



GOVERNMENT OF KERALA

**PREPARATION OF INTEGRATED DISTRICT DEVELOPMENT PLAN AND
LOCAL DEVELOPMENT PLANS – KOLLAM DISTRICT**

**GUIDELINES FOR PREPARATION OF LOCAL DEVELOPMENT PLANS
BY
LOCAL GOVERNMENTS IN KOLLAM DISTRICT**

(Circular No. 71810/2008/LSGD dated 29.11.2008)

**Local Self Government Department
Thiruvananthapuram**



Government of Kerala

No. 71810/2008/LSGD

Local Self Government (D.C) Department,
Thiruvananthapuram, 29.11.2008.

CIRCULAR

Sub:- Programme of Preparation of Integrated District Development Plans and Local Development Plans – Kollam District – Guidelines for preparation of Local Development Plan - regarding.

Ref:- 1. G.O. (Ms) 62/03/Planning dated 01.08.2003
2. G.O (Rt) 354/07/LSGD dated 01.02.2007
3. Letter No. CA 125/08-08 dated 02.08.08 from the President,
Kollam District Panchayat
4. Decision No. 2 (6) of the State Level Co-ordination Committee
dated 29.10.08.

As per first paper above, preparation of Integrated District Development Plan of Kollam district and Local Development Plan for every Local Governments of the district was commenced. At present, Integrated District Development Plan for Kollam district and also Local Development Plans for two Local Governments in the district have already been prepared. The Chairperson of the Kollam District Planning Committee vide reference 3 had requested that instructions may be issued to Local Governments of the district for the completion of Local Development Plans in a time bound manner.

The preparation of Local Development Plan involves seven stages commencing from data collection to the preparation of the report of the Development Plan. The first two stages viz. data collection and data analysis have already been completed by all the Local Governments in the district. The remaining stages shall be completed jointly by the respective Local Government and the District Town and Country Planning Office. Necessary guidelines in this regard are annexed to this circular.

Local Governments of Kollam district shall comply with the following instructions regarding the preparation of Plans.

- A. Local Governments of Kollam district shall prepare their Local Development Plans in a time bound manner in accordance with these guidelines.
- B. The time-frame for the completion of Local Development Plans as well as expenditure to be incurred in this connection shall be decided by the Kollam District Planning Committee. The expenditure involved for this purpose shall be met from the General Sector Development Fund of the Local Government as per instructions in this regard contained in the Government Order cited as first reference above.
- C. Training programmes on various activities connected with the preparation of Local Development Plans shall be organised by District Planning Committee, Kollam with the assistance of the District Town and Country Planning Office. In order to extend required support to Local Governments a Planning Help Desk has to be set up at the District Town and Country Planning Office.

S.M. Vijayanand
Principal Secretary

1. Presidents and Secretaries of all the Grama Panchayats in Kollam district
2. Presidents and Secretaries of all Block Panchayats in Kollam district.
3. President and Secretary, Kollam District Panchayat.
4. Mayor and Secretary, Kollam Corporation.
5. Municipal Chairpersons and Secretaries of all Municipalities in Kollam District.
6. Chairperson, Kollam District Planning Committee.
7. Secretary, Planning & Economic Affairs Department.
8. Panchayat Director
9. Rural Development Commissioner
10. Director, Urban Affairs
11. Director, Public Relations
12. Chief Town Planner
13. Director, Kerala Institute of Local Administration
14. Director, State Institute of Rural Development, Kottarakkara
15. Executive Director, Kudumbasree Mission
16. Executive Chairman & Director, Information Kerala Mission
17. Chief Engineer, Local Self Government Department
18. Member Secretary, Kollam District Planning Committee (District Collector)
19. District Planning Officer, Kollam

20. Deputy Director, Panchayats, Kollam
21. Assistant Development Commissioner (General), Kollam
22. District Town Planner, Kollam
23. Regional Joint Director, Kollam, Department of Urban Affairs
24. Director, Local Fund Audit, Thiruvananthapuram.
25. State Performance Audit Officer
26. General Secretary, Kerala Grama Panchayat Association
27. Secretary, Kerala Block Panchayat Association
28. Secretary, Chamber of Municipal Chairmen
29. Secretary, Chamber of District Panchayat Presidents.
30. Accountant General (A&E) Kerala, Thiruvananthapuram (with covering letter)

Copy to:-

1. Private Secretary to Minister, Local Self Government Department
2. PA to Principal Secretary, Local Self Government Department.
3. DA/DD/FM Sections, Local Self Government Department
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**(Annexure to Circular
No. 71810/2008/LSGD dated 29.11.2008)**

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BY
LOCAL GOVERNMENTS IN KOLLAM DISTRICT**

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Stages and activities in the preparation of Local Development Plan

Stage 1 Data collection and compilation

Activity 1 Data collection and compilation modification of collected data

Stage 2 Analysis

Activity 2 Study of development sectors

Activity 3 Mapping of major transportation networks, nodes as well as influence zones of nodes

Activity 4 Arriving conclusions based on spatial analysis report

Activity 5 Analysis of transportation network

Stage 3 Findings and conclusions, development goals, development objectives.

Activity 6 Setting up of goals and objectives

Stage 4 Development concept

Activity 7 Formulation of development concept

Stage 5 Framing of development policies and strategies

Activity 8 Framing of development policies and strategies

Activity 9 Finalisation of development concept,; development policies and strategies

Stage 6 Development proposals

Activity 10 Formulation of development proposals for the ensuing 20 years.

Activity 11 Formulation of development proposals for the ensuing 5 years.

Activity 12 Finalisation of development proposals

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Activity 13 Preparation of report of draft Local Development Plan

Activity 14 Preparation of report of draft Five Year Plan

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Part – 1

GUIDELINES FOR PREPARATION OF LOCAL DEVELOPMENT PLANS

Programme of preparation of Local Development Plans

Guidelines

1. Preface

As per G.O (MS) No. 65/2008/LSGD dated 06.03.08 every Local Self Government Institution has to prepare Eleventh Five Year Plan (2007-12). It was stated in the said order that detailed directions for preparation of Five Year Plan will be issued separately.

In Kollam district the preparation of Integrated District Development Plan as well as Local Development Plans for each Local Government has already been started as per G.O (MS) No.62/03/Planning, dated 01.08.03. Accordingly Integrated District Development Plan for Kollam district has already been prepared in a spatial planning approach. The said Plan elaborates the development perspective of the district along with the development goals of each Local Self Government Institution in general. However the process of preparing Local Development Plan for each Local Government in the district, based on the development concept formulated for the next 20 years, is in various stages. The Local Development Plans for Paravoor Municipality and Pooyappally Grama Panchayat are duly completed as models in this connection. This report is a guideline for completion of Local Development Plan for Local Self Government Institutions in Kollam district along with the completion of their development report of the Eleventh Five Year Plan.

Local Development Plan is prepared on the basis of a long-term perspective for 20 year period. Development proposals for the coming 20 years are formulated in a phased manner taking into account this long term perspective. A report consisting them would form the draft report of the Local Development Plan. The execution plan of the Local Development Plan summarises the activities that are to be taken up for implementation during the first five years. Report of the Five Year Plan of the Local Government concerned is prepared incorporating the execution plan and the development concept. Subsequently the Local Development Plan is finalised incorporating proposed land use map and development control rules.

The following may be referred in the preparation of Local Development Plan.

~~Handbook~~ Handbook for preparation of Integrated District Development Plan and Local Development Plan (IDDP-LDP)*

**Hand book prepared during Tenth Five Year Plan period has been revised during Eleventh Five Year Plan period. The hand book cited here refers to this revised hand book.*

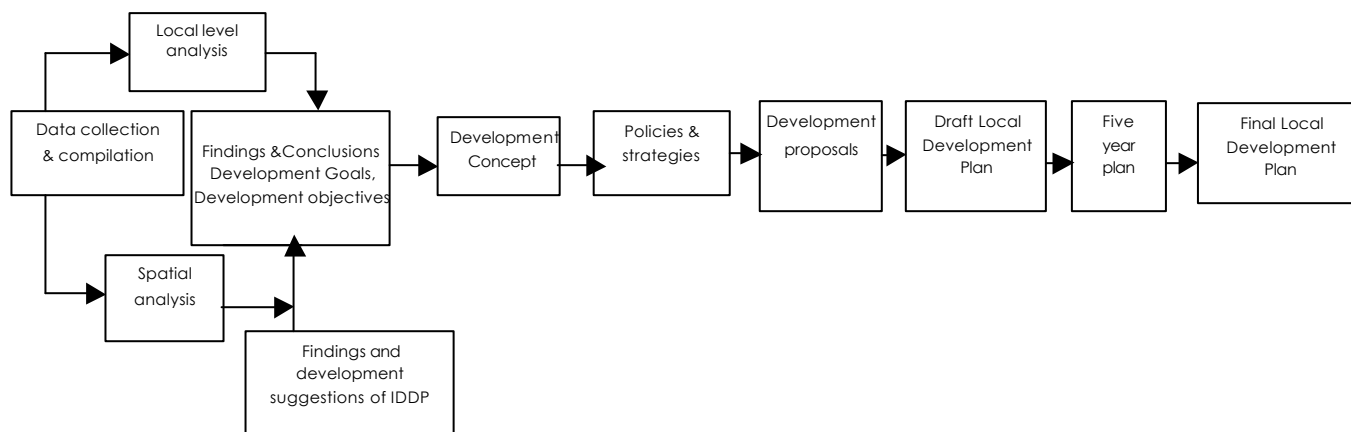
- ~~///~~ Integrated District Development Plan for Kollam district
- ~~///~~ Local Development Plans for Paravoor Municipality and Pooyappally Grama Panchayat
- ~~///~~ Tool kits on various activities related to the preparation of Local Development Plan
- ~~///~~ Spatial analysis report of the Local Self Government Institution (A model of which is given in Annexure – 2)

In addition, details submitted by every Local Government to the District Town and Country Planning Office during initial stages of preparation of Local Development Plan like local level analysis report, secondary data, land use map etc. may also be made use of in the preparation of Local Development Plan. Training programmes explaining activities related to preparation of Local Development Plan will be conducted by District Town and Country Planning Office. More over a Planning Help Desk will also be functioning at the District Town and Country Planning Office for rendering necessary assistance during various stages of preparation of the Plan.

An organisational set up already exists at district level for co-ordinating the work of preparation of Local Development Plans. The major responsibility of preparing Local Development Plan will be vested with respective Panchayat committee/Municipal council. Working groups will organise studies on respective development sectors and will evolve development proposals. (In addition to the working groups formed in accordance with the existing guidelines for the preparation of Five Year Plan, formation of special working groups for the sectors of Agriculture, Animal husbandry and Forest and Environment is also proposed). List of working groups and the development sectors to be studied by each working group are given in Annexure – 1. It shall be the responsibility of the Spatial Integration Committee, comprising representatives from all working groups, to conduct general studies and to formulate development concept. (The structure of the Spatial Integration Committee is detailed out in paragraph 3.8.2 of the handbook). The Spatial Integration Committee may be expanded by incorporating new members if necessary.

II. Local Development Plan Preparation Process

The process of preparation Local Development Plan is shown in the figure below.



Various stages involved in the preparation of Local Development Plan are detailed below. (A few of the Local Self Government Institutions have already completed first and second stages) Each stage of the plan preparation process is explained in general and activities involved for the completion of each stage is explained in particular.

Stage 1 - Data Collection and Compilation

Data collection comprises the following

- ~~///~~ Land use
- ~~///~~ Socio-economic data
- ~~///~~ Sectoral data
- ~~///~~ Data collected from previous development reports and plan documents.

Activity 1:- Data collection and compilation/modification of collected and compiled data

Almost all Local Governments in the district have completed this stage. However some of the data have to be modified by updating. For Local Self Government Institutions which have not yet completed data collection, the check list of data to be collected given in Annexure - 8, of the hand book for LDP-IDDP may be made use of. Respective working groups shall be responsible for the accomplishment of this process.

(Local Governments which have already completed data collection need only effect necessary modifications by updating the data).

Stage -2 Analysis

Preparation of Local Development Plan involves analysis of data at two different levels.

~~///~~ Local level analysis

~~///~~ Spatial analysis

Local level analysis

Due to the time constraints, certain activities enumerated in the handbook for the preparation of LDP-IDDP are excluded and a revised methodology for local level analysis is suggested here. Local Self Government Institutions which have completed local level analysis also may revise the analysis accordingly.

Local level analysis involves activities at two levels.

~~///~~ Study of development sectors

~~///~~ Mapping of major transportation network, nodes, as well as influence zones of nodes.

Activity 2:- Study of development sectors

The study of development sectors involves the studies of level of activity during the previous period in each development sector, present status of the sector and problems and potentials of the sector. Responsibility of this activity is vested with the working group dealing with the respective development sector. List of working groups and guidelines enabling the study of development sectors is given in Annexure – 1

Activity 3:- Mapping of major transportation network, nodes and influence zones of nodes.

The handbook for preparing LDP-IDDP gives a detailed account of how to identify transportation net work, nodes, influence zones of nodes and also how to mark them in the map (Paragraph 5.3.2 assignment 25) are given. This has to be executed by the Spatial Integration Committee.

Spatial Analysis

Spatial analysis has to be done by the Spatial Integration Committee on the basis of spatial analysis report prepared and supplied by District Town and Country Planning Office. (Spatial analysis report is prepared by District Town and Country Planning Office. A model of this is given in Annexure – 2). Spatial analysis report gives an account of the Local Government based on the analysis of various components like population, occupation structure; land use, topography etc depicted in the form of tables/ charts/ graphs/ maps. Spatial Integration Committee may arrive at conclusions based on them. The transportation network in

respective Local Government areas may also be analysed by the Spatial Integration Committee.

Activity 4:- Arriving at conclusions on the basis of spatial analysis report

Directions enabling to arrive at conclusions based on the analysis of various components (population, occupation structure, land use, topography) depicted in the form of tables/charts/graphs/ maps in the spatial analysis report are detailed out in Tool kit – 1. More over for further clarity Development Plans of Paravoor Municipality and Pooyappally Grama Panchayat may also be referred to. In addition assistance of Planning Help Desk shall also be sought in the process of spatial analysis.

Activity 5:- Analysis of transportation network

The purpose of analysis is to identify drawbacks in the transportation network and to propose solutions to the identified problems through the analysis of regional roads passing through the area as well as the existing local transportation network. The Integrated District Development Plan contains details of the regional level roads such as width, direction etc. The analysis probes the existence of a proper network of roads

- i) between various local level roads and regional roads passing through the area and
- ii) between various local roads in the area.

In the absence of such a proper transportation network, possible solutions to the problem shall also be suggested. The Spatial Integration Committee may make use of the road map of the area in the scale of 1:20,000. Tool Kit - 2 explains the method to be adopted for analysis.

Stage – 3 Findings and Conclusions, Development Goals, Development Objectives

The findings and conclusions arrived at, on the basis of local level analysis and spatial analysis shall be consolidated sector wise into a report. Findings and conclusions pertaining to the Local Government, as described in the Integrated District Development Plan need also to be included in this report. (Integrated District Development Plan and part – 1 of spatial analysis report have to be taken into consideration while preparing the report). Major development problems and development potentials of the Local Government area can be ascertained by going through these findings and conclusions and the development goals can be defined accordingly. It is not the policy to formulate a development goal for each finding, instead taking into consideration of all the findings five or six development goals may be formulated. Development objectives are the means of achieving the development goals.

For instance, if the development goal is to solve the deficiencies in infrastructural facilities of a panchayat, the development objective in this regards expresses what should be

done for the same. Making it clearer, improving the facilities in various sectors like education, health and drinking water as per planning standards is a development objective.

Activity 6:- Formulation of development goals and development objectives

The methodology of formulating development goals and objectives are detailed out in Tool kit – 3. The number of development goals shall be limited between 10 and 15 integrating similar development goals together.

Stage - 4 Development Concept

Development goals and objectives arrived at on the basis of analysis of activities form the basis of formulating development concept of a particular locality. These development objectives when spatially located taking into consideration of the peculiar features of the locality provides the development concept of a locality. The responsibility of formulating development concept vests with Spatial Integration Committee.

Activity 7:- Formation of development concept

Toolkit 4 explains the method of formulating development concept. Assistance of Planning Help Desk may be sought in the formulation of development concept.

Stage - 5 Development Policies and Strategies

Carve out development policies and strategies to be adopted in major development sectors according to development concept. Formulate a common development policy for the planning area (the Grama Panchayat/Municipality concerned) and give shape to sectoral development policies accordingly. Sectoral development policies and strategies are carved out before the formulation of sectoral development proposals. Sectoral policies and strategies form an interface leading to development proposals from development goals and development concept.

The development concept will clearly indicate how the area will develop in future and also will give an overall idea on locating various development proposals. Sectoral policy and sectoral strategy envisages respectively the role to be played by different development sectors, list of activities and what are the control measures to be taken in development sectors in order to achieve development concept level. It is the responsibility of the respective working groups to carve out sectoral development policies and strategies. Spatial Integration Committee also has its role in carving out sectoral policies and strategies.

Activity 8:- Carve out development policies and strategies

Tool kit helpful in carving out development policies and strategies is provided (Tool kit -5) as part of this guideline.

Activity 9:- Finalising development concept as well as development policies and strategies

The Development Concept as well as Development Policies & Strategies, jointly formulated by various working groups and Spatial Integration Committee are finalised through three actions:

~~///~~ Discussing with spatial analysis wing of the Town and Country Planning Department.

~~///~~ Discussion in the Grama/Ward Sabha

~~///~~ Discussion in the Council of the Local Government.

~~///~~ Discussing with spatial analysis wing of Town and Country Planning Department:-

The major issues to be discussed with the spatial analysis wing of the Town and Country Planning Department are whether the development concept, policies and strategies carved out at the Grama Panchayat/Municipality level are in tune with the district development perspective (as per Integrated District Development Plan), if not what are the mismatches and how can they be incorporated.

~~///~~ Discussion in the Grama/ Ward Sabha:-

Grama/Ward Sabha shall discuss the development concept as well as development policies and strategies. On the basis of the suggestions there on necessary modifications may be made in the development concept and development policies and strategies. Practical suggestions, if any to materialise the development policies and strategies received from the Grama/Ward Sabha shall also be incorporated before finalising the development proposals.

It is to be noted that even if any of the development proposals/suggestions from Grama/Ward Sabha have not been considered in finalising the development policies and strategies, they may be considered in the formulation of Five Year Plan if they are proposals for development to be implemented in the coming five year period provided that they are not against the Development Concept. More details regarding Grama/Ward Sabha are given in Annexure – 3.

~~///~~ Discussion in the Council of the Local Government:-

Development concept, policies and strategies shall be discussed in the Council of Local Government for finalisation.

Stage - 6 Development Proposals

Activity 10:- Formulate development proposals for the next 20 years.

Next step, after finalisation of development concept, sectoral development policy and strategy, is to formulate development proposals. (The Integrated District Development Plan and part – 1 of spatial analysis report are to be taken into consideration at this stage.) The development agency responsible for implementation of the proposals and the level of implementation of the project (ie. ward level, panchayat level, district level, state level) are also to be made clear in the suggestive list of development proposals. Above all, the development proposals shall be location specific. Development proposals shall manifest the needs for the next 20 years. The funds required to implement each development proposal, agencies, phases of implementation (every five year) etc. shall also be specified.

Activity 11:- Formulation of development proposals for the next five years

From among the development proposals identified under *Activity 10* those proposals to be implemented at Local Government level during the next five years shall be compiled to form the proposals for Five Year Plan of the Local Government. Local level proposals (even if they are not considered in the development concept and development proposals) finalised after discussion in the Grama/Ward Sabha may be incorporated in the Five Year Plan as sectoral proposals.

Activity 12:- Finalisation of development proposals

Sectoral development policies and strategies and sectoral development proposals shall be presented in the development seminar for discussion and approval. Later, these shall be approved after discussion by the Council of the Local Government. Development proposals with a perspective of 20 years and also proposals to be implemented in the next five years which are to be included in the Five Year Plan shall be categorically presented in the seminar.

Stage - 7 Report

Activity 13:- Report of the draft Local Development Plan

A report of the draft Local Development Plan shall be prepared incorporating development proposals. The content of the report of Local Development Plan is given as Annexure - 4. Respective working groups have to prepare sectoral reports.

Activity 14:- Report of draft Five Year Plan

Five Year Plan report shall be prepared incorporating projects to be implemented during the next five year period by the Local Government and also the development suggestions of Grama/Ward Sabhas. The content of the report shall be according to the guidelines for the formulation of Eleventh Five Year Plan.

