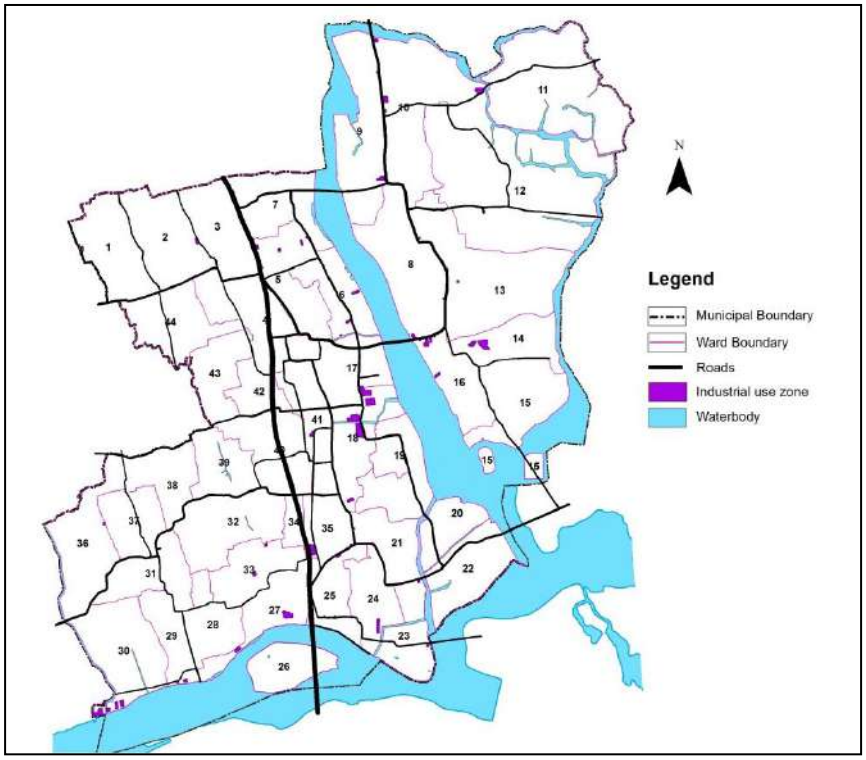


Fig 26.4 Industrial use zone

26.5 Special zone

26.5.1 Green Techno Centre

A zone has been earmarked for the economic development of the town through the promotion of service industries like IT and IT enabled services, manufacturing and service of electronic devices and other non-polluting industries. It covers an area of about 0.120 sq km. A planned development of this area is proposed by keeping 20% of land for water catchment area to prevent water logging and to provide a fresh water source to the centre and to the nearby residents. About 150 million litres of rainwater can be harvested and stored. Steps for preventing saline water intrusion is to be planned. The rest of 80% of land can be developed as a technology centre with service industries like IT and IT enabled services, manufacturing and service of electronic devices and other non-polluting industries without disturbing the surrounding environment. Green buildings can be planned for the ecological balance of the area. Projects can be planned as public-private partnership projects with the participation of the land owners, town and interested entrepreneurs. (Fig 26.5)

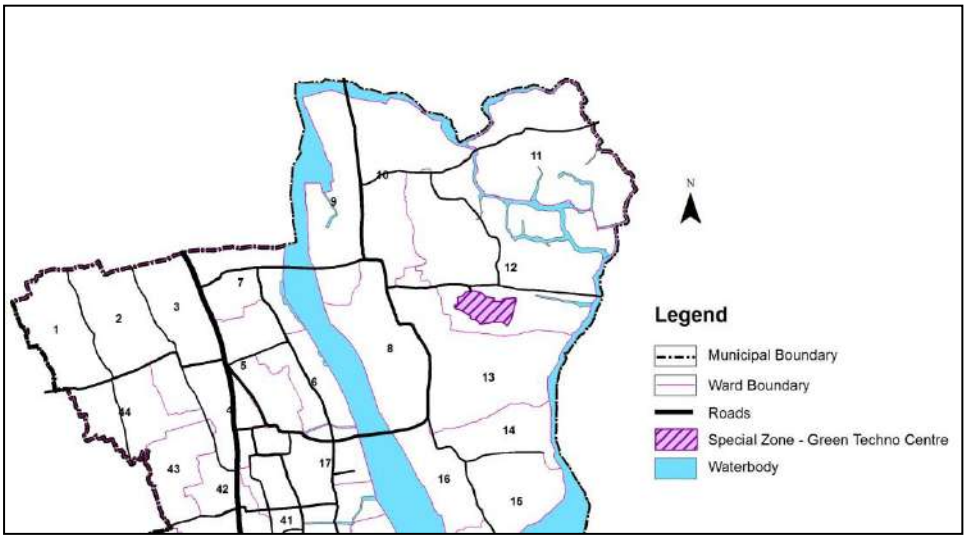


Fig 26.5 Special zone - Green Techno Centre

26.5.2 Proposed Transportation use zone

This is special zone for transporatation related use, Also there are a few proposals in this sector. To retain the amenities provided as such a transportation use zone is demarcated. This zone mainly comprises of all the roads and other transport related activities. No other activity unless otherwise specified shall be permited in such zones. If this project is not materialised within a period of 7 years, from the date of sanctioning of this master plan the freezed land

shall be released and returned back to Residential Mix Use Zone. It covers total area of about 0.04 sq km. (Fig 26.6)

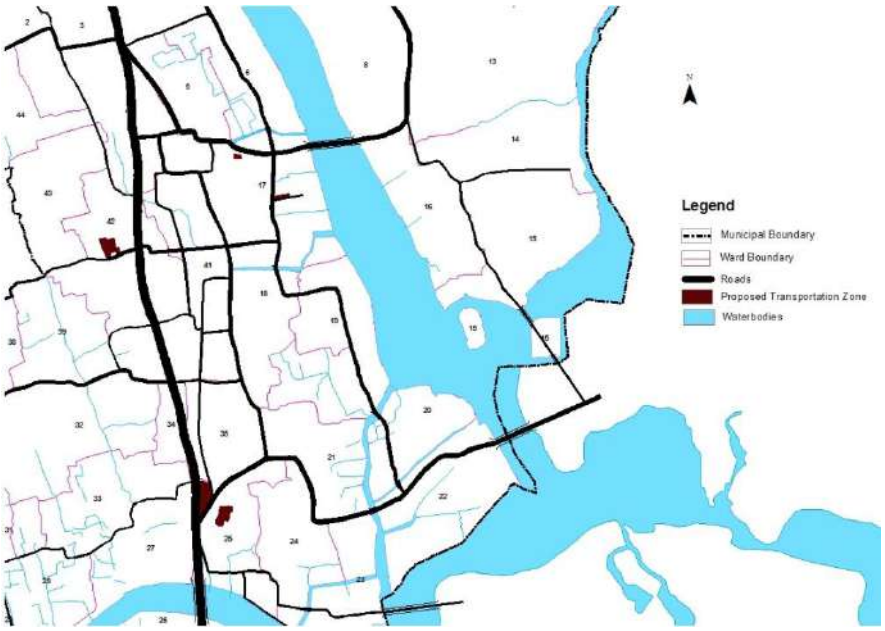


Fig 26.6 Proposed transportation use zone

26.5.3 Proposed Play Ground

This is considered under special zone the land proposed for this project is one at the existing dry agriculture and other at the near the kunnamkulam pond in Methala area. No other activity unless otherwise specified shall be permited in such zones. if this project is not materialised within a period of 7 years, from the date of sanctioning of this master plan the freezed land shall be released and returned back to Residential Use Zone. It covers total area of about 0.0051 sq km. (Fig 26.7)

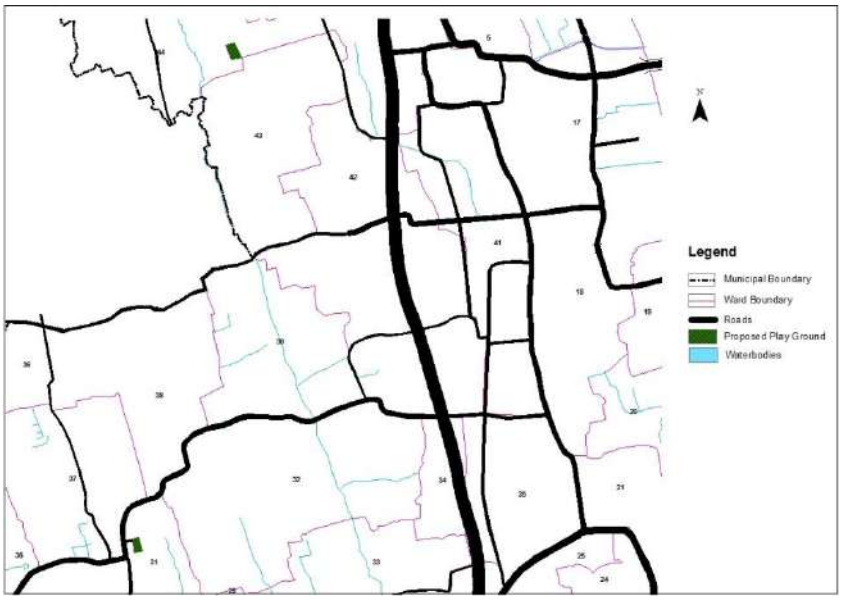


Fig 26.7 Proposed Play ground

26.5.4 Proposed recreation Hub

This hub will act as an urban recreation area within the hectic town core, along with adequate protection for Canal front. Project cause for the launch of new development projects with the generation of revenue to the Concerned Local self-Government. The area under consideration has already demarcated within the CRZ II provisions. So all the construction should follows the CRZ guidelines. No other activity unless otherwise specified shall be permited in such zones. if this project is not materialised within a period of 7 years, from the date of sanctioning of this master plan the freezed land shall be released and returned back to Residential Use Zone. It covers an area of about 0.011 sq km. (Fig 26.8)

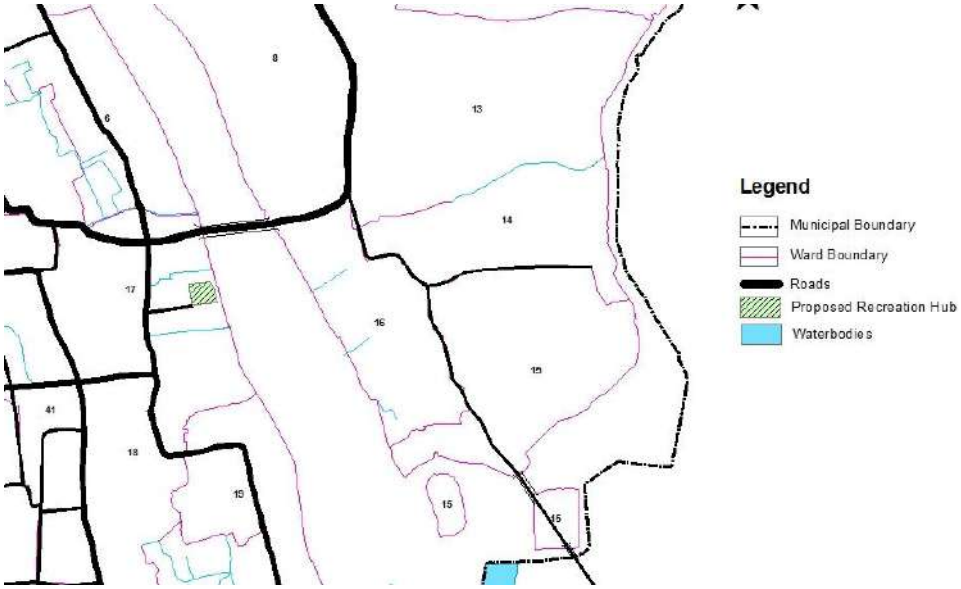


Fig 26.8Proposed Recreation hub

26.5.5 Proposed Sewage Treatment Plant

This special zone demarcated for the purposed centralised Sewage Collection and Treatment Plant. Land to a depth of 10 m around the plant, but within the zone, shall be demarcated as buffer zone where no

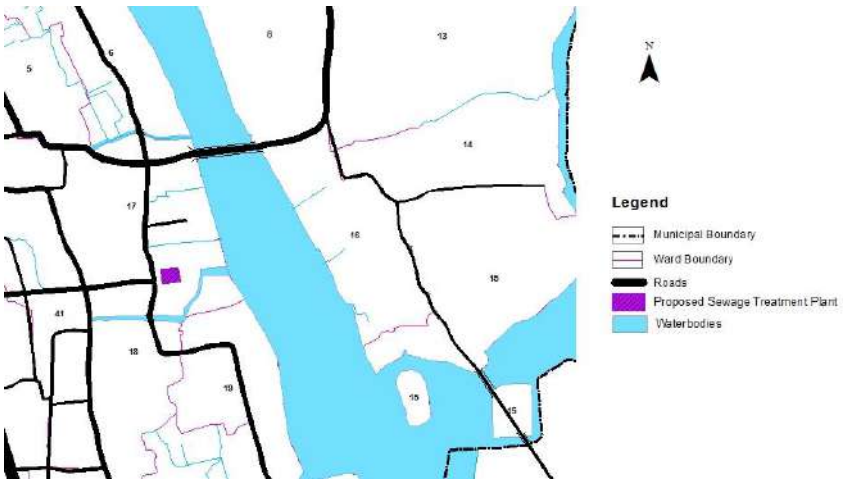


Fig 26.9Proposed Sewage Treatment Plant

activity other than agricultural activities is permitted. It covers total area of about 0.0061 sq km. If this project is not materialised within a period of 7 years, from the date of sanctioning of this master plan the land shall be deemed to be under Residential Use Zone. (Fig 26.9)

26.6 Tourism promotion zone

As per the analysis done, Tourism prospects of the town can be developed by providing sufficient infrastructural facilities in the area. Hence a tourism promotion zone is proposed at the two islands existing in the southern portion of ward 15. This covers an area of about 0.082 sq km. These islands can act as an area for development of tourist infrastructure like resorts, hotels and other recreational facilities. (Fig 26.10)

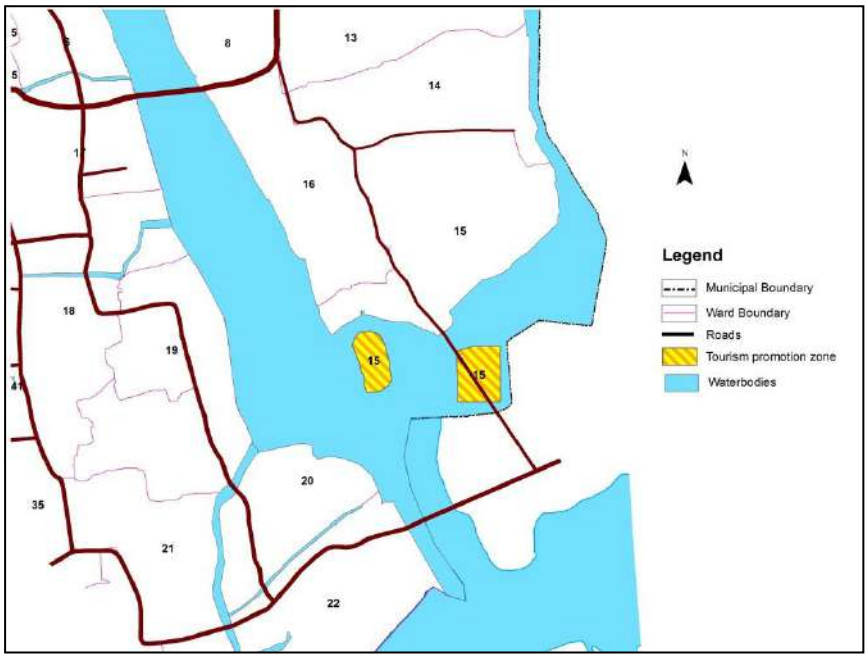


Fig 26.10 Tourism promotion zone

26.7 Public and Semi Public use zone

In the vision for Kodungallur town there is no zone set apart as public and semi public zone. But there are quite a number of religious institutions, educational institutions, hospitals and other public utility areas in the town. To retain the amenities provided as such a public and semipublic use zone is demarcated. Also there are a few proposals to provide social amenities to the people in this plan. These proposals are included in this zone. This zone mainly

comprises of all the existing public use land and buildings. Total area covered in this zone is around 0.724 sq km. The Public and Semipublic use zone is shown in figure 26.11

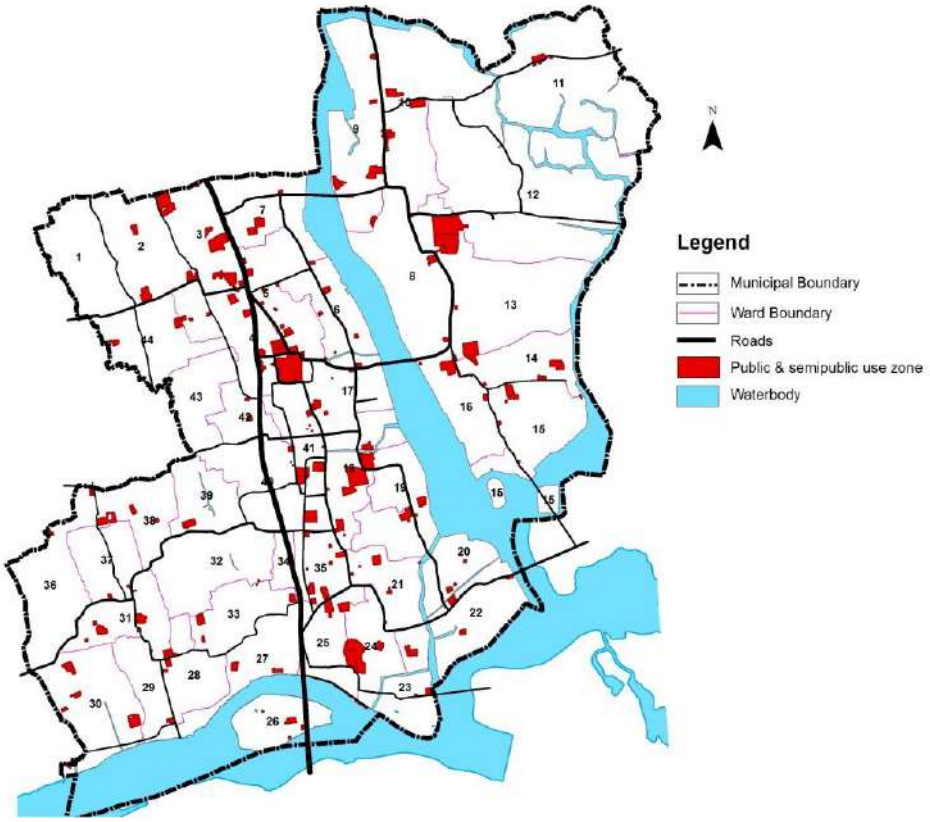


Fig 26.11 Public and Semipublic use zone

26.8 Transportation use zone

The total existing transport land use comes to around 6.01% of the total area. Also there are a few proposals in this sector. To retain the amenities provided as such a transportation use zone is demarcated. This zone mainly comprises of all the roads and other transport related activities. Total area covered in this zone is around 1.70 sq km. The Transportation use zone is shown in figure 26.12

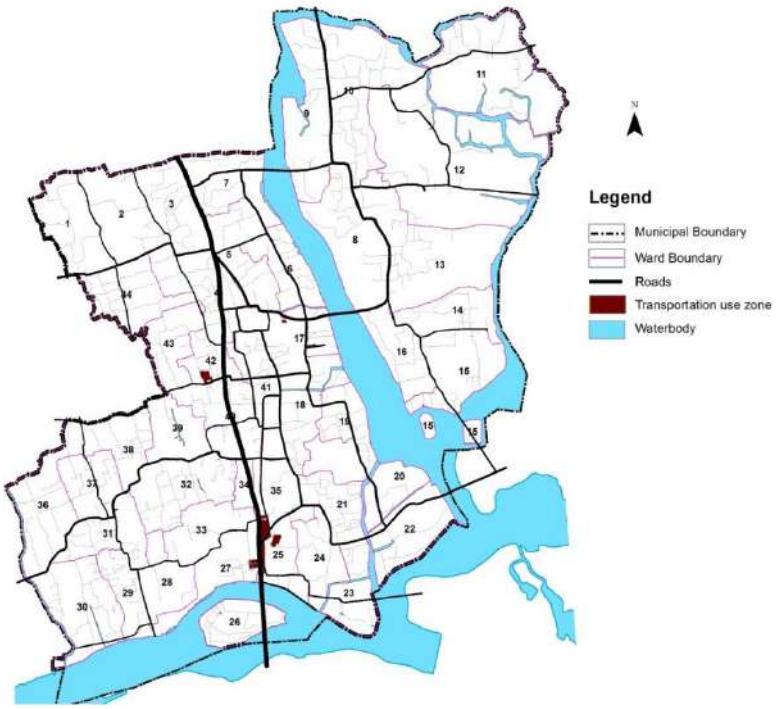


Fig 26.12 Transportation use zone

26.9 Parks and Open Spaces

Presently provision for park and open spaces are less in Kodungallur Town. Considering the availability of land parcels and accessibility, master plan has proposed a recreational hub near existing Municipal park . A large portion of Kodungallur Town is surrounded by water in the form of Canoli canal and Periyar river. Master plan aims to provide a green buffer with a width of 20M. wide throughout these shores as a part of greater consideration to this. Also play areas have been proposed in the western part of the town. Considering the future proposals like Recreation hub, Green strip,Stadium, Playgrounds, etc., the total area under park and open space is around 0.008 sq km.

26.10 Heritage Promotion zone

Heritage/pilgrimage zones are crucial sensitive zones and should have its own specific guidelines, with more site specific thrust to help maintain its character. The development heritage/pilgrimage zones requires a holistic approach with the integration of architectural, urban design and planning guidelines, policies and regulations which would guide in the development of the region as a whole. So Kodungallur Master plan envisages a Heritage promotion zone consist of Kodungallur Bagavathy temple and its premises upto a depth of

100m from the temple compound wall with an extent of 0.16 sq km. The Heritage promotion zone is shown in fig. 26.13

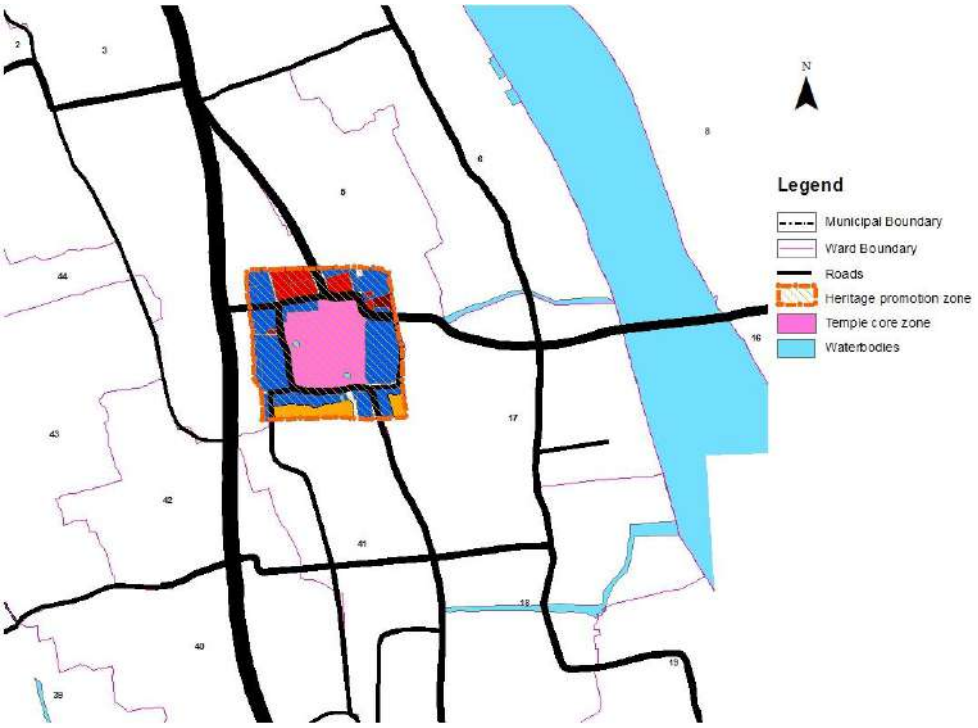


Fig.26.13 Heritage promotion zone

Implementation mechanism:- Success of planning strategies adopted depend upon the implementation mechanism. Implementation mechanism which can be adopted is added below.(Figure26.14)

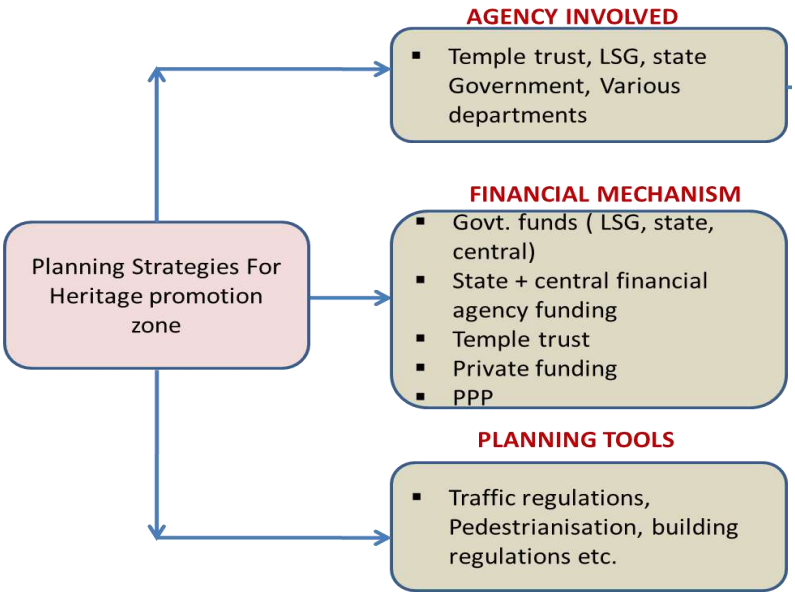


Fig 26.14 Implementation mechanism for proposed Heritage promotion

26.11 Heritage Premise

The heritage precincts of Kodungallur town include an ASI site namely Thiruvanchikulam temple. It is suggested to retain the locations and protect as per the rules laid down by ASI. Few temples, masjid and other places of heritage importance are also under this zone. The total area included in this zone is 0.033 sq km.

26.12 Paddy

Kodungallur town is having a l extent of area under paddy. Paddy lands constitute 1.90% of total area. To maintain ecological balance of town, paddy fields are to be protected and retained. Total extent is around 0.347 sq km. This is about 1.19% of total area. The zone is shown in figure 26.15

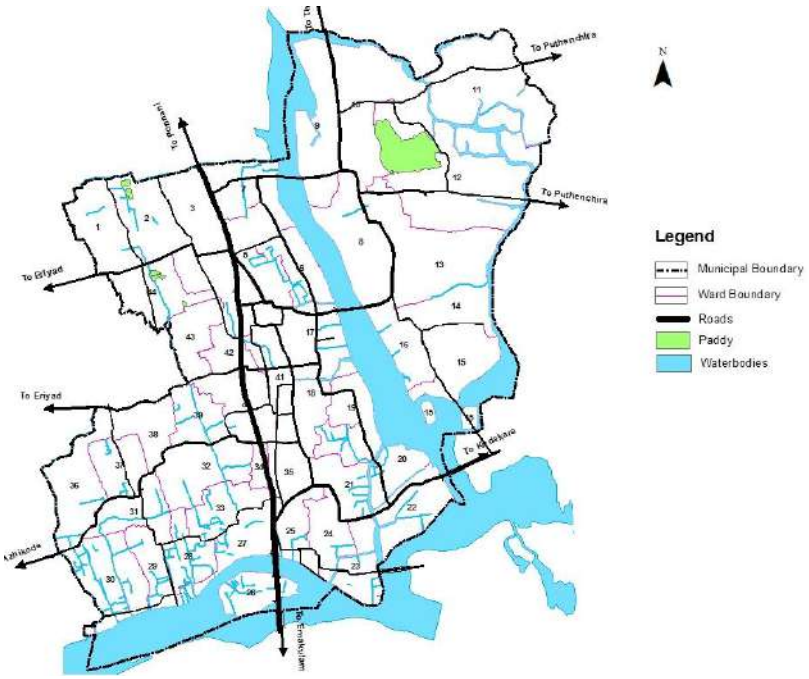


Fig 26.15 Paddy

26.13 Wetland (Pokkali)

Kodungallur town is having a large extent of area under pokkali land. Pokkali lands constitute 8.09 % of total area. To maintain ecological balance of town, pokkali lands are to be protected and retained. Total extent is around 2.35 sq km. This is about 8.09% of total area. The zone is shown in figure 26.16

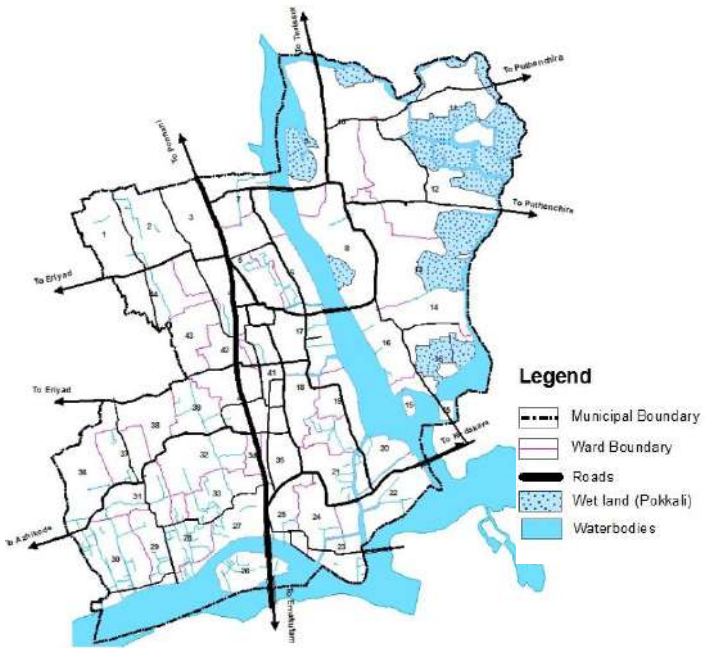


Fig 26.16 Wetland

26.14 Waterbodies

To meet the water demand in the coming years, it is suggested to retain this area without encroachments for other uses. The proper maintenance of existing natural drainage without encroachments can remedy the major water logging problem and also scarcity of water during the summer season. Maintenance of water bodies are to be done with the help of the fund allotted for the same in the proposal. Total extent is around 4.13 sq km. This is about 14.13 % of total area. The zone is shown in figure 26.17

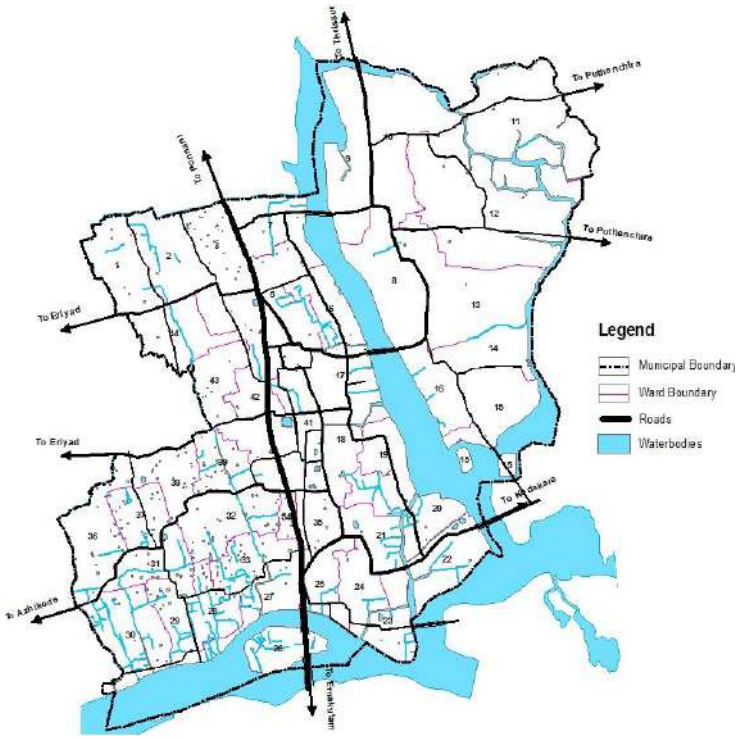


Fig 26.17 Waterbodies

26.15 Mangroves

Kodungallur Municipality is having Mangroves in marshy areas of the town.To maintain ecological balance of town, mangroves are to be Total extent is around 0.231 sq km . This is about 0.80% of total area. The zone is shown in figure 26.18

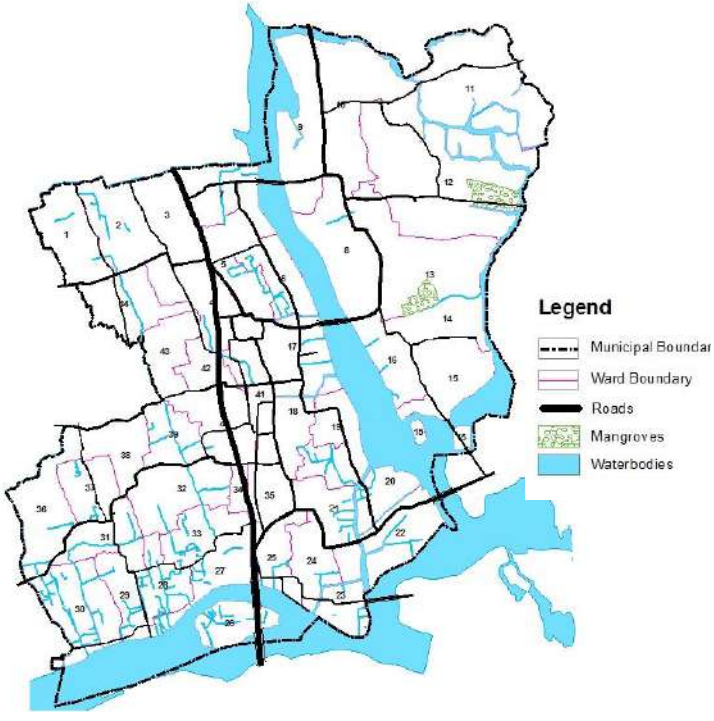


Fig 26.18 Mangroves

26.16 Green Belt

A green strip of 20m depth is proposed along the banks of river Canoli canal and Periyar River so that protection of them is ensured. Planting trees in order to retain as green areas , fodder cultivation,Agriculture/Horticulture,Bathing ghat,Check dam,Pump house only are permitted etc. can be adopted to protect the riverfront areas. Total extent is around .36 sq.km. This is about 1.23% of total area. The zone is a shown in figure 26.19

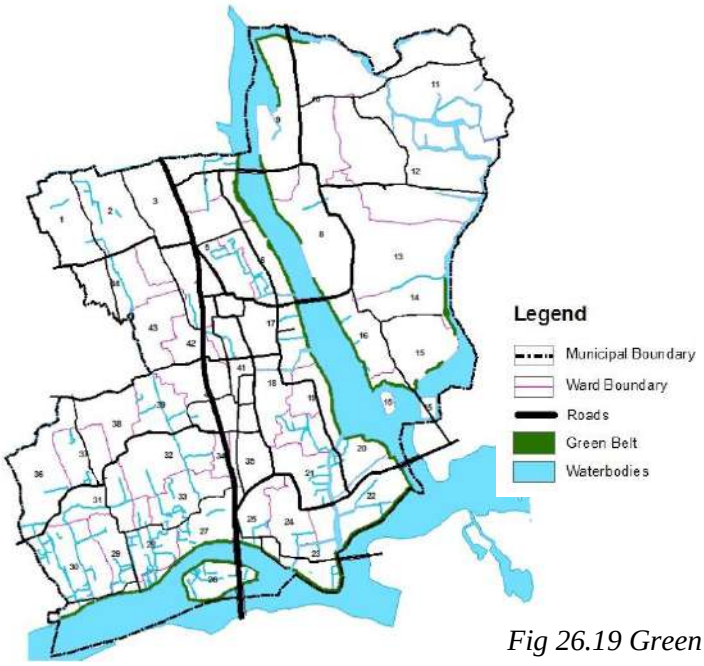


Fig 26.19 Green belt

26.17 Land Use Map

Proposed land use map of Kodungallur town which is constituted by 12 major land use zones is shown in figure 26.15. Area and percentage of land use is shown in table 26.1

Table 26.1 Area and percentage of proposed land use

Sl.No	Land use	Area in sq km	Percentage
1	Residential use zone	16.38	56.27
2	Residential mix use zone	1.79	6.16
3	Commercial zone	0.52	1.79
4	Industrial zone	.089	0.30
5	Special zone	0.182	0.626
6	Tourism promotion zone	0.082	0.285
7	Public & Semipublic use zone	0.724	2.489
8	Transportation use zone	1.707	5.864
9	Park & open space use zone	0.0089	0.030
10	Heritage promotion zone	0.160	0.55
11	Heritage premise	0.033	0.115
12	Paddy	0.347	1.194
13	Wetlands(Pokkali)	2.354	8.09
14	Waterbody	4.132	14.2
15	Mangroves	0.2316	0.80
	Total	**29.11**	**100.00**

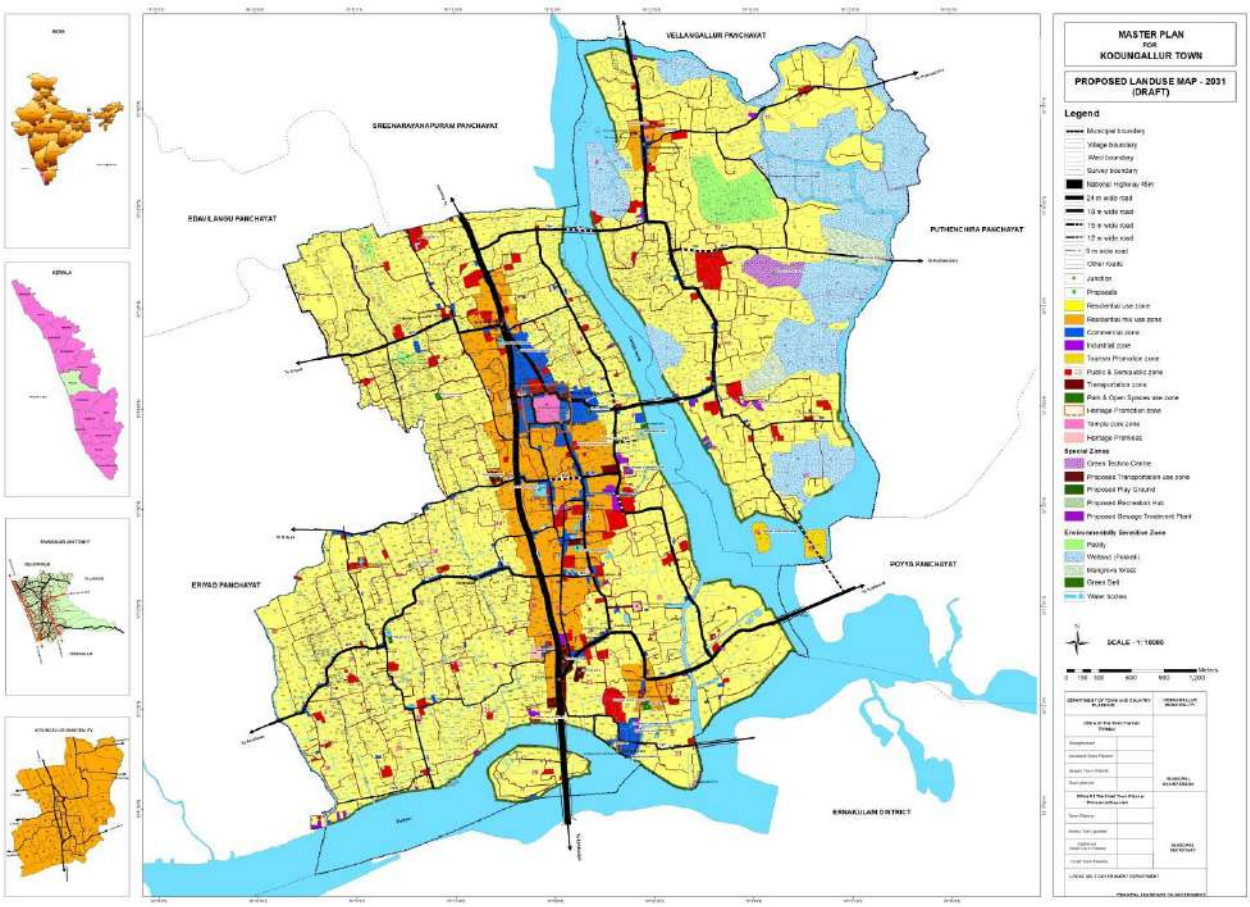


Fig 26.20 Proposed land use map for Kodungallur Town

26.18 Proposed Landuse Analysis

Kodungallur town consist of variety mix of landuses including natural features. Masterplan envisages the sustainable growth of the town with consideration for all landuse types. Residential purposes stands first among various uses with a contribution of 51.17%. From past periods itself town possess a predominance in residential uses. Since the mentioned landuse has already achieved the standard value of UDPFI guidelines, Masterplan has taken initiatives to regulate the residential growth and also to provide amenities for betterment of living standards. Residential mix use zone is introduced to the proposed masterplan, a new landuse type holds 11.37% of total land to ensure the variety mix up of land along the transportation corridors. This will improve the provisions for tertiary activities. Commercial and public uses are the vital components of a land composition. Here it is constitute by 1.80% and 2.51% respectively. In which public use is comparatively less when compared to that of

guidelines. Even though public land use is not achieved the guideline values, specific projects proposals in public sector can reduce the shortcomings.

Master plan has given enough care for the improvement and development of transportation facilities by providing new access roads, widening of roads and new bus stand. These provisions will ease the stress of mobility for commuters and through passengers. Transportation use constitutes 6.01% of total landuse, which is less in terms of guideline values. But considering its type of distribution and access to the public transport system, it is sufficient

.

Since it is a residential town it is very less influenced by industrial activities (.33%). On analysis it is seen that there is no much scope for the traditional or large scale industries, so proposed master plan has given very less consideration for industrial sector. Attempt has been also made for the protection of environmental sensitive areas such as Mangrove forest, waterbodies, paddy and wetland. These areas collectively form 24.14% of total landuse. Environmental sensitive areas also offer scenic natural beauty which is acting as recreational area as well. Specific projects such as Mangrove thematic forest, boating facilities in Canoli canal and tourism circuit connecting Prawn bunds will cater as recreation use, thus downsides due to less Park and open space landuse (1.33%) is resolved.

In addition to these conventional zones, five specials zones have been added to the proposed masterplan considering peculiar nature of the Kodungallur town, which includes Green Techno Center,Proposed Transortation use zone, Proposed Play Ground,Proposed recreation Hub,Proposed Sewage Treatment Plant and according to it if this project is not materialised within a period of 7 years, from the date of sanctioning of this master plan the freezed land shall be released and returned back to that zone as per the existing land use zone.A Heritage promotion zone is established consists with temple core and 100 m. surrounding area from temple compound to regulate the development in a guided manner. Along with this Heritage use zone is additionally imparted to the context for the protection and development of listed areas. Green techno centre proposed on North East quadrant of the town is another futuristic approach; project will be a remunerable one which support the economical self sufficiency of the concerned LSG. To utilize the potentials for tourism sector two islands have been declared as tourism promotion zone. Feasible projects can generate

economic as well as tourism boost. Thus an inclusive and equitable approach is used for the preparation of proposed master plan for Kodungallur town.

CHAPTER 27

TRAFFIC & TRANSPORTATION PLAN

Transport development plan for Kodungallur town is prepared based on an evaluation of the future traffic on the base year network, taking into account the existing traffic scenario. Transport development schemes are formulated so as to reduce the severe strain put on the existing road network.

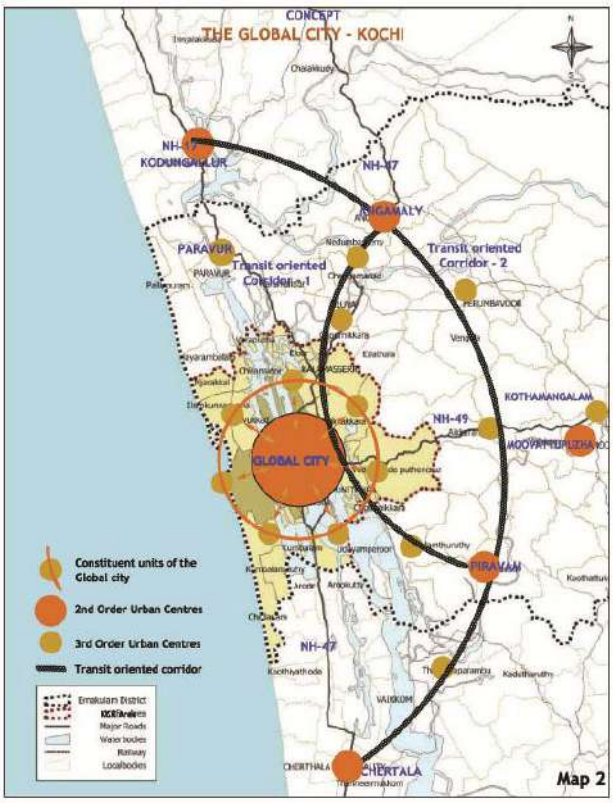
27.1 Introduction

The configuration of the existing road network of Kodungallur town is more or less of a grid-iron pattern. The town is developed around Kodungallur temple and the traffic is served basically by the National Highway 66, which almost bisects the municipal area, the two State Highways viz the Kodungallur – Shornur SH and the KodakaraSH with a number of north-south and east-west corridors.

The NH 66 passing through the centre of the town is forced to carry both intra-town and inter-town traffic. Consequently, this road carries traffic far exceeding its capacity at present and is likely to bear much more in the horizon year. Though a one way system is maintained at the CBD area, traffic congestion seemed to occur mainly due to improper geometrics and narrow width of the highway.

Volume-capacity ratio for the horizon year shows that major road corridors of Kodungallur town namely NH 66, and Shornur road, would be severely congested in the horizon year. For most of the other roads also, the traffic will be reaching the saturation level in the year 2031.The projected traffic on the existing road network within the CBD area implies that the existing road network would not be able to handle the traffic in the horizon years without upgradation of the transport infrastructure facilities. Augmentation of the capacity of the existing road network by strengthening/widening and the construction of alternate link roads is a must considering the dramatic increase in the traffic volume.

Since the most important problem of Kodungallur town is high traffic load along NH 66, especially near the CBD area, emphasis is given to develop alternative links to divert the by-passable traffic passing through the NH stretch. This would also help to reduce the inter mixing of intra-town and inter-town traffic on roads within the central part of the town. The widening of NH 66 from two lane road to four lane road is on the cards and the construction of a from Chanthappura to Kottappuram is almost completed.



In the Development Plan for Kochi City Region 2031(Draft), proposals have been included to develop other major urban centres in the influence region of Kochi so as to arrest the urban sprawl which the city experiences now. It is proposed to promote a new development corridor connecting centres viz Kodungallur, Angamaly, Perumbavoor, Kolenchery, Piravom, Thalayolaparambu and Cherthala as a transit oriented development corridor to accommodate major developments without stressing the available infrastructure in Kochi, thereby promoting development of certain higher order facilities and supporting services which would attract considerable amount of the floating population towards the outskirts of the city. The proposed Transit Oriented Development Corridor will act as an outer ring road to the city and will start from Kodungallur, connecting Angamaly, Kalady, Perumbavoor, Kolenchery, Pirvaom, Thalayolaparambu and ends at Cherthala. The road linkage connecting the above centres would also function as a bypass to the Kochi Urban Agglomeration, in tune with the Kerala Road Development Policy (2009) and shall be developed in such a way that Mass Rapid Transit system (MRTS) could be introduced in this corridor at a later stage.

The possibility of extending the National Waterway No. 3 from Kottappuram to Kasargode is on the anvil and it is expected that substantial amount of goods traffic will be diverted to this waterway once it becomes fully operational. As the level of service of urban roads are dictated to a great extent by the capacity of intersections, the development proposals should give importance to increase the capacity of major intersections by proper planning and design of these junctions. Special emphasis should also be given to improve the pedestrian facilities and also developing off-street parking lots.

27.2 Proposed Road Network

On the basis of the projected volume of traffic and alternative network development schemes considered, a road development plan has been formulated for the town. As per the future road development plan for the town, the proposed network also conforms to a grid-iron pattern. Seven categories of roads are proposed for Kodungallur town. These are as follows,

1. Primary Corridor
2. Secondary Corridors
3. Coastal road
4. Grid Link Roads
5. Major Roads
6. Sub-Major Roads
7. Minor Roads

1. Primary corridor

The National Highway 66 extending from Kottappuram at the south to Kothaparambu at the north through the newly constructed bypass providing connectivity to state and district headquarters is considered as the primary corridor for the town. This corridor is proposed to be widened to 45m to accommodate the traffic at the horizon year. The proposed primary corridor is shown in figure 27.1.

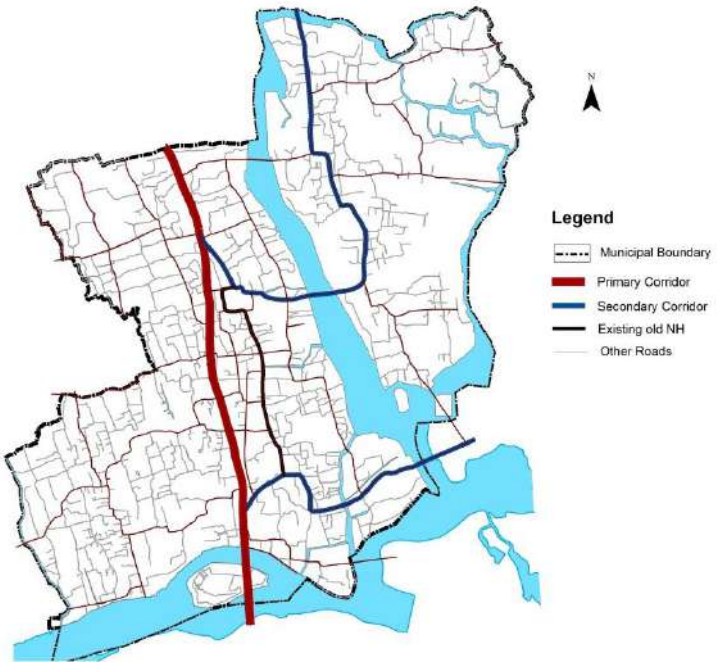


Fig.27.1 Proposed primary Corridor

2. Secondary corridors

The state highways SH 22 (Kodungallur-Shornur) and SH 51 (Kodungallur-Kodakara) and portions of the existing NH providing connection to the new bypass are proposed as the secondary corridors for the town. The portion of old NH starting from Chanthappura upto Kizhakkenada and then the state highway 22 upto Karooppadanna bridge is proposed to be widened to 24m with a building line of 4.5m. Also the portion at the south side of old NH starting from TKSpuram and joining the SH 51 at Keetholi and extending upto Krishnankotta bridge is proposed to be widened to 24m with a building line of 4.5m (figure 27.2).

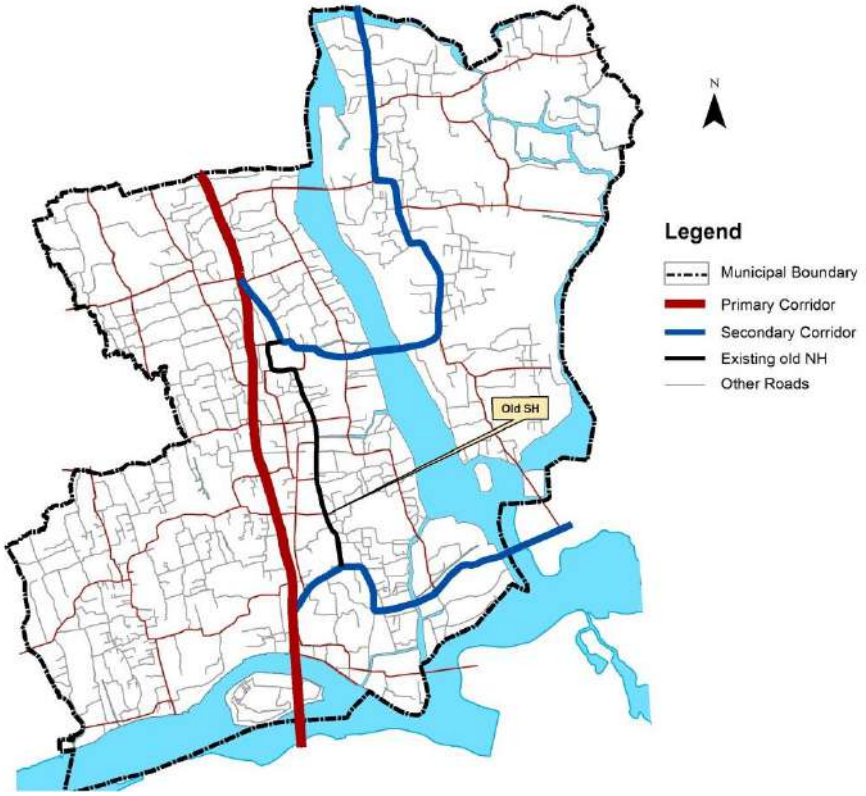


Fig.27.2 Proposed secondary Corridor

3. Coastal road

A coastal road connecting the existing roads via Vayalar-Uzhuvathukadavu-Kavilkadavu-Sringapuram-Undekkadavu-Anappuzha thereby linking the two state highways is proposed with a width of 18m. Two missing links one near Kavilkadavu canal and the other near Sringapuram canal need to be constructed (figure 27.3).

