BLUEPRINT FOR IMPLEMENTATION OF "PURA" CONCEPT IN BANGALORE RURAL DISTRICT

A DISSERTATION

Submitted in partial fulfillment of the requirements for the award of the degree of

MASTER OF URBAN AND RURAL PLANNING

By

POULAMI DAS

DEPARTMENT OF ARCHITECTURE AND PLANNING
INDIAN INSTITUTE OF TECHNOLOGY ROORKEE
ROORKEE - 247 667 (INDIA)

MAY, 2006

CANDIDATE'S DECLARATION

I hereby certify that the work which is being presented in the dissertation entitled **BLUEPRINT FOR IMPLEMENTATION OF 'PURA' CONCEPT IN BANGALORE RURAL DISTRICT** in partial fulfillment of the requirement for the award of the degree of **MASTER IN URBAN AND RURAL PLANNING** submitted in the **Department of Architecture and Planning** of the Institute is an authentic record of own work carried out during the period from August 2005 to May 2006 under the supervision of **Dr. Ashutosh Joshi.**

The matter embodied in this dissertation has not been submitted by me for the award of any other degree.

Place: Roorkee

Poulami Das

Date: May 18, 2006 (POULAMI DAS)

This is to certify that the above statement made by the candidate **POULAMI DAS** is correct to the best of my knowledge.

Ashutosh Joshi

Date: May 18, 2006

Dr. Ashutosh Joshi
Asst. Professor of Architecture & Planning
Indian Institute of Technology
Roorkee- 247667

CERTIFICATE

Certified that this dissertation entitled BLUEPRINT FOR IMPLEMENTATION OF 'PURA' CONCEPT IN BANGALORE RURAL DISTRICT which has been submitted by Ms. Poulami Das in partial fulfillment of the requirements for the award of the degree of MASTER OF URBAN AND RURAL PLANNING submitted in the Department of Architecture and Planning, Indian Institute of Technology, Roorkee is the student's own work carried out by him under my supervision and guidance. The matter embodied in this dissertation has not been submitted by me for the award of any other degree.

Roorkee
Date: 18th May, 2006

Dr. Ashutosh Joshi
Asst. Professor of Architecture & Planning
Indian Institute of Technology
Roorkee- 247667

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Date:May 18, 2006
Place: Roorkee

Poulami Das

Ms. Poulami Das

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CHAPTER I

This chapter discusses the present urbanisation scenario in few big cities and adhoc migration from rural to urban areas leading to primate city syndrome. In comprises of the immediate need for the study and how 'PURA' as a concept fits in as a solution. The chapter ends with aims, objectives, scope and methodology of the dissertation.

1. INTRODUCTION

1.1] PROBLEM IDENTIFICATION AND NEED OF THE STUDY

An integrated urban and rural planning is needed for sustainable development and this can be created through provision of urban amenities in rural areas and development of self sustaining satellite cities: GEORGE K KURUVILA.

"Sustainable Development" is described as "development that meets the needs of the present without compromising the ability of future generations to meet their own needs". (Brundtland Commission Report accepted by World Commission on Environment and Development, 1987). By this simple accepted definition: Is the present development in and around our metropolitan cities "sustainable"?

With our under stressed infrastructure in our metropolitan cities with its excessive traffic, pollution resulting in health problems to millions of its citizens, slum developments with its unhygienic conditions, lack of green lung open space, pedestrian movement systems, power, water supply and urban ecological balance, the answer/future is clearly staring us in the face.

The vital issue is what are the authorities going to do about our present "unsustainable development" in and around our expanding metros? On the other hand, does the existing condition in our rural areas meet the present needs of its rural inhabitants, whereby the endless flow of migrants to urban areas may be stopped or even reversed? Clearly, the present development trend in both urban and rural development patterns is lacking in fulfilling the above definition and detrimental. How can we change course towards "sustainable development" in both urban and rural areas?

The present scenario in India's urban/rural population is currently about 28 per cent urban and 72 per cent rural. In developed countries (e.g. in Europe, USA, Canada) the proportions are approximately reverse i.e., 20 per cent to 25 per cent live in rural areas whereas 75 per cent to 80 per cent are urbanized. It is the goal of most development parameters to increase India's urban population to 50 per cent say in another 20 years time (world average urban/rural population was estimated 50:50 in year 2000); i.e. by 2025, our objective would be to more than double the present total urbanisation (taking also into account the natural increase in population). This means the need for approximately doubling the present amount of urban infrastructure, housing etc. just to come to a 50:50 urban to rural parity.

It is also estimated that the middle class in India is growing at 10 per cent per annum. Most of them presently live in urban areas. At this rate, the Indian middle class will double in 7.2 years and be more than six times what it is today by the year 2025. These figures have tremendous connotation in development planning. Where is this six-fold increase in India's middle class going to be working, and where will they be housed?