III. Final approval for the Five Year Plan

Activity 15:- Final approval for Five Year Plan

Five Year Plan report shall be submitted to Technical Advisory Group for final approval of District Planning Committee.

IV. Finalising Local Development Plan

On completion of draft Local Development Plan, sectoral development proposals to be implemented in the next 20 years will be available. Certain land use control measures are necessary to co-ordinate and control various development activities in accordance with the development concept. Two measures viz. preparation of proposed land use map and framing development controls are required in this regard.

Activity 16:- Preparation of land use map in which the development proposals are spatially located.

Through preparation of land use map it becomes possible to determine the purposes for which each and every parcel of land is to be put to use, to control developments which interfere road development and other development proposals, to prevent activities that cause adverse impact on environment etc. Land use map is prepared in resurvey map in the scale 1:10000. (Guidelines for preparing land use map shall be supplied later).

Activity 17:- Development controls

Since it becomes evident through development controls, the types of activities that can come under each type of land use, activities contrary to them could be regulated. (Guide lines for the formulation of development controls shall be provided later).

The Spatial Integration Committee shall prepare land use map and development controls with the help of Town and Country Planning Department. The development report prepared incorporating development proposals together with the land use map, report, and development controls form the Local Development Plan.

V. Time schedule for preparing Local Development Plan/Five Year Plan

Time schedule for the preparation of Local Development Plans of Local Self Government Institutions -Kollam District																																			
Sl No	Activity	1		2		3		4		5		6		7		8																			
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32		
1	Primary Activities- Organising of Working groups ,SIC and other activities																																		
2	Data Collection and its Modification																																		
3	Sectoral Studies																																		
4	Spatial Analysis																																		
5	Findings and Conclusions,Development goals, Objectives, Development Concept																																		
6	GramaWard sabha																																		
7	Modification of Development Concept based on suggestions from GramaWard sabha																																		
8	Sectoral Development suggestions																																		
9	Development Seminar																																		
10	Five year Plan- Developmen Report(draft)																																		
11	Five year Plan report (final)-To be submitted to TAG.																																		
12	Five year Plan approval by DPC																																		
13	Land use map,Transportaion Plan,Development regulations																																		
14	Final Local Development Plan																																		

VI. Training Programmes

Training programmes to be conducted in connection with the preparation of Local Development Plan are given below.

Sl.No	Training Programme	Participants	Training Period	Subject of Training
1	Block level training programme	Elected representatives and working group members of the Local Governments	2 days	LDP preparation in general, Sectoral analysis.
2	District level training programme – 1	Resource persons, Engineering trainees, SIC chair persons	2 days	LDP preparation in general, Spatial analysis.
3	District level training programme – 2	Co-ordination committee members and members of Local Development Plan Processing Committee	1 day	LDP preparation in general.

Part – 2

Tool kits

Tool Kit – 1

Toolkit for arriving at conclusions on the basis of spatial analysis

(i) Objective

To compare the general aspects (like population occupational structure, land use etc), related to a particular area, on the basis of their spatial distribution, temporal changes etc. with that of other areas to arrive at conclusions and to find out the reasons for them.

(ii) Responsible Agency

Spatial Integration Committee shall arrive at conclusions on the basis of spatial analysis based on part -II of the spatial analysis report containing spatial analysis maps, charts, graphs etc related to several aspects provided the district office of Town & Country Planning Department.

(iii) Assistance for Analysis

Planning Help Desk at the district office of Town & Country Planning Department shall provide assistance for the process of spatial analysis. Development Plans of Paravoor Municipality and Pooyappally Grama Panchayat may be made use of as examples to understand how the results of spatial analysis lead to conclusions.

(iv) Method of Analysis*

The temporal changes as well as spatial concentrations of general aspects are mainly included in the spatial analysis report. Average values of these general aspects in the district/block panchayat/nearby panchayats shall be made available. Variations in the values of these general aspects among different areas of the Local Self Government Institution shall also be given in the spatial analysis report. A comparative study will reveal the status of these general aspects in the respective Grama Panchayat/Municipality. From this we could arrive at certain conclusions related to each and every component as detailed below.

**In the case of urban local governments details pertaining to the respective LSG, their comparison with other urban centres in the district etc will be given.*

General aspects to be analysed

- ~~///~~ Regional setting
- ~~///~~ Population
- ~~///~~ Occupational structure
- ~~///~~ Topography
- ~~///~~ Network of roads

Regional setting

Map showing the location of the Grama Panchayat/Municipality in the district, latitude – longitudes, area of the LSGI, regional transportation network map (road, rail, major water ways) will be provided. [See figure 1, 2 of part II of the model spatial analysis report (Annexure 2)].

The Spatial Integration Committee shall probe the following on the basis of the above.

- ~~///~~ What are the peculiarities incurred due to its location? (Example: Being a Local Government situated in the coastal area there is importance for fishing).
- ~~///~~ In what all ways the area is linked to other centres in the region. (Eg: by road alone, by road and rail).
- ~~///~~ Is the existing regional road network adequate to link the Grama Panchayat/Municipality to other important centres in the district? (For example Pooyappally grama panchayat is linked to other important centres in the district like Kollam Town, Kottarakkara, Punalur, Kottiyam and Chathanoor through the Kollam – Ayoor Road and the Chathanoor – Ayoor Road passing through the panchayat).
- ~~///~~ Is there any missing links in the regional transportation network of the area that links the Grama Panchayat/Municipality to major centres in the region? If the answer is in the affirmative, suggest measures to solve the issue.

Population

The spatial analysis report will contain the following details regarding population (*In addition to the data related to the Local Government, details of the district, the block panchayat concerned and that of nearby panchayats will also be included.*)

- ~~///~~ Population during the periods 1981,1991&2001 (Part 2, figure 3 of spatial analysis report)
- ~~///~~ Population of the Grama Panchayat expressed as percentage of population of the Block Panchayat (Part -2, figure 4 of spatial analysis report).
- ~~///~~ Population of the Grama Panchayat expressed as percentage of population of the District (Part -2, figure 5 of spatial analysis report).
- ~~///~~ Rate of growth of population during 1981-91, 1991-01 periods (Part 2, figure 6 of spatial analysis report)
- ~~///~~ Comparison of increase in population of the Grama Panchayat with that of the Block Panchayat and the District (Part 2 figure 7 of spatial analysis report).
- ~~///~~ Comparison of growth rate in population of the Grama Panchayat to that of grama panchayats nearby and other grama panchayats within the block. (Part 2 figure 8 & 9 of spatial analysis report).

- ~~///~~ Density of population of the Grama Panchayat compared to that of the Block Panchayat and the district (Part 2, figure 10 of spatial analysis report).
- ~~///~~ Distribution of density of population in the District (Part 2, figure 11 of spatial analysis report).
- ~~///~~ Distribution of density of population in the Block Panchayat (Part 2, figure 12 of spatial analysis report).
- ~~///~~ Density of population (net) of the Grama Panchayat, compared to that of the Block Panchayat and the district (Part 2, figure 13 of spatial analysis report).
- ~~///~~ Density of population of the Grama Panchayat compared to that of the nearby grama panchayats (Part 2, figure 14 of spatial analysis report).
- ~~///~~ Density of population of the Grama Panchayat compared to that of other grama panchayats of the block (Part 2, figure 15 of spatial analysis report).
- ~~///~~ Density of population (net) of the Grama Panchayat compared to that of nearby grama panchayats (Part 2 figure 16 of spatial analysis report).
- ~~///~~ Density of population (net) of the Grama Panchayat compared to that of other grama panchayats in the block (Part 2, figure 17 of spatial analysis report).

Note:- *Density of population implies the number of people living in one square kilometre area. Density of population of a particular area may be expressed in two ways viz gross population density and net population density. Gross density of population is obtained by dividing the total population by total area of the Local Government. Net population density is obtained by dividing the total population by the habitable area. (Habitable area = Total area – non habitable area like lakes, rocky place, forest, marshy places etc).*

- ~~///~~ Population: - Ward wise details (See part 2, figure 18 of model spatial analysis report).
- ~~///~~ Ward wise distribution of density of population (See part 2, figure 19 of model spatial analysis report).
- ~~///~~ Projected population and population growth rate for 2011 and 2021 based on existing growth rate of population (See part 2, figure 20 of model spatial analysis report).
- ~~///~~ Ward wise distribution of expected total population of 2021 (See part 2, figure 21 of model spatial analysis report).

The details shown above indicate the trend based projection of population by 2021 and also its ward wise distribution.

(In the case of a Municipality/Corporation, its population shall be compared with that of other urban centres of the district as well as state)

After analysing data related to population the Spatial Integration Committee shall clearly state the following:

- ~~///~~ The rate of growth of population of the Grama Panchayat/Municipality in comparison with the growth rate of population of the district, the block panchayat and nearby grama panchayats and the relative position of the Local Government with respect to growth rate of population.
- ~~///~~ If the comparative study shows that there is conspicuous difference in the rate of growth from other areas (district, nearby Local Governments) the reason thereto may also be stated. (Eg:- Due to inadequacy in infrastructure facilities people migrate to other areas. Due to opening up of new employment opportunities people migrate to this place likewise).
- ~~///~~ If there is a wide gap between gross density of population and net density of population it means that major portion of the area under the Grama Panchayat/Municipality is not habitable. The gross and net densities of population shall have to be compared with the corresponding figures of the district, nearby panchayats and the Block Panchayat in the case of a Grama Panchayat, and to other urban centres of the district as well as state in the case of a Municipality. This comparative study may reveal whether the area is densely populated or not.
- ~~///~~ Analysis of the map showing ward wise density of population would reveal whether densely populated wards are situated adjacent to each other or not, and whether any part of the Local Government area shows increase/decrease in density of population etc. The contributing factors for this may also be explained. (For example the existence of thickly populated fishermen settlements is the cause for the high density of population in coastal wards, areas on either side of the main roads show high density of population etc).
- ~~///~~ Sex ratio is the number of men for every thousand women. Sex ratio of the Grama Panchayat/Municipality may be compared to that of the District, Block Panchayat and nearby Grama Panchayats or to other urban centres of the district as the case may be and reasons for conspicuous differences, if any, shall be brought out.
- ~~///~~ Analysis of the ward wise population distribution map will reveal whether concentration of people takes place in any particular ward. Causes for the same, like level of availability of infrastructure facilities, social factors etc may also be clearly mentioned.
- ~~///~~ Local Development Plan is prepared with a perspective of 20 years. Hence population of the Grama Panchayat/Municipality projected for 20 years has to be taken into account. Probable population of a particular area has a direct bearing on the probable development of that area. However, since it is not possible to predict, at this point of time, the future development scenario of the area, the projected population can be pictured assuming that the present rate of increase in population continues (The future

population, estimated on the basis of trend based projection will be included in the spatial analysis report).

On completion of analysis of population, the pattern of population increase with its causes; pattern of distribution of population with its peculiarities and causes etc shall become evident.

Occupational Structure

The following details about occupational structure shall be included in the spatial analysis report. *(In addition to the details of the Local Government area concerned, details of the district, block panchayat in which the Local Government is situated and that of the nearby panchayats shall also be included in the case of Grama Panchayats and that of other urban centres in the case of a Municipality).*

- ~~///~~ Occupational structure in general (See part 2 figure 35 of model spatial analysis report).
- ~~///~~ Total number of workers during the periods 1981, 1991 and 2001 (See part 2 figure 36 of model spatial analysis report).
- ~~///~~ Variation in the rate of work force participation (See part 2 figure 37 of model spatial analysis report).
- ~~///~~ Work force participation rate – comparison with district as well as Block Panchayat (See part 2 figure 38 of model spatial analysis report).
- ~~///~~ Work force participation rate – comparison with nearby Grama Panchayats (See Part 2 figure 39 of model spatial analysis report).
- ~~///~~ Work force participation rate – comparison with other Grama Panchayats in the Block Panchayat (See Part 2 figure 40 of model spatial analysis report).
- ~~///~~ Variation in the occupational structure (See Part 2 figure 41 of model spatial analysis report).
- ~~///~~ Ward wise distribution of agricultural labourers (See Part 2 figure 42 of model spatial analysis report).
- ~~///~~ Ward wise distribution of cultivators (See part 2 figure 43 of model spatial analysis report).
- ~~///~~ Ward wise distribution of household industrial workers (See Part 2 figure 44 of model spatial analysis report).

Note: - *The analyses included in the spatial analysis report are based on the census data. Apart from this, data available at the Local Government related to workers engaged in various sectors and data available at other centres (Eg:- the number of workers employed in the coir sector is available in the coir –co-operative societies) may also be made use of.*

The Spatial Integration Committee shall clarify the following based on the analysis of occupational structure.

✍ Total number of workers during the years 1981,1991&2001, variation in the number of workers with reasons, comparison of variation of total population to the variation of workers during the same period etc. (ie. whether employment opportunities increase or decrease in proportion to the population). The variation in work force participation rate (ratio between the number of workers and population) can be brought out by analysing the graph representing work force participation rate. If workforce participation rate is on the decrease it can be concluded that employment opportunities are not available in proportion to increase in population. The reason for such a situation also to be made clear.

✍ According to census, workers are classified as cultivators, agricultural labourers, household industrial workers and other workers. Study the changes that have taken place in these categories in course of time viz.1981, 1991, 2001. (Eg: - There were 320 farmers out of 1000 workers in 1981 which came down to 250 in 2001). Through this the changes in occupational structure of the Grama Panchayat/Municipality can be made clear. Social or economic reasons, if any, leading to such change in occupation structure may also be specified.

✍ Data showing ward wise distribution of workers help to understand whether there is concentration of workers in any of the wards and if so, reasons for the same shall be specified. Similarly studying the ward level distribution of various categories of workers will help to identify the wards of the Grama Panchayat/Municipality in which workers employed in various categories are concentrated. The study of ward wise distribution of various categories of workers enables to understand the wards where there is concentration of each category of workers.

The temporal changes occurred in employment opportunities and occupational structure and the existing occupational structure etc will be clear on completion of analysis of the occupational structure.

Land use

Spatial analysis report will contain the following information on land use *(In addition to the information of the Grama Panchayat/Municipality concerned, the report will contain information of the District, the Block Panchayat and nearby Grama panchayats in the case of a Grama Panchayat and that of other urban centres in the case of a Municipality)*

✍ Land use break-up of the Local Government area (See Part 2 figure 22 of model spatial analysis report). *Area of land under various uses, percentage of area of land under various uses to the gross area and net area of the Grama Panchayat/Municipality are*

given. (Net area is the area of land obtained after reducing the inhabitable areas such as area coming under forest land, lakes etc from the gross area.)

- ~~///~~ Land use map of the Grama Panchayat/Municipality (See Part 2, figure 23 of spatial analysis report).
- ~~///~~ Land use details of neighbouring Local Governments (Part 2, figure 23 A of spatial analysis report).
- ~~///~~ Percentage of land under residential use – Comparison with Block Panchayat and District/other urban centres (See Part 2 figure 24 of spatial analysis report).
- ~~///~~ Percentage of land under residential use - Comparison with nearby grama panchayats and panchayats within the Block Panchayat/other urban centres (See part 2, figure 25 and 25 A of spatial analysis report).
- ~~///~~ Percentage of land under Agricultural use - comparison with Block Panchayat and District/other urban centres (See Part 2 figure 26 of model spatial analysis report).
- ~~///~~ Percentage of land under agricultural use – comparison of nearby grama panchayats and with remaining panchayats within the Block Panchayat/other urban centres (See part 2, figures 27 and 27A of model spatial analysis report).
- ~~///~~ Ward wise land use break up (See part 2, figure 28 of model spatial analysis report).
- ~~///~~ Analysis of ward wise land use (See part 2, figure 29 of model spatial analysis report).
- ~~///~~ Concentration of agriculture area. (See part 2, figure 30 of model spatial analysis report).
- ~~///~~ Concentration of commercial area (See part 2, figure 31 of model spatial analysis report).

The purpose of this study is to know whether there is concentration of any land use (or development sector) in any of the wards. Mapping of land use concentration is done by marking the concentration index of different land uses in the map.

- ~~///~~ Functional character of wards (See part 2, figure 32 of model spatial analysis is report).
- ~~///~~ Map showing functional character of wards (See part 2, figure 33 of model spatial analysis report).
- ~~///~~ Map showing functional character of various Grama Panchayats/Municipalities within the district (See part 2, figure 34 of model spatial analysis report).

Note: - Areas shown as residential in the land use map may usually be areas of mixed development where agricultural lands and residences are in co-existence. The study aims at assessing whether the area is predominantly agricultural or predominantly residential in nature based on the average plot sizes.

Thus, based on average size of land holdings in the locality, the residential areas may further be divided into four categories:

- ✍ Pucca residential areas – The average size of land holdings here is less than 25 cents. Agriculture cannot be considered as a main source of income.
- ✍ Agricultural cum residential areas – The average size of land holding here is between 25 and 50 cents. Agriculture is also one among the sources of income.
- ✍ Residential area having predominance to agricultural activities – The average size of land holding here is between 50 and 70 cents. Agriculture is a main source of income.
- ✍ Residential area where full agricultural operations are possible – The average size of land holding will be above 70 cents. Moreover income from agriculture alone is sufficient to run the family.

Functional character of Wards

Note: - Existing activities as well as activities that are likely to be brought in future in a particular area are very much related to the existing land use of that area. Functional character of wards having major portion of land under agricultural use (50% or more) is termed rural. Areas having major portion (50% or more) of the land under uses such as commercial, industrial, hospitals, educational institutions and similar other public uses are categorised as areas exhibiting urban character. In certain wards residential and agricultural uses are inseparable making it difficult to classify the character of an area either as urban or rural. Based on the average size of land holdings such wards may be classified as pucca residential areas, agricultural cum residential areas, residential areas where agriculture is predominant or residential areas where full agricultural operations are possible. Pucca residential areas can be classified as areas of urban character. Agricultural cum residential areas may be termed as areas exhibiting semi urban character. Residential areas having predominance in agriculture may be termed as areas exhibiting semi rural character. Residential areas where full agricultural operations are possible can be termed as areas exhibiting rural character. Table shows how such areas of mixed land use of residential and agricultural could be categorised on the basis of average size of land holdings.

Table – Method of determining the functional character of a ward

Average land holding size in residential area	Classification of residential area within the ward	Functional Character of the residential area
Below 25 cents	Pucca residential area	Urban character
Between 25-50 Cents	Agriculture –cum residential area	Semi urban character
Between 50-70 cents	Residential area where agriculture is predominant	Semi rural character
Above 70 cents	Residential area where full agricultural operations are possible	Rural character

Classify the total geographical area of the Local Government or a ward into three based on functional character viz – areas fully urban in character, areas fully rural in character and residential areas showing mixed land use. Now classify the residential areas with mixed land use according to the table and add the areas of urban character to the land area showing fully urban character within a ward and if the resultant area exceeds 50% of the gross area of the ward, then that area may be treated as urban. In case character of residential area having mixed land use is rural add that area to land area showing fully rural in character. If the resultant land area exceeds 50% of the area of LSG/ward, that LSG/ward as the case may be treated as rural. If more than 50% of the residential area is characterised by mixed land use, functional character of that area will be either semi-urban or semi-rural.

Spatial Integration Committee shall make the following clear on the basis of land use analysis.

✍ By comparing the area of land under various uses in the Grama Panchayat/Municipality with that of nearby panchayats/(other urban centres) as well as with the district average, reveal which of the development sectors have predominance there and whether the Local Government has advanced in any particular development sector in the context of the district.

✍ Through the comparison of land use concentration pattern and distribution pattern of workers, it can be brought out whether cultivators and agricultural labourers are concentrated in the same areas where concentration of agriculture land use is noticed.

Similarly from the land use pattern of densely populated wards areas of concentration of population can be assessed.

✍ Classification of residential area (based on functional character) makes it possible to identify localities/wards suitable for homestead cultivation.

✍ Functional character of wards and the resultant activities that could be probably promoted in those wards (Eg: - localities suitable for agricultural operations/ residential purposes/commerce/industry etc).

Study / Analysis of Topography

The following details regarding topography of the area shall be provided in the spatial analysis report.

✍ Slope of different localities within the ward/LSG (See Part 2, figure 45 of model spatial analysis report). (Topography is an important factor that determines the kind of activities that would take place in a locality. The slope of an area is an indicator of the topography).

Spatial Integration Committee shall arrive at suggestions on the possible activities that could be carried out in that locality through the analyses of topography.

If the slope is between 0° and 15° the area is mainly suitable for human habitation. If the slope is between 15° and 30° that area is mainly suitable for agriculture and if the slope is between 30° and 50° the area is mainly suited for horticulture. If the slope exceeds 50° the area will generally be forest land.