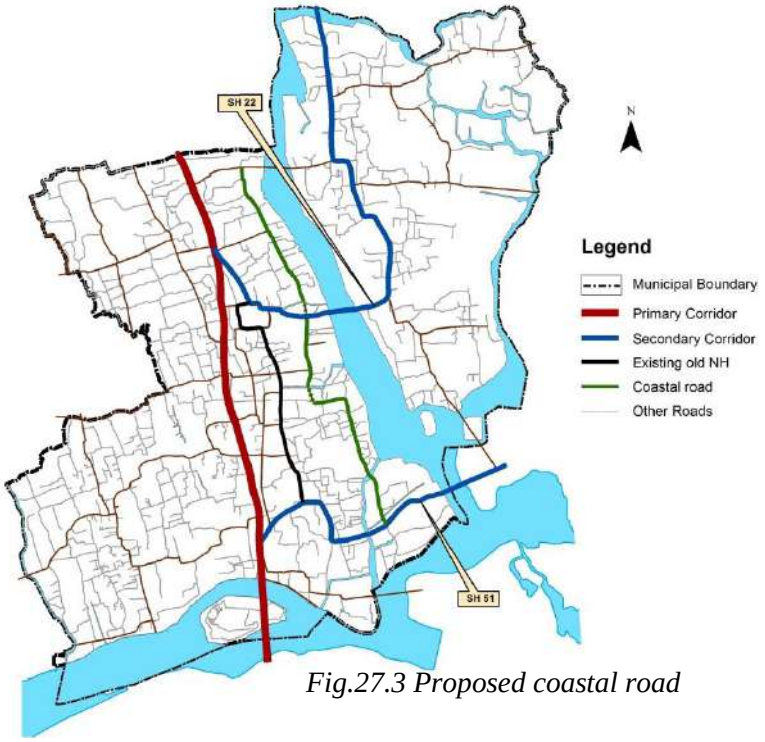


Fig.27.3 Proposed coastal road

4. Grid link roads

In order to provide proper connections to the Coastal road and existing old NH to the new bypass, link road of width 15m is proposed at Cheraman Junction(figure 27.4).



Fig.27.4 Proposed grid link roads

5. Major roads

Considering the high volume of future projected traffic, five roads have been proposed to be widened to a width of 18 metres. The Chanthappura-Eriyad road, Uzhuvathukadavu-Chanthappura road with new bridge across canoli canal, Arakkulam-Azheekode road, road from Sringapuram bus stand to Proposed bus stand and Thachappilly road upto the proposed Green Techno Centre have been proposed as these major roads (figure 27.5). These are the collector roads towards NH bypass and connectors to the hinterland.

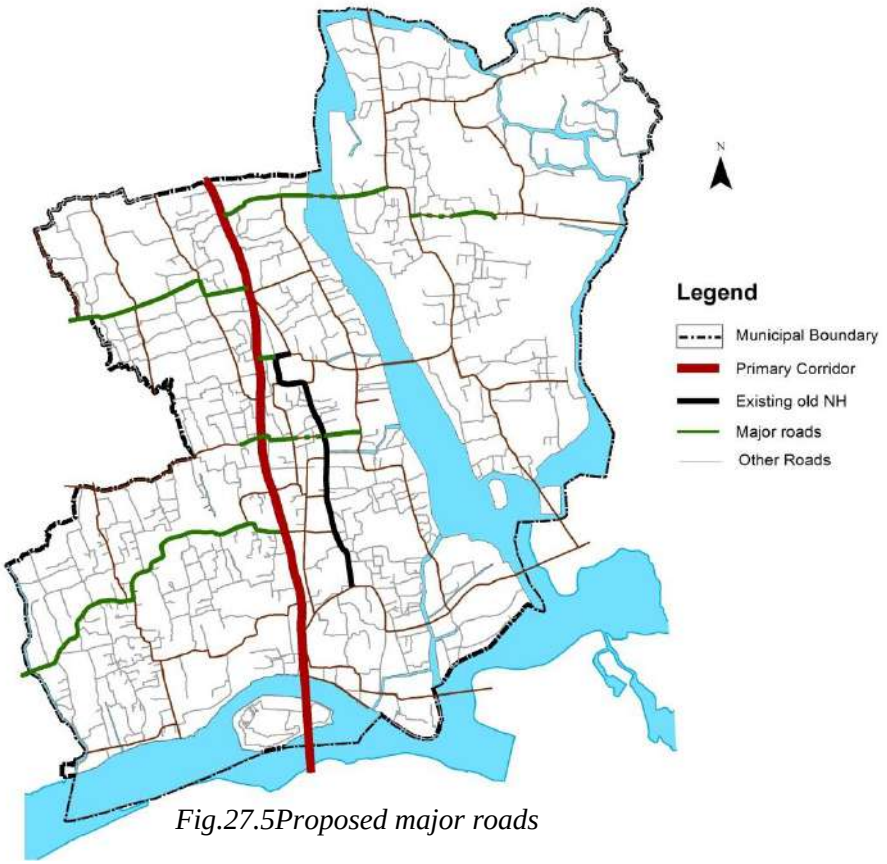


Fig.27.5Proposed major roads

6. Sub Major roads

The following roads are proposed to widen to a width of 12 metres as sub-major roads.

1) From Proposed bus stand @ Padakkulam - Azheekkode Road
2) Chanthappura- Coastal road link
3) Narayanamangalam-Velloor road
4) Peringappadam regulator road
5) Thachappilly road

6) Chappara- Pantheerampala-SH 51 road
7) Kizhakkenada-Thekke nada road
8) Hospital road
9) Road to proposed recreation hub
10) Sringapuram-Zonal Office-TKS puram road
11) KSRTC road
12) TKS Puram- Kottappuram road
13) Menaka road to Kottappuram old boat jetty road
14) Methala - Sree Krishna temple –PHC road

The road from Chappara to Pantheerampala is proposed to be widened and extended to meet the SH 22 at Thiruthippuram panchayath area by constructing a bridge across the backwater area (figure 27.6).

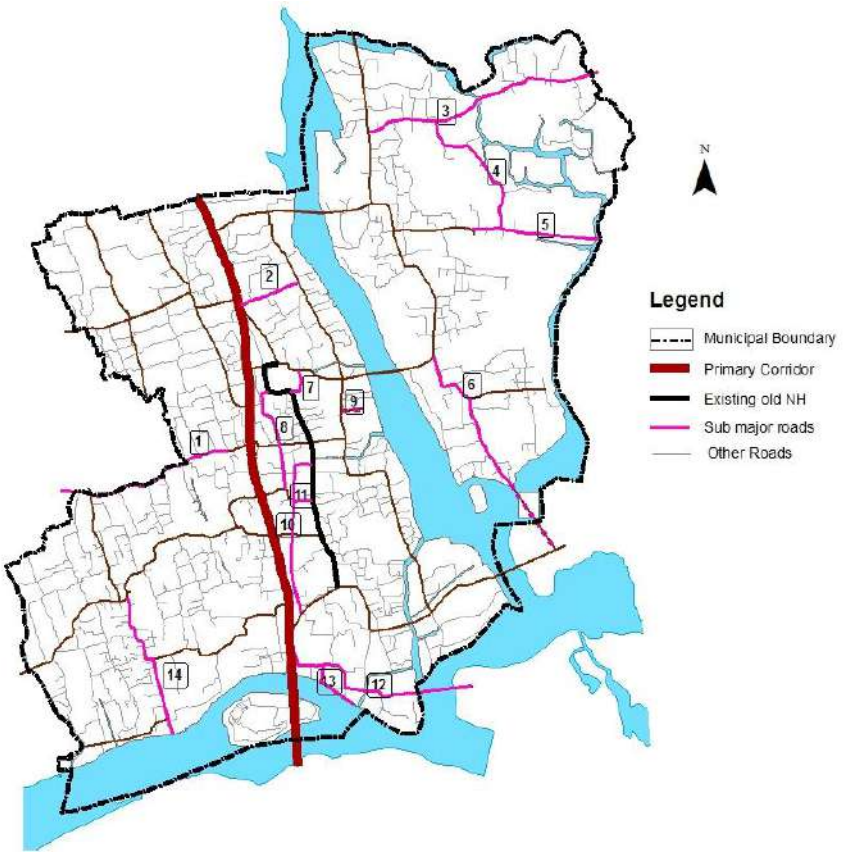


Fig.27.6 Proposed Sub major roads

7.Minor roads

The following roads are proposed to widened to a width of 9 metres as minor roads (figure 27.7).

1) Ward1 West Road
2) Thandamkulam road
3) JTS Road
4) Modern Hospital – Karoor nagar road
5) Chappara ITI road
6) Sringapuram BHS West North-Anchappalam road
7) Methala Parambikulangara temple-Challiyil temple road
8) TKSpuram- Methala PHC road
9) Puthenthodu road

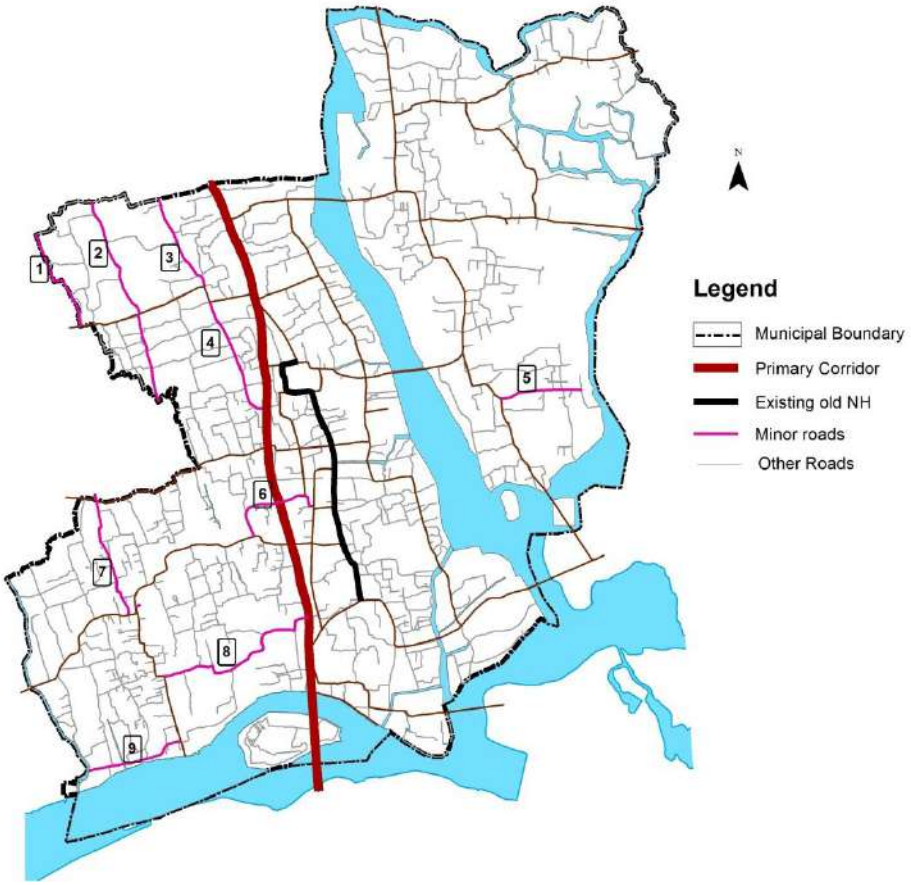


Fig.27.7 Proposed minor roads

27.3. Flyovers

Flyovers are proposed at Chanthappura and Anchappalam near Cheraman junction to enable smooth traffic at the NH bypass. At Chanthappura, flyover enables traffic to cross from the secondary corridor to Eriyad road and at Anchappalam the traffic crosses from the Grid link road at Cheraman Junction to the Azheekkode road, without affecting the traffic through the NH bypass (figure 27.8).

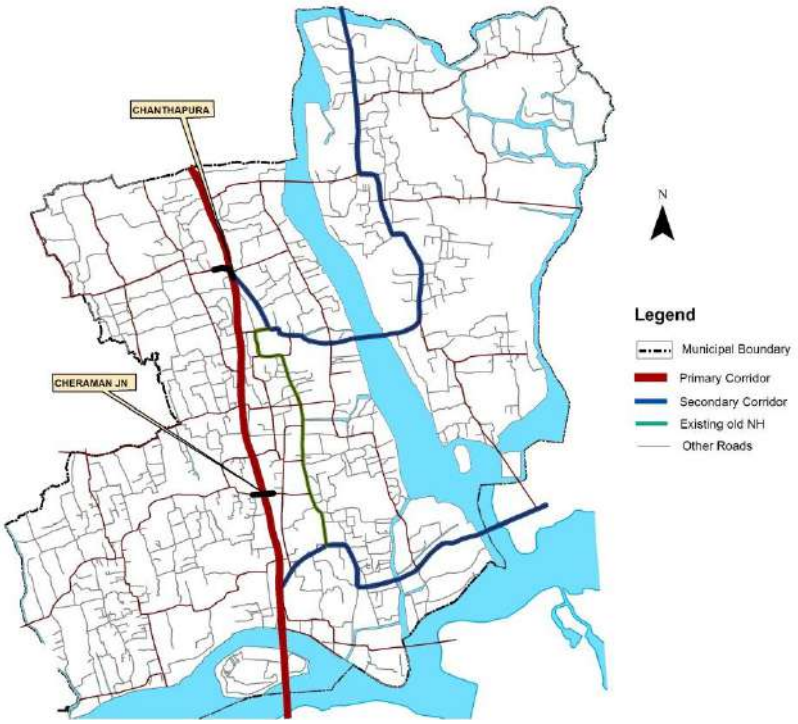


Fig.27.8 Locations of Fly overs

27.4. Junction improvement schemes

A well designed junction can increase the capacity of the same and also adds on to the aesthetics of the area. The following intersecting points in Kodungallur town need to be taken up for detailed design considering the existing traffic flow and the need for future road widening. The locations are shown in figure 27.9.

a. Chanthappura
b. Temple Bus stop
c. Thekkenada
d. Padakulam
e. TKSpuram

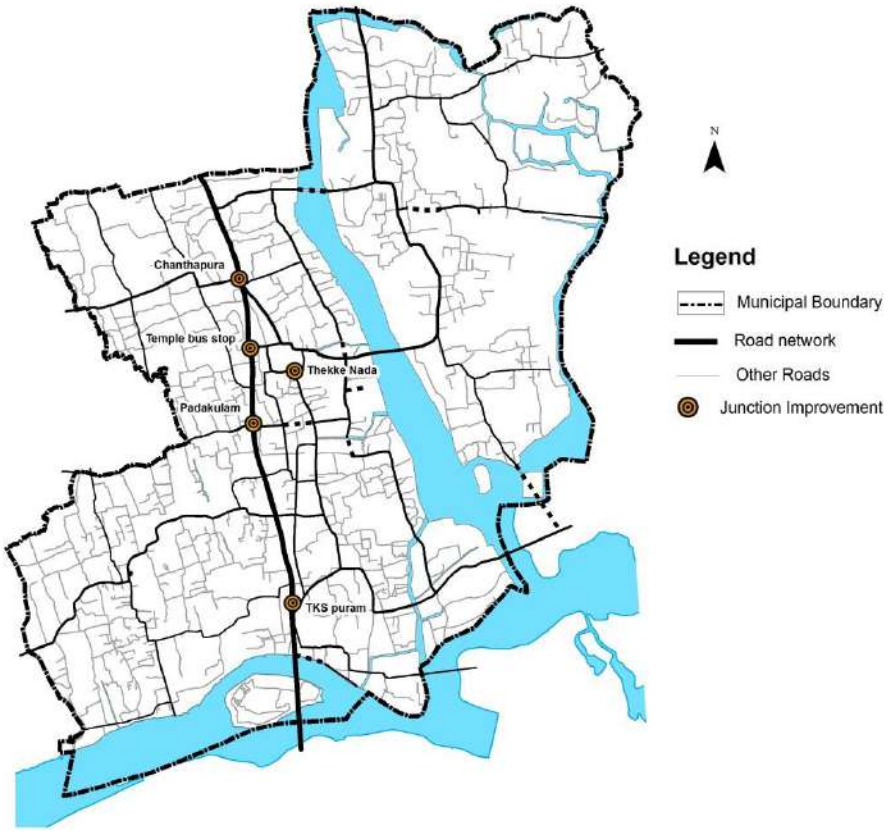


Fig.27.9.Junctions to be improved.

27.5. Pedestrian facilities

The pedestrian facilities that need to be considered are:

(i) Sidewalks or walkways: Sidewalks and walkways are "pedestrian lanes" that provide people with space to travel within the public right-of-way, that is separated from roadway vehicles. Sidewalks are associated with significant reductions in pedestrian collisions with motor vehicles. For Kodungallur town, considering the existing pedestrian demand, sidewalks with a width of 1.5m to 2.5 m is proposed for all types of roads.

(ii) Marked crosswalks and enhancements: Marked crosswalks indicate optimal or preferred locations for pedestrians to cross and help designate right-of-way for motorists to yield to pedestrians. Crosswalks are often installed at signalized intersections and other selected locations. Marked crosswalks are desirable at some high pedestrian volume locations (often in conjunction with other measures) to guide pedestrians along a preferred walking path. For Kodungallur town, cross walk markings are desirable at all arms of the major intersections. Apart from these

intersections, cross walk markings need to be proposed at major high pedestrian volume locations like educational institutions, hospitals and commercial centres.

(iii) Pedestrian Overpasses/Underpasses: Pedestrian overpasses and underpasses allow for the uninterrupted flow of pedestrian movement, separated from the vehicle traffic. **Pedestrian overpass** is proposed at **Vadakkenada near Police Station** in Kodungallur town which has high concentration of commercial establishments, public offices and pedestrian volume.

27.6 IWT network

Kerala is blessed with a large network of rivers, canals and backwaters. But Inland water transport in Kerala is still under developed in most of the areas.

IWT has the potential to act as a very cost-efficient transport mode especially in areas like Kodungallur with naturally available waterways being abundant. These waterways were used for trade in the past, but neglected since last decade due to development of roads and railways. Apart from cargo transport the development of waterways has a potential to attract tourism particularly in areas like Kodungallur which is known for its heritage and culture.

It is estimated that every shift of one billion ton-km to inland waterways will reduce transport fuel costs by $5 million and overall transport costs by $9 million.

National waterway No. 3 from Kollam to Kottappuram has its one end near Kodungallur and an IWAI cargo terminal is also available at Kottappuram. The proposed extension of NW-3 is passing through Kodungallur and it can be made navigable up to Chettuva with some dredging and widening near Kattoor.

27.7 Conclusion

The proposals included in the long term plan is expected to enable a balanced development of the Urban Centre in the coming years. The public transport accessibility study conducted on the proposed road network shows that

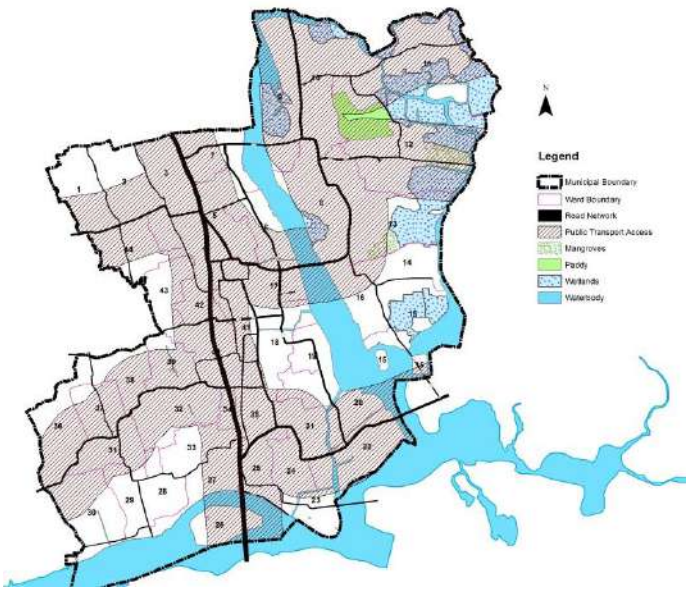


Fig.27.10.Public transport accessibility at 500 metres

almost the whole town area has been covered by road network and public transport will be accessible at a distance of 500 metres from any point of the town.

CHAPTER 28

SECTORAL PROPOSALS

Development proposals which are envisaged for the plan period are detailed out in this chapter. The provision of better living conditions to the people has to be the utmost priority of the municipality. Tourism, fisheries and commercial activities can gain momentum and become the economic base. As per IDDP, Kodungallur falls under multifunctional zone II, which indicates that it should act as a service provider for surrounding LSGIs. Along with developmental activities, environmental sensitive areas and heritage areas in the municipality are to be protected for sustainable growth of the town.

28.1 Tourism

28.1.1 Tourism circuit



Fig 28.1 Tourism circuit

A one-day tourism circuit starting from the arrival centre at Sringapuram connecting locations having tourism potential is proposed. The locations include Kodungallur Bhagavathy temple, Cheraman Juma masjid & museum, Thiruvanchikkulam temple,

Cheraman Parambu& museum, Kottappuram Old boat jetty, Kottappuram fort and the fish farms at Narayanamangalam and Pantheerampala. The arrival centre is to have facilities like information kiosks, cafeteria, toilet blocks etc. In the Cheraman Parambu and museum, along with a historical museum, an activity centre is proposed. Amphitheatre, boating facilities, cafeteria, toilet blocks etc. are proposed at Kottappuram old boat jetty.

28.1.2 Aqua-tourism at Fish farms

The fish farms at Narayanamangalam and Pantheerampala hold immense potential for the development of aquatourism projects comprising of angling, food court and fish sale facilities. The locations are shown in fig 28.2.

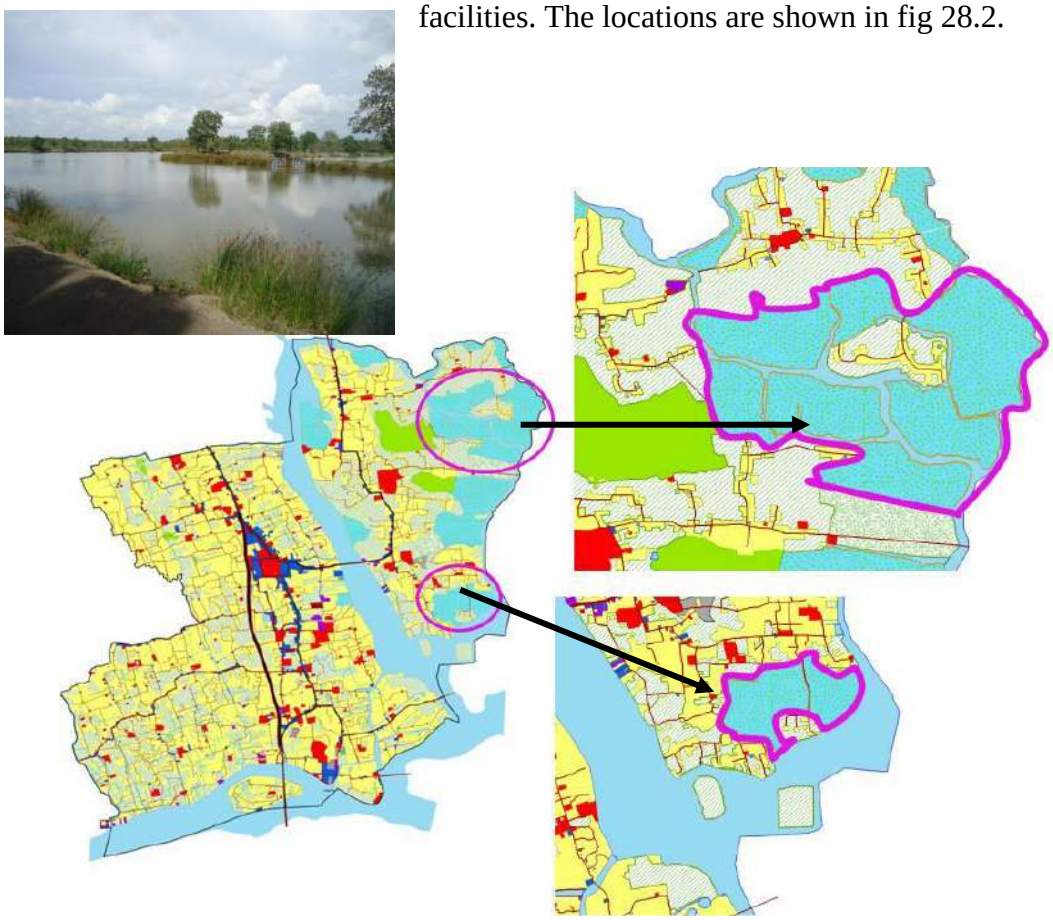


Fig 28.2 Locations for Aqua tourism proposals

28.1.3 Tourism promotion zone

As per the analysis done, infrastructure facilities for the accommodation and well- being of the tourists are found to be insufficient in the municipal area. Hence a tourism promotion zone is proposed in the two islands – Chemban thuruthu and Muringa thuruthu in the southern area of ward 15. These islands can act as an area for development of tourist

infrastructure like resorts, hotels and other recreational facilities. Location is shown in fig 28.3

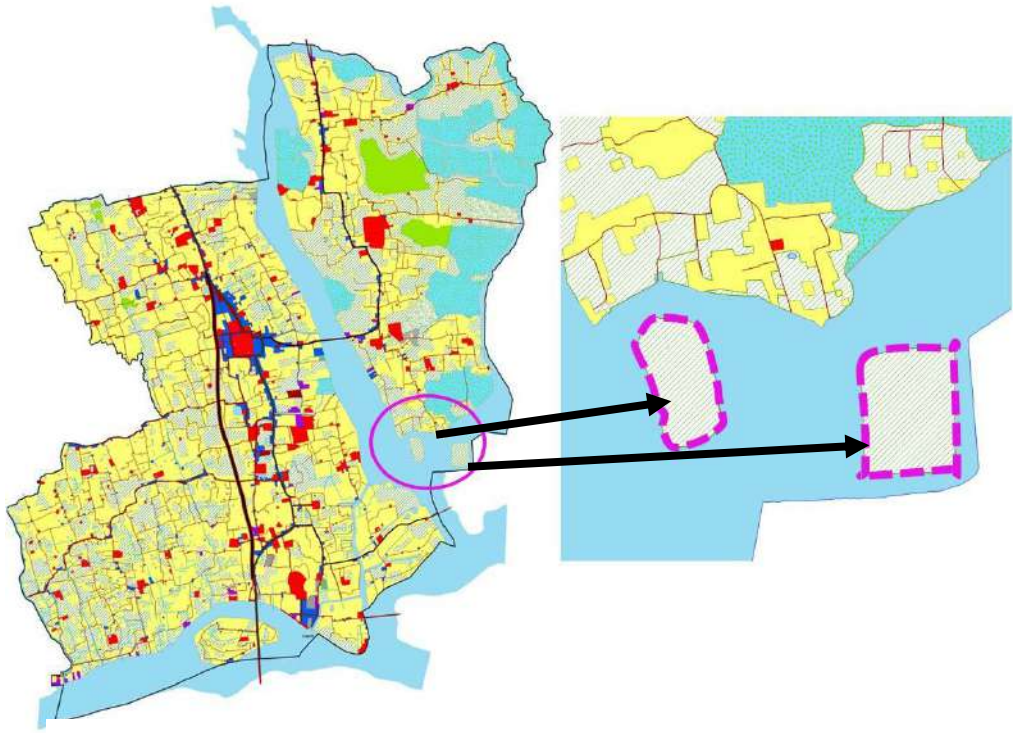


Fig 28.3 Tourism promotion zone

28.1.4 Dormitories for stay of devotees during festivals

Pilgrim tourism is an integral part of the tourism sector in Kodungallur town. Kodungallur Bharani and Thalappoli festivals attract millions of devotees to the deity. This has created a need for facilities for temporary stay in nearby areas. It has been proposed to provide dormitories above the following municipal buildings by providing sheet roofing, side grills, bunk beds, toilets, baths, cloak room etc.

i) Existing Municipal Office Complex, East Nada
ii) Kavilkadavu Market Complex
iii) Old Municipal Office Complex, Thekke Nada
iv) Zonal Office Building, Methala

The locations are shown in figure 28.4

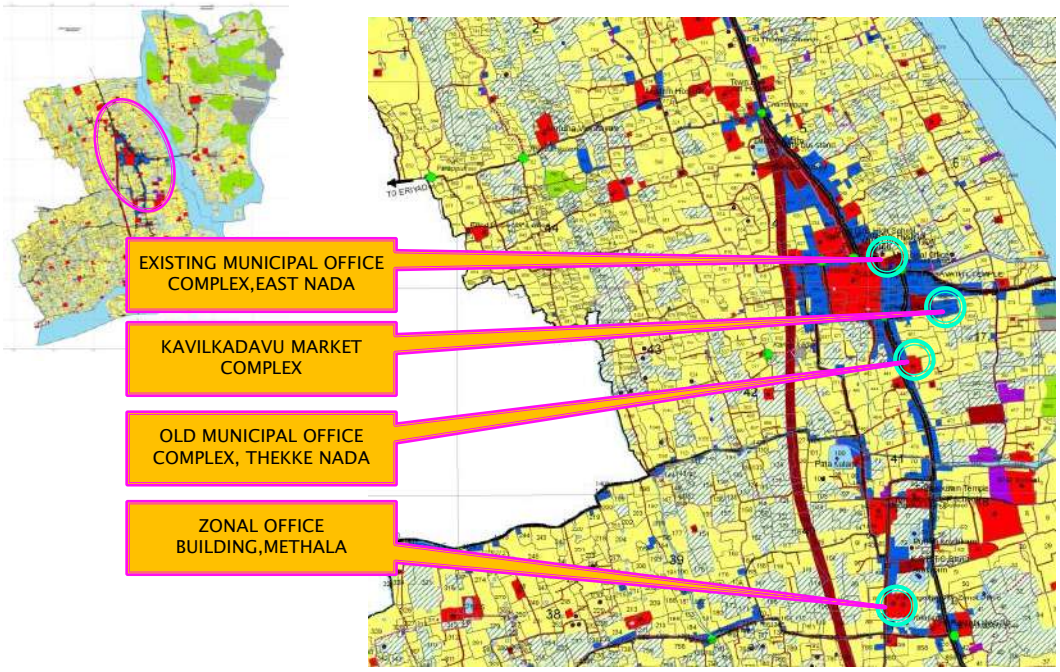


Fig 28.4 Locations for providing dormitories

28.1.5 Website Development for tourism promotion

The tourist importance of the town needs to be made known through modern ways to people seeking information. The hosting of a website detailing the tourism prospects of the town and the available facilities is hence proposed.

28.2 Agriculture, Irrigation & Animal Husbandry

An integrated approach is proposed in the development of Agriculture, Animal husbandry and industry in the municipal area. The products and byproducts of each sector can be utilized for the growth of another. Value addition to the raw products can act as small scale activities in the industrial area.

28.2.1 Model plots for organic farming

Agricultural activities in the municipal area are mainly based on dry agriculture for crops like coconut, vegetables, plantain etc. It is proposed to select model plots from the existing cultivated areas each year to provide necessary support for organic farming. The produce from these farms can be utilized for arranging organic food counters at temple

premises during festivals. The cultivation in the wards 1,2,11,12,13,26,27,29,30,31,36,37 are proposed to be promoted as model plots.

- **Organic Farming:-**

By this project Master plan envisages a sustainable development in agricultural fields with special focus to paddy. It promotes organic farming starting from household level to various dimensions. Organic farming is a form of agriculture that relies on techniques such as crop rotation, green manure, compost, and biological pest control. As a pioneer programme in Kodungallur town, it needs policy statements and strategies to achieve proposed goals.



- **Roof top farming:-** The practice of cultivating food on the rooftop of buildings is called roof- top farming.



Roof top farming

- **Group farming initiatives from town:-** Local body itself can act as a role model to the society by conducting and coordinating group farming initiatives in paddy fields. Nearly 32 ha of paddy area is identified for this in North East segment of the town. This area can alone produce around 250 ton of rice per year. Direct marketing techniques may be adopted to check the hike of prices. Capacity building, Researches, Professionalism of governing body etc. give sense to this project. Three time harvest cultivation practices can be adopted here which ensure the production throughout the year. Location of proposed land for organic farming is shown in fig 28.5 **.**

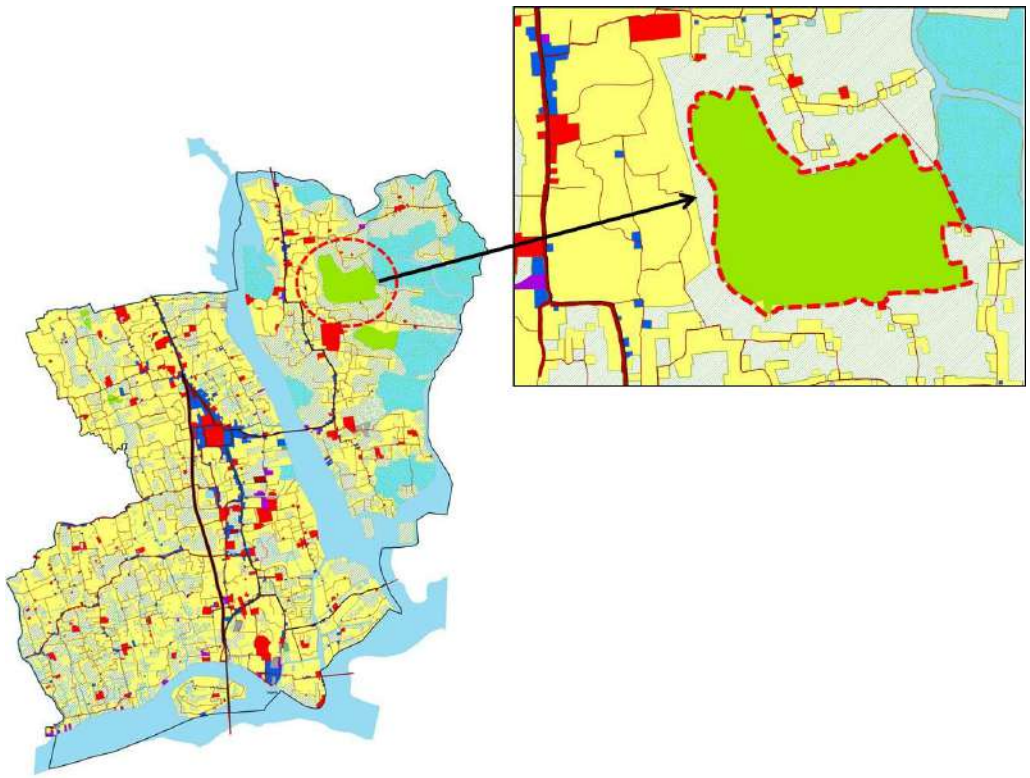


Fig.28.5 Location for organic cultivation




Rice cultivation

- **Pokkali on Prawn bunds:-** At present Prawn bunds are used for the production of pokkali rice as a seasonal cultivation in some areas. This system can be widened to all the bunds which is useful to Prawn cultivation also.




Pokkali cultivation

- **Organic vegetable cultivation in buffer zone:-** It is proposed to provide a 20m wide buffer zone along the river side as a protection barrier within CRZ demarcated land. The entire buffer zone extents with an area of 35.71 ha. This land can be effectively utilised for the cultivation of vegetables in an organic manner. This shall be a joint venture including participation from various agencies like Kudumbasree, School/College volunteers, Social clubs, Private initiatives etc. Fig. 28.6 shows the conceptual rendering of proposed organic vegetable cultivation.



Fig.28.6 Showing location for organic Cultivation in Buffer Zone

Implementation Strategies:-

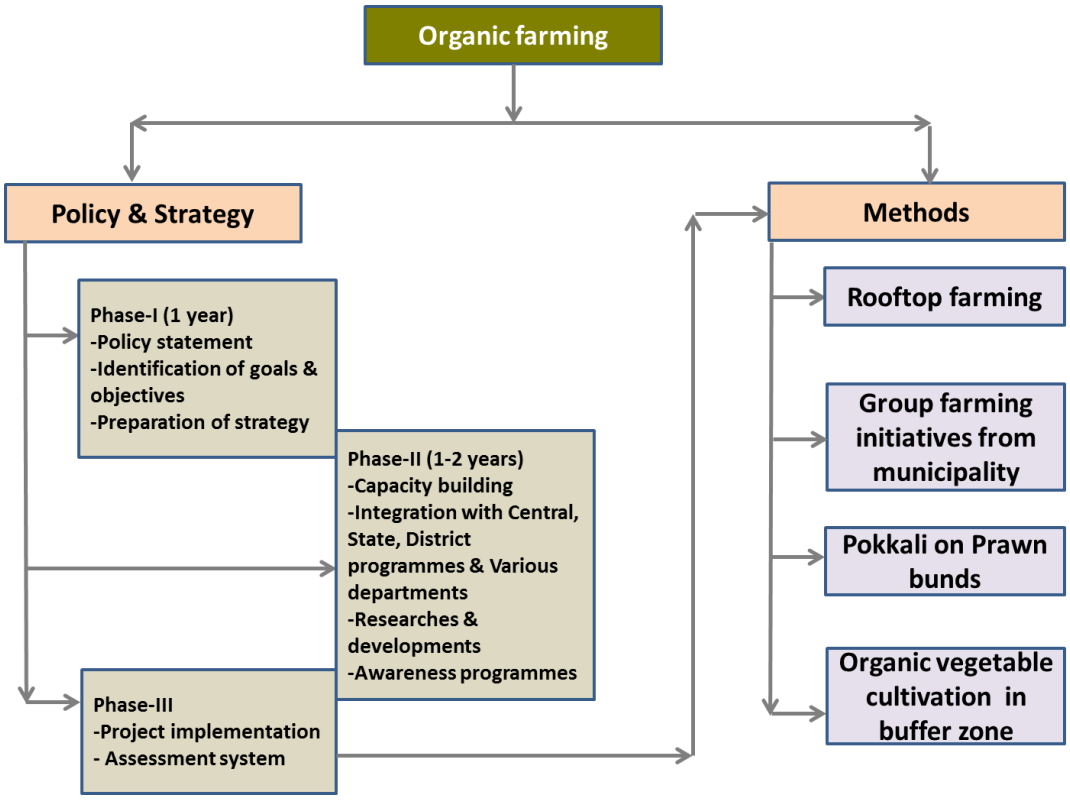


Fig.28.7 Implementation strategies for Organic farming

28.2.2 Fodder cultivation

It is proposed to utilize the agriculture by product as fodder for animal husbandry. Thus an integrated approach can be developed among farmers, which is economically sustainable.

28.2.3 Labour bank

It is proposed to organise a labour bank at the old municipal office building, Thekkenada. This location can be utilized for storing the work equipment and to make labourers available as and when required. Also training can be made available to labourers for using machinery for coconut plucking and pokkali paddy cultivation. The location is shown on figure 28.8.



Fig 28.8 Location for proposed labour bank

28.2.4 Dairy farms

In town area, the demand for milk is more compared to availability. People depend on other states for additional milk requirement. Hence it is proposed to establish small scale dairy farms with 10 to 20 cows in one unit. 10 such units are proposed to be started in Kodungallur Municipal area in a phased manner. In the first phase it is proposed to start 3 units, and gradually increase it to 10 units within 20 years. A survey is proposed under the auspices of veterinary hospital to identify the interested persons in running dairy farms. The animal husbandry department may be directed to prepare an action program for starting small scale dairy farms. 28.9

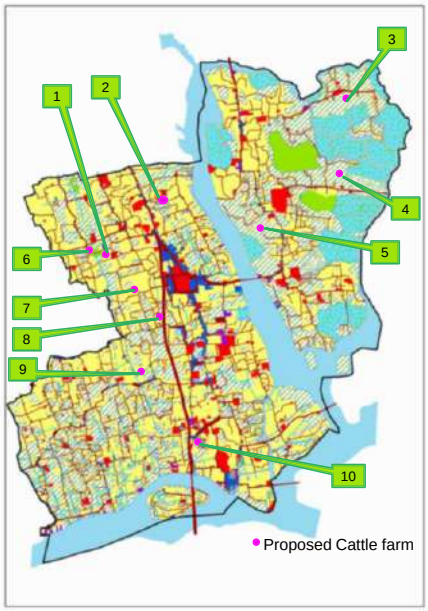


Fig 28.9 Location for proposed cattle farms

28.2.5 Sluices

To prevent saline water intrusion, which had been identified as a major problem in agriculture sector, sluices have to be provided along natural streams at

1. Peringappadam in ward 12
2. Wetland behind KKTM College
3. Streams entering wards 19, 20, 21, 22, 26, 27, 36

Also side protection of existing streams and ponds is proposed to avoid saline water intrusion.

28.2.6 Ground water recharging based on ponds

Considering the decreasing ground water level in town area, it is necessary to protect and replenish existing ponds for future. For this rain water harvesting is proposed at Arakulam, Padakkulam, Dalavakkulam and Karissamkulam which are perennial. These ponds have to be protected and wells constructed within the ponds for effective rain water harvesting. Locations of these ponds are given in fig 28.10

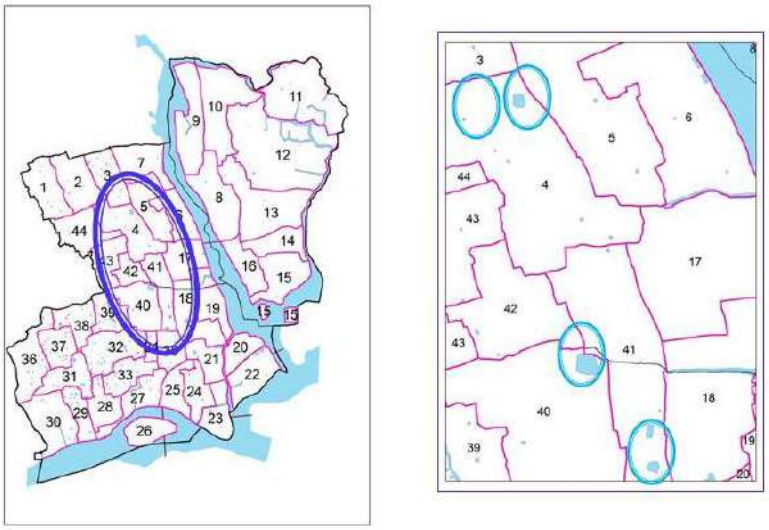


Fig 28.10 Location of ponds for rainwater harvesting

28.3 Fisheries

Diversification of aquaculture practices and their allied activities is required for the integrated development of fisheries sector in and around the municipal area. Ample potential available in Kodungallur is not exploited to the fullest.

28.3.1 Vanami prawn cultivation

In view of strengthening the brackish water prawn culture in the existing prawn filtration fields, cultivation of new varieties like Vanami prawns can be promoted alongwith the traditional varieties like 'Kara' , 'Naran' etc.

28.3.2 Kodungallur brand Crab

Considering the available potential for crab cultivation, steps can be taken to promote and develop Kodungallur brand crab in the market and avail the marketing opportunities in the tourism sector. The catch can be sold at on-field sale counters to tourists. The potential locations are shown in fig 28.11



Fig 28.11 Location for prawn and crab cultivation

28.3.3 Cage culture of Pearlspot fish

The brackish water in the backwaters near Kodungallur municipal area is suitable for the culture of Pearlspot fish. It is proposed to promote the practice of cage culture by imparting necessary training to the fishermen and by providing infrastructural and marketing facilities. The locations found ideal for cage culture is shown in fig 28.12.

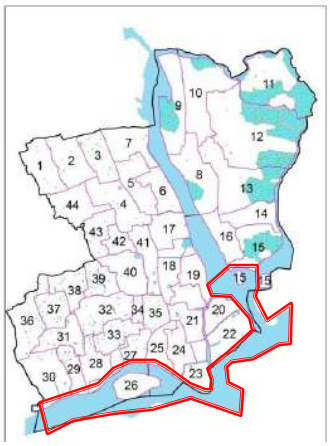


Fig 28.12 Locations for cage culture

28.3.4 Training centre cum seed bank

Awareness and training about new techniques in cultivation and marketing of variety of fish species is required for the integrated development of the sector in the municipality. Facilities for ensuring availability of good quality seeds are also essential. Hence it is proposed to setup a training centre cum seed bank at the premises of the proposed fish landing centre at Anappuzha. (fig 28.13)

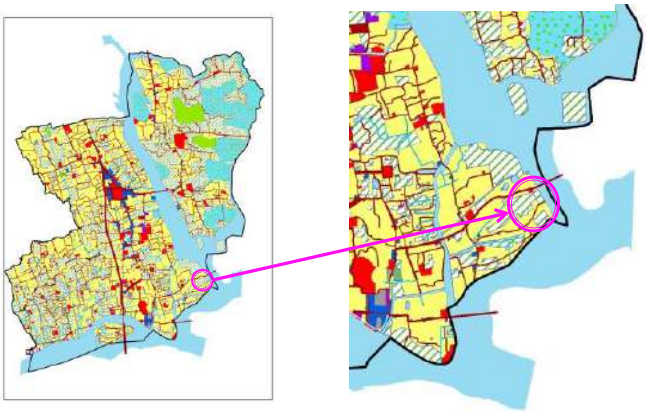


Fig 28.13 Location for training centre cum seed bank

28.3.5 Freshwater fish culture in public ponds

It is proposed to conduct freshwater fish cultivation in the following public ponds. This can be initiated by Municipality which generate income.

- Padakulam
- Dalavakulam
- Karissamkulam
- Chennankulam

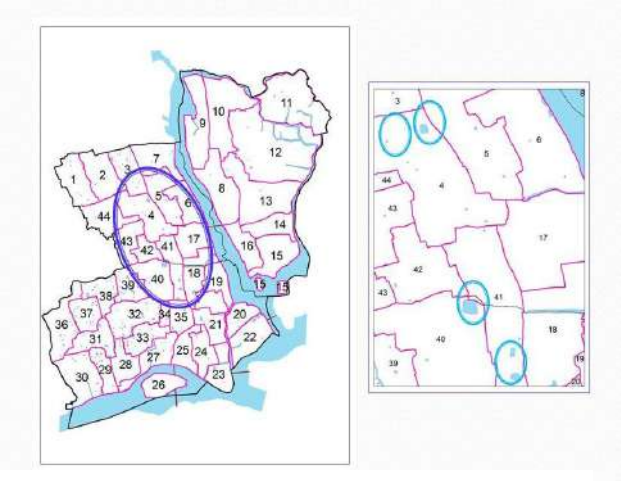


Fig 28.14 Location of ponds proposed for fish culture

28.3.6 Ornamental fish cultivation

The available potential for ornamental fish cultivation can be utilized and a farm be set up at Arakkulam with counters for the sale of ornamental fish.

28.3.7 Fish processing centre

Fish caught locally can be processed and marketed as value-added products. Hence it is proposed to setup a modern fish processing centre utilising the existing facilities available near the Anappuzha fish market

28.3.8 Auction Hall

An auction hall for the sale of fish is proposed at the proposed fish landing centre at Anappuzha.



Fig 28.15 Location of proposals in fisheries sector

28.3.9 Fish drying unit

Often increase in the catch or yield results in a bulk which may be difficult to be sold in a day itself. Hence a mechanized fish drying unit is proposed at the Kottappuram market. Details are given in fig 28.15. This facility enables the fisherman to handle the bulk catch without falling prey to heavy loss.



Ornamental fish cultivation *Processing unit* *Drying unit*

28.3.10 Prawn based food stall:-

Prawn cultivation is one of the prestige product of the Kodungallur Municipality. Different value added products can be produced by this. So Master plan suggests a prawn

based food stall along NH-17. It will be worthwhile considering the passengers through NH-17. Manufacturers get a direct marketing opportunity.

28.4 Industry

28.4.1 Ksheera Park

Considering the huge demand and the good potential in dairy sector in Kodungallur, various proposals were carved. To handle the surplus produce, it is necessary to have sufficient facilities to make value added products based on this. For manufacturing value added dairy products, an industrial unit called 'Ksheera Park' is proposed inside existing industrial estate at Narayanamangalam. Location is shown in fig 28.16.

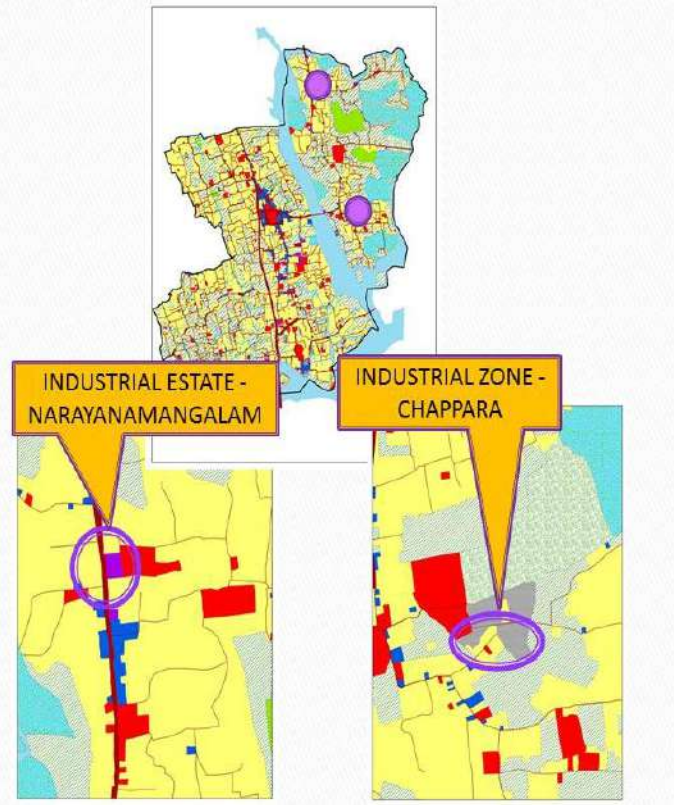


Fig 28.16 Location of industrial area

28.4.2 Industrial area

In the case of fisheries sector various development proposals are suggested. Here also value added products will have to be included to hold the surplus. Hence processing plants are to be erected. Also the waste generated out of this processes may be converted to manure/other value added products. For processing of fish and production of manure from fish waste an industrial zone is proposed at Chappara as shown in figure 28.16 . It has been seen from the analyses that screwpine can be grown abundantly in the marshy and wetlands of this place. Hence industries for producing value-based products from screwpine are also proposed in this zone.

28.4.3 Green Techno Centre

The development of Kodungallur municipality as an influence city of Kochi demands possibilities for economic self-sustainability. Large numbers of people are daily commuting to and from Kochi area for employment opportunities and other business activities. An effort is to be taken to provide basic infrastructural facilities and other amenities for developing an

area which can be utilized for the above purposes. A small portion of the large marshy waste lands which has been lying unused for years occupying a major portion of the land area available in the municipality can be utilized for developing a special zone which will support the municipality for its economic development and sustainability. A special zone named Green Techno Centre covering an extent of about 12 hectares, is envisaged at the fallow uncultivable and developable paddy land area to the east of KKTM college. Location is shown in fig 28.17

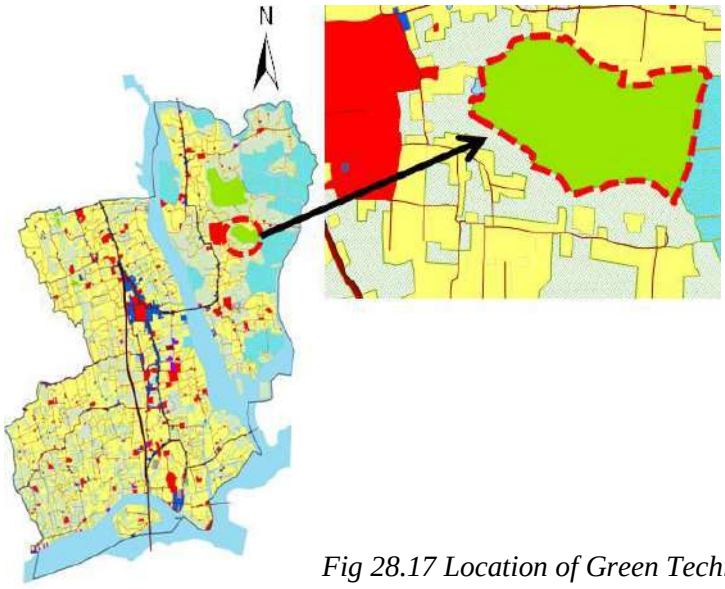


Fig 28.17 Location of Green Techno Centre

A well planned development of this area is proposed by keeping 20% of land as water body area to prevent water logging and to provide a fresh water source to the centre and to the surrounding residential area. About 100 million litres of rainwater can be harvested and stored in an year. A step for preventing saline water intrusion is also to be planned. The rest 80% of land can be developed as a technology centre with service industries like IT and IT enabled services, manufacturing and service of electronic devices and other non-polluting industries without disturbing the surrounding environment. Green buildings of higher standards is suggested at the Centre for maintaining the ecological balance of the area. Projects can be planned as public-private partnership projects with the participation of the land owners, municipality, State & Central governments and interested entrepreneurs.





