



# Master Plan for

# KOLLAM CITY - 2041



## FOREWORD

Kollam is etched deep in history with glorious and sustained commercial reputation and had great influence in the developments in and around the region. As of today, Kollam is the fourth-largest city in Kerala as far as population is concerned. Cities, the generators of economic momentum, need to cope up with the diverse and vibrant problems of varying magnitude and directions as a result of rapid urban sprawl. In order to sustain the high economic growth, cities have to be efficient and competitive. It is imperative to formulate strategies to counter the issues and channelize urban development in a fruitful way for the people as well as the area. Since the problems and issues in urban development are complex and multi dimensional, a Master Plan can help a long way in ensuring that the planning area meets the needs and requirements of current and future generations with sustained economic growth and better living conditions.

Kollam Municipal Corporation in its council meeting convened on 07.12.2021 had decided to adopt the draft Master Plan prepared by the Chief Town Planner as the draft Master Plan of Kollam Municipal Corporation prepared under Atal Mission for Rejuvenation and Urban Transformation (AMRUT) scheme with or without modification and also decided to constitute a Special Committee to give recommendations on the draft Master Plan. After publishing the intention on the adoption of draft Master Plan as per section 36(1) of Town and Country Plan Act, the Plan was thoroughly verified by the Special Committee in consultation with various stake holders including councillors, officials and other experts. Finally the draft Plan was modified by the Special Committee. The Municipal Council in its meeting held on 27.10.2022 have passed resolution to approve the draft Master Plan with the modifications recommended by the Special Committee.

GIS based Master Plan under AMRUT is prepared after reviewing the sanctioned Development Plan for Kollam, Detailed Town Planning Schemes and Greater Kollam Development Plan published in 2012. These plans were instrumental to certain extent in shaping the present day Kollam Town. The draft Plan was modified after conducting *extensive* discussions with various stakeholders including MP, MLAs, Division Councillors, *officials in line* departments, NGOs and other experts in planning. The Master Plan is formulated for a horizon period of 2041 with a vision for transforming the city more productive and sustainable. Various proposals for developing production sectors and for conserving environmentally sensitive

areas and infrastructure development were included in the draft Mater Plan other than proposed landuse map, transportation network and zoning regulations.

I am grateful to the Office of LSGD Planning, Kollam headed by Smt. Shary M.V, District Town Planner, for their guidance and technical support rendered for completing the draft Master Plan. Special Committee which have distinct roles and responsibilities in the mullifarious task of modification of the draft Plan have sincerely involved in all stages. The contributions of the councillors in proposing various suggestions in the draft are praiseworthy symbolising their active involvement in the exercise. I compliment the Office of the Chief Town Planner, LSGD Planning, Government of Kerala for their technical guidance in the modification of draft Master Plan. The challenge now is to implement the Plan effectively and efficiently so that not only do we maximise the benefit from the proposals but also that we ensure people from all walks of life in the planning area see positive results from the anticipated developments consequent to realisation of the Plan proposals. I am certain that all divisions and Kollam Municipal Corporation area as a whole will rise to the occasion and reap maximum benefits from the plan.

Kollam

10/10/2023



**Prasanna Earnest**

**Mayor, Kollam Municipal Corporation**

## PREFACE

Atal Mission for Rejuvenation and Urban Transformation (AMRUT) scheme was launched with a total outlay of 515.00 crores with 100% centrally sponsored funding. The scheme focuses on infrastructure creation that has a direct link to provision of better services to the urban citizens such as assured supply of water & sewerage connections, development of greenery & well maintained open spaces and promotion of public transport and Non-Motorised Transport (NMT). Preparation of Geographical Information System (GIS) based Master Plans for selected cities is one of the 11 reforms under AMRUT. The Local Self Government Department Planning (erstwhile Department of Town and Country Planning) was entrusted to carry out the scheme of preparation of GIS based master plans for 9 cities under AMRUT scheme in which Kollam is also included. The officials were given extensive trainings and finally the most awaited Master Plan for Kollam City - 2041 is prepared.

The cities hold tremendous potential as engines of economic and social development by creating jobs and generating wealth through economies of scale. Planning intervention holds a pivotal role in bringing development in any area. While productivity growth will be the key driver of economic growth and prosperity, planning and management of natural resources and reduction of wastes are essential for sustainable development of cities. To be liveable, cities shall be equitable, socially inclusive, affordable, accessible, healthy, safe and resilient. They shall have attractive built and natural environments and shall provide a diversity of choices and opportunities to the people. The City of Kollam is a prominent commercial and industrial centre in the southern part of Kerala State and is well connected to important towns in Kerala and Tamil Nadu, both by roads and railways. It carries rich history of trade with foreign countries such as Babilonia, Mesapetomia etc from 4000 years back and the city possess a number of natural and manmade heritage precincts, tradition and culture.

