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Prologue

The need for district planning is well recognized in India. The Constitution (74th Amendment) Act, 1992 mandated District Planning Committee (DPC) to prepare a draft development plan for the district. Though more than fifteen years have elapsed since this constitutional mandate, there has been little progress except in very few examples. Despite several reports and studies, the science of district plan preparation and the art of its implementation still remain an operational enigma and an unfinished task. Now, the District Planning Committee of Kollam District in Kerala State has developed a model of Development Plan preparation as envisaged in the Constitution. The Plans prepared are unique in many ways. Effective integration within a Plan and between different levels of Plans is achieved. The planning process was executed in a scientific manner incorporating systematic data collection, wide range of analyses, evolving development vision and formulating detailed proposals. Above all the plans are prepared through people's participation assimilating the spirit of the Constitution. The Plans indeed will be a model in decentralized planning.

PART A

Preparation of Local Development Plans (LDP)

and

Integrated District Development Plan (IDDP) - Methodology

1. Introduction

As per Article 243 ZD of the Constitution of India, every state shall constitute a District Planning Committee (DPC) to consolidate Panchayat / Municipality plans in the District and to prepare a **Draft Development Plan** for the District as a whole. It also specifies that while preparing a Development Plan, due regard shall be given to matters of common interest between the Panchayats and Municipalities including **spatial planning**, sharing of water and other physical and natural resources, integrated development of infrastructure and environmental conservation.

As per section 175 of the Kerala Panchayat Raj Act, a long-range development plan for each Grama Panchayat is to be prepared giving importance to spatial planning. As per section 51 (3) of the Kerala Municipality Act, 1994 the Municipal Corporations shall prepare long-range Master Plan and submit the same to the District Planning Committees. This clearly indicates why spatial planning is regarded as an essential tool in any planning process.

Therefore, it is high time that steps were taken to introduce spatial approaches into the system so that a Development Plan could be prepared at every local self government institution level in order to strengthen the process through a comprehensive rather than a piece-meal approach. The Development Plan prepared for a Local Self Government Institution is termed as **Local Development Plan (LDP)** and that prepared for the district as a whole is termed as an **Integrated District Development Plan (IDDP)**.

The District Planning Committee (DPC) of Kollam has taken up an initiative in this regard by conceptualizing a project for the preparation of Integrated District Development Plan for the District and Local Development Plans for all the Local Self Government Institutions (LSGIs) within the District with the technical support of the District office of the Department of Town and Country Planning of the State. The project was approved by State Government as a pilot project in the district (GO MS/62/03 Planning, Thiruvananthapuram Dt: 01-08-2003).

2. “Spatial Planning through People’s Participation”

The general motto of the project is ‘Spatial Planning through People’s Participation’. Preparation of Plans at two levels is included in the project - at the Grama Panchayat / Municipality level, a Local Development Plan (LDP) and at the District level, an Integrated District Development Plan (IDDP). There are 71 Grama Panchayats, 2 Municipal Councils and a Municipal Corporation in Kollam District and LDPs for all these LSGIs and IDDP for the District as a whole are prepared

simultaneously. In the process of formulating these plans, the grama/ward sabhas ensure direct participation of people at the primary level. Involvement of elected representatives, government (sectoral) departments, Civil Society Groups, NGOs, stake holders, etc is achieved in the process through Working Groups (Task Forces), Development Seminars and stake holder consultations. As a result the process becomes a participatory spatial planning exercise. Elected representatives, government officials, NGOs, Civil Society Group members and other Stake holders were trained in the planning process. Special Grama/Ward Sabhas were conducted to collect People's aspirations. State of the art technology including GIS, GPS, etc is put to use in cadastral level mapping in GIS platform. As a technical facilitator, co-ordination of the whole work is attended by the State Department of Town and Country Planning.

3. Concept of the Planning Process

The concept of the planning process is based on a combination of top-down, grass root-up approach as conceived in the recommendations of the National Commission on Urbanisation (NCU). The draft of the regional plan i.e. IDDP is prepared first considering the suggestions and the results of local level data of the LSGs in the district as well. Afterwards, the draft LDPs are prepared considering the draft IDDP as an umbrella plan. Both IDDP and LDPs are then modified and finalised in a consultative manner. Major stages of preparation are data collection and analysis,

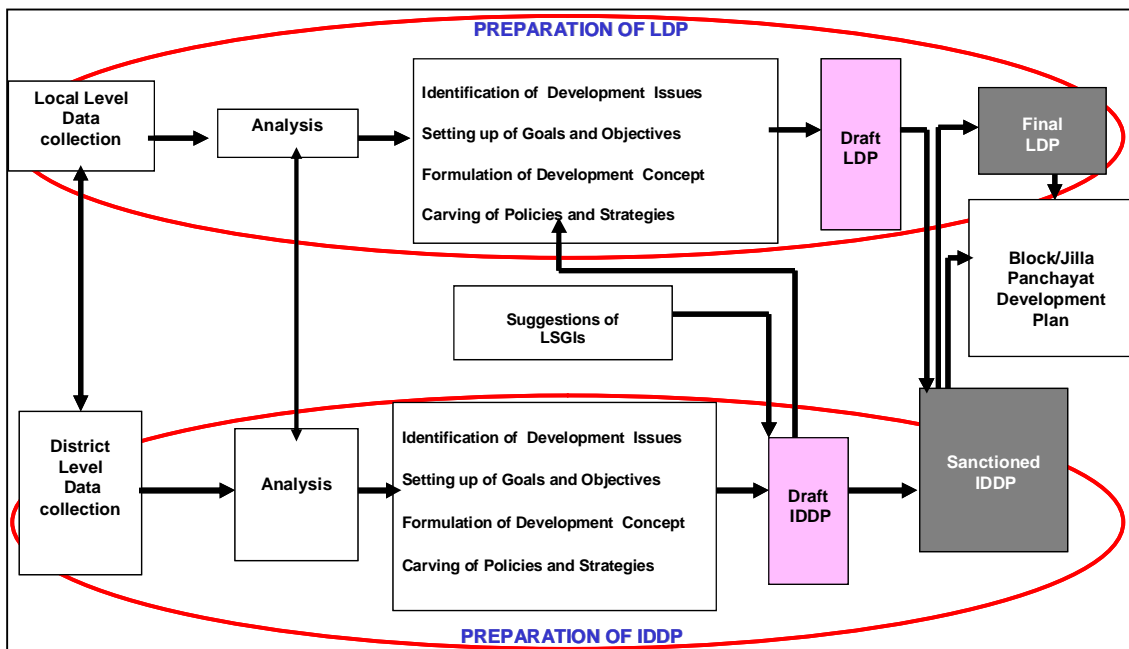


Fig. 1 General planning process for preparation of IDDP and LDPs

identification of development issues, formulating planning concept, policies and strategies and finalisation of the Plan etc as in the case of any Development Plan. But the basic difference here is that people's participation is ensured in each of these stages so that people feel the plan belongs to them. 'Think globally but act locally' is the principle of participation. In order to generate such a broad vision, scientific temper shall be tempered to people's level of understanding. Optimum blending of people's participation and technical interventions is the paramount quality of the process. General planning process for preparation of IDDP and LDPs is shown in Fig.1.