28.5 Drinking Water

28.5.1 Improvements to Kodungallur Water supply scheme

The supply of water is interrupted owing to pipe breakage or discontinuous power supply. Proposals have been included in the execution plan of the Integrated District Development plan for enhancing the present water supply level in the areas of the existing Kodungallur- Methala water supply scheme. The components of the scheme are the replacement of raw water pumpset, damaged distribution lines and for the enhancement of capacity of treatment plant. Augmentation of the scheme to make it sufficient to meet the ultimate demand in 2042 is also proposed.

28.5.2 Augmentation of Kodungallur water supply scheme- As per IDDP

The existing Kodungallur –Methala water supply scheme is not sufficient for the supply of water at that area. The estimated benefited population comes to 126178.The ultimate water demand on 2042 comes to 9 mld. The existing source is adequate to meet the ultimate demand and also the intake well. The raw water pump set , 6 mld treatment plant, transmission main, sump and service reservoir are designed for the ultimate capacity. Due to frequent leakages and bursting of pipes in the pumping main water supplied is less than 40 mld. To overcome this ,augmentation of the scheme is urgently required .The total rough cost estimated amount of the the proposals comes to Rs. 1700 lakhs.

28.5.3 Conversion of saline water to potable water

Proposals for the conversion of back water into fresh water by providing separation bunds and by using techniques like solar distillations are included in the execution plan of the Integrated District Development plan. The proposal includes detailed engineering studies including EIA for the conversion of backwater to a fresh water source.

28.5.4 Rainwater harvesting

Since the town faces issues related to water scarcity and saltwater intrusion, rainwater harvesting and recharging is proposed in the public buildings, industrial zones and the proposed cattle farms. Also strict measures are to be taken to insist rainwater harvesting in all residential buildings.

28.6. Sanitation

28.6.1 Waste management- Improvements to existing Solid waste treatment plant

Even though the existing solid waste treatment plant is functioning well in the municipality, certain improvements are suggested in view of the future demand and also to handle the plastic waste. A modern waste treatment plant with biogas plant and plastic shredding unit is proposed at the existing solid waste treatment plant at Chappara.

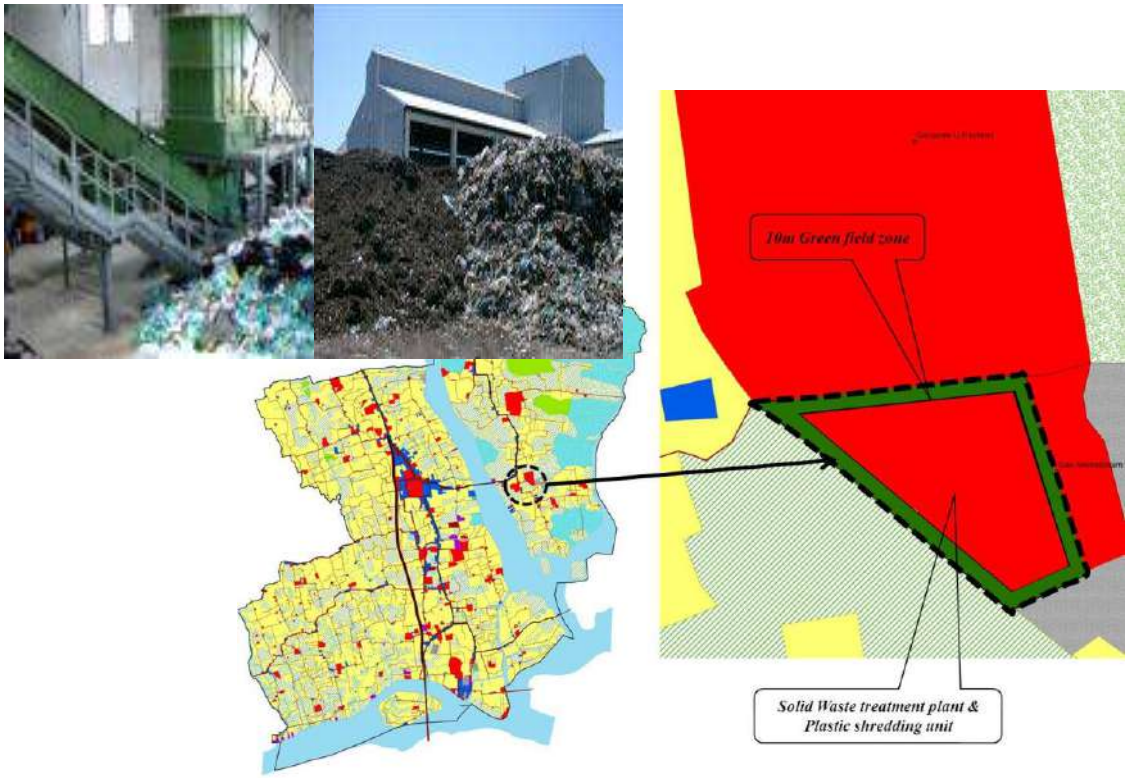


Fig. 28.18 Location of solid waste treatment plant at Chappara

A door-to-door collection of waste from households and other establishments must be introduced within the town with the participation of Self-help groups such as Kudumbasree. Without an appropriate collection system, municipal bodies find themselves spending inordinate amounts of money on street sweeping, as a large share of the waste will end up being left by residents in drains or on common/municipal land. Along with this at residential level Pipe composting methods may be promoted to reduce the quantity of waste.

The basic collection operation can be divided into two elements – primary and secondary collection. Primary collection is managed door-to-door on a daily basis by waste collectors using hand carts or tricycles. Households are encouraged to segregate their waste in two

fractions – biodegradable and non-biodegradable. Further, the waste collectors make a further initial separation into recyclable, inert and biodegradable waste before storing the waste in his or her cart or tricycle. From the primary collection carts or tricycles waste is transferred directly to trucks or tractor trolleys. As soon as bins are full they are transferred to waste processing centres for composting, recycling and ultimately disposal. Throughout the secondary collection system biodegradable, recyclable and inert waste is managed separately. In the case of commercial and industrial establishment an initial treatment should be done by the generators themselves.

28.6.2 Drainage and Sewerage System

Master plan envisages a complete system for the surface drainage of Kodungallur town. Considering the topography and water flow direction the entire town is divided into 6 zones. The project aims to interlink the water channels passing through the town and thus to carry the excess surface water to safe areas. Different strategies are adopted for each zones. The fig 28.19 shows zone wise classification of drainage system.

Main objectives are,

- Division of town as zones for the ease of purpose
- Interlinking of existing water channels
- Ground water recharge

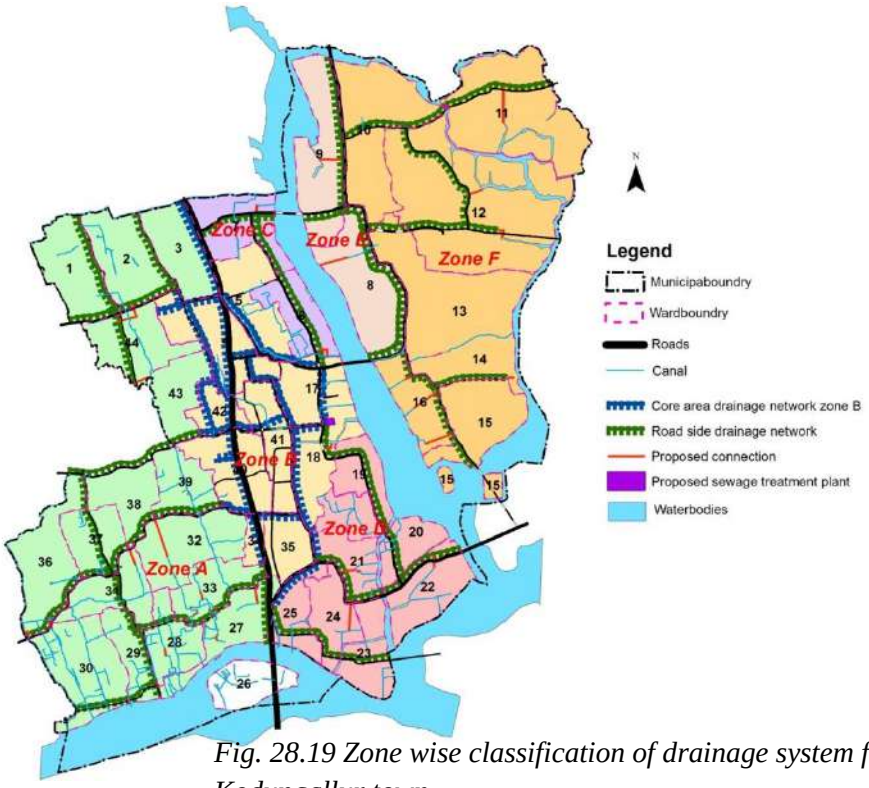


Fig. 28.19 Zone wise classification of drainage system for Kodungallur town

Zone wise classification:-

Zone-A:- Consist of western and southern portion of the town as shown in fig. xxx. As per the study, water flows from northern end to southern region. Zone includes ward number 1, 2, 3, 44, 43, 36, 38, 39, 32, 31, 30, 29, 28 and 27. Since the major area of the zone is covered by residential purpose, care should be given for surface drainage. Projects can be integrated with the study and works of Neerthada Samrakshana Samithi. Existing ponds and water channels etc. should be utilized at its full extend for ground water rechargement. The fig. 28.20 shows drainage channels of zone-A.

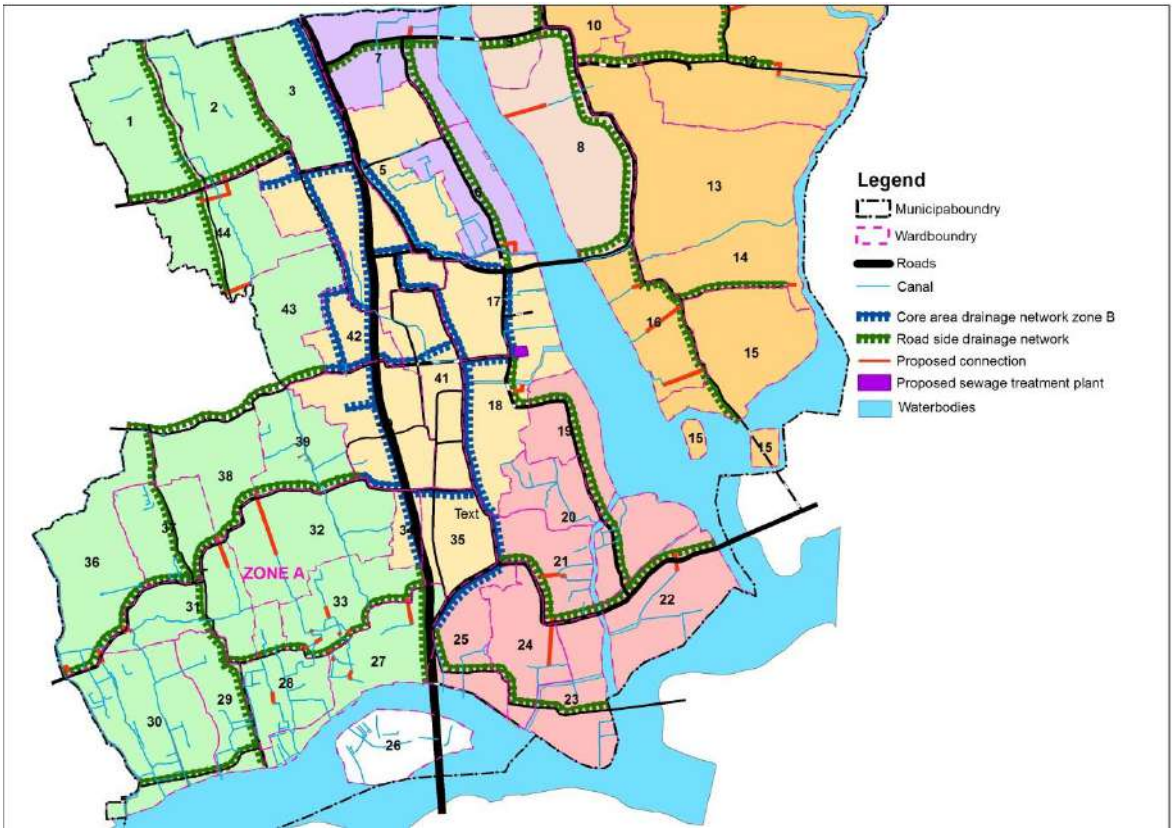


Fig. 28.20 Drainage channels of zone-A

Zone-B:- A properly designed and implemented drainage and sewerage system is required for Kodungallur town core area. Considering various aspects like contour, environment etc. separate sewer system is suited for this area.

Separate sewer system consists of separate collection of municipal waste water and surface runoff (rain water and storm water). The separate collection prevent the overflow of sewer system and treatment stations during rainy period and mixing of the relatively little

polluted, surface runoff with chemical and microbial pollutants from the municipal waste water.

The design of sewer and the semi centralised treatment stations thus needs to consider the volume of the waste water only and the surface runoff and rainwater can be reused (for landscaping and agriculture) after a simplified treatment.

The separately collected storm water and waste water are transported to the treatment plant and given the required treatment to both. The treated storm water can be reused like releasing to surface water, agriculture and for domestic works. The treated waste water can be used for landscaping, agriculture etc.





The drainage system is designed for nine wards which comes under the town center with an extent of 376.4 hectares for a period of 30 years (2042). The wards included in the planned area of drainage system are 4, 5, 17, 18, 34, 35, 40, 41, 42.

The aggregate existing population (2012) of the wards under consideration is 12865, by population forecast methods after 30 years the population (2042) will be 13386. Technical calculations shows that treatment plant should be designed for the the capacity of 2.1 MLD.

. The fig. 28.21 shows drainage and sewage channels of zone-B.

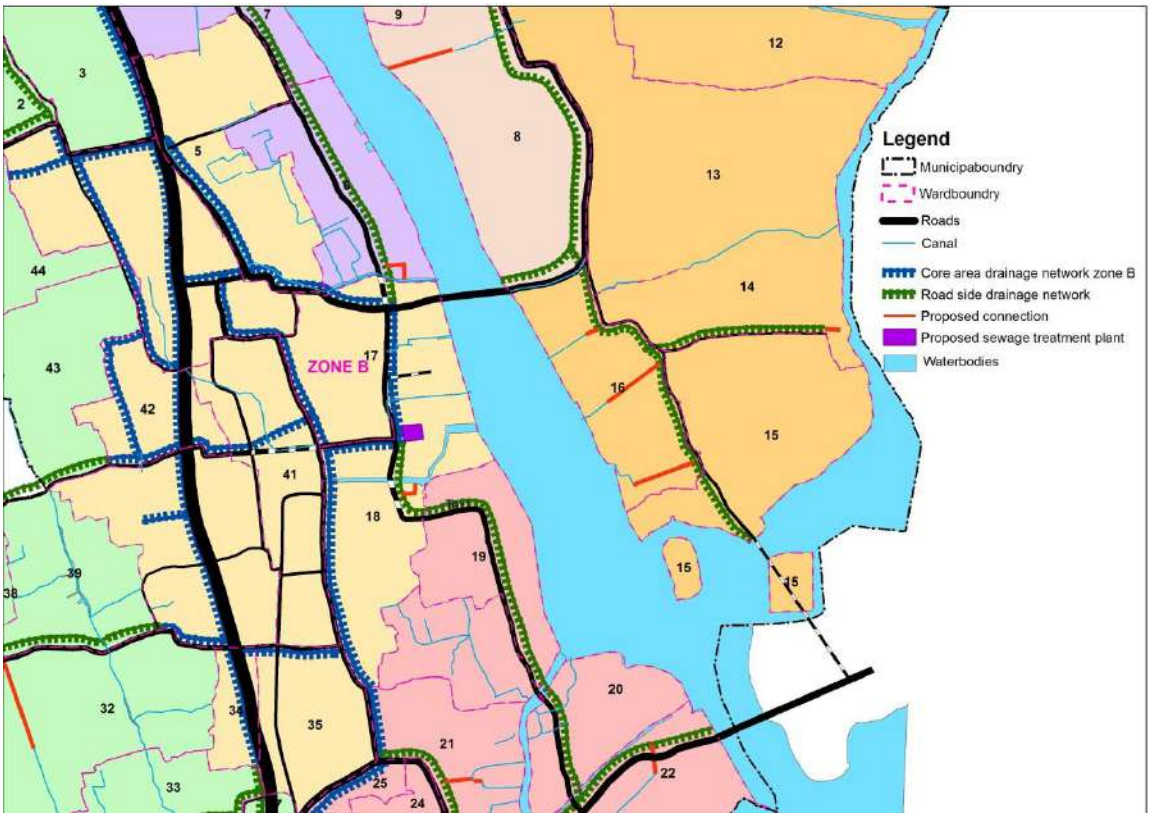


Fig. 28.21 Drainage channels of zone-B

Zone-C:- Zone consist of ward number 6 and 7, Situated on the banks of Canoli canal. Interlinked water channels may open up to Canoli canal. The fig. 28.22 shows drainage channels of zone-C

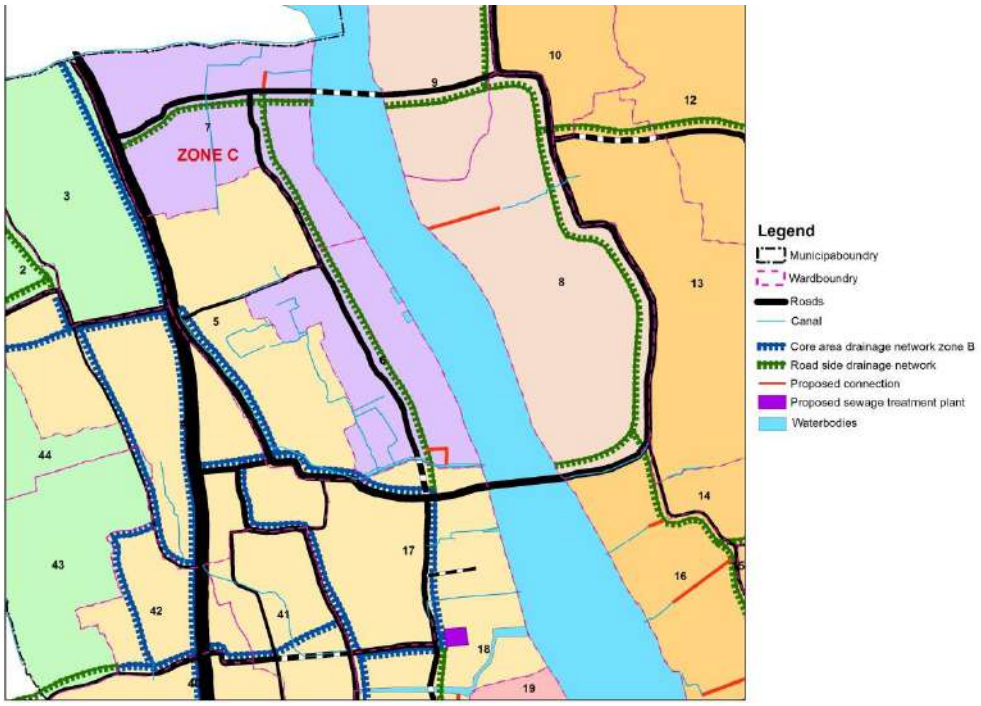


Fig. 28.22 Drainage channels of zone-C

Zone-D:- Mainly consist with residential areas so priority is for surface water drainage. Topographical slope and water flow direction is towards eastern direction.Zone includes ward number 19, 20, 21, 22, 23, 24 and 25. The fig. 28.23 shows drainage channels of zone-D

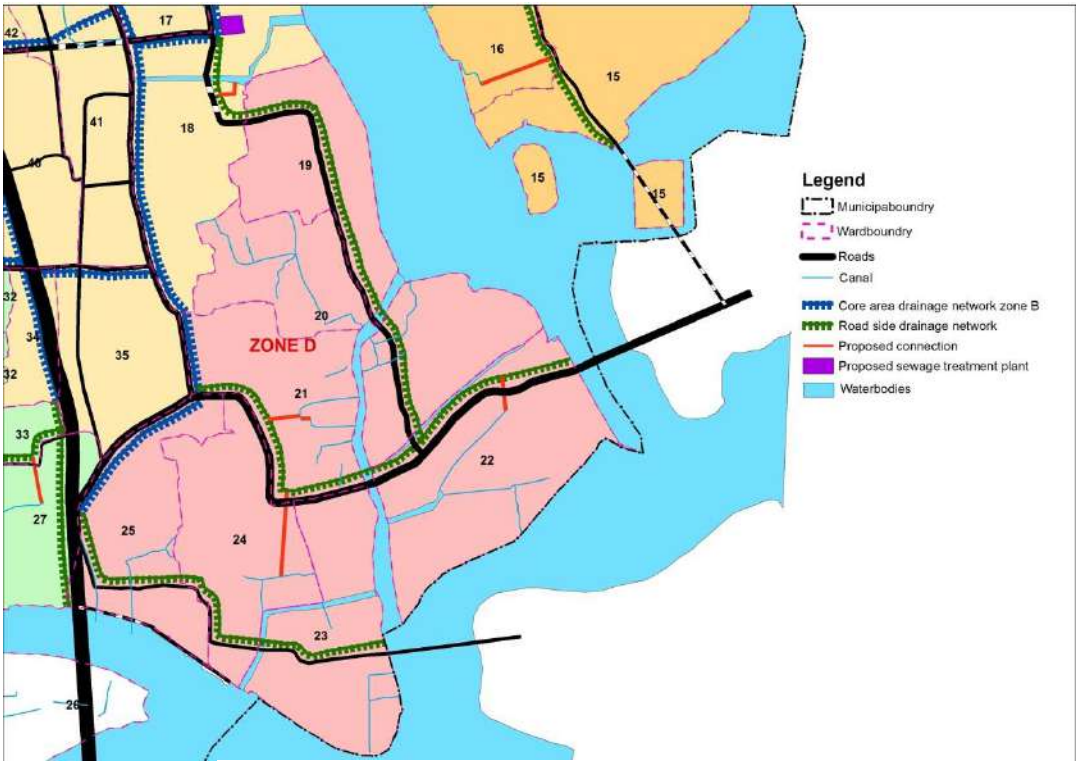


Fig. 28.23 Drainage channels of zone-D

Zone-E:- Zone consist with the residential area located on the eastern portion of the town with gentle slope towards Canoli Canal direction. Zone includes ward number 8 and 9. The fig. 28.24 shows drainage channels of zone-E

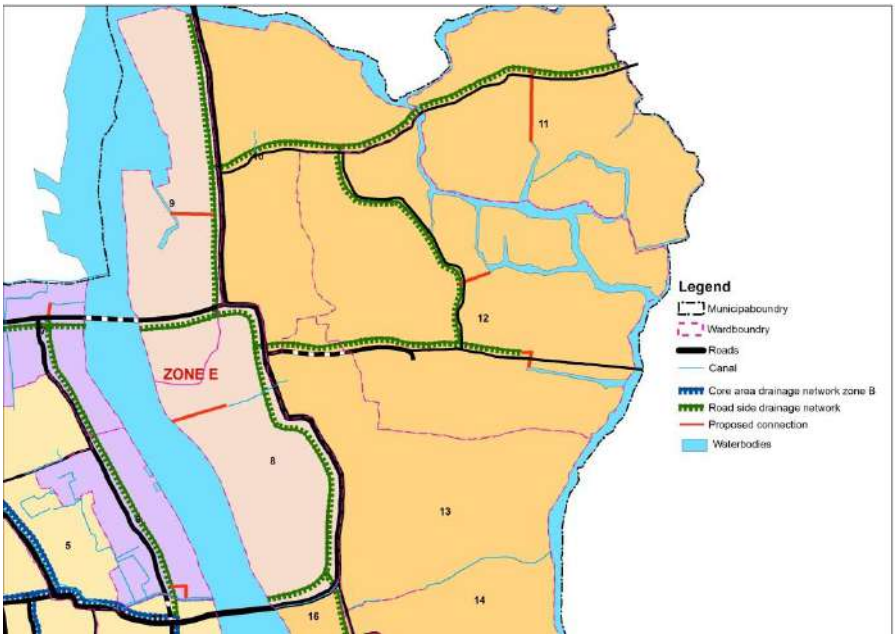


Fig. 28.24 Drainage channels of zone-E

Zone-F:- Located on the eastern most portion on the town with residential concentration. Zone includes ward number 11, 12, 13, 14, 15 and 16. The fig. 28.25 shows drainage channels of zone-F

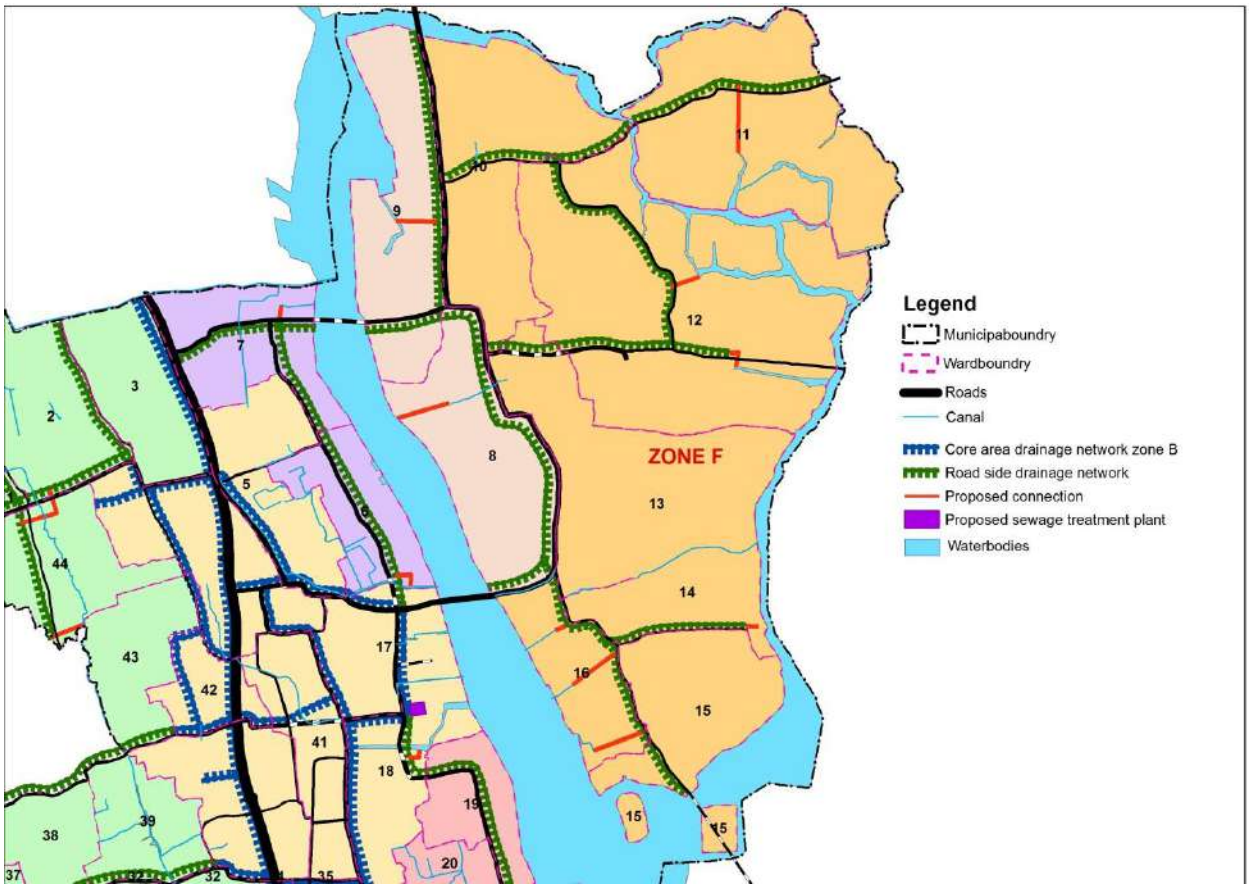


Fig. 28.25 Drainage channels of zone-F

28.6.3 Septage Treatment Plant

Proposals have been identified at the district level to establish a centralized septage treatment plant at Pudukkad Grama panchayath. It is thus proposed to avail this facility and make arrangements to transport the septage in Kodungallur town to the proposed plant for treatment considering the scarcity of available land in the town.

28.6.4 Comfort station/E-toilet facilities

Comfort stations/E-toilet facilities are proposed at major locations like Mini Civil station, Private bus stand, Taluk Hospital and KSRTC stand.

28.6.5 Conversion of hanging toilets

The existence of hanging toilets in the riverside areas is presently a severe pollution problem. It is proposed to take steps for the conversion of hanging toilets to ECOSAN toilets.

28.7 Social infrastruture

28.7.1 Bus stand complex

At present town center is congested, one of the main reason for this is the location of bus stand in the vicinity of Kodungallur Bagavathy temple. So it is proposed to shift the bus stand to the western side of the Municipality. This new establishment can direct the future growth to the respective direction. The location of the proposed bus stand complex is shown in in fig 28.26. The new complex should consist of modern amenities such as ambient bus parking areas, commercial areas, consideration for street vendors, Auto/Taxi stand, Comfort stations etc. with an extent of 1.12 hectare. This project demands huge initial investment which can be collected through various Public Private Partnership methods.

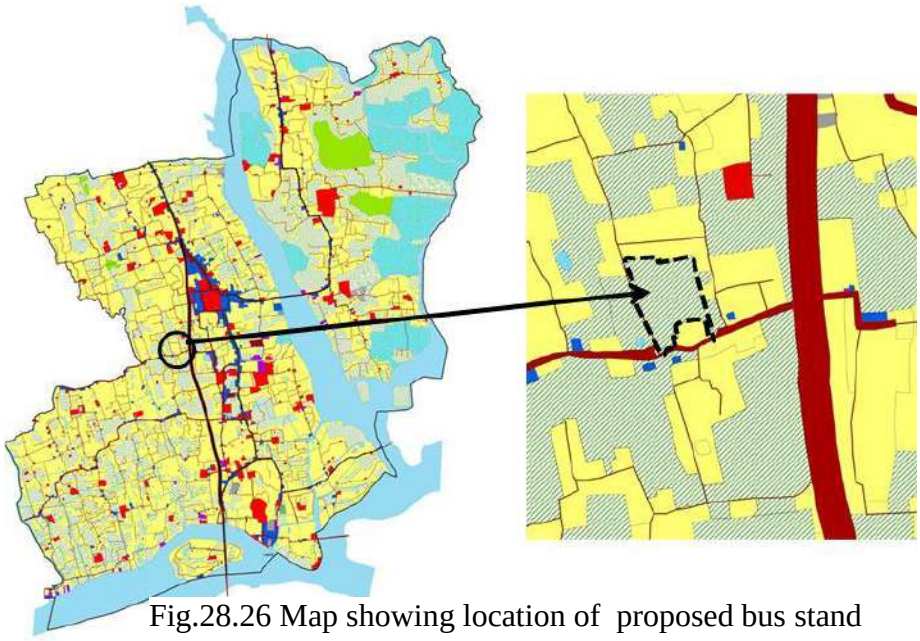


Fig.28.26 Map showing location of proposed bus stand





28.7.2 Commercial complex and Parking facility at Existing Municipality building area:-

Kodungallur Municipality has decided to shift the existing Municipality building to the southern side of the Kodungallur Bhagavathy temple. After the completion of the proposed new municipality building, the evacuated building and land can be used for setting up a commercial complex and for development of a parking area. Since the land is surrounded by a number of public buildings, parking will be a major concern in the nearby future itself. The location detail is shown in Fig.28. 27. The area has an extent of 0.11 ha.

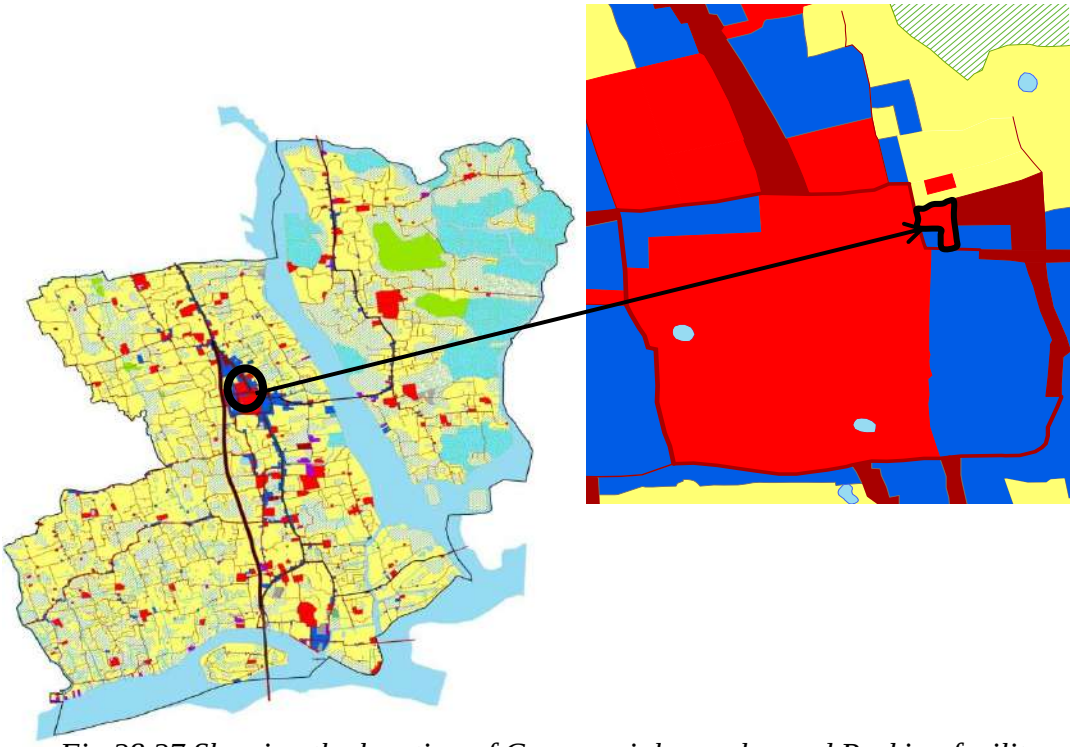


Fig.28.27 Showing the location of Commercial complex and Parking facility

28.7.3 Truck Parking facility at TKS Puram

Considering the goods traffic through NH-17, master plan is proposing a truck parking area in TKS Puram adjacent to NH-I7. State government has acquired land for the purpose of NH-17 by-pass alignment. There remains some land with an extent of 1.56 ha after the completion of the project. This land can be utilised for truck parking. The location of the same is shown in Fig. 28.28

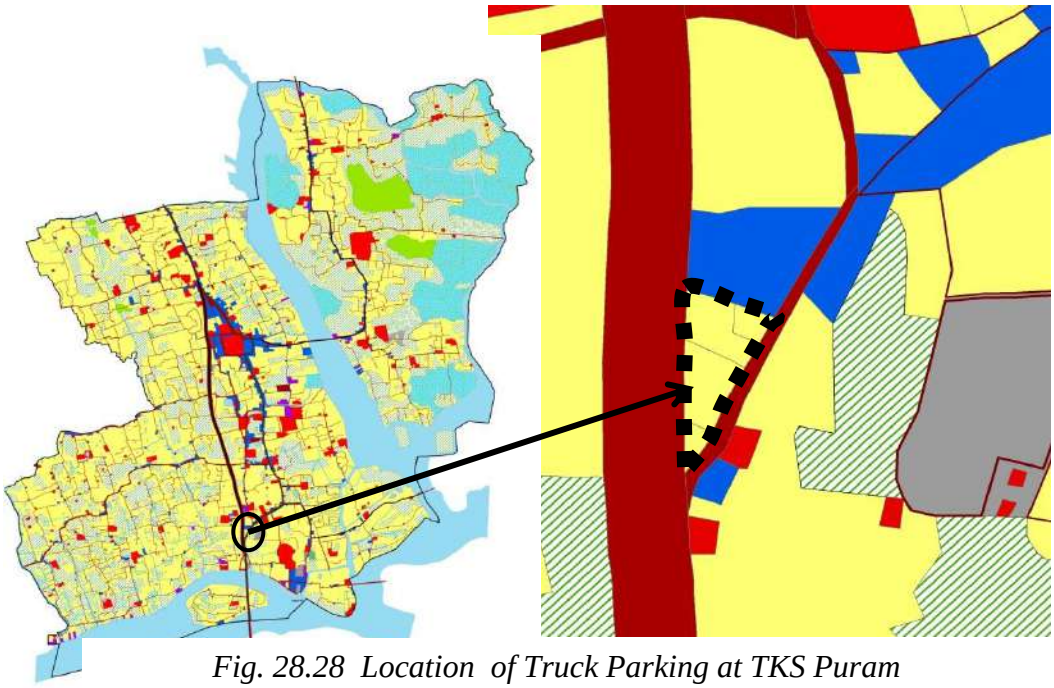
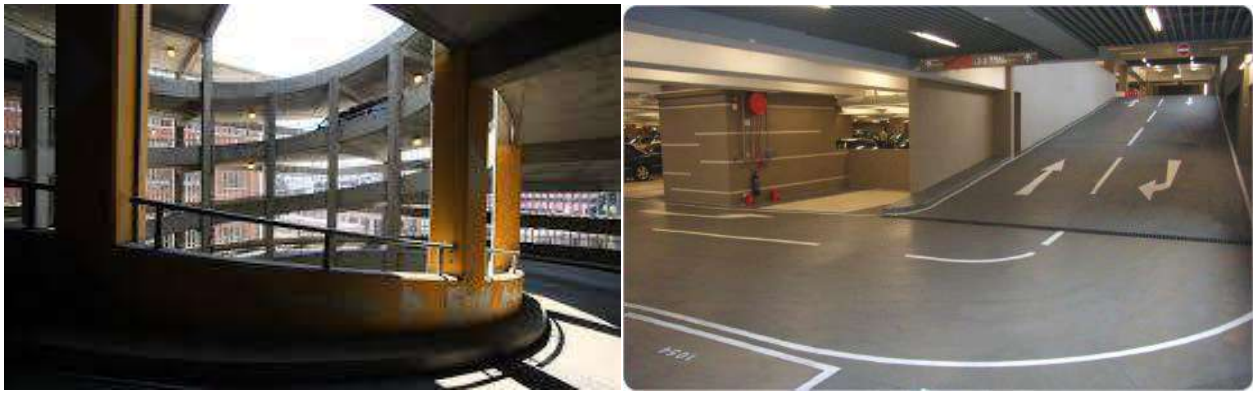


Fig. 28.28 Location of Truck Parking at TKS Puram

28.7.4 Multi-level car parking at TKS Puram

Suggested commercial corridor passes through the TKS Puram junction and Junction is considered as the third order node in the Master plan. This shows the importance of the same and master plan proposes a multi-level car parking in this location to accommodate the future demands. Since the initial financial investment is high, a joint venture with the possibilities of PPP mode can be operated here. The location of the project is shown in figure 28.29.



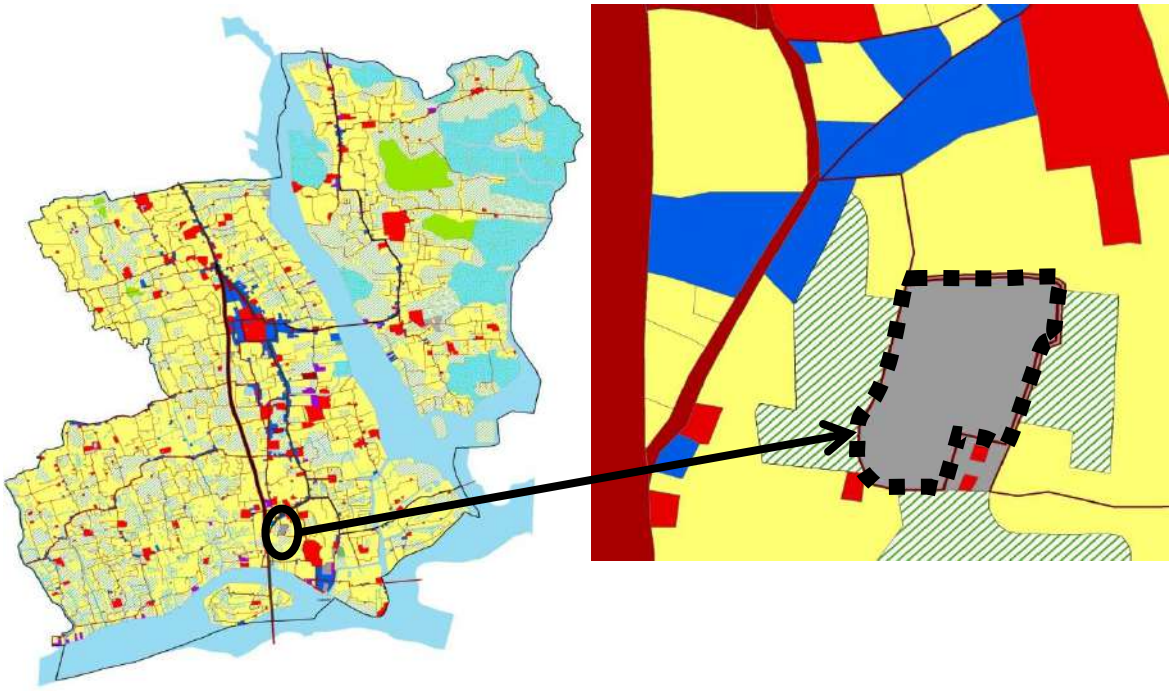


Fig. 28.29 Location of proposed multilevel car parking at TKS Puram

28.7.5 Renovation of Municipal Assets

It is proposed to renovate following municipal assets and the locations are shown in figure 28.30

- Municipal library to Digital library
- Town Hall

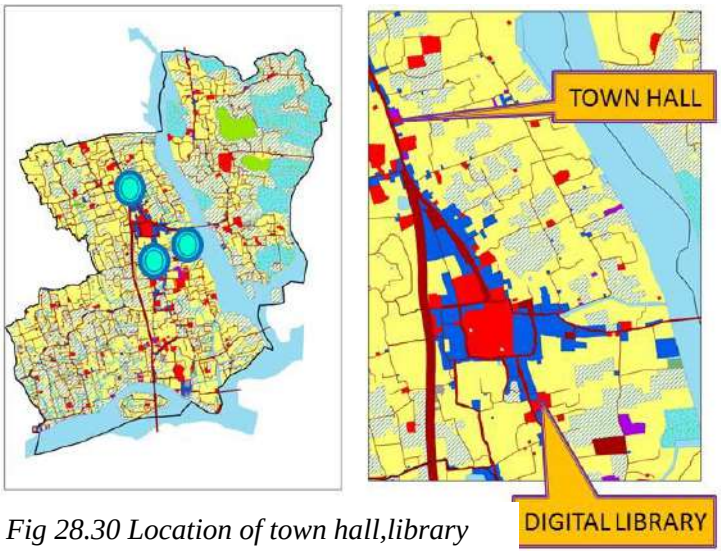


Fig 28.30 Location of town hall,library

28.7.6 New municipal office complex

A new complex for the functioning of municipal office is proposed at the location of the existing library at Thekke nada which can accommodate all the existing conveniences and can offer ample car parking facility.

28.7.7 Swimming pool

The existing pond Madamkulam in ward number 23 is proposed to be converted into a swimming pool. (Fig 28.31)

28.7.8 Stadium

A stadium is proposed to be erected at the open ground at Cheramanparambu in Ward 23. (fig 28.31)it covers an area about 0.007 sq km.

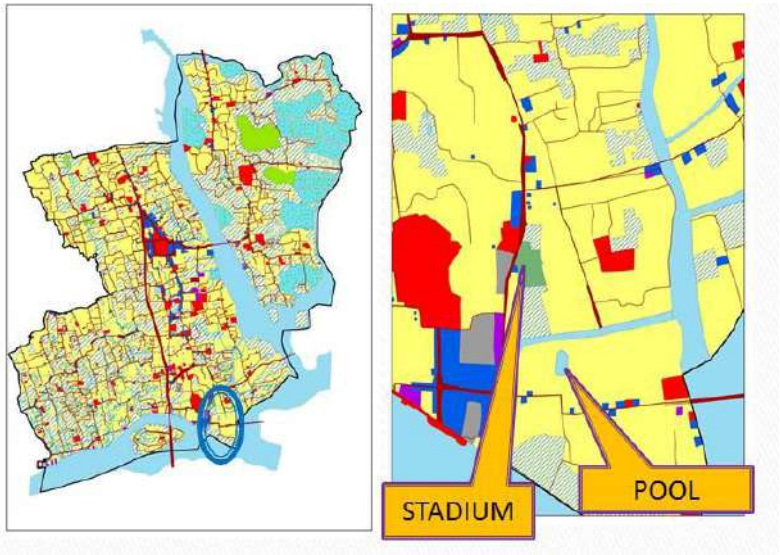


Fig 28.31 Location of stadium and pool

28.7.9 Colony rehabilitation

The existing Menaka colony in ward 28 is in a dilapidated state. It is proposed to take necessary measures for the renovation of the colony by providing better facilities in housing, sanitation etc. the residents of the colony may be shifted to a new multistoried apartment to be constructed in the same location.

28.7.10 Proposals included in the District Plan

The following proposals have been included in the execution plan of the integrated district development plan for infrastructure development. The locations are shown in fig 28.32

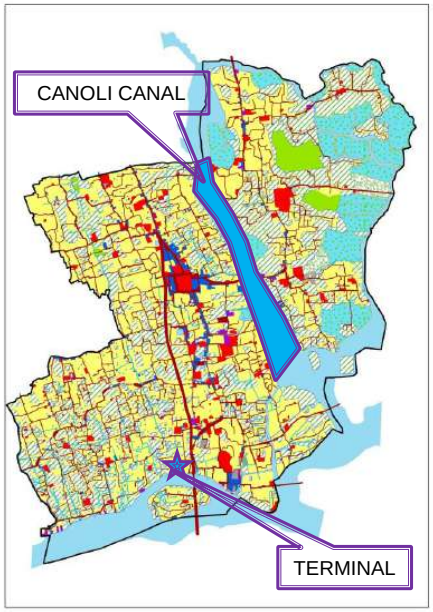


Fig 28.32 Location of District plan proposals

Table 28.1 The proposals given in IDDP for infrastructure development

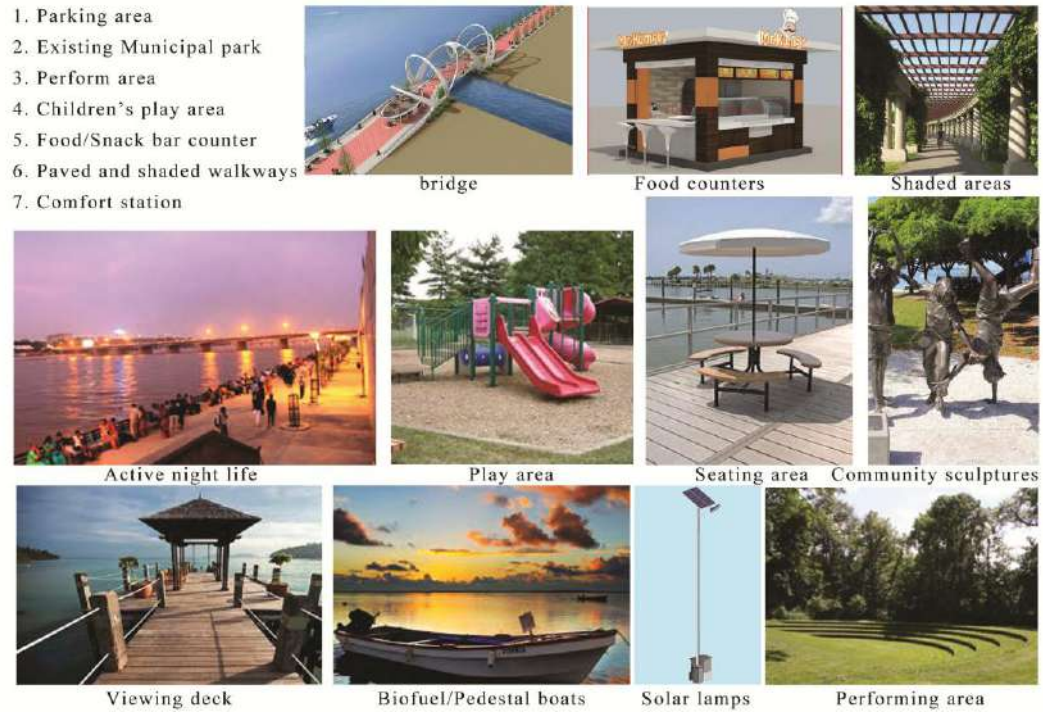
Sl. No	Phase	Period	Project
1	Phase 2	2017-2021	Reconstruction & beautification of Canoli Canal
2	Phase 1	2012-2016	Terminal in Kollam-Kottappuram National Waterway – Establishment of Kerala maritime Institute Sub-centre campus

3	Phase 2	2017-2021	Terminal in Kollam-Kottappuram National Waterway – Construction of slipway/boat repair yard, Office building, Quarters etc.

28.8 Recreation

28.8.1 Recreation hub near Municipal Park

Recreation is an activity of leisure and is an essential element of human life. Urban recreation area consists of open spaces such as parks, green spaces and other open areas. The landscape of urban open spaces can range from playing fields to highly maintained artificial environments and natural landscapes. Here Kodungallur town is blessed with natural scenic views in the form of both land and water terrains. Considering the availability of land parcels and accessibility, master plan is proposing a recreational hub near existing Municipal park. The location of recreational hub is shown in fig. 28.33. Hub consist of a waterfront development, play areas, boating facilities, Small shops etc. The construction of hub should be clearly in accordance with the CRZ provisions prevailing to that area. The selected location can provide an ambient view from the Pullut bridge while arriving from Thrissur.





Conceptual development of Recreational hub

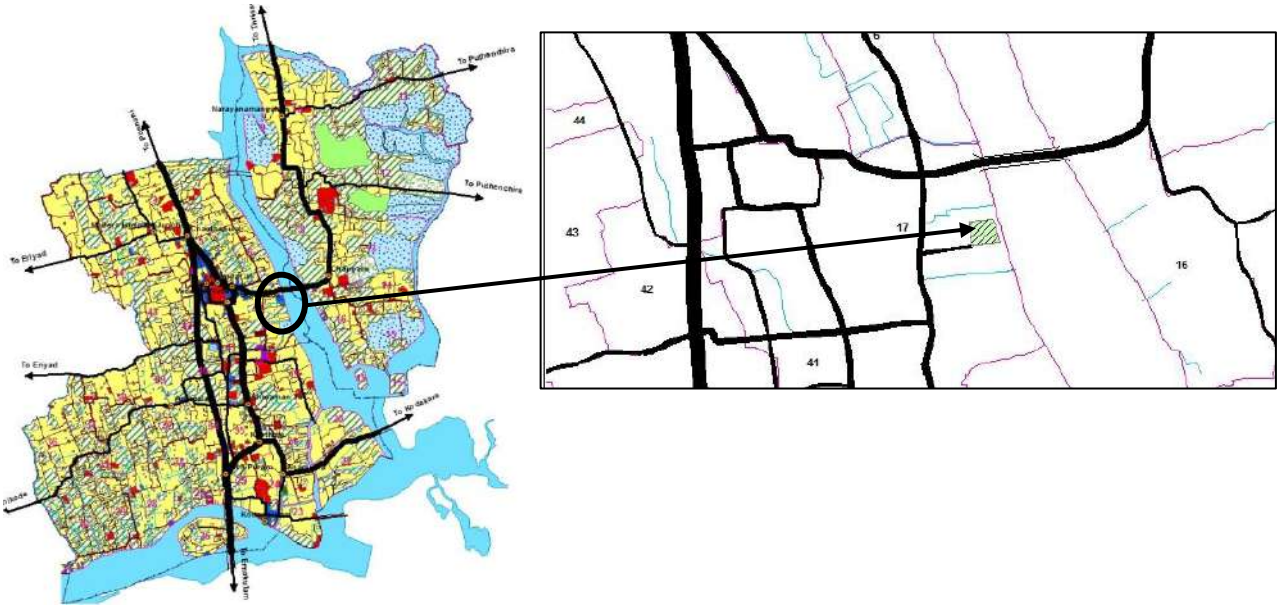






Fig.28.33 Showing location for Recreational hub

Benefits of the project:- This hub will act as an urban recreation area within the hectic town core, along with adequate protection for Canal front. Project cause for the launch of new development projects with the generation of revenue to the Concerned Local self Government.