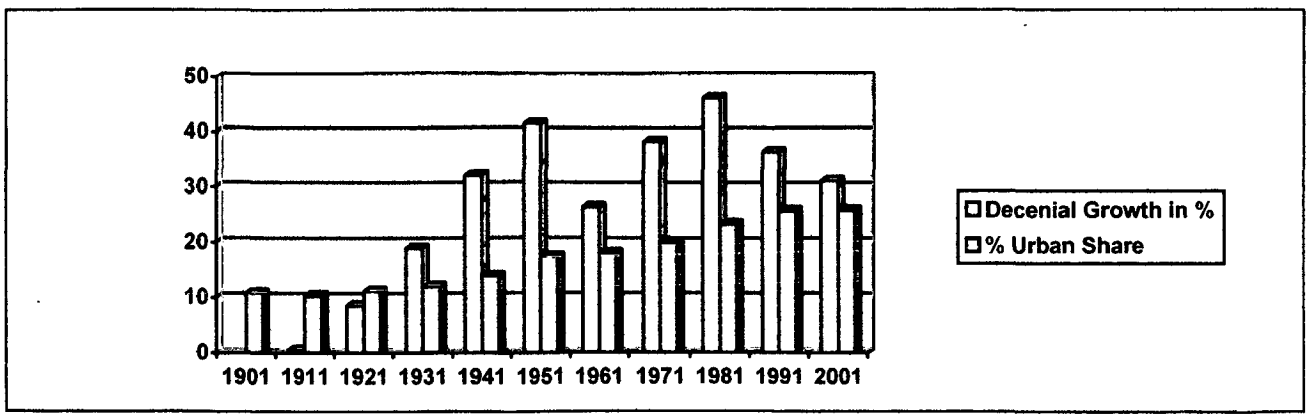
Liabilities and assets

Liabilities: Rural India is presently beset with many problems/challenges. She lacks in almost every development sphere, from basic physical infrastructure, to basic education, job creation, to basic medical health facilities. The present trend for the rural population in search of the above is to migrate to urban areas where the infrastructure is often further stretched to unhealthy conditions (with these rural migrants often living in pathetic conditions, often worse than their previous status in rural areas). But at least they have or have hope for means of income. This keeps the rural to urban migration flowing.

Assets: Vast resource of human labour and raw materials, including land, sunlight, vegetation, animals, rocks and minerals (potentially coexisting in naturally balanced ecosystems, unlike present urban ecosystems).

With all these resources, why do the rural citizens immigrate to urban settings (in spite of often sub-human living conditions)? The answer is obvious: for work/income generation. Part of this income they send back to their families in villages, in spite of their own sub-standard, unhygienic living conditions. So if we can provide work/income generation means within the rural areas, will rural citizens still need to migrate to the cities? What for? The pollution? Higher costs/rents? Living in slums?

1.2] URBAN GROWTH TREND IN INDIA



GRAPH 1: SHOWING GROWTH TREND IN INDIA AND %OF URBAN SHARE (1901-2001)

Source: Census of India, 2001

The present trend of urban growth for existing cities and metropolis is to grow outward, doubling in size approximately every 12 to15 years. Case studies of Delhi, Bangalore and Chennai prove this trend. But is this trend of burgeoning cities healthy? What are the consequences of this uncontrolled growth in terms of provision of urban infrastructure, traffic, pollution and impact on the environment? In India's

richest and one of its largest metropolises, Mumbai, it is said that 65 per cent of its population live in "jhopatties" (shanty shacks). In Bangalore, many of the areas under municipal limits do not have piped water and sanitation facilities.

It is evident that the present uncontrolled, seemingly unplanned urbanisation trends in Indian cities provides unhealthy living conditions, with extreme overload on existing and available urban infrastructure/ecosystems, resulting in slum like developments.

Development of Self-Sustaining Satellite Cities (population between 0.1 million to 1.0 million). These should be proposed with adequate green/forest belt around the existing metropolis eg. Mumbai, Chennai or Bangalore, such that the proposed and existing cities do not later merge, thus cutting of urban lung space while forming an even greater megalopolis.

These satellite cities may be targeted to the increasing Indian middle class, which is expected to become more than double in the next eight years, and also provide employment and market to the surrounding rural areas.

Development of satellite cities could result in an "out migration" i.e., emigration from the existing city, thus lessening the infrastructure pressures on the existing city, as has happened in western countries, where many of the inner cities have lost population to the surrounding satellite towns.

1.3] INDIAN ECONOMIC SCENARIO

India has lower per capita GDP compared to other developing countries. This should be of concern to us because nearly 70% of our rural population lives in about 5,80,000 villages in India and the benefits of the economic growth have been felt in Urban areas to a good extent, but in rural areas productivity is very low, thus economic conditions need improvement. Therefore our basic strategy for social and economic transformation of India towards its vision as a developed society by 2020, would be a strong focus on providing urban amenities in rural areas in a most creative and cost effective manner.

1.4] URBANISATION SCENARIO & "PRIMATE CITY SYNDROME"

The pattern of migration from rural areas, small and medium sized towns to few employment generating metrocities create over-crowding at these cities- this is called **primate city syndrome.** The inability of the city to absorb large numbers of unskilled labours leads to many of the physical, social and economic problems.

i) Concentration of urban population in one or few cities

ii) Growth of cities:

Total population- 2%

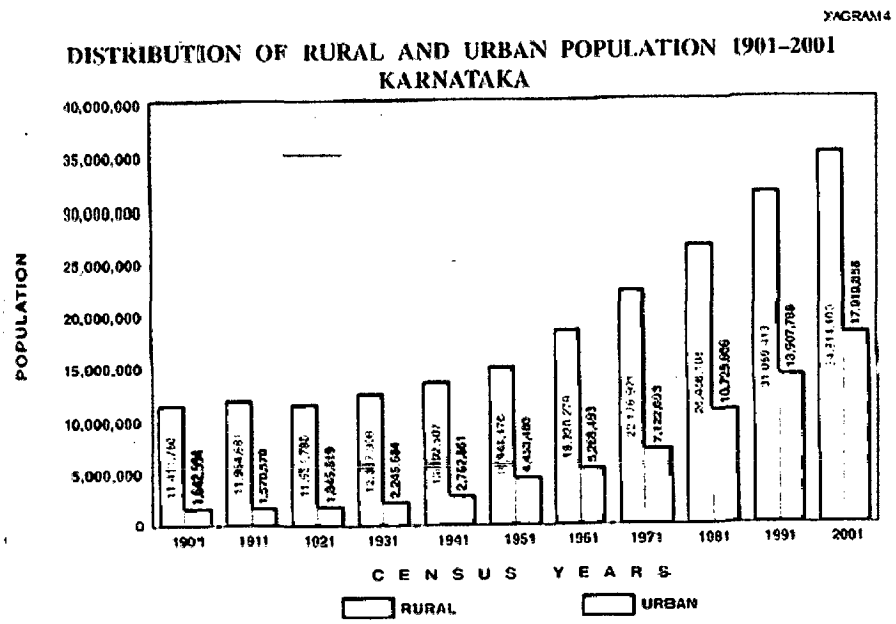
Urban population- 3%

Large cities- 4%

Slum population- 9%

Slum population in large cities- 30%+

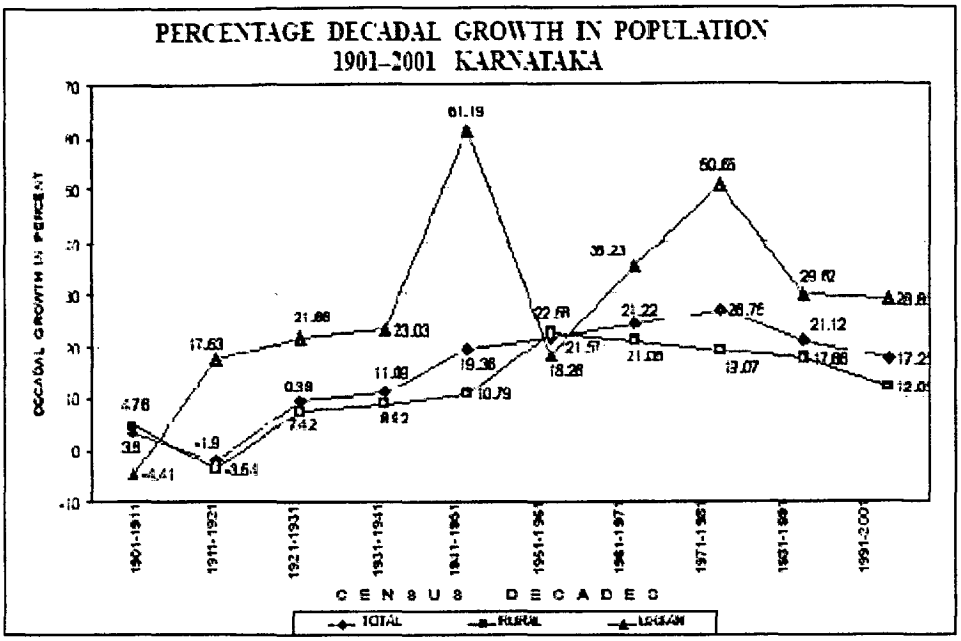
1.5] COMPARISON BETWEEN URBAN AND RURAL POPULATION IN KARNATAKA



Striking disparity between urban & rural population

GRAPH 2: COMPARISON BETWEEN URBAN & RURAL POLULATION (1901-2001)

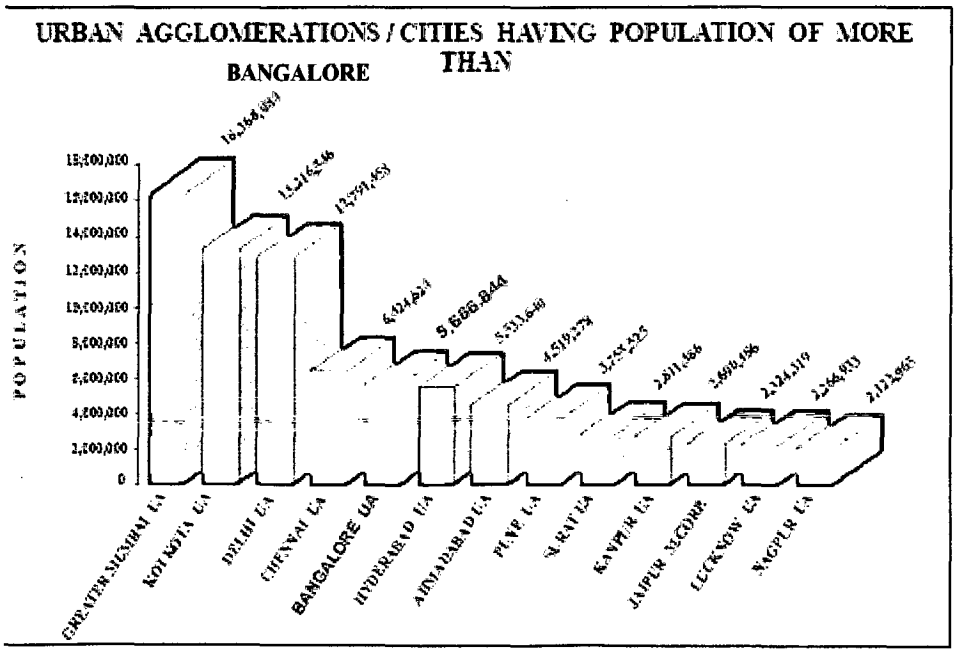
Source: Compiled by author from 'Census of India, 2001' data



GRAPH 3: COMPARISON BETWEEN RISE & FALL OF URBAN & RURAL POLULATION IN RELATION TO TOTAL POPULATION (1901-2001)