Planners have recognized the need for a long term Development Plan for the Town considering the growth trend, resources potentials, locational aspects, etc. at very early stages, and prepared a Development Plan for the Town and environs for a period up to 2001 A.D. which was sanctioned by Government vide G.O. (MS) No. 219/86/LAD dated 03-11-1986. Vindicating the Planners judgment, the planning area delineated in this Plan has indeed developed into an influential urban centre in the District. The Plan has, to a certain

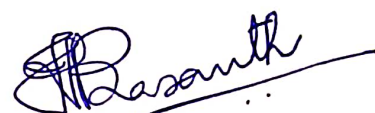
extent, been able to guide and control development of the planning area as envisaged. The Plan was further modified with reference to the socio-economic and political changes and the revised Development Plan for Kollam was sanctioned by Government vide G.O (Ms) No. 59/2010/LSGD dated 03-04-2010. Further Greater Kollam Development Plan with Kollam Municipal Corporation as the mother city and Gramapanchayats of Kottamkara, then Thrikkadaveer and Neendakara as the constituent local bodies was published in the year 2012.

The new Master Plan under AMRUT was prepared through a systematic process comprising of extensive data collection and analysis, identification of development issues, setting up of goals and objectives, formulation of development concept and carving out policies & strategies followed by detailed sectoral proposals, priority action plan and zoning regulations. The Master Plan aims for a more productive, sustainable and liveable Kollam and introduces various new concepts which are considered as the need of the hour like Sponge City, Knowledge Economy, Disaster Management, Household Nano Industrial Zone etc. other than prioritizing the sectoral proposals. Priority projects are identified with the help of various stakeholders and a detailed report on each project is included in the report so that the decision makers can easily prepare the Detailed Project Report for implementing the proposal. Another important initiative brought in the Master Plan is that the Detailed Town Planning (DTP) Schemes found as obsolete were evaluated by the Special Committee and decided to revoke such schemes so that people can develop their parcel of land as per the provision of new Master Plan.

The Special Committee chaired by the Hon. Mayor of Kollam, Smt. Prasanna Eames had extended all supports and exercised crucial role in the preparation of this draft Master Plan. An exclusive planning team was constituted in the Office of District Town Planner, Kollam in connection with the preparation of this Plan. I honestly place on record the sincere and devoted work done by Smt. Shary M.V, Town Planner and her dedicated team in completing the task on time. The sustained and collective efforts of the Special Committee and the Planning Team, culminated in the documentation of this Master Plan. I take this opportunity to appreciate the leadership provided by the Kollam Municipal Corporation officials headed by the former Secretary Sri. P.K. Sajeev and present Secretary Smt. Anu. R. As the planning exercise encompassed various sectors, it required the support and positive interaction with many public and private agencies and departments. It would be unfair

their collective contribution and cooperation are not acknowledged. I also appreciate the efforts of Late Smt. P.R. Ushakumari, former Senior Town Planner, Sri. S. Ajay Kumar, Senior Town Planner, Smt. Asha Ajay Ghosh, Town Planner, Smt. Isha P.A., Town Planner, Sri. T.K. Girish Kumar, Town Planner, Sri. Denzil Fernandez, Deputy Town Planner, Smt. Raji S.S., Deputy Town Planner and all other supporting staff of the Office of Chief Town Planner (Planning) for their efforts in vetting and finalisation of the Master Plan.

Certainly, the Master Plan will provide the frame work for coordinating developments in Kollam Municipal Corporation area for a more productive, sustainable and liveable Kollam.



**Sri. Prasanth H**

**Chief Town Planner (Planning)**

Thiruvananthapuram

05/12/  
10/10/2023



## ACKNOWLEDGEMENTS

Preparation of Master Plan for Kollam City was initiated as part of Atal Mission for Urban Rejuvenation and Transformation (AMRUT) scheme. Planning process was completed through a series of activities in a scientific manner including preparation of base map with the help of National Remote Sensing Agency and using Geographical Information System (GIS), systematic data collection, wide range of analyses by means of GIS, evolving development vision, formulating detailed proposals and development regulations. All the steps were accomplished through active participation of officials from various government departments, NGOs, experts in developmental activities and the public through their elected representatives including MP, MLA and Division Councillors. Considering the stupendous nature of the planning task and the intricacy of details involved. The right leadership and direction is very significant for the effective and successful completion of the Master Plan. I acknowledge with gratitude the guidance and involvement of Smt. Prasanna Earnest, present Mayor of Kollam Municipal Corporation, Sri. Kollam Madhu, Deputy Mayor, Smt. Honey Benchamin, Town Planning Standing Committee, Sri. V. Rajendra Babu, former Mayor, Chairpersons of all other Standing Committees and all other Councillors during the process of preparation of Master Plan. I take this opportunity to acknowledge the whole hearted support provided by the KLMC officials headed by the former Secretary Sri. P.K. Sajeev and present Secretary and convenor of Special Committee Smt. Anu. R.S.