4. Organisational setup for IDDP and LDP

The District Planning Committee (DPC) constituted under 74th Constitutional Amendment Act is the apex body with the State Department of Town and Country Planning acting as the nodal agency for the preparation of the plans. A coordination committee, consisting mainly of elected political heads of LSGIs is formed at district level, for activating the project in LSGIs. The organizational set up is shown in Fig.2.

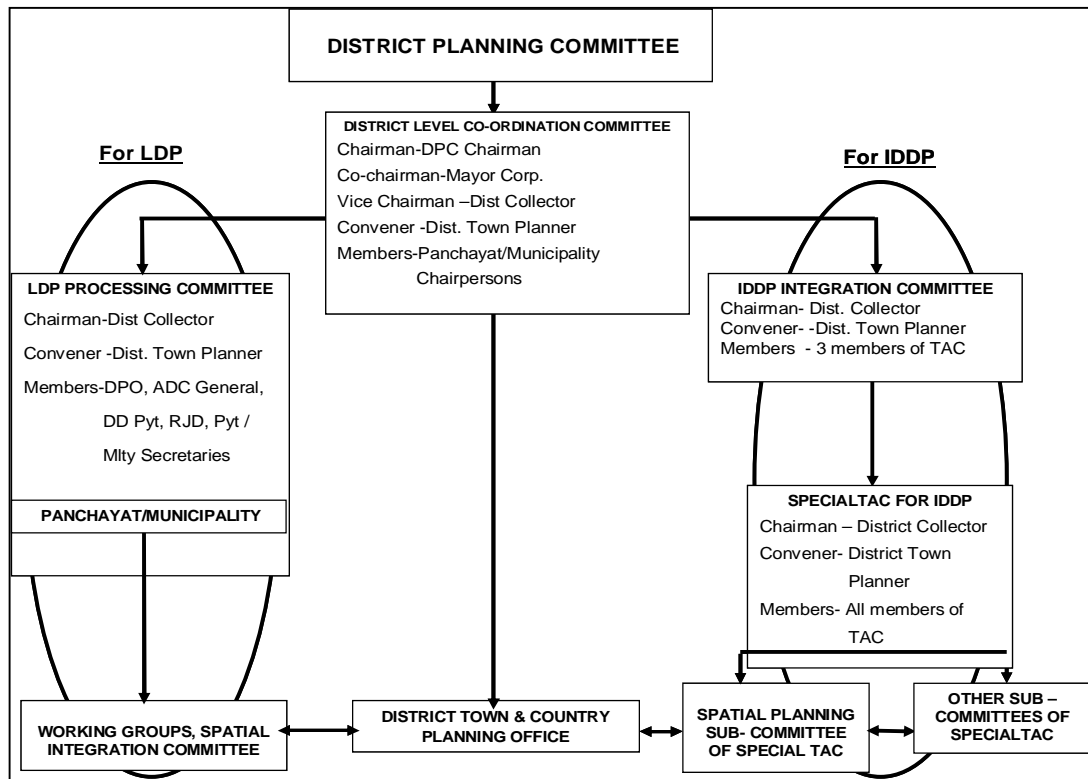


Fig. 2 General planning process for preparation of IDDP and LDPs

5. Planning Process

Following are the major steps involved in the planning process of Draft LDP.

1. Data collection is done by each Grama Panchayat/ Municipality. Physical survey, socio-economic survey, traffic and transportation survey are the three primary surveys conducted in this regard. Surveyor trainees selected by respective LSGI under the supervision of the engineering heads of LSGI and engineering trainees after receiving technical training imparted by the Department of Town and Country Planning conduct these surveys. Secondary data collection is entrusted with the Working Groups. Discussions with stakeholders by Working Groups framed a special action for data collection. In order to ensure grass-root level participation, a special Grama/Ward Sabhas are convened.
2. Physical survey was done in cadastral maps (scale 1:5000) and then digitised in GIS format. Results of all the other surveys and data collection exercises were systematically compiled in prescribed formats and finally linked to the GIS. In addition to the above, all existing planning documents like development reports, five year plan documents, Grama/ Ward Sabha suggestions, summary of discussions with stake holders etc are compiled in systematic format. The problems are graded as 'most severe', 'severe', 'not severe', and the potentials-based on their significance- are grouped as 'less', 'high' and 'very high'.