Source: Compiled by author from 'Census of India, 2001' data

1.6] SCENARIO IN BANGALORE

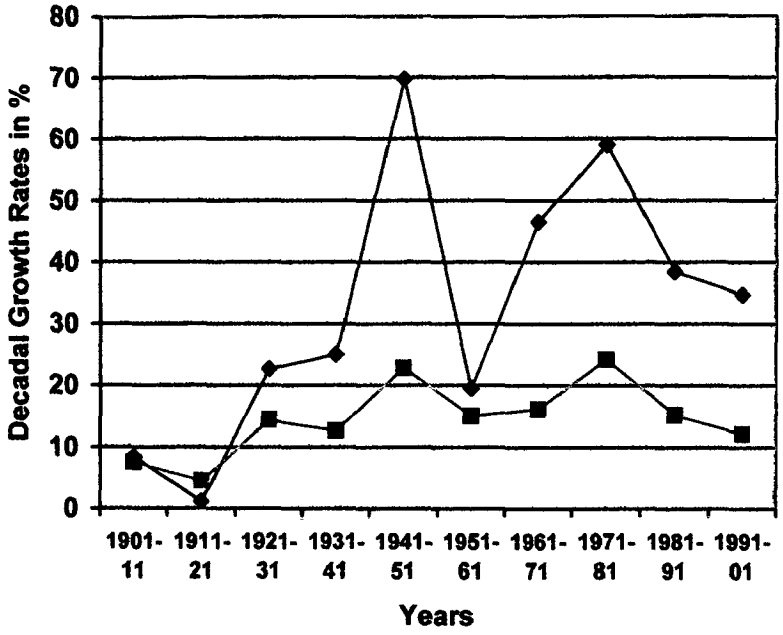


GRAPH 4: SHOWING CITIES HAVING POPULATION MORE THAN BANGALORE (2001)

Source: Compiled by author from 'Census of India, 2001' data

Bangalore is one of the most populated cities in India after the four metropolitan cities namely Mumbai, Kolkata, Delhi and Chennai. If it continue to grow in this current pace, she will take no time to take the shape of another dirty metropolis with unhealthy conditions. The deterioration has already started with heavy load on existing physical infrastructure due to floating population in the city. Moreover she is suffering from primate city syndrome due immigration from nearby rural districts due to her employment generating capacity. The land values have risen in the urban district

and there are dotted proliferation of slums all over the city, especially in southern part, as the poor rural immigrants cannot afford the cost of housing in the city. There is simultaneous social degeneration (in form of rise in crime) due to its high cost of living and rising unaffordability among the poor.



GRAPH 5: SHOWING COMPARISON IN DECADAL GROWTH RATES IN BANGALORE & BANGALORE RURAL DISTRICT (1901-2001)

Source: Compiled by author from 'Census of India, 2001' data

CENSUS 2001	BANGALORE	BANGALORE RURAL
POPULATION	**6.5 MILLION**	**1.8 MILLION**
DECADAL GROWTH RATE	**34.80%**	**12.21%**
DENSITY	**2979PERSONS/SQ.MT**	**323 PERSONS/ SQ. MT**

TABLE 1: COMPARING URBAN &RURAL BANGALORE DISTRICTS IN 2001
Source: Compiled by author from 'Census of India, 2001' data

1.7] IMPACT OF URBANISATION

As per 2001 census, the estimated population of India stands at, 1.2 billion and the average population growth is 1.5%. Population in urban areas has increased many times over and this has occurred largely due to the mass migration of people from the rural areas. The constant quest for better jobs, increased income and the hope of better lifestyle is some of the reasons for constant flow of people to the cities. Naturally this has put tremendous pressure on the existing resources of the cities.

In Karnataka the rise in urban population in the past 5 years has been considerable. With the migration of people from rural areas into the cities, continuing unabated, the resources of the cities is being stretched to its limit. In a city like Bangalore, there is a collapse of the delivery mechanism of every type of basic amenity like water, power, roads etc. Bangalore City has grown by leaps and bounds in past decade and the effect of this has been felt at all levels of the society.

1.8] IMMEDIATE NEED

The areas of immediate action are:

a. Arrest migration from rural areas & small towns to large cities;

b. Encourage reverse migration to rural areas through:

(i) Creation of jobs;

(ii) improving the quality of life,

(iii) Providing basic amenities;

c. It will lead to *in-situ-urbanisation* of selected urban areas.

2. WHAT IS 'PURA' CONCEPT '?

"PROVISION OF URBAN AMENITIES IN RURAL AREAS (PURA)"

Rural infrastructure development has fivefold impact on the economy i.e.

1. Creating better access to employment and proving further earning opportunities.
2. Increasing production efficiency.
3. Creating access to previously inaccessible commodities and services.
4. Saving time, which can be better utilised in productive activities.
5. Better health and physical condition of the rural population.

The President of India, APJ Abdul Kalam has placed an important thought before the Nation for bridging the rural-urban division and achieving balanced socio-economic development.

It is called PURA - Provision of Urban Amenities in Rural Areas. The president of India, Mr. Abdul Kalam has been propagating the concept of 'PURA' (Provision of Urban Amenities in Rural Areas) which has made core of his vision 2020 with missionary zeal.

Taking leaf out of Hon'ble President's idea of PURA, Hon'ble Prime Minister of India made an announcement of this new scheme on 15th August 2003 to bridge rural -urban divide and achieve a balanced socioeconomic development.

PURA is the Government of India project for providing urban amenities in rural areas, to be implemented in 5,000 rural clusters across the country in the next five years. It involves identification of rural clusters with growth potential and creating four types of connectivity:

(i) Road, transportation and power connectivity: physical connectivity;

a. Enables movement of people and goods.

b. Improve access to schools and health care centers.

c. Reduces investment in distribution of power, water & communication network

(ii) Electronic connectivity in the form of reliable telecom, Internet and IT services:

a. Village Internet kiosks.

b. E-Government access

c. E-market access

d. Tele-Training on farming

e. E-Banking/ ATM centers

(iii) Knowledge connectivity in the form of good educational and training institutions; and

a. Vocational training

b. Knowledge training

c. Water Management

d. Forest Management

e. Environment

f. Coop. Product Marketing

(iv) **Economic connectivity.**

a. Employment Opportunity

b. Value system-economic strength

c. Women empowerment

d. Urban Decongestion

e. Improved quality of life.

f. Increased purchase power.