Sri. Pramod Kumar C.P, Chief Town Planner and former Chief Town Planners Sri. Shaji Joseph, Sri Gigi George and Smt. K S Girija, were a great source of constant motivation and inspiration in accomplishing this study. Their advices and patronage are gratefully acknowledged. The guidance, technical support and leadership provided by Sri. Prasanth.H, Chief Town Planner (Planning) was immensely helped in the successful completion of the Master Plan. I sincerely acknowledge the invaluable and timely support rendered by him. The consistent support and consultation rendered by Late Smt. P R Ushakumari, Senior Town Planner is indescribable. I overwhelmingly express my sincere gratitude and acknowledge her invaluable support at this juncture. Sri. S.Ajaykumar, Senior Town Planner, Smt. Asha Ajay Ghosh, Smt. Isha P.A and Sri. T.K.Gireesh Kumar, Town Planners, Smt. Raji.S.S and Sri. Denzil Fernadas, Deputy Town Planners and all other supporting staffs in the State Project Cell have meticulously helped in completing the plan on time. I am glad to acknowledge the help offered by them.

The guidance given by Sri. Jacob Easow, former Addl. Chief Town Planner who has involved directly in various planning works in Kollam for a long time including preparation of Integrated District Development Plan which is considered as an umbrella plan for the spatial planning of the local bodies in the district and Dr. Ramaswami, renowned Conservation Architect with vast knowledge in the history, tradition and culture of Kollam was not only significant but also laudable. Dr. Manoj Kumar Kini, an eminent Urban Designer and special invitee of Special Committee who has been involving in various urban and regional planning activities in the district has extended technical support in shaping the plan highlighting the heritage and cultural values of the city. I am very glad to acknowledge the technical support provided by Sri. Jacob Easow, Dr. Ramaswami and Dr. Manoj Kumar Kini.

The concerted effort of the staff of the district office was incredible in the process of preparation of Master Plan starting from base map preparation to the report writing. I would like to express my sincere gratitude to Sri. K Baiju, former Senior Town Planner who had initiated the process and continued in giving suggestion during the process of preparation. I also acknowledge the service of Sri. Arun Joseph, former Deputy Town Planner, Smt. Priya N Assistant Town Planner, Smt. Zahna Sheriff, former Planning Assistant and Smt. Neethimol.C.R Town Planning Surveyor, who had actively involved in field verification and preparation of base map. I also express my sincere gratitude to Sri. Vishnu Ravi Moorthi, Assistant Town Planner, Smt.Vijayalekshmi P, former Research Officer, Smt.Shiji P N, former Statistical Assistant Sri. Sreejith K. R, former Planner Associate, Smt. Anzy.A, former Planning Assistant (GIS) and Sri. Hari Suresh, former Computer Assistant (GIS) for their contribution in preparing the preliminary report. I highly appreciate the constant effort of Sri. Abhijith B, Assistant Town Planner in modifying the preliminary report by incorporating various suggestions from the Special Committee after re visiting the information gathered previously and conducting various stakeholder discussions and field visits with the whole hearted support of Smt. Deepthi R Nath and Smt. Sruthy Vijayan, Town Planning Surveyors, Sri. Sarath S S, Tracee and Kum. Iyrin Anna Johnson, former Computer Assistant(GIS)and Ashma A, former Planning Assistant (GIS)and Sri. Kunjumon S, former Computer Assistant (office). I also acknowledge the special assistance provided by Smt. Divya.D.S, Planning Assistant (GIS), Office of the Chief Town Planner for final modifications of maps. I am very much grateful to the team for their consistent involvement in completing the revised draft of this Master Plan. I also acknowledge the assistance provided by Aswathi V, Ayesha Naushad, Chippy Nicholas



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Kollam

10/10/2023



Shary M V

**District Town Planner**

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## ABBREVIATIONS

AMRUT	Atal Mission for Rejuvenation and Urban Transformation
APSP	Anti-Poverty Sub Plan
AWMA	Ashtamudi Wetland Management Authority
BOD	Bio Chemical Oxygen Demand
BPL	Below Poverty Line
CAA	Constitutional Amendment Act
CCFI	Cumulative Commercial Facility Index
CCI	Combined Commercial Index
CDS	Community Development Society
CESS	Centre for Earth Science Studies
CFLTTC	Covid First Line Treatment Centre
CHC	Community Health Centre
CRZ	Coastal Regulation Zone
D.O	Dissolved Oxygen
DIC	District Industries Centre
DPC	District Planning Committee
DTPC	District Tourism Promotion Council
D.T.P SCHEME	Detailed Town Planning Scheme
EOC	Emergency Operations Centre's
ETP	Effluent Treatment Plant
FSTP	Faecal Sludge Treatment Plant
FCI	Food Corporation of India
GIS	Geographic Information System
GKDP	Greater Kollam Development Plan
G.P	Grama Panchayat
GPS	Global Positioning System
HSS	Higher Secondary school
HTL	High Tide Line
ICDP	Intensive Cattle Development Programme
ICT	Information and Communication Technology
IDDP	Integrated District Development Plan
IKM	Information Kerala Mission
IMAGE	Indian Medical Biomedical Waste and Disposal Facility
IMR	Infant Mortality Ratio
IP	In Patients
IRE	Indian Rare Earths
ITC	Industrial Training centre
ITI	Industrial Training Institute
IWT	Inland Water Transport
JICA	Japan International Corporation Agency
Jn.	Junction
JTPC	Joint Town Planning Committee
KBC	Kerala Back Waters Challenge
KDA	Kollam Development Authority
KIED	Kerala Institute of Entrepreneurship Development
KLMC	Kollam Municipal Corporation
KMML	Kerala Minerals and Metals Limited
KSRTC	Kerala State Road Transportation Corporation
KSEB	Kerala State Electricity Board
KSUDP	Kerala Sustainable Urban Development Project
KTDC	Kerala Tourism Development Corporation
KUDFC	Kerala Urban Development Finance Corporation
KWA	Kerala Water Authority
KWSS	Kerala Water Supply Scheme
LDP	Local Development Plan