V. Outcomes of study/analysis

Spatial analysis will bring to light the present status of the Grama Panchayat/Municipality with reference to population, work force, land use & topography and also the related development issues as well as potentials.

VI. Time requirement

Five weeks

Tool Kit – 2
Analysis of Transportation Network

(i) Objective

The objective is to analyse the existing transportation network (at the regional level as well as at local level) within the Grama Panchayat/Municipality to find out issues if any and to suggest solutions for the identified issues.

(ii) Responsible Agency

This analysis is the responsibility of the Spatial Integration Committee who may use 1:20,000 scale road map of the Grama Panchayat/Municipality for analysis. Method of analysis is described below.

(iii) Method of Analysis

1. Examine whether any part of the regional road network as per the Integrated District Development Plan passes through the Grama Panchayat/Municipality. If so, mark such road(s) in the map of Grama Panchayat/Municipality with thick black double line.
2. Mark major roads (primary roads) in the road map of the Grama Panchayat/Municipality in thick black lines. (Major roads include most important roads like NH, SH, MDR etc which pass through the area. On these roads buses ply at an interval of less than 15 minutes.)
3. Then mark sub major roads in thick red lines. Sub major (secondary roads) are next in importance to major roads. These roads are next most busy transportation roads after primary roads. Buses ply at an interval of 15-30 minutes through these roads.
4. The next step is to mark the minor roads. Buses ply at an interval of 30-60 minutes through these roads. These roads shall be marked in thick brown lines.
5. Now mark the sub minor roads. Buses ply at an interval of one hour or more through these roads. Use thick green lines to mark these roads.
6. Local roads which are not bus routes but having a minimum width of 3 mts shall be marked in thick violet lines.
7. Now mark main junctions (as identified in the local level analysis) in this map.
8. Now complete the map by marking transport terminals such as railway stations, boat jetty, harbours etc, if any.

The map thus prepared will depict the hierarchy of the roads in identifiable colours. Based on the study of this map the Spatial Integration Committee shall attend the following.

✍ Examine whether a complete network of roads in which sub major roads are linked to major roads, minor roads are linked to sub major roads, sub minor roads are linked to minor roads and local roads are linked to sub minor roads is formed. If the road network is incomplete it is evident that certain roads have to be upgraded. Minor roads may have to be upgraded to sub major roads and sub minor roads may have to be upgraded to minor roads and so on.

✍ Examine whether hierarchy of junctions coincide with the hierarchy of roads. For example at least one sub major road shall pass through a major junction. If it is not the case, the road that passes through that major junction may be proposed to be upgraded to sub major road. Similarly it may also be examined whether there are any missing links in the existing road network.

Proposals for integrating different transportation systems (road, rail, waterway) in the Grama Panchayat/Municipality area shall be incorporated.

✍ Width of the roads in the network shall be fixed in the following manner.

Category of roads	Grama Panchayat Areas	Municipal Areas
Major Roads	Width of roads fixed by Govt. shall be followed in case of NH,SH & MDR	Width of roads fixed by Govt. shall be followed in case of NH, SH and MDR
Sub Major Roads	12 m	18 m
Minor Roads	7 m	12 m
Sub – Minor Roads/ Local Roads	5 m	7 m

(iv) Outcomes of study/analysis

The analysis will reveal the present status of the Grama Panchayat/Municipality with reference to transportation network and the development issues and potentials in this regard.

(v) Time requirement

Five weeks.

Setting up of Development Goals & Development Objectives

(i) Objective

To formulate development goals and objectives of the Local Government for the next 20 year period based on the findings of the sectoral analysis and spatial analysis.

(ii) Responsible Agency

Spatial Integration Committee

(iii) Supporting documents

Development reports and plan documents pertaining to previous years and data collected and compiled for Integrated District Development Plan.

(iv) Activities

1. Consolidate problems and potentials sector wise

In order to set up development goals and objectives, first prepare an abstract of problems and potentials pertaining to each sector identified through local level analysis and spatial analysis and also the findings related to various sectors as per the Integrated District Development Plan.

Example: - A brief account of some of the findings of studies and analysis conducted in connection with preparation of Local Development Plans for Paravoor and Pooyappally are given below.

~~///~~ Rate of growth of population of Paravoor Municipality is only 3.95%. It is quite low when compared to the district (7.38%) and also neighbouring panchayats. It can be concluded from this that activities providing a strong economic base that can attract people towards Paravoor are only a few in Paravoor.

~~///~~ According to Integrated District Development Plan for Kollam Paravoor municipal area shows semi urban nature. This enables the enrichment of homestead cultivation in Paravoor.

~~///~~ Consumption pattern of Paravoor Municipality indicates that a good amount of milk, milk products, egg, meat, vegetables etc are consumed. Hence due importance for boosting the production of these items is evident.

~~///~~ Even though there are cemeteries in Pooyappally grama panchayat they belong to religious institutions. There is no public crematorium.

~~✍~~ In spite of the increase in number of workers the workforce participation rate in Pooyappally Grama Panchayat shows slight decrease. Number of workers engaged in agricultural sector is comparatively high (22.3%) in Pooyappally grama panchayat. This is an indication of the strength of agricultural sector in Pooyapally panchayat.

2. Set up development goals

The development issues as well as potentials of the Local Self Government Institution can be identified while going through the abstract of the findings and conclusions related to the particular Local Government area. Development goals can be defined accordingly. Formation of development goals for each and every finding is not necessary. Instead five or six development goals would be formed taking into account all findings and conclusions together. Development goals shall be formed giving due consideration to the four aspects of development (viz. physical, social, economic and environmental).

For example, Pooyappally grama panchayat is depicted as a fourth order Local Government in Kollam District and as a Grama panchayat in the agro-development zone, as per the Integrated District Development Plan. These elements play a key role in defining the development goals of Pooyappally grama panchayat. Thus development of the economic base of the panchayat through well planned activities in agricultural sector forms one of the development goals of Pooyappally. Here two aspects of development – physical and economic – are taken into consideration.

In the example of Paravoor Municipality (Development Plan – Paravoor 2021, article 19.1), analysis shows that the Municipality lacks sufficient economic base. At the same time Paravoor has the necessary resources for development, especially natural resources, within its own soil (which are yet to be utilised for the development of the Municipality). Hence strengthening of the economic base of Paravoor Municipality by proper utilisation of the resources within Paravoor Municipality is a development goal. This is a development goal, which takes into consideration of the economic aspect.

3. Determine Development Objectives:-

Development objectives are the means to achieve the development goals. While development goals often address policy level matters, development objectives are more clear means towards materialising the goals.

For example if solving inadequacies in the infrastructure facility of a panchayat is a development goal, the development objectives in this regard are the activities that are to be done to achieve this. Making it clearer, raising the level of facilities in the sectors of education, health, drinking water etc commensurate with planning standards is the development objective.

If the example of Pooyappally grama panchayat is looked into it can be seen that Development Plan for Pooyappally Grama Panchayat declares three development

objectives to achieve the development goal of strengthening the economic base of the panchayat through planned development of the agricultural sector, viz.

1. Promote cultivation of paddy, rubber and coconut as main crops and promote farming of vegetables, medicinal plants and fodder as intermittent crops.
2. Carve out a system by which co-ordination of activities of farmers, agricultural officers and panchayat officials are put in place.
3. Developing animal husbandry sector complimentary to agricultural sector so as to strengthen the economic base of Pooyappally.

In the case of Paravoor Municipality in order to achieve the goal of expanding the economic base, the objective is to expand the present limited economic activities comprising coir, fishing and agricultural sectors by integrating the sectors of tourism, coir, IT & fishing along with homestead cultivation and ancillary activities.

(v) Outcomes

Development goals and development objectives of the Grama Panchayat/Municipality with a perspective vision of 20 years are set up.

(vi) Time Requirements

Four weeks

Note: - It is once again made clear that development objectives and development goals shall be set up on the basis of the findings of analyses. Development goals are to be set up considering the sectoral studies as a whole. In other words, development goals are formulated with an overall view of each and every development sector in the general back ground of that particular area. The means to reach the development goal thus set up in unison with the special features of the locality are the development objectives.

Formation of Development Concept

(i) Objective

To formulate the Development Concept of the Grama Panchayat/Municipality area in unison with the development goals. Development concept thus formed shall be for the next 20 years.

(ii) Responsible Agency

Spatial Integration Committee.

(iii) Supporting Documents

In order to understand the method of formation of development concept, Development Plans of Pooyappally Grama Panchayat and Paravoor Municipality as well as Integrated District Development Plan shall be referred to and the assistance of the planning help desk functioning at the district office of the Department of Town & Country Planning can be sought. Spatial analysis report may also be helpful in the formation of development concept.

What is meant by Development Concept?

Formation of development concept is the core element of a development plan. Even though the development goals as well as development objectives are formulated taking into account the total perspective of the area they are not spatially located at that stage. Actual integration (of development sectors and local specialities) takes place only when they are located spatially. This is what takes place in the formation of development concept. Development goals are set up aiming at enrichment of development potentials and solving the development issues. Development objectives are the means to achieve these goals. In the formation of development concept, the development goals and objectives are located spatially taking into account the local aspects. In short, development concept shows direction of development of an area.

Thus the development concept of an area visualises the development that may/may have to take place in that locality within a time frame. The special locational aspects and geographical features of an area are taken into consideration while framing the development concept. If the development goal envisages that tourism sector shall be given emphasis in order to strengthen the economic base of an area, various components like most suitable areas for tourism, environmental importance such areas, density of population of the area etc have to be taken into consideration while spatially locating the same.

How is Development Concept formed?

The first stage of formation of development concept is spatially locating the physical features of the area. For this aspects like land use, population distribution, transportation network, topography, functional character and environmental sensitive areas of the Local Self Government Institution area have to be integrated. (Certain local variations shall be expected). In this connection the following maps pertaining to these aspects shall be studied.

1. Land use map.
2. Map showing ward wise distribution of population density (See note).
3. Regional road network passing through the Local Government area.
4. Map showing topography
5. Map showing of environmentally sensitive areas.
6. Map depicting the functional character of wards.

The land use map will reveal the activity for which any parcel of land is put to use at present. Map showing density of population will help to identify areas which are thickly populated and other wise. Regional road network passing through the area is a component that determines possible developments in future. Suitable activities that can take place in future on the basis of slope of land may be identified from map showing topography. Similarly environmentally sensitive areas are another major determinant in the possible future location of activities. Development activities possible in future, on the basis of land use and population, in an area to be assessed with the help of map showing functional character of wards. On consolidating all the six components together, major development activities suitable for different areas of the Local Government (ie. for residential area, for agricultural operations, for other development activities etc) will be clear. The map prepared consolidating the above said components, is the map showing the spatial structure of the area. Based on the map depicting spatial structure the development objectives can be made location specific. The map proposing development objectives in a location specific manner is the map showing development concept of the area.

Stage by stage activities in the formulation of development concept

Land use map, map showing functional character of wards, map showing topography, map showing distribution of population density etc shall be made available.

Cadastral map of the Grama Panchayat/Municipality area in the scale of 1:20,000 comprising the following details is utilised for forming the Development concept (this map shall be provided by Town & Country Planning Department).

- a. Roads (NH, SH, MDR, other major roads), railway line
- b. Lakes, rivers, canals or streams
- c. Paddy fields, plantations
- d. Major junctions.

e. Forest areas.

- ~~/~~ Mark the areas to be protected in the map (Forest, water bodies, lakes, heritage areas, major places of worship, paddy fields, hills, other areas).
- ~~/~~ Then mark major junctions and their surrounding commercial areas.
- ~~/~~ Mark major centres of activity (industries, hospitals, educational institutions, government institutions).
- ~~/~~ Mark areas where no activities are possible (due to prohibitive slope of land and other peculiarities).
- ~~/~~ Mark the most densely populated areas.
- ~~/~~ Mark major colonies (centres of human habitation where standard of life has to be raised).
- ~~/~~ The remaining part on the map will be residential zone. Classify this residential zone based on functional character.
- ~~/~~ Now areas suitable for various development activities in the Grama Panchayat/Municipality will be almost clear.
- ~~/~~ Make the development objectives location specific (ie means to achieve the development goals).
- ~~/~~ Decide on changes that are required in the major road network through discussions.

For example; consider a case in which the Integrated District Development Plan proposes a road linking two important areas of the district through the major commercial centre of the Grama Panchayat/Municipality. However, this centre is found to be located such that development of road is not possible through that junction. Hence the said road alignment has to by pass this junction. The detailed alignment of the road stretch shall have to be determined and incorporated. Other examples are given below.

- (1). thickly populated areas do not generally have potential for industrial development.
- (2). activities that adversely affect environmentally sensitive areas (eg: - paddy fields, water bodies) shall not be proposed.
- (3). residential zones supportive of agricultural sector, are fit for homestead farming.

It has to be noted here that since the extent and type of developments that may/may have to take place in future are not assessed clearly at this stage, the development concept will not accurately locate such developments. Only tentative locations of developments will be incorporated.

(iv) Outcome

The development concept of the Local Government area will be made available, in the map format.

(v) Time requirement

Four weeks.

Note 1:- *Since development concept is formed with a perspective of 20 years, map showing population density shall be prepared on the basis of projected population. Ward wise population density shall be computed. For this purpose the projected population may be distributed among wards in proportion to the present ward wise population (ie. the in the proportion of Population of a ward to the total population of the Grama Panchayat/Municipality). Now identify the wards where increase/decrease in population is expected taking road network also into consideration. (Eg:- If a major road in the regional road network passes through ward –X where the present population density is low, it can be assumed that due to the presence of the road there is chance for population increase and hence it may be decided that high ratio of population may be allotted to the ward). The population and population density in future of the place shall be worked out after ascertaining the future changes. Map showing population density shall also be prepared. (The assistance of the Town & Country Planning Department shall be sought for these activities).*

Note 2:- *Development concept shall be made final only after discussions in grama/ward sabhas and vetting by the Spatial Analysis Wing of Town & Country Planning Department and subsequent approval by the Panchayat committee/ Municipal council.*

Tool kit – 5

Formulation of Development Policies, Strategies and Development Proposals

(i) Objective

To formulate general development policy of the Grama Panchayat/Municipality, the sector wise development policies and strategies, and development proposals in unison with the development concept, foreseeing the needs of the coming 20 years.

(ii) Responsible Agency

Overall development policy of the planning area (LSGI) as well as sectoral development policies in tune with the overall policy shall be formulated. Respective working groups have to formulate the sectoral development policies and strategies. The Spatial Integration Committee shall formulate the overall development policy.

(iii) Methodology

1. Formation of overall development policy

Overall development policy shall be formulated in accordance with the development concept. Overall development policy will give a clear picture of the development sectors which shall be given emphasis in order to achieve integrated development of the Local Self Government Institution area for the next 20 years and also the general policy to be adopted for their development. (For example note the overall development policy stated in the Development Plan of Paravoor (Page 143 - Development Plan of Paravoor).

The overall development policy of Paravoor Municipality is that development of Paravoor Municipality as a tourist destination of the district, as an IT hub and as a centre of small scale industrial venture meanwhile giving emphasis to the inherent traditional industries of the area like coir and fishing linking with tourism sector as well as to achieve self sufficiency in agricultural and animal husbandry sectors to the extent possible.

2. Formation of Sectoral development policies and strategies

Sectoral development policies and strategies shall be formed by taking into account the development concept and the overall development policy of the area. Sectoral policy and sectoral strategy explain respectively the role of various development sectors and the activities those are to be carried out, as well as the regulatory measures to be followed, in the development sector in order to achieve development in accordance with the overall

development policy. The sectoral policy and strategy of tourism sector as per the Development Plan of Paravoor Municipality (See page 143 of Development Plan of Paravoor) is given as an example.

Paravoor is sumptuously blessed with water bodies including lakes. For the very reason, the area is of environmental importance. Hence the development concept of Paravoor Municipality gives special emphasis to environmental conservation. The sea, lakes, brooks (streams) and ponds forming the rich water resources enhance the natural beauty of Paravoor. The fact that the area has not yet been fully urbanised and still retaining its innate rustic beauty of serene lakes coupled with the exuberant natural beauty provided by the splendid lakes all the most makes Paravoor a potentially viable spot for tourism development. The promotion of tourism sector in Paravoor has to be undertaken by optimum use of its natural beauty while at the same time preserving the bountiful natural environment. Hence the tourism promotion policy of Paravoor is “providing infrastructural facilities for the tourists with a local touch without disturbing in any way the natural beauty of serene beaches and lakes and enhance the tourism potential of the area by tapping the immense possibilities by linking up Paravoor with the Kovalam – Varkala – Alappuzha coastal tourism network”.

What are the strategies to be adopted in the tourism sector in order to implement the tourism policy?

- ✍ Creating awareness among tourists about the possibilities of Paravoor
- ✍ Providing infrastructure facilities to the tourists with an indigenous approach to the possible extent.
- ✍ Choking out to a plan of action to be conserve the historic and cultural heritage of this region while at the same time providing ample opportunities and facilities for tourists to appreciate them.
- ✍ Choking out a plan of action for formulating coastal tourism circuit comprising Kovalam – Varkala – Alappuzha.

3. Development Proposals:-

Once development strategies for all sectors are formulated, project proposals in tune with them are to be choked out. Such proposals shall be location specific clearly mentioning the execution agency, rough estimate, period of execution etc. Development proposals thus formed will be in tune with the development concept and will be complementary to each other.

For instance, note the development proposals formed in the tourism sector of Paravoor (Given in table below). Taking the development strategy into consideration development proposals enabling to create awareness among tourists about the tourism sector of Paravoor shall be formed. Similarly infrastructural facilities shall be provided to tourists with an indigenous approach to the extent possible. Apart from this development proposals to make the historic

and cultural heritage, unique to the area, beneficial for tourism promotion shall be formed. In addition the renovation of the coastal road and T.S canal shall be implemented.

III	Tourism sector	Land acquisition	Land development	Construction	Infrastructure facility	Other items	Total Rs	Development Agency
1	Making land marks			30000000			300000	Municipality, Tourism Department
2	Widening of canal and its conservation			10000000			10000000	Irrigation Department
3	Boat service/ Boat Jetty for Tourists			100000			1600000	Municipality, Tourism Department, Department of Harbour
4	Home stay							Tourism department, Private entrepreneurs
5	Beach/Park	3750000	125000	100000			3975000	Municipality, Tourism Department
6	Lake/canal bank roads	20000000	600000	5500000			26100000	Municipality, Tourism Department

IV Outcomes

Overall development policy in accordance with the development concept of the Local Government and also policies, strategies and proposals pertaining to each and every development sectors are made clear.

V. Time requirement

Four weeks

Part – 3

Annexure

Annexure 1

List of working groups and guidelines for the study of development sectors

A) List of working groups

Working group	Development sectors to be dealt with
Forest – Environment	Forest, Environment
Agriculture, Water shed management and irrigation	Agricultural sector, water shed, Irrigation
Live stock	Live stock, Fisheries
Local Economic Development comprising industries of the area, infrastructure facilities and Community level investment facilities	Industry, Commerce
Poverty alleviation (including housing) Development of Scheduled caste/tribe	Poverty alleviation and rural development Development of Scheduled caste/tribe
Working group for the care of children and women	Social progress
Health	Health
Drinking water and sanitation (including solid waste disposal)	Drinking water and waste disposal
Education, culture, sports and welfare of youth	Education, culture, sports and welfare of youth
Infrastructure facilities	Road, Bridges
Social security	Social progress
Energy	Energy
Governance plan	Finance, Human resources

B. Guidelines for the study of development sectors

The objective of the sector wise studies is to know the status of various development sectors within a Local Self Government Institution area on the basis of the issues and potentials of each sector. Development issues and potentials of every development sector are codified after studying the trend of development as well as the present status of the respective sector. Studies of development sectors are conducted by the working groups formed for the development sector concerned. Development reports, plan documents, data compiled for Integrated District Development Plan etc may be made use of for this study.

1. Activities during yester years in the development sector

Level of development of a particular development sector can be indicated through various components such as type of products generated, their quantity, area of influence of the development sector etc and the number of persons employed in that particular development sector. The level of development of a development sector during yester years can be explained by analysing the status of all or any one of the components stated above during yester years. While doing so, it shall also be explained how the sector had influenced the socio-economic status of that area.

For example take the case of a panchayat where coir sector contributed a major share in the economic base in yester years. Through the study of components like the share of coir workers in the workforce of the panchayat, localities within the panchayat where allied activities of coir sector were concentrated, the quantum of coir products manufactured etc. it is possible to bring out the extent to which coir sector was spread there in yester years.

The study of agricultural sector of Paravoor Municipality conducted as part of preparation of Local Development Plan for Paravoor indicates that coconut, paddy, tapioca, plantain and other types of tuber crops are cultivated in the area. It is also stated that three fourth of the dry land were put to some kind of farming. The extent of land under paddy is 50 hectares and that of coconut 836 hectares.