This would enable farmers and others to get the best process for their produce. The Government has decided to implement the PURA strategy in 5,000 rural clusters across the country in the next five years. Apart from this four Connectivities- high quality habitat design, employment generation and social upliftment also form important components of PURA.

Priority will be given to northeastern States, other Special Category States, and backward areas identified by the Planning Commission and other agencies. The Prime Minister's office will prepare the contours of the PURA strategy in consultation with the concerned Ministries and State Governments.

In pursuance to that announcement, meetings have been held with the concerned Ministries and Planning Commission for working out the details of the PURA schemes and modalities for their implementation. It has been proposed, based on a methodology worked out by the Planning Commission, to identify clusters of villages around small towns (population 20,000 to I lakh) for this program. In the first phase of its implementation, the villages within 5-10 km around these towns will be selected.

As per 2001 census there are 593 districts. Out of these, all districts which has a town that /have a population of five lacs and above, all UTs and State of Goa and three other districts which are close to metropolitan centers were not considered. In the remaining 505 districts, towns have acted as under;

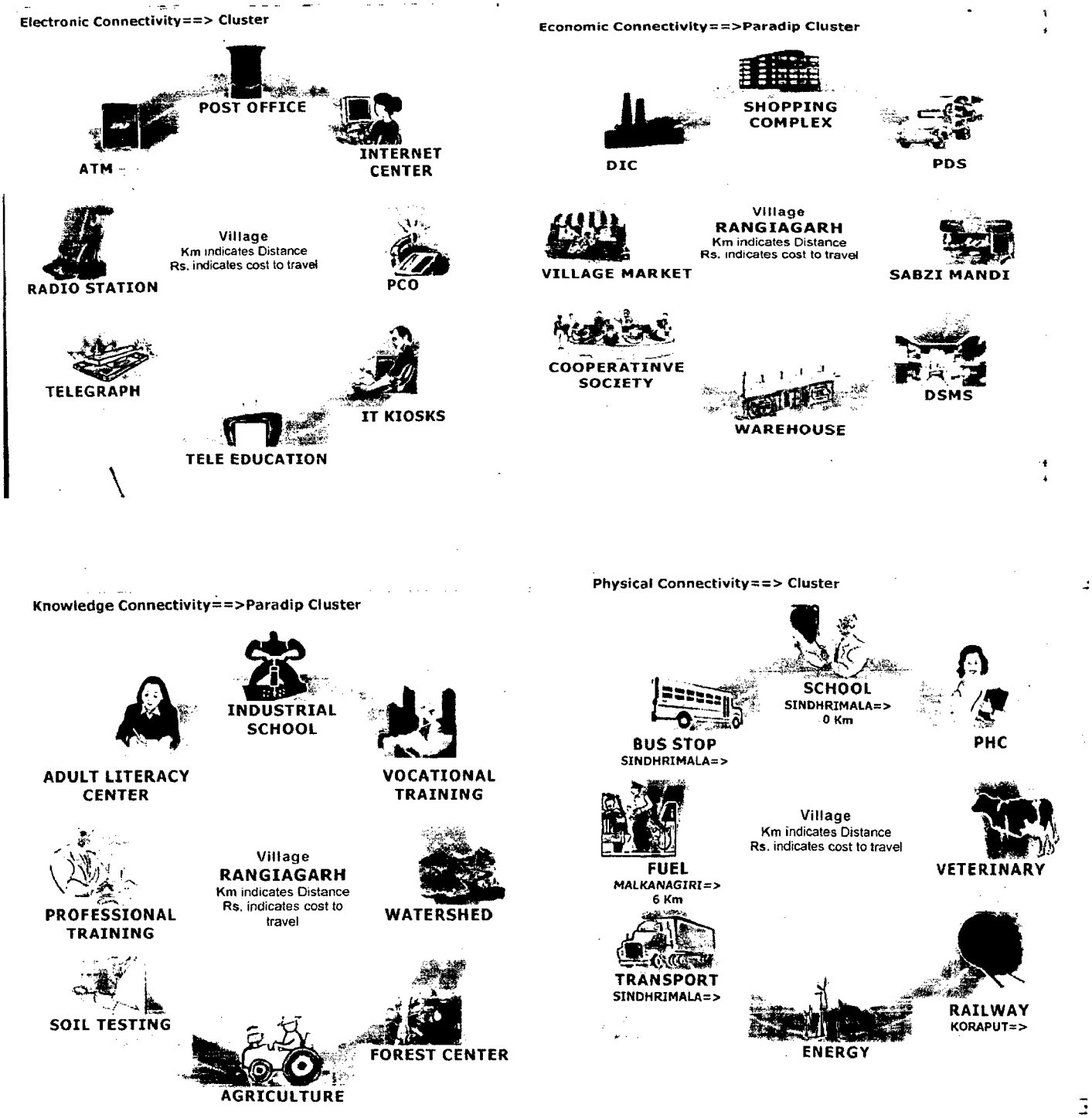
The most backward towns [the population size between 30,000 to 1 lakh, in plains and 20,000 to 50,000 in hill areas] which have low electricity connections, low literary rate, low percentage of households availing piped water etc. have been given preference.

In those hilly areas where there are no towns [as in some North Eastern States], the District headquarter towns will be taken up for identifying rural clusters.

In Special Category States and States, which has incidence of poverty above national average, two clusters of 9-15 villages will be identified around each town. In the States where the incidence of poverty is below national average, one cluster will be taken up around each town.

Each PURA depending upon the region will cost between Rs.100-200 crores. It has also to provide employment opportunity for 3000 employees. If we create a small scale sector, this will mean creation of approximately 10-20 enterprises per PURA complexes. This will also generate employment opportunities in service and support sector for about 10000 people. This is one way of reducing the employment gap leading to upliftment of the 260 million people living below the poverty line.