LPCD	Liters Per Capita per Day
LSG	Local Self Government
LSGI	Local Government Institution
MLD	Million Litres per Day
MMR	Maternal Mortality Ratio
MSME	Micro Small Medium Enterprises
NATPAC	National Transportation Planning and Research Centre
MU	Million Unit
NEERI	National Environmental Engineering Research Institute
NGO	Non-Governmental Organisation
NH	National Highway
NMT	Non-Motorised Transport
NRHM	National Rural Health Mission
NRSC	National Remote Sensing Centre
NSDP	Net State Domestic Product
NTC	National Textile Corporation
O-D	Origin- Destination
ODK	Open Data Kit
OHT	Over Head Tank
PCU	Passenger Car Unit
PHC	Primary Health Centre
pp.sq.km	Persons per square kilometers
QAC	Quilon Athletic Club
QWSS	Quilon Water Supply Scheme
ROB	Railway Over Bridge
ROT	Reverse Osmosis Technology
RoW	Right of Way
RUTODEC	Rural Tourism Development Company
SC	Scheduled Caste
SPCA	Society for Prevention of Cruelty to Animals
ST	Scheduled Tribe
STP	Sewage Treatment Plant
SWTD	State Water Transport Department
TVU	Train Vehicle Unit
TS canal	Trivandrum- Shornur canal
TTI	Teachers Training institute
ULB	Urban Local Body
UPHC	Urban Primary Health Centre
URDPFI	Urban and Regional Development Plan Formulation and Implementation
V/C ratio	Volume to capacity ratio
VHSE	Vocational Higher Secondary Education
WPR	Work Participation Rate
YMCA	Young Men's Christian Association

# EXECUTIVE SUMMARY

## VISION

*“To transform Kollam City as a District Level Facility Centre with all sorts of higher order public facilities and required infrastructure and a Vibrant Multifunctional Zone of the district enhancing economic development by promoting key production sectors such as trade and commerce, fisheries, tourism, industries, and knowledge economy while ensuring equity and maintaining environmental balance so that quality of life of people is ensured.”*

The City of Kollam is a prominent commercial and industrial centre in the southern part of Kerala State and is well connected to important towns in Kerala and Tamil Nadu, both by roads and railways. It carries rich history of trade with foreign countries such as Babilonia, Mesapetomia etc from 4000 years back and the city possess a number of natural and manmade heritage precincts, traditions and culture. As of today, Kollam is the fourth-largest city in Kerala as far as population is concerned. The cities hold tremendous potential as engines of economic and social development by creating jobs and generating wealth through economies of scale. While productivity growth will be the key driver of economic growth and prosperity, planning and management of natural resources and reduction of wastes are essential for sustainable development of cities. However cities are facing with diverse and vibrant problems of varying magnitude and directions as a result of rapid urban sprawl. In order to sustain the high economic growth, cities have to be efficient and competitive. It is imperative to formulate strategies to counter the issues and channelize urban development in a fruitful way. Since the problems and issues in urban development are complex and multi dimensional, a Master Plan can help a long way in ensuring that the planning area meets the needs and requirements

of current and future generations with sustained economic growth and better living environment.

## BACKGROUND

Atal Mission for Rejuvenation and Urban Transformation (AMRUT) was launched with a total outlay of 515.00 crores with 100% centrally sponsored funding focus on infrastructure creation that has a direct link to provision of better services to the urban citizens such as assured supply of water and sewerage connections, development of greenery and well maintained open spaces and promotion of public transport and Non Motorised Transport (NMT). Preparation of Geographical Information System (GIS) based Master Plans for selected cities is one of the 11 reforms under AMRUT. The Department of Town and Country Planning (presently the LSGD Planning) was entrusted to carry out the scheme of preparation of GIS based Master Plans for 9 cities under AMRUT scheme in which Kollam is also included. The officials were given extensive trainings and finally the most awaited Master Plan for Kollam City is completed using GIS software under AMRUT scheme.