2. Current status of the development sector

Current status of a development sector in a particular locality can be indicated by the spread of that particular development sector as well as the strength of the sector in that area. The study of components like number of persons employed in a development sector, the type and number of products manufactured, the extent of land where the development activity is concentrated etc. reveals the current status of the development sector. And also the study of how these components differ in the Local Governments with respect to the status of neighbouring panchayats, and the average figure of the district, what is the level of a development sector in the area based on planning standards will bring out the extend of growth of the development sector in the area.

For example if the number of eggs produced in a particular panchayat exceeds that of the neighbouring panchayats it can be concluded that the panchayat has predominance in egg production. Knowledge of the number of persons employed in hatchery and allied activities will reveal the role of egg production in the socio-economic scenario.

Taking another example, if at present 700 seats per 13,000 population are available at high school level, it can be concluded that hereafter high school level seats are no more required in that panchayat. (As per norms 700 high school seats per 13000 population are needed) This, when compared to that of the district average (number of high school level seats available for every 13000 population in the district) will reveal the position of the panchayat in the district with respect to the number of high school seats.

3. Problems and potentials of the development sector

A comparison of activities in various development sectors during yester years with that of the current status will reveal the reasons behind the progress or regress of the sector and also the present sector wise problems and potentials.

For example, even though lots of people in a panchayat are employed in coir sector, if the required quantity of green husk of coconut is not available, that poses a problem in coir sector. During the same time the presence of lot of people working in coir sector is a potential related to coir sector. In the same way, potentials as well as problems prevailing in every sector can be assessed. The increasing demand of a product within the panchayat area, the district/within or outside the state or even outside the country is an indication of its potentials for increased trading. Such aspects shall be considered while examining each development sector.

Apart from this, if any particular natural resource of the area or skilled workers particular to the area is in demand within or outside the state that is a potential of that area.

The components to be taken into account in the study of each development sector and the possible findings or conclusions that could be arrived at from the study are listed in table below. (This table may be made use of only as a guideline. The components to be studied and the possible findings and conclusions of the study shall be specifically decided according to the peculiar features of the locality and also the availability of relevant data).

Table

Sl. No	Development sector	Components to be studied	Findings/Conclusions
1	Agricultural Sector	Various agricultural products-type, area of cultivation	Localities suitable for various agricultural operations
		Annual production of various crops	Proposals to enhance productivity
		Data related to agricultural labourers (Number, type, temporal changes occurred), existing remuneration, economic status	Agricultural products that could be produced in the Local Government area
		Possible income from agricultural operations	Infrastructure facilities that must be provided in the agricultural sector
		Agencies and departments involved in the agricultural sector	Programmes involving value addition
		Demand for agricultural products	Growth of agricultural sector (Based on the changes that have occurred in the extent of farm land, changes in the number of workers and also changes in production).
		Ongoing projects in agricultural sector	Potentials of mechanisation
		Existing infrastructure facilities in the sector (irrigation canals, agricultural office, seed centres etc), markets	Number of workers actually required in the sector
			Changes that could be brought about in the economic status
			Crises/problems faced in the sector
			The difference between production and consumption of various produces
2	Irrigation facilities	Existing facilities for irrigation (canals, ponds etc)	Areas/localities that could be additionally irrigated with the existing irrigation facilities
3	Animal husbandry	Livestock population	Finding out areas where animal husbandry has to be promoted
		Quantity of products from the sector (for one year)	The inadequacy of infrastructure facilities faced in the animal husbandry sector
		Number of Poultry farms and hatcheries - centre wise	Problems commonly faced by employees in animal husbandry sector

		Number of slaughter houses (authorised as well as unauthorised), number of animals slaughtered per day	The difference between production and consumption of various produces in the animal husbandry sector.
		Number of workers engaged, their remuneration and their economic status	The potentials for value addition of products in animal husbandry sector
		Details of infrastructure facilities (veterinary hospitals, veterinary clinics)	Possible income generation and employment opportunities
		Income generated from livestock (monthly)	
		Development problems related to animal husbandry sector	
		Details of non-government agencies operating in animal husbandry sector	
		Details of projects being implemented in animal husbandry sector	
		The marketing system for selling out products in animal husbandry sector	
4	Fisheries	The type of fish available and annual catch	Problems faced by fisheries sector
		Water bodies for back water fisheries - their number and location	Water bodies that could be used for fishing
		Domestic consumption of fish	Potential to manufacture value added fish products
5	Drinking water and waste disposal	Severity of water scarcity in different areas (in consideration of number of months during which non availability of sufficient water is experienced)	New sources for solving water scarcity (giving importance to local sources)
		Drinking water sources	Inadequacies in the drinking water distribution network
		Major source of drinking water for the people	Potentials of making use of under ground water
		Challenges to the water sources	Proposals to solve the problems of inadequacies in solid waste disposal system
		Details of drinking water treatment plants	Areas suitable for solid waste management plant.
		Details of drinking water distribution network (sources of water, water tanks, pipes)	Necessity of new sewerage project
		Existing projects in drinking water sector	
		Areas with plenty of underground water	
		Sources of solid wastes	

		Quantum of solid waste generated with composition	
		Existing mode of collection	
		Existing system for processing	
		Details of sewerage projects	
		Mode of disposal of waste	
		Average distance between septic tanks and wells	
6	Infrastructure facilities	The means of transport mainly depended by public (Car, bus, rail, boat etc)	General scenario of the transportation facilities
		Number of buses under government ownership and private ownership, details of route	Inadequacy of roads
		Name, length, width and type (tar, soil, metal) of major roads	Necessity of widening the roads
		The type and number of vehicles plying through the roads, in busy hours on busiest days (related to major roads only)	Inadequacy of other infrastructure facilities (like bus stand) in transport sector
		Junctions and areas where continuous traffic jam is experienced	Necessity of additional railway station facilities
		Accident prone areas	Areas which lack transportation facilities
		Unauthorised parking areas	Areas where new parking spaces are required
		Railway station facilities	Necessity of improved facilities for water transport
		Number of persons utilizing rail facility per day	
		The type and quantity of goods transported by train	
		Infrastructure facilities related to water transport (boat jetties, number of service boats, areas connected through boat service)	
		Length, breadth and existing status of bridges	
		Government agencies as well as non-government agencies operating in transport sector	
7	Watershed development	Watersheds within the Local Self Government Institution area and their extent	Watersheds which are to be conserved
		Major activities in each and every watershed (mainly related to agricultural sector)	Activities adversely affecting watersheds

		Details of water bodies – number, type, existing use	Steps to protect watersheds
8	Industry	Major industries – number, type	Resources used for industrial purpose
		Quantity of industrial products	Inadequacy of infrastructural facilities
		Markets for industrial products	Problems in industrial sector
		Details of employees working in industrial sector – number, wages annual man days, other details	Employment opportunities created in the industrial sector, economic gain
		Traditional industries, number, type, number of workers, man days, wage	Industrial pollution
9	Forest/Environment	Existing extent of forest	Steps required to retain the extend of land under forests as 30% – including social forestry
		Details of social forestry	Activities detrimental to forest
		Agencies involved in forestry and environment protection	Gradual changes occurred in forest area
		Forest produces	Areas of environmental importance and activities which affect environmentally sensitive areas
		Economic gain from produces of forest	Marketing facilities for forest resources
		Areas of environmental importance (kavu, waterbody)	Marketing system for selling out forest produces
		Other areas of environmental importance	Potential of industries making use of forest resources
		Details of forest wealth	
10	Tourism/Culture	Areas having potentials for tourism sector	Activities/places/cultural activities helpful for the progress of tourism sector
		Year wise number of visiting tourists (domestic, foreign)	Inadequacy in cultural/recreational/ resting facilities (in number)
		Infrastructure facilities in tourism sector (hotels, resorts etc)	Existing inconveniences/other problems
		Major cultural activities (celebrations etc)	
		Details of cultural/recreational/ resting facilities	
		Parks, play grounds, library, community hall etc	
11	Poverty	Percentage of BPL population	Proposals for creating more employment opportunities for BPL families
		Wards/localities where BPL	Projects to enhance the

		population is concentrated	infrastructure facilities of BPL families/areas
		Employment of BPL people	Proposals for spending government funds for poverty eradication more effectively
		Availability of infrastructure facilities for BPL families/at areas concentrated by them	
		Government/non-government institutions engaged in poverty eradication activities	
		Ongoing projects for poverty eradication	
12	Education	Type and number of educational institutions, courses offered, number of students, number of teachers	Educational institutions exhibiting poor educational standard and the reason for the same
		The standard of schools on the basis of pass percentage in previous years	Inadequacy of infrastructure facilities in schools
		Infrastructure facilities in schools	Other issues related to education
13	Health	Type wise number of healthcare institutions Ayurveda, Homoeopathy, Allopathy Classification of hospitals on the basis of availability of facilities	Decrease in number of health care institutions
		Details of epidemics occurred during the current year, previous year and year before (Type of illness, number of people affected, particular areas affected)	Deficiency of infrastructure facility in existing institutions
		Occupational diseases if any	Localities prone to spreading of epidemics
		Projects being implemented in health sector	
14	Energy	Existing number of transformers	Current issues of energy sector
		Length of HT, LT lines	
		Areas where electricity has not reached – number of families without electricity connection	
		Areas where problems related to electricity prevails (low voltage, continuous power cuts) – number of affected families	
		Type wise number of consumers of electricity	
		Annual consumption of consumers of each category (houses, commercial	

		institutions, industry, agriculture)	
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Study of a development sector, shall be made into a report incorporating these three parts viz. activities in the development sector during yester years, existing status, problems and potentials of the development sector.

The study of a development sector shall be completed within five weeks.

Note:- Study of development sectors shall be based mainly on secondary data and local/level information. As far as possible primary surveys shall be avoided.

Annexure 2

Model spatial analysis report

Spatial analysis report has two parts. The first part comprises analyses, conclusions as well as development proposals to be implemented in various development sectors in the Grama Panchayat/Municipality area as per the Integrated District Development Plan. The second part consists of the result of spatial analysis depicted in the form of maps, charts, graphs etc pertaining to certain general aspects (population, occupational structure, land use, transportation network) of the Grama Panchayat/Municipality. The first part may be mainly made use of for the analysis of existing status of development sectors whereas the second part for arriving at conclusions on the basis of spatial analysis. Constituent parts in the spatial analysis report are as given below.

Part 1: Analysis and conclusions pertaining to the Grama Panchayat/Municipality as per the Integrated District Development Plan.

- A. Level of development/potentials of Grama Panchayat/Municipality on the basis of the Integrated District Development Plan.
- B. Existing status, problems and potentials of various development sectors
- C. Development proposals of various development sectors

Part 2: Maps, charts and graphs depicting result of spatial analysis of general aspects viz.

- A. Regional setting
- B. Population
- C. Land use
- D. Occupational structure
- E. Topography

Spatial analysis report of Pooyappally grama panchayat is provided as a model

Spatial Analysis Report – Pooyappally Grama Panchayat

Part 1

Analyses and conclusions related to Pooyappally Grama Panchayat as per the Integrated District Development Plan.

- A. Level of development/potentials of Pooyappally Grama Panchayat on the basis of development concept of Integrated District Development Plan.

Pooyappally Grama Panchayat is a fourth order Local Government of the district. Requirement of infrastructure facilities like education, healthcare etc. need be determined mainly taking into account the population of Pooyappally Grama Panchayat alone. Pooyappally grama panchayat is included in the agro development zone which is one of the six development zones of the district. It is evident that Pooyappally grama panchayat can contribute considerably to the agriculture sector of the district. There is potential for both dry cultivation and paddy cultivation. Coconut, rubber, pineapple and pepper shall be given prominence in dry cultivation.

- B. Existing status, problems and potentials of various development sectors of Pooyappally grama panchayat as per the Integrated District Development Plan.

1. Agricultural Sector:-

~~There~~ There is potential for paddy cultivation in Pooyappally grama panchayat. The elas of Pooyappally mentioned below have to be protected and intensive cultivation of paddy be promoted there.

Name of Ela	Area (In Hectares)
Kottara	15
Chekkode	20
Chempakassery	14
Elavakkonam	12
Kozhikode	10
Nellipparampu	10
Chekkulam	34
Kallikkonam	10
Madavana	14
Maruthampally	27
Punnakkode	14
Mathiyodu	16
Parangode	14

- ~~///~~ Areas that are presently under coconut cultivation shall be retained as such along with measures for increasing productivity.
- ~~///~~ Areas that are presently under tapioca cultivation shall be retained as such along with measures for increasing productivity.
- ~~///~~ Areas that are presently under rubber plantations shall be retained as such along with measures for increasing productivity.
- ~~///~~ Areas that are presently under cashew plantations shall be retained as such along with measures for increasing productivity
- ~~///~~ Bee keeping shall be promoted in rubber plantations
- ~~///~~ Intensive cultivation of vegetables shall be promoted as homestead cultivation

2. Health Sector:-

- ~~///~~ In order to diagnose lifestyle diseases at the initial stages itself, the Grama panchayat shall organise annual medical camps in collaboration with Health Department.
- ~~///~~ Ayurveda dispensary and homeopathy dispensary shall be started under Government Sector.

3. Water shed:-

The following projects are proposed for conservation of water in Pooyappally grama panchayat

- ~~///~~ Agro forestry, live fencing, cover cropping, contour strip cropping, contour vegetative hedges and mulching.
- ~~///~~ Mechanical conservation measures include contour stone pitched and earthen bunds and contour trenches
- ~~///~~ Drainage course management like gabion structures, check dams, water harvesting systems, diversion drains, ramps, supporting walls and bank stabilisation structures
- ~~///~~ Vertical drop structures for water harvesting, ring ponds and development of springs

4. Forest, Environment, Mining, Geology:-

- ~~///~~ A centralised system for processing wastes has to be established at Grama panchayat level
- ~~///~~ Conservation of Paloorkonam Nagarajakkavu and Perumon Bhagavathi kshetrakkavu within the grama panchayat has to be taken up.

5. Development of Scheduled Caste and Scheduled Tribe:-

- ~~///~~ Housing grant for homeless families belonging to scheduled caste
- ~~///~~ Rehabilitation of the landless belonging to Scheduled caste
- ~~///~~ Concessions for education up to higher secondary level.
- ~~///~~ Making available drinking water and electricity at the reach of each and every families belonging to scheduled caste
- ~~///~~ Bringing down unemployment

6. Irrigation:-

- ~~///~~ Utilisation of Oyoor branch canal, utilising Veliyam, Padinjattinkara, Meeyannoor and Adichanalloor branch canals of KIP canal

7. Infrastructure sector:-

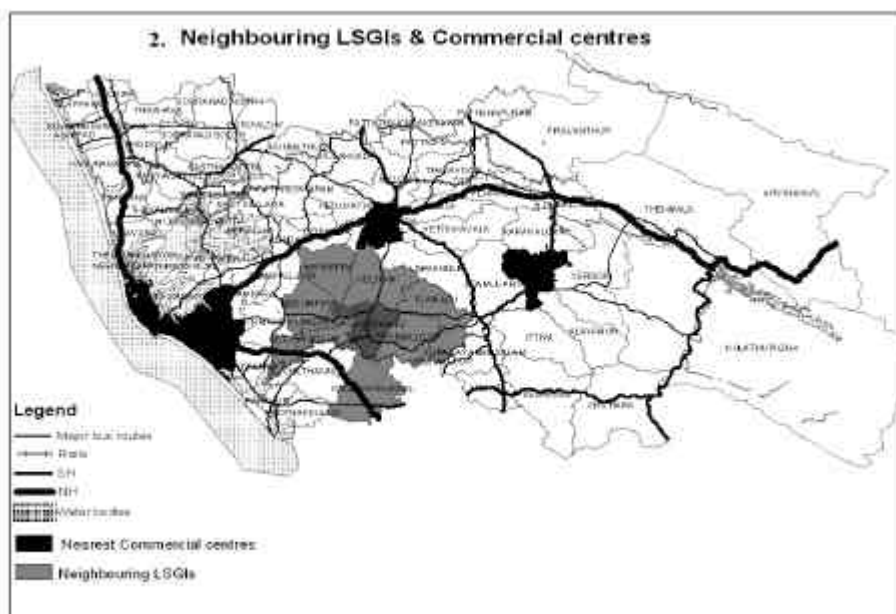
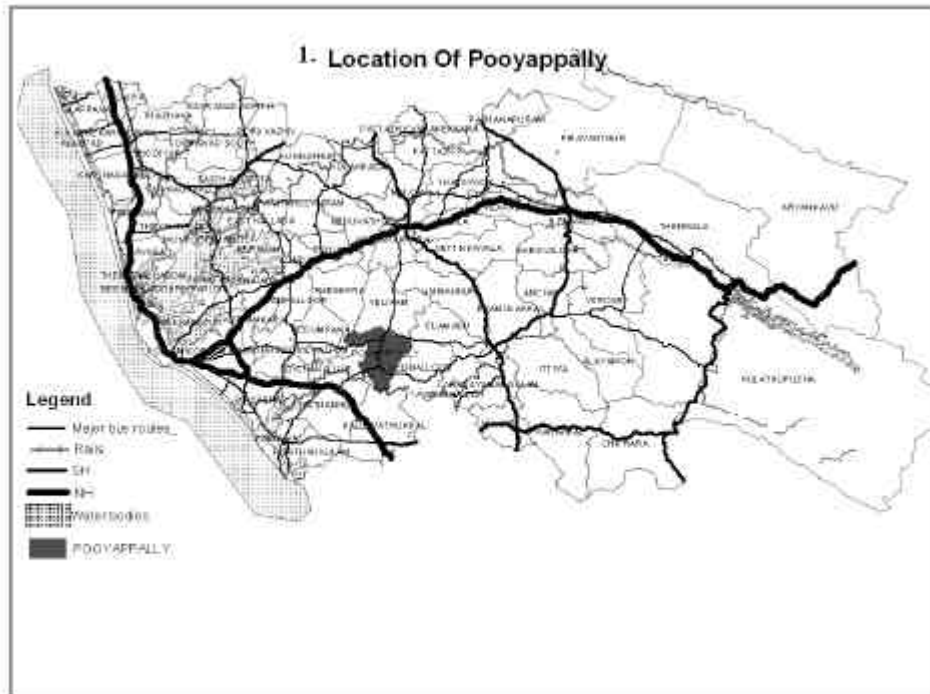
- ~~///~~ Upgrade Chathannoor – Ayoor – Velinalloor road to 21 meter width.
- ~~///~~ Develop Kannanalloor – Pooyappally – Ayoor road to 16 meters
- ~~///~~ Upgrade Kottarakkara – Pooyappally – Kurisumoodu road to 12 meters.

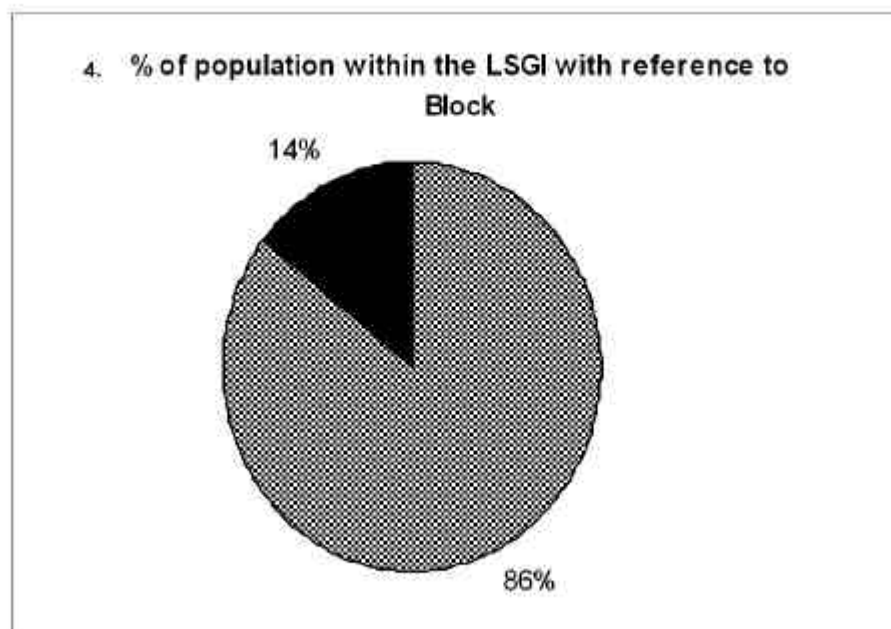
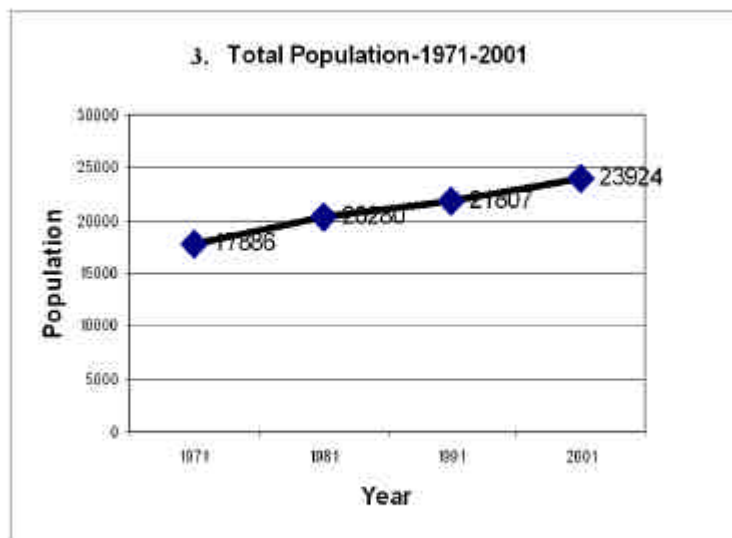
8. Industry:-

- ~~///~~ Start curry powder manufacturing units, flour mills etc.