Fig. 1: Graphical representation of Four types of Connectivities



- OBJECTIVES OF PURA:

The Planning Commission has laid down the following objectives for PURA Scheme:

- Provision of infrastructure facilities similar to Urban Areas thereby improving the quality of life in villages.
- To create alternative centres of employment leading to additional job opportunities in Rural areas which facilitates shifting to non-farm occupations, since agriculture alone cannot provide increased employment.

- Increasing income levels substantially to increase the purchasing power for availing the higher level of infrastructure and other facilities proposed.
- Infrastructure provision to be on sustainable basis by active involvement of the community, Private sector with facilitating role by the government.

❑ CHARACTERISTICS

According to Planning Commission the Characteristics of PURA are as follows:

a Group of 9-15 villages linked to one another by roads and connected to a ring road.

b Ideally located some 30-40 Kms from expanding cities as a start up.

c Good connectivity and transport networks.

d Availability of adequate water and power.

e Availability of local resource and skills.

f Potential for employment generation and market.

g 30,000 population is suggested as the minimum viable unit, maximum unit is upto 1 lakh.

h Land availability at reasonable rates.

i Availability of entrepreneurial skills (a good amount of migration to larger cities is n indicator of people wanting to change and willing to work for it).

j Willingness of population to participate as a totally self- sustainable project.

k Involvement of NGOs/ project leaders.

l Other industrial/ employment generation Programmes on pipeline, which are, advanced stages of implementation.

❑ CLASSIFICATIONS :

Three different types of clusters have been identified under PURA scheme:

Type A: situated close to urban area having minimal road connectivity, possibility of attracting private sector investment, having limited physical and social infrastructure.

Type B: close to urban area but has sparsely spread infrastructure and no connectivity, lesser efforts to start.

Type C: located far interior with no connectivity and no basic amenities and requires much greater initial push to kick- start.

- PARTICIPANTS/ STAKEHOLDERS:

The key stakeholders of the PURA Scheme are:

a. The village community/ panchayat
   Zilla panchayat
   Land owners
b. State government
   Rural development and Panchayat Raj department
   Housing department
   Rural engineering department
   DRDA
   PWD
   Pollution control board
   Regional planning boards/ town planning department
   Transport department
   Social welfare department
   Horticulture/ dairy
   Industrial department
   KVIC
   Labour
   Tourism
   Commerce and industry
c. Financial institutions (banks, HUDCO, SIDBI< NABARD etc)
d. KIADB
e. State level financial institutions
f. DISCOM
g. Central government
h. MOUD, MoRD, TCPO
i. Entrepreneurs

- PROGRAMMES TO BE DOVETAILED

According to Planning Commission, the following programmes can be considered for development of a cluster under PURA Scheme:

- **Pradhan Mantri Gram Sadak Yojna**
- **Rajeev Gandhi Rural Water Supply Mission**
- **Ashraya Housing Scheme**

- **Backward Areas Development Fund**
- **Rural Building Centre (to be revised)**
- **Swachha Grama Yojna**

(The detailed discussion about each scheme is in Chapter II)

- FUND REQUIREMENT:

As per Prof. Indiresan, the estimated investment in PURA would be:

Item	Agency	Cost (Rs. In Crs)
Site identification	Consultant to state government	0.1~0.3
Land for ring/ link road	State	2.00~3.00
Ring road construction	Centre	30.00~40.00
Habitat development	Venture capitalist	30.00~50.00
Government services	Government	10.00~20.00
Organized business	Private	40.00~50.00
Customer services	Private	10.00~20.00
Informal business	Private	?
	Total	**120.00~185.00 plus**

Table 2: Estimated implementation cost for PURA Scheme

3. FOCUS AREA: AIMS, OBJECTIVES, SCOPE AND LIMITATIONS

In Karnataka, Government of India has selected 25 towns and corresponding cluster of villages covering Arasikere, Bantwal, Basavakalyan, Challakere, Chamarajanagar, Harihara, Godak, Haveri, Indi, Kampli, Karwar, Kundapura, Madikeri, Malavalli, Nalagund, Rabhkavi Banahatti, ramanagar, Sagar, Sindhanoor, Sira, Tarikere, Gangavathi, Chikballapura, Doddaballapura and Hoskete.

Bangalore Rural district is one of the 25 districts in Karnataka, formed in 1986. There are 2 divisions, 8 talukas, , 35 hoblies, 1713 inhabited and 177 uninhabited villages, 9 towns and 228 gram panchayats.

Doddaballapura Taluk comes under bangalore Rural District covering 78760 hectares having 5 hoblies:

- Doddaballapura
- Doddabelavangala
- Madhure
- Sasalu
- Thubagere

Previously Government had tried to solve their problems through piece-meal projects. But they failed to achieve a complete development. So with the upcoming idea of comprehensive development, it was accepted by planners and politicians that PURA may be an answer for achieving a balanced socio- economic development in these rural areas.

So the sole aim of the dissertation is to evolve a blueprint for implementation of PURA concept on Doddaballapura Cluster which will act as model for development of rest of the clusters under PURA Scheme in Karnataka and also in other state in India, where situation is similar.

2.2] OBJECTIVES

The objective of preparing the detailed Project Report under PURA Scheme is as follows:

1. Providing background data on social, economic and physical features of the selected villages and Doddaballapura Town.
2. Identifying the available infrastructure under various sectors in the cluster through survey of selected villages.
3. Identifying bottlenecks that will come in the way of implementation of the schemes for creation of necessary infrastructure.
4. Identifying monitorable milestones in the execution of works for creation of various infrastructural facilities.
5. Suggesting approaches to ensure quality execution of works including involvement of Gram Panchayat/ NGOs/ Private Partnership in providing connectivity and infrastructure.
6. Suggesting fund requirement with the breakup from existing scheme and through PURA for infrastructural gaps to be filled up and phasing of implementation of the scheme.
7. Suggesting monitoring and review mechanism for implementation of the Project.