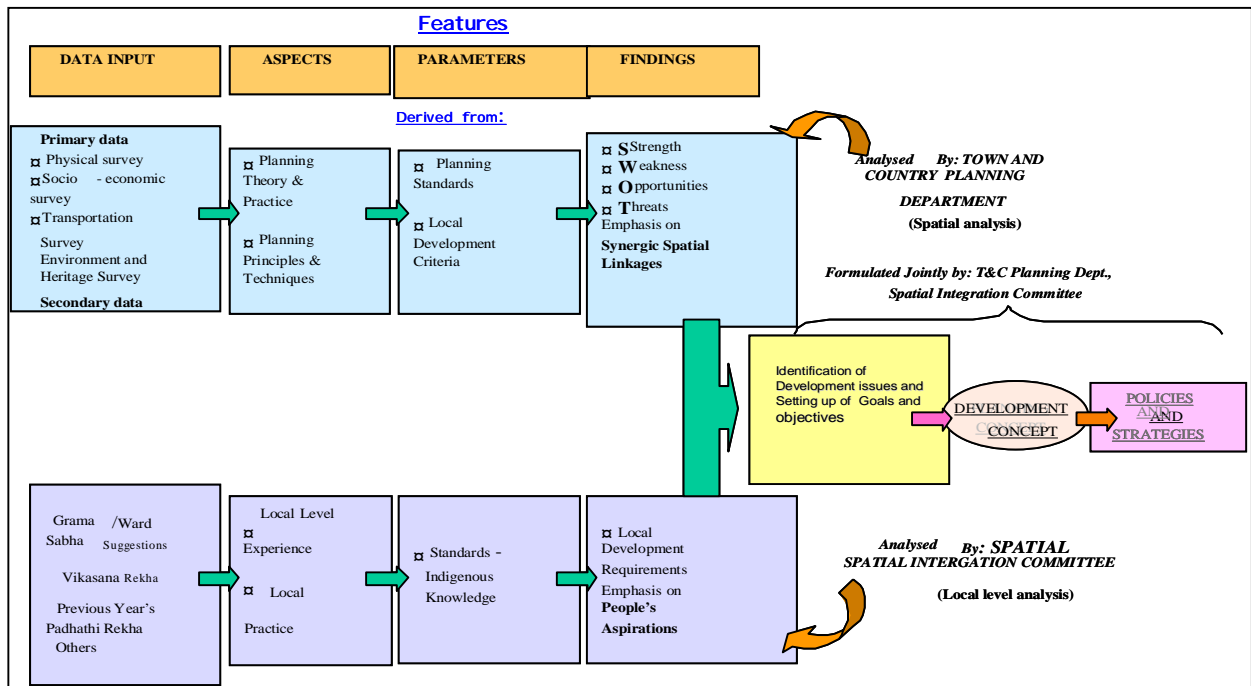


Fig. 3 Analyses for the preparation of LDPs

3. Two analyses are done as shown in Fig.3. Analysis done by the Spatial Integration Committee mainly for finding local development requirements with emphasis on people's aspirations is named as local level analysis. The analysis done by the Department of Town and Country Planning mainly for finding the development issues with emphasis on synergic spatial linkages is termed as Spatial Analysis.
4. From the integrated findings of both the analyses, development issues are identified followed by setting up of goals and objectives, evolution of development concept, policies and strategies and finalisation of the Draft LDP jointly by the Department Town and Country Planning and the Spatial Integration Committee. *Findings of IDDP will be a major input for identification of development issues for the LDP. Simultaneously draft LDPs will become inputs for preparation of IDDP.*

There are basically four main stages involved in the preparation of an Integrated District Development Plan. They are:

1. Preparatory Works

- Ø Preparation of the base map of the district
- Ø Preparation of checklist for secondary data collection and collection of other relevant materials.

2. Data Collection and Compilation

- Ø District level secondary data collection through Special TAC and various departments.
- Ø Feeding the data into the computer and linking with the GIS

3. Analysis

In this case also, there are two analyses viz. sectoral analysis by various Sub Committees of Special TAC and Spatial Analysis by the Department of Town and Country Planning (Fig. 4).

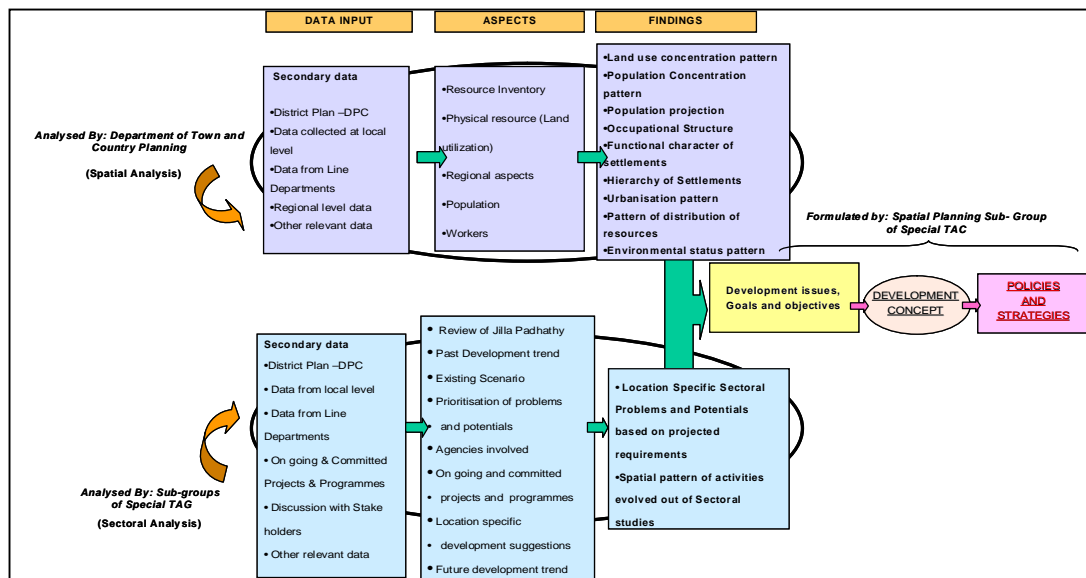


Fig. 4 Analyses for the preparation of IDDP

4. Plan Formulation

After the analysis, identification of development issues, setting up of goals and objectives, development concept, formulating strategies and policies will be followed and the Draft Preliminary IDDP is prepared by the Spatial Planning Sub Committee of the Special TAC. Draft Preliminary IDDP will be placed and presented before an Expert Committee whose members shall be persons invited by the DPC and also general body of the Special TAC and IDDP Integration Committee who shall finalize the Plan. Further Special TAC will detail proposals based on the validations of the IDDP Integration Committee and thus Preliminary IDDP will be formulated. Such a Preliminary IDDP will again be discussed in a Development Seminar conducted at district level and the Plan modified incorporating suggestions will be placed before the DPC and the Plan once approved by DPC will be the draft IDDP. Finally IDDP will be forwarded to the Government for sanction.

Processes involved for the final LDP are:

- Ø Modification of draft LDP by the SIC based on sanctioned IDDP
- Ø Modification of the Draft LDP based on the Development Seminar.
- Ø Sanctioning of LDP by the DPC

6. Components of LDP

The Local Development Plan consists of;

I-Perspective Plan for 20 years, which shall contain

- A policy plan including development concept
- Spatial strategies for optimum utilization of resources
- Infrastructure plan

II-An Execution Plan for 5 years, which shall contain

- Strategy for development - incorporating physical, social and economic dimensions
- General land use plan
- Infrastructure plan
- Sectoral strategies and proposals
- Development regulations

7. Components of IDDP

The IDDP shall consist of:

I –A Perspective Plan for 20 years

- Settlement pattern giving hierarchy and functions of settlements
- Hierarchy of nodes and Urban profile
- Status of Development sectors
- Spatial Patten evolved from the analysis of key sectors
- District Development Concept

- Development policies and Strategies for integrated development
- II-An Execution Plan for 5 years**
- Sectoral Development Proposals
 - Priorities and Phasing of Development sectors
 - Strategy for integrated development and sectoral proposals
 - Transportation network
 - Rationalization of fund allocation
 - Population Projection and redistribution

8. Uniqueness of Integrated District Development Plan and Local Development Plans

- ✓ Both IDDP and LDPs are prepared based on Spatial Planning Approach. This ensures integration of various development sectors over a space (A Grama Panchayat area in the case of LDP & District as a whole in the case of IDDP). The integration of various sectors is performed taking into account the specialties in social, physical and economic aspects of the space, over which the sectors are integrated. This ensures the best & optimum utilization of the land, the most valuable resource in the planning process.
- ✓ Both IDDP and LDPs are prepared based on 'top down- grass root up' approach. The data collection and analysis are done at the local level. Even the proposals are formulated at the grass root level considering the policies derived at higher level i.e. at the District level while preparing the IDDP. At the same time the policies at the higher level are formulated taking into account the proposals at the lower level (LSGI level).
- ✓ All the development partners viz. Technocrats, Politicians, Civil Society Groups, NGO's, Government Departments, common man and other decision makers are involved in the preparation of IDDP and LDPs.
- ✓ State of the art technology – GIS, GPS, satellite imagery etc. are utilized in the preparation of IDDP and LDPs.