## PROCESS

The new Master Plan under AMRUT was prepared through a systematic process, comprising of preparation of base map, extensive data

collection and analysis, identification of development issues, setting up of goals and objectives, formulation of development concept and carving out policies & strategies followed by detailed sectoral proposals and zoning regulations. GIS software is extensively used for preparation of base map and for analysing settlement and sectoral characteristics of the planning area and for evolving development concept. All the steps were accomplished through active participation of officials from various government departments, NGOs, experts in developmental activities and the public through their elected representatives including M.P, MLA and division councillors. The draft Master Plan, prepared by the Chief Town Planner (Planning) observing various provisions of Town and Country Planning Act, 2016, was adopted and approved by Kollam Municipal Corporation with modifications after reviewing the draft Plan by the Master Plan Committee constituted by the council for this purpose.

## **IMPORTANT PROBLEMS AND POTENTIALS**

### ***Problems***

1. Kollam city, located at the western boundary of the district, is designated as the first order settlement and first order commercial node of the district as per the Integrated District Development Plan, Kollam and hence it is to be developed as the District Centre with all higher order facilities with various opportunities for economic and employment generation easily accessible to all the people of district. As the city falls within Multi Functional Zone and Aqua Bio Reserve Zones of the district and marginally within Special Development Zone, how to manage the developmental activities while conserving equally important environmentally fragile areas is identified as the main issue in the formulation of this Master Plan.
2. Urban land use other than residential is very low about (18%) comparing to non-urban

land use (about 27%). Also 13.22% of the total geographical area is covered by environmentally sensitive water bodies such as Ashtamudi Kayal, Vattakayal etc. Hence to perform the assigned role of planning area as a District Centre and I<sup>st</sup> order commercial node with Multi Functional areas, present land use pattern need to be changed.

3. Though population of Kollam is very low comparing to Kochi, Thiruvananthapuram, Kozhikkodu, Trissur, Palakkad and Kannur, gross population density in KLMC is higher than that of all the above corporations. Hence the pressure on land while developing the city will be very high.
4. The growth rate of Kollam Corporation is decreased to -2.94% in 2011, As Kochi, Kozhikode and Thiruvananthapuram show high growth rate comparing to KLMC, it is assumed that growth potential of the city comparing to other major cities of the might have reduced.
5. Share of land use for transportation is only 5.56% of the total land use area which is very low when compared with (12% to 14%) URDPFI guidelines and following are the main issues in transportation sector
  - Narrow roads in central part of the city
  - High traffic volume and low capacity of roads
  - Unorganised on-street parking in the absence of parking lots
  - Encroachment of right of way
  - Uncontrolled pedestrian traffic
  - Delay due to level crossings in CBD area
  - Location of intercity – Bus stand attracts more traffic to the city centre thereby creating traffic congestion.
  - Unorganised goods traffic through trucks and their loading/unloading problems within the Central area
  - Absence of NMT facilities, full-fledged public transportation system and lack of

- integration between different modes of transport.
- Non integration of Kollam port with rail and inland water way.
6. Five pillars of economic development considering the present and future potential are Trade and Commerce, Fisheries, Industries, Tourism and Knowledge economy. Following are the main issues associated with these key sectors
- CBD area of the city viz Chinnakkada, having a width of merely 2 km, is very much congested due to the peculiar alignment of railway line, presence of Lakshadweep sea to the south - west and Ashtamudi lake to the north boundaries, congregation of all the important roads. Also this area comprising of many heritage precincts and buildings, is developed with all kinds of higher order commercial facilities without adequate parking facilities and other amenities.
  - Depletion of fishery resources, under utilization of inland fishing, absence of common facility for export, inadequate facilities for value addition etc.
  - Lack of innovations to congregate the emerging demands and ineptitude to update systematic and scientific development programmes for developing traditional industries, non-availability of land for expanding industrial estate, lack of permanent exhibition cum marketing centre for small scale industrial products, delay in revival of Parvathy mill are found as some of the main issues in industrial sector.
  - Tourism sector is facing the following issues;
    - Less number of both domestic and foreign tourist arrivals as compared to other tourism potential districts even though varieties of tourism products are available within the district especially within the planning area.
    - The length of stay of tourist is less as tourism products are not promoted as part of intra and inter tourism circuits, due to absence of common facilities and improper maintenance of products.
  - Even though Thirumullavaram beach is considered as the safest beach dumping of big boulders (tetrapod's) to protect coastal area and limited public space near the shore are the main hindrance in attracting tourists.
  - Due to the absence of proper access it is difficult to reach Ashtamudi lake, hence the tourism potential is not utilized effectively. Water pollution is also an important issue associated with Ashtamudi lake.
  - Even though sufficient numbers of educational institutions are available in the planning area there is not much facility to convert education into Knowledge Economy within the planning area.
  - Absence of proper physical and functional linkage between the proposed Thiruvananthapuram-Kollam Knowledge corridor is an issue in promoting Knowledge economy.
7. Gap in demand and supply of piped water, health threat in using untreated water from open wells and tube wells, dilapidated distribution system and negligence in rain water harvesting are some of the important issues with Water Supply.
8. Waste dumping into Ashtamudi lake and other inland water bodies, along the road sides and vacant land creates land and water pollution besides spoiling the aesthetics of city, spreading of diseases, creating stray dog issues and creating eyesore to the tourists.
9. Absence of Sewage Treatment Plant (STP) is the main reason for contamination of water body since no other practical alternative is available in nearby area for sewage treatment.
10. The de-sludging is very important for septic tanks of residents, commercial establishment and public utility buildings etc. Current practice of emptying and dumping septic tank waste in to open places will lead to intense health issues to public.