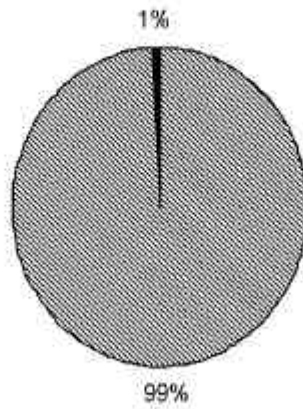
Part -2

Maps ,Graphs and Charts showing the Temporal Changes and spatial concentration of general aspects

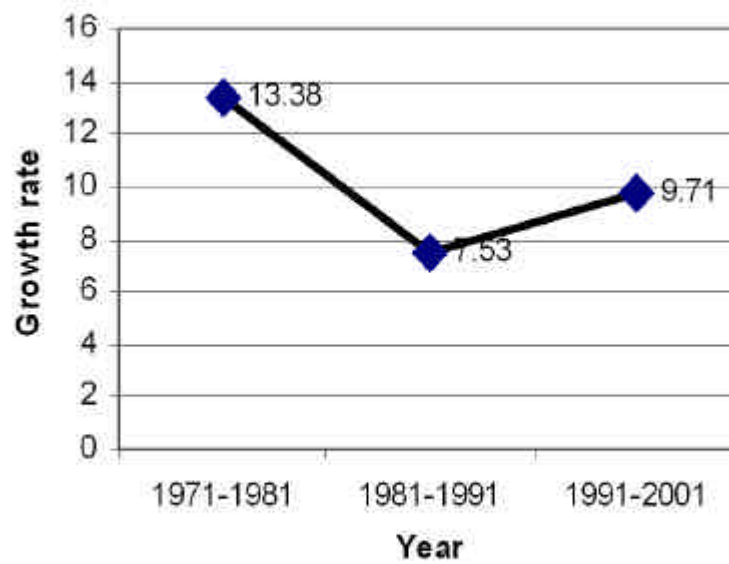


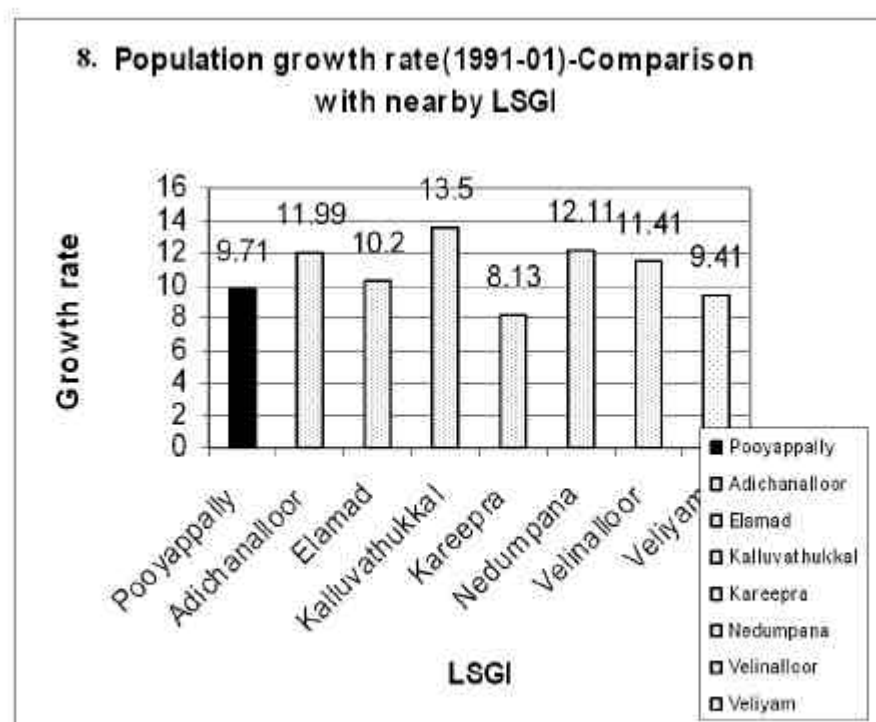
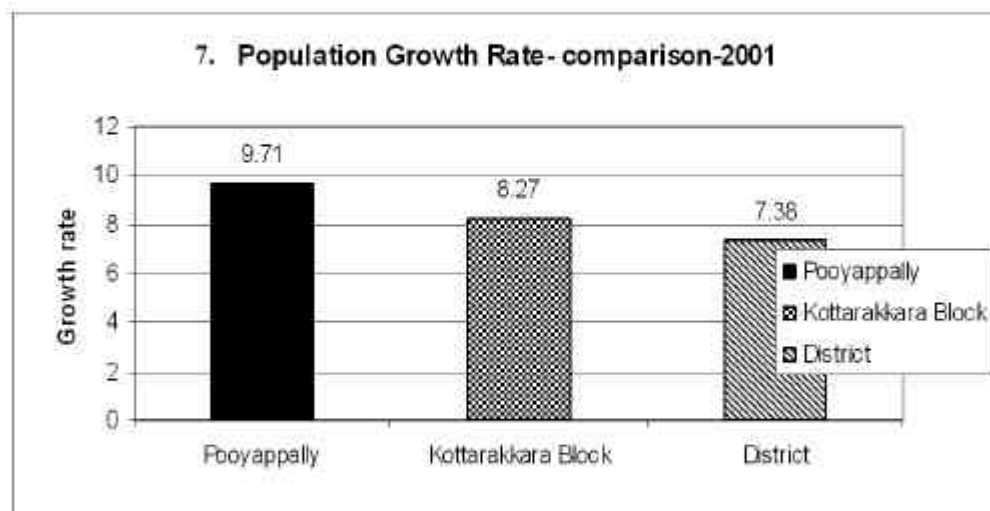


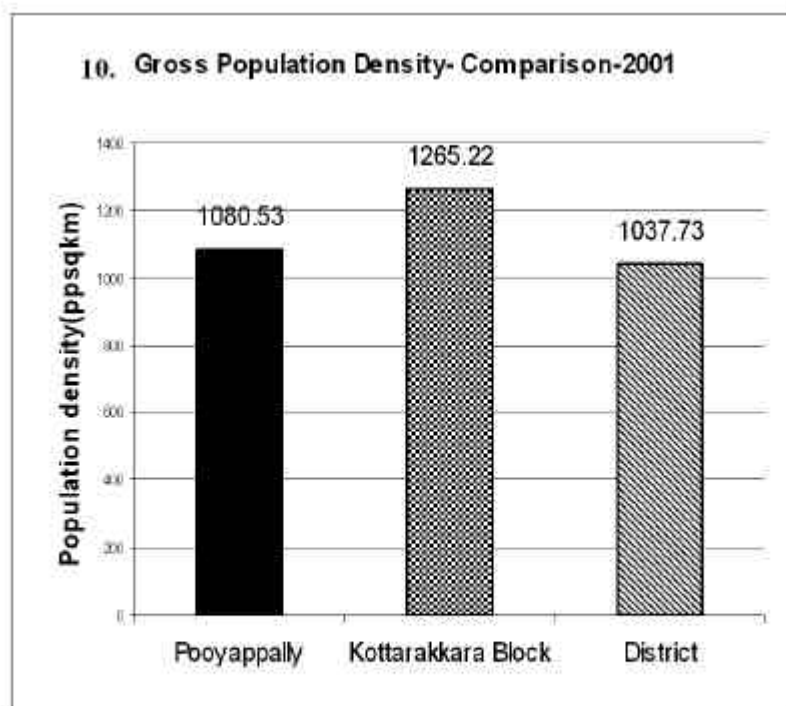
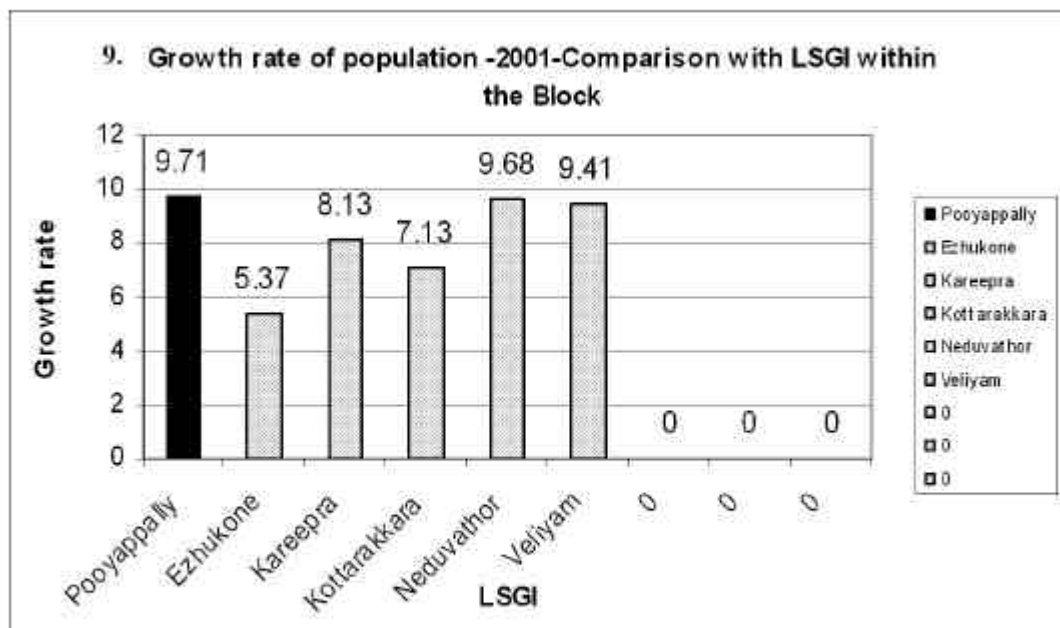
5. % of population within the LSGI with refernece to the District



6. Growth rate of population



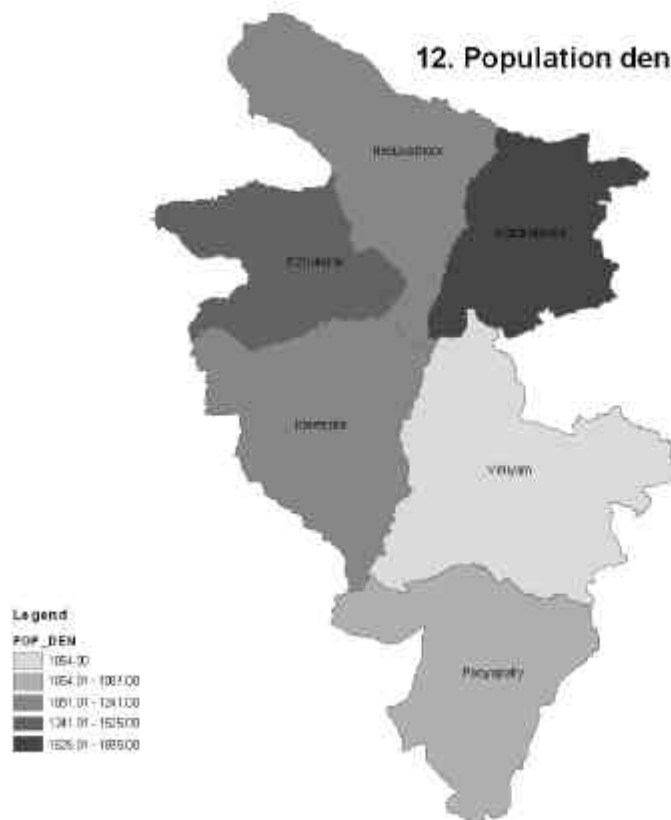




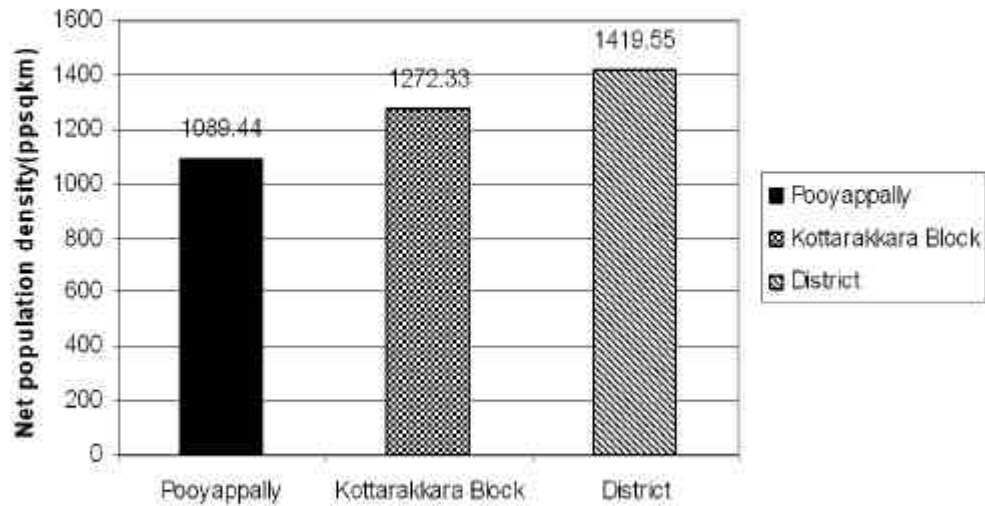
11. Population density Of Kollam District



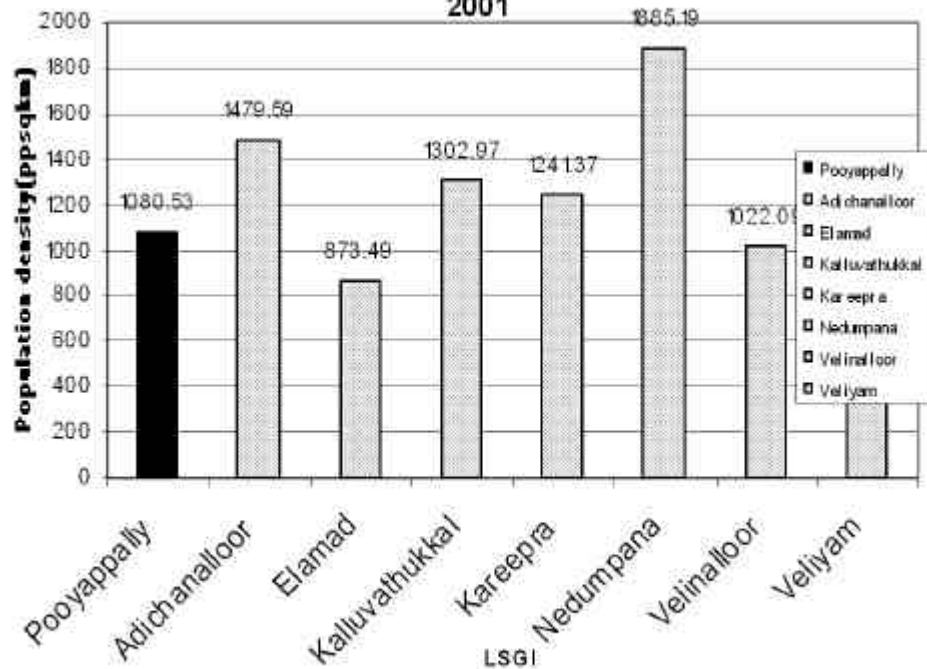
12. Population density – Kottarakkara Block



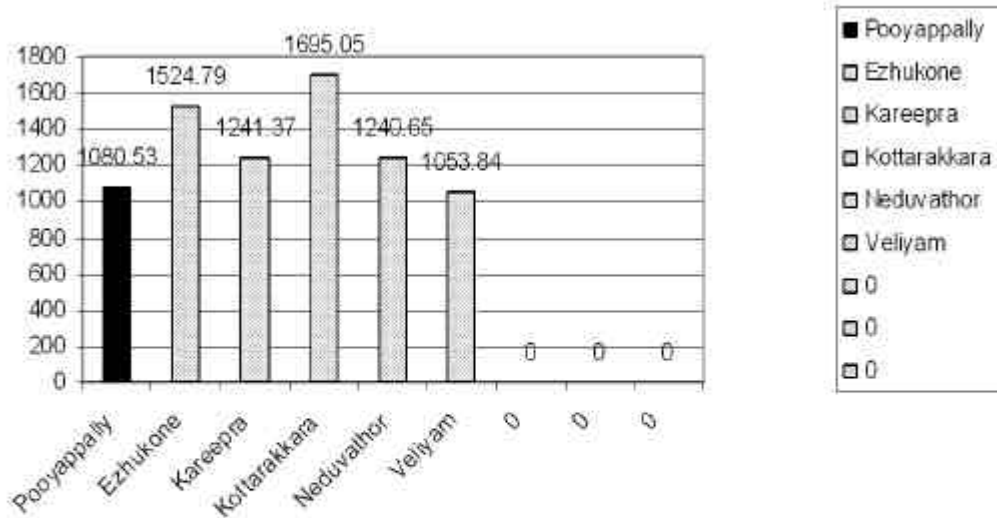
13. Net population density-Comparison-2001



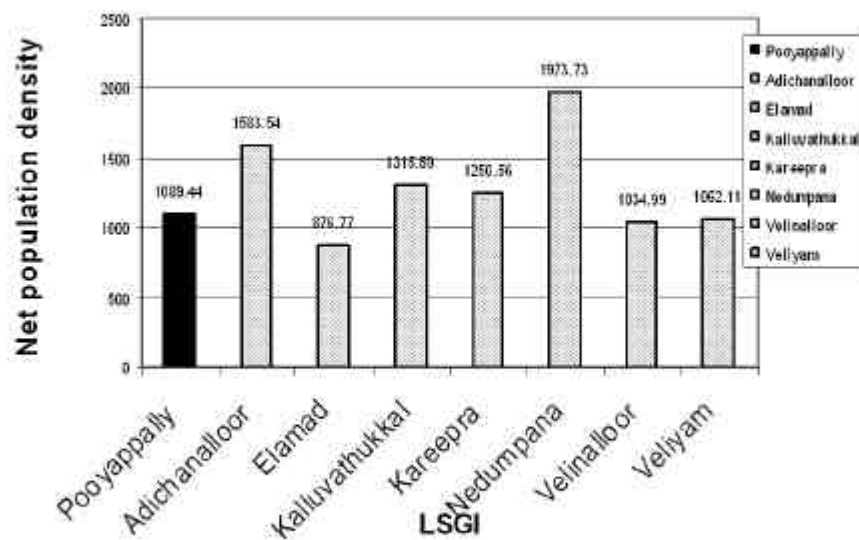
14. Population density-comparison with nearby LSGI- 2001



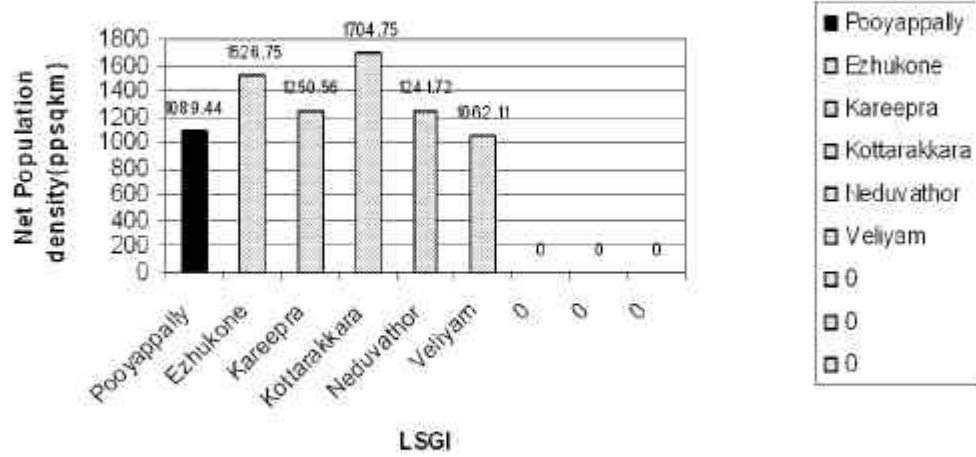
15. Population Density- Comparison with LSGI within the Block