PART B

Integrated District Development Plan, Kollam – Abstract

1. Introduction

Kollam is a historic town which had developed direct trade relations with foreign countries. Chinese, Phoenicians, Greeks and Romans and in later years Arabs had traded with Kollam from times even before Christ. Most of the historians believe that the name Kollam is derived from word 'Kolam' which means in Sanskrit, the pole in which traditional ferries were tied and hence it can be presumed that the word Kollam stands for a port town. Kollam was well-known in the annals of history for its trade relationship with foreign countries, variety of agricultural produces and as an administrative capital.

The Kollam-Shencottah Railway line opened in 1904, was a big boost to the commercial and industrial development of Kollam. With the opening of Kollam - Ernakulam Line in 1958, the Town was raised to the status of a junction. The construction of a new Civil Station was also completed in this year. In 1921, Kollam became a Municipality and in 2000 it rose to the status of a Corporation incorporating 4 Grama Panchayats in the surroundings.

Kollam is situated on the south west coast of Kerala between 9°28' and 8°45' latitude and 76°28' to 77° 17' north longitude. Kollam District is bounded on the north by Alappuzha and Pathanamthitta districts, east by Western Ghats bordering Tamil Nadu, and south by Thiruvananthapuram District and west by Lakshadweep Sea. It is located 71 Km North of Thiruvananthapuram, the capital of Kerala and 155 Km south of Ernakulam, the commercial capital of the State.

Kollam is connected to Ernakulam and Thiruvananthapuram by both road and rail. The district has comparatively good regional connectivity due to the two National Highways (NH-47, NH-208) having a length of about 135-km within the district, and the railway route network with Kollam as the railway junction. Another new National Highway (NH – 220) is proposed from Kollam to Theni in Tamilnadu. Earlier, water way was the major transport mode of the district due to the good condition of T.S canal, backwaters and Kallada, Ithikkara and Achankovil rivers. Due to encroachment and silting, the T.S canal is presently not in use. But with the declaration of section of West Coast canal between Kottapuram and Kollam as National Waterway No.-3, it is expected that water way also will become an important mode of transport in the district.

The physiography of the district deserve special mention as it have all the three divisions, namely high land in the eastern part of the district, mid land in the central area and low land on the western side adjacent to the Lakshadweep sea. The

district has about 30% of its geographical area as forest mainly located in the eastern part of the district.

Total population of Kollam district as per 2001 census is 2585064, which is 8.11% of the total population of the State and the District ranks 7th position as far as population size is considered. The decadal variation in the size of population of the District over the last three decades shows that there is an increase of about 2.5 lakhs population per decade from 1971 to 1991 and the increase of population over the last decade is only 1.75 lakhs indicating a decline in the population growth rate of the district.

2. Analyses

Introducing Kollam District explaining its history, regional setting and profile, the analyses include

- ✓ Settlement analysis comprising analysis of Population, Occupational Structure, Land use, Functional character of settlements, hierarchy of settlements, hierarchy of nodes and urban profile
- ✓ Sectoral analysis comprising detailed analysis of various development sectors including production, service, social and economic sectors. The detailed sectoral study of only the sectors which have completed the study report is included in this report.
- ✓ Spatial analysis which analyses the spatial pattern based on settlement studies. The spatial patterns evolved from the study of the resources, social aspects and environmental studies are also analysed.

3. IDDP Kollam - Major findings from Analyses

1. The existing land use pattern of the District shows that nearly 40% of the total land use of the District is agricultural in pattern. The spatial distribution of the land use shows that most of the agricultural area is concentrated in the mid land and high land region of the district. And also the general character of the service area of higher order settlements shows that most of it is rural in nature, indicating that there is scope for developing the agriculture sector as one of the economic bases of the District.
2. The occupational structure of the district shows that more than 70% of the total workers of the District are engaged in non-agricultural activity (even the rural area shows the same pattern) indicating the declining trend of the primary sector in Kollam District. This indicates that the agricultural land

in the district is either unutilized or underutilized. From the point of view of the economic and environmental stability of the District the agricultural land should be put to optimal use.

- 3. Population growth rate of the district is nearing saturation level. An increase of only about 2 lakh population is expected by 2021.**
- 4. The pattern of population growth rate of the District shows that it is the highest in those local bodies adjacent to Kollam Corporation. It can be presumed that those migrating into the district prefer to live in the periphery of this urban area rather than within it. If this tendency is continued it will result in the conversion of agricultural land in the rural area for residential and other non-agricultural purposes resulting in the destruction of the economic base of the rural area.**
- 5. Low work force participation rate and significant out migration from the district indicate a decline in local economic activities both rural and urban in the District.**
- 6. A shift towards service sector in the occupational structure of the rural areas has been resulting in erosion of the rural character of the villages. At the same time industrial activity in the urban areas is also declining but the category 'other workers' is increasing. This has resulted in the narrowing down of the boundary distinguishing the character of rural and urban areas in terms of occupation structure.**
- 7. There is a likelihood of sudden surge in the urban population, and the extent of urban area as well, of the district resulting in a significant change in the urban profile of district.**
- 8. High population density-of the district in general and coastal areas in particular- and presence of fragile ecosystems comprising water bodies, forests and chains of paddy lands render it difficult to have high level of industrialization in the district.**
- 9. Even though there exists urban-rural continuum, there is a clear demarcation among the urban activity concentration areas, agricultural activity areas and forest areas of the district making it possible to assign definite development character to each region.**