11. Conversion of paddy/ wet land/low lying areas etc. for construction activities without planning for surface drainage causes water logging. Natural heritage such as mangrove forest, Sacred Groves etc. are struggling for existence due to various issues such as encroachment, pollution and deliberate attempt of construction activities even by government agencies. This prevent the city to act as a sponge city where maximum percolation of storm water is allowed by means of vegetation and other methods.
12. Though sufficient means of recreation including natural and manmade are in place following problems are associated with these facilities. .
- Improper maintenance
  - Congested roads to parks and beaches.
  - Absence of access to many parts of Ashtamudi lake.
  - Proper parking spaces are not available during season times.
  - Pollution of beaches, backwaters, Kollam Thodu etc.
  - As the civic amenities and recreation facilities are concentrated in the core area of the city, traffic congestion reduces productive man hours.
  - Neighbourhood and sector level parks and open space are absent in the north – eastern part.
13. Lack of maintenance of landscaping, continuity of adaptive reuse of heritage precincts, proper policy environment to develop and conserve historical precincts, defined architectural language after reconstruction around the historical religious structures are the issues in heritage conservation.
14. Maruthadi, Sakthikulangara, Thekkumbhagam, Pallihottam, Port, Kaikkulangara, Kanimel are found as highly vulnerable areas under threat of multiple hazards like sea erosion, Okhi, Tsunami and flood.

### **Potentials**

- Kollam is the only district where a sanctioned Integrated District Development Plan prepared with spatial planning approach is available which can be used as an umbrella Plan for the preparation of Master Plan.
- Low density area to the outskirts with better connectivity
- Presence of Ashtamudi lake and other water bodies.
- Kollam Port, National Waterway III, and Railway connectivity
- Over 4000 years of experience in trading.
- Multi modes in transportation including roads, railways, water ways.
- High percentage of working Population
- Asramam and other open spaces in the heart of city
- Variety of tourism products
- Long stretch of coastal belt
- Rich heritage and culture
- Availability of higher order Educational and health care facilities
- Proximity of proposed Thiruvanthapuram-Kollam Knowledge Corridor
- Paddy/ wetland/low lying areas, mangroves, water bodies and agriculture land if conserved can transform the city as a Sponge City.
- Good Governance.

## **GOALS AND OBJECTIVES**

### **Goal 1**

*To develop the area into a district-level Service Centre with sufficient infrastructure facilities.*

### **Objectives**

- To unclog the activities of core area by developing new service centres.
- To provide better transportation network by introducing integrated transport system utilizing the potentials of all the modes of transport available within the planning area.
- To strengthen the potential of Kollam port.

- To provide adequate infrastructure such as water supply, solid waste, sewage and septage disposal facilities, drainage and power.
- To provide higher order health, educational, recreational and other civic amenities to the required level.

### **Goal 2**

*To conserve environmentally sensitive areas with a view to preserve the ecosystem for achieving sustainable development and transforming the city as Sponge City while its rich heritage is transferred to the coming generations without diluting its value.*

#### **Objectives**

- To prepare an action plan for reducing pollution, encroachment and reclamation of Ashtamudi lake, Vattakayal, Kattakayal and other water bodies and implement the plan with people's participation.
- To conserve paddy and low lying areas, mangrove, sacred groves and marshy land.
- To conserve the heritage precincts according to their level of importance.
- To encourage people by giving technical support to cultivate within the limited area available and also to promote animal husbandry activities where ever possible.

### **Goal 3**

*To accelerate the economic development of the area by promoting key production sectors such as trade and commerce, tourism, fisheries and industries besides focusing on Knowledge Economy.*

#### **Objectives**

- To provide sub centres with higher order facilities.
- To project Kollam as a tourism destination of Kerala.
- To strengthen beach tourism activities.
- To connect road and waterway to port for boosting trade and commerce.