16. Net Population Density Comparison with nearby LSGI

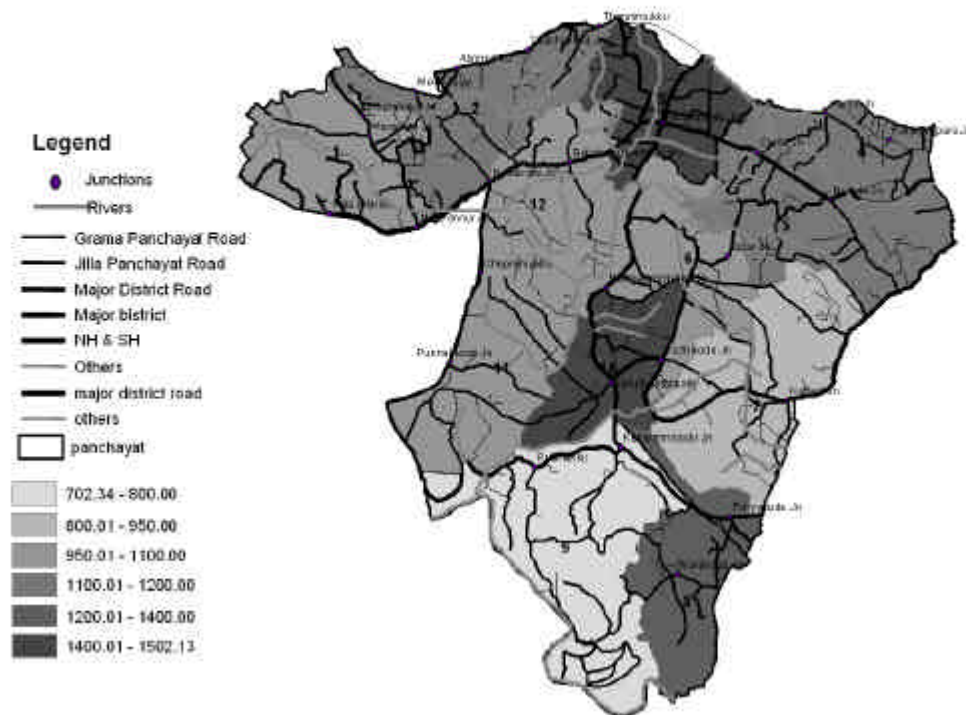


17. Net Population density -Comparison with LSGI within the Block



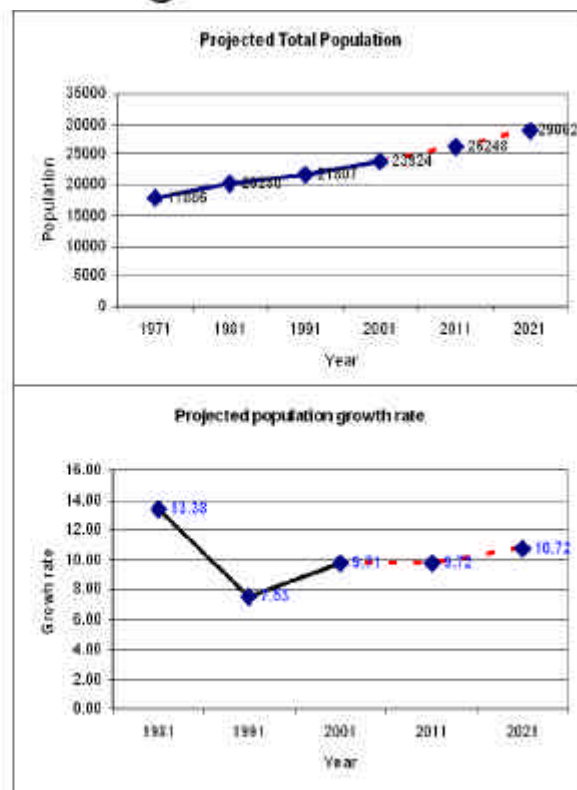
18.Ward wise population details(2001 census data)			
Ward Number	Population	Area(sqkm)	Population density(ppsqkm)
1	2189	1.992233873	1098.76658
2	2072	1.811654002	1143.706247
3	2216	1.475236054	1502.132485
4	1875	1.647375852	1138.17378
5	1700	1.530909271	1110.451176
6	1805	1.691168448	1067.309411
7	2148	2.428769349	884.3985127
8	1888	1.553418087	1215.38433
9	2219	3.159451427	702.337115
10	1933	1.322624965	1461.48761
11	2056	2.03049588	1012.560538
12	1823	1.784276962	1021.702369

19. Population Density Distribution Ward Wise



20. Population Projection

Projection	Average pop.	growth rate
Final		
1971	17886	
1981	20280	13.38
1991	21807	7.53
2001	23924	9.71
2011	26248	9.72
2021	29062	10.72

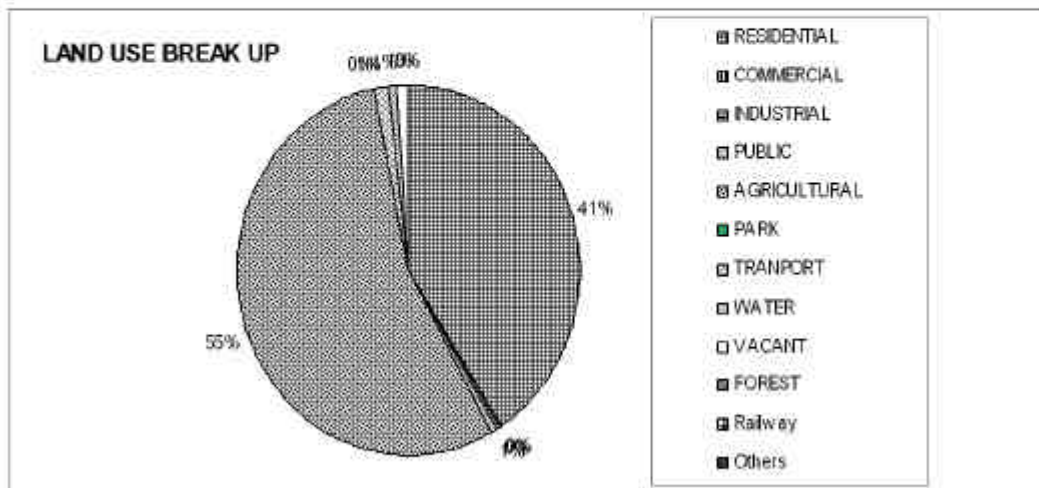


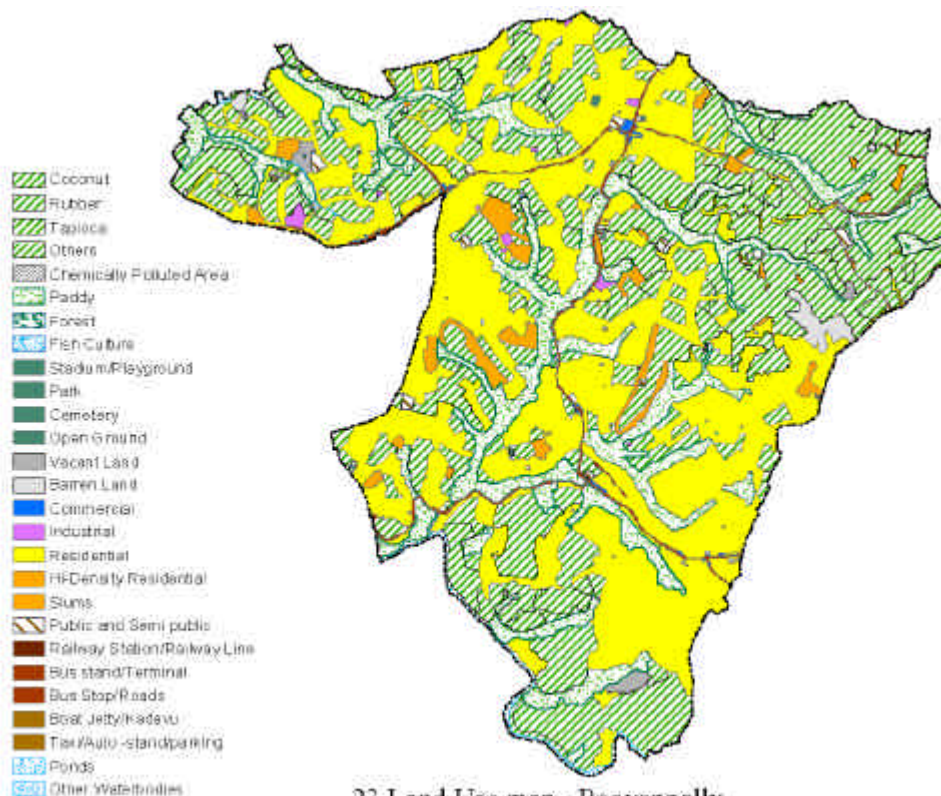
Ward No	Distribution of projected population - 2021
1.00	317625.29
2.00	335560.70
3.00	313755.31
4.00	370816.94
5.00	408989.28
6.00	385197.66
7.00	323687.98
8.00	368263.65
9.00	313331.13
10.00	359690.52
11.00	338172.07
12.00	381394.28

21. Distribution of projected population (trend based) 2021

22.LAND USE BREAKUP

LAND USE BREAK UP													
	RESIDENTIAL	COMMERCIAL	INDUSTRIAL	PUBLIC	AGRICULTURAL	PARK	TRANSPORT	WATER	VACANT	FOREST	Railway	Others	Total
	Sqkm	Sqkm	Sqkm	Sqkm	Sqkm	Sqkm	Sqkm	Sqkm	Sqkm	Sqkm	Sqkm	Sqkm	Sqkm
Area	9.35	0.33	0.07	0.14	12.13	0	0.28	0.18	0.25	0	0	0	22.14
% of total area	40.87	0.14	0.03	0.63	54.79	0	1.31	0.81	1.13	0	0	0	100
% of net area	41.21	0.14	0.02	0.64	55.34	0	1.32	0	1.14	0	0	0	100



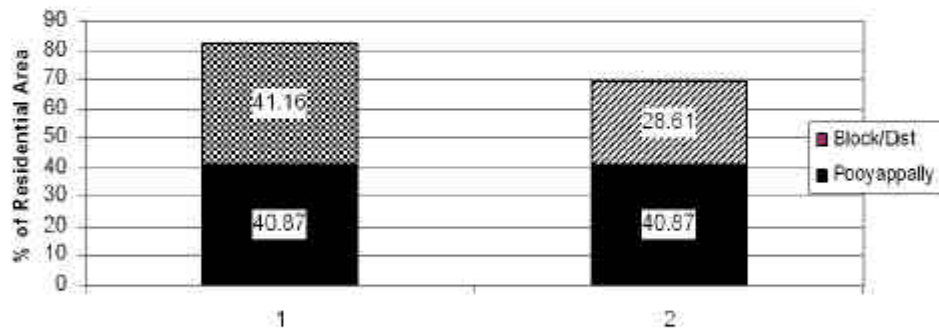


23. Land Use map - Pooyappally

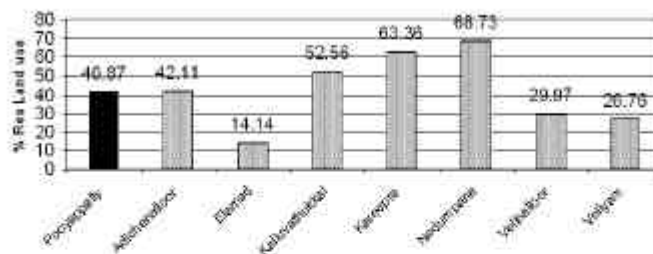
LAND USE BREAK UP OF ADICHANLOOR GRAMA PANCHAYAT												
	RESIDENTIAL	COMMERCIAL	INDUSTRIAL	PUBLIC	AGRICULTURAL	PARK	TRANSPORT	WATER	VACANT	FOREST	Railway	Others
Area	9.97	0.13	0.21	0.46	9.77	0.53	0.31	1.48	0.01	0	0	0
% of total area	42.13	0.56	0.94	2.01	43.43	2.36	1.39	6.56	0.04	0	0	0
% of net area	45.09	0.63	1.01	2.21	47.02	2.55	1.49	0	0.05	0	0	0
LAND USE BREAK UP OF KALLIVATHURAM GRAMA PANCHAYAT												
	RESIDENTIAL	COMMERCIAL	INDUSTRIAL	PUBLIC	AGRICULTURAL	PARK	TRANSPORT	WATER	VACANT	FOREST	Railway	Others
Area	19.32	0.1	0.21	0.11	15.56	0	0.53	0.36	0.08	0	0	0
% of total area	62.68	0.56	0.70	0.37	42.56	0	1.66	0.96	0.23	0	0	0
% of net area	63.07	0.56	0.68	0.82	42.1	0	1.67	0	0.23	0	0	0
LAND USE BREAK UP OF MEDUMPANA GRAMA PANCHAYAT												
	RESIDENTIAL	COMMERCIAL	INDUSTRIAL	PUBLIC	AGRICULTURAL	PARK	TRANSPORT	WATER	VACANT	FOREST	Railway	Others
Area	17.31	0.06	0.11	0.2	5.86	0	0.46	1.12	0.08	0	0	0
% of total area	68.72	0.2	0.44	0.79	23.26	0	1.78	4.49	0.32	0	0	0
% of net area	71.16	0.21	0.46	0.83	24.16	0	1.83	0	0.34	0	0	0
LAND USE BREAK UP OF VELIYAMGRAMA PANCHAYAT												
	RESIDENTIAL	COMMERCIAL	INDUSTRIAL	PUBLIC	AGRICULTURAL	PARK	TRANSPORT	WATER	VACANT	FOREST	Railway	Others
Area	8.07	0.03	0.06	0.2	20.42	0	0.38	0.23	0.0	0	0	0
% of total area	26.15	0.3	0.2	0.66	67.65	0	0.93	0.76	2.65	0	0	0
% of net area	26.92	0.3	0.2	0.67	68.23	0	0.94	0	2.67	0	0	0
LAND USE BREAK UP OF KAREEPPE GRAMA PANCHAYAT												
	RESIDENTIAL	COMMERCIAL	INDUSTRIAL	PUBLIC	AGRICULTURAL	PARK	TRANSPORT	WATER	VACANT	FOREST	Railway	Others
Area	14.18	0.04	0.1	0.69	7.12	0.16	0.23	0.36	0	0	0	0
% of total area	67.34	0.26	0.43	2.92	30.6	0.69	0.99	0.77	0	0	0	0
% of net area	67.61	0.26	0.43	2.94	30.62	0.69	1	0	0	0	0	0
LAND USE BREAK UP OF VELMALLOOR GRAMA PANCHAYAT												
	RESIDENTIAL	COMMERCIAL	INDUSTRIAL	PUBLIC	AGRICULTURAL	PARK	TRANSPORT	WATER	VACANT	FOREST	Railway	Others
Area	7.84	0.13	0.05	0.2	17.71	0.27	0.11	0.23	0	0	0	0
% of total area	29.96	0.84	0.19	0.76	64.95	1.02	1.17	1.25	0	0	0	0
% of net area	30.36	0.85	0.19	0.76	65.61	1.03	1.19	0	0	0	0	0
LAND USE BREAK UP OF ELAMADU GRAMA PANCHAYAT												
	RESIDENTIAL	COMMERCIAL	INDUSTRIAL	PUBLIC	AGRICULTURAL	PARK	TRANSPORT	WATER	VACANT	FOREST	Railway	Others
Area	4.27	0.32	0.06	0.16	34.81	0	0	0	0	0	0	0
% of total area	14.22	0.87	0.2	0.43	61.31	0	0	0	0	0	0	0
% of net area	14.16	0.87	0.21	0.45	61.36	0	0	0	0	0	0	0

23.A. Land use break up of near by LSGIs

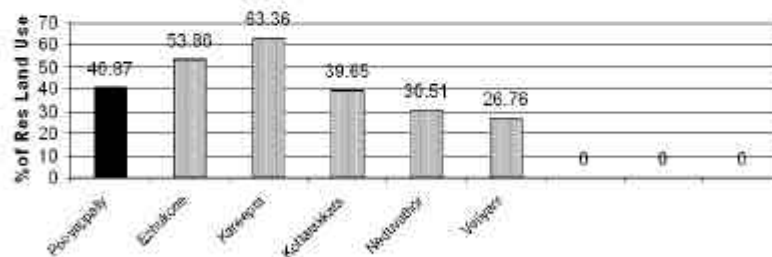
24. % of Residential area- Comparison with Block and District