10. The local bodies in the district show four distinct characters – Urban, rural, semi urban (predominantly urban) and semi rural (predominantly rural), which reflect the likely economic base of each local body.
11. The district is blessed with potential resources – Tourism potential spots, minerals, lengthy coastal stretch with potential for fishing, availability of skilled cashew labourers.
12. The present urban areas of Kollam viz. Corporation of Kollam and Municipalities of Punalur and Paravur fail to attract economic activities and create developmental impulses.
13. The spatial analysis of settlement studies shows a clear activity pattern existent in the district comprising following zones: Urban activity zone, Agricultural activity zone - non detrimental to forest zone, Intense agricultural activity zone, Secondary activity zone and Agricultural allied activity zone-
14. On analyzing the sectors comprising major resources such as Agriculture, Industries, Forest, Animal Husbandry, Fisheries, Mining & Tourism and the environmental sensitive areas it is seen that the district is having areas with concentration of the above activities.
15. On analyzing Agricultural Sector, a distinctive agriculture development pattern with the following categories has evolved i. Sparsely distributed crop cultivation area in the low land where homestead cultivation of coconut, jackfruit etc can be promoted, ii. Mixed cultivation area in the low –mid land area where paddy cultivation can be sustained and cashew, vegetable and fodder cultivation etc can be promoted, iii. Intense crop cultivation area in the mid land where rubber cultivation to be sustained and cultivation of pineapple and cashew etc. can be promoted and finally iv. Resource base area where the existing forest resources need be conserved. Here, intense afforestation has to be resorted mean while sustaining the existing rubber and pepper cultivations.
16. Industrial developments are mainly concentrated along the coastal belt of the district and to the north and north- east side of Ashtamudi Lake.

17. Coastal belt is suitable for marine fishing and Ashtamudi Lake and surrounding areas are found suitable for inland fishing.

18. Mining activities, especially mineral sand mining, has got immense potential in the district. Northern Coastal areas of the district are identified for the purpose. Also China clay is found in Kundara and Perayam Grama Panchayats.

19. Kollam district has got tremendous tourism potential. Portions of Kollam Corporation, Thenmala, Paravur, Manrothuruthu, Vellimon areas and Ashtamudi and Paravur back- waters are tourism potential areas.

20. Ashtamudi lake is deteriorating due to pollution, silting and encroachment. This natural legacy has to be protected. In general, areas where coastal regulations are applicable, the lake sides etc. which are teeming with aquatic life, the paddy fields and forest areas to be given thrust as regards environmental conservation.

21. Forest areas within the district has got economic potential. But it remains as one of the main environmentally sensitive areas of the district.

4. Development Goals and Objectives

The major development goals set up for the IDDP are,

- ✓ Optimum utilization of resources for economic development and social justice
- ✓ Attain a certain level of self-sufficiency in primary and secondary sectors
- ✓ Attain balanced development
- ✓ Ecological conservation and environmental protection

The major development objectives derived are

- ∅ To revitalize the declining growth trend of the district through the optimum utilization of resources by identifying the key sectors of the area and coordinating complementary sectors spatially
- ∅ To selectively concentrate urban and rural economic activities and diversify the economic base mainly through production sectors
- ∅ To conserve the ecologically sensitive areas and to eradicate environmental pollution

- ∅ To attain certain level of self-sufficiency especially in the production sector
- ∅ To upbring the weaker sections of the society by rendering them job opportunities, better services and social security
- ∅ To develop an efficient road network pattern

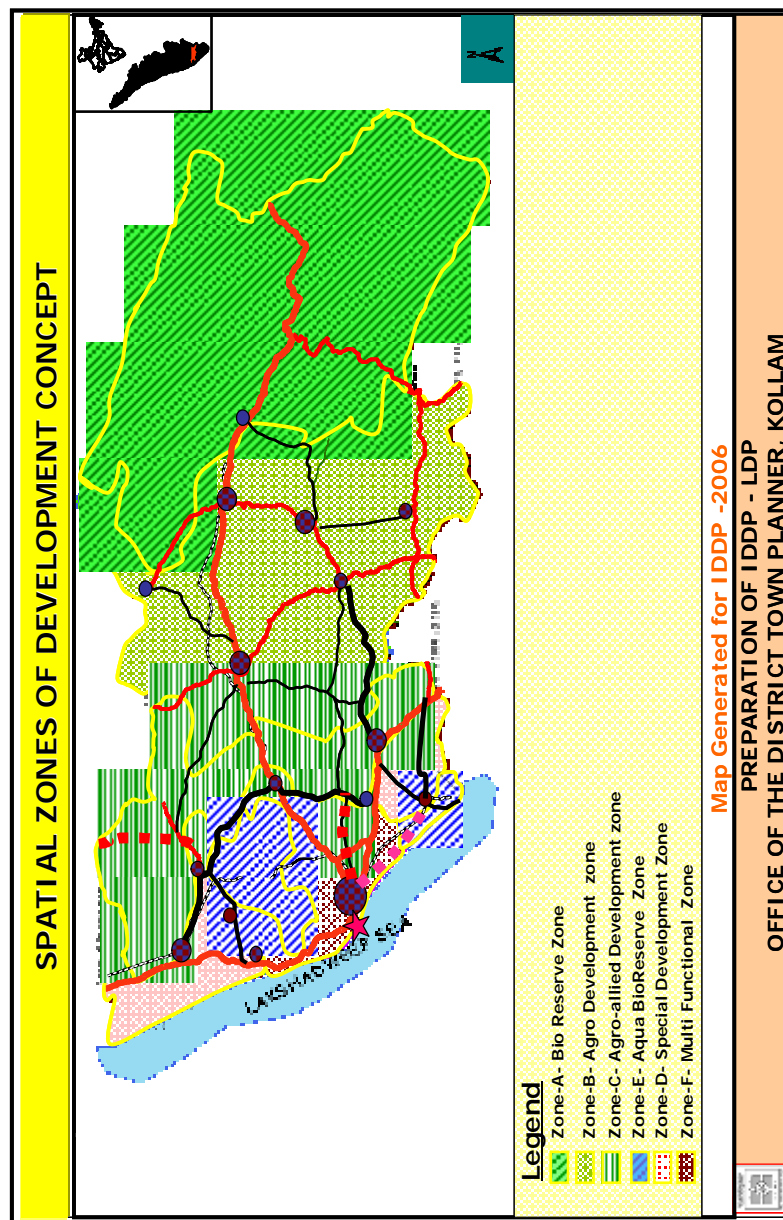
5. District Development Concept

The district development concept is derived by incorporating the findings of spatial analysis of production sectors in the spatial structure of the district evolved as a result of settlement analysis. Through the settlement study a spatial structure consisting of hierarchy of settlements and nodes, road network and activity pattern are suggested. Settlements in four hierarchies are suggested for the districts. There is one higher order settlement – Kollam Corporation – in the district and five second order settlements – Karunagappally, Kottarakkara, Punalur, Anchal and Chathannur. The first order settlement is supposed to provide higher facilities in education, health and in other sectors to the entire district population. The second order settlements are supposed to provide second order facilities of various development sectors to the surrounding area. A road network in the district level with three hierarchies- major roads, sub major roads and minor roads are suggested. The road network connects all the higher order nodes and settlements to each other. The activity pattern showing the likely major economic activity in each LSGI area is also suggested in the spatial structure of the district.