Challenges of the project:- The area under consideration has already demarcated within the CRZ II provisions. So all the construction activities should follow the CRZ guidelines. Land acquisition stands as another major hindrance for the project. Initial and operational/maintenance cost of the project seems to be not affordable for the Municipality at the present condition.

Financial strategies:- The funds from the concerned legislative and parliment members can be made available for this. Funds from central government under various urban infrastructure development schemes may be the another option. Public Priavte Partnerships as a joint venture can also be an option under mutually benefit programmes.

28.8.2 Provision for play area

Existing paddy area with out cultivation may be used as playground without any built-up development. Another location for the same has been identified near the Kunnamkulam pond in Methala area. Such locations are shown in fig.28.34

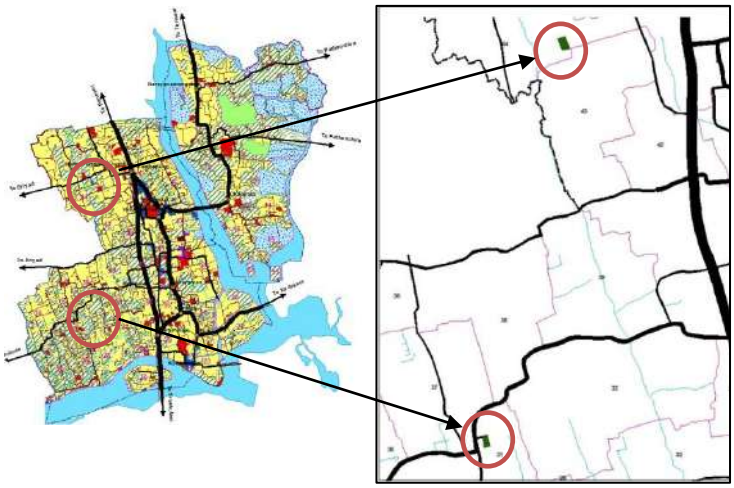


Fig.28.34 Locations of Play ground

28.8.3 Eat street at Kottappuram old boat jetty area

This ambitious project has been already announced by concerned legislative member. The project offer snack bars with varieties open buffet areas, pathways along the shores of

Periyar, Chinese fish net, landscape features, Active night life etc. Presently this reclaimed land is under the ownership of state government, it has to be either transferred to K.T.D.C or to Kodungallur Municipality for effective functioning. Location is shown in figure 28.35.



Fig.28.35Location of Eat street at Kottappuram old boat jetty

28.8.4 Beautification of Ponds

About 200-300 ponds exist in the municipal area under different ownerships. It is proposed to take measures to beautify three public ponds Dalavakkulam, Padakkulam and Arakkulam to develop the tourism, recrerational and environmental prospects of the town. Locations are shown in fig 28.36.

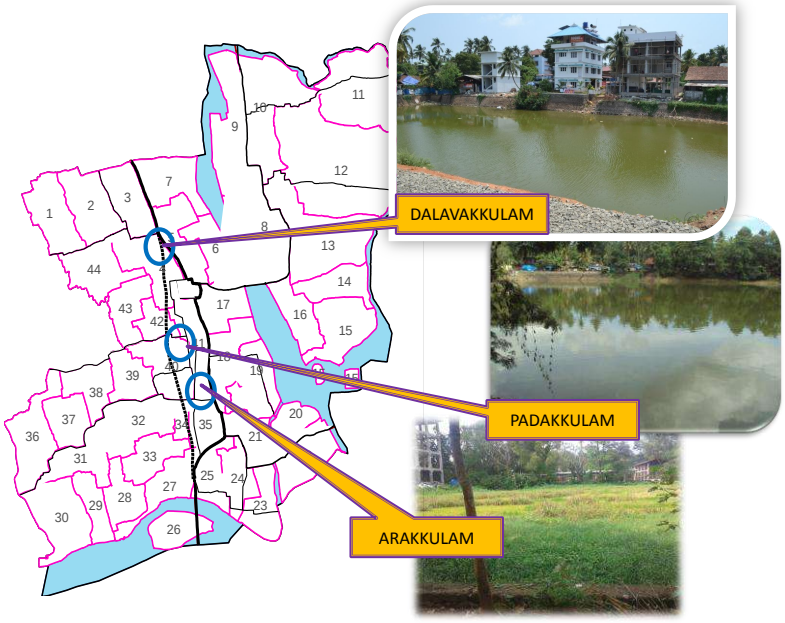


Fig28.36 Locations of the ponds



Showing general design elements for beautification of ponds

Dalavakkulam and Arakkulam are considered for the protection and beautification aspects while Padakkulam is expected to use as an urban recreational area too. So extended facilities such as snack bar, viewing deck, shaded areas, water fountains, advertisement areas etc. are proposed in Padakkulam. Fresh water fish cultivation may be practiced here as a source for revenue. Urban infrastructure development schemes, Jalasree schemes etc. can be used for the initial purposes.

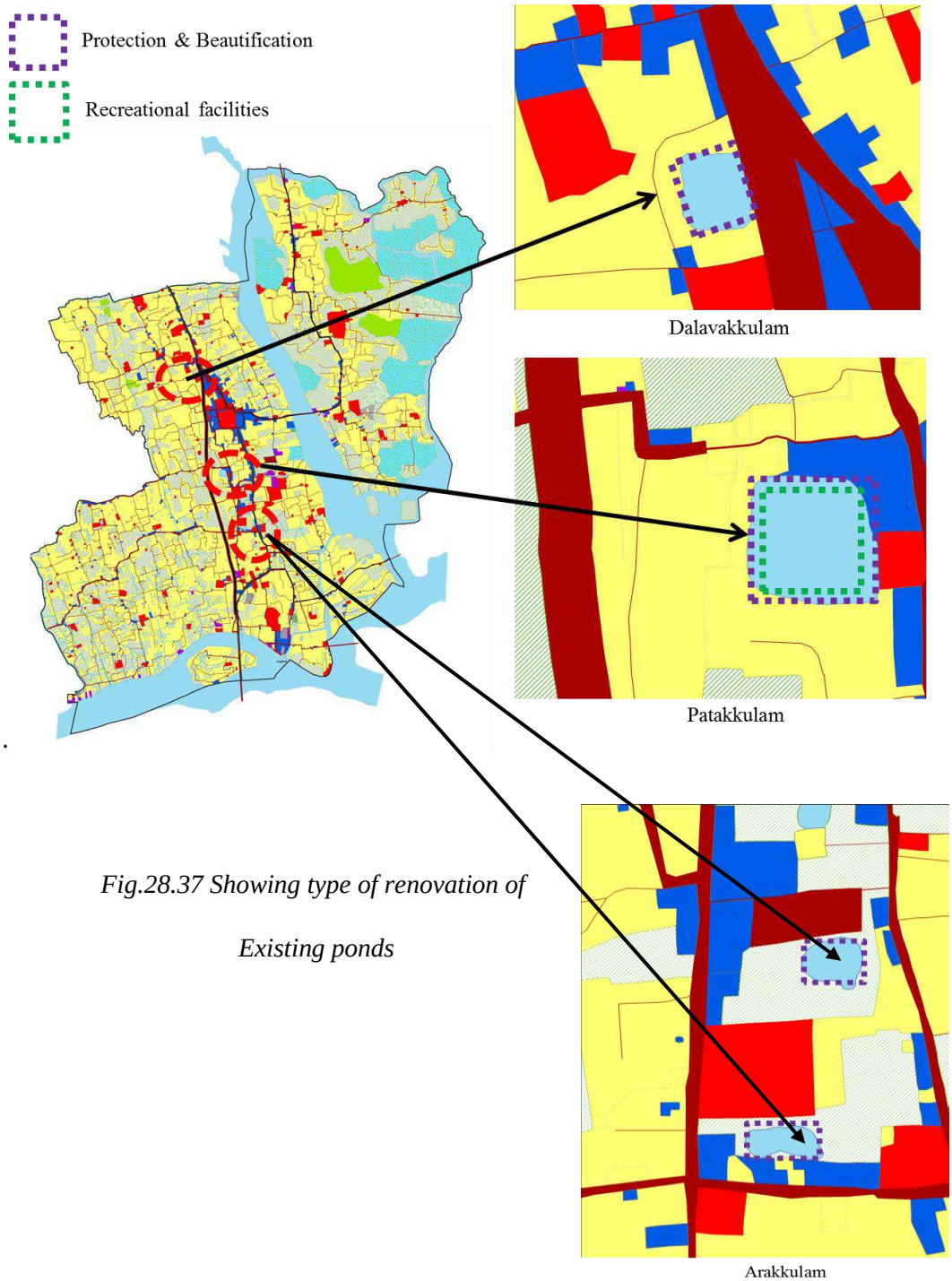


Fig.28.37 Showing type of renovation of Existing ponds

28.9 Trade & Commerce

28.9.1 Kottappuram Market area Renovation & extension

Kottappuram market was an icon of Kodungallur town in olden days. It has an easy access through water linkages. Presently it seems to be losing its position as commercial center. Major commercial core is shifted from here to Kodungallur Bagavathy temple area, still there exist a lot of wholesale trade. So Master plan has taken initiatives for the extension of the market area. As a part of this, it is proposed to extend the market area to neighbouring plots as shown in fig. 28.38. Better facilities may be provided for street vendors since they also form a vital part of this market. New organic vegetable counters may be started here which have scope in contemporary context. Master plan has already proposed a loading and unloading area near market area for the ease of stock shifting. In addition to this proposals from Muziris Heritage projects may be incorporated for an integrated development. Old boat jetty area renovation, recreational facilities, eat street etc are the other projects which are already envisioned here.

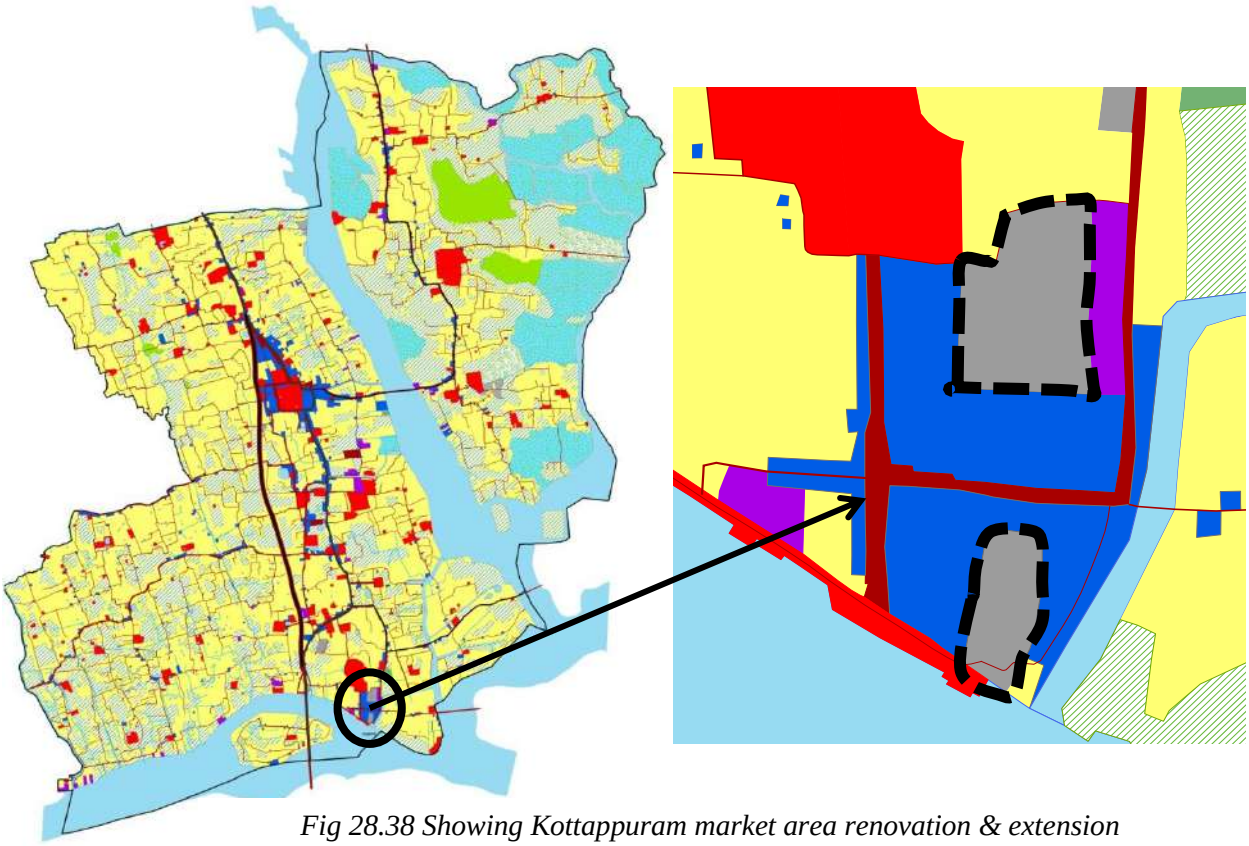


Fig 28.38 Showing Kottappuram market area renovation & extension

28.9.2 Commercial plaza

Master plan envisages to re-establish the existing private bus stand to the western side of the Municipality. So the evacuated land can be converted to other uses. Considering the land value other potentials commercial land uses seems to be have much scope. A well designed commercial plaza with all modern amenities may be the best suitable option. This can also generate revenue for the Municipality. PPP joint venture may be adopted to ensure the initial financial support. The area have an extent of about 0.30 ha. The location of the same is shown in Fig. 28.39.

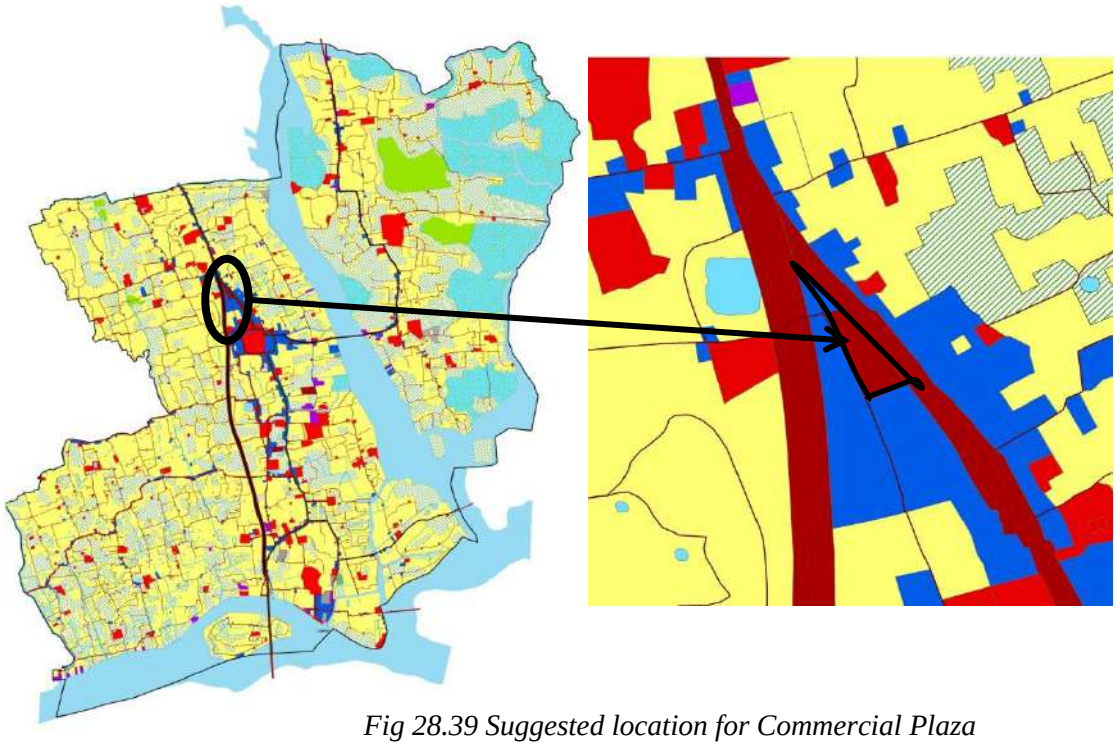


Fig 28.39 Suggested location for Commercial Plaza





28.9.3 Restoration of Existing Municipal shopping complex

Municipality itself established a market cum shopping complex at Kavilkadavu on the eastern side of the Kodungallur Bagavathy temple. Due to several reasons it is not functioning well and has ended up in a financial burden to the Municipality. This building can be leased out for the commercial/ public, semi public establishment under private/public agencies at competitive rates. The location detail is shown in Fig. 28.40.

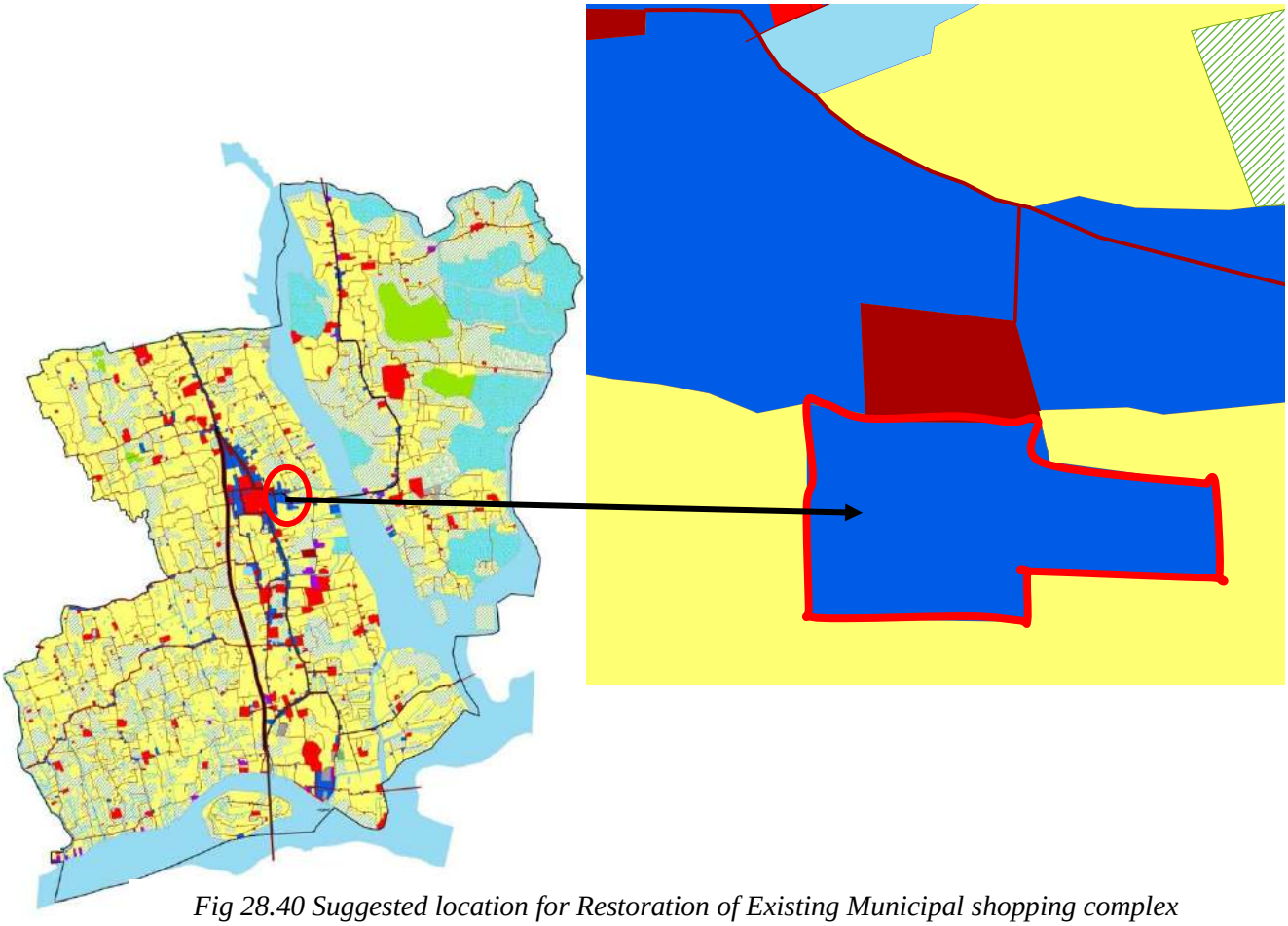


Fig 28.40 Suggested location for Restoration of Existing Municipal shopping complex

28.10 Social Welfare &Poverty Reduction

28.10.1 Sakhi centre

A Sakhi centre for women which includes waiting hall, helpline and refreshment facilities for women is proposed to be set up at the municipal office building at East Nada.(fig 28.41)

28.10.2. BUDS school

It is proposed to convert the existing special school- Prathyasa to a BUDS school operating under the Kerala state government scheme.(fig 28.41)

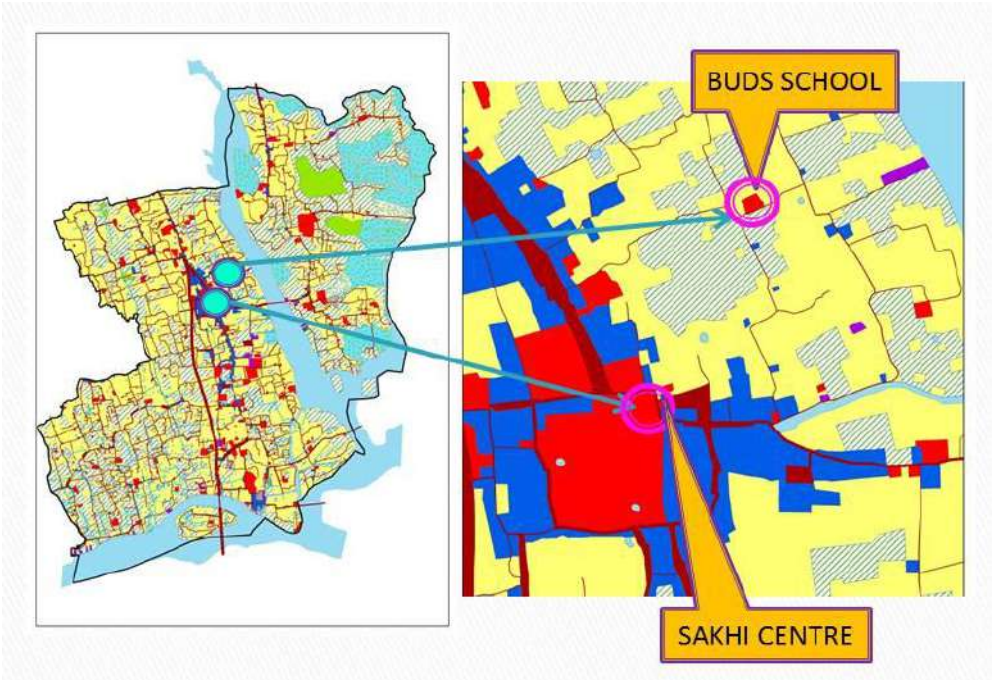


Fig 28.41 Suggested location for Sakhi centre and BUDS school

28.10.3 Oldage home revitalization

The existing oldage home at Narayanamangalam can be revitalized with the support of local community to equip the centre with facilities to support the elderly. A pakalveedu can also be set up in the premises.

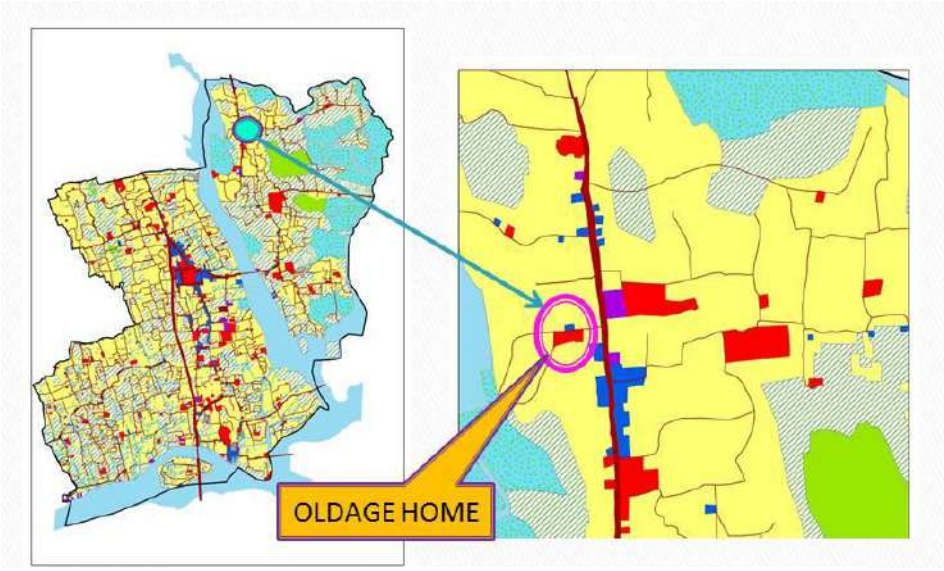


Fig 28.42 Location of old age home to be renovated

28.11 SC Development

28.11.1 Crematorium

It is proposed to make improvements to the existing crematorium at Chappara

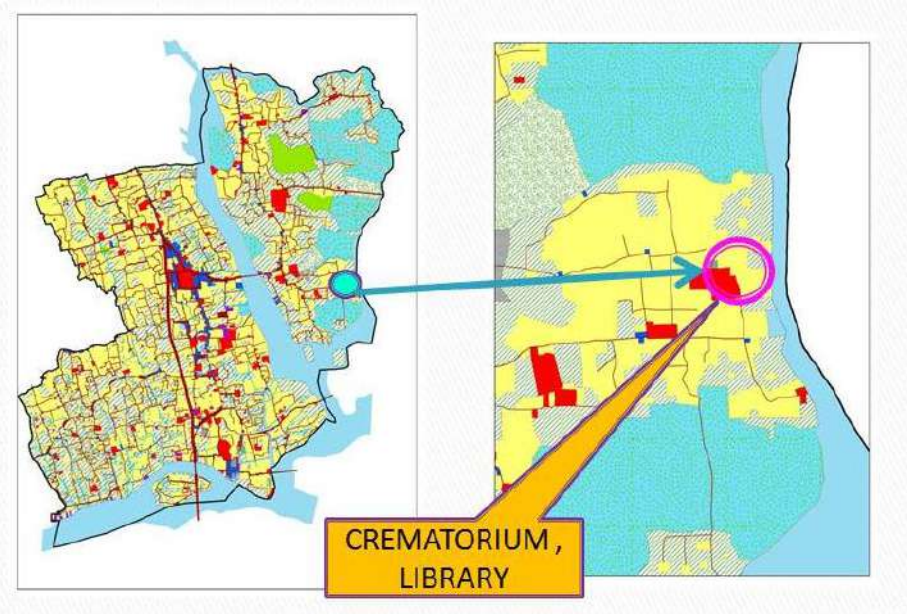


Fig 28.43 Location of crematorium and resource centre

28.11.2 Resource centre

The existing K.K.Velayudhan memorial library at Chappara can be developed and converted into a resource centre which provides awareness classes regarding SC/ST grants and entrepreneurship.

28.11.3 Training centre

The existing pre-metric hostel at Narayanamangalam can be converted into a training centre with programmes on

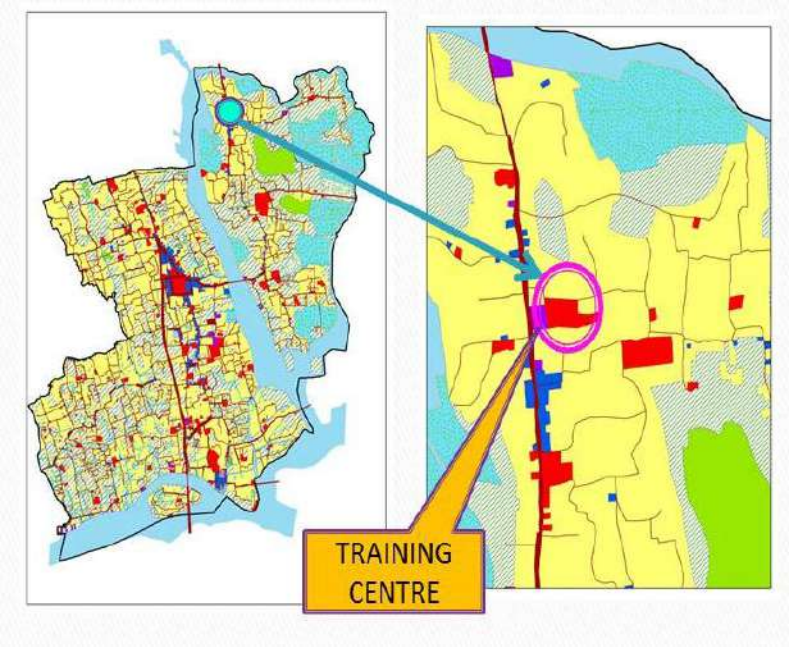


Fig 28.44 suggested location for training centre

- Computer aided embroidary and apparel making
- Computer assembling, servicing and repairing
- Heavy vehicle driving
- Other self-employment ventures

28.12 Health

28.12.1 Public Health centres

It was found in the analysis that the health facilities are not properly distributed. Hence it is proposed to set up new PHCs at

- Anappuzha
- Chappara
- Narayanamangalam
- Uzhuvathukadavu

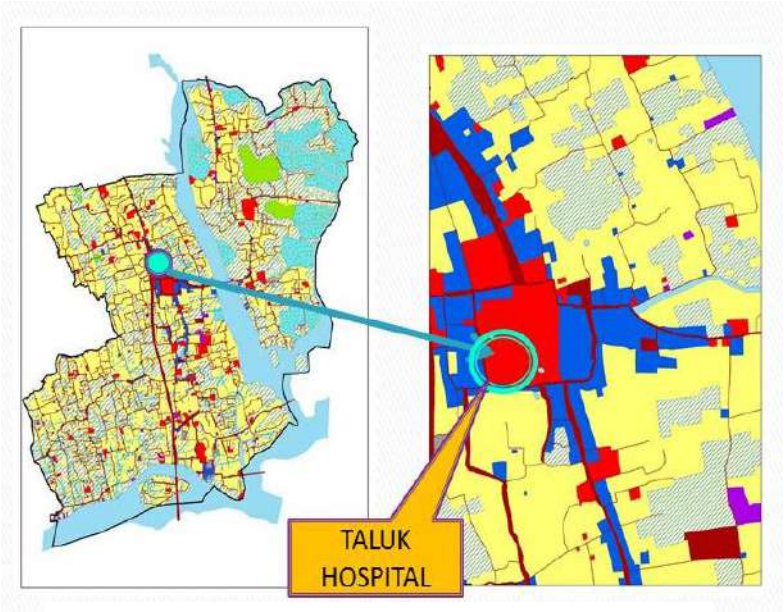


Fig 28.45 Location of Taluk Hospital to be renovated

28.12.2 Taluk Headquarters hospital renovation

The existing Taluk hospital has to be renovated with following facilities (fig 28.45)

- Seating arrangements
- Parking
- Sewage treatment plant
- Medical camp and health card for migrant labourers

28.12.3 Vayomitram project

Vayomithram medical camp is organized with free medical treatment for citizen above 65 years old. The project also offers palliative care for patients and free ambulance services. The project has three exclusive help desks in Thrissur, The Kodungallur town should utilize this service at its full extend.

28.13 Education

28.13.1 Centre for heritage studies, Polytechnic and Student Centre

It is proposed to establish a centre for heritage studies at the Activity Centre,Cheraman Parambu. In oreder to cater to the demand for technical education for the people in and around the town, the existing technical school can be upgraded to a polytechnic. The existing Science centre at Methala can be upgraded to a student centre

providing facilities like Soft Skill development courses, observatory , research centre, library etc. The suggested locations are shown in fig 28.46.

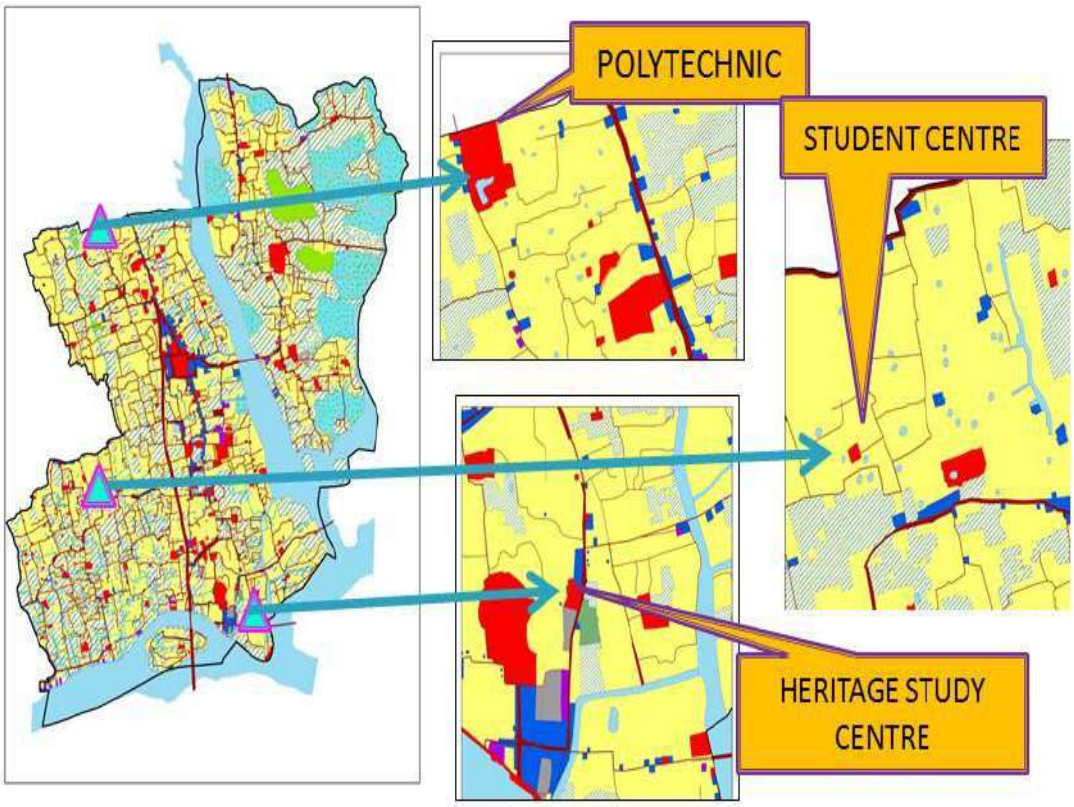


Fig 28.46 Suggested locations for proposals in the education sector

28.14 Power

28.14.1 Provision for underground electric cabling

It is proposed to provide underground electric cables for the roads around the Kodungallur Bhagavathy temple to enable widening of the existing roads.

28.14.2 Provision of High mast lights, Solar panels, LED street lights

High mast lights are to be established in following major locations which are shown in figure 28.47

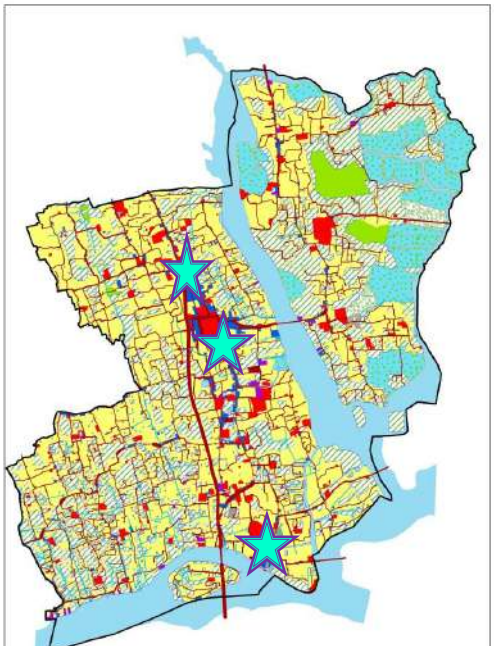


Fig 28.47 Suggested locations for high mast lights

- Thekkenada
- Chanthappura
- Kottappuram

It is proposed to provide solar panels in following commercial and public buildings(fig 28.48)

- Municipal office building @ East Nada
- Old office building @ South Nada
- Market Complex @ Kavilkadavu
- Town hall
- TalukHospital,PHC
- Mini Civil Station

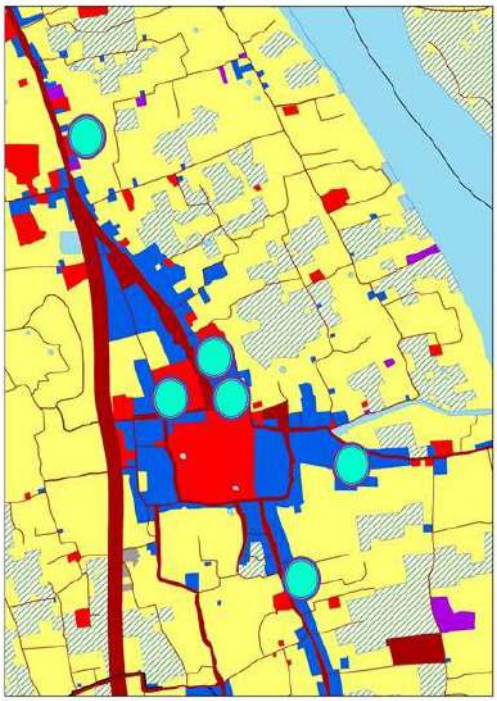


Fig 28.48 Suggested locations for Solar paneling

It is proposed to convert the street lighting systems to LED technology in order to save on energy costs.

28.15 Environment

28.15.1 Green strip (Green buffer zone)

A large portion of Kodungallur town is surrounded by water in the form of Canoli canal and Periyar river. This shore character of such a vast character should be protected and maintained. Even though CRZ rules are applicable to this area, Master plan aims to provide a green buffer with a width of 20m throughout these shores as a part of greater consideration to this. Several models can be adopted here for green strip and green buffer zone. Few elements of green strip development are shown in fig 28.49.



Fig.28.49 Elements of green strip

28.15.2 Wet lands to be retained

The wetlands in the wards 8,9,10,11,12,13,15are to be retained. These are encircled and shown in figure 28.50. Along with this all water courses and ponds are to be protected.

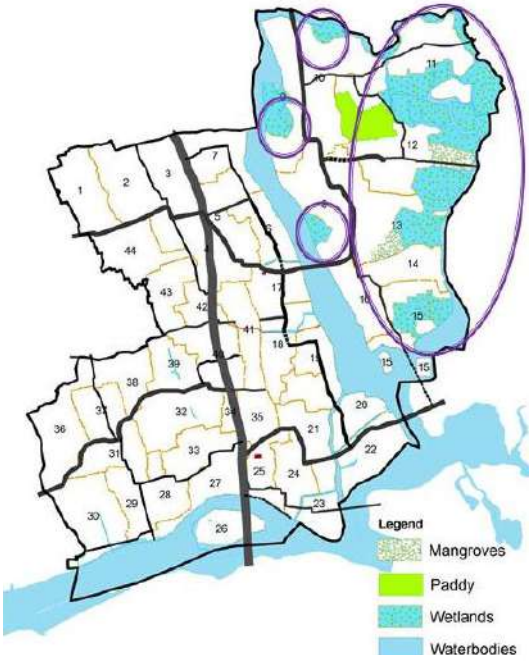


Fig 28.50 Suggested wetlands to be protected

28.15.3 Mangrove protection

As per the disaster zonation done by the Centre for Earth Science and studies, the southern side of the municipality is found to be prone to the attack of tsunami. It is proposed to plant mangroves in these areas as a protection measure against tsunamis.

28.15.4 Thematic park at Mangrove forest area

Kodungallur town has a large area of Mangrove forest, which offer scenic beauty to a true nature lover. So a ecofriendly thematic park development is suggested in selected location of Mangrove forest. Walkways with terracotta tiles, seatings with bamboo, bamboo deck for fishing and viewing, light poles can be provided as a general design elements. Kombathu kadavu- Kodungallur road has much potential for this. CRZ guidelines prevailing to this land should give due consideration. The location details is shown in Fig. 28.51.

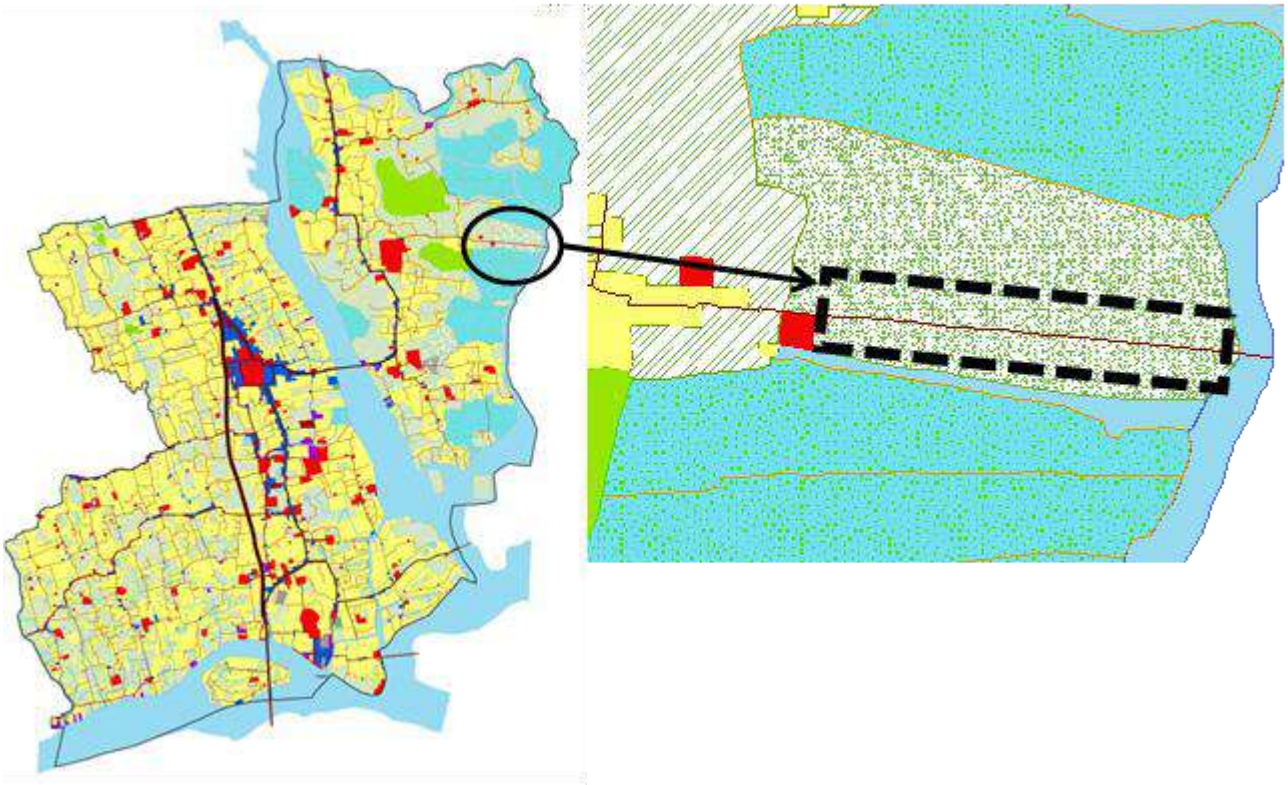


Fig 28.51 Location of Thematic park at Mangrove forest area



28.15.5 Tree cladding for public buildings

To reduce air pollution tree cladding should be provided for all public buildings. It is also proposed to provide tree plantations on either side of 12m, 10m and 8 m wide road stretches in cooperation with Social forestry department.

To reduce noise pollution, horn restriction is to be provided in areas near

- Kodungallur temple
- Cheraman masjid
- Munsiff court
- Other sensitive areas like schools, hospitals etc

In addition to the above, awareness programes regarding noise and air pollution should be conducted.

28.15.6 Identification of silent zone

As per the latest directive {in letter No. E2-2634/2012 (2), the plan recognises some key core areas as silent zones where the noise levels would be minimal or maintained under control. Additionally, the silent zones will be marked with signages and necessary directives. Presently, these zones are located in proximity to healthcare, educational or religious institutions and require minimal noise intervention. The location of silent zone are shown in fig. 28.52

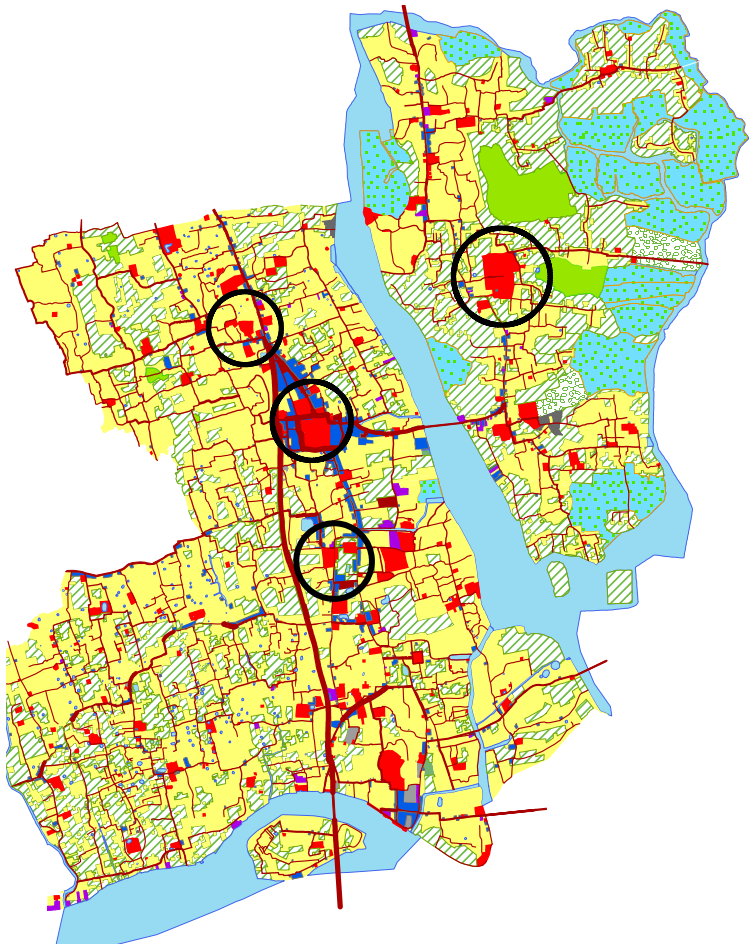


Fig 28.52 Locations of Silent Zone

28.16 Heritage

28.16.1 Heritage promotion zone:-

Heritage is a "Property that is or may be inherited Or valued objects and qualities such as historic buildings and cultural traditions that have been passed down from previous generations". Heritage/pilgrimage zones are crucial sensitive zones and should have its own specific guidelines, with more site specific thrust to help maintain its character. The development heritage/pilgrimage zones requires a holistic approach with the integration of architectural, urban design and planning guidelines, policies and regulations which would guide in the development of the region as a whole. So Kodungallur Master plan envisages a Heritage promotion zone consist of Kodungallur Bagavathy temple and its premises upto a depth of 100m from the temple compound wall with an extent of 16.06 Ha. The location of the proposed Heritage promotion zone is shown in fig. 28.53

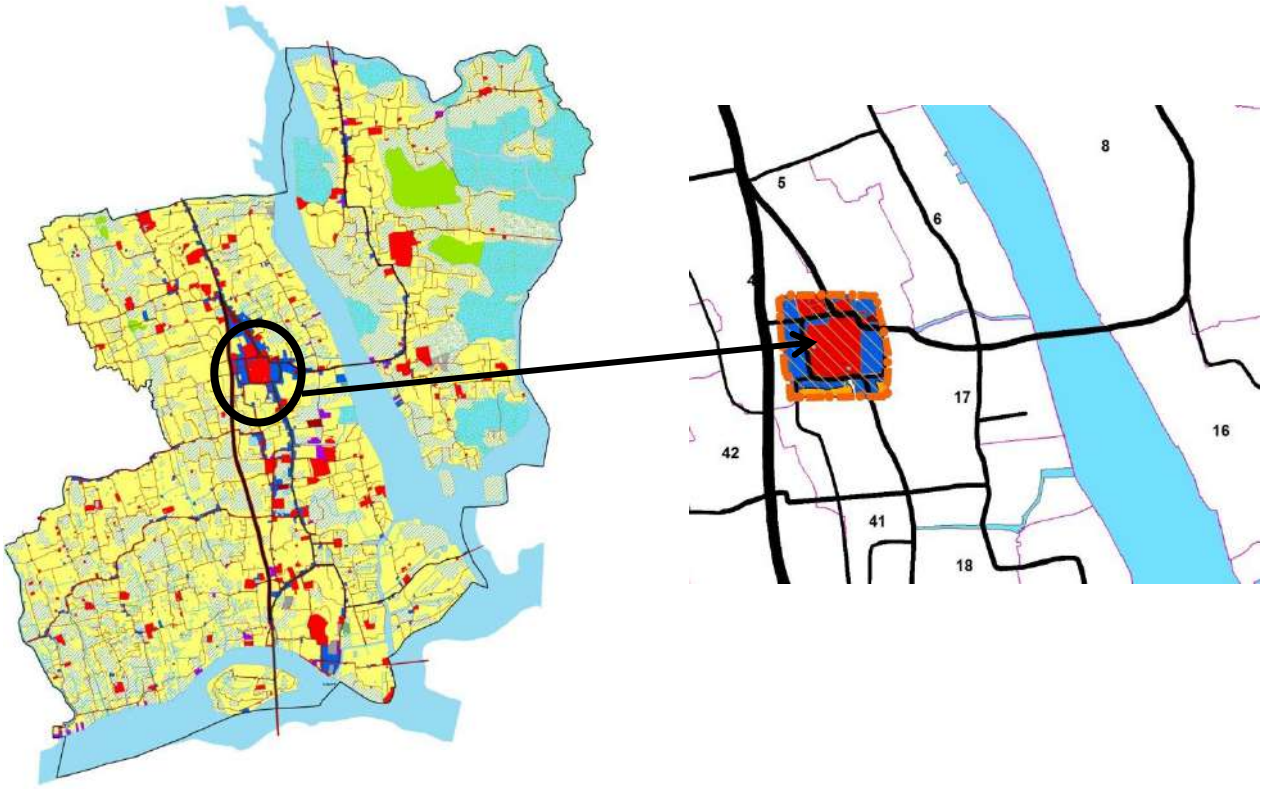


Fig.28.53Map showing location of proposed Heritage promotion zone

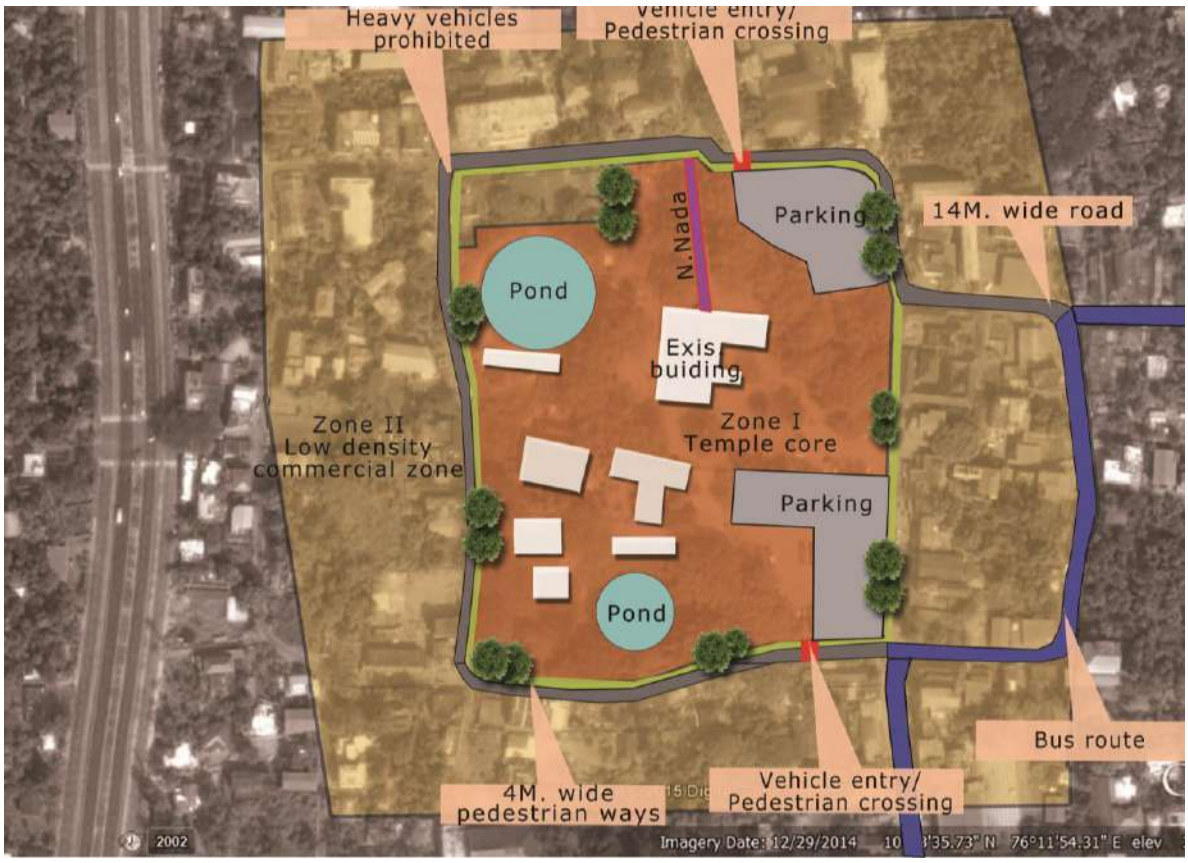


Fig 28.54 Elements of proposed Heritage promotion zone

Approaches to achieve the goals:-

a) Heritage committee- A non-governmental organization is to be set up to control the architectural and heritage characteristics. Organization would specify the facade, volume control with material usage, colour specification, detailing etc. For new constructions, expansions, renovations etc. within this zone, approval/sanction should be given by this organization. Periodic check of buildings is to be done to control the change in the architectural and heritage character of the zone.