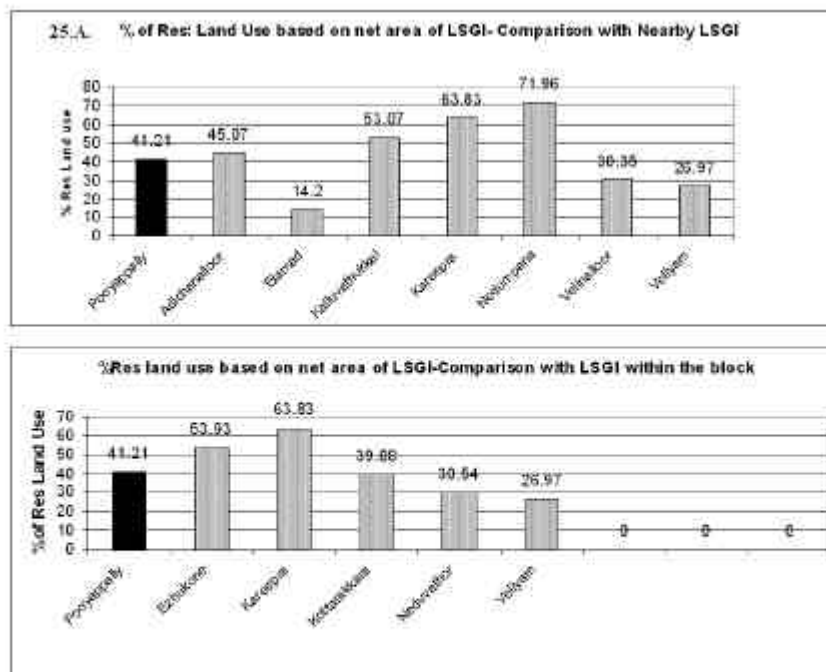


25. % of Res: Land Use - Comparison with Nearby LSGI

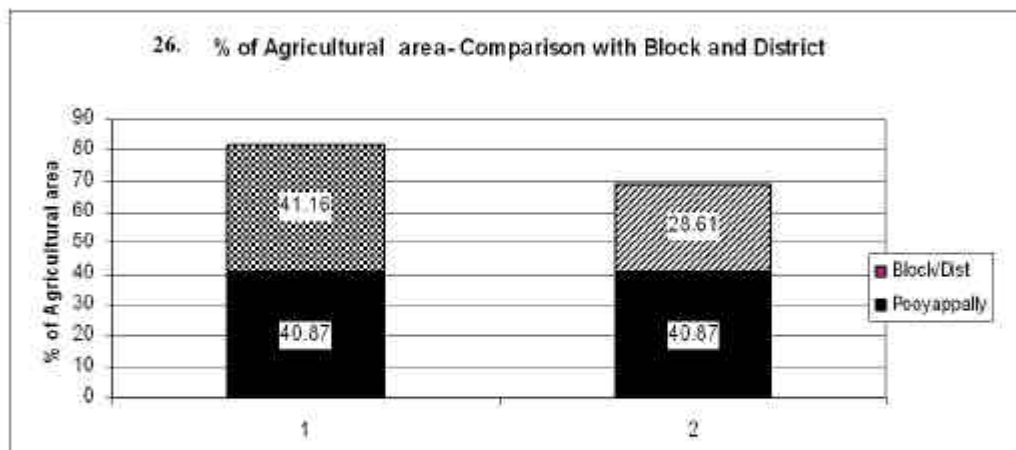


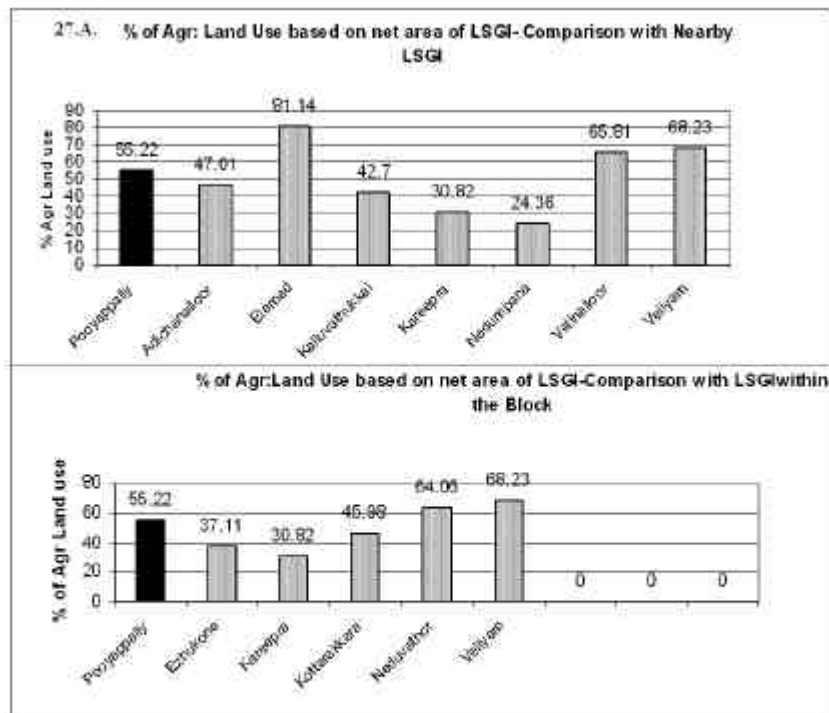
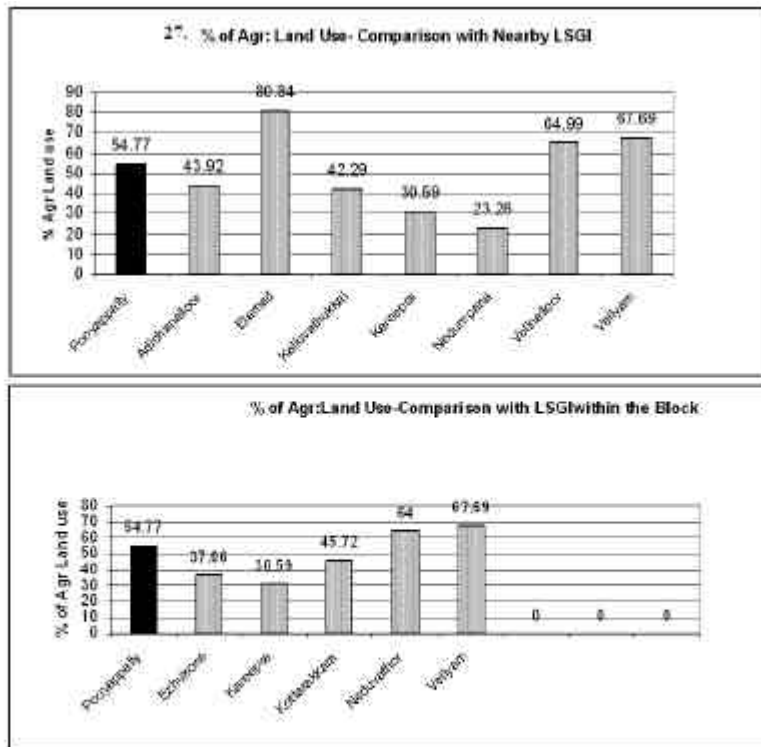
%Res land use-Comparison with LSGI within the block





0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

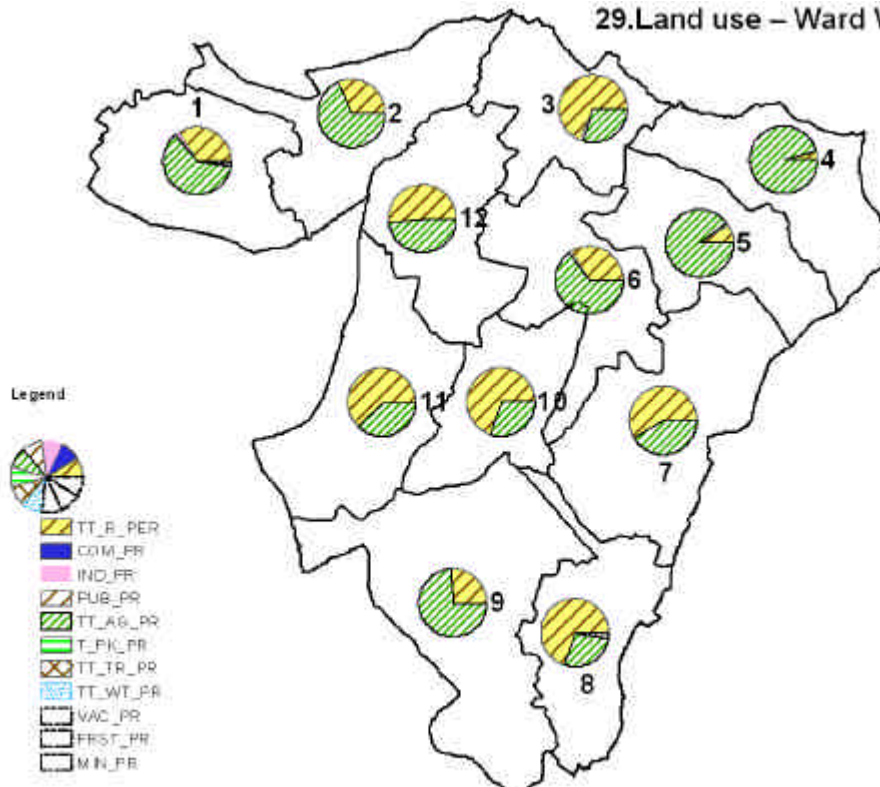




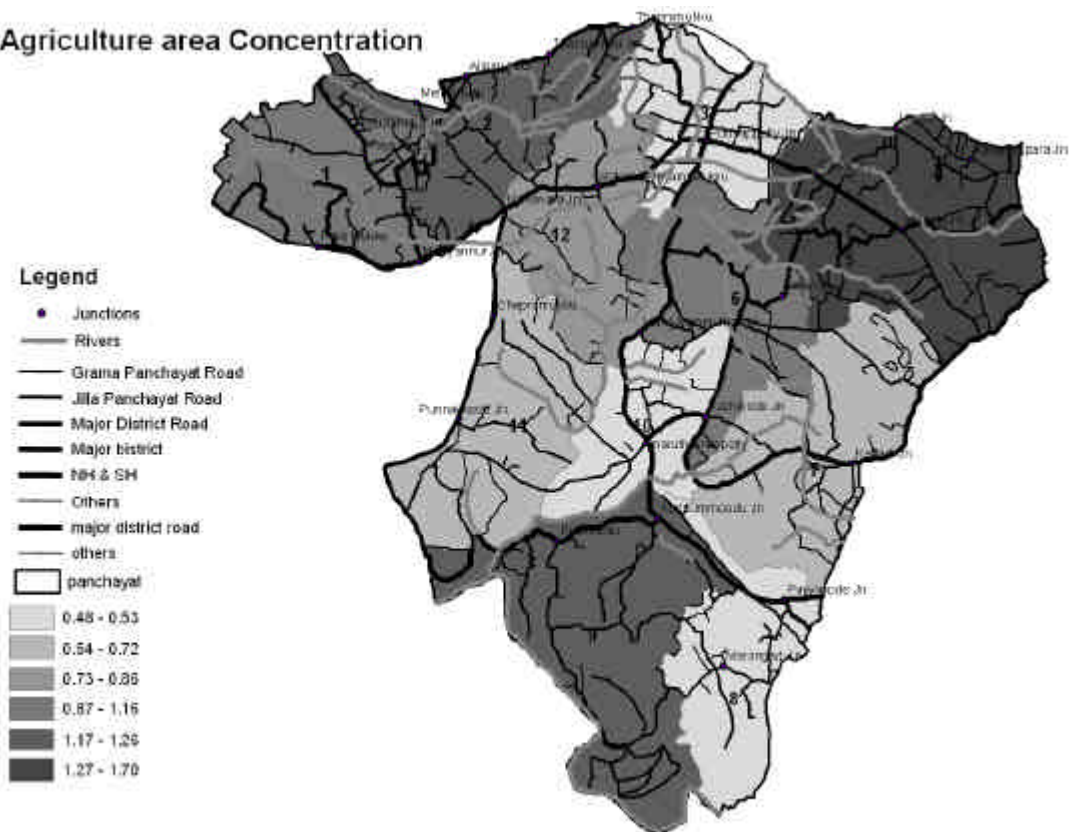
28. WARD WISE LAND USE BREAK UP

Ward No.	Area (sq.m)	Residential area	Commercial Area	Industrial Area	Public & Semi-public area	Agricultural area	Park and Open space	Transportation area	Water bodies & Wetland	Forest area	Waste and debris	Others
1	1.8823897	0.64763118	0.00220997	0.00017217	0.00228040	1.16743898	0.00	0.0000002	0.042645	0.042798	0	0
2	1.31185400	0.20128488	0.00238611	0.00684118	0.00281103	1.21713720	0.00	0.0271995	0	0	0	0
3	1.47539654	0.96783155	0.00157988	0.00752341	0.02791540	0.43048348	0.00	0.3371417	0.013424	0	0	0
4	1.68737552	0.04821101	0	0	0.00131403	1.53586857	0.01	0.0182585	0.000931	0.032599	0	0
5	1.50089271	0.12665754	0	0	0.01866229	1.34761257	0.00	0.0211975	0.002188	0.012438	0	0
6	1.69116848	0.56202205	0	0.01290346	0.017880151	1.07602312	0.00	0.0165902	0	0	0	0
7	2.42609348	1.39623774	0.0038146	0.00104051	0.004072007	0.86000008	0.12	0.0066679	0.000704	0	0	0
8	1.55841838	1.06550055	0.00289675	0	0.00501108	0.48657364	0.00	0.0227643	0.007672	0.045192	0	0
9	1.15451420	0.710118008	0.00318881	0.00000001	0.007584213	2.188225512	0.00	0.0420881	0.1289	0.00093	0	0
10	1.32263492	0.804709181	0.002225707	0.000210128	0.011225912	0.50042061	0.00	0.0109614	0.002169	0	0	0
11	2.00049399	1.39623774	0	0.00542941	0.009107095	0.544954763	0.00	0.0009111	0.0013832	0	0	0
12	1.794276452	0.88507382	0.004186439	0.011864088	0.013944277	0.641343071	0.00	0.0256688	0.001681	0	0	0
13	0	0	0	0	0	0	0.00	0	0	0	0	0
14	0	0	0	0	0	0	0.00	0	0	0	0	0
15	0	0	0	0	0	0	0.00	0	0	0	0	0
16	0	0	0	0	0	0	0.00	0	0	0	0	0
17	0	0	0	0	0	0	0.00	0	0	0	0	0
18	0	0	0	0	0	0	0.00	0	0	0	0	0
19	0	0	0	0	0	0	0.00	0	0	0	0	0
20	0	0	0	0	0	0	0.00	0	0	0	0	0
21	0	0	0	0	0	0	0.00	0	0	0	0	0
22	0	0	0	0	0	0	0.00	0	0	0	0	0
23	0	0	0	0	0	0	0.00	0	0	0	0	0
24	0	0	0	0	0	0	0.00	0	0	0	0	0
25	0	0	0	0	0	0	0.00	0	0	0	0	0

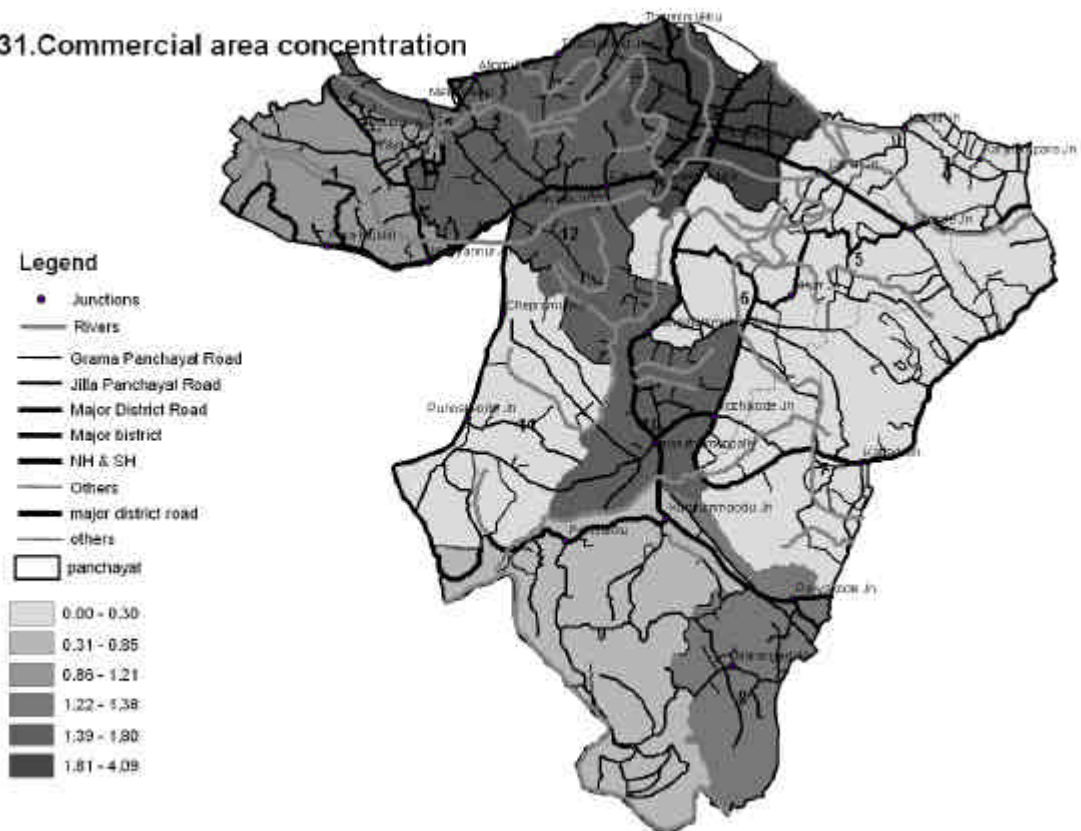
29. Land use – Ward Wise



30. Agriculture area Concentration



31. Commercial area concentration



Ward No	Character of residential area	Character of Ward
1	Semurbn	RURAL
2	Semurbn	RURAL
3	SemRrl	SEMIURURAL
4	Urbn	RURAL
5	Urbn	RURAL
6	Semurbn	RURAL
7	Rrl	RURAL
8	SemRrl	SEMIURURAL
9	Semurbn	RURAL
10	SemRrl	SEMIURURAL
11	Rrl	RURAL
12	SemRrl	SEMIURURAL

32. Functional Character of different Wards



33. Functional Character of different Wards

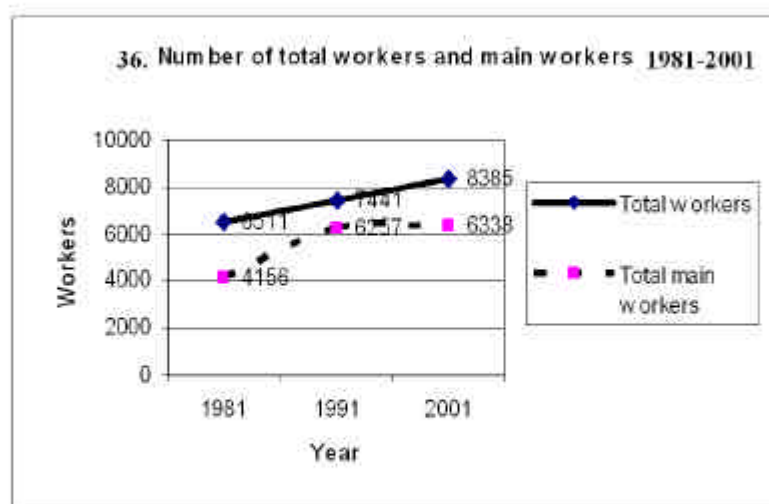


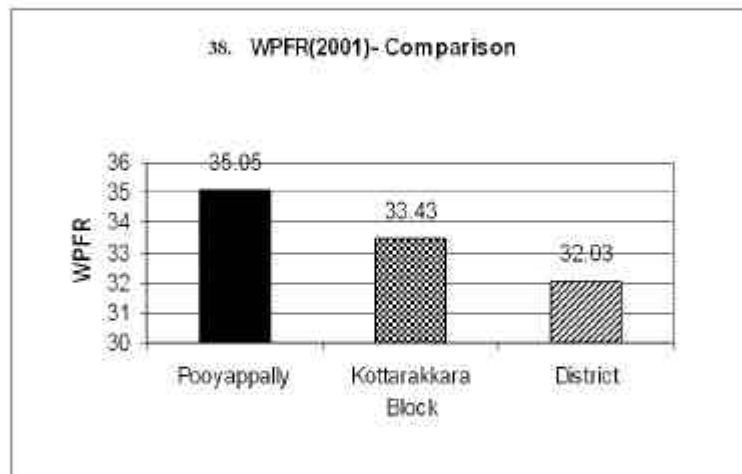
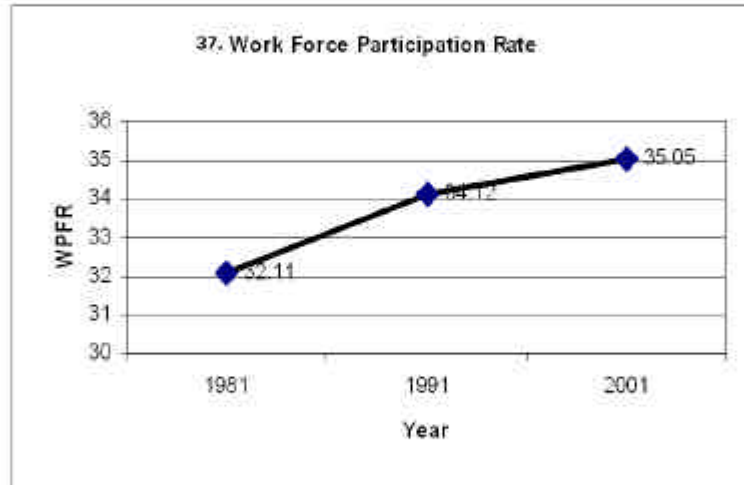
34. Functional Character of different LSGIs with in the district

Year	Population	No of workers	Main workers	WFPR
1981	20280	6511	4156	32.11
1991	21807	7441	6257	34.12
2001	23924	8385	6338	35.05

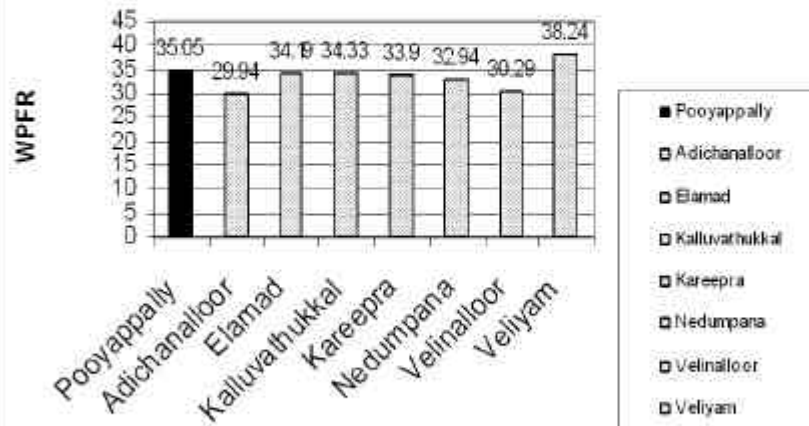
Cultivators			Agricultural labourers			HH industrial workers			Other workers		
1981	1991	2001	1981	1991	2001	1981	1991	2001	1981	1991	2001
1419	1510	891	1036	1497	983	65	70	157	1636	3172	4307