2.3] SCOPE AND LIMITATIONS

The scope of the project includes preparing blueprint for application of PURA concept for the cluster of villages around Doddaballapura town. The villages included in the Cluster are:

1. Thippapura	2. Thammasettihalli	3. Alahalli
4. Palanjogihalli	5. Arehalli	6. Kariyenahalli
7. Mallathahally	8. Basettihalli	9. Shivapura

The scope of the Project also includes identifying facilities to be provided in each cluster which includes: provision of reliable power supply to the household level, water supply, road facilities,

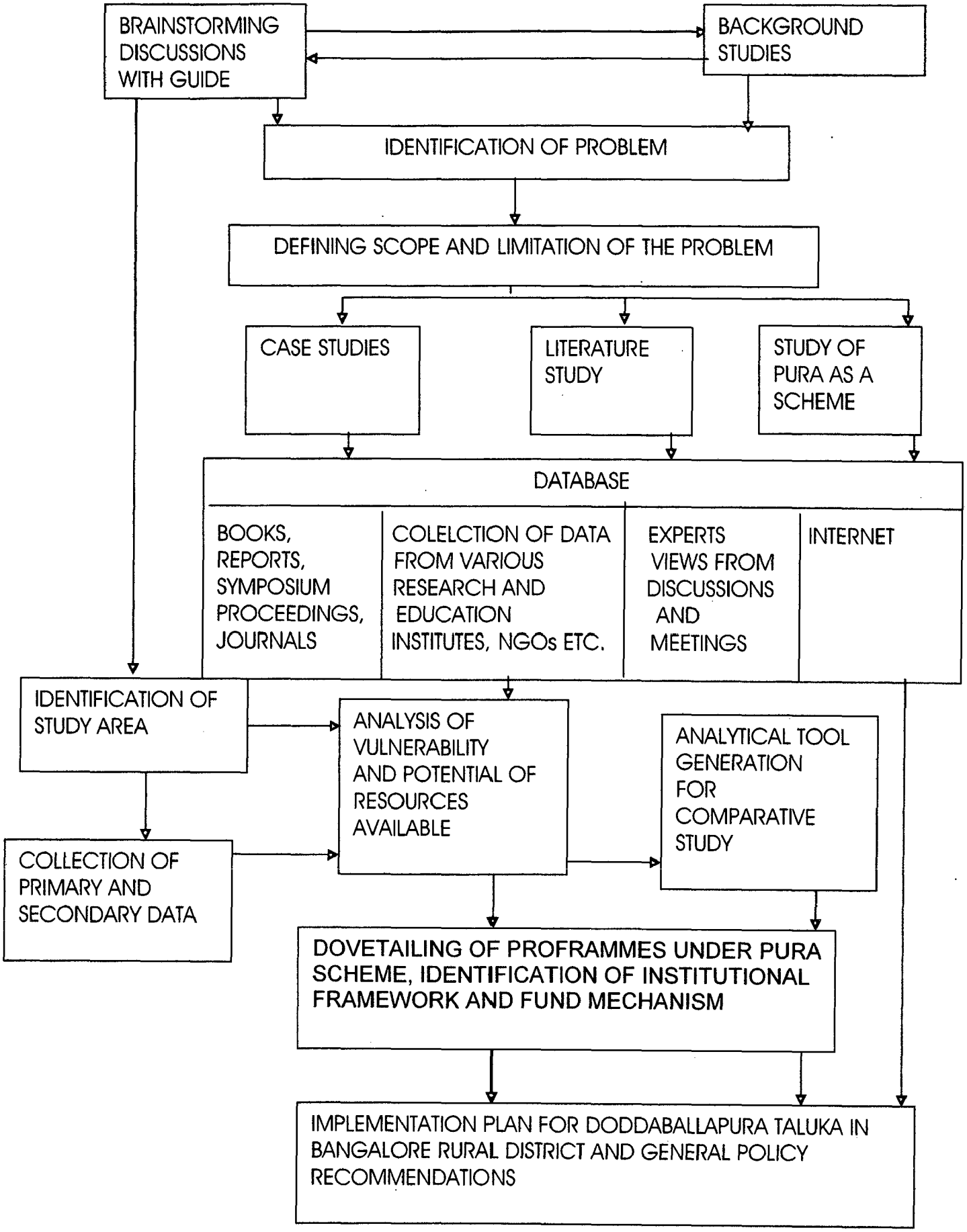
reliable telecom, internet and IT services, upgrading existing schools to the next higher level, upgrading health and market facilities for agricultural produce and improvement in transportation.

3. METHODOLOGY

1. Understanding specific project requirement.
2. Study of existing infrastructure in Doddaballapura town and cluster of villages through secondary and primary surveys.
3. Literature study.
4. Identification of main economic bases of the town and related problems, potentials and policies.
5. Identification of existing socio economic profile of the town.
6. Identification of existing infrastructure problems and potentials.
7. Identification of prime mover project for gainful employment generation.
8. Identification of programmes under PURA model.
9. Setting up sectoral targets and projects packages.
10. Institutional framework and strengthening.
11. Cost estimates and financial analysis.
12. Identification of appropriate funding mechanism for self-sustainance and commercial viability.
13. Blue print for sustainable development.

The surveys had been conducted by visiting all the villages coming under the Doddaballapura Cluster , accompanied by detailed discussion with various departmental offices like Taluk Executive Officers, Presidents and Members of Gram Panchayat of respective villages, Officers of various departments like agriculture, horticulture, PWD, Irrigation, Animal Husbandry, Social Welfare, Women & Child Welfare Department, KPCTL, TELECOM, etc who are involved in implementing various schemes for the development of villages

CHART 1: SHOWING METHODOLOGY



CHAPTER II: LITERATURE REVIEW

The chapter on literature review deals with the terms and definitions, administrative structure of gram and Taluk Panchayat in Karnataka. Further it also deals with thorough discussion of different schemes dovetailed under 'PURA' Scheme.