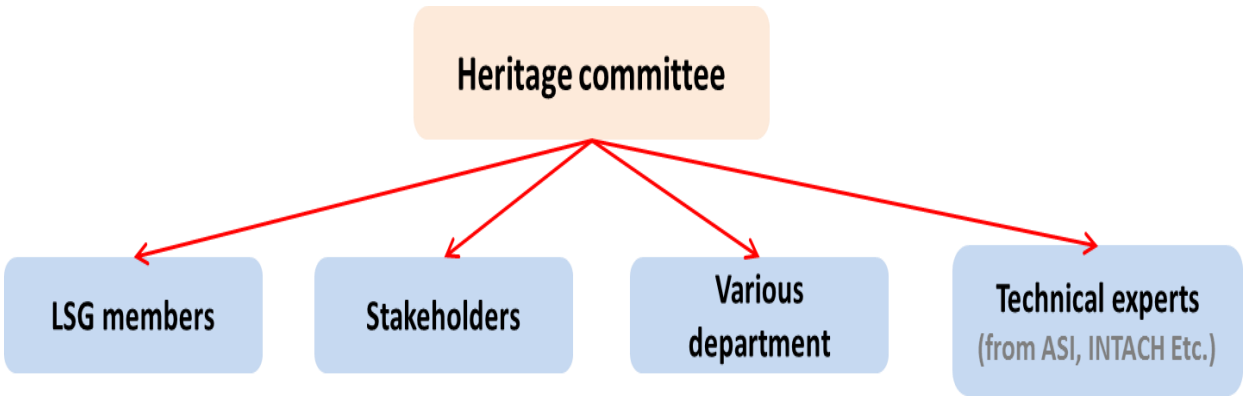


Fig 28.55 Members of Heritage committee

Various roles for Heritage committee

- Identification of Heritage elements of the zone
- Preparation of detailed urban deisgn plans for the notified area
- Preparation of planning strategies and policies for the execution of the plan
- Co-ordination between different stakeholders and various departments
- Preparation of Architectural, Urban design guidelines for new constructions
- New constructions within the zone should get approval from heritage committee
- Periodic reviews regarding established norms of the committee

b) Architectural and heritage characteristics- The heritage promotion zone consist of two subzones namely temple core and low density commercial zone. The role of the heritage committee is restricted within this heritage promotion zone.

- **Height width ratio of street:** Height width ratio of the street should be maintained 1:1 to impart a sense of enclosure feeling.The total number of storeyincluding the existing if any shall not exceed three from the street level.The overall height of the construction including the existing upto topmost point of the proposed construction shall not exceed 10 m.
- **Roof:** Flat roof should be avoided, the roof should be sloping and should be tiled preferably with red Mangalore patent tiles. The slope can vary from 15^0-30^0 for shallow roofs and 30^0-45^0 for roof of the top floors.
- **Details:** Simple traditional detailing style should be adopted with gables, eave boards, cornices, sloping chajjas as covering for openings etc. Light colour tones are preferred for exterior walls.
- **Posters and boards:** Political and cinema posters, hoardings, flux etc. should not be allowed in these streets. Name boards are allowed only in standard forms described by the authorities. Controlled system of hoardings is to be followed
- Overhead electrical lines, cables are to be made underground around temple structures
- Compound wall of the temple should be replaced by new design which allows vision thus the pedestrian walkways will act as an extended area of the temple compound.
- North Nada can be considered as a pilgrim cum aesthetic element by Street furnishings in Nada including lamppost, religious displays etc. to create a superficial order.

c) Pedestrian facilities- A continuous and safe pedestrian way should be constructed along the path. In identified areas street hardware like traditional lamp post, dust bens, green bed, lighting, signage etc. should be provided which is suitable to context. Walkways are paved by materials like corbelled stone or earth tiles. Low height street lights will be included in the program to increase the image of the area. Zebra crossings and traffic signals etc. should be provided in areas where pedestrian cross over are high.

d) Traffic regulations- Bus routes should be reestablished such that heavy vehicles are prohibited in roads around the temple. Stock filling for commercial purposes can be carried out during nonpeak hours.

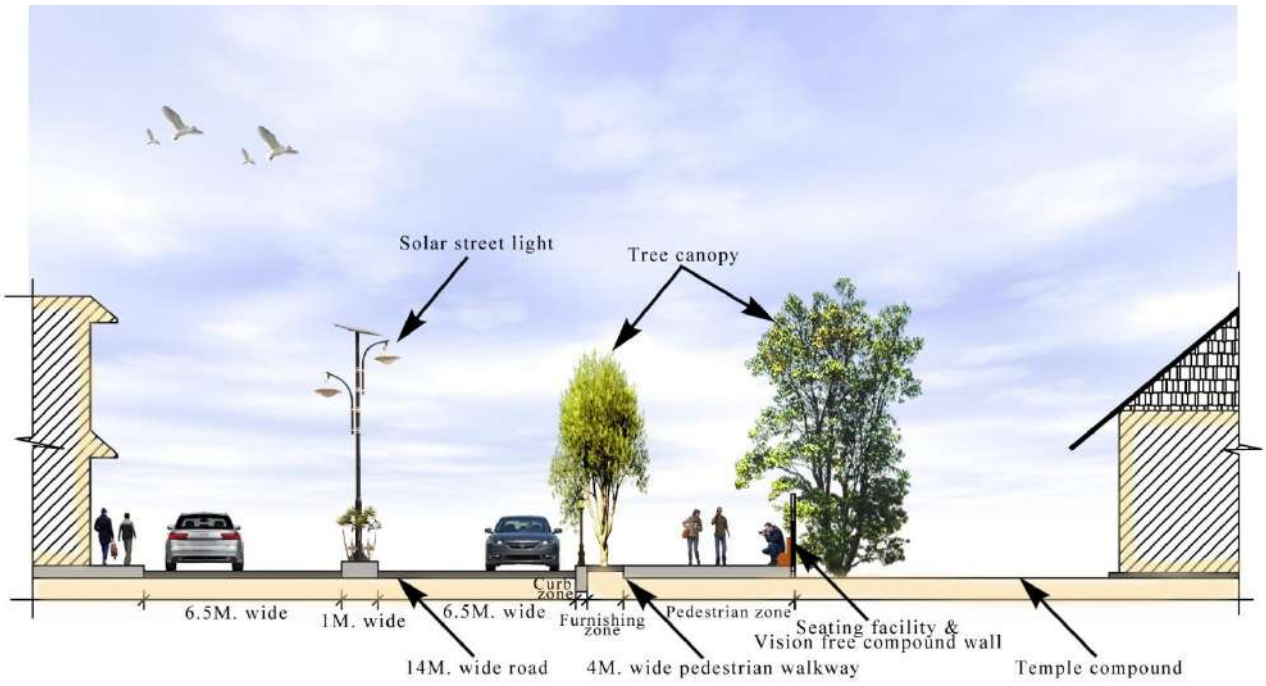


Fig 28.56 Figure showing conceptual rendering of street section

28.16.2 Zoning around ASI site and other heritage sites.

The mural paintings(16th-17th century AD) on the walls of the Siva temple at Thiruvanchikulam in Methala village of Kodungallur municipality has been declared by the Archeological survey of India as a centrally protected monument under the Ancient Monuments,Archeological sites and Remains Act,1958(amended in 2010). The act imposes

complete prohibition on construction within 100 meters. It further imposes regulations on construction activities for a distance upto 300 metres around the monument.

Also it is proposed to ensure the protection of other heritage monuments listed below in order to retain the original character and ambience of the monument. (fig 28.57)

- Cheraman Juma Masjid
- Keezhthali temple
- Cheraman parambu
- Kottappuram fort
- Thrikkulasekharapuram temple
- Puthen Kovilakam
- Chirakkal Kovilakam

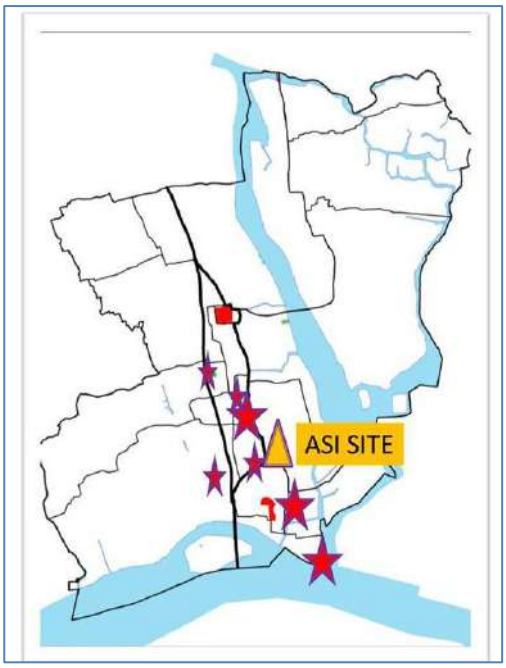


Fig 28.57 Suggested sites to be protected as monuments

28.17 Smart city

A developed urban area that creates sustainable economic development and high quality of life by excelling in multiple key areas. The key features of a Smart City is in the intersect between competitiveness, Capital and Sustainability. The smart cities should be able to provide good infrastructure such as water, sanitation, reliable utility services, health care, attract investments, transparent processes that make it easy to run a commercial activities; simple and on line processes for obtaining approvals, and various citizen centric services to make citizens feel safe and happy. It adds ecofriendly and efficient mobility system for the users.

28.17.1 Smart city key areas:-

An integrated approach has to be made for the incorporation of Smart city components at various dimensions of the Master plan. Aspects for the consideration to make the city smart are shown below.

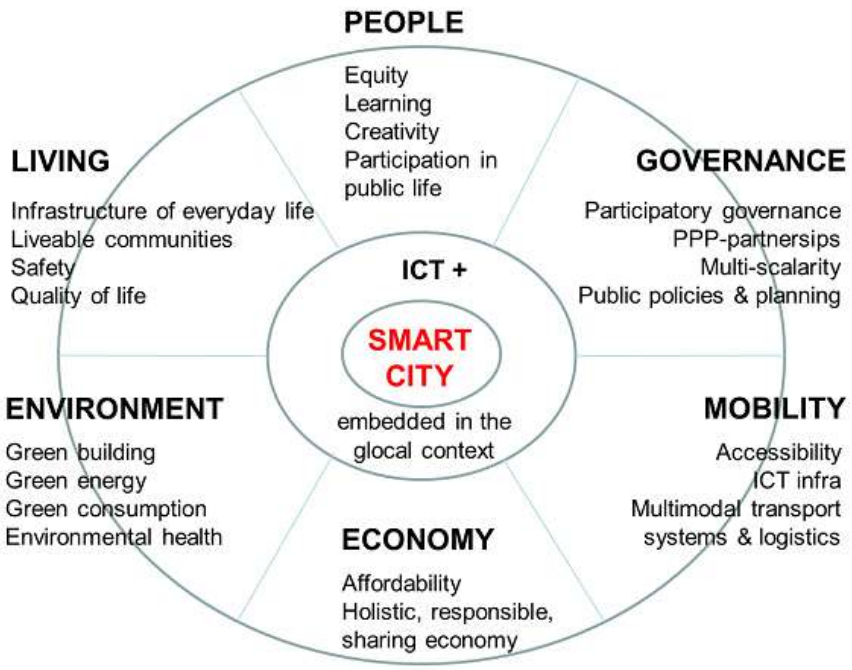


Fig.28.58 Key features of a smart city

Projects adopted for this specific case are given below,

1. Smart economy:- Urban remunerative projects have been proposed for the self sufficiency of the local self-government. It is also interlinked with other components of smart city.

- Green techno park
- Urban recreational hub
- Multi-level car parking area
- Truck parking area
- New commercial complex
- Food counters
- Ornamental fish cultivation

2. Smart mobility:- Proposals has been made for the widening of available network system and new networks, facilities are introduced in the Master plan within the limits of resources. In Heritage promotion zone, pedestrian facilities have been given much importance. New bus stand terminal is introduced in the western side of town, which will decongest the traffic in temple surroundings. Master plan envisages ambient parking areas for both trucks and cars within the town center. Different mode of transportation can be promoted within selected areas such as bicycles, battery operated vehicles etc.

Parallely efforts may be made to promote public transportation systems, bicycle and battery operated vehicles, Use of CNG instead of conventional systems etc. These attempts can contribute to the environment friendly development.

3. Smart environment:- Environmental sustainability gains a new level within present society. Here also Master plan foresees the development of Kodungallur town in a sustainable development manner. Various measures should be taken to achieve the goal.

- Attempts for eco-friendly transportation system
- Buffer zones for the protection of Canoli canal and Periyar river
- Tree cladding for public building
- Pond protection and beautification programmes (Dalavakkulam, Padakkulam, Arakkulam)
- Provisions for silent zones
- Promotion of green buildings
- Solar energy
- EIA Assessment for large projects
- Rain water harvest
- Organic farming

4. Smart people:- It enables to create a sense of belonging for peoples towards the town. This ends up in the formation of social bonding. People become aware about public issues and put forward remedial measures either individually or by collective actions. They consider the town as their own and do well for its well- being. Thus a locational identity will be evolved.

- New and modern education
- Creative and perform atmosphere
- Participatory approach in programmes and projects
- Inclusive approach in developments

5. Smart living:- It envisages to improve the living standard of the people by providing better living parameters. It covers public safety aspects, health, culturally vibrant activities, communication etc.

- CCTV on public spaces

- Safety for all
- Effective vigilance from respective authorities
- Healthy living conditions
- Improvement of community living
- Wi-fi facilities in selected areas
- Sewage and drainage system for central area
- Effective water supply system with 24/365 supply
- Effective waste treatment/waste collection system

6. Smart governance:- e-governance is the application of information and communication technology (ICT) for delivering government services, exchange of information communication transactions, integration of various stand-alone systems and services between government-to-customer, government-to-business, government-to-government as well as back office processes and interactions within the entire government framework. Through e-governance, government services will be made available to citizens in a convenient, efficient and transparent manner.

- Friends centers for effective billing purposes
- GIS database for the town and spatial management
- Improvement of services through online



Fig.28.59 Components of Smart city

28.18 Conclusion

It is expected that by 2031, the suggested proposals can bring about the objectives formulated for the city.

28.18.1 People's Participation

Different levels of discussions were held with the stakeholders of the town regarding the existing scenario and expected developments in different sectors. The aspirations obtained from the people were recorded and reviewed while formulating the major proposals for the development of the area. The details of stakeholders, council resolution and minutes of the meetings have been added in the report as annexures.

28.18.2 Need & Justification of proposals

Detailed analysis of the existing status of the town and future requirements were carried out through extensive surveys. Kodungallur town can be called as a residential town, because it possesses predominance in residential land use over the last decades. Present

scenario continues the saga with some traces of commercial development to cater new demands.

- Construction of NH-17 bypass has created a new corridor along the town which bisects it in to two. This Transport corridor will be the focus of development of the town in nearby future. At present through traffic is completely separated from the town center.
- Introduction of the Muziris Heritage project helps in the upliftment of tourism potential of Kodungallur town. Various projects are linked with this new venture including heritage development and recreational facilities. It is expected to become a fully functioned tourism circuit in coming years.
- Establishment of new commercial buildings along the northern side of the Kodungallur Bhagavathy Temple is an economical boost to the town.
- As per the data from concerned LSG nearly 8000-9000 residential buildings were constructed after 2005. This uncontrolled growth ends up in the loss of large tracts of land into small parcels. Thus land scarcity becomes the major hindrance for the development activities.

Tourism, Trade & commerce and fisheries sectors were identified as potential sectors and proposals were included for the integrated development of those sectors.

To ensure a decent standard of living and quality of life for its people as envisaged in the development vision and to cater to the trend of urbanization seen in the town, proposals were included in the service sectors like better connectivity, improved solid waste treatment plant, sewage and drainage systems, more recreation facilities and other highly essential infrastructure.

Kodungallur town, urban area is surrounded by a number of rural LSG's namely Puthenchira, Poyya, Edavilangu, Eriyad, Sreenarayanapuram and Vellangallur Panchayats. These areas depend on Kodungallur town for various services such as health, education, job, transportation and recreational facilities, commercial activities etc. Various measures have been taken giving thrust to tertiary activities in sector proposals to promote Kodungallur town as a service town for neighboring LSGIs. The following proposals will cater to the needs of surrounding areas.

- Agriculture and Animal husbandry- Labour bank, Training centre and seed bank for fisheries
- Industry-Green techno centre

- Social/Physical Infrastructure- Digital library, Swimming pool, Stadium, Commercial areas, Eat street at Kottappuram old jetty area, BUDS school, Polytechnic college
- Recreation-Recreation hub at Municipal park, Mangrove thematic park
- Transportation- New bus stand, Widening of roads towards the western side of the municipality

These efforts collectively form Kodungallur town as a service town to its neighboring LSGs.

A study on the financial condition of the municipality showed that not much of the revenue could be utilized for developmental activities. Hence remunerative projects were included which will assist the local body in the long run. Projects can be implemented through the utilization of Central /State government funds or through public/private partnership initiatives. A tentative table showing the approximate anticipated income from the proposed projects is shown below.

Sl. No	Name of project	Expected completion period	Approx.expected yearly income
1	Recreation hub	10 years	15 lakhs
2	Green Techno centre	20 years	600 lakhs
3	Commercial complex @ Existing municipal building	10 years	50 lakhs
4	Commercial complex @ Existing bus stand area	10 years	50 lakhs
5	Market complex @ Kavilkadavu – Restoration	5 years	50 lakhs
6	New Bus Stand complex @ Padakulam	10 years	200 lakhs
6	Multi-level Parking area	20 years	15 lakhs
7	Truck parking area	20 years	15 lakhs
8	Eat Street @ Kottappuram	5 years	5 lakhs
TOTAL EXPECTED YEARLY INCOME			**1000 LAKHS**

Thus the Master Plan for Kodungallur town is envisaged to bring about major changes in the development scenario of the town and assist the local body in achieving the vision conceptualized for the town.

CHAPTER 29

ZONING REGULATIONS

1. All future development shall be in conformity with the provisions of the Master Plan for Kodungallur town.

2. For the implementation and enforcement of the proposal envisaged in this Master Plan, areas have been zoned under various categories such as *Residential use, Residential mix use, Commercial use, Industrial use, Tourism promotion area, Public and semi-public use, Transportation use, Parks and open spaces, Heritage promotion zone, Paddy, Wetlands(Pokkali), Mangrove forest, etc. and various Special zones*. Details regarding the nature of uses 'permitted', uses 'restricted' and uses 'prohibited' in each zone are given in the accompanying sheets. These regulations shall be enforced in conjunction with other specific provisions, if any mentioned elsewhere in this Plan as well as other statutes applicable.

   Uses **'Permitted'** in a zone cover the uses that can be normally accommodated in the relevant zone. Such uses may be permitted by the Secretary of Kodungallur Municipality, hereinafter referred to as Secretary. In some cases it may be possible to permit some other uses also, which are not likely to affect the quality and environment in a zone specified for a particular use. Such cases have to be individually studied based on their performance characteristics and special location factors. Such cases which come under this category are classified as "Uses Restricted".

   Uses **Restricted -1** Category deals with the uses that shall be restricted by the Secretary with the concurrence of the Town Planner of the District office of the Department of Town and Country Planning having jurisdiction over the area.

Uses **Restricted -2** Category deals with the uses that shall be restricted by the Secretary with the concurrence of the Chief Town Planner concerned of the Department of Town and Country Planning.

"Used prohibited" enlists the various objectionable uses in each zone which shall not be permitted under normal circumstances.

3. If any space in a zone is put to a "**Use Prohibited**" as stated in Para 2, before the sanctioning of the scheme, such use shall be termed as nonconforming use. A non-conforming use may be allowed to continue in its existing location and essential repairs and maintenance for the structure may be permitted by the Secretary, provided that the said use create no adverse environmental influence in the zone. Addition, alteration or reconstruction, if found necessary as part of any mitigation measures may be permitted for such uses by the Secretary with the concurrence of the Chief Town Planner concerned.

4. Existing areas and structures of archaeological importance, agriculture uses and religious uses may be permitted to continue in all the zones and shall not constitute non-conforming uses.

5. Regulation of constructions and/or land developments on the sides of new roads/roads proposed for widening as per the Plan shall be governed by the distance from the centerline of the road, unless otherwise specified in the Plan or in any detailed road alignment approved by the Chief Town Planner concerned.

6. Constructions and/or land developments, if any, in paddy lands and in wet lands, shall be in conformity with the Paddy land and Wet Land Act in force in the state and in Coastal Regulation Zones restrictions under Coastal Regulation Zone notification shall be applicable.

7. The Government shall have the power to issue clarifications in respect of technical interpretations, if any, required in any of the provisions of the scheme in consultation with the Chief Town Planner concerned.

8. Any use not specified either in the ‘uses permitted’ or ‘uses restricted’ category of a particular use zone, but which is of a similar nature to any use permitted or restricted in that particular use zone, can be considered by the Secretary, with the concurrence of the Chief Town Planner concerned.

Para No.	Uses permitted	Uses restricted- I	Uses restricted- II	Uses prohibited
1	2	3	4	5
1	**Residential use zone**			
	All Residential buildings consisting of single or multifamily dwellings, residential flats/ apartments, Night Shelters, Orphanages, Old Age Homes Dharmasala, Residential Quarters, Home stay.	Ashram/Mutt, Madrasa	Vehicle fuel filling stations,	Any other use not specified
	Shops, Professional Offices, Commercial Offices, Banks & other Financial Institutions, Restaurants, Canteen, Hotels - floor area **limited to 200 m^2.** Cottage Industries including coir, Service Industries of non-nuisance Nature (See Annexure-I), with number of workers limited to 6 without power or 3 workers with power limited to 5 HP Educational institutions essentially serving the needs of residential community such as Day Care, Crèche, Nursery Schools, Kindergartens and schools offering general education (up to High school level). Health institutions essentially serving the needs of residential community such as dispensaries, clinics (Out Patient), Diagnostic Centers etc having a floor area **limited to 200m^2**.	Places of Worship, Public Utility areas & buildings essentially serving the needs of the local community.	Cremation Ground/ Crematorium, Burial Ground/ Common Vault.	

	Community facilities such as Community Halls, Recreational Clubs, Social Welfare Centers, Gymnasium /Yoga Centers, Swimming Pool, Libraries etc. having a floor area **limited to 200m^2.** Utility Installations and Civic Amenities essentially serving the needs of residential community such as post office, police station, telephone exchange, fire station, tot lots, parks, play grounds, water treatment plants below 5 MLD. Transmission Towers, Telecommunication Towers and Wireless Stations Plant Nurseries, Pump House, Fish farms, Seed farms, Storage of agricultural produces and seeds, Green houses, Smoke house attached to a residential building Wells and Irrigation Ponds incidental to community needs.			
1.2	**Provided that the access road has a width of 5m minimum.**			
	Automobile workshops for two/ three wheelers – floor area **limited to 200 m^2.**			

1.3	**Provided that the access road has a width of 8m minimum.**			
	Hospitals with 5 beds, Higher Secondary Schools. Convention Centers/ Auditorium/ Wedding Halls/ Community halls/Exhibition Centers and Art Gallery-floor area **limited to 500 m^2.** Shops/Professional Offices, banking and financial institutions – floor area **limited to 500 m^2.**	LPG distribution centres (excluding bottling plants and bulk storage) limiting the floor area **limited to 50 m^2.**		
2	**Residential mix use zone**			
	Land to a depth of 100 m on either side of roads having an existing/proposed width of 12m or more in Residential Use Zone will be deemed as Residential Mix use Zone			
2.1	All uses that are permitted in Residential Use Zone Automobile workshops for 2/3 wheelers, Service Industries of non-nuisance nature (See Annexure I) engaging not more than 19 workers without power or 9 workers with power limited to 15 HP, Civil defence and home guard. Hostels and Boarding houses, lodges and guest houses.	Museum, Exhibition centers and art gallery, Outdoor Games Stadium, Zoological and Botanical Gardens/Bird Sanctuary Places of worship Dairy farm, Poultry farm	Fuel Filling Stations Saw Mills, Cremation Ground / Crematorium, Burial Ground / Common Vault, Sewerage treatment plants	Any other use not specified

	Ashram/Mutts, Madrasa Parking Plaza, Taxi/Jeep Stand			
2.2	**Provided that the access road has a width of 5m minimum**			
	Diagnostic Centres, Clinics (Out Patient) – floor area limited to **500 m^2**.			
2.3	**Provided that the access road has a width of 8m minimum**			
	Shops, Professional Offices, Commercial Offices/ Establishments, Banking and financial institutions, Restaurants/ Canteen, Hotels, IT/ Software units – floor area limited to **1000 m^2**. Social Welfare Centres / Movie Halls/ Auditorium/ Wedding Halls/ Community Halls – floor area limited to **1000 m^2.** Fair grounds, Open air theatre, Camping sites Secondary/Higher Secondary Schools, Technical High Schools. Hospitals and health centres with number of beds limited to 10. Markets of Plot area **limited to 500 m^2**.			

	Weigh Bridge, IT Hardware/Electronic Industries, Ice factory, Cold storage, Printing press. Godowns/ Warehouses/ Storage non-hazardous – floor area limited to **200 m^2**. Marble and Granite Storage/cutting Centres, Industrial Estates & Industrial Parks, Water treatment plants Automobile Workshops / Automobile Service Stations for Light Motor Vehicles. Service Industries of Non Nuisance Nature (see annexure I) engaging not more than 9 workers with power limited to 30 HP in areas other than industrial estates/parks.			
2.4	**Provided that the access road has a width of 12m minimum**			
	Educational Institutions of Higher Order Shops, Offices, Markets. Hospitals & Health centres with number of beds limited to 100. Godowns / Ware houses/ Storage (non-hazardous) - floor area limited to **500 m^2**.	Bus Terminals, Lorry Stands		

	Automobile workshops/ Automobile Service stations for Heavy vehicles/ Movie Halls/ Auditorium/ Wedding Halls/ Community Halls – **floor area limited to 1000 m^2**.			
2.5	**Provided that the access road has a width of 18m minimum**			
	Hospitals & Health centres **upto 300 beds** Movie Halls/Auditorium/Wedding Halls/ Community Halls - **floor area above 1000 Sqm** with **parking at 1.2 times that of KMBR.**		Container Terminal	
3	**Commercial zone**			
3.1	All Shops including shopping Complexes, Shopping malls, Multiplex, Hypermarkets, Restaurants, Hotels, Professional offices, Commercial Offices & Establishments, Banking and financial institutions, IT Software units, Movie Halls, Markets, Godowns/Warehouse/ Storage of non hazardous materials, stacking yards, Gymnasium/Yoga centre.	Places of Worship, Other Public Utility areas & buildings Fuel filling stations, Dairy & Dairy farm, Poultry farm Saw mills with Timber yards Slaughter houses, Smoke house	Higher educational Institutions provided the access has a width of 8m minimum.	Any other use not specified
	Expansion of existing residential buildings, Single family residences, Residential flats/apartments with lower floor(s) for commercial use only, Night Shelters, Orphanages, Old Age Homes, Dharmasala, hostels and boarding houses, lodges and guesthouses, Ashram/Mutts.			

	Cottage Industries, Automobile workshops, Automobile Service Stations, Cold storage, Service Industries of non-nuisance Nature (See Annexure I , with number of workers limited to 19 without power or 9 workers with power limited to 30 HP), weigh bridges, Printing Press, IT Hardware / Electronic Industries, marble and granite storage/cutting centers.			
	Government (Local/State/Central) or public sector offices, Transmission towers and Wireless Stations, Social Welfare centers, Museum Auditorium / Wedding Halls / Community halls, Convention Centers, Swimming Pools Day care, Crèche, Nursery/ Kindergarten, Expansion of existing educational institutions Clinics, Diagnostic Centers and hospitals up to 50 beds. Parks & playgrounds, Fair Ground, Open air Theatre Parking Plazas, Transport terminals Plant Nursery, Storage of agricultural produces and seeds, pump house, wells and irrigation ponds			

3.2	**Provided that the access road has a width of 12m minimum**			
	Educational Institutions other than those mentioned in clause 3.1, Hospitals & Health centers, Outdoor games stadium.			
4	**Industrial zone**			
	All industries other than obnoxious and nuisance type industries, Automobile workshops & Automobile Service Stations, Spray Painting Workshops, Saw Mills, Timber yards, Ice Factory, Cold storage, Fish and meat processing units, Printing Press, Water Treatment Plants, Marble and Granite Storage and Cutting centers, Industrial Estates & Industrial Parks. Dairy and Dairy Farms, Dairy related Industries, Poultry Farms, Piggery Farm, Smoke House. Dry Cleaning Plants, Power Plants, Sub Stations Godowns/ Warehouse/ Storage of non hazardous materials, stacking yards, weigh bridge.	Other Public Utility Areas and Public Buildings. Cremation Ground / Crematorium, Burial Ground, Common Vault. Storage of Explosives and Fire Works, Gas Godowns, Crusher Units. Sewage Treatment Plants, Dumping Yard. Slaughter House, Junk yards Container Terminals with access width of 18m minimum.	Fuel Filling Stations	Any other use not specified
	Retail shops / banks upto 100 sq.m, IT Software units			
	Govt. or Public sector offices incidental to the industrial use,			

	Transmission & Telecommunication Towers, Wireless Stations. Residential Uses incidental to the Industrial Use. Any other activity essentially incidental to Industrial use. Tot lots, parks & playgrounds attached to incidental residential use Parking Plazas, Transport terminals such as auto rickshaw stands, taxi/jeep stands, boat jetty/port/harbors incidental to the industrial use			
5	**Tourism promotion zone** Height of constructions, if any, in this Zone shall not exceed 7m			
	Single family residential buildings Guest Houses, Home stay	Places of Worship	Fuel Filling Stations	Any other use not specified
	Shops, Restaurants, Canteen, Gymnasium / Yoga Centers, Library and Reading Rooms, Social Welfare centers – floor area **limited to 100 sq.m**			
	Cottage Industries			
	Day Care and Crèche, Nursery / Kinder Garten			
	Clinics (Outpatient) and Diagnostic centers - floor area up to 100 sq m			

	Museum, Exhibition Centers and Art Gallery			
	Tot Lots/Parks/Play Grounds, Open air Theatre, Amusement Parks, Swimming Pools			
	Zoological and Botanical Gardens / Bird Sanctuary, Camping Site			
	Public Utility Areas & Buildings,			
	Plant Nursery, Pump House, Wells and Irrigation Ponds			
	Agriculture, Animal Husbandry and Horticulture including incidental uses such as cattle shed, Fodder cultivation, Pastures, Grazing grounds			
	Fish Farms, Seed Farms			
	Storage of Agricultural Produces and Seeds			
6	**Public & semipublic zone**			
	Local/State/Central Government/Public Sector Offices and Other Related Public Buildings Residential Quarters incidental to public and semi public use. Public Utility Areas and Buildings. Additions and alterations to the existing public and semi public buildings including addition of	Cremation Ground / Crematorium, Burial Ground, Common Vault.		Any other use not specified

	new blocks without altering the use. Buildings for incidental uses with floor area limited to **100 m^2**.			
7	**Transportation zone**			
	Transport terminals including constructions that form an integral or essential part of the terminal. Any incidental uses to the transport terminals such as Retail Shops, Restaurants, and Canteen etc. with floor area limited to 100 $m^{2.}$ Staff Quarters, Offices, Night Shelters, Guest Houses etc incidental to the transport terminals Parking Plazas, Transmission Towers and Wireless Stations.	Public Utility Areas and Buildings Fuel Filling Stations	Container Terminals provided that the access has a width of 18m minimum.	Any other use not specified
8	**Park & Open Spaces use zone**			
	Any construction/land development essential for the development/ improvement of open air recreational facilities. Fish Landings, Boat Jetties, Guided Boat Rides, Watch Towers, Eco Walk Ways, Water Sports Facilities, Fair Grounds etc. Tot Lots, Park, Play Grounds, Swimming Pools, Open Air Stadium, Open Air Theatre, Fair	Public Utility Areas and Buildings which will not affect the character of the area.		Any other use not specified

	Grounds, Camping site, Zoological and Botanical Garden, Bird Sanctuary, Eco Walk Way etc.			
9	**Heritage Promotion zone**			
9.1	**Zone I (Temple Core Zone)**			
	Construction/Land developments which are integral part of the temple activity and which will not affect the character of the area shall only be permitted			
9.2	**Zone II – Land to a depth of 100m from the boundary of Temple Core Zone**			
	Constructions/Land development shall be in conformity with the following additional regulations: Not withstanding anything contained in the Zoning Regulations of the scheme and subject to modifications as prescribed hereunder, no development, redevelopment, construction including additions, alterations, repairs, renovations, demolition of any part or whole thereof in respect of any objects or buildings in the area, shall be allowed except with the prior recommendation of the Art and Heritage Commission constituted by the Government under Rule 154 of Kerala Municipality Building Rules 1999, in order to conserve the heritage Character of the Kodungallur temple area and its environs. Provided also that new constructions and additions or alterations to existing buildings may be permitted in this area with the following additional regulations namely; (i)Height width ratio of the street should be maintained 1:1 / The total number of storeys including the existing if any shall not exceed three from the street level. (ii)the overall height of the construction including the existing upto topmost point of the proposed construction shall not exceed 10 m. (iii)The roof should be sloping and should be tiled preferably with red Mangalore patent tiles. (iv) The architectural character of the facades of the construction shall be as per the advice of the commission. (v)Name boards shall be in standard forms prescribed by the commission. Provided also that the use or reuse of any site or building shall be as per the advice of the commission.			

	The Kodungallur Municipality shall insist on any such recommendations of the commission. The Art and Heritage Commission, if found necessary, may entrust the above regulatory aspects to a committee constituted for the purpose by the commission.			
9.3	**Heritage Premise**			
	Thiruvanchikulam Temple, Any development should consider ASI (archaeological survey of India) rules and norms within their demarcated area. Priority is given to decongestion of this area. Other heritage sites Any development, shall be allowed except with the prior recommendation of the Art and Heritage Commission constituted by the Government under Rule 154 of Kerala Municipality Building Rules 1999, in order to conserve the heritage Character.			
10	**Paddy ,Wetlands(Pokkali)**			
	Paddy cultivation, Prawn filtration Agriculture/ Horticulture/Fodder cultivation, Fish Farms/ Seed Farms/ Pump House/ Wells and Irrigation Ponds without any building construction. Constructions/ land developments in conformity with the Conservation of Paddy Land and Wet Land Act in force in lands designated as paddy land or wet land under the said Act.	Minor Public Utility areas & buildings which will not affect the character of the area		Any other use not specified

11	**Mangrove forest**			
	The Mangrove forests shall be conserved as such			
12	**Green Belt** Land to a depth of **20m** along the banks of Canoli Canal and Periyar River are demarcated under this Zone			
	Fodder cultivation, Agriculture/Horticulture, Bathing ghat, Check dam, Pump house only are permitted			
13	**Water bodies**			
	All existing water bodies shall be conserved. Bridges, Side protection walls, Bathing Ghats, Floating jetty etc may be permitted based on community level requirements.			Any other use not specified
14	**Special Zones**			
1	Green Techno Centre	The Special Zone is earmarked for developing a Green Techno Centre for facilitating service industries like IT and IT enabled services, manufacturing & service of electronic devices and other non-polluting industries. The Municipality may adopt innovative planning techniques like TDR, etc. for procuring land for this project or may develop the area through the implementation of land pooling schemes. The development of the area shall be subject to the following conditions namely:-20% of land to be identified and earmarked as water catchment area in the site and buildings shall be green rated The special project if not commenced within a period of 7 years, the earmarked area will be deemed to be under 'Paddy Zone'.		

2	Proposed Transportation Use Zone	Transportation related aminites like busstand,Taxi /Auto stand,Truck parking facilities, Multilevel parking facilities,Comfort stations ,Commercial area considering street vendors Any construction / land development essential for the development/ improvement of transporation amineties If this project is not materialised within a period of 7 years, from the date of sanctioning of this master plan the land shall be deemed to be under Residential Mix Use Zone.
3	Proposed Play Ground	Any construction / land development essential for the development/ improvement of recreational facilities. If this project is not materialised within a period of 7 years, from the date of sanctioning of this master plan the land shall be deemed to be under Residential Use Zone.
4	Proposed recreation Hub	Parking area,Perform area, Chidrens park, food/snack bar counter,paved and shaded walkways,comfort stations Any construction / land development essential for the development/ improvement of recreational facilities. If this project is not materialised within a period of 7 years, from the date of sanctioning of this master plan the land shall be deemed to be under Residential Use Zone.
5	Proposed Sewage Treatment Plant	This special zone demarcated for the purposed centralised Sewage Collection and Treatment Plant. Land to a depth of 10 m around the plant, but within the zone, shall be demarcated as buffer zone where no activity other than agricultural activities is permitted. If this project is not materialised within a period of 7 years, from the date of sanctioning of this master plan the land shall be deemed to be under Residential Use Zone.

General Notes:

1. For the purpose of these regulations, floor area means the total floor area of the building on all floors.

2. Subject to zoning regulations of the respective use zones, more than one uses may be combined in a building, provided that the total floor area on all floors of such a building shall not exceed the maximum floor area permitted for any of such use in that zone.

GUIDELINES FOR LARGE SCALE PROJECTS

Large Scale development proposals in an area not less than 2 hectares, exceeding an investment of Rs.100 crores, which provide direct employment (after commissioning of the project) to the tune of not less than 500 may be permitted in all zones other than Heritage and Park & Open space, subject to the recommendation of a committee to be constituted by the Government for this purpose, under the Chairmanship of the Secretary, Local Self Government Department, consisting of Chief Town Planner concerned of Kerala State Town and Country Planning Department and the Secretary, of Kodungallur Municipality as members and the District Town Planner, Thrissur District of the Town and Country Planning Department as convener and satisfying the following conditions:-

a) The developer shall produce project cum feasibility report and environmental impact assessment report, if required, of the project to the convener of the committee, 15 days in advance of the committee meeting.

b) The developer shall produce before the committee, all required clearances from the State and Central Government agencies concerned.

c) Adequate provision shall be made for supporting infrastructure such as water supply, Sewerage, Solid Waste Management etc. Separate sewage treatment plant and solid waste management measures shall be provided and maintained by the developer at his /her cost.

d) Adequate Memorandum of Understanding between the developer and Secretary of Local body concerned shall be undertaken to bring this into effect.

e) Maximum floor area ratio shall be 2 and Minimum access width shall be 12 meter.

f) The project shall be completed within a period of 3 years if not specified otherwise.

ANNEXURE -1

List of non-obnoxious and non-nuisance type of service or light industries

1. Aerated water and fruit beverages
2. Apparel making
3. Assembly of air coolers and conditioners
4. Assembly of bicycles, baby carriage and other small non motorized vehicles.
5. Atta - chakks
6. Ayurvedic medicinal formulations, Ayurvedic health club
7. Bakery products, biscuits, confectionaries
8. Bamboo and cane products (only dry operations)
9. Block making for printing
10. Card board or corrugated box and paper products (paper or pulp manufacturing excluded)
11. Carpet weaving
12. Cement and concrete products (where crusher is not used)
13. Chilling plants and cold storage
14. Coir (without bleaching / dyeing)
15. Concrete batching plants
16. Cotton and woolen hosiery/ Cotton and silk printing
17. Electro plating
18. Electronics and electrical goods
19. Electronics equipment (Assembly)
20. Engineering workshop and general fabrication works (without any chemical treatment)
21. Embroidery and lace manufacturing
22. Flour mills (job work only)
23. Foam bed, latex thread
24. Foot wear (rubber and PVC)
25. Furniture making
26. Fountain pens
27. Garment stitching, tailoring
28. Gold and silver smithy
29. Gold and silver thread sari work
30. Ice- cream or ice making
31. Insulation and other coated papers (paper or pulp manufacturing excluded)
32. Jobbing and machining
33. Light engineering
34. Laundry, dry cleaning and dyeing

35. Manufacturing of formulated synthetic detergent products
36. Manufacture of soaps involving process without generation of trade effluents (saponification of fats and fatty acids only)
37. Mineralized water
38. Musical instruments manufacturing
39. Oil ginning/expelling
40. Optical frames
41. Paint (by mixing process only)
42. Paper pins and U- clips
43. Power looms / hand looms (without dyeing & bleaching)
44. Photo and picture framing
45. Pressure testing units
46. Printing press
47. Rice mills
48. Rope (cotton and plastic)
49. Rubber gloves other than that for surgical and medical purpose
50. Rubberized coir mattresses
51. Scientific and mathematical instruments
52. Sports goods
53. Steeping and processing of grains
54. Small foundries
55. Tissue culturing
56. Toys
57. Water softening and demineralization plants
58. Watch, pen and spectacles repairing.

ANNEXURE 2

List of obnoxious and nuisance industries subject to Objectionable sounds, dust, odours, fumes, effluents or processes constituting hazardous use and which are to be located in hazardous zones (grouped) under Indian Standard Industrial classification (vide Regulation 7- 1, 7 - 2 and 13-2)

Manufacture of Food Stuff:

(1) Slaughtering, preservation of meat and fish and canning of fish

Manufacture of Beverages:

(2) Production of distilled spirits, wines, liquor etc. from alcoholic fruits and salts in distillery and brewery

(3) Production of country liquor and indigenous liquor such as toddy, liquor from mahua, palm juice

Manufacture of textiles:

(4) Dyeing and bleaching of cotton

Manufacturing of wood & wooden products, sawing and planning of wood:

(5) Wood seasoning

(6) Manufacture of veneer & plywood

(7) Paper, pulp and straw board

Manufacture of leather and leather products:

(8) Currying, tanning and finishing of hides and skins and preparation of finished leather

Manufacture of Rubber petroleum & local products:

(9) Manufacture of tyres and tubes and tyre retreading

(10) Manufacture of industrial and synthetic rubber

(11) Reclanation of rubber

(12) Production of petroleum, kerosene and other petrol products in refineries

(13) Production of chemicals and chemical products

Manufacture of chemical and chemical products:

(14) Manufacture of basic industrial chemicals such as acids, alkalies and their salts, not elsewhere specified (specially sulphurious, sulphuric, nitric, hydrochloric etc. acids, ammonia chlorine and bleaching powder manufacture.)

(15) Manufacture of dyes, paints, colours, ink powder, varnishes, printing ink etc.

(16) Manufacture of fertilizers (specially from organic materials) (17) Manufacture of disinfectants and insecticides

(18) Manufacture of Ammunition, explosives and fire works

(19) Manufacture of matches

Manufacture of Nonmetallic mineral products other than Petroleum and coal:

(20) Manufacture of cement

(21) Manufacture of lime

(22) Manufacture of plaster of paris

Manufacture of Basic Metals and their Products:

(23) Manufacture of iron and steel including sheeting, refining, rolling and conversion into basic forms

(24) Manufacture including smelting, refining etc. of nonferrous metals and alloys in basic forms

(25) Manufacture of ornaments

Manufacture of machinery (other than transport) and electrical equipment:

(26) Manufacture of all kinds of battery, Miscellaneous items not covered above

(27) Incineration, dumping and reduction of offal, dead animals, garbage or refuse

(28) Manufacture of gelatin and glue

(29) Fat, tallows, grease of lard refining of manufacture

(30) Bone meal, bone girst and bone powder (31) Manufacture of cashewnut shell oil and (32) Other similar types of nuisance industries.

ANNEXURE 3-STAKEHOLDERS OF KODUNGALLUR MUNICIPALITY

COUNCIL MEMBERS - 2015

Ward. No.	Councilor	Ward Name
1	Sri. V.G.Unnikrishnan	Parappully ward
2	Smt. Rasmi Babu	Kaniyath ward
3	Smt. Indira Purushothaman	J.T.S ward
4	Smt. Bindu Pradeep	Temple ward
5	Smt. Sobha Joshy	Town Hall ward
6	Sri. C.C. Vipinchandran	Society ward
7	Sri. T.P.Prabhesh	Vayalar ward
8	Smt. Kavitha Madhu	Thyvaippu ward
9	Sri. C.K.Ramanadhan	Viyathukulam ward
10	Smt. Honey Peethambaran	Kanakkankadavu ward
11	Sri. P.N.Ramadas	Narayanamangalam ward
12	Sri. V.B.Ratheesh	Naikkulam ward
13	Smt. Suma Narayan	KKTM ward
14	Sri. E.C.Ashokan	Chappara ward
15	Sri. O.N.Jayadevan	Pantheerampala ward
16	Smt. Vineetha Manilal	Powerhouse ward
17	Smt. Rekha Salprakash	Park ward
18	Smt. Parvathy Sukumaran	Nalukandam ward
19	Sri. I.L.Baiju	Elthuruth ward
20	Sri. M.S.Vinayakumar	Paliyamthuruth ward
21	Smt. Sheela Rajkamal	Thiruvanchikulam ward
22	Smt. Geethadevi	Kakkamadanthuruth ward
23	Smt. Kochuthresia(Princy Martin)	Kotta ward
24	Sri. V.M.Johny	Anappuzha ward
25	Smt. Thankamani Subramanian	Kottappuram ward
26	Sri. Devassy.P.O	V.P.Thuruth ward
27	Smt. Selma Harilal	Chalakkulam ward
28	Smt. Jiji Chandran	Kunnamkulam ward
29	Smt. Riji Joshy	Kandankulam ward

30	Sri. Ratheesh.K.M	Padanna ward
31	Smt. Reji Satheesan	Methalappadam ward
32	Sri. K.S.Kaisaab	Anchappalam ward
33	Sri. M.K.Saheer	Kadukkachuvadu ward
34	Sri. C.P.Rameshan	Sreenagar ward
35	Smt. K.P.Shobha	T.K.S.Puram ward
36	Smt. Smitha Anandan	Perumthodu ward
37	Sri. C.O.Lakshminarayanan Master	Parambikkulam ward
38	Sri. T.S.Sajeevan	Keraleswapuram ward
39	Smt. Latha Unnikrishnan	Katholiparambu ward
40	Smt. Sandhya Anoop	Padakkulam ward
41	Dr. Ashalatha	Cheraman masjid ward
42	Smt. Smitha Santhosh	Karoor ward
43	Sri. K.R.Jaithran	Ikkaraparambu ward
44	Smt. Shalini Venkitesh	O.K.ward

COUNCIL MEMBERS - 2013

Ward. No.	Councilor	Ward Name
1	Smt. P.K.Prasanna Prakasan	Parappully ward
2	Sri. V.G.Unnikrishnan	Kaniyath ward
3	Sri. A.V.Sukumaran	J.T.S ward
4	Sri. T.Sundaresan Master	Temple ward
5	Sri. P.H.Abdul Rasheed	Town Hall ward
6	Smt. Jolly Dilshan	Society ward
7	Smt. Sobha Joshy	Vayalar ward
8	Sri. M.K.Malik	Thyvaippu ward
9	Smt. Sreedevi Vijayakumar	Viyathukulam ward
10	Sri. C.K.Ramanadhan	Kanakkankadavu ward
11	Smt. Rajashree Kaladharan	Narayanamangalam ward
12	Smt. Suma Sivan	Naikkulam ward
13	Sri. K.P.Sunilumar	KKTM ward
14	Smt. E.G.Sheeba	Chappara ward
15	Smt. Ramla Subhash	Pantheerampala ward
16	Sri. Babu Mangattil	Powerhouse ward
17	Sri. M.M.Michal	Park ward
18	Sri. C.V.Unnikrishnan	Nalukandam ward
19	Smt. K.B.Maheswari	Elthuruth ward
20	Smt. Baby Unnikrishnan	Paliyamthuruth ward
21	Sri. P.P.Anilkumar	Thiruvanchikulam ward
22	Smt. Rasoja haridas	Kakkamadanthuruth ward
23	Sri. V.M.Johny	Kotta ward
24	Smt. Mary Ouseph	Anappuzha ward
25	Sri. O.C.Joseph	Kottappuram ward
26	Smt. Anchu Sithara Sidharthan	V.P.Thuruth ward
27	Smt. Sulekha	Chalakkulam ward
28	Sri. K.R.Subhash	Kunnamkulam ward
29	Smt. Nabeesa Jamal	Kandankulam ward
30	Smt. Surya Saneesh	Padanna ward

31	Sri.	T.A.Gireeshkumar	Methalappadam ward
32	Smt.	Aleema Rasheed	Anchappalam ward
33	Smt.	Leela	Kadukkachuvadu ward
34	Smt.	Usha Gopi	Sreenagar ward
35	Sri.	C.P.Rameshan	T.K.S.Puram ward
36	Sri.	M.K.Prathapan	Perumthodu ward
37	Smt.	Jaya babu	Parambikkulam ward
38	Smt.	Radhika Anilkumar	Keraleswapuram ward
39	Smt.	Latha Unnikrishnan	Katholiparambu ward
40	Smt.	Bijili Omanakuttan	Padakkulam ward
41	Sri.	D.T.Venkiteswaran	Cheraman masjid ward
42	Sri.	Venu Vennara	Karoor ward
43	Smt.	P.G.Naiji	Ikkaraparambu ward
44	Smt.	Shalini Venkitesh	O.K.ward

SPATIAL INTEGRATION COMMITTEE – 2013

Chairman	:	Smt.K.B.Maheswari, Municipal Chairperson
Convener	:	Municipal Secretary
Joint Convenor	:	Municipal Engineer
Member	:	District Town Planner
		Sri. R.M.Pavithran, Resource person
		Sri. C.K. Ramanathan, Councillor
		Smt.Rasoja Haridas , Councillor
		Sri. M.K.Malik, Councillor
		Sri. A.V.Sukumaran, Councillor
		Sri. C.V.Unnikrishnan, Councillor
		Smt. Suma Sivan, Councillor
		Smt. Usha Gopi, Councillor

SIC WORKING GROUP MEMBERS - 2013

1. Agriculture, Animal Husbandry, Diary Development and Fisheries Sector

Chairman	:	Nabeesa Jamal, Councilor
Convener	:	Agriculture Officer, Agriculture Office, Methala.
Members	:	1. Dr. Dinesh, Sr. Vet. Surgeon 2. Smt. Sugathakumary,A.E.Minor Irrigation 3. Sri. Sreekumar, Agri. Field Officer 4. Smt. Surya Suneesh, Councilor 5. Sri. Venu Vennara, Councilor 6. Sri. T.A. Balakrishnan

2. Irrigation and Watershed Development Sector

Chairman	:	Sri. C.P.Rameshan, Councilor
Convener	:	Assistant Engineer, Irrigation
Members	:	1. Smt. Sobha Joshy, Councilor 2. Smt. Ramla Subhash, Councilor 3. Smt. Bijli Omanakuttan, Councilor

3. Industry and Commerce Development Sector

Chairman	:	Sri. T.A. Gireeshkumar, Councilor
Convener	:	Industrial Extension Officer, Kodungallur.
Members	:	1. Smt. Sreedevi Vijayakumar, Councilor 2. Smt. Rajasree Kaladharan, Councilor 3. Smt. E.G.Sheeba, Councilor 4. Sri. P.P.Subhash

4. Health and Drinking Water Sector

Chairman	:	M.K.Prathapan
Convener	:	Assistant Engineer,KWA,Kodungallur.
Members	:	1. Smt. Anju Sithara, Councilor 2. Smt. Latha Unnikrishnan, Councilor 3. Smt. Jaya Babu, Councilor 4. Sri. Subramanyan, Supdt.Taluk Hospital Kdlr

5. Infrastructure Development Sector

Chairman	:	Sri. P.P.Anilkumar, Councilor
Convener	:	AEE, PWD roads, Kodungallur.
Members	:	1. Smt. Radhika Anilkumar, Councilor 4. Sri. M.M.Michael, Councilor 5. Smt. Sulekha, Councilor 6. Sri. N.C.Rajkamal

6. Education Development Sector

Chairman	:	Sri. Babu Mankattil, Councilor
Convener	:	A.E.O, Kodungallur.
Members	:	1. Sri. Sundaresan Master T, Councilor 2. Smt. Shalini Venkatesh, Councilor 3. Sri. K.R.Jaithran

7. Social Welfare and Poverty Reduction Development Sector

Chairman	:	Smt. Jolly Dilshan, Councilor
Convener	:	Social Welfare officer, CDPO.
Members	:	1. Smt. Magie Ouseph, Councilor 3. Sri. K.P.Sunilkumar,, Councilor 4. Sri. M.K.Purushothaman

8. Scheduled Caste and Scheduled Tribe Development

Chairman	:	Smt. P.G.Nigi, Chairperson, Development Standing Committee.
Convener	:	S.C.Development officer.
Members	:	1.Sri. Subhash K.R, Councilor 3. Smt. Leela, Councilor 4. Sri. G.S. Suresh

9. Power and Telecommunication Development Sector

Chairman	:	Sri.O.C.Joseph, Councilor
Convener	:	Asst. Executive engineer, KSEB, Kodungallur.
Members	:	1. Smt. Prasanna Prakasan, Councilor 2. Sri. U.K.Dineshan

10. Tourism Development Sector

Chairman	:	Sri. V.G.Unnikrishnan, Councilor
Convener	:	Special Officer, Muziris Heritage Project.
Members	:	1. Sri. Johny V.M, Councilor 2. Smt. Baby Unnikrishnan, Councilor 3. Smt. K.M.Baby

11. Environment and Waste Disposal Development Sector

Chairman	:	Smt. Aleema Rasheed, Councilor
Convener	:	Health Supdt, Kodungallur.
Members	:	1. Sri. Venkiteswaran, Councilor 3. Sri. Abdul Rasheed P.H, Councilor 4. Sri. V.S.Sreejith

ANNEXURE 3A

DEPARTMENT OF TOWN AND COUNTRY PLANNING

THRISSUR PLANNING UNIT

Planning Team:

Shri. K.M. Gopakumar, Town Planner

Shri V.A.Gopi, Former Town Planner

Shri. V.K.Mohandas, Former Town Planner

Smt. Jinumole Varghese, Former Deputy Town Planner

Smt. Jeeva Liza Xavier, Assistant Town Planner

Shri. Sanu.K.Thekkath, Planner Associate

Kumari. Zahna Mohammed Sherief, Planning Assistant

Shri. K.S Radhakrishna 1st Grade Surveyor/Draftsman

Technical Assistance:

Smt. P.R. Pankajavally, Research Assistant

Smt. Chandrika P.K, Statistical Assistant

Shri.Sajan. V.R, Statistical Assistant

Smt.Reshma K Raveendran, GIS Assistant

Smt. Lakshmi Priya.V, Computer Assistant

Smt. Anu.U.V Ist Grade Surveyor/ Draftsman

Shri. M.C.Rajesh. Ist Grade Surveyor/ Draftsman

ANNEXURE 4- COUNCIL RESOLUTION

കൊടുങ്ങല്ലൂർ നഗരസഭ

18.06.2012 ലെ 36 -ാം നമ്പർ കൗൺസിൽ തീരുമാനം

24.10.2009 ൽ ജി.ഒ (ആർ.ടി) നമ്പർ. 2760/2009/എൽ.എസ്.ജി.ഡി പ്രകാരമുള്ള ഉത്തരവിന്റെ അടിസ്ഥാനത്തിൽ കൊടുങ്ങല്ലൂർ നഗരസഭയുടെ മാസ്റ്റർ പ്ലാൻ തയ്യാറാക്കുന്നതിന് തീരുമാനിച്ചു.