Through the sectoral studies the activity pattern of those development sectors which have physical manifestation in the land are studied. Agriculture, Animal husbandry, industries, tourism, fisheries and environmental and socio- economic aspects are studied for the spatial pattern.

As per the development concept derived, the district is divided in to six different development zones based on the existing trend of development. The proposed hierarchy of settlements and nodes along with a future transportation net work connecting the higher order settlements are planned.

A development zone is formed by combining the settlements possessing similar major economic activity pattern as per the spatial analysis. When a grama panchayat or municipality falls in a particular zone, it only specifies the thrust development sector of that LSGI. The LSGI can perform other supplementary activities also (as per sectoral detailing). In Fig.5 six different development zones are shown.



The development concept of the district, with a balanced spatial structure and development activity zones, gives an overall idea of the direction of development of the District. The concept is derived giving due importance to the environmental aspects of the district and envisages control measures in and around the environmentally sensitive areas. The concept will act as a guiding tool for various sectors of development for formulating their development policy and consequently the sectoral projects and programmes within the sectoral policies.

6. Development Policies and Strategies

Based on the studies conducted and district development concept, the general policy for the district is framed as follows.

District General Policy Statement - 2021

To economically develop the district by 2021 by creating an eco-friendly environment where there is optimum production, provision and utilization of goods and services and where people have a better quality of life through social development.

Development Strategies – 2021

- √ Economic development through production enhancement and value addition of goods
 - Agriculture development by obtaining self sufficiency in food crops and enhancing production in commercial crops
 - Co-ordination of various agencies in irrigation
 - Soil conservation treatments based on the spatial zones of the district development concept
 - Fisheries development by development of fish seed production centres, enhancement of fish production for self sufficiency and economy generation
 - Development of livestock and poultry products for self sufficiency
 - Optimum utilization of the mineral resources of Kollam district through extraction of mineral sand, extraction of china clay and optimum utilization of ordinary sand
 - Economic development in forest sector through optimum utilization of forest products
 - Industrial development through development of agro processing industries, strengthening and modernization of traditional industries and revival and diversification of closed and defunct public enterprises
 - Tourism development through developing backwater tourism, developing beach tourism, Promoting eco tourism, promoting destination developments, promoting cultural and traditional tourism, promoting pilgrim tourism, generating a tourism network, developing marketing facilities and enhancing tourism promotion and attracting private investors

- v Creating an eco-friendly environment
 - o Conservation of water bodies
 - o Conservation and regeneration of mangroves
 - o Conservation of sacred groves
 - o Abatement of air pollution
 - o Abatement of noise pollution
 - o Conservation of hillocks
 - o Controlling land pollution
 - o Solid waste management
 - o Ecological conservation of forests
 - o Prevention of critical issues such as forest fire, encroachment etc.
 - o Greening of non forest land as well as the developments of flora and fauna

- v Social development through providing service facilities to the labourers, working class and the socially backward class in the society
 - o Establishing a farmer friendly agriculture marketing network and establishing a labour friendly environment
 - o Fish resource conservation and fisher folk welfare
 - o Developing health services industries and knowledge based industries and services and creating a pool of skilled human resource
 - o Developing social welfare activities through welfare of women, welfare of children, welfare of adolescent girls, welfare of birds with broken wing, provisions for other social challenges such as preventing antisocial activities, suicides, dowry, accidents, drug addiction, female foeticide caring HIV positive children and white slavery and provisions for betterment of services through Anganwadis
 - o Providing infrastructure facilities including land to all the landless, dwelling houses to all the houseless, safe drinking water, electricity and create healthy and hygienic environment to Scheduled Caste and Scheduled Tribe population in the district, providing quality education to Scheduled Caste and Scheduled Tribe students, bringing down BPL Scheduled Caste and Scheduled Tribe families to zero level, bringing down substantially the present level of unemployment among the

educated Scheduled Caste and Scheduled Tribe youths and organizing awareness camps to ensure participation of Scheduled Caste and Scheduled Tribe people in development programmes

- Poverty eradication by bringing down BPL population by diversifying their areas of occupation through skill development
- Protection of endangered species of flora and fauna
- Providing animal welfare

v Providing better service facilities to the people

- Provision of better health service facilities and conducting research and awareness programmes through the three systems of medicine
- Providing quality power for the existing and proposed economic activities of the district giving emphasis on non conventional energy sources in the domestic and commercial sector
- Providing quality education by increasing coverage of educational facilities, increasing quality of education, precluding spatial disparity in the distribution of higher educational institutions and skill development
- Providing infrastructure facilities for various development sectors
- Providing a communication network for the district and to identify and phase the infrastructure developments for various development agencies as per the communication network

7. Development Proposals

Development Proposals comprise of sectoral development proposals, priorities and phasing.

The Development Proposals of agriculture sector is listed here.

I	Major proposals in Agricultural sector
1	Proposals for development of crops for self sufficiency
a	Integrated rice cultivation
(i)	Paddy seed villages
(ii)	Improving rice production and productivity through paddy conservation
(iii)	Aromatic & medicinal paddy cultivation
(iv)	Paddy processing centres
b	Vegetable cultivation
I	Vegetable seed villages

(i)	Intensive vegetable cultivation and improving productivity
(ii)	Tapioca cultivation
c	Rural homestead farming
d	Sesamum cultivation
2	Proposals for development of crops for economy generation
a	Integrated rubber cultivation
(i)	Rubber area expansion
(ii)	Productivity improvement of rubber
(iii)	Apiculture in rubber plantation
b	Coconut cultivation
(i)	Rehabilitation of coconut
(ii)	Coir pith composting and other products
(iii)	Coconut oil & Products
c	Pepper cultivation
(i)	Productivity improvement in Pepper
d	Banana cultivation
(i)	Value addition of banana products
e	Cashew cultivation
(i)	Cashew development programme (Area expansion and re-planting)
(ii)	Cashew Planting in Theeravanam area
f	Pineapple cultivation
g	Proposal for jatropha cultivation
h	Maintenance of native crops
i	Floriculture
j	Aracanut cultivation
k	Medicinal Plants
3	Proposals for market development and marketing
a	Primary agricultural markets
b	Secondary agricultural markets
c	Service centres
4	Proposals for Technology based crop cultivation
a	Model Bio Technology Park (Including Microbial Technology Centre)
b	Poly House Cultivation
c	Bio Technology and genetic engineering park

5	Proposals for crop conservation
a	Water conservation programmes
b	Controlling usage of chemical fertilizers and pesticides
c	Solar fencing
6	Other proposals
a	<i>Agri-based cottage industries</i>
b	<i>Recycling facilities</i>
c	<i>Agriculture labour and farmer welfare</i>
	Research and training centre
	Appendix - Paddy areas to be protected in each local body in zone wise
	<i>Strategy</i>

Similarly there are development proposals of all the 18 development sectors.