- To develop backwater tourism.
- To provide adequate tourism infrastructure including development of cruise terminal in Kollam port.
- To make the existing tourism products more attractive.
- To maintain a conducive environment for sustaining fish wealth.
- To increase the earnings from fisheries sector.
- To promote export of fisheries products
- To revive the traditional industries.
- To strengthen the marketing network of MSMEs.
- To provide support facilities to promote Knowledge Economy and strengthen the communication network.

### **Goal 4**

*To enhance the quality of life of people in the planning area in general giving special attention to the priority groups*

#### **Objectives**

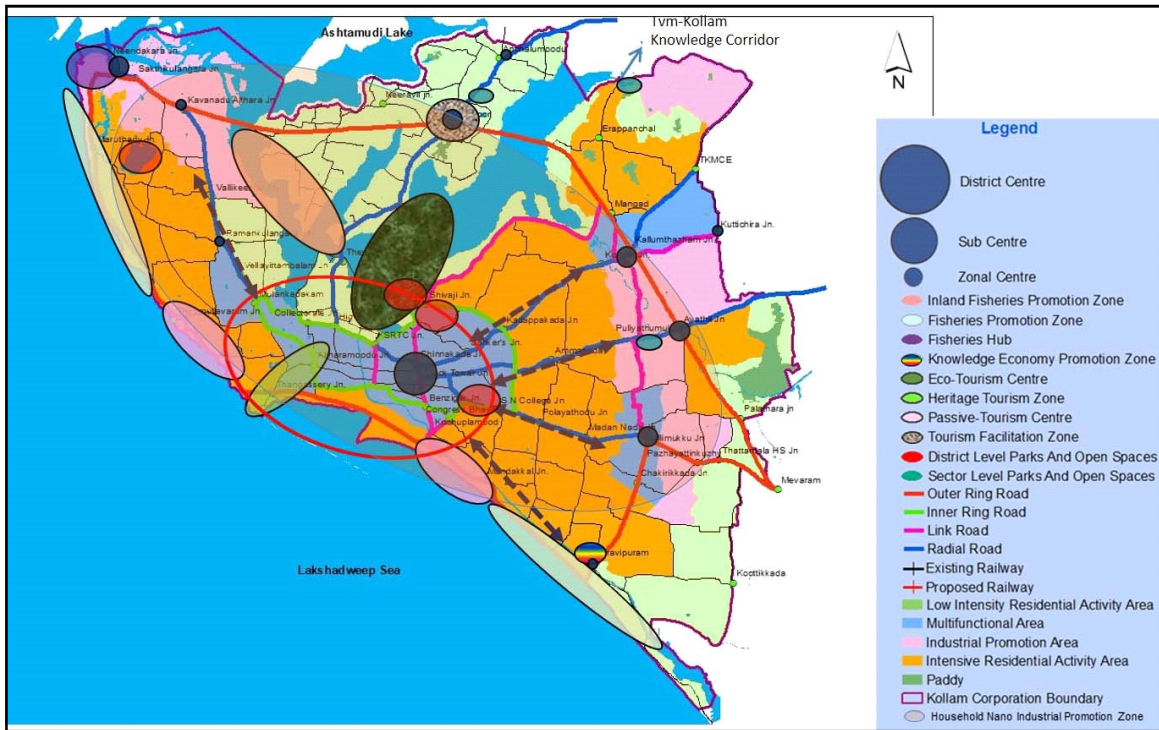
- To ensure equitable distribution of basic facilities to all sections of people.
- To strengthen the governing system by effectively implementing the projects and programmes for the upliftment of priority groups.
- To prepare a detailed disaster management plan so that most vulnerable people are protected from natural and manmade hazards.

### **DEVELOPMENT CONCEPT**

The development concept for the planning area is formulated by physically overlaying concepts on transportation, development of trade and commerce, fisheries, tourism, recreation facilities, conservation of environmentally sensitive areas and density distribution to the existing spatial structure.

As per the development concept the developable areas are classified as 5 major activity areas viz Multifunctional area, Intensive residential activity area, Fisheries promotion area,





Development concept of KLMC

Industrial promotion area and Low intensity residential activity area other than future transportation network, hierarchy of nodes, recreation facilities and environmentally sensitive areas. Also location of various zone for the development of key sectors are thematically shown in the development concept.