//ശരി പകർപ്പ്//

സെക്രട്ടറി

(ഒപ്പ്)
ചെയർപേഴ്സൺ

ANNEXURE 5

എസ് ഐ സി ശില്പശാല

മിനിറ്റ്സ്

11th ഒക്ടോബർ 2012

കൊടുങ്ങല്ലൂർ മുനിസിപ്പാലിറ്റി

കൃഷി, മൃഗസംരക്ഷണം, ക്ഷീരവികസനം, മത്സ്യബന്ധനം

1. നെൽകൃഷി മേഖലയിൽ തരിശു നിലങ്ങൾ കൃഷിയിറക്കുന്നതിനുള്ള അടിസ്ഥാന സൗകര്യങ്ങളുടെ വികസനം - തരിശുനിലങ്ങളിൽ തീറ്റപുൽ കൃഷിയുടെ പ്രോത്സാഹനം.

2. മുനിസിപ്പൽ പ്രദേശത്ത് കൂടുതൽ പഴം, പച്ചക്കറികൃഷികൾ പ്രോത്സാഹിപ്പിക്കൽ ടെറസിലെ പച്ചക്കറികൃഷി.

3. വളത്തിന്റെ ലഭ്യതക്കുറവ് - മൃഗസംരക്ഷണമേഖല കൂടുതൽ ലാഭകരമാക്കുന്നതിന് കർഷകരെ പ്രോത്സാഹിപ്പിച്ച് ജൈവവളങ്ങളുടെ ലഭ്യത വർദ്ധിപ്പിക്കുക.
4. മുനിസ്സിപ്പൽ പ്രദേശത്തെ ലഭ്യമായ കാലിവളം പൊടിച്ച് ഗുണമേന്മയുള്ള വളമാക്കി മാറ്റുന്നതിനുള്ള സംവിധാനം ഉണ്ടാക്കുക.
5. മണ്ണുസംരക്ഷണം പ്രവർത്തനങ്ങൾ ലക്ഷ്യം വച്ച് വൃക്ഷങ്ങൾ നട്ടുപിടിപ്പിക്കലും, ജലാശയങ്ങൾ സൈഡ് കെട്ടി സംരക്ഷിക്കുന്നതിനുള്ള സംവിധാനങ്ങൾ - ഉപ്പുവെള്ള ഭീഷണിയുള്ള പ്രദേശങ്ങളിൽ Sluice -കളുടെ നിർമ്മാണം.
6. ജൈവവളം - ഡിസ്പോസൽ - പശുവളർത്തലിൽ ഏർപ്പെട്ടിട്ടുള്ളവർക്ക് വലിയ പ്രശ്നമാണ്. ഉണക്കി പൊടിച്ച് ജൈവവളമാക്കുകയാണെങ്കിൽ ഈ രംഗങ്ങളിലുള്ളവർക്ക് സാമ്പത്തിക നേട്ടമായിരിക്കും.
7. Slaughter House ഇല്ല. അനധികൃത Slaughter Places നിലവിലുണ്ട്.

8. ശുദ്ധജല മൽസ്യകൃഷി പ്രോത്സാഹിപ്പിക്കുന്നതിനുള്ള നടപടികൾ.
9. ജലാശയങ്ങളിൽ മാലിന്യനിക്ഷേപം നിർത്തിവയ്ക്കുക.

ടൂറിസം

- ഇവിടെ പുരാതനമായി തന്നെ റഫറൻസ് ലൈബ്രറിയായി അറിഞ്ഞിരുന്നതാണ് കൊടുങ്ങല്ലൂർ പബ്ലിക്ക് ലൈബ്രറി. ഇന്നും ധാരാളം പുസ്തകങ്ങൾ ഇതിലുണ്ട്. വീണ്ടും അതിന്റെ പ്രശസ്തി വർദ്ധിപ്പിക്കാൻ സാധിക്കും.
- വർഷം പ്രതി കൊടുങ്ങല്ലൂർ ക്ഷേത്രത്തിൽ ഭരണിക്കും താലപൊലിക്കും ധാരാളം ഭക്തർ വരുന്നുണ്ട്. അവരെ കൊടുങ്ങല്ലൂരിന്റെ ചരിത്രഭാഗത്തേയ്ക്ക് കടത്തി വിടണമെങ്കിൽ താമസസൗകര്യങ്ങൾ വേണം. ചെറിയ ചിലവിൽ കൂട്ടമായി താമസിക്കുവാൻ കെട്ടിടങ്ങൾ വേണം.
- ടൂറിസം ഡവല്പ്പ്മെന്റിന് ഇവിടെ ശുദ്ധജലം, സാനിറ്ററി സൗകര്യങ്ങൾ എന്നിവ ധാരാളമായി വർദ്ധിപ്പിക്കണം. ഇതിനായി അവിടെ അവിടെയായി ശുദ്ധജല വിതരണടാപ്പുകളും കംഫർട്ട് സ്റ്റേഷനുകളും പണിയണം.
- ടൗണിൽ എത്തുന്നവർക്ക് കൊടുങ്ങല്ലൂർ ക്ഷേത്രം, മാർത്തോമ്മപള്ളി, ചേരമാൻ പള്ളി, കോട്ട അങ്ങിനെ പല ടൂറിസ്റ്റ് കേന്ദ്രങ്ങളെക്കുറിച്ചും മറ്റും ഇവിടെ വന്നുചേരുന്നവർക്ക് പറഞ്ഞുകൊടുക്കുവാൻ ഏർപ്പാടില്ല. നന്നായി പ്രചരണം നടത്തി ഈ വക കാര്യങ്ങൾ വിപുലപ്പെടുത്തണം. ഇൻഫേർമേഷൻ സെന്റർ വേണം. അധിക ചിലവില്ലാത്ത ട്രിപ്പുകൾ വേണം. പ്രദേശികമായുള്ള പലവിധ കാര്യങ്ങളെപ്പറ്റി അറിവുള്ളവരുണ്ട്. അവരെ കണ്ടെത്തി ചരിത്രവും സത്യവും പഠിച്ച് ഇവ പ്രചരിപ്പിക്കണം.

വിദ്യാഭ്യാസം

1. മുഴുവൻ വിദ്യാലയങ്ങളിലും 'ശിശുസൗഹൃദാന്തരീക്ഷത്തിൽ' പഠനം നടത്താനാവശ്യമായ സംവിധാനം ഉറപ്പുവരുത്തണം. കരിക്കുലം വിനിമയം ചെയ്യാനുള്ള വൈദഗ്ദ്യം - മുഴുവൻ അധ്യാപകരും ഉറപ്പുവരുത്തണം.

2. പ്രൊഫഷണൽ കോഴ്സുകൾ KKTM കോളേജ് കേന്ദ്രീകരിച്ച് ആരംഭിക്കണം.

പുതിയ കാലഘട്ടത്തിനനുസരിച്ച് കുട്ടികളെ പ്രാപ്തരാക്കാൻ

- ജേർണലിസം
- ടൂറിസം

- IT
- BT - എന്നിവ നിർദ്ദേശിക്കുന്നു.

2A. കൊടുങ്ങല്ലൂരിൽ പ്രൊഫഷണൽ കോളേജ് (എഞ്ചിനീയറിങ്ങ്, മെഡിസിൻ **etc.)** ആരംഭിക്കണം.

3. വിദ്യാലയങ്ങളിൽ ലൈബ്രറി, ലാബ്, സ്റ്റേഡിയം, കലാ-കായിക പഠനം ഉറപ്പുവരുത്താൻ കഴിയണം.

4. നഗരസഭാ തലത്തിൽ സ്റ്റേഡിയം, കലാ-പഠനകേന്ദ്രം (തിയ്യേറ്റർ) എന്നിവ സ്ഥാപിച്ച് പ്രവർത്തന സജ്ജമാക്കണം. മുഴുവൻ കുട്ടികൾക്കും കലാ/കായിക/പ്രവൃത്തിപരിചയ വിദ്യാഭ്യാസം ഉറപ്പുപരുത്തണം.

5. മുഴുവൻ വകുപ്പുകളുടേയും ഏകോപനത്തിലൂടെ വിദ്യാഭ്യാസപ്രവർത്തനങ്ങൾ ശക്തിപ്പെടുത്തണം.

പരിസ്ഥിതിയും മാലിന്യ നിർമ്മാർജ്ജനവും

1. സോളിഡ് വേസ്റ്റ് ഉത്ഭവസ്ഥാനത്ത് തന്നെ തരം തിരിച്ച് സംസ്ക്കരിക്കുന്ന സംവിധാനം.

2. പ്ലാസ്റ്റിക്ക്, തെർമോകോൾ എന്നിവ റോഡ് നിർമ്മാണത്തിന് ഉപയോഗിക്കാൻ ഉള്ള സംവിധാനം നടപ്പിലാക്കുക.

3. ഉറവിടങ്ങളിൽ നിന്നും തന്നെ തരം തിരിച്ച മാലിന്യങ്ങൾ പ്രത്യേകം സംസ്ക്കരിച്ച് ബയോഗ്യാസ് പ്ലാന്റിന്റെ സഹായത്താൽ സംഭരിച്ച് ഗ്യാസും വളവും ആക്കി മാറ്റുന്ന നൂതന സംവിധാനം ആവിഷ്ക്കരിക്കാനുള്ള ഒരു മാതൃക പ്രോജക്ട് കുടുംബശ്രീയുടെ മേൻപവർ ഉപയോഗിച്ച് നടപ്പിലാക്കാൻ ശ്രമിക്കണം.

ഊർജ്ജം

കൊടുങ്ങല്ലൂർ മുനിസിപാലിറ്റിയുടെ കീഴിൽ നിലവിൽ R- APDRP എന്ന സ്കീം ഉണ്ട്. ഈ സ്കീം പ്രകാരം ട്രാൻസ്ഫോമറുകളും 11 കെ. വി ലൈനും 34 ലൈനുകളും സ്ഥാപിക്കുന്നുണ്ട്. ഈ പദ്ധതി പൂർത്തീകരിക്കപ്പെടുന്നതോടുകൂടി മുനിസിപ്പൽ ഏരിയയിൽ വോൾട്ടേജ് ക്ഷാമം അനുഭവിക്കപ്പെടുന്നതല്ല. കൂടാതെ ടൗണിന്റെ ഹൃദയഭാഗത്തേയ്ക്ക് പുതിയ ഒരു 11 കെ വി ഫീഡർ വലിക്കുന്നതിന്റെ എസ്റ്റിമേറ്റ് (61 lakh rupees) K.S.E.B ബോർഡിന്റെ sanction നു വേണ്ടി അയച്ചിട്ടുണ്ട്. ഈ വർക്ക് ചെയ്യുവാൻ സാധിച്ചാൽ കൊടുങ്ങലൂർ ടൗണിന്റെ ഹൃദയഭാഗത്തേയ്ക്ക് പുതുതായി ഒരു Dedicated ഫീഡർ ലഭിക്കും.

BPL വിഭാഗത്തിൽ പെട്ടവർക്ക് സർവ്വീസ് കണക്ഷൻ നൽകുന്നതിന് RGGVY എന്ന സ്കീം ഇപ്പോൾ നിലവിലുണ്ട്. വയറിംഗ് കഴിഞ്ഞ് CD അടയ്ക്കുന്നവർക്കാണ് ഇപ്പോൾ ഈ ആനുകൂല്യം ലഭിക്കുന്നത്.

1. എല്ലാ വീടുകളിലും വയറിംഗ് നടത്താനുള്ള ഏതെങ്കിലും സ്കീം ഉണ്ടാക്കണം.

2. എല്ലാ പുതിയ റോഡുകളിലും, സ്ട്രീറ്റ് ലൈറ്റ് സ്ഥാപിക്കാനുള്ള ഒരു പദ്ധതി ഉൾപ്പെടുത്തണം. കൂടാതെ നിലവിലുള്ള റോഡുകളിലെ സ്ട്രീറ്റ് ലൈറ്റുകളുടെ എണ്ണം കൂട്ടാനുള്ള പദ്ധതിയും ഉൾപ്പെടുത്തണം.

3 സോളാർ ലൈറ്റുകൾ സബ്സിഡി അടിസ്ഥാനത്തിൽ എല്ലാ വീടുകളിലും ലഭിക്കാൻ സാധ്യത ഉണ്ടാക്കുക.

4 ബയോഗ്യാസ്, കമ്പോസ്റ്റ് വളം എന്നിവ ഉൽപ്പാദിപ്പിക്കുന്നതിന് വേണ്ടതായ സജ്ജീകരണങ്ങൾ എല്ലാ വാർഡുകളിലും എത്തിക്കുക.

5. റോഡുകളുടെ സൈഡുകളിൽ വൈദ്യുതി ലൈറ്റുകൾ ഇല്ലാത്തിടത്ത് സ്ഥാപിക്കുക. maintain ചെയ്യുക. V.P തുരുത്തിലെ റിസോർട്ടുകൾ നിൽക്കുന്ന ഭാഗത്ത് ലൈറ്റുകളില്ലാതെ നാട്ടുകാർ വിഷമിക്കുന്നുണ്ട്. ഇതുപോലെ കൂടുതൽ ആളുകൾ എത്തുന്നിടത്ത് കൂടുതൽ ലൈറ്റുകൾ സ്ഥാപിക്കുക.

വ്യവസായം, വാണിജ്യം

കൊടുങ്ങല്ലൂർ മുനിസിപ്പൽ പ്രദേശത്തെ വ്യവസായ മേഖല വിശകലനം ചെയ്തതിൽ, പ്രധാനമായും 4 ഉപമേഖലകളിലാണ് ഭൂരിപക്ഷം സംരംഭങ്ങളും ഉൾപ്പടുന്നതെന്ന് കാണാൻ കഴിഞ്ഞു.

1. ഭക്ഷ്യസംസ്ക്കരണം

2. റെഡിമെയ്ഡ് ഗാർമെന്റ്സ്

3. എഞ്ചിനീയറിംഗ് വർക്ക്സ്

4. മറ്റ് സേവന സംരഭങ്ങൾ.

വൻകിട വ്യവസായ സംരംഭങ്ങൾ ഇല്ല എന്നത് പ്രത്യേകം ശ്രദ്ധിക്കപ്പെട്ടു.

കാരണങ്ങൾ

1. അടിസ്ഥാന സൗകര്യങ്ങളുടെ അഭാവം.

2. Skilled Workers ന്റെ അഭാവം.

3. സംരംഭകരുടെ മനോഭാവം.

പരിഹാരങ്ങൾ

1. അടിസ്ഥാന സൗകര്യങ്ങൾ കൂടുതലായി വികസിപ്പിക്കുക. (വ്യവസായ മേഖലകൾ ആരംഭിക്കുക)

2. മെച്ചപ്പെട്ട തൊഴിൽ സേനയെ ലഭ്യമാക്കുക.

3. തദ്ദേശീയ ഉത്പന്നങ്ങളെ പ്രോത്സാഹിപ്പിക്കുക.

4. നിലവാരമുള്ള വിപണികൾ വികസിപ്പിച്ചെടുക്കുക.

ആരോഗ്യം, കുടിവെള്ളം

1. ശുദ്ധജലം സംരക്ഷിക്കുന്നതിന് നിലവിലുള്ള കുളങ്ങളും, കിണറുകളും സംരക്ഷിക്കുവാൻ സഹായകരമായ നടപടികൾ സ്വീകരിക്കുന്നു.

2. ശുദ്ധജലം സംരക്ഷിക്കുന്നതിന് ഓരുവെള്ളം (ഉപ്പുവെള്ളം) കയറുന്ന പ്രദേശങ്ങളിൽ Sluice സ്ഥാപിച്ച് ഓരുവെള്ളം തടയുക.

3. പൊതുതോടുകൾ സൈഡ് കെട്ടി സംരക്ഷിക്കുക.

4. V P തുരുത്തിന് ചുറ്റും സൈഡ് പ്രൊട്ടക്ഷൻ വർക്ക് ചെയ്യുക.

5. വെള്ളക്കെട്ടുള്ള പ്രദേശങ്ങളിൽ ഓടകൾ (കാന) സ്ഥാപിച്ച് വെള്ളക്കെട്ട് ഒഴിവാക്കുക (മുകളിൽ സ്ലാബ് ഇടുക).

6. അന്യസംസ്ഥാന തൊഴിലാളികളെ കണ്ടെത്തി രോഗനിർണ്ണയം നടത്തി നിരീക്ഷിക്കുക.(മലേറിയ)

7.ഗവ: ആശുപത്രിയിൽ ആവശ്യമുള്ള പശ്ചാത്തല സൗകര്യങ്ങൾ
ടോയ്ലറ്റ് സൗകര്യം, രോഗികൾക്ക് ഇരിപ്പിടസൗകര്യം, വാഹനപാർക്കിങ്ങ് സൗകര്യം, മലിനജലം സംസ്ക്കരിക്കുന്നതിന് സോക്കേജ് പിറ്റ് നിർമ്മിക്കുക.

8. സർക്കാർ ആശുപത്രികളിൽ ആവശ്യമായ മരുന്ന് ഉണ്ടാകുന്നതിന് ആവശ്യമായ ഇട പെടലുകൾ സദാ ഉണ്ടായിരിക്കണം.

9. PHC യിൽ ഡോക്ടറെ നിയമിക്കുകയും ഭാവിയിൽ കിടത്തി ചികിത്സയ്ക്കായി സൗകര്യം ചെയ്യുന്നത് തീരദേശവാസികൾക്ക് സഹായകമാകും.

10. മെഡിക്കൽ ക്യാമ്പുകൾ (ആയുർവേദം) പ്രാദേശികതലത്തിൽ സജീവമാക്കുക.

11. പൊതുസ്ഥലങ്ങളിൽ ടോയ്ലറ്റ് സൗകര്യം ഏർപ്പെടുത്തുക.

12. വെയ്സ്റ്റ് നിർമ്മാർജ്ജനം കാര്യക്ഷമമാക്കുക.

13. മഴവെള്ളം സംരക്ഷിച്ചു നിർത്തുന്നതിന് ആവശ്യമായ സംവിധാനങ്ങൾ ഏർപ്പെടുത്തുക.

14. എല്ലാവീടുകൾക്കും കുടിവെള്ളം എത്തിക്കുന്നതിന് നടപടികൾ സ്വീകരിക്കുക.

15. കൊടുങ്ങല്ലൂർ ടൗണിൽ NH, PWD, മുനിസിപ്പാലിറ്റി എന്നിവർ യോജിച്ച് പ്ലാൻ തയ്യാറാക്കി വെള്ളം ഒഴുകിപ്പോകുന്നതിന് ശാസ്ത്രീയമായി ദീർഘകാല അടിസ്ഥാനത്തിൽ കാനകൾ നിർമ്മിക്കുന്നതിനാവശ്യമായ നടപടികൾ സ്വീകരിക്കുക.

സാമൂഹ്യക്ഷേമം, ദാരിദ്ര്യനിർമ്മാർജ്ജനം

വർക്കിങ്ങ് ഗ്രൂപ്പിൽ 5 പേർ സജീവമായി പങ്കെടുത്തു. സാമൂഹ്യക്ഷേമത്തെക്കുറിച്ചും ദാരിദ്ര്യലഘൂകരണത്തെക്കുറിച്ചും ചർച്ച ചെയ്തു. 2005 മുതൽ 2011 വരെയുള്ള major crimes പോലീസ് സ്റ്റേഷനിൻ റിപ്പോർട്ട് ചെയ്തിട്ടുള്ളതിന്റെ ഏകദേശ കണക്ക് അനുസരിച്ച് 6400 കുറ്റകൃത്യങ്ങൾ നിലവിലുണ്ട്. ആത്മഹത്യാകണക്കുകൾ ഏകദേശം 130 എണ്ണം.

മദ്യം, കുടുംബകലഹം, സ്ത്രീപീഠനം, വിഷാദരോഗം, ദൃശ്യമാധ്യമങ്ങളുടെ സ്വാധീനവും അനുകരണവും, കടക്കെണി, സെക്സ് റാക്കറ്റുകൾ, ലഹരിമരുന്നുകൾ, ഇന്റർനെറ്റ്, മൊബൈലുകൾ എന്നിവയുടെ ദുരുപയോഗം എന്നിവ ആത്മഹത്യയ്ക്ക് കാരണമാകുന്നു.

പരിഹാരമാർഗ്ഗങ്ങൾ

സമ്പൂർണ്ണ മദ്യനിരോധനം നടപ്പിലാക്കുക. ആരോഗ്യവകുപ്പിന്റെ നേതൃത്വത്തിൽ ഹൈസ്കൂൾ വിദ്യാർത്ഥികൾക്ക് ബോധവൽക്കരണ ക്ലാസുകൾ, കൗൺസലിങ്ങ് എന്നിവ നടപ്പിലാക്കുക. ഇന്റർനെറ്റിന്റെ വളരെയധികം പ്രയോജനങ്ങൾ ഉണ്ടെങ്കിലും Chatting, Sexual Documentary എന്നിവ ഒഴിവാക്കാനുള്ള നടപടിയെടുക്കുക. ആത്മഹത്യാപ്രവണതയുള്ള പെൺകുട്ടികളെ കണ്ടെത്തി കൗൺസിലിങ്ങ് നടത്തുക. ബസ്, ട്രെയിൻ എന്നിവിടങ്ങളിൽ സ്ത്രീകൾക്കും കുട്ടികൾക്കും സുരക്ഷിതത്വം ഉറപ്പാക്കുക. അവിവാഹിതരായ അമ്മമാർ, ലൈംഗികപീഠനത്തിനിരയായവർ എന്നിവരെ പുനരധിവസിപ്പിക്കുന്നതിനുള്ള സംവിധാനം ഉണ്ടാക്കുക. വൃദ്ധരായ മാതാപിതാക്കളെ സംരക്ഷിക്കാത്ത മക്കൾക്കെതിരെ നിയമനടപടികൾ സ്വീകരിക്കുക. നിയമപാലകരിൽ നിന്നും ലഭിക്കേണ്ട നീതി ഉറപ്പുവരുത്തുക. ജാഗ്രതസമിതി പുനസംഘടിപ്പിക്കുകയും ശക്തിപ്പെടുത്തുകയും ചെയ്യുക.

BPL

മേത്തല ഭാഗത്ത് ആകെയുള്ള ബി പി എൽ കുടുംബങ്ങൾ	- 3444
കൊടുങ്ങല്ലൂർ ഭാഗത്ത് ആകെയുള്ള ബി പി എൽ കുടുംബങ്ങൾ	- 4200
ആകെ	- 7644

അർഹരായവർ ലിസ്റ്റിൽ ഉൾപ്പെടാതിരിക്കുകയും അനർഹർ ഗുണഭോക്താക്കാളാവുകയും ചെയ്തു എന്നതാണ് 2009 ബിപിഎൽ ലിസ്റ്റ്. ബിപിഎൽ ലിസ്റ്റ് കുറ്റമറ്റതാക്കിയാൽ മാത്രമേ യഥാർത്ഥ ഗുണഭോക്താക്കൾക്ക് സർക്കാർ ആനുകൂല്യങ്ങൾ ലഭ്യമാകുകയുള്ളൂ.

ക്ഷേമപെൻഷനുകളിൽ എപിഎൽ - ബിപിഎൽ മാനദണ്ഡം മാറ്റി അർഹരായവർക്ക് പെൻഷൻ നൽകുക. വിധവ പെൻഷന്റെ പ്രായപരിധിയിൽ ഭേദഗതി വരുത്തുക.

പട്ടികജാതി - പട്ടിക വർഗ്ഗ വികസനം

1. നഗരസഭയിലെ ആകെ എസ്.സി വിഭാഗക്കാരുടെ വിവരശേഖരണം ഏറ്റവും പെട്ടെന്ന് നടത്താൻ തീരുമാനിച്ചു. (നഗരസഭ കൺസിലർമാരുടെയും എസ്. സി പ്രമോട്ടർമാരുടെയും സഹായത്തോടു കൂടി)

2. എസ്.സി വിഭാഗക്കാർ താമസിക്കുന്ന കേന്ദ്രങ്ങൾ (കോളനി) അടിസ്ഥാനസൗകര്യങ്ങൾ വർദ്ധിപ്പിക്കുന്നു.

3. എസ്.സി വിഭാഗക്കാർക്കും പാരമ്പര്യ തൊഴിൽ നിലനിർത്തുവാനും പ്രോത്സാഹിപ്പിക്കുവാനും സാമ്പത്തികസഹായം നൽകി ജീവിത നിലവാരം ഉയർത്തുവാനുമുള്ള പദ്ധതി.

4. എസ്.സി വിഭാഗത്തിൽപ്പെട്ട വാദ്ധ്യോപകരണങ്ങൾ കൊണ്ട് ഉപജീവനമാർഗം നിലനിർത്തുന്നവരെ പ്രോത്സാഹിപ്പിക്കണം.

5. എസ്.സി വിഭാഗക്കാർക്കും പദ്ധതി നടപ്പിലാക്കുമ്പോൾ 51% എസ്.സി വിഭാഗക്കാർ വേണമെന്നും സർക്കാർ ഉത്തരവ് പല പദ്ധതികൾക്കും തടസ്സമാകുന്നു. (കോളനികളിൽ നിന്നും എസ്.സി വിഭാഗക്കാർ ഒഴിഞ്ഞു പോകുന്നതിനാലാണ്.) അതിനാൽ 30% എന്ന നിലവാരത്തിലേയ്ക്ക് വരുത്തുക.

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ANNEXURE 6

വികസന സെമിനാർ

മിനിറ്റ്സ്

2nd നവംബർ 2012

കൊടുങ്ങല്ലൂർ മുനിസിപ്പാലിറ്റി

കൃഷി

വികസന സാധ്യത		സ്വാധീനം / ആഘാതം
➢ തരിശു നിലങ്ങളിൽ കൃഷിക്ക് അനുയോജ്യമായ രീതിയിൽ പാകപ്പെടുത്തുക.-		കാർഷികോല്പാദനം കൂടും
➢ തീറ്റപുൽ കൃഷി	-	പാലുത്പാദനം കൂടും
➢ ടെറസിലെപച്ചക്കറികൃഷി ➢ പഴം,പച്ചക്കറി ഉല്പാദനം	-	പുല്ലൂറ്റ് വില്ലേജിൽ ഒട്ടേറെ തരിശുഭൂമികൾ കൃഷിക്ക് അനുയോജ്യമായവിധം സൗകര്യപ്പെടുത്തി എടുക്കുക. ലോകമലേശ്വരം 1, 2 വാർഡുകളിലെ ചില ഭാഗങ്ങളും പഴം, പച്ചക്കറി 1, 2, 44, 43 വാർഡുകളിൽ പ്രോത്സാഹിപ്പിക്കണം. തെങ്ങുകൃഷിയ്ക്കൊപ്പം തന്നെ ജാതി കൃഷിയും കൂടി പ്രോത്സാഹിപ്പിക്കണം.

കുടിവെള്ളത്തിനും കൃഷിയുടെ ആവശ്യത്തിനും വേ ി സ്ലൂയിസുകളുടെ നിർമ്മാണം നടത്തുക. നിലവിലുള്ള കുളങ്ങളും തോടുകളും സൈഡ് കെട്ടി സംരക്ഷിക്കുകയും അവ കാലകാലങ്ങളിൽ വൃത്തിയാക്കുവാനുള്ള സംവിധാനം ഉ ാകണം.

ഉപ്പുവെള്ളം കയറുന്നത് തടയുന്നതു വഴി കൃഷി വഴിയുള്ള ഉല്പാദനം കൂടുകയും കുടിവെള്ളം ലഭ്യത ഉറപ്പാക്കുന്നു. തോടുകളും ജലാശയങ്ങളും സംരക്ഷിക്കുക വഴി ഭൂഗർഭജലത്തിന്റെ നിരപ്പ് ഉയർത്താൻ സാധിക്കും. തോട് വൃത്തിയാക്കുക വഴി ജനങ്ങളുടെ ആരോഗ്യം സംരക്ഷിക്കണം. എരിശ്ശേരി പാലം കെട്ടി സംരക്ഷിക്കണം.

ടൂറിസം

1. കോട്ടപ്പുറം മുതൽ കോതപറമ്പ് വരെ കനോലി കനാലിന് പടിഞ്ഞാറ് ഭാഗത്ത് റോഡ് നിർമ്മിക്കുക.
2. നിലവിലെ ഉഴുവത്ത് കടവ് റോഡ് ശ്യംഗപുരം വരെ വീതി കൂട്ടി നിർമ്മിക്കുക.
3. കനോലി കനാൽ ദേശീയ ജലപാതയിൽ ഉൾപ്പെടുത്തിയിട്ടുള്ളതിനാൽ ആഴം കൂട്ടി അക്വാട്ടിക്ക് ഗെയിംസ് ഹൗസ് ബോട്ടു സർവ്വീസുകൾ നടത്തുക.

4. ദളവാക്കുളം, അരാകുളം, പടാകുളം, കരിമ്പാംകുളം തുടങ്ങി എല്ലാ കുളങ്ങളും ഭിത്തി കെട്ടി ബോട്ട് സർവ്വീസ് ഏർപ്പെടുത്തുക.
5. വി.പി തുരുത്ത് തെക്കു പടിഞ്ഞാറ് ഭാഗം ഭിത്തി കെട്ടി, ജെട്ടി നിർമ്മിച്ച് വലിയ വള്ളങ്ങളും സർവ്വീസ് നടത്തുക.
6. എറണാകുളം - കൊടുങ്ങല്ലൂർ ബോട്ട് സർവ്വീസ് പുനരാരംഭിക്കണം.
7. തിരുവഞ്ചികുളം അമ്പലത്തിന് കിഴക്കേ ലാന്റിംഗ് പ്ലേയ്സ് സംരക്ഷണഭിത്തി ബോട്ടുകൾ എത്താനുള്ള സൗകര്യം ഏർപ്പെടുത്തുക.
8. കരൂപ്പടന്ന - പുല്ലൂറ്റ് - കൊടുങ്ങല്ലൂർ പാർക്ക് വരെ ബോട്ട് സംവിധാനം ഏർപ്പെടുത്തുക.
9. നിലവിലെ പുല്ലൂറ്റ് പാലം പുതുക്കി പണിയുക / പുതിയത് പണിയുക.
10. ടൂറിസം മാപ്പിൽ കൊടുങ്ങല്ലൂർ നഗരസഭയെ ഉൾപ്പെടുത്തണം.
11. ചരിത്ര - പൈതൃക പ്രാധാന്യമുള്ള സ്ഥലങ്ങൾ ഉൾപ്പെടുത്തി ടൂറിസ്റ്റുകളെ ആകർഷിക്കാൻ ആവശ്യമായ പദ്ധതികൾ തയ്യാറാക്കുക.
12. മാലിന്യമുക്ത നഗരമാക്കുക.

പശ്ചാത്തലസൗകര്യങ്ങൾ

1. കൊടുങ്ങല്ലൂർ നഗരത്തിൽ എൻ. എച്ച് 17 നു മായി ബന്ധിപ്പിക്കുന്നതും ചന്തപ്പുര മുതൽ എറിയാട് റോഡ് വീതി കൂട്ടി 25 മീ. എങ്കിലും ആയ റോഡ് നിർമ്മിക്കണം.
2. ചേരമാൻ ജുമാമസ്ജിദ് മുതൽ അഴിക്കോട് തീരദേശറോഡുമായി ബന്ധിപ്പിക്കുന്ന റോഡും 25 മീ. ആക്കി വീതി കൂട്ടണം.
3. എൻ. എച്ച് 17 ൽ പാർശ്വറോഡായ മോഡേൺ ടി എച്ച് എസ് റോഡ് മുതൽ ഗവൺമെന്റ് ഹോസ്പിറ്റലിന്റെ പടിഞ്ഞാറ് റോഡ് തൃകുലശേഖരപുരം വരെയുള്ള 10 മീ. റോഡ് വികസിപ്പിക്കണം.
4. എല്ലാ വാർഡുകളിലെയും പ്രധാന റോഡുകൾ ഹൈവേ റോഡായോ പ്രധാന റോഡുകളുമായിട്ടുള്ളതോ ആയ റോഡുകൾ 10 മീറ്ററോ 8 മീറ്ററോ വീതിയുള്ള റോഡുകൾ ആയി നിർമ്മിക്കേ താണ്. ര ാ മൂന്നോ വാർഡുകളെ ബന്ധിപ്പിക്കുന്ന റോഡുകൾ 10 മീറ്ററെങ്കിലും ആയി പുനർനിർമ്മിക്കേ താണ്.
5. തിരുത്തിപ്പുറം കോട്ടപ്പാലം മുതൽ എൻ. എച്ച് 17 നുമായി ബന്ധിപ്പിക്കുന്ന രീതിയിൽ ചുരുങ്ങിയത് 10 മീറ്ററെങ്കിലും വീതിയുള്ള വീതിയുള്ള റോഡ് നിർമ്മിക്കേ താണ്.
6. പൊടിയൻ ബസാർ അഴിക്കോട് റോഡ് മുതൽ ടി കെ എസ് പുരം എൻ എച്ച് റോഡുമായി ബന്ധിപ്പിക്കുന്ന രീതിയിൽ വാർഡുകളെ ബന്ധിപ്പിച്ചുകൊ ് ഒരു സമാന്തര റോഡ് 20 മീ. വീതിയിൽ നിർമ്മിക്കേ താണ്.
7. തൃപ്പൂണിത്തുറ മുതൽ ആലുവ വരെ വരുന്ന മെട്രോ റെയിൽ കൊടുങ്ങല്ലൂർ വരെ നിർമ്മിക്കുക. കാരണം ലോകത്തിൽ അറിയപ്പെടുന്ന ഒരു ടൂറിസ്റ്റ് കേന്ദ്രമാകാൻ പോകുകയാണ് കൊടുങ്ങല്ലൂർ. സംസ്ഥാനത്തെ എറണാകുളം സാറ്റലൈറ്റ് ടൗൺഷിപ്പ് എന്ന നിലയിൽ കൊടുങ്ങല്ലൂരിന്റെ പ്രാധാന്യവും കണക്കിലെടുത്ത്

നിർമ്മാണം ആരംഭിക്കാൻ പോകുന്ന പുതിയ ബസ് സ്റ്റാന്റിൽ നിന്നും തെക്കോട്ട് ശൃംഗപുരം തോടിന് കുറുകെ ഒരു പാലം നിർമ്മിച്ചുകൊ ് ശൃംഗപുരം മുതൽ എൽത്തുരുത്ത് വഴി മാള കൊടുങ്ങല്ലൂർ റോഡിൽ ബന്ധിപ്പിക്കുക. ഈ റോഡുക ളിൽ 10 മീ. വീതിയില്ലെങ്കിലും റോഡ് നിൽക്കണം.

8. പുല്ലൂറ്റ് ബസ്സ് സ്റ്റോപ്പ് മുതൽ പന്തിരാംപാല വരെയുള്ള റോഡ് 10 മീ. വീതിയിൽ പുനർനിർമ്മിക്കുകയും ആനാപ്പുഴ കൃഷ്ണൻകോട്ടപാലവും റോഡുമായും ബന്ധി പ്പിക്കുന്ന രീതിയിൽ ഒരു പാലവും നിർമ്മിക്കുക. അതുകൊ ് തൃശൂർ കൊടുങ്ങ ല്ലൂർ റോഡ് മാർഗ്ഗം വരുന്ന നെടുമ്പാശ്ശേരി എയർപോട്ടിലേയ്ക്കുള്ള യാത്ര ക്കാർക്കും മറ്റും വളരെ എളുപ്പമാർഗ്ഗം ലക്ഷ്യസ്ഥാനത്ത് എത്തിച്ചേരാൻ സാധി ക്കും.
9. കൊടുങ്ങല്ലൂർ ടൗൺ കേന്ദ്രീകരിച്ച് കൊടുങ്ങല്ലൂർ ക്ഷേത്രത്തിന് ചുറ്റുമുള്ള വൺവേ റോഡുകൾ അതു വഴി ബസ്സ് സ്റ്റോപ്പിലേക്കുള്ള ഹോസ്പിറ്റലിന്റെ പടിഞ്ഞാറേ റോഡുകളുടെ തുടങ്ങി വീതി കൂട്ടേ താണ്. അതു കൂടാതെ ബസ് സ്റ്റാന്റ് കുറച്ചു കൂടി വലുതാക്കി എറണാകുളം ഭാഗങ്ങളിൽ നിന്ന് വരുന്ന മുഴുവൻ ബസുകളെയും പാർക്ക് ചെയ്യാൻ സാധിക്കുന്ന വിധത്തിൽ ബസ് സ്റ്റാന്റ് വികസി പ്പിക്കണം. കോട്ടപ്പുറം അഴീക്കോടുമായി ബന്ധിപ്പിക്കുന്ന രീതിയിൽ ഒരു തീരദേശ റോഡ്.

പട്ടികജാതി - പട്ടിക വർഗ്ഗ വികസനം

1. അടയിനിക്കാട് ഭാഗത്ത് - വെള്ളക്കെട്ട് പരിഹരിക്കണം. ഡ്രെയിനേജ്, സാനിറ്റേ ഷൻ, കൾവർട്ട് നിർമ്മാണം.
2. കാവിൽക്കടവ് ദേവസ്വം പറമ്പ് - കുടിവെള്ളം, വൈദ്യുതി, വഴി എന്നിവ പരിഹരി ക്കണം.
3. നെല്ലിപറമ്പത്ത് കോളനി (വാർഡ് 28) അടിസ്ഥാന സൗകര്യങ്ങളൊരുക്കണം.
4. (വാർഡ് 20) പുനരധിവാസ കോളനി - സുബ്രഹ്മണ്യൻ കോവിലിനു പടിഞ്ഞാറ് ഭാഗത്ത് വെള്ളക്കെട്ട് ഒഴിവാക്കാൻ സ്ലാബ് ചെയ്ത് കാന നിർമ്മിക്കണം. കക്കൂസ് ഇല്ലാത്ത വീടുകൾക്ക് കക്കൂസ് നിർമ്മാണം.
5. (വാർഡ് 19) എൽത്തുരുത്ത് ഹരിജൻ കോളനിയുടെ റോഡ് സൈഡ് പ്രൊട്ടക്ട് ചെയ്യാൻ ഡ്രെഡ്ജിങ്ങ്
6. (വാർഡ് 24) പ്രശ്നങ്ങൾ - വെള്ളക്കെട്ട് നിവാരണം - കോട്ടപ്പുറം കുറുമ്പനാകുളം - 20 വീടുകൾക്ക് തോട് സൈഡ് കെട്ടി സൗകര്യം ഒരുക്കണം.
7. കെട്ടിട നിർമ്മാണമേഖലയിൽ തൊഴിൽ ചെയ്യുന്നവർക്ക് യന്ത്ര ഉപകരണങ്ങൾ വാങ്ങുന്നതിനും ആ മേഖലയിൽ പണിയെടുക്കുന്നവർക്ക് തൊഴിൽ ഉറപ്പാക്കുന്ന തിനും പദ്ധതികൾ തയ്യാറാക്കുക
8. നഗരസഭ റോഡുകൾ സംരക്ഷിക്കുക.

ആരോഗ്യം, കുടിവെള്ളം

വികസന പ്രശ്നങ്ങൾ

1. ശുദ്ധജലം ലഭ്യമാക്കുന്നതിന്റെ ഭാഗമായി പ്രധാനപ്പെട്ട കുളങ്ങൾ സംരക്ഷിച്ച് ശുദ്ധജലലഭ്യത ഉറപ്പാക്കുന്നതിനുവേ ി ദളവാകുളം, പടാകുളം, കരിച്ചാക്കുളം, കമ്പാകുളം, കുന്നംകുളം, അരാകുളം, രാമചന്ദ്രകുളം (തിരുവഞ്ചികുളം) താമരശ്ശേരികുളം, മാടംകുളം, കേരളേശ്വരകുളം, പറമ്പികുളങ്ങര, ബഗ്ലാംകുളം, മൂസ്സാക്കുളം മുതലായ കുളങ്ങൾ വെള്ളത്തിന് ദൗർലഭ്യത അനുഭവപ്പെടുന്ന കാലങ്ങളിൽ കൂടുതൽ ഉപയോഗപ്രദമാക്കുന്നതിന് സൈഡ് കെട്ടി സംരക്ഷിച്ച് ശുദ്ധീകരിച്ച് ശുദ്ധജലത്തിന് ഉപയോഗപ്രദമാക്കുക.
2. കാത്തോളിത്തോട് - എരിശ്ശേരി പാലം മുതൽ കോട്ടപ്പുറം പുഴ വരെ തോട് സൈഡ് കെട്ടി (വെള്ളക്കെട്ട് ഒഴിവാക്കുന്നതിനുവേ ി വെള്ളം ഒഴുകി പോകുവാൻ) സംരക്ഷിക്കണം.
3. കൊടുങ്ങല്ലൂർ ഫയർസ്റ്റേഷൻ റോഡിൽ നിന്ന് പടിഞ്ഞാറ് ഭാഗം വെള്ളക്കെട്ട് ഒഴിവാക്കുന്നതിന് ഡ്രയിനേജ് സൗകര്യം ഉ ാക്കുക.
4. നിലവിൽ കുടിവെള്ളം എത്താത്ത മേഖലയിൽ ശുദ്ധജലം എത്തിക്കുന്നതിന് ആവശ്യമായ നടപടികൾ സ്വീകരിക്കുകയും ആയതിന് റോഡുകളിൽ ലൈനുകൾ ആവശ്യമുള്ളിടത്ത് സ്ഥാപിക്കുക. എല്ലാ വീടുകൾക്കും ഹൗസ് കണക്ഷൻ നൽകുന്നിനുള്ള നടപടി എടുക്കുക. ബൈപാസ് റോഡിനിരുവശവും പൈപ്പ് ലൈൻ സ്ഥാപിക്കുക. ശുദ്ധജലത്തിന് ആവശ്യമാണെങ്കിൽ പുതിയ പ്ലാന്റ് സ്ഥാപിക്കുക.
5. ഗവൺമെന്റ് ആശുപത്രിക്ക് ആവശ്യമായ സൗകര്യങ്ങൾ ഒരുക്കുക.
6. ബസ്സ് സ്റ്റോപ്പുകളിൽ ടോയ്ലെറ്റ് സൗകര്യം ഒരുക്കുക.
7. മേത്തല പി എച്ച് സി യിൽ കിടത്തി ചികിത്സ ലഭ്യമാക്കുന്ന രീതിയിൽ സൗകര്യങ്ങൾ ഒരുക്കുക.
8. NH, PWD മുനിസിപ്പൽ റോഡുകളിൽ യുദ്ധകാല അടിസ്ഥാനത്തിൽ ഡ്രയിനേജ് പദ്ധതി നടപ്പിലാക്കുക.

വ്യവസായം

വികസന പ്രശ്നങ്ങൾ

1. നഗരസഭയിലെ പ്രധാന മത്സ്യ വിപണനകേന്ദ്രമായ ആനാപ്പുഴ കേന്ദ്രീകരിച്ച് ഉണക്ക മത്സ്യം തയ്യാറാക്കുന്ന ജോലിയിൽ പരമ്പരാഗതമായി ഏർപ്പെട്ടിരിക്കുന്ന ധാരാളം ആളുകളു ്. ആധുനിക സാങ്കേതികവിദ്യ ഉപയോഗിച്ച് തികച്ചും ശുദ്ധമായ ഉണക്കമത്സ്യം പാക്കറ്റുകളിലാക്കി ബ്രാൻഡ് ചെയ്ത് വിപണനം ചെയ്യാ

നുള്ള സാധ്യതകളു ്. വേ പരിശീലനവും സാമ്പത്തിക സഹായവും ലഭ്യമാക്ക ണം.

2. മേത്തലയിലും നാരായണമംഗലത്തും ഉള്ള മിനി വ്യവസായ എസ്റ്റേറ്റുകൾ വ്യവ സായ സംരഭ ഗ്രൂപ്പുകൾക്ക് പ്രയോജനപ്പെടുത്തുക.
3. നാരായണമംഗലത്ത് ഉള്ള വ്യവസായ എസ്റ്റേറ്റിൽ തുണി സഞ്ചി നിർമ്മാണയൂണിറ്റ് തുടങ്ങുക.താലൂക്ക് ആശുപത്രിയിലോ, അല്ലാതെയോ ഡയാലിസിസ് യൂണിറ്റ് സ്ഥാപിക്കണം.
4. കുടുംബശ്രീയെ ഉപയോഗപ്പെടുത്തി 'നേച്ചർ ഫ്രഷ്' മിൽക്ക് പദ്ധതി നടപ്പിലാക്കു ക.
5. നഗരസഭയുടെ പുല്ലൂറ്റ്, മേത്തല എന്നീ വില്ലേജുകളിൽ കയർ തൊഴിലാളികളുടെ ഉപജീവനത്തിനായി കയർ ഫാക്ടറി തുടങ്ങുക.
6. 'തെങ്ങുകയറ്റ'പരിശീലനം നടപ്പിലാക്കുക.

സാമൂഹ്യക്ഷേമം, ദാരിദ്ര്യനിർമ്മാർജ്ജനം

വികസന പ്രശ്നങ്ങൾ

1. സ്വന്തമായി കെട്ടിടമില്ലാത്ത അംഗൻവാടികൾക്ക് കെട്ടിടനിർമ്മാണത്തിനായി സ്ഥലം ലഭ്യമല്ലാത്ത അവസ്ഥ. കുടിവെള്ളം, വൈദ്യുതി കണക്ഷൻ എന്നിവ ഇല്ലാത്ത അവസ്ഥ. അടിസ്ഥാന സൗകര്യമില്ലാതെ അംഗൻവാടികളിലേയ്ക്ക് കുട്ടി കളെ വിട്ടയക്കുവാൻ രക്ഷാകർത്താക്കൾ മടി കാണിക്കുന്നു.
2. മാനസിക ശാരീരിക വെല്ലുവിളികൾ നേരിടുന്ന കുട്ടികൾക്ക് Buds School ഇല്ലാത്ത സ്ഥിതിവിശേഷമാണ്. വൈകല്യമുള്ള കുട്ടികൾക്ക് അവരുടെ സർഗ്ഗവാസനകൾ വികസിപ്പിക്കുന്നതിനുള്ള സാഹചര്യം കിട്ടുന്നില്ല.
3. വിധവകൾ ഗൃഹനാഥകളായിട്ടുള്ള കുടുംബങ്ങളിലെ സാമ്പത്തിക പിന്നോക്ക അവസ്ഥ. ഇത്തരം കുടുംബങ്ങളിലെ വിദ്യാർത്ഥികൾക്ക് ഉയർന്ന വിദ്യാഭ്യാസത്തി വുള്ള അവസരം നിഷേധിക്കുന്നു.
4. പകർച്ചവ്യാധികൾ ചെറുക്കുന്നതിന് വേ സംവിധാനങ്ങൾ ഇല്ലാത്ത അവസ്ഥ നില നിൽക്കുന്നു. എലിപ്പനി, ഡങ്കിപ്പനി, മഞ്ഞപ്പിത്തം എന്നിവ ഗുരുതരാവസ്ഥയി ലാകുന്നു.
5. നിലവിലുള്ള ബി പി എൽ ലിസ്റ്റിലെ അപാകതകൾ പരിഹരിച്ച് അനർഹരെ ഒഴി വാക്കി അർഹരായവരെ ഉൾപ്പെടുത്തുക. നിലവിലുള്ള ബി പി എൽ ലിസ്റ്റിൽ ഭൂരി ഭാഗവും അനർഹരാണ്.
6. വികലാംഗകർക്ക് അവരുടെ വൈകല്യങ്ങൾക്ക് അനുസരിച്ച് തൊഴിലില്ലാത്ത നില വിലുള്ള അവസ്ഥ മാറ്റി തൊഴിൽ സംരഭങ്ങൾ ഏർപ്പെടുത്തുക.
7. ആനാപ്പുഴ, ചാപ്പാറ അംബേദ്ക്കർ കോളനി, നാരായണമംഗലം, ലോകമലേശ്വരം ഉഴുവത്തുകടവ് എന്നീ ഭാഗങ്ങളിൽ പ്രാഥമിക ആരോഗ്യകേന്ദ്രങ്ങൾ സ്ഥാപിക്കു ക.

വികസന നിർദ്ദേശങ്ങൾ

1. അംഗൻവാടികൾക്ക് കെട്ടിടനിർമ്മാണത്തിനുള്ള സ്ഥലം ലഭ്യമാക്കുന്നതിനുള്ള മതിയായ ഫ ് സർക്കാർ അനുവദിച്ചു തരുക.
2. Buds School കൾ സ്ഥാപിക്കുന്നതിന് അനുയോജ്യമായ സ്ഥലവും കെട്ടിടവും ലഭ്യ മാക്കുവാൻ വേ നടപടികൾ സ്വീകരിക്കുക.
3. വിധവകൾ, അഗതികൾ എന്നിവർക്ക് തൊഴിൽ സംരംഭങ്ങൾ ഉളവാക്കുക.
4. നിലവിലുള്ള വൃദ്ധസദനം എല്ലാവിധ സൗകര്യങ്ങളോടും കൂടി പ്രവർത്തിക്കാ നുള്ള നടപടി സ്വീകരിക്കുക.