Each of the sectors has detailed the proposals specifying the local body in which it is proposed, area and cost requirements, expected employment generation etc. including phasing of proposals.

PART C

Local Development Plans – Abstract

I Development Plan for Paravur Municipality

1. A brief on Paravur

Paravur is a coastal urban local body in Kollam district. It is bounded on all the three sides by water bodies- Lakshadweep sea on the west and back waters on the north and south. On the east side Poothakkulam Grama Panchayat is situated. Paravur is situated about 20 km north of the central business district (CBD) of Kollam and is connected to the CBD by rail as well as road. Paravur has a long history in the trade as well as industrial scenario of Kollam district. Paravur market, established in the 19th century, was a higher order market during 19th century and continued in that status till the mid twentieth century. Paravur was also known for its coir products. Paravur was a major coir making area within the district. The abundance of water bodies and skilled laborers made Paravur suitable for the production of coir. Paravur is a major commercial centre situated in the T.S canal route which once acted as an infrastructure backbone of Kerala State giving impetus for the industrial development of the state. Paravur was connected to Thiruvananthapuram – the Capital of Kerala state and Alappuzha – a major commercial centre of the State through T.S canal. But the TS canal is now in an abandoned state and hence water mode of transport is now present only in name sake in Paravur.

Geographical extent of Paravur municipality is 16.2 sq km with 29 wards. The total population of the municipality, as per 2001 census, is 38652 with a gross population density of 2014 persons per sq. km. The total number of workers in the Municipality is 8968 as per 2001 census. The primary survey shows that there are about 1500 workers engaged in coir sector and 1000 workers engaged in fisheries sector in Paravur.

2. Major Findings

The District Development Plan perspective designates Paravur as a third order settlement which has to provide higher order infrastructure facilities to the immediate surrounding grama panchayats also. As per the Integrated District Development Plan, Kollam district is divided into 6 development zones in which Paravur municipality area falls within the special development zone. This indicates that, among the local bodies of Kollam district, Paravur is a suitable local body for IT and BT sector development. The District Development Plan selects Paravur as a tourism development potential area within the district. As per the proposed regional road net -work specified in the district development plan, the port road from Kollam town reaches National High way through Paravur.

1. The data analysis of Paravur municipality showed that the economic base of the municipality is very weak. This is manifested by low population growth

rate, comparatively high out migration and low workforce participation rate. Workforce participation rate of Paravur is only 26% against the district rate of 32%. All these resulted in the migration of people from Paravur in search of job opportunities

2. Paravur lacks infrastructure facilities like higher order health facilities, mini civil station to accommodate public offices, park, play ground, town hall etc that a municipality ought to have.
3. The market area of Paravur - CBD of Paravur, a meeting place of four major roads, is now in a congested state.
4. Though Paravur has the status of an urban area from the administrative point of view, the physical development there shows that it is a semi urban area which still has large tracts of potential dry agricultural lands.
5. Consumption pattern of Paravur shows that large quantity of dairy, poultry and agricultural products are consumed here. But the production status shows that majority (more than 80%) of these items come from outside Paravur.
6. The presence of water bodies (sea and backwaters) makes Paravur an environmentally sensitive area. Low lying paddy fields of Paravur act as recharging area of ground water thus alleviating flood and drought together.
7. The scenic backwaters and the presence of sea and the TS canal make Paravur suitable for waterfront tourism.
8. Paravur is rich with natural resources for supporting its comprehensive development. The presence of scenic areas like beaches, backwaters, coconut tree studded seashore & backwater banks, scope for fishing and coir manufacturing, famous temples and festivals of the locality are impetus for the future development of Paravur.

3. Development Objectives

Based on the findings of the analyses the following development objectives are set.

- Ø Strengthen and diversify economic base of Paravur by giving thrust to the development of coir sector, fisheries sector, homestead cultivation, tourism and IT sector
- Ø Provide infrastructure facilities on par with a third order settlement, thus enabling Paravur to act as a higher order service provider to the surrounding grama panchayats.
- Ø To properly organize the activities of the town so as to avoid conflicts and to ensure an efficient circulation network

- Ø Develop a road network which will decongest the central area (CBD) and will support the regional road network suggested in the Integrated District Development Plan.
- Ø Ensure compatible land use
- Ø Protect and conserve the environmentally sensitive areas and heritage sites within the Municipality.
- Ø Provide basic facilities to the socially and economically backward areas.

4. Development Concept

A development concept, based on the development objectives is formulated for Paravur, with planning period of 20 years as follows: "Develop Paravur as a third order settlement with emphasis on Tourism and IT sectors in such a way that development impulses of these sectors will flourish traditional sectors as well, with due regard to the environmental sensitiveness of the area."

5. Development Proposals

Development proposals in each sector are carved out within the frame work of the development concept. These development proposals are to be implemented within the plan period of 20 years. Some of the major proposals are given below.

1. Agricultural sector

The development proposals in agriculture sector, mainly aimed at the development of dry agriculture in Paravur in a collective manner. Formulation of farmers' groups is proposed and all the agricultural activities are to be brought under such groups rather than being pursued as individual efforts. This will ensure minimum cost in the procurement of seeds, manure, agricultural implements etc. The Municipality and Agriculture Department shall take the role of facilitators. They have to provide timely advice, proper training and marketing facilities etc. to the farmers' group.

1	Major proposals in agricultural sector
1	Agri labour bank to pool the agricultural labour force
2	Formation of farmers group & agro implements bank
4	Integrated agricultural plan for dry agricultural development
3	Construction of an agricultural & allied development centre (2 acre)
6	Irrigation facility(construction of pump house, laying pipe lines, formation of a network of irrigation canal)
7	Repairing of Pozhikkara sluice to control the saline water intrusion in to backwaters

2. Animal husbandry sector

Animal husbandry sector in Paravur is considered as a sector supplementary to the agricultural sector. Those engaged in the agricultural activity can involve in animal husbandry sector also which will fetch an additional income to farmers.

II	Major proposals in animal husbandry sector
1	Formation of 15 number of small dairy farms
3	Duck rearing on the banks of backwaters
4	Layers farming – 100 numbers with target of 2 lakhs eggs per month
5	75 small scale poultry farms
6	Construction of fish landing centre
7	Construction of shed for keeping fishing implements
8	Construction of stock centre
9	Construction of artificial fish breeding places in backwaters
10	Inland pond protection works

3. Tourism

Tourism is considered as the future development sector of Paravur. The major player in tourism sector is private sector. But proposals are carved out to give maximum benefit to the local community. A land use plan is prepared to have control over tourism related construction activities.