35. General Occupational Structure of Pooyapally Grama Panchayat

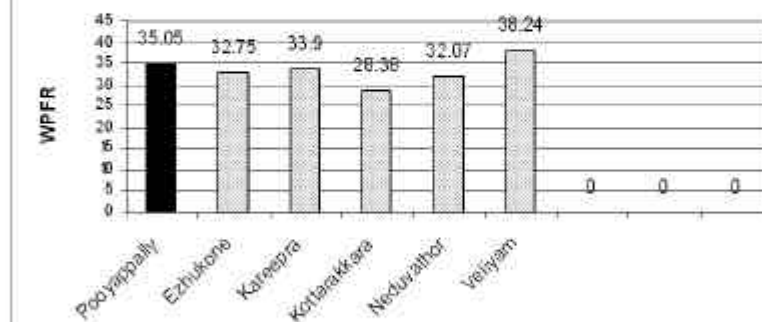


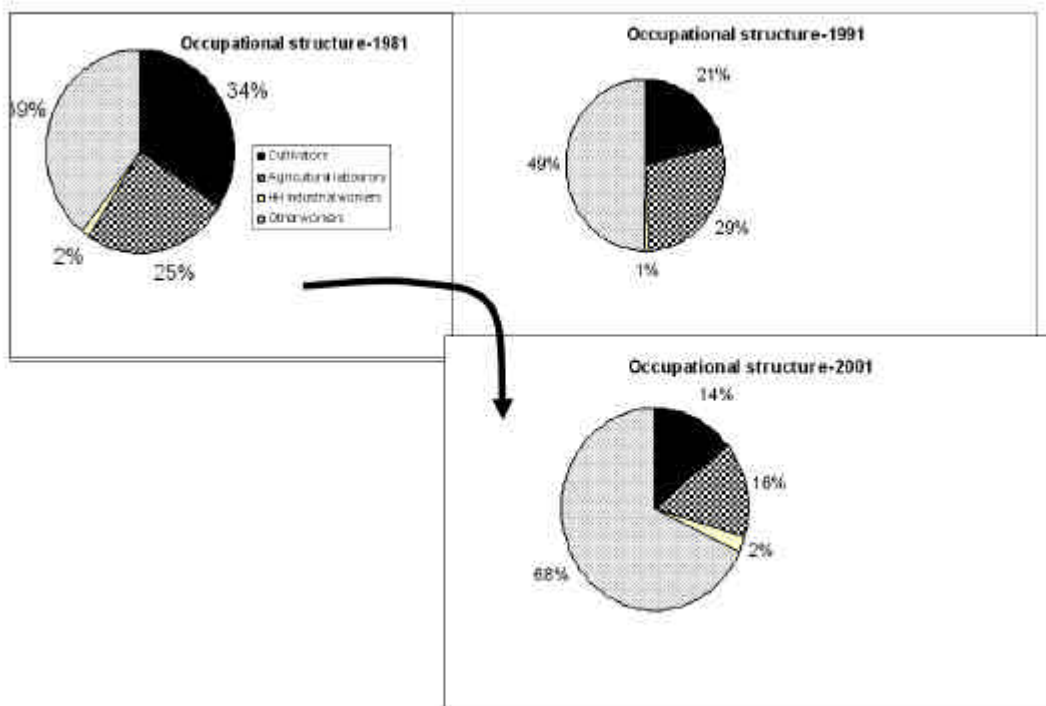


39. WPFR(2001)- Comparison With Surrounding LSGs



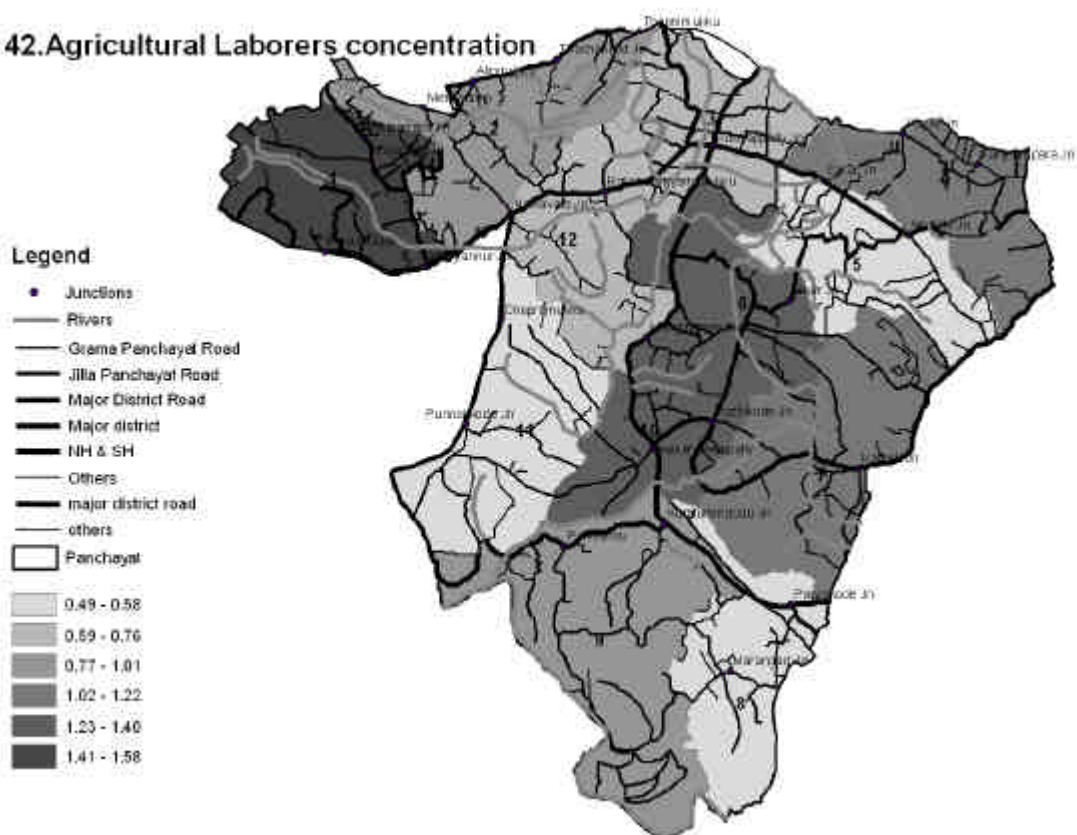
40. WPFR(2001)- Comparison among LSGs within the Block



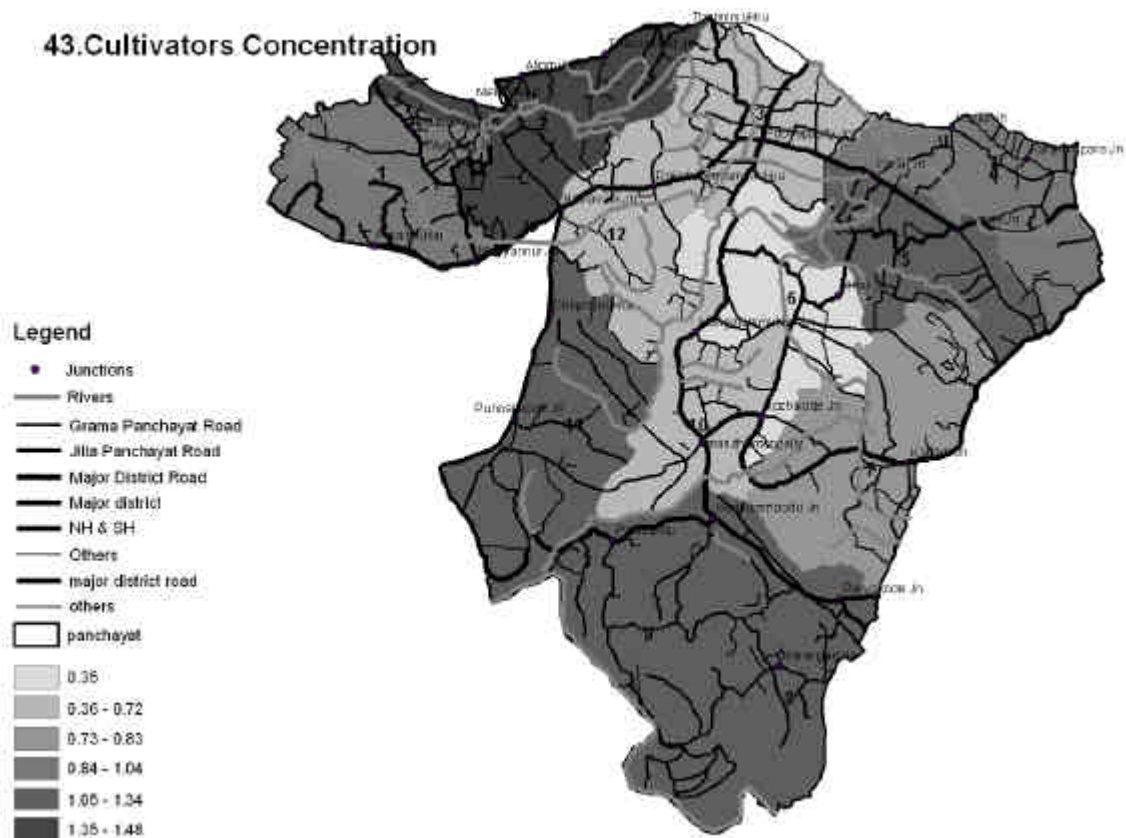


41.Variation in Occupational Structure 1981-2001

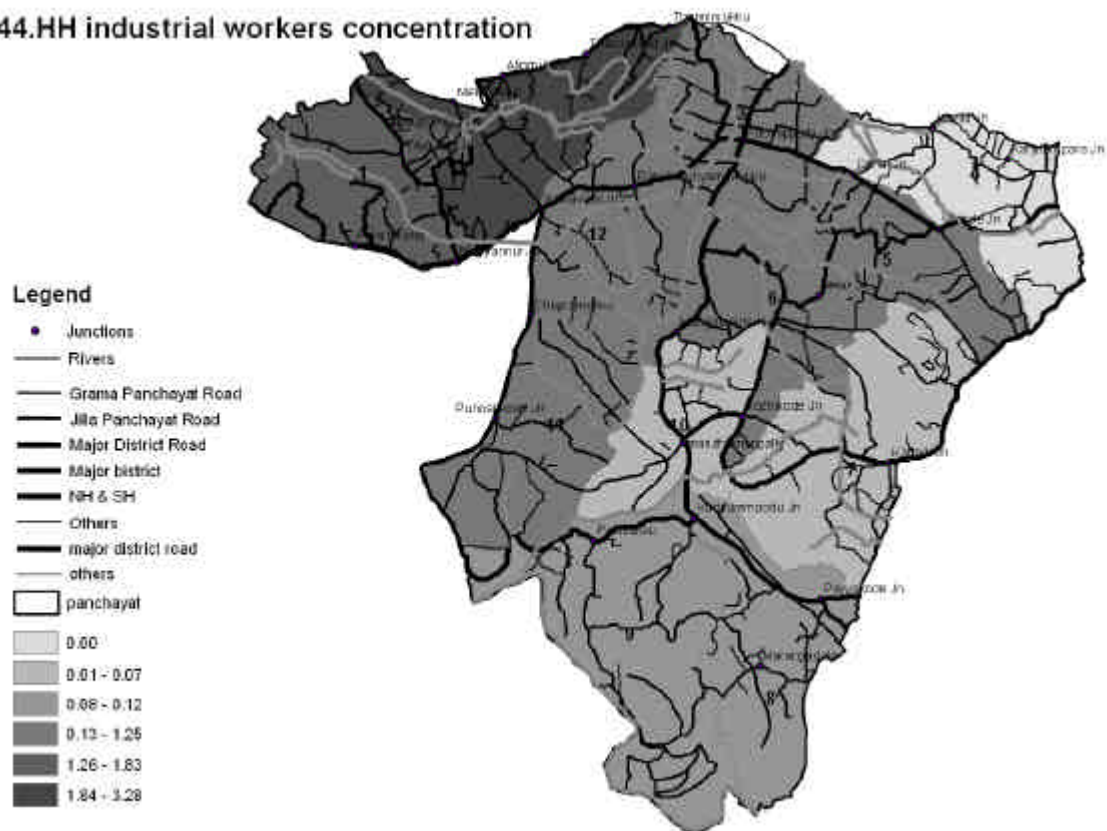
42.Agricultural Laborers concentration



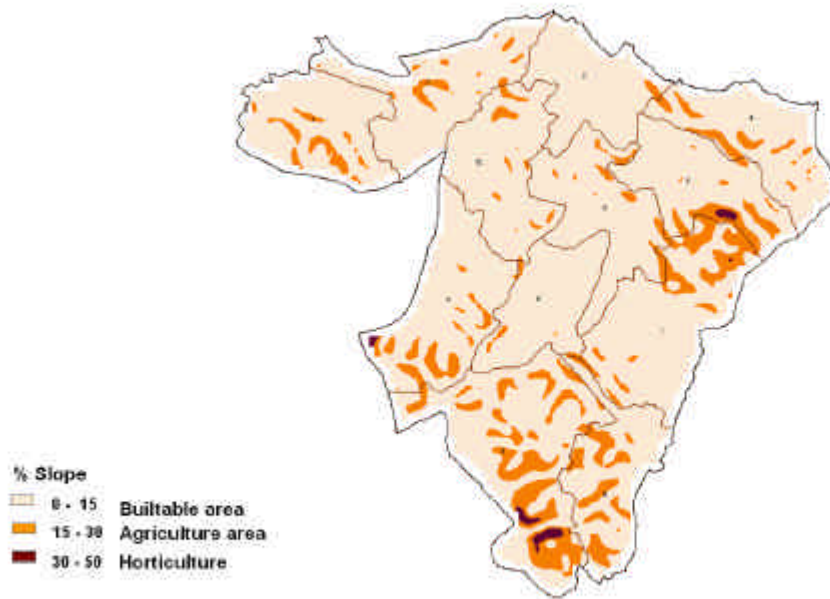
43.Cultivators Concentration



44.HH industrial workers concentration



45.Land nature



Annexure – 3

Grama/ Ward Sabha – Programme

(Grama/Ward Sabha is organised according to the latest guidelines issued in connection with preparation of 11th Five Year Plan)

Grama/ Ward Sabha has to give importance to two aspects

1. Explaining development concept and discussion on the same.
2. Explaining development policies & strategies and discussion on the same.

Presenting the subject in the Grama/Ward Sabha

A member of the Spatial Integration Committee has to present the subject before the Grama Sabha. Here three aspects have to be made clear.

1. What is the speciality of this Grama Sabha? (It has to be explained here that it is the joint grama sabha to prepare Local Development Plan and Five Year Plan. The development concept, general development policy, sectoral development policies and strategies etc pertaining to the Grama Panchayat/Municipality area will be presented before the Sabha. Instead of straight away dealing with development projects, members have to record their opinion with regard to development concept and development policies).
2. What are the major findings and what is the development concept regarding Grama Panchayat/Municipality area
3. What are the sectoral development policies and strategies

Discussion

Members shall form four or five groups and record their opinion after discussing development concept, sectoral development policies and strategies. Similarly they have to record their proposals for development in various development sectors. (Specific instructions have to be given to the grama sabha that the development proposals they put forward shall comply with the development concept formed for the Grama Panchayat/Municipality area). A person shall be elected from among the group members for presenting the matters recorded after discussion in the group, during general presentation.

General Presentation and Consolidation

Matters consolidated after discussion by groups shall be presented by the person authorised by each group during general presentation and afterwards opinions of the grama/ward sabha shall be consolidated as a consensus of opinion of all groups. This is the duty of the Spatial Integration Committee member.

Annexure – 4

Section – A

Content of Local Development Plan Report

Part – 1 –Analysis of Existing Scenario

- Chapter – 1 General Details
- 1.1. Location
 - 1.2. History of Administration
 - 1.3. History of Development
 - 1.4. Historic and Cultural Background
 - 1.5. Topography
 - 1.6. Natural resources
- Chapter – 2 Land use
- 2.1 Land use Analysis
 - 2.2 Concentration of various land uses
 - 2.3 Classification of Residential zone
 - 2.4 Functional Character
 - 2.5 Conclusion
- Chapter – 3 Demographic Studies
- 3.1 Population
 - 3.2 Population Growth rate
 - 3.3 Population Density
 - 3.4 Sex ratio
 - 3.5 Population Distribution
 - 3.6 Conclusion
- Chapter – 4 Occupation Structure
- 4.1 Number of workers
 - 4.2 Occupational structure
 - 4.3 Conclusion
- Chapter – 5 Agriculture Sector
- 5.1 Agriculture: Scenario of yester years
 - 5.2 Agriculture: Present Scenario

- 5.3 Irrigation facilities
- 5.4 Marketing facilities of Agricultural products
- 5.5 Consumption of Agricultural products
- 5.6 Major problems facing Agricultural sector
- 5.7 Conclusion

Chapter – 6 Industries

- 6.1 Industries: Existing Scenario
- 6.2 Conclusion

Chapter – 7 Animal Husbandry and Fisheries

- 7.1 Animal Husbandry – Existing Scenario
- 7.2 Fisheries Sector – Existing Scenario
- 7.3 Conclusion

Chapter – 8 Tourism

- 8.1 Tourism - Present Scenario
- 8.2 Water way
- 8.3 Coastal Road
- 8.4 Heritage sites
- 8.5 Conclusion

Chapter – 9- Transportation

- 9.1 Transportation Network
- 9.2 Traffic Volume
- 9.3 Types of Vehicles
- 9.4 Goods Transport
- 9.5 Parking
- 9.6 Bus stand
- 9.7 Railways
- 9.8 Water Transport
- 9.9 Problems faced by Transport Sector
- 9.10 Conclusion

Chapter – 10 – Education

- 10.1 Standard of Education
- 10.2 Type and Number of Educational institutions
- 10.3 Present Scenario
- 10.4 Higher Education facilities

- 10.5 Educational Facilities – Comparison with planning standards
- 10.6 Conclusion

Chapter – 11- Health

- 11.1 Health care institutions
- 11.2 Facilities in Health Sector- Comparison with Planning Standards
- 11.3 Conclusion

Chapter – 12 – Drinking Water and Waste Disposal

- 12.1 Drinking water – Present Scenario
- 12.2 Waste Disposal – Present Scenario
- 12.3 Conclusion

Chapter – 13 - Trade and Commerce

- 13.1 Present Scenario
- 13.2 Centres of Trade and Commerce
- 13.3 Commercial Sector – Major Problems
- 13.4 Conclusion

Chapter – 14 - Social Backwardness

- 14.1 SC/ST Index and BPL Index
- 14.2 Scheduled Caste/Scheduled Tribe
- 14.3 Data related to People Below Poverty Line
- 14.4 Conclusion

Chapter – 15 – Housing and Slums

- 15.1 Housing
- 15.2 Slums and Settlements – Basic Data
- 15.3 Classification of slums and settlements of low living standard
- 15.4 Conclusion

Chapter – 16 - Environment & Heritage sites

- 16.1 Areas of Environmental importance
- 16.2 Heritage sites
- 16.3 Conclusion

Chapter – 17 - Development Management and Finance

- 17.1 Development management
- 17.2 Finance

Part – 2 – Findings and Conclusions

Chapter – 18 - Findings and Conclusions

- 18.1 Findings based on Integrated District Development Plan
- 18.2 Demography, Land use
- 18.3 Agricultural Sector
- 18.4 Industrial Sector
- 18.5 Tourism Sector
- 18.6 Animal Husbandry and Fisheries
- 18.7 Environment
- 18.8 Transportation Sector
- 18.9 Commerce Sector
- 18.10 Public – Semi public sector
- 18.11 Drinking Water Sector
- 18.12 Education Sector
- 18.13 Health Sector
- 18.14 Social Backwardness

Part – 3 – Development Goals and Development Concept

Chapter – 19 - Development Goals and objectives

- 19.1 Development Goals
- 19.2 Development Objectives

Chapter – 20 - Development Concept

- 20.1 Development Concept

Chapter – 21- Development Policies and Strategies

- 21.1 General Development Policy
- 21.2 Sectoral Policies and Strategies

Chapter – 22 - Expected variation in Population and Employment Opportunities

- 22.1 Projected change in Occupation Structure
- 22.2 Projected change in population

Chapter – 23 - Land use

- 23.1 Land use
- 23.2 Land use map

Part – 4 - Sectoral Proposals

- Chapter – 24 - Agricultural Sector
- Chapter – 25 - Animal Husbandry
- Chapter – 26 - Tourism Sector
- Chapter – 27 - Transport
- Chapter – 28 - Industry
- Chapter – 29 - Education
- Chapter – 30 - Health
- Chapter – 31 – Drinking water and Waste disposal
- Chapter – 32 - Trade and Commerce Sector
- Chapter – 33 - Slums
- Chapter – 34 - Other Infrastructure Facilities
- Chapter – 35 – Environment and Heritage Sites

Part – 5 – Finance, Development Management, Phasing of Development

Chapter – 36 – Finance, Development Management, Phasing of Development

- 36.1 Finance and Development Management
- 36.2 Phasing of Development

Section – B

Development Report (Content according to the Guideline issued by Planning Board)