ഊർജ്ജം

വികസന പ്രശ്നങ്ങൾ

1. സ്ട്രീറ്റ് ലൈറ്റ് പോസ്റ്റുകൾ റോഡിലേയ്ക്ക് കയറി നിൽക്കുന്നവ വളരെ ബുദ്ധിമു ട്ടുകൾ ഉ ാക്കുന്നു. ഇവ മാറ്റി സ്ഥാപിക്കണം.
2. വാർഡുകളിൽ പുതുതായി നിർമ്മിച്ചിരിക്കുന്ന റോഡ് സൈഡുകളിൽ വൈദ്യുതി എത്തിക്കുവാനുള്ള നടപടി സ്വീകരിക്കുക.
3. ടൗണുകളിലും മറ്റും ഉള്ള വീടുകളിലെ വിറകും മറ്റും വെറുതെ കത്തിച്ചു കളയു ന്നു. ഇത് കളക്ട് ചെയ്ത് വിതരണം ചെയ്യണം.
4. കുടിവെള്ളത്തിന്റെതായ 23 കുളങ്ങൾ ഉ ്. ഇവ മെയിന്റയിൻ ചെയ്ത് വെള്ളം ഉയർത്തി സൂക്ഷിച്ച് ചെറിയ പൈപ്പ് ലൈനിൽ കൂടി സപ്ലൈ ചെയ്യാവുന്നതാണ്.
5. കായലോരങ്ങളിൽ വിൻഡ് മിൽ സ്ഥാപിക്കാവുന്നതാണ്.
6. സമഗ്ര ഡ്രൈയിനേജ് പദ്ധതി വേണം.
7. ബൈപാസ്സ് വരുമ്പോൾ മേഖലകൾ വേറിട്ട് പോകുമ്പോൾ വാട്ടർ പൈപ്പുകൾ, എന്നിവ തടസ്സപ്പെടാതിരിക്കാൻ ഡക്റ്റുകൾ പണിയുക.
8. സൂര്യപ്രകാശത്തിൽ നിന്ന് എനർജി സ്വീകരിച്ച് സ്ട്രീറ്റ് ലൈറ്റുകൾ കത്തിക്കുവാ നുള്ള സാധ്യത തേടുക.

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ANNEXURE 7

STAKEHOLDER MEETING MINUTES

8th MARCH 2013

കൊടുങ്ങല്ലൂർ മുനിസിപ്പാലിറ്റി

വ്യവസായം, വാണിജ്യം

വികസന പ്രശ്നങ്ങൾ

1. കൊടുങ്ങല്ലൂർ തീരദേശമേഖല ആയതിനാൽ ജനസാന്ദ്രതയേറിയതുകൊ ് ലാന്റ് കിട്ടാനുള്ള ബുദ്ധിമുട്ട്.

2. പരമ്പരാഗത മേഖലകളായ കയർ, തഴപ്പായ എന്നീ മേഖലകളിൽ നിന്ന് വളരെയേറെ പ്പേർ വിട്ടുപോകുന്നു. വേ ത്ര കൂലിയില്ലാത്തതാണ് മുഖ്യപ്രശ്നം.

3. റോഡുകളുടെ വീതി കുറവ്. ഉള്ള റോഡുകൾ തന്നെ കു ും കുഴിയുമായിട്ട് കിടക്കുന്നു. ഇത് വ്യവസായത്തിന് വിലങ്ങുതടിയാണ്.

4. കൊടുങ്ങല്ലൂർ മേഖലയിൽ കൂടുതൽ ബാറുകൾ ഇനിയും അനുവദിക്കരുത്. ലഹരി കൊടുങ്ങല്ലൂർ മേഖലയുടെ വികസനത്തിന് ഒരു ശാപമാണ്.

വികസന നിർദ്ദേശങ്ങൾ

1. കൊടുങ്ങല്ലൂർ നഗരസഭയിൽ സ്ഥലം കുറവായതു കൊ ് വ്യവസായത്തിന് അനുയോജ്യമായ മൾട്ടിസ്റ്റോറിഡ് (Ecofriendly) ബിൽഡിംഗ്, വ്യവസായ പാർക്ക് പണിയണമെന്ന നിർദ്ദേശമു ായി. 2 ഏക്കർ സ്ഥലമെങ്കിലും വേണം.

2. മൽസ്യമേഖല ആയതുകൊ ാണ് മൽസ്യവുമായി ബന്ധപ്പെട്ട് അനന്ത സാധ്യതകളാണുള്ളത്. ഫിഷ് സംസ്ക്കരണയൂണിറ്റുകൾ, വളനിർമ്മാണയൂണിറ്റുകൾ എന്നിവ ഉ ാകണമെന്ന നിർദ്ദേശമു ായി.

3. നാളികേര മേഖലയിലും, അനന്തസാധ്യതകൾ ഉ ്. കൂടുതൽ നാളികേരാധിഷ്ഠിത വ്യവസായങ്ങൾ തുടങ്ങണമെന്ന നിർദ്ദേശമു ായി.

4. പ്ലാസ്റ്റിക് നിർമ്മാർജ്ജനം നടക്കുന്ന ഈ കാലഘട്ടത്തിൽ പേപ്പർ അധിഷ്ഠിത വ്യവസായങ്ങൾ non-woven ഉൽപ്പന്നങ്ങൾ ഉ ാക്കുന്ന യൂണിറ്റുകൾ ഉ ാവണമെന്നതിൽ നിർദ്ദേശമു ായി.

5. പരമ്പരാഗതമേഖലയിലുള്ള വ്യവസായമായ കയർ, കൈത്തറി, തഴപ്പായ എന്നീ മേഖലകളിൽ പുതിയതായി ആരും കടന്നു വരുന്നില്ല. കൂടുതൽ യുവജനങ്ങളെ ഈ മേഖലയിൽ കൊ ു വരുവാൻ യന്ത്രവൽക്കരണം നടപ്പാക്കണം. യുവജനങ്ങൾക്ക് ഈ

മേഖലയിൽ പിടിച്ചുനിർത്തുവാൻ കൂടുതൽ കൂലി (ഇപ്പോഴത്തെ ജീവിതസാഹചര്യ വില സൂചികയനുസരിച്ചുള്ളത്) നൽകണമെന്ന നിർദ്ദേശമു ായി.

6. മുസിരിസ് പൈതൃക പദ്ധതികൾ വന്നു കഴിയുമ്പോൾ കൊടുങ്ങല്ലൂർ വിദേശികൾ ഉൾപ്പെടെ വരുവാൻ സാധ്യതകൾ ഉ ്. ഇന്ത്യയിലെ ആദ്യത്തെ മുസ്ലീം പള്ളി ഇവിടെയാണ് സ്ഥിതി ചെയ്യുന്നത്. ടൂറിസ്റ്റുകൾക്ക് താമസിക്കാൻ പറ്റിയ ഹോം സ്റ്റേകൾക്ക് നല്ല സാധ്യതകൾ ഉ ്.

7. തെങ്ങുകയറ്റത്തിന് ആളെ കിട്ടാനില്ല. അതുകൊ ് ഈ രംഗത്ത് പരിശീലനം നൽകണമെന്ന നിർദ്ദേശമു ായി

ഊർജ്ജം

വികസന പ്രശ്നങ്ങൾ

കൊടുങ്ങല്ലൂർ നഗരസഭയുടെ പരിധിയിൽ നിലവിൽ R-APDRPഎന്ന കേന്ദ്ര സ്കീം നിലവിലു ്. ആ പ്രോജക്ടിന്റെ പൂർത്തീകരണത്തോടെ കൊടുങ്ങല്ലൂർ മുനിസിപ്പൽ ഏരിയയിൽ വോൾട്ടേജ് ക്ഷാമം ഉ ാവുകയില്ല. പക്ഷേ കൊടുങ്ങല്ലൂർ ഭാഗത്ത് വർദ്ധിച്ചു വരുന്ന വൈദ്യുത ആവശ്യകത ഒരു വിഷയമാണ്. അത് പൂർണ്ണമായും നടപ്പാക്കണം എന്നുെ ങ്കിൽ പുതിയ സബ്സ്റ്റേഷൻ വരേ തായി വരും. അതിനുള്ള സ്ഥലം കെ ത്തുകയും ഫ ് സ്വരൂപിക്കുകയുമാണ് വേ ത്.

വികസന സാധ്യതകൾ

കൊടുങ്ങല്ലൂർ അമ്പലത്തിന് ചുറ്റുമുള്ള overhead line-കൾ മാറ്റി Arial bunched Cables ആക്കുന്നതിന്റെ Proposal already നൽകിയിട്ടു ്. ഈ വർക്ക് നടപ്പാകുകയാണെങ്കിൽ റോഡരികിലുള്ള പോസ്റ്റുകൾ കുറച്ചു കൂടി ബിൽഡിങ്ങിന്റെ അടുത്തേയ്ക്ക് മാറ്റി സ്ഥാപിക്കുക വഴി റോഡ് വികസനം സാധ്യമാകും.

വികസന നിർദ്ദേശങ്ങൾ

ഏതെങ്കിലും ഒരു സ്കീം വരികയാണെങ്കിൽ നിലവിലുള്ള ഓവർ ഹെഡ് ലൈനുകൾ മാറ്റി അ ർ ഗ്രൗ ് കേബിൾ ആക്കുകയാണെങ്കിൽ ടൗണിന്റെ Beautification നടക്കും.

ടൂറിസം

വികസന പ്രശ്നങ്ങൾ

കോട്ടപ്പുറം ചേരമാൻ പറമ്പ്, കോട്ട, മുൻപേ തുടർന്നു പോരുന്ന ചന്ത, ചേരമാൻ പള്ളി, തൃകുല ശേഖരപുരം ക്ഷേത്രം, തിരുവഞ്ചിക്കുളം ക്ഷേത്രം എന്ന തുടങ്ങുന്ന ഹെറിറ്റേജിൽ പെട്ടു കിടക്കുന്ന വികസന സാധ്യതയേറെയുള്ള സ്ഥലങ്ങൾ ഒരു തരത്തിലും വികസിച്ചിട്ടില്ല. റോഡുകൾ നന്നാക്കുക, ഫുട്ട് പാത്തുകൾ പണിയുക, വേ തായ മെയിന്റനസ് നടത്തുക. വളരെയധികം കാവുകളും, കുളങ്ങളും അരാകുളം, പടാകുളം, ചെട്ടികുളം, നന്ദ്യലത്ത് കാവ്, കാരൂർ ഹനുമാന കോവിൽ എന്നിവ വളരെ പ്രാധാന്യമർഹിക്കുന്നെങ്കിലും തീരെ ശ്രദ്ധിക്കാതെ പോയിരുന്നു. ഒരു പ്രത്യേക പ്രോജക്ടായി വളർത്തിയെടുക്കാവുന്നതാണ്..

ടൂറിസ്റ്റുകൾ വരുന്നവർക്കും യാത്രക്കാർക്കും വന്നു പോകുന്നവർക്കും അത്യാവശ്യ പ്രഥമികാവശ്യങ്ങൾ നടത്തുവാൻ കക്കൂസുകളോ കുളിമുറികളോ ഇല്ല. ഉടനടി നല്ല രീതിയിൽ പ്രവർത്തിക്കുന്ന കംഫർട്ട് സ്റ്റേഷൻ പണിയുക, പ്രവർത്തിക്കുക.

കൊടുങ്ങല്ലൂർ ഭഗവതീക്ഷേത്രത്തിൽ താലപ്പൊലിയ്ക്കും, ഭരണിയ്ക്കും വരുന്നവർയ്ക്കായി തൽക്കാല താമസത്തിനുള്ള സൗകര്യങ്ങളും, പാർക്കിങ്ങ് ഗ്രൗ ും ഉ ാക്കുക. വേയ്സ്റ്റ് റിങ്ങുകൾ സ്ഥാപിക്കുക.

ശുദ്ധജലവും നല്ലഭക്ഷണവും കിട്ടുന്ന സ്ഥലമാണെന്നും Robbery ഇല്ലാത്ത സ്ഥലവും ആണ് എന്ന് ഉറപ്പുവരുത്തുക. അതിനായി ശുദ്ധജലം സമൃദ്ധമായി കിട്ടുന്നതിന് Disposal of waste water ഉറപ്പുവരുത്തുക.

പരിസ്ഥിതിയും മാലിന്യ നിർമ്മാർജ്ജനവും

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ജനസംഖ്യ കൂടുതലുള്ള കൊടുങ്ങല്ലൂർ നഗരസഭയിൽ മാലിന്യവും പൊതുവെ കൂടുതലാണ്. ഇത് മണ്ണ്, ജലം, വായു തുടങ്ങി പ്രകൃതിയെ നശിപ്പിച്ചുകൊ ിരിക്കുന്നു. ആയതിനാൽ മാലിന്യം ഉറവിടത്തിൽ തന്നെ നശിപ്പിക്കേ ത് അനിവാര്യമായി തീർന്നിരിക്കുന്നു. അല്ലെങ്കിൽ അവ മൊത്തം വികസനത്തെ ബാധിക്കും. കൃഷിയെ പ്രോത്സാഹിപ്പിക്കാൻ മാലിന്യം (ജൈവം) വളമാക്കിയും ആരോഗ്യപ്രശ്നങ്ങൾ ഒഴിവാക്കുവാൻ മാലിന്യം സംസ്ക്കരിച്ച് വികസന പ്രശ്നങ്ങൾ പരിഹരിച്ച് വികസന പ്രകൃതിയെ ത്വരിതപ്പെടുത്താവുന്നതാണ്. ജലസ്രോതസ്സുകൾ മാലിന്യം സംസ്ക്കരിക്കുവാനുള്ള ഉറവിടമായി മാറികൊ ിരിക്കുന്നു. ജലസ്രോതസ്സുകൾ നശിക്കുന്നതു മൂലം കുടിവെള്ളം കിട്ടാക്കനിയായി കൊ ിരിക്കുന്നു.

വികസന സാധ്യതകൾ

1. മാലിന്യം ഉറവിടത്തിൽ സംസ്ക്കരിക്കുവാൻ പ്രോത്സാഹിപ്പിക്കുക.
2. മാലിന്യസംസ്ക്കരണ പ്ലാന്റിൽ മാലിന്യങ്ങൾ എത്തിച്ചു സംസ്ക്കരിക്കുന്നതിന് കുടുംബശ്രീയെ ഉപയോഗപ്പെടുത്തുക. അതുവഴി വളം ലഭ്യമാകും. പ്ലാസ്റ്റിക് റോഡ് ടാർ ചെയ്യുന്നതിനും മറ്റു ഉല്പന്നങ്ങൾ നിർമ്മിക്കുക വഴി സാമ്പത്തിക നേട്ടം ഉ ാകും.മാലിന്യം ശേഖരിക്കുവാൻ കുടുംബശ്രീ യൂണിറ്റുകളെ ഉപയോഗപ്പെടുത്തുക. അതിനായി വാഹനങ്ങൾ വാങ്ങി നൽകുക.

വികസന നിർദ്ദേശങ്ങൾ

മാലിന്യമുക്ത നഗരസഭ

പ്ലാസ്റ്റിക്ക് പൂർണ്ണമായി നിരോധിക്കുക. മണ്ണ്, ജലം, വായു പ്രകൃതിയെ സംരക്ഷിക്കുക. മാലിന്യ സംസ്ക്കരണ പ്ലാന്റുകൾ സ്ഥാപിക്കുക. ഉറവിടത്തിൽ മാലിന്യം സംസ്ക്കരിക്കുന്നതിന് വീടുകൾക്ക് നിർദ്ദേശം നൽകുക. അങ്ങനെ ചെയ്യുന്ന വീടുകൾക്ക് നികുതി ഇളവ് നൽകുക. ലൈസൻസ് ഇല്ലാതെ പ്രവർത്തിക്കുന്ന അറവുശാലകൾ നിർത്തലാക്കുക. മാലിന്യം ജലസ്രോതസ്സുകളിലും വഴിയോരങ്ങളിലും തള്ളുന്നവരിൽ നിന്നും പിഴ ഈടാക്കുകയും മാതൃകാശിക്ഷാനടപടികൾ സ്വീകരിക്കുക. പ്ലാസ്റ്റിക് പൊടിക്കുന്നതിന് യന്ത്രസാമഗ്രികൾ വാങ്ങി നൽകുക.

പട്ടികജാതി - പട്ടിക വർഗ്ഗ വികസനം

വികസന പ്രശ്നങ്ങൾ

1. വിഭാവനം ചെയ്തിട്ടും പൂർത്തിയാകാത്ത പദ്ധതികൾ

   a). പ്രീമെട്രിക് ഹോസ്റ്റൽ - നിർമ്മാണം പൂർത്തിയായി, വയറിംഗ് കഴിഞ്ഞു. കിണർ നിർമ്മാണവും ചുറ്റുമതിൽ നിർമ്മാണവും ടെൻഡർ പൂർത്തിയായി.

   b). റിസോഴ്സ് സെന്റർ - ഉപകരണങ്ങൾ വാങ്ങിയിട്ടും സ്ഥലസൗകര്യം ലഭ്യമല്ലാത്തതിനാൽ പ്രവർത്തനം ആരംഭിക്കാൻ കഴിഞ്ഞിട്ടില്ല.

   c). താലൂക്ക് ആശുപത്രി കാന്റീൻ - സ്ഥലസൗകര്യം ഇല്ല.

   d). നാളികേരാധിഷ്ഠിത യൂണിറ്റ് - പശ്ചാത്തല സൗകര്യം ലഭ്യമല്ലാത്തതിനാൽ ആരംഭിക്കാൻ കഴിഞ്ഞിട്ടില്ല. 3 ഫേസ് വൈദ്യുതി കണക്ഷൻ വേണം. മെഷിനറി ഇൻസ്റ്റാൾ ചെയ്യാൻ സ്ഥലസൗകര്യം പോര.

2. നഗരസഭക്ക് സ്വന്തമായി SCDO ഇല്ലാത്ത പ്രശ്നം. പ്രീമെട്രിക് ഹോസ്റ്റൽ കൂടി ആരംഭിക്കുമ്പോൾ ഒരു SCDO അനിവാര്യമാണ്. നഗരസഭയുടെ പദ്ധതികൾ സമയബന്ധിതമായി പൂർത്തീകരിക്കുന്നതിനും ക്ഷേമപദ്ധതികൾ ജനവിഭാഗത്തിലേയ്ക്ക് എത്തിയ്ക്കുന്നതിനും പട്ടികജാതി വികസന ഓഫീസറുടെ സേവനം അത്യന്താപേക്ഷിതമാണ്. ഇപ്പോൾ ഏകദേശം ഒരു താലൂക്കിന്റെ അത്ര വലിപ്പമുള്ള പ്രദേശമാണ് പട്ടികജാതി വികസന ഓഫീസറുടെ കീഴിലുള്ളത്.

3. പട്ടികജാതി വിഭാഗക്കാർക്കുവേ ി ഭൂമി വാങ്ങിയിട്ടും പ്രവർത്തനം ആരംഭിക്കാൻ കഴിഞ്ഞിട്ടില്ല.

വികസന സാധ്യതകൾ

1. ഭൂമി വാങ്ങി വാസയോഗ്യമാക്കുക, വികസനപ്രവർത്തനങ്ങൾക്കാവശ്യമായ തൊഴിൽ പരിശീലന കേന്ദ്രം, ഇൻഡസ്ട്രിയൽ എസ്റ്റേറ്റ് മുതലായവ തുടങ്ങുക.
2. നാളികേരാധിഷ്ഠിത പ്രവർത്തന യൂണിറ്റ്, ബോട്ടിലിംഗ് യൂണിറ്റ് പൂർത്തീകരിക്കാവുന്നതാണ്.
3. വൈദ്യുതപ്രതിസന്ധി ഉള്ളതിനാൽ സോളർ ബൾബുകൾ നൽകുക. സ്ത്രീകളുടെ വരുമാനം തൊഴിൽ സംരഭങ്ങൾ ഏർപ്പെടുത്തുക.
4. തൊഴിലുകൾ കൂട്ടായി ഏറ്റെടുത്ത് ചെയ്യുന്നതിനുള്ള അടിസ്ഥാനസൗകര്യങ്ങൾ നൽകുക.

സാമൂഹ്യക്ഷേമം, ദാരിദ്ര്യനിർമ്മാർജ്ജനം

വികസന പ്രശ്നങ്ങൾ

സാമൂഹ്യക്ഷേമം, ദാരിദ്ര നിർമ്മാർജ്ജനം

1. I.C.D.S. – മുനിസിപ്പൽ മേഖലയിൽ 72 അംഗൻവാടികൾ ഉള്ളതിൽ 44 എണ്ണത്തിനേ സ്വന്തമായി കെട്ടിടം ഉള്ളൂ. പലതിലും അടിസ്ഥാന സൗകര്യങ്ങളുമില്ല. കുട്ടികളുടെ എണ്ണം പൊതുവെ കുറവാണ്. സ്വകാര്യ നഴ്സറികളെ ആശ്രയിക്കേ അവസ്ഥ വരുന്നു.
2. സ്ത്രീകൾക്കും കുട്ടികൾക്കും എതിരെയുള്ള അതിക്രമങ്ങൾ വർദ്ധിക്കുന്നു. ഗാർഹിക പീഡനങ്ങൾ വർദ്ധിക്കുന്നു. അടിസ്ഥാന കാരണം ലഹരിയാണ്.
3. വീടുകളിൽ പ്രായമായവർ ഒറ്റപ്പെടുന്നു.
4. തൃശൂർ ജില്ലയിൽ, ഏറ്റവും കൂടുതൽ എച്ച്. ഐ. വി പോസറ്റീവ് ആയവർ ഉള്ളത് കൊടുങ്ങല്ലൂരിലും തീരദേശങ്ങളിലും ആണ്. അവരിൽ പലതും കുടുംബത്തിൽ നിന്നും പുറത്താക്കി വീടില്ലാത്ത അവസ്ഥയിൽ സമൂഹത്തിൽ അലയുന്നു. എച്ച്. ഐ. വി പോസറ്റീവ് ആയ രോഗി ഉ ്.
5. വികലാംഗർക്കുള്ള തൊഴിൽ സാധ്യതകൾ വിരളം ആണ്.

6. ഇന്നത്തെ സമൂഹത്തിൽ വിവാഹമോചനം വർദ്ധിച്ചു വരുന്ന അവസ്ഥയാണുള്ളത്. കുടുംബ കലഹങ്ങൾ ഏറി വരുന്നു.
7. ലഹരി വസ്തുക്കളുടെ അമിതമായ ഉപയോഗം സമൂഹത്തിൽ വളരെയേറെ പ്രശ്നങ്ങൾ സൃഷ്ടിക്കുന്നു. കൊടുങ്ങല്ലൂർ അമ്പലത്തിന് ചുറ്റും, എല്ലാവിധ ദൂര പരിധികളും ലംഘിച്ച് ബാറുകൾ നിലനിൽക്കുന്നു. സമൂഹത്തിന്റെയും കുടുംബത്തിന്റെയും ക്ഷേമപ്രവർത്തനങ്ങളും ലഹരിയിൽ മുങ്ങിത്താഴുന്നു.
8. കൊടുങ്ങല്ലൂർ അലഞ്ഞു തിരിഞ്ഞു നടക്കുന്നവർക്ക് ഒരു പുനരധിവാസം ഇല്ല.
9. അഗതികളും, വിധവകളും ആയ സ്ത്രീകളെ സാമ്പത്തിക സ്വയം പര്യാപ്തരാക്കണം.

വികസന നിർദ്ദേശങ്ങൾ

1. അംഗൻവാടികൾക്ക് സ്വന്തമായ സ്ഥലം, കെട്ടിടങ്ങൾ ഇവ കെ ത്തണം. അടി സ്ഥാനസൗകര്യങ്ങൾ മെച്ചപ്പെടുത്തണം.
2. ഗാർഹിക പീഡനങ്ങൾക്കെതിരെയുള്ള വാർഡ് ജാഗ്രതാസമിതി ശക്തിപ്പെടുത്ത ണം. ലഹരിക്കെതിരെയുള്ള തനത് ഫ ് വകയിരുത്തണം. ഗാർഹിക പീഡന ങ്ങൾക്ക് കാരണം ലഹരിയാണ്. അതിനെതിരെയുള്ള തദ്ദേശസ്വയംഭരണസ്ഥാപന ങ്ങൾ ശക്തമാകണം.
3. റിക്രിയേഷൻ ക്ലബുകൾ, പകൽ വീടുകൾ മുതലായ സംവിധാനങ്ങൾ ഉ ാക ണം. അവിടെ അടിസ്ഥാനസൗകര്യങ്ങൾ ലഭ്യമാക്കണം. അവരുടെ സർഗ്ഗവാസന കൾ ഉണർത്തുന്ന പരിപാടികൾ വയ്ക്കണം.
4. എയ്ഡ്സ് രോഗികളെ പുനരധിവസിപ്പിക്കാൻ വീടുകൾ, അവർക്കുവേ ുന്ന സംവിധാനങ്ങൾ ഏർപ്പെടുത്തണം. മറ്റ് വള റി സംഘടനകളെ ഉൾപ്പെടുത്തണം.
5. വികലാംഗകർക്ക് സർക്കാർ തലത്തിലും, സ്വകാര്യ തലത്തിലും തൊഴിൽ സാധ്യത കൾക്കുള്ള തസ്തിക അനുവദിക്കണം.
6. കുടുംബപ്രശ്നങ്ങൾ തീർക്കാൻ പ്രീ മാരിറ്റൽ കൗൺസിലിങ്ങ് ക്ലാസ്സുകൾ, ബോധവത്ക്കരണക്ലാസ്സുകൾ മുതലായവ നൽകണം.
7. ബാറുകൾക്കെതിരെ നിലവിൽ തദ്ദേശസ്വയംഭരണസ്ഥാപനങ്ങൾക്ക് ലഭിച്ച അവ കാശം ക്രിയാത്മകമായി ഉപയോഗിക്കണം. സമ്പൂർണ്ണ മദ്യനിരോധനം നടപ്പിലാ ക്കണം. ലഹരിക്കെതിരെ ശക്തമായ നടപടി സ്വീകരിക്കുക.
8. ക്രിമിനൽ ബോധവത്ക്കരണം നൽകണം. സ്കൂളുകളിൽ നിന്നുള്ള കൊഴിഞ്ഞു പോക്ക് ഇതെല്ലാം ശ്രദ്ധിക്കണം. അവർക്ക് പുനരധിവാസം ഏർപ്പെടുത്തണം. അവർക്ക് ഇളവുകളോടെ തൊഴിൽ സാധ്യതകൾ കെ ത്തി നൽകണം.

വിദ്യാഭ്യാസം

വികസന പ്രശ്നങ്ങൾ

1. സർവ്വീസ് സെക്ടറിലും മേൻ പവർ സെക്ടറിലും നല്ല രീതിയിൽ വികസനം നടത്തുന്നതിനുള്ള ഒരു സാഹചര്യം കൊടുങ്ങല്ലൂരിൽ ഇല്ല. വിദ്യാഭ്യാസ മേഖലയിൽ ഇതിനുള്ള സാഹചര്യം ഒരുക്കണം.
2. 8-ാം ക്ലാസ്സ് കഴിയുന്നതോടെ സാങ്കേതിക തൊഴിലധിഷ്ഠിത മേഖലയിലേയ്ക്കും കലാപരമായ രീതിയിലേയ്ക്കും എത്തുന്നതിനുള്ള സാഹചര്യം ഉ ാകണം.
3. പ്രൈമറി, അപ്പർ പ്രൈമറി, ഹൈസ്കൂൾ ലവലിലുള്ള വിദ്യാഭ്യാസരംഗത്ത് അധ്യാപകർ, ലോക്കൽ ഗവൺമെന്റ്, രക്ഷാകർത്താക്കൾ എന്നിവർ അടങ്ങുന്ന ഒരു സമിതിയുടെ നേതൃത്വത്തിൽ ചിട്ടപ്പെടുത്തണം.
4. ജെ. ടി. എസ് -നെ പോളി ടെക്നിക്ക്, എഞ്ചിനീയറിങ്ങ് കോളേജ് എന്നിവ ഉൾപ്പെടുന്ന ഒരു ടെക്നിക്കൽ കോംപ്ലക്സായി ഉയർത്തണം.
5. ഗേൾസ് ഹൈസ്കൂളിനെ നഗരത്തിന്റെ കേന്ദ്രത്തിൽ നിന്ന് മാറ്റി 5 ഏക്കർ സ്ഥലമുള്ള ഒരു കേന്ദ്രത്തിലേയ്ക്ക് മാറ്റണം. ഇപ്പോൾ ഗേൾസ് സ്കൂൾ ഇരിക്കേ സ്ഥലത്ത് വേ ത് ഒരു വലിയ കോംപ്ലക്സ് ആണ്.
6. കൊടുങ്ങല്ലൂരിൽ ഒരു മെഡിക്കൽ കോളേജ് സ്ഥാപിക്കണം.
7. എല്ലാ സൗകര്യത്തോടെയുള്ള ഒരു സംസ്ക്കാരിക നിലയം, തിയ്യറ്റർ ഉൾപ്പെടെ സൗകര്യത്തോടെ നിർമ്മിക്കണം.

വികസന സാധ്യതകൾ

കൊടുങ്ങല്ലൂരിൽ നഗരസഭയുടെ സപ്പോർട്ടോടെ പ്രവർത്തിക്കുന്ന ഒരു സയൻസ് സെന്റർ പ്രവർത്തിക്കുന്നു ്. വിദ്യാഭ്യാസ മേഖലയിൽ, ശാസ്ത്ര മേഖലയിൽ അദ്ധ്യാപകർക്കും, വിദ്യാർത്ഥികൾക്കും ശാസ്ത്രമേഖലയിൽ പരിശീലനങ്ങളും ക്യാമ്പുകളും നടത്തുന്ന ഈ സ്ഥാപനത്തിൽ എറണാകുളം മുതൽ പാലക്കാട്, കോഴിക്കോട് ജില്ലകളിൽ നിന്നും വരെ വിദ്യാർത്ഥികൾ സന്ദർശിക്കുന്നു ്. ഈ സ്ഥാപനത്തിന് കേരള ശാസ്ത്ര സാങ്കേതിക വകുപ്പിന്റെ സപ്പോർട്ട് ഉ ്. പക്ഷേ റോഡ് സൗകര്യം പരിമിതമാണ്. കൂടുതൽ സ്ഥലം ഉപയോഗിച്ച് ടെക്നിക്കൽ റിസർച്ച് ഉൾപ്പടെയുള്ള ഒരു ശാസ്ത്ര സാങ്കേതിക സ്ഥാപനമായി ഇതിനെ മാറ്റുന്നത് കൊടുങ്ങല്ലൂരിന് മാത്രമല്ല, ഈ സമൂഹത്തിൽ തന്നെ വളരെ വലിയ മാറ്റം ഉ ാക്കും.

പശ്ചാത്തലസൗകര്യങ്ങൾ

വികസന നിർദ്ദേശങ്ങൾ

1. ബസ്സ് സ്റ്റാന്റ് കൊടുങ്ങല്ലൂർ പൗരസമിതി തന്നിട്ടുള്ള പ്ലാൻ അനുസരിച്ച് ബസ്സ് സ്റ്റാന്റ് പ്രോപ്പോസൽ തയ്യാറക്കണം.
2. കംഫർട്ട് സ്റ്റേഷൻ നല്ല രീതിയിൽ തുടങ്ങണം.
3. ഇലക്ട്രിക്ക് ഓവർ ഹെഡ് ലൈൻ മാറ്റി കേബിൾ സിസ്റ്റം ആക്കുക.
4. സീവേജ് സിസ്റ്റം നടപ്പിലാക്കുക.
5. വീതി കുറഞ്ഞ റോഡുകൾ വീതി കൂട്ടുക, കാനകളുടെ മുകളിൽ slab ഇട്ട് മുഴുവൻ വീതിയും ഉപയോഗപ്പെടുത്തുക.
6. ബസ്സ് സ്റ്റാന്റ് ടൗണിൽ നിന്ന് സിറ്റിക്ക് ചേർന്നുള്ള പ്രദേശത്തേയ്ക്ക് മാറ്റണം.
7. എലിവേറ്റഡ് ഹൈവേ ആവശ്യമാണ്.
8. വികസന രൂപരേഖയിൽ എലിവേറ്റഡ് ഹൈവേ ഉൾപ്പെടുത്തുക.

ടൗൺ ടച്ച് ചെയ്യാതെ, തൃശൂർ ഭാഗത്ത് നിന്ന് വരുന്ന ബസ് പോവുന്നതിന് ബൈപാസ് വേണം. ബസ്സ് സ്റ്റാന്റിൽ നിന്ന് തെക്കോട്ട് ഒരു പാലം കൂടി ഉ ാക്കിയാൽ അത് കൃഷ്ണൻകോട്ടയിൽ ചെന്ന് ചേരും. ശ്യംഗപുരം തോടിന് ക്രോസ്സായി പാലം പണിയണം. കോതപറമ്പ് മുതൽ കോട്ടപ്പുറം വരെ കാനോലി കനാലിന്റെ വക്കത്ത് കൂടി 10 മീ. വീതിയിൽ റോഡ് വേണം.

കൃഷി, മൃഗസംരക്ഷണം, ക്ഷീരവികസനം, മത്സ്യബന്ധനം

വികസന നിർദ്ദേശങ്ങൾ

1. കൊടുങ്ങല്ലൂർ മുനിസിപ്പാലിറ്റിയിലെ കാർഷികമേഖലയായ പുല്ലൂറ്റ്, തിരുവള്ളൂർ പ്രദേശങ്ങളിലെ നെൽകൃഷി, പച്ചക്കറികൃഷി ഇവ വിപുലമാക്കുന്നതിനുള്ള Infrastucture സംവിധാനങ്ങൾ നിലവിൽ വരുത്തുക.

2. ബ ് , ഫാം റോഡ് നിർമ്മാണം.

3. വേനൽകാലത്ത് ഉപ്പുവെള്ളം കയറുന്നത് തടയുന്നതിനുള്ള shutter സംവിധാനം.

4. പുല്ലൂറ്റിലെ പെരിങ്ങൽപാടം - നായ്ക്കുളം തോട് സൈഡ് കെട്ടി സംരക്ഷിക്കൽ.

5. മേത്തല, ലോകമലേശ്വരം വില്ലേജുകളിലെ കാത്തോളിതോട് സൈഡ് കെട്ടൽ പൂർത്തിയാക്കുക.

6. മട്ടുപ്പാവിലെ പച്ചക്കറികൃഷി, കോഴിവളർത്തൽ ഇവ മുനിസ്സിപ്പൽ പ്രദേശത്തെ എല്ലാ മേഖലകളിലേയ്ക്കും വ്യാപിപ്പിക്കുന്നതിനുള്ള പദ്ധതികൾ മാസ്റ്റർ പ്ലാനിൽ ഉൾപ്പെടുത്തുക.

7. കാർഷികമേഖലയിൽ യന്ത്രവൽക്കരണം സാധ്യമാകുന്നതിന് തെങ്ങുകയറ്റ പരിശീലന പരിപാടികൾ നടപ്പിലാക്കി തെങ്ങുകയറ്റ യന്ത്രങ്ങൾ സൗജന്യമായി വിതരണം ചെയ്യുക.

8. മുനിസിപ്പാലിറ്റി പ്രദേശത്തെ എല്ലാ സ്കൂളുകളിലും ആനിമൽ വെൽഫയർ ക്ലബ്, അഗ്രികൾച്ചറൽ ക്ലബ് ഇവ രൂപീകരിക്കുന്നതിനുള്ള സംവിധാനങ്ങൾ ഉൾപ്പെടുത്തുക.

9. ഹൈടെക് ഫാമിങ്ങ് സ്ഥാപനങ്ങളിൽ നടപ്പിലാക്കുന്നതിനുള്ള പദ്ധതികൾ രൂപീകരിക്കുക.

10. കാത്തോളിതോട്, ജെ.ടി.എസ് റോഡിനോട് ചേർന്നുള്ള തോട്, കാവിൽകടവ്, വി.പി തുരുത്ത് എന്നീ പ്രദേശങ്ങളിലെ തോട് മുതലായ ജലസ്രോതസ്സുകൾ സംരക്ഷിച്ച് കാർഷികമേഖലയ്ക്ക് ഉപയുക്തമാക്കുക.

11. ക്ഷീരകർഷകർക്ക് കറവയന്ത്രം, പുൽകൃഷി, ആധുനികരീതിയിലുള്ള തൊഴുത്ത് നിർമ്മാണം എന്നിവ ഉൾപ്പെടുന്ന പദ്ധതികൾ രൂപീകരിക്കുക.

12. ശുദ്ധജല മത്സ്യകൃഷി പ്രോത്സാഹന പദ്ധതികൾ മാസ്റ്റർ പ്ലാനിൽ ഉൾപ്പെടുത്തുക.

ആരോഗ്യം, കുടിവെള്ളം

വികസന പ്രശ്നങ്ങൾ

1. ആരോഗ്യം - കൊടുങ്ങല്ലൂരിൽ നിർധനരായ കിഡ്നി രോഗികളുടെ എണ്ണം വർദ്ധിക്കുന്നു. അവർക്ക് ഡയാലിസിസിന് സാമ്പത്തിക ബാധ്യത താങ്ങാനാകുന്നില്ല.

2. കുടിവെള്ളപ്രശ്നം കൊടുങ്ങല്ലൂരിലെ ജനങ്ങളുടെ മുഖ്യവിഷയം ആണ്. പലപ്പോഴും കുടിവെള്ളത്തിനായി ദിവസങ്ങളോളം കാത്തിരിക്കേ അവസ്ഥയാണ്. ഇതിനൊരു ശാശ്വത പരിഹാരം കാണണം.

3. ക്യാൻസർ രോഗികളുടെ എണ്ണം അനുദിനം വർദ്ധിക്കുന്നു.

വികസന നിർദ്ദേശങ്ങൾ

1. താലൂക്ക് ആശുപത്രിയിലോ, അല്ലാതെയോ ഡയാലിസിസ് യൂണിറ്റ് സ്ഥാപിക്കണം.

2. സ്ഥിരമായി കുടിവെള്ളം ലഭ്യമാക്കാനുള്ള സംവിധാനം ഉ ാകണം.

3. ക്യാൻസർ, കിഡ്നി മുതലായ രോഗങ്ങൾക്ക് ക്യാമ്പുകൾ നടത്തണം. (ഏർലി ഡിറ്റക്ഷൻ ക്യാമ്പുകൾ നടത്തണം.) ജീവൻ രക്ഷാമരുന്നുകൾ കുറഞ്ഞ നിരക്കുകൾ ലഭ്യമാക്കാൻ സംവിധാനം ഉ ാകണം.

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DEVELOPMENT PLAN FOR KODUNGALLUR MUNICIPALITY- STAKEHOLDER MEETING 08.03.2013

Sl.No	Name	Designation	Phone no.	Signature
1	C. Vijayakumaran	M/ Secretary	9895637902	
2	[illegible]	[illegible]	9847509957	
3	CV [illegible]	[illegible]	9847456666	
4	K.R. [illegible]	[illegible]	9995582770	
5	[illegible]	[illegible]	9947006772	
6	M.K. Madhik	Councillor.	9745400166.	
7	[illegible]	[illegible]	9961828610	
8	[illegible]	[illegible]	9447673217	
9	[illegible]	MOTHER THERASSA SOCIAL WELFARE SOCIETY PRESIDENT	9497657077	
10	A.V. [illegible]	[illegible]	9895111106	
11	K.A. MOHAMMED	SOUHRUDHA RESIDENTS	9447268726	
12	D. Gopalakrishnan	SOUHRIDHA RES. AS	9037022624	
13	KM. Surendran	[illegible]	9387123198	
14.	Jaya Baby	councilor	9605815519	
15	Radhika Anilkumar	counciler	9447640816	
16	Aleema Rasheed.	councilor.	9744662083	
17.	Nabeesa Jamal	"	9388823389.	
18	Parvathy Purushothaman	"	9288085322	
19	E.J. HEERA	Ex Member	9388001033	
20	RAJASREE KALADHARAN	Councilor	9645733146	
21.	Surya Suresh	Councillor	9400304350	
22	Baby Unnikrishnan.	Councillor	9388151497	
23.	[illegible]	SRA — SREHPURI Residence associations	9539335277	
24	[illegible]	Ex- Agri	9847817587	
25.	K.K. SIDHARTHAN	PWD- ROADS KODUNGALLUR	9995073641	

DEVELOPMENT PLAN FOR KODUNGALLUR MUNICIPALITY- STAKEHOLDER MEETING 08.03.2013

Sl.No	Name	Designation	Phone no.	Signature
26	C.R. SHANAVAS	[illegible]	8547102596	
27	[illegible]	[illegible]	9947461295	
28	S.A. [illegible]	[illegible]	[illegible]	
29	Thamleeha yoosef	Registered supervisor	9947336240	
30	Sudeep. A.S	Licensed Supervisor	9847127007	
31	K.V. Pradeepkumar	Engineer	9846027698	
32	Seena. K.A.	Engineer	9496123385	
33	E.V. Ambily	LBS	9633202126	
34	SMITHA DAVIS	LBS	9745399348	
35	Shabnaz Paeliyath	Agrl. Offier, KB, Methala	9496003547	
36	K.L. Praveen	Overseer Gr. III Irrigation section	9249724461	
37	Subhadra kumari C.S	COPO LCDS kodungallur	9846874210	
38	Neja Ismail	[illegible]	9388657810	
39	Pushkala Venugopal	[illegible]	9605232119	
40	Asmabi Rabmathali	[illegible]	9349080600	
41	M.K. Sreekumar	SCDO Methilakam	8547630114	
42	E.A. Benny	AE, KWA, kodungallur	8547638380	
43	Savitha. T.V	AE Kdlr Municipality	9495634468	
44	C.S. Bhagirathi	Overseer Grade I	9846353671	
45	Dhanya. M.B.	Overseer Grade II	9496071679	
46	VASANTHA UNNIKRISHNAN	kodungallur CDS No: Chairperson	9847922888	
47	Biju.M.G		9446233536	
48	K.M. BABY	—	9447240650	
49	K.N. Raghavan	Retd. S. Engineer	9447813029	
50	K. Subramanian	Vallikavil, Kodungallur	8086583609	

DEVELOPMENT PLAN FOR KODUNGALLUR MUNICIPALITY-
STAKEHOLDER MEETING 08.03.2013

Sl.No	Name	Designation	Phone no.	Signature
	N.R. Moraddeemad	Secretary Kodungallur Merchants Assn	9447348973	
	V.E. Dharmapalan	President Kodungallur Merchants Association	9947466044	
	M.V. Visvanadhan	RMS	9447408488	
	KANNAN. P.H	Lineman	9846688273	
	Sivadasan	Councilor	9495463072	
	O.C. Joseph	Councilor	9847351213	
	K.S. Rajeshekharan	Mason		
	Pankajakshy. R.K	RA		
	Bindu. C	SA		
	Sajan	SA		
	Rasopa Haridas	Standing Committee Chairperson		
	[illegible]	Ex. Councilor	9446860317	
	Remadevi	Teacher	9497654765	

ANNEXURE 8

കൊടുങ്ങല്ലൂർ നഗരസഭ സ്പേഷ്യൽ ഇന്റഗ്രേഷൻ കമ്മിറ്റിയുടെ യോഗം

തിയ്യതി : 11.09.2013
സമയം : 10.30 a.m.

സ്ഥലം : മുനിസിപ്പൽ കൗൺസിൽ ഹാൾ
കൊടുങ്ങല്ലൂർ

നടപടിച്ചുരുക്കം

യോഗം കൃത്യം 10.30 ന് ബഹു. വൈസ് ചെയർമാൻ ശ്രീ. കെ.ആർ. സുഭാഷിന്റെ അദ്ധ്യക്ഷതയിൽ ആരംഭിച്ചു. യോഗത്തിൽ താഴെ പറയുന്നവർ പങ്കെടുത്തു.

1. ശ്രീ. സി.കെ. രാമനാഥൻ (സ്റ്റാന്റിംഗ് കമ്മിറ്റി ചെയർമാൻ)
2. ശ്രീമതി. റസോജ ഹരിദാസ് (സ്റ്റാന്റിംഗ് കമ്മിറ്റി ചെയർമാൻ)
3. ശ്രീമതി. പി.ജി. നൈജി (സ്റ്റാന്റിംഗ് കമ്മിറ്റി ചെയർമാൻ)
4. ശ്രീ. എ.വി. സുകുമാരൻ (കൗൺസിലർ)
5. ശ്രീമതി. നബീസ ജമാൽ (കൗൺസിലർ)
6. ശ്രീ.വി.ജി. ഉണ്ണികൃഷ്ണൻ (കൗൺസിലർ)
7. അഡ്വ. സി.പി. രമേശൻ (കൗൺസിലർ)
8. ശ്രീ. പി.പി. അനിൽകുമാർ (കൗൺസിലർ)
9. ശ്രീ.എം.കെ.പ്രതാപൻ (കൗൺസിലർ)
10. ശ്രീമതി. ജോളി ദിൽഷൻ (കൗൺസിലർ)
11. ശ്രീ.ഒ.സി. ജോസഫ് (കൗൺസിലർ)
12. ശ്രീമതി. സുമ ശിവൻ (Ex. ചെയർപേഴ്സൺ)
13. ശ്രീമതി. സവിത ടി.വി (അസിസ്റ്റന്റ് എഞ്ചിനീയർ)
14. ശ്രീമതി. എം.ബി. അജിത (മൈനർ ഇറിഗേഷൻ)
15. ശ്രീമതി. ഷബ്നാസ് പടിയത്ത് (മേത്തല കൃഷി ഓഫീസർ)
16. ശ്രീമതി. പി.വി. നിർമ്മല (അഗ്രി. അസിസ്റ്റന്റ്, കൃഷിഭവൻ, കൊടുങ്ങല്ലൂർ)
17. ശ്രീമതി. സജിത സി.എ (മുസിരിസ് ഹെറിറ്റേജ് പ്രോജക്ട്)
18. ശ്രീ. ഐ.വി. രാജീവൻ (ജെ.എച്ച്.ഐ)
19. ശ്രീ. കെ.ജി. രാമദാസ് (ഫിഷറീസ് ഇൻസ്പെക്ടർ, കൊടുങ്ങല്ലൂർ)
20. ശ്രീമതി. ജിനുമോൾ വർഗ്ഗീസ് (ഡെപ്യൂട്ടി ടൗൺപ്ലാനർ)
21. ശ്രീമതി. ജീവ ലിസ സേവ്യർ (അസിസ്റ്റന്റ് ടൗൺപ്ലാനർ)
22. ശ്രീ. കെ.എസ്.രാധാകൃഷ്ണ (Ist ഗ്രേഡ് സർവ്വേയർ, ടൗൺ പ്ലാനിംഗ് ഡിപ്പാർട്ട്മെന്റ്)
23. ഡോ.പി.ഡി. സുരേഷ് (സീനിയർ വെറ്റിറനറി സർജൻ, പോളി ക്ലിനിക്, കൊടുങ്ങല്ലൂർ)
24. ശ്രീ.ആർ.എം. പവിത്രൻ (റിസോഴ്സ് പേഴ്സൺ)
25. ശ്രീമതി. പ്രഭാവതി. കെ (സീനിയർ സൂപ്രണ്ട്, എ.ഇ.ഒ ഓഫീസ്)
26. ശ്രീമതി. സി.എസ്. സുഭദ്രകുമാരി (സി.ഡി.പി.ഒ, ഐ.സി.ഡി.എസ്)
27. ശ്രീമതി. ശാലിനി.കെ.ഡി (സൂപ്പർവൈസർ, ഐ.സി.ഡി.എസ്)

28. ശ്രീ. ടി.എസ്. ആനന്ദൻ (അസിസ്റ്റന്റ് എക്സി. എഞ്ചിനീയർ, കെ.എസ്.ഇ.ബി)
29. ശ്രീമതി. അശ്വതി അയ്യപ്പൻ (എൽ.ഡി.ക്ലർക്ക്, താലൂക്ക് ഹോസ്പിറ്റൽ)
30. ശ്രീമതി. ലിജി. പി.വി (എസ്.സി. പ്രൊമോട്ടർ)
31. ശ്രീമതി. സുജിത. സി.എൻ (എസ്.സി. പ്രൊമോട്ടർ)
32. ശ്രീമതി. പ്രബീന സന്തോഷ്കുമാർ (എസ്.സി. പ്രൊമോട്ടർ)

യോഗത്തിൽ എടുത്ത പ്രധാന തീരുമാനങ്ങൾ ചുവടെ ചേർക്കുന്നു.

കൃഷി, മൃഗസംരക്ഷണം, ക്ഷീരവികസനം, ജലസേചനം, നീർത്തട പരിപാലനം

1. പൊതുകുളങ്ങൾ, സ്വകാര്യവ്യക്തികളുടെ കുളങ്ങൾ, തോടുകൾ എന്നിവയുടെ സൈഡ് കെട്ടി സംരക്ഷണം നടത്തുവാൻ തീരുമാനിച്ചു. ഇവയുടെ വാർഡടിസ്ഥാനത്തിലുള്ള ലിസ്റ്റ് അതാത് കൗൺസിലർമാർ ലഭ്യമാക്കും.
2. ഉപ്പുവെള്ളം കയറാതിരിയ്ക്കാൻ സ്ലൂയ്സ് സ്ഥാപിക്കൽ - വാർഡ് - 19, 20, 21, 22, 26, 27, 36, പുല്ലൂറ്റ് പെരിങ്കൽപ്പാടം
3. 1,2,11,12,13,26,27,29,31,36,37,40,43 എന്നീ വാർഡുകളിലെ പുരയിടങ്ങളിലും, ഒഴിഞ്ഞുകിടക്കുന്ന പാടശേഖരങ്ങളിലും ക്ലസ്റ്റർ അടിസ്ഥാനത്തിൽ ഓരോ വർഷവും ഒരു മാതൃകാതോട്ടം തിരഞ്ഞെടുത്ത് തെങ്ങ്, പഴം, പച്ചക്കറി കൃഷിയ്ക്ക് ആവശ്യമായ പ്രോത്സാഹനം നൽകുന്ന രീതി അവലംബിക്കുന്നതിന് തീരുമാനിച്ചു.
4. തെക്കേനടയിലെ പഴയ മുനിസിപ്പൽ ബിൽഡിംഗിൽ ലേബർ ബാങ്ക് തുടങ്ങുവാൻ തീരുമാനിച്ചു.
5. ഉത്സവ സമയങ്ങളിൽ മാതൃകാതോട്ടങ്ങളിൽ നിന്നുമുള്ള ജൈവ പച്ചക്കറി ഉപയോഗിച്ചുള്ള ഭക്ഷണം നൽകുന്ന കൗണ്ടറുകൾ അമ്പലപരിസരത്ത് സ്ഥാപിക്കുവാൻ തീരുമാനിച്ചു.
6. അരാകുളം, പടാകുളം, ധളവാകുളം കരിശ്ശാംകുളം എന്നീ കുളങ്ങളിൽ കിണർ കുഴിച്ചുള്ള വാട്ടർ റീച്ചാർജിംഗ് മാതൃകകൾ , മഴവെള്ള സംഭരണമാർഗ്ഗങ്ങൾ എന്നിവ അവലംബിക്കുന്നതിന് തീരുമാനിച്ചു.
7. കൊടുങ്ങല്ലൂരിൽ നിലവിലുള്ള സമാജങ്ങളുടെ സഹകരണത്തോടെ പൊതു പങ്കാളിത്തമുള്ള ഡയറിഫാമുകൾ ആരംഭിക്കുന്നതിന് തീരുമാനിച്ചു. ജൈവവള ഉൽപ്പാദനം ലക്ഷ്യം വച്ചുള്ള ബയോഗ്യാസ്, കമ്പോസ്റ്റ് യൂണിറ്റുകൾ പ്രസ്തുത ഡയറിഫാമുകളിൽ സ്ഥാപിക്കുന്നതിന് തീരുമാനിച്ചു.

മത്സ്യബന്ധനം

1. പടാകുളം, ചേന്ദൻകുളം, ധളവാകുളം കരിശ്ശാംകുളം എന്നീ മുനിസിപ്പൽ കുളങ്ങൾ ശുദ്ധജല മത്സ്യകൃഷിയ്ക്ക് ഉപയുക്തമാക്കുന്നതിന് തീരുമാനിച്ചു.
2. നിലവിൽ ചെമ്മീൻ കൃഷി ചെയ്യുന്ന സ്ഥലങ്ങളിൽ ഞണ്ട് കൃഷി, വനാമി കൃഷി പ്രോത്സാഹിപ്പിക്കാവുന്നതാണ്.
3. പുഴ, കായൽ എന്നിവിടങ്ങളിൽ കേജ് കൾച്ചർ പരിശീലിപ്പിക്കുകയും പ്രോൽസാഹിപ്പിക്കുകയും ചെയ്യുക.
4. ഫിഷറീസ് ഓഫീസുമായി ബന്ധപ്പെട്ട് നിലവിലെ മുനിസിപ്പൽ ഓഫീസ് ബിൽഡിംഗിൽ(കിഴക്കേനട) ട്രെയ്നിംഗ് സെന്റർ കം സീഡ് ബാങ്ക്
5. ഞണ്ട് കൃഷി പരമാവധി കാര്യക്ഷമമായി പ്രോൽസാഹിപ്പിച്ച് കൊടുങ്ങല്ലൂരിന്റെ തനതായ ഇനം വികസിപ്പിച്ചെടുക്കുക.
6. ആനാപ്പുഴ ഫിഷ് പ്രൊസസ്സിംഗ് സെന്റർ - ടൂറിസം മേഖലയ്ക്ക് ഉപയുക്തമാക്കാവുന്ന മൂല്യ വർദ്ധിത ഉൽപ്പന്നങ്ങളുടെ യൂണിറ്റ്
7. പന്തീരാംപാല, നാരായണമംഗലം എന്നിവിടങ്ങളിലെ ഫിഷ് ഫാമുകളിൽ ബോട്ടിംഗ്, റെസ്റ്റിംഗ്, ഭക്ഷണ സൗകര്യങ്ങൾ എന്നിവ ഏർപ്പെടുത്തി ടൂറിസം മേഖലയുമായി ബന്ധപ്പെടുത്തുക.
8. ആധുനിക സംവിധാനങ്ങളോടു കൂടിയ ഡ്രൈയിംഗ് യാർഡ് കോട്ടപ്പുറം മാർക്കറ്റിൽ സ്ഥാപിക്കാവുന്നതാണ്.