III	Major proposals in tourism sector
1	Landmark construction at the entry points of the municipality
2	Canal widening & protection
3	Boat service / Boat jetty for Tourists
4	Creation of homestay facilities
5	Renovation of beach / development of Park
6	Construction of kayal/canal side roads
7	Tourist information centre
8	Website creation
9	Development of lookout area on sea shore
10	Construction of heritage museum
11	Creation of facilities for elephant ride and horse ride
12	Construction of wooden platform for angling

4. Transport sector

The proposals in transport sector are carved out to solve the problems existing in the transport sector and as a supporting infrastructure for the future developments.

IV	Major proposals in Transport sector.
1	Construction of first order roads
2	Construction of second order roads
3	Construction of third order roads
4	Construction of local roads
4	Junction improvement projects
5	Preparation of detailed alignment plan of Maniyamkulam-Sasthamnada-Samajam Jn road
6	Preparation of detailed alignment plan of railway overbridge-Ollal level cross road
7	Railway over bridge at Sasthamnada jn
8	Widening of railway over bridge near municipal office
9	Shifting of existing Taxi & Lorry stand to old bus stand and form Auto booths
10	Construction of new bus stand- land acquisition & construction (2 acres)

5. Industries Sector

Major proposals for the improvement of traditional industries as well as modern industries are given.

V	Industries
1	Development of mini industrial estate
2	Development of IT Park
3	Collection of coconut husk through Kudumbasree
4	Making of coir products
5	Production of souvenir- coir based

It is a first attempt in Kerala State to prepare Development Plan for a local body through participatory spatial planning approach. The Plan gives an overall idea to the decision makers on gaps in the development, as well as on the likely direction of future development of the local body. Through this the Municipal Council is getting an effective tool to regulate the development activities in their jurisdictional area whoever may be the implementing agency and thus rendering decentralized planning

more powerful and meaningful. Also the Development Plan aims at the protection of the sensitive environmental areas. The Plan, acting as a legally binding tool, empowers the municipal council to protect its environmentally sensitive area which otherwise faces threat of destruction.

II Development Plan for Pooyappally Grama Panchayat

1. A brief on Pooyappally

Pooyappally, one among the 71 Grama panchayats of Kollam district, has been selected as the first rural LSGI for the preparation of LDP. Pooyappally, according to 2001 census has a population of 23,924 and an area of 22.28 sq km. Pooyappally is nearly 20 km away from the district head quarter. The nearest developed centres of this Panchayat are Kottarakkara and Parippally.

2. Major Findings

The major findings derived from analyses are:

1. Pooyappally is a Panchayat included in the agriculture development zone of Kollam district.
2. Pooyappally is rural by its functional character.
3. 85 % of the land of Pooyappally has a natural terrain that is suitable for agricultural activities.
4. 55 % of land use of Pooyappally at present is agriculture and 29 % of land has agricultural potential.
5. Panchayat has many environmentally sensitive areas and large extent of paddy fields.
6. Pooyappally has 4 micro water shed areas.
7. Pooyappally Grama Panchayat has a comparatively lower population density of 1081 persons/sq.km, and the present population is 23924.
8. 36 % of the workers of Pooyappally Grama Panchayat are engaged in agriculture related activities, either as cultivators or agricultural labourers.
9. The crops cultivated mainly in Pooyappally are coconut, paddy, rubber and tapioca.
10. Industrial activities are not that strong even though cashew factories and some quarrying operations are there.
11. As per the proposals of IDDP, 3 roads of Pooyappally are proposed to be raised to a higher hierarchy.
12. 94 % of the people of Pooyappally depend mainly on wells for drinking water. Two mini projects are functioning in the Panchayat partially covering many wards. KIP canals running through the Panchayat

supplement wells. Still water scarcity is a main issue in 3 wards of the Panchayat.

13. Health and education facilities available in the LSGI are sufficient for a fourth order LSGI and almost all higher order facilities are available within a radius of 15 km.
14. Solid waste disposal is found to be a major issue in 2 wards of the Panchayat.
15. A public crematorium and a public park are absent in the Panchayat.
16. Nearly 634 families live in substandard living conditions.

Based on the above findings and conclusions the following goals and objectives are set.

3. Development Goals and Objectives

The Development goals set for Pooyapally are:

1. To strengthen the economic base of the LSGI by the planned development of agriculture and allied sectors and to ensure the facilities required for a fourth order LSGI.
2. To set the land use of the LSGI suitable for agriculture activities.
3. To protect the environmentally sensitive areas and paddy fields.

The development objectives carved are the following:

1. To promote vegetable cultivation, fodder cultivation and medicinal plant cultivation along with main crops.
2. To strengthen the animal husbandry sector and small scale industries sector side by side with agriculture.
3. To give special attention to Backward sections of the community.
4. To ensure a better domestic road network.
5. To ensure soil and water conservation measures.

4. Development Concept

A development concept is evolved to achieve the set goals. For this the spatial structure of Pooyappally Grama Panchayat is decided based on the following:

1. Land use pattern
2. Distribution of major activities
3. Existing road network
4. Environmentally sensitive area.

In accordance with the spatial structure, the development concept is evolved giving due importance to the relevant development sectors also.

According to the development concept area of Pooyapally Panchayat is visualized as two zones viz. Agriculture zone where agriculture activities dominate and Residential zone where residential and other activities are predominant. In view of the roads gaining more importance as visualized in IDDP, a commercial residential mixed use zone is brought about linked with the three important roads. All future developments that may happen in Pooyapally shall not tamper with the basic nature of the zones.

5. Development Policies and Strategies

“Reiterating the prominent place of Pooyappally among the agricultural producers of the district, promote all agricultural activities and ensure the optimum utilization of the land and to achieve self sufficiency in the animal husbandry sector”, is set as the development policy of the LSGI and sectorwise strategies have been evolved.

6. Development Proposals

The important proposals suggested in the development plan are given briefly, below:

1. An agriculture plan to effectively carry out paddy cultivation, to strengthen the coconut cultivation and to propagate vegetable cultivation.
2. Proposals to set up goat farms, dairy farms and layer farms.
3. Suggestions for small scale industries with the growth of agriculture and animal husbandry.
4. Road network
5. Two projects in the drinking water sector
6. An artificial rain water harvesting system on a large scale.
7. Contour bunds to retain soil
8. Proposal for a crematorium, waste disposal and renovation of market
9. Proposal for a community centre including a park

The plan has been prepared with a perspective of 20 years. The goals set are to be achieved by the end of the project period and hence a phasing is done with an interval of 5 years.

The Plan prepared on spatial planning principle, after extensive studies and analysis, is expected to be of great help to the LSGI while preparing the 11th five year plan proposals.