**PROPOSED LANDUSE MAP**

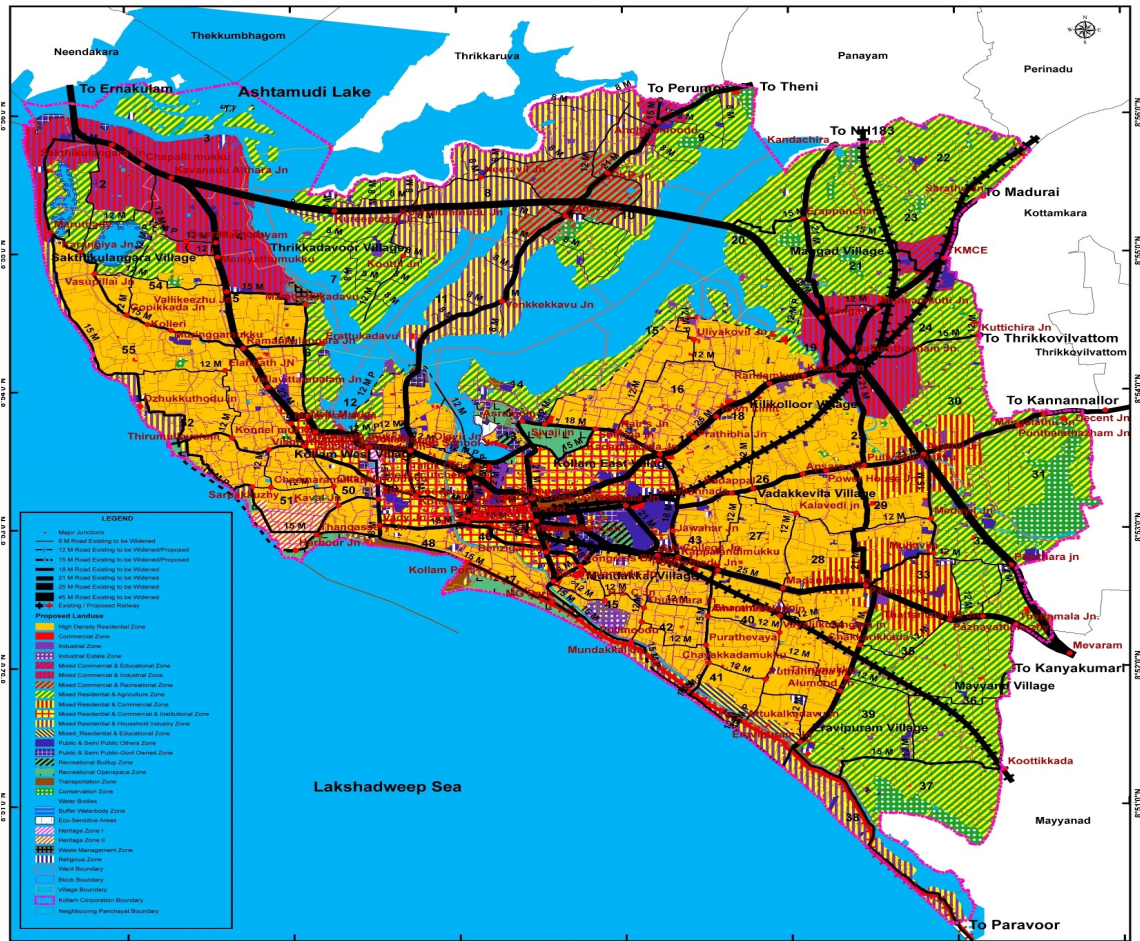
The proposed and land use map prepared based on the development concept is presented below

More land is reserved for urban activities such as commercial, transportation and mixed use without compromising the residential demand so that the planning area can be developed as a District Level Service Centre. Thus through an optimum allocation of available land for various developmental activities, it is expected that the planning area will develop in an orderly manner and will boost the future development of the district.

**PROPOSALS AND PRIORITY PROJECTS**

Many proposals for the development of settlement and sectors are included in the report with 20 number of priority projects as listed below.

1. Road widening
2. Junction improvement
3. Proposal for mobility hub & Mini satellite station
4. Proposal for New bus stand
5. Proposed NMT
6. Truck terminal
7. Oceanarium
8. Tourism development spot, Kandachira
9. Lakefront tourism promotion zone
10. Paddy tourism
11. Island tourism
12. Eco-walway
13. Sanitation park
14. Beautification of Kollam Thodu
15. Beautification of Killikolloor Thodu



Proposed landuse Map

16. Proposal for swimming pool
17. Asramam heritage street
18. heritage zone-I
19. heritage zone -II
20. Renovation of Vattakayal and Kattakayal

All the suggested proposals are in line with general policy, sectoral policies and strategies formulated based on the development concept.

## CONCLUSIONS

The Master Plan prepared under Amrut scheme aims for a more productive, sustainable and liveable Kollam. The Plan introduces various new concepts which are considered as the need of the hour like Sponge City Knowledge Economy, Disaster Management, Household Nano Industrial Zone etc other than prioritizing the sectoral proposals. The most critical challenge in

materialising the plan is to supply sufficient land for developmental activities while conserving the natural sponges that protect the city from flooding and replenish source of water which is the most essential element to make the city sustainable and also conserving the natural and manmade heritage. New ways and techniques to increase the supply of land for development require extensive effort from learning the experiences of cities worldwide to adapt methods which are suitable to the city of Kollam which may require extensive change in the existing rules and regulations in a macro level. Also for developing the city to meet the assigned role of a District Centre, a Master Plan encompassing a wider region need to be prepared immediately. This Master Plan is presented before all the stakeholders for critical evaluations for incorporating their valuable suggestions.



**PART - I**  
**STUDY AND ANALYSIS**