9. ആനപ്പുഴ നിർദ്ദിഷ്ഠ ഫിഷ് ലാന്റിംഗ് സെന്ററിനോടനുബന്ധിച്ച് ഓക്ഷൻ ഹാൾ
10. അലങ്കാര മത്സ്യ വിൽപ്പന കേന്ദ്രങ്ങൾ - അരാകുളം

ടൂറിസം

1. ടൂറിസം വാരാഘോഷത്തോടനുബന്ധിച്ച് കൊടുങ്ങല്ലൂരിലെ പ്രധാന കേന്ദ്രങ്ങളെ ബന്ധിപ്പിച്ചുള്ള ഏകദിന ട്രിപ്പുകൾ

   ശൃംഗപുരം അറൈവൽ സെന്റർ - കൊടുങ്ങല്ലൂർ അമ്പലം - ചേരമാൻ പള്ളി - തിരുവഞ്ചിക്കുളം അമ്പലം - ചേരമാൻ പറമ്പ് - കോട്ടപ്പുറം ബോട്ട് ജെട്ടി - കോട്ടപ്പുറം കോട്ട - പന്തീരാംപാല മത്സ്യഫാം - നാരായണമംഗലം മത്സ്യഫാം - ശൃംഗപുരം അറൈവൽ സെന്റർ
2. വെബ്സൈറ്റ് നിർമ്മാണം
3. 11,12,15 എന്നീ വാർഡുകളിൽ നിലവിലുള്ള ഫിഷ് ഫാമുകളിൽ അക്വാടൂറിസം - ബോട്ടിംഗ്, ആങ്ക്ളിംഗ്, ഫുഡ് കോർട്ട്, റെസ്റ്റിംഗ്
4. മുനിസിപ്പൽ ക്ലോംപ്ലക്സുകൾക്കു മുകളിൽ താൽക്കാലിക താമസസൗകര്യങ്ങൾ (ഡോർമിറ്ററികൾ) ഭരണി, താലപ്പൊലി തുടങ്ങിയ ഉത്സവസമയങ്ങളിൽ വിനോദ സഞ്ചാരികൾക്ക് കുറഞ്ഞ ചിലവിൽ ലഭ്യമാക്കാവുന്നതാണ്.
   - നിലവിലെ മുനിസിപ്പൽ ഓഫീസ് ബിൽഡിംഗ്(കിഴക്കേനട)
   - നിർദ്ദിഷ്ഠ മുനിസിപ്പൽ ഓഫീസ് ബിൽഡിംഗ്(തെക്കേനട)
   - മാർക്കറ്റ് ഷോപ്പിംഗ് ക്ലോംപ്ലക്സ്, കാവിൽക്കടവ്
   - മുനിസിപ്പൽ ഓഫീസ് ബിൽഡിംഗ്(മേത്തല)
5. അരാകുളം, പടാകുളം, ധളവാകുളം എന്നിവയുടെ ബ്യൂട്ടിഫിക്കേഷൻ

സാമൂഹ്യക്ഷേമം, ദാരിദ്ര്യനിർമ്മാർജ്ജനം

1. നിലവിലെ മുനിസിപ്പൽ ഓഫീസ് ബിൽഡിംഗിൽ(കിഴക്കേനട) സ്ത്രീകൾക്കായി സഖി സെന്റർ
2. നിലവിലുള്ള നാരായണമംഗലത്തെ ഓൾഡ് ഏജ് ഹോമിനായി സ്പോൺസർഷിപ്പ് സംഘടിപ്പിക്കുക
3. റിക്രിയേഷൻ ക്ലബ്ബ് - വാർഡ് 9, പി.ഡബ്ലിയു. കോളനി നവീകരണം
4. നിലവിലുള്ള പ്രത്യാശ സ്ക്കൂളിനെ ബഡ്സ് സ്ക്കൂളായി മാറ്റുക
5. ജാഗ്രതാ സമിതി, ചൈൽഡ് പ്രൊട്ടക്ഷൻ കമ്മിറ്റി എന്നിവയുടെ പുന:രൂപീകരണം
6. മേനക കോളനി - ഫ്ളാറ്റ് നിർമ്മിച്ച് പുനരധിവാസം സാധ്യമാക്കുക

പട്ടികജാതി വികസനം

1. ചാപ്പാറയിലുള്ള പട്ടികജാതി ക്രിമറ്റോറിയം നവീകരിക്കുക
2. നിലവിലുള്ള കെ.കെ.വേലായുധൻ സ്മാരക ലൈബ്രറി നവീകരിക്കുക. പട്ടിക ജാതി റിസോഴ്സ് സെന്റർ ഇവിടെ സ്ഥാപിക്കുക.
3. പുല്ലൂറ്റ് നിർമ്മിച്ച പ്രീമെട്രിക് ഹോസ്റ്റലിനെ ട്രെയ്നിംഗ് കേന്ദ്രമായി ഉപയോഗപ്പെടുത്തുക
   - കൈത്തൊഴിൽ പരിശീലന കേന്ദ്രം
   - ഗ്രാന്റുകളെക്കുറിച്ചുള്ള ബോധവൽക്കരണ ക്ലാസ്സുകൾ
4. ജില്ലാ തലത്തിലുള്ള പ്രോജക്ടുകളിൽ എസ്.സി കുടുംബങ്ങളെ ഉൾപ്പെടുത്തുവാൻ തീരുമാനിച്ചു.
5. ചാപ്പാറ ഹരിജൻ കോളനിയിൽ കമ്മ്യൂണിറ്റി സെപ്റ്റിക് ടാങ്ക്

ആരോഗ്യം

1. ആനാപ്പുഴ, ചാപ്പാറ, നാരായണമംഗലം, ഉഴുവത്തുകടവ് എന്നിവിടങ്ങളിൽ പ്രാഥമിക ആരോഗ്യകേന്ദ്രങ്ങൾ സ്ഥാപിക്കുക.
2. താലൂക്ക് ആശുപത്രിയുടെ നവീകരണം - ഇരിപ്പിട സൗകര്യങ്ങൾ, പാർക്കിംഗ്, എസ്.ടി.പി
3. താലൂക്ക് ആശുപത്രിയോടനുബന്ധിച്ച് അന്യസംസ്ഥാന തൊഴിലാളികൾക്ക് ആരോഗ്യ കാർഡ്, ചികിത്സാ ക്യാമ്പ്.

വ്യവസായം

1. ഇന്റസ്ട്രിയൽ എസ്റ്റേറ്റിൽ സ്ത്രീകളെ ഉൾപ്പെടുത്തി മത്സ്യ സംസ്ക്കരണ യൂണിറ്റ് ആരംഭിക്കാവുന്നതാണ്.
2. പാലുൽപ്പന്നങ്ങൾക്കായി യൂണിറ്റ് കുടുംബശ്രീയുടെ സഹായത്തോടെ ഡയറിഫാമുകളെ കേന്ദ്രീകരിച്ച് ആരംഭിക്കാവുന്നതാണ്.
3. കോട്ടപ്പുറം മേഖലയിൽ ബ്രാൻഡഡ് ഉണക്കമത്സ്യ സംസ്ക്കരണ യൂണിറ്റ് എന്നിവ ആരംഭിക്കാവുന്നതാണ്.

പശ്ചാത്തലമേഖല

റോഡ്സ്

1. **നിർദ്ദിഷ്ഠ തീരദേശ റോഡ്** : കോതപറമ്പ് ഈസ്റ്റ് - വയലാർ- ഉഴുവത്ത് കടവ് - കാവിൽകടവ് - ശൃംഗപുരം ഈസ്റ്റ് - ആനാപ്പുഴ - കോട്ടപ്പുറം - പടന്ന :- 15 മീറ്റർ വീതി - കോൺക്രീറ്റ് റോഡ്
2. റോഡ് വീതി കൂട്ടൽ
    1. ചേരമാൻ - അഴീക്കോട് റോഡ് : 15 മീറ്റർ
    2. ചന്തപ്പുര - എറിയാട് റോഡ് : 15 മീറ്റർ
    3. പടാകുളം - അഴീക്കോട് റോഡ് : 12 മീറ്റർ
    4. നാരായണമംഗലം - വെള്ളൂർ റോഡ് : 12 മീറ്റർ
    5. തച്ചപ്പിള്ളി റോഡ് : 12 മീറ്റർ
    6. ചാപ്പാറ - പന്തീരാംപാല റോഡ് : 12 മീറ്റർ
    7. ശൃംഗപുരം ബോയ്സ് ഹൈസ്ക്കൂൾ - ടി.കെ.എസ്. പുരം റോഡ്: 12 മീറ്റർ
    8. താലൂക്ക് ഹോസ്പിറ്റൽ - ശാന്തി ഹോസ്പിറ്റൽ - വെറ്റിറനറി പോളിക്ലിനിക് റോഡ്: 12 മീറ്റർ
    9. ശൃംഗപുരം ബോയ്സ് ഹൈസ്ക്കൂൾ വെസ്റ്റ് നോർത്ത് - അഞ്ചപ്പാലം റോഡ്: 8 മീറ്റർ
    10. ടി.കെ.എസ് പുരം - കടുക്കച്ചുവട് റോഡ്: 8 മീറ്റർ
    11. അറക്കത്താഴം - ചാണയിൽ ടെമ്പിൾ റോഡ്: 8 മീറ്റർ
    12. എൻ.എച്ച് 17 - വയലാർ റോഡ്: 8 മീറ്റർ
    13. മോഡേൺ ഹോസ്പിറ്റൽ - ജെ.ടി.എസ് റോഡ്: 10 മീറ്റർ
    14. വാർഡ് 1 വെസ്റ്റ് റോഡ്: 8 മീറ്റർ

ഇൻഫ്രാസ്ട്രക്ച്ചർ

1. തെക്കേനടയിൽ പഴയ മുനിസിപ്പൽ ഓഫീസ് കെട്ടിടം പുതുക്കിപ്പണിത് മുനിസിപ്പൽ ഓഫീസ് പ്രസ്തുത കെട്ടിടത്തിലേക്ക് മാറ്റുന്നതിനും നിലവിലുള്ള മുനിസിപ്പൽ ലൈബ്രറിയെ ഡിജിറ്റൽ ലൈബ്രറിയായി നവീകരിക്കുന്നതിനും തീരുമാനിച്ചു.
2. ചേരമാൻ പറമ്പിൽ സ്റ്റേഡിയം
3. നീന്തൽകുളം - വാർഡ് 23ലെ മാടംകുളം നവീകരണം
4. നിലവിലുള്ള ടൗൺഹാൾ നവീകരണം

കുടിവെള്ളം

1. നാരായണമംഗലത്ത് കെ.ഡബ്ലിയു.എ കോംമ്പൗണ്ടിൽ പുതിയ ടാങ്ക്, നിലവിലുള്ള പൈപ്പുകൾ മാറ്റി പുതുക്കിയ നെറ്റ് വർക്ക്
2. എല്ലാ കെട്ടിടങ്ങൾക്കും മഴവെള്ള സംഭരണി നിർബന്ധമായും സ്ഥാപിക്കുവാനുള്ള നടപടി സ്വീകരിക്കുവാൻ തീരുമാനിച്ചു.

വിദ്യാഭ്യാസം

1. ശൃംഗപുരം ബോയ്സ് ഹൈസ്ക്കൂൾ ഗ്രൗണ്ടിലെ വെള്ളക്കെട്ട് ഒഴിവാക്കുവാൻ ഡ്രെയ്നേജ്
2. പുല്ലൂറ്റ് ബോയ്സ് ഹയർസെക്കണ്ടറി സ്ക്കൂൾ ഗ്രൗണ്ട് നവീകരണം
3. ടൗണിലെ ഗവൺമെന്റ് ഗേൾസ് ഹൈസ്ക്കൂളിലെ സ്ഥലപരിമിതി കണക്കിലെടുത്ത് കാര്യക്ഷമമായ സ്ഥലവിനിയോഗത്തിനായും തുറസ്സായ സ്ഥലങ്ങൾ നിലനിർത്തുന്നതിനായും പുതുതായി നിർമ്മിക്കുന്ന കെട്ടിടങ്ങൾ നിലവിലെ കെട്ടിടങ്ങളുടെ മുകൾനിലകളിലായി പണിയുന്നതിനും തീരുമാനിച്ചു
4. കലാ - പൈതൃക പഠനങ്ങൾക്കായി ചേരമാൻ പറമ്പിലെ ആക്ടിവിറ്റി സെന്ററിനോടനുബന്ധിച്ച് പഠന കേന്ദ്രം
5. നിലവിലെ ടെക്നിക്കൽ സ്ക്കൂളിനോടനുബന്ധിച്ച് പോളിടെക്നിക്
6. പ്ലസ്സ് ടു വിദ്യാർത്ഥികൾക്ക് സോഫ്ട് സ്കിൽ ഡെവലപ്പ്മെന്റ് കോഴ്സ്-മേത്തല സയൻസ് സെന്ററിൽ

ഊർജ്ജം

1. കൊടുങ്ങല്ലൂർ അമ്പലത്തിന് ചുറ്റുമുള്ള റോഡുകളോട് ചേർന്ന് under ground cabling
2. തെക്കേനട, ചന്തപ്പുര, കോട്ടപ്പുറം മാർക്കറ്റ് പരിസരം എന്നിവിടങ്ങളിൽ ഹൈമാസ്റ്റ് ലൈറ്റ്
3. മുനിസിപ്പാലിറ്റിയുടെ ഉടമസ്ഥതയിലുള്ള കെട്ടിടങ്ങളിൽ സോളാർ പാനൽ
    - നിലവിലെ മുനിസിപ്പൽ ഓഫീസ് ബിൽഡിംഗ്(കിഴക്കേനട)
    - നിർദ്ദിഷ്ഠ മുനിസിപ്പൽ ഓഫീസ് ബിൽഡിംഗ്(തെക്കേനട)
    - മാർക്കറ്റ് ഷോപ്പിംഗ് ക്ലോംപ്ലക്സ്, കാവിൽക്കടവ്
    - ടൗൺ ഹാൾ കെട്ടിടം
    - താലൂക്ക് ആശുപത്രി , PHC
    - മിനി സിവിൽ സ്റ്റേഷൻ
4. സ്ട്രീറ്റ് ലൈറ്റിങ്ങിനായി LED സംവിധാനങ്ങളുടെ ഉപയോഗം

പരിസ്ഥിതി

1. 8,9,10,11,12,13,15 എന്നീ വാർഡുകളിൽ നിലനിർത്താവുന്ന പാടശേഖരങ്ങൾ, ചെമ്മീൻ കെട്ടുകൾ എന്നിവ സംരക്ഷിക്കുന്നതിന് തീരുമാനിച്ചു.
2. വായു മലിനീകരണം കുറയ്ക്കുന്നതിന് പബ്ലിക് ബിൽഡിങ്ങുകളുടെ മുൻപിൽ ട്രീ ക്ലാഡിംഗ് നൽകുന്നതിന് തീരുമാനിച്ചു.
3. വനം വകുപ്പുമായി സഹകരിച്ച് സ്വകാര്യ വ്യക്തികൾക്ക് മരം നട്ട് പിടിപ്പിക്കുന്നതിനുള്ള പദ്ധതി രൂപീകരിക്കുന്നതിന് തീരുമാനിച്ചു.
4. കൊടുങ്ങല്ലൂർ അമ്പലം, ചേരമാൻ പള്ളി, താലൂക്ക് ആശുപത്രി , ഗവൺമെന്റ് ഗേൾസ് ഹൈസ്ക്കൂൾ,മുൻസിഫ് കോടതി, ശൃംഗപുരം ബോയ്സ് ഹൈസ്ക്കൂൾ, പുല്ലൂറ്റ് ബോയ്സ് ഹയർസെക്കണ്ടറി സ്ക്കൂൾ എന്നിവയുടെ പരിസരങ്ങളിൽ ഹോൺ റെസ്ട്രിക്ഷന് വേണ്ടിയുള്ള സൈൻ ബോർഡുകൾ വയ്ക്കുന്നതിന് തീരുമാനിച്ചു.

5. ശബ്ദം നിയന്ത്രിക്കുന്നതിന്റെ ആവശ്യകത വ്യക്തമാക്കുന്ന ബോധവൽക്കരണ ക്ലാസ്സുകൾ നടത്തുന്നതിന് തീരുമാനിച്ചു..
6. മേത്തല വില്ലേജിന്റെ തെക്ക് ഭാഗങ്ങളിലെ സുനാമി സാധ്യതാ പ്രദേശങ്ങളിൽ കണ്ടൽ കാടുകൾ നട്ട് സംരക്ഷണം ഉറപ്പുവരുത്തൽ

മാലിന്യ നിർമ്മാർജ്ജനം

1. NH, PWD, Irrigation, Municipality എന്നീ വകുപ്പുകളുടെ സഹകരണത്തോടെ ഡ്രെയ്നേജ് സിസ്റ്റം വിപുലീകരിക്കൽ
2. മാർക്കറ്റ് കോംപ്ലക്സിലുള്ള സീവേജ് ട്രീറ്റ്മെന്റ് പ്ലാന്റിലേക്ക് അഴുക്കുചാലിൽ നിന്നുമുള്ള മലിനജലം എത്തിച്ച് ശുദ്ധീകരിച്ചതിനുശേഷം ജലാശയങ്ങളിലേക്ക് ഒഴുക്കുന്നതിന് പദ്ധതി.
3. കൊടുങ്ങല്ലൂരമ്പലത്തിൽ നിർമ്മാണത്തിലിരിക്കുന്ന ടോയ്ലറ്റ് ബ്ലോക്കിനോടനുബന്ധിച്ച് സീവറേജ് ട്രീറ്റ്മെന്റ് പ്ലാന്റ് സ്ഥാപിക്കൽ
4. ഖരമാലിന്യം ഉറവിടത്തിൽ തന്നെ സംസ്ക്കരിക്കുന്നതിന്റെ ഭാഗമായി വീടുകൾ/ ഫ്ളാറ്റ് / റെസിഡൻസ് അസോസിയേഷനുകൾ എന്നിവ കേന്ദ്രീകരിച്ച് പൈപ്പ് കമ്പോസ്റ്റിങ്ങ് നൽകുന്നതിന് തീരുമാനിച്ചു.
5. കംഫർട്ട് സ്റ്റേഷൻ/ ഇ-ടോയ്ലറ്റ് ഫെസിലിറ്റികൾ താഴെപ്പറയുന്ന സ്ഥലങ്ങളിൽ നൽകുവാൻ തീരുമാനിച്ചു.
    - താലൂക്ക് ഹോസ്പിറ്റൽ
    - ചന്തപ്പുര ബസ് സ്റ്റാന്റ്
    - മിനി സിവിൽ സ്റ്റേഷൻ
    - KSRTC ബസ് സ്റ്റാന്റ്

യോഗം 5.00 pm ന് അവസാനിച്ചു.

വൈസ് ചെയർമാൻ
കൊടുങ്ങല്ലൂർ നഗരസഭ

ANNEXURE 8

കൊടുങ്ങല്ലൂർ നഗരസഭ സ്പേഷ്യൽ ഇന്റഗ്രേഷൻ കമ്മിറ്റിയുടെ യോഗം

തിയ്യതി : 11.09.2013
സമയം : 10.30 a.m.

സ്ഥലം : മുനിസിപ്പൽ കൗൺസിൽ ഹാൾ
കൊടുങ്ങല്ലൂർ

നടപടിക്കുറുപ്പ്

യോഗം കൃത്യം 10.30 ന് ബഹു. വൈസ് ചെയർമാൻ ശ്രീ. കെ.ആർ. സുഭാഷിന്റെ അദ്ധ്യക്ഷതയിൽ ആരംഭിച്ചു. യോഗത്തിൽ താഴെ പറയുന്നവർ പങ്കെടുത്തു.

1. ശ്രീ. സി.കെ. രാമനാഥൻ (സ്റ്റാന്റിംഗ് കമ്മിറ്റി ചെയർമാൻ)
2. ശ്രീമതി. റസോജ ഹരിദാസ് (സ്റ്റാന്റിംഗ് കമ്മിറ്റി ചെയർമാൻ)
3. ശ്രീമതി. പി.ജി. നൈജി (സ്റ്റാന്റിംഗ് കമ്മിറ്റി ചെയർമാൻ)
4. ശ്രീ. എ.വി. സുകുമാരൻ (കൗൺസിലർ)
5. ശ്രീമതി. നബീസ ജമാൽ (കൗൺസിലർ)
6. ശ്രീ.വി.ജി. ഉണ്ണികൃഷ്ണൻ (കൗൺസിലർ)
7. അഡ്വ. സി.പി. രമേശൻ (കൗൺസിലർ)
8. ശ്രീ. പി.പി. അനിൽകുമാർ (കൗൺസിലർ)
9. ശ്രീ.എം.കെ.പ്രതാപൻ (കൗൺസിലർ)
10. ശ്രീമതി. ജോളി ദിൽഷൻ (കൗൺസിലർ)
11. ശ്രീ.ഒ.സി. ജോസഫ് (കൗൺസിലർ)
12. ശ്രീമതി. സുമ ശിവൻ (Ex. ചെയർപേഴ്സൺ)
13. ശ്രീമതി. സവിത ടി.വി (അസിസ്റ്റന്റ് എഞ്ചിനീയർ)
14. ശ്രീമതി. എം.ബി. അജിത (മൈനർ ഇറിഗേഷൻ)
15. ശ്രീമതി. ഷബ്നാസ് പടിയത്ത് (മേത്തല കൃഷി ഓഫീസർ)
16. ശ്രീമതി. പി.വി. നിർമ്മല (അഗ്രി. അസിസ്റ്റന്റ്, കൃഷിഭവൻ, കൊടുങ്ങല്ലൂർ)
17. ശ്രീമതി. സജിത സി.എ (മുസിരിസ് ഹെറിറ്റേജ് പ്രോജക്ട്)
18. ശ്രീ. ഐ.വി. രാജീവൻ (ജെ.എച്ച്.ഐ)
19. ശ്രീ. കെ.ജി. രാമദാസ് (ഫിഷറീസ് ഇൻസ്പെക്ടർ, കൊടുങ്ങല്ലൂർ)
20. ശ്രീമതി. ജിനുമോൾ വർഗ്ഗീസ് (ഡെപ്യൂട്ടി ടൗൺപ്ലാനർ)
21. ശ്രീമതി. ജീവ ലിസ സേവ്യർ (അസിസ്റ്റന്റ് ടൗൺപ്ലാനർ)
22. ശ്രീ. കെ.എസ്.രാധാകൃഷ്ണ (Ist ഗ്രേഡ് സർവ്വേയർ, ടൗൺ പ്ലാനിംഗ് ഡിപ്പാർട്ട്മെന്റ്)
23. ഡോ.പി.ഡി. സുരേഷ് (സീനിയർ വെറ്റിറനറി സർജൻ, പോളി ക്ലിനിക്, കൊടുങ്ങല്ലൂർ)
24. ശ്രീ.ആർ.എം. പവിത്രൻ (റിസോഴ്സ് പേഴ്സൺ)
25. ശ്രീമതി. പ്രഭാവതി. കെ (സീനിയർ സൂപ്രണ്ട്, എ.ഇ.ഒ ഓഫീസ്)
26. ശ്രീമതി. സി.എസ്. സുഭദ്രകുമാരി (സി.ഡി.പി.ഒ, ഐ.സി.ഡി.എസ്)
27. ശ്രീമതി. ശാലിനി.കെ.ഡി (സൂപ്പർവൈസർ, ഐ.സി.ഡി.എസ്)

28. ശ്രീ. ടി.എസ്. ആനന്ദൻ (അസിസ്റ്റന്റ് എക്സി. എഞ്ചിനീയർ, കെ.എസ്.ഇ.ബി)
29. ശ്രീമതി. അശ്വതി അയ്യപ്പൻ (എൽ.ഡി.ക്ലർക്ക്, താലൂക്ക് ഹോസ്പിറ്റൽ)
30. ശ്രീമതി. ലിജി. പി.വി (എസ്.സി. പ്രൊമോട്ടർ)
31. ശ്രീമതി. സുജിത. സി.എൻ (എസ്.സി. പ്രൊമോട്ടർ)
32. ശ്രീമതി. പ്രബീന സന്തോഷ്കുമാർ (എസ്.സി. പ്രൊമോട്ടർ)

യോഗത്തിൽ എടുത്ത പ്രധാന തീരുമാനങ്ങൾ ചുവടെ ചേർക്കുന്നു.

കൃഷി, മൃഗസംരക്ഷണം, ക്ഷീരവികസനം, ജലസേചനം, നീർത്തട പരിപാലനം

1. പൊതുകുളങ്ങൾ, സ്വകാര്യവ്യക്തികളുടെ കുളങ്ങൾ, തോടുകൾ എന്നിവയുടെ സൈഡ് കെട്ടി സംരക്ഷണം നടത്തുവാൻ തീരുമാനിച്ചു. ഇവയുടെ വാർഡടിസ്ഥാനത്തിലുള്ള ലിസ്റ്റ് അതാത് കൗൺസിലർമാർ ലഭ്യമാക്കും.
2. ഉപ്പുവെള്ളം കയറാതിരിയ്ക്കാൻ സ്ലൂയ്സ് സ്ഥാപിക്കൽ - വാർഡ് - 19, 20, 21, 22, 26, 27, 36, പുല്ലൂറ്റ് പെരിങ്കൽപ്പാടം
3. 1,2,11,12,13,26,27,29,31,36,37,40,43 എന്നീ വാർഡുകളിലെ പുരയിടങ്ങളിലും, ഒഴിഞ്ഞുകിടക്കുന്ന പാടശേഖരങ്ങളിലും ക്ലസ്റ്റർ അടിസ്ഥാനത്തിൽ ഓരോ വർഷവും ഒരു മാതൃകാതോട്ടം തിരഞ്ഞെടുത്ത് തെങ്ങ്, പഴം, പച്ചക്കറി കൃഷിയ്ക്ക് ആവശ്യമായ പ്രോത്സാഹനം നൽകുന്ന രീതി അവലംബിക്കുന്നതിന് തീരുമാനിച്ചു.
4. തെക്കേനടയിലെ പഴയ മുനിസിപ്പൽ ബിൽഡിംഗിൽ ലേബർ ബാങ്ക് തുടങ്ങുവാൻ തീരുമാനിച്ചു.
5. ഉത്സവ സമയങ്ങളിൽ മാതൃകാതോട്ടങ്ങളിൽ നിന്നുമുള്ള ജൈവ പച്ചക്കറി ഉപയോഗിച്ചുള്ള ഭക്ഷണം നൽകുന്ന കൗണ്ടറുകൾ അമ്പലപരിസരത്ത് സ്ഥാപിക്കുവാൻ തീരുമാനിച്ചു.
6. അരാകുളം, പടാകുളം, ധളവാകുളം കരിശ്ശാംകുളം എന്നീ കുളങ്ങളിൽ കിണർ കുഴിച്ചുള്ള വാട്ടർ റീച്ചാർജിംഗ് മാതൃകകൾ , മഴവെള്ള സംഭരണമാർഗ്ഗങ്ങൾ എന്നിവ അവലംബിക്കുന്നതിന് തീരുമാനിച്ചു.
7. കൊടുങ്ങല്ലൂരിൽ നിലവിലുള്ള സമാജങ്ങളുടെ സഹകരണത്തോടെ പൊതു പങ്കാളിത്തമുള്ള ഡയറിഫാമുകൾ ആരംഭിക്കുന്നതിന് തീരുമാനിച്ചു. ജൈവവള ഉൽപ്പാദനം ലക്ഷ്യം വച്ചുള്ള ബയോഗ്യാസ്, കമ്പോസ്റ്റ് യൂണിറ്റുകൾ പ്രസ്തുത ഡയറിഫാമുകളിൽ സ്ഥാപിക്കുന്നതിന് തീരുമാനിച്ചു.

മത്സ്യബന്ധനം

1. പടാകുളം, ചേന്ദൻകുളം, ധളവാകുളം കരിശ്ശാംകുളം എന്നീ മുനിസിപ്പൽ കുളങ്ങൾ ശുദ്ധജല മത്സ്യകൃഷിയ്ക്ക് ഉപയുക്തമാക്കുന്നതിന് തീരുമാനിച്ചു.
2. നിലവിൽ ചെമ്മീൻ കൃഷി ചെയ്യുന്ന സ്ഥലങ്ങളിൽ ഞണ്ട് കൃഷി, വനാമി കൃഷി പ്രോത്സാഹിപ്പിക്കാവുന്നതാണ്.
3. പുഴ, കായൽ എന്നിവിടങ്ങളിൽ കേജ് കൾച്ചർ പരിശീലിപ്പിക്കുകയും പ്രോൽസാഹിപ്പിക്കുകയും ചെയ്യുക.
4. ഫിഷറീസ് ഓഫീസുമായി ബന്ധപ്പെട്ട് നിലവിലെ മുനിസിപ്പൽ ഓഫീസ് ബിൽഡിംഗിൽ(കിഴക്കേനട) ട്രെയ്നിംഗ് സെന്റർ കം സീഡ് ബാങ്ക്
5. ഞണ്ട് കൃഷി പരമാവധി കാര്യക്ഷമമായി പ്രോൽസാഹിപ്പിച്ച് കൊടുങ്ങല്ലൂരിന്റെ തനതായ ഇനം വികസിപ്പിച്ചെടുക്കുക.
6. ആനാപ്പുഴ ഫിഷ് പ്രൊസസ്സിംഗ് സെന്റർ - ടൂറിസം മേഖലയ്ക്ക് ഉപയുക്തമാക്കാവുന്ന മൂല്യ വർദ്ധിത ഉൽപ്പന്നങ്ങളുടെ യൂണിറ്റ്
7. പന്തീരാംപാല, നാരായണമംഗലം എന്നിവിടങ്ങളിലെ ഫിഷ് ഫാമുകളിൽ ബോട്ടിംഗ്, റെസ്റ്റിംഗ്, ഭക്ഷണ സൗകര്യങ്ങൾ എന്നിവ ഏർപ്പെടുത്തി ടൂറിസം മേഖലയുമായി ബന്ധപ്പെടുത്തുക.
8. ആധുനിക സംവിധാനങ്ങളോടു കൂടിയ ഡ്രൈയിംഗ് യാർഡ് കോട്ടപ്പുറം മാർക്കറ്റിൽ സ്ഥാപിക്കാവുന്നതാണ്.

9. ആനപ്പുഴ നിർദ്ദിഷ്ഠ ഫിഷ് ലാന്റിംഗ് സെന്ററിനോടനുബന്ധിച്ച് ഓക്ഷൻ ഹാൾ
10. അലങ്കാര മത്സ്യ വിൽപ്പന കേന്ദ്രങ്ങൾ - അരാകുളം

ടൂറിസം

1. ടൂറിസം വാരാഘോഷത്തോടനുബന്ധിച്ച് കൊടുങ്ങല്ലൂരിലെ പ്രധാന കേന്ദ്രങ്ങളെ ബന്ധിപ്പിച്ചുള്ള ഏകദിന ട്രിപ്പുകൾ

   ശൃംഗപുരം അറൈവൽ സെന്റർ - കൊടുങ്ങല്ലൂർ അമ്പലം - ചേരമാൻ പള്ളി - തിരുവഞ്ചിക്കുളം അമ്പലം - ചേരമാൻ പറമ്പ് - കോട്ടപ്പുറം ബോട്ട് ജെട്ടി - കോട്ടപ്പുറം കോട്ട - പന്തീരാംപാല മത്സ്യഫാം - നാരായണമംഗലം മത്സ്യഫാം - ശൃംഗപുരം അറൈവൽ സെന്റർ
2. വെബ്സൈറ്റ് നിർമ്മാണം
3. 11,12,15 എന്നീ വാർഡുകളിൽ നിലവിലുള്ള ഫിഷ് ഫാമുകളിൽ അക്വാടൂറിസം - ബോട്ടിംഗ്, ആങ്ക്ളിംഗ്, ഫുഡ് കോർട്ട്, റെസ്റ്റിംഗ്
4. മുനിസിപ്പൽ ക്ലോംപ്ലക്സുകൾക്കു മുകളിൽ താൽക്കാലിക താമസസൗകര്യങ്ങൾ (ഡോർമിറ്ററികൾ) ഭരണി, താലപ്പൊലി തുടങ്ങിയ ഉത്സവസമയങ്ങളിൽ വിനോദ സഞ്ചാരികൾക്ക് കുറഞ്ഞ ചിലവിൽ ലഭ്യമാക്കാവുന്നതാണ്.
    - നിലവിലെ മുനിസിപ്പൽ ഓഫീസ് ബിൽഡിംഗ്(കിഴക്കേനട)
    - നിർദ്ദിഷ്ഠ മുനിസിപ്പൽ ഓഫീസ് ബിൽഡിംഗ്(തെക്കേനട)
    - മാർക്കറ്റ് ഷോപ്പിംഗ് ക്ലോംപ്ലക്സ്, കാവിൽക്കടവ്
    - മുനിസിപ്പൽ ഓഫീസ് ബിൽഡിംഗ്(മേത്തല)
5. അരാകുളം, പടാകുളം, ധളവാകുളം എന്നിവയുടെ ബ്യൂട്ടിഫിക്കേഷൻ

സാമൂഹ്യക്ഷേമം, ദാരിദ്ര്യനിർമ്മാർജ്ജനം

1. നിലവിലെ മുനിസിപ്പൽ ഓഫീസ് ബിൽഡിംഗിൽ(കിഴക്കേനട) സ്ത്രീകൾക്കായി സഖി സെന്റർ
2. നിലവിലുള്ള നാരായണമംഗലത്തെ ഓൾഡ് ഏജ് ഹോമിനായി സ്പോൺസർഷിപ്പ് സംഘടിപ്പിക്കുക
3. റിക്രിയേഷൻ ക്ലബ്ബ് - വാർഡ് 9, പി.ഡബ്ലിയു. കോളനി നവീകരണം
4. നിലവിലുള്ള പ്രത്യാശ സ്ക്കൂളിനെ ബഡ്സ് സ്ക്കൂളായി മാറ്റുക
5. ജാഗ്രതാ സമിതി, ചൈൽഡ് പ്രൊട്ടക്ഷൻ കമ്മിറ്റി എന്നിവയുടെ പുന:രൂപീകരണം
6. മേനക കോളനി - ഫ്ളാറ്റ് നിർമ്മിച്ച് പുനരധിവാസം സാധ്യമാക്കുക

പട്ടികജാതി വികസനം

1. ചാപ്പാറയിലുള്ള പട്ടികജാതി ക്രിമറ്റോറിയം നവീകരിക്കുക
2. നിലവിലുള്ള കെ.കെ.വേലായുധൻ സ്മാരക ലൈബ്രറി നവീകരിക്കുക. പട്ടിക ജാതി റിസോഴ്സ് സെന്റർ ഇവിടെ സ്ഥാപിക്കുക.
3. പുല്ലൂറ്റ് നിർമ്മിച്ച പ്രീമെട്രിക് ഹോസ്റ്റലിനെ ട്രെയ്നിംഗ് കേന്ദ്രമായി ഉപയോഗപ്പെടുത്തുക
    - കൈത്തൊഴിൽ പരിശീലന കേന്ദ്രം
    - ഗ്രാന്റുകളെക്കുറിച്ചുള്ള ബോധവൽക്കരണ ക്ലാസ്സുകൾ
4. ജില്ലാ തലത്തിലുള്ള പ്രോജക്ടുകളിൽ എസ്.സി കുടുംബങ്ങളെ ഉൾപ്പെടുത്തുവാൻ തീരുമാനിച്ചു.
5. ചാപ്പാറ ഹരിജൻ കോളനിയിൽ കമ്മ്യൂണിറ്റി സെപ്റ്റിക് ടാങ്ക്

ആരോഗ്യം

1. ആനാപ്പുഴ, ചാപ്പാറ, നാരായണമംഗലം, ഉഴുവത്തുകടവ് എന്നിവിടങ്ങളിൽ പ്രാഥമിക ആരോഗ്യകേന്ദ്രങ്ങൾ സ്ഥാപിക്കുക.
2. താലൂക്ക് ആശുപത്രിയുടെ നവീകരണം - ഇരിപ്പിട സൗകര്യങ്ങൾ, പാർക്കിംഗ്, എസ്.ടി.പി
3. താലൂക്ക് ആശുപത്രിയോടനുബന്ധിച്ച് അന്യസംസ്ഥാന തൊഴിലാളികൾക്ക് ആരോഗ്യ കാർഡ്, ചികിത്സാ ക്യാമ്പ്.

വ്യവസായം

1. ഇന്റസ്ട്രിയൽ എസ്റ്റേറ്റിൽ സ്ത്രീകളെ ഉൾപ്പെടുത്തി മത്സ്യ സംസ്ക്കരണ യൂണിറ്റ് ആരംഭിക്കാവുന്നതാണ്.
2. പാലുൽപ്പന്നങ്ങൾക്കായി യൂണിറ്റ് കുടുംബശ്രീയുടെ സഹായത്തോടെ ഡയറിഫാമുകളെ കേന്ദ്രീകരിച്ച് ആരംഭിക്കാവുന്നതാണ്.
3. കോട്ടപ്പുറം മേഖലയിൽ ബ്രാൻഡഡ് ഉണക്കമത്സ്യ സംസ്ക്കരണ യൂണിറ്റ് എന്നിവ ആരംഭിക്കാവുന്നതാണ്.

പശ്ചാത്തലമേഖല

റോഡ്സ്

1. **നിർദ്ദിഷ്ഠ തീരദേശ റോഡ്** : കോതപറമ്പ് ഈസ്റ്റ് - വയലാർ- ഉഴുവത്ത് കടവ് - കാവിൽകടവ് - ശൃംഗപുരം ഈസ്റ്റ് - ആനാപ്പുഴ - കോട്ടപ്പുറം - പടന്ന :- 15 മീറ്റർ വീതി - കോൺക്രീറ്റ് റോഡ്
2. റോഡ് വീതി കൂട്ടൽ
    1. ചേരമാൻ - അഴീക്കോട് റോഡ് : 15 മീറ്റർ
    2. ചന്തപ്പുര - എറിയാട് റോഡ് : 15 മീറ്റർ
    3. പടാകുളം - അഴീക്കോട് റോഡ് : 12 മീറ്റർ
    4. നാരായണമംഗലം - വെള്ളൂർ റോഡ് : 12 മീറ്റർ
    5. തച്ചപ്പിള്ളി റോഡ് : 12 മീറ്റർ
    6. ചാപ്പാറ - പന്തീരാംപാല റോഡ് : 12 മീറ്റർ
    7. ശൃംഗപുരം ബോയ്സ് ഹൈസ്ക്കൂൾ - ടി.കെ.എസ്. പുരം റോഡ്: 12 മീറ്റർ
    8. താലൂക്ക് ഹോസ്പിറ്റൽ - ശാന്തി ഹോസ്പിറ്റൽ - വെറ്റിറനറി പോളിക്ലിനിക് റോഡ്: 12 മീറ്റർ
    9. ശൃംഗപുരം ബോയ്സ് ഹൈസ്ക്കൂൾ വെസ്റ്റ് നോർത്ത് - അഞ്ചപ്പാലം റോഡ്: 8 മീറ്റർ
    10. ടി.കെ.എസ് പുരം - കടുക്കച്ചുവട് റോഡ്: 8 മീറ്റർ
    11. അറക്കത്താഴം - ചാണയിൽ ടെമ്പിൾ റോഡ്: 8 മീറ്റർ
    12. എൻ.എച്ച് 17 - വയലാർ റോഡ്: 8 മീറ്റർ
    13. മോഡേൺ ഹോസ്പിറ്റൽ - ജെ.ടി.എസ് റോഡ്: 10 മീറ്റർ
    14. വാർഡ് 1 വെസ്റ്റ് റോഡ്: 8 മീറ്റർ

ഇൻഫ്രാസ്ട്രക്ച്ചർ

1. തെക്കേനടയിൽ പഴയ മുനിസിപ്പൽ ഓഫീസ് കെട്ടിടം പുതുക്കിപ്പണിത് മുനിസിപ്പൽ ഓഫീസ് പ്രസ്തുത കെട്ടിടത്തിലേക്ക് മാറ്റുന്നതിനും നിലവിലുള്ള മുനിസിപ്പൽ ലൈബ്രറിയെ ഡിജിറ്റൽ ലൈബ്രറിയായി നവീകരിക്കുന്നതിനും തീരുമാനിച്ചു.
2. ചേരമാൻ പറമ്പിൽ സ്റ്റേഡിയം
3. നീന്തൽകുളം - വാർഡ് 23ലെ മാടംകുളം നവീകരണം
4. നിലവിലുള്ള ടൗൺഹാൾ നവീകരണം

കുടിവെള്ളം

1. നാരായണമംഗലത്ത് കെ.ഡബ്ലിയു.എ കോംമ്പൗണ്ടിൽ പുതിയ ടാങ്ക്, നിലവിലുള്ള പൈപ്പുകൾ മാറ്റി പുതുക്കിയ നെറ്റ് വർക്ക്
2. എല്ലാ കെട്ടിടങ്ങൾക്കും മഴവെള്ള സംഭരണി നിർബന്ധമായും സ്ഥാപിക്കുവാനുള്ള നടപടി സ്വീകരിക്കുവാൻ തീരുമാനിച്ചു.

വിദ്യാഭ്യാസം

1. ശ്യംഗപുരം ബോയ്സ് ഹൈസ്ക്കൂൾ ഗ്രൗണ്ടിലെ വെള്ളക്കെട്ട് ഒഴിവാക്കുവാൻ ഡ്രെയ്നേജ്
2. പുല്ലൂറ്റ് ബോയ്സ് ഹയർസെക്കണ്ടറി സ്ക്കൂൾ ഗ്രൗണ്ട് നവീകരണം
3. ടൗണിലെ ഗവൺമെന്റ് ഗേൾസ് ഹൈസ്ക്കൂളിലെ സ്ഥലപരിമിതി കണക്കിലെടുത്ത് കാര്യക്ഷമമായ സ്ഥലവിനിയോഗത്തിനായും തുറസ്സായ സ്ഥലങ്ങൾ നിലനിർത്തുന്നതിനായും പുതുതായി നിർമ്മിക്കുന്ന കെട്ടിടങ്ങൾ നിലവിലെ കെട്ടിടങ്ങളുടെ മുകൾനിലകളിലായി പണിയുന്നതിനും തീരുമാനിച്ചു
4. കലാ - പൈതൃക പഠനങ്ങൾക്കായി ചേരമാൻ പറമ്പിലെ ആക്ടിവിറ്റി സെന്ററിനോടനുബന്ധിച്ച് പഠന കേന്ദ്രം
5. നിലവിലെ ടെക്നിക്കൽ സ്ക്കൂളിനോടനുബന്ധിച്ച് പോളിടെക്നിക്
6. പ്ലസ്സ് ടു വിദ്യാർത്ഥികൾക്ക് സോഫ്ട് സ്കിൽ ഡെവലപ്പ്മെന്റ് കോഴ്സ്-മേത്തല സയൻസ് സെന്ററിൽ

ഊർജ്ജം

1. കൊടുങ്ങല്ലൂർ അമ്പലത്തിന് ചുറ്റുമുള്ള റോഡുകളോട് ചേർന്ന് under ground cabling
2. തെക്കേനട, ചന്തപ്പുര, കോട്ടപ്പുറം മാർക്കറ്റ് പരിസരം എന്നിവിടങ്ങളിൽ ഹൈമാസ്റ്റ് ലൈറ്റ്
3. മുനിസിപ്പാലിറ്റിയുടെ ഉടമസ്ഥതയിലുള്ള കെട്ടിടങ്ങളിൽ സോളാർ പാനൽ
    - നിലവിലെ മുനിസിപ്പൽ ഓഫീസ് ബിൽഡിംഗ്(കിഴക്കേനട)
    - നിർദ്ദിഷ്ഠ മുനിസിപ്പൽ ഓഫീസ് ബിൽഡിംഗ്(തെക്കേനട)
    - മാർക്കറ്റ് ഷോപ്പിംഗ് ക്ലോംപ്ലക്സ്, കാവിൽക്കടവ്
    - ടൗൺ ഹാൾ കെട്ടിടം
    - താലൂക്ക് ആശുപത്രി , PHC
    - മിനി സിവിൽ സ്റ്റേഷൻ
4. സ്ട്രീറ്റ് ലൈറ്റിങ്ങിനായി LED സംവിധാനങ്ങളുടെ ഉപയോഗം

പരിസ്ഥിതി

1. 8,9,10,11,12,13,15 എന്നീ വാർഡുകളിൽ നിലനിർത്താവുന്ന പാടശേഖരങ്ങൾ, ചെമ്മീൻ കെട്ടുകൾ എന്നിവ സംരക്ഷിക്കുന്നതിന് തീരുമാനിച്ചു.
2. വായു മലിനീകരണം കുറയ്ക്കുന്നതിന് പബ്ലിക് ബിൽഡിങ്ങുകളുടെ മുൻപിൽ ട്രീ ക്ലാഡിംഗ് നൽകുന്നതിന് തീരുമാനിച്ചു.
3. വനം വകുപ്പുമായി സഹകരിച്ച് സ്വകാര്യ വ്യക്തികൾക്ക് മരം നട്ട് പിടിപ്പിക്കുന്നതിനുള്ള പദ്ധതി രൂപീകരിക്കുന്നതിന് തീരുമാനിച്ചു.
4. കൊടുങ്ങല്ലൂർ അമ്പലം, ചേരമാൻ പള്ളി, താലൂക്ക് ആശുപത്രി , ഗവൺമെന്റ് ഗേൾസ് ഹൈസ്ക്കൂൾ,മുൻസിഫ് കോടതി, ശ്യംഗപുരം ബോയ്സ് ഹൈസ്ക്കൂൾ, പുല്ലൂറ്റ് ബോയ്സ് ഹയർസെക്കണ്ടറി സ്ക്കൂൾ എന്നിവയുടെ പരിസരങ്ങളിൽ ഹോൺ റെസ്ട്രിക്ഷന് വേണ്ടിയുള്ള സൈൻ ബോർഡുകൾ വയ്ക്കുന്നതിന് തീരുമാനിച്ചു.

5. ശബ്ദം നിയന്ത്രിക്കുന്നതിന്റെ ആവശ്യകത വ്യക്തമാക്കുന്ന ബോധവൽക്കരണ ക്ലാസ്സുകൾ നടത്തുന്നതിന് തീരുമാനിച്ചു..
6. മേത്തല വില്ലേജിന്റെ തെക്ക് ഭാഗങ്ങളിലെ സുനാമി സാധ്യതാ പ്രദേശങ്ങളിൽ കണ്ടൽ കാടുകൾ നട്ട് സംരക്ഷണം ഉറപ്പുവരുത്തൽ

മാലിന്യ നിർമ്മാർജ്ജനം

1. NH, PWD, Irrigation, Municipality എന്നീ വകുപ്പുകളുടെ സഹകരണത്തോടെ ഡ്രെയ്നേജ് സിസ്റ്റം വിപുലീകരിക്കൽ
2. മാർക്കറ്റ് കോംപ്ലക്സിലുള്ള സീവേജ് ട്രീറ്റ്മെന്റ് പ്ലാന്റിലേക്ക് അഴുക്കുചാലിൽ നിന്നുമുള്ള മലിനജലം എത്തിച്ച് ശുദ്ധീകരിച്ചതിനുശേഷം ജലാശയങ്ങളിലേക്ക് ഒഴുക്കുന്നതിന് പദ്ധതി.
3. കൊടുങ്ങല്ലൂരമ്പലത്തിൽ നിർമ്മാണത്തിലിരിക്കുന്ന ടോയ്ലറ്റ് ബ്ലോക്കിനോടനുബന്ധിച്ച് സീവറേജ് ട്രീറ്റ്മെന്റ് പ്ലാന്റ് സ്ഥാപിക്കൽ
4. ഖരമാലിന്യം ഉറവിടത്തിൽ തന്നെ സംസ്ക്കരിക്കുന്നതിന്റെ ഭാഗമായി വീടുകൾ/ ഫ്ളാറ്റ് / റെസിഡൻസ് അസോസിയേഷനുകൾ എന്നിവ കേന്ദ്രീകരിച്ച് പൈപ്പ് കമ്പോസ്റ്റിങ്ങ് നൽകുന്നതിന് തീരുമാനിച്ചു.
5. കംഫർട്ട് സ്റ്റേഷൻ/ ഇ-ടോയ്ലറ്റ് ഫെസിലിറ്റികൾ താഴെപ്പറയുന്ന സ്ഥലങ്ങളിൽ നൽകുവാൻ തീരുമാനിച്ചു.
    - താലൂക്ക് ഹോസ്പിറ്റൽ
    - ചന്തപ്പുര ബസ് സ്റ്റാന്റ്
    - മിനി സിവിൽ സ്റ്റേഷൻ
    - KSRTC ബസ് സ്റ്റാന്റ്

യോഗം 5.00 pm ന് അവസാനിച്ചു.

വൈസ് ചെയർമാൻ
കൊടുങ്ങല്ലൂർ നഗരസഭ

11/9/2013 Kodungallur Municipality

കൊടുങ്ങല്ലൂർ നഗരവികസന Masterplan preparation ന്റെ ഭാഗമായി Spatial Integration Committee യുടെ (SIC) ഒരു നിരീക്ഷണയോഗവും അവലോകനവും September 11 ന് രാവിലെ 10.30 ന് നഗരസഭ കൗൺസിൽ ഹാളിൽ വച്ച് നടന്നു. പ്രസ്തുത യോഗത്തിന്റെ ഹാജർ ചുവടെ ചേർക്കുന്നു.

ശ്രീമതി സുനിതാലക്ഷ്മി ടെ ജൂനിയർ സൂപ്രണ്ട്. KOLR.	Ajitha
P.P.	M.B. Ajitha.
Shabnaz Pauliyath, Agri-officer Methala	
P.V. Nirmala Agri. Assistant KB Kodungallur	P.V.Nirmala
Savitha. C.A. Muziris Heritage project	
I.V. Rajeevan.	
K.G. Ramadas - Inspector of Fisheries, Kodungallur	
Dr. P.D. Suresh, Senior Vet surgeon VPC Kodungallur	
A.V. Kumara Paniker	
V.R. [illegible]	K.K Nafu
[illegible]	
V.G. [illegible]	
K.M. Prathiva Resource person	
M.K. [illegible]	
Savitha. P.V AE Kodungallur Municipality.	AE.
[illegible] C.P. Ramesan	
P.P [illegible]	
C.K. [illegible] PWSC [illegible]	
Jinumole Varghese DyTP Thrissur	
Seena Liza Xavier ATP Thrissur	
Rasiya Haridas standing committee Chairperson	Rasiya

[illegible] Ex chairperson.

2. PM

1) Prabhavathi. K. Education, S.S o/o the AEO Kodungallur. 11/1/13
2. Subhadralekshmi. C.S. CDPO ICDS Kodungallur
3. Sreeja. V.D ICDS Supervisor
4. Dolly Dilshan Councillor
5 I.V. Rajeevan JHI
6, V.G. VIJAYAKRISHNAN.
7, T.S. Anandan, AEE, ESD, Kodungallur
8. Ramanathan. C.K. PWSC chairman
9 O.C. Joseph Counsellor. WARD. 25.
10. Suma Sivan, Ex. Chairperson.
11. Rasiya Hamides Standing Committee chairperson
12. Sreeja. P.V SE Promoter
13 Sujitha CN SE Promoter
14 Prabeena Santhoshkumar SE Promoter Prabeena.V.K.
15 Ashokbabu Ayyappan LD Clerk THQH
16. K.S. Radhakrishnan. Immunization
17 P.G. Manoj

ANNEXURE 9

SPATIAL INTEGRATION COMMITTEE WORK SHOP –KODUNGALLUR MASTER PLAN

















ANNEXURE 10

VIKASANA SEMINAR- KODUNGALLUR MASTER PLAN