2.1 TERMS AND DEFINITIONS

Plan: a plan is a systematically and scientifically evolved work schedule to achieve specific objectives within specific period of time by employing least amount of resources.

Definitions of rural development

According to World Bank, 1992

'Rural Development is a strategy to improve the socio- economic life of the specific group of people, the rural poor, including small and marginal farmers the tenants and landless rural poor.'

According to Robert Chambers, 1983

'Rural Development is the strategy to enable a specify group of people, poor rural women and men, who to gain for themselves and their children more of what they want and need. It involves helping the poorest among those who seek a livelihood in the rural areas to demand and control more of rural development.'

According to Ensminger, 1974

'Rural Development is to involve a process of transformation from traditionally oriented rural culture towards an acceptance and reliance on science and technology.'

According to Lele', 1975

'Rural development is the improvement in te living standard of the masses of low-income population residing in the rural areas and making a process of self sustaining.'

According to Indian Context

Rural Development can be defined as: ' Integrated development of area and the people through optimum development and utilisation of local resources- physical, biological and human and by bringing about necessary institutional, structural and attitudinal changes by delivery of a package of services to encompass not only the economic field, that is agricultural and its allies activities, rural industries but also establishment of required social infrastructure and services in the areas of health, nutrition, sanitation, housing, drinking water, literacy etc. with ultimate objectives of improving the quality of life of the rural poor and the economically weaker persons".

2.2 ADMINISTRATIVE STRUCTURE OF THE DEPARTMENT OF RURAL DEVELOPMENT AND PANCHAYATI RAJ IN KARNATAKA STATE

On primary survey and also from secondary sources one understands that an intricate system of administration exists in the state of Karnataka which is systematic yet lacking the very needed inter and intra departmental co-ordination required for successful implementation of any scheme. The Department of Rural Development and Panchayat Raj is headed by the Secretary-1 and the Secretary (PR). The Secretary (PR) monitors Panchayat Raj, Rural Energy Programmes in addition to Sampoorna Grameena Rozgar Yojana and Indira Awaas Yojana of Area Development Programmes. The Secretary-1 monitors all other Directorate and Establishment matters. The Departmental functions have been classified in to ten divisions headed by Additional Secretary/ Joint Secretary/ Deputy Secretary level officers. The Rural Development Engineering Department headed by the Chief Engineer comes within the administrative purview of the Rural Development and Panchayat Raj Department. A brief account of the functions of each division is given below and flow charts indicates clearly the composition of each department..

Area Development Programme Wing:

This wing is headed by a Deputy Secretary designated as Director, Area Development Programme (A.D.P) and deals with the implementation and monitoring of employment generation and area development schemes viz., Sampoorna Grameena Rozgar Yojana (S.G.R.Y.), Indira Awaas Yojana (I.A.Y), Pradhana Mantri Gramodaya Yojana-Grameena Awaas Yojana (P.M.G.Y-G.A.Y), Drought Prone Areas Development Programme (D.P.A.P), Desert Development Programme (D.D.P), Western Ghats Development Programme (W.G.D.P), Integrated Wasteland Development Programme(I.W.D.P) and the monitoring of administrative matters of Karnataka Land Army Corporation.

Rural Infrastructure Wing:

This wing is headed by a Joint Secretary designated as Director, Rural Infrastructure (RI) and deals with Rural Water Supply & Sanitation, Roads & Bridges, Minor Irrigation and Building sectors implemented by the Panchayat Raj Institutions. The implementation of Pradhan Mantri Gram Sadak Yojana (P.M.G.S.Y) is also the responsibility of this wing.

Karnataka Rural Water Supply and Sanitation Agency Wing:

This wing is registered as a society and named as Karnataka Rural Water Supply and Sanitation Agency during 2001-02. The Additional Secretary designated as the Director heads this wing. His task is to formulate plan and monitoring of the implementation of Externally Aided Projects of Rural

Water Supply and Sanitation including Centrally Sponsored Swjaladhara Project and Total Sanitation Campaign.

Self Employment Programmes Wing:

This wing is headed by a Joint Secretary designated as Director, Self Employment Programmes (S.E.P) and deals with the implementation and monitoring of Swarnajayanthi Gram Swarozgar Yojana (S.G.S.Y).

Rural Energy Programmes Wing:

A Deputy Secretary designated as Director, Rural Energy Programmes (R.E.P), heads this wing. This wing has the responsibility of monitoring National Projects on Biogas Development and Integrated Rural Energy Programme. This wing deals with the administrative matters of Mahatma Gandhi Rural Energy and Development Institute.

Panchayat Raj Wing:

This wing is headed by a Deputy Secretary designated as Director, Panchayat Raj and deals with all matters relating to Panchayat Raj Institutions viz. Zilla Panchayat, Taluk Panchayat and Grama Panchayat under Karnataka Panchayat Raj Act 1993.

Finance Wing:

An Internal Financial Adviser (I.F.A) and Ex-officio Deputy Secretary heads this wing. This wing deals with all financial matters including preparation of budget estimates, release of funds and audit.

Plan Monitoring and Evaluation Cell:

This wing is headed by an officer of the rank of Deputy Secretary and is designated as Joint Director (Plan Monitoring and Evaluation). The cell deals with formulation of plan schemes, monitoring and evaluation of Rural Development Programmes. The wing also undertakes preparation of various reports and statements as required by a Department. He is also the Principal Editor of monthly magazine of the department 'Karnataka Vikasa' assisted by the Chief Editor.

Administration Wing:

This wing is headed by a Deputy Secretary (Administration) and looks after administrative, general co-ordination and training matters of the Department.

Rural Development Engineering Department:

The Rural Development Engineering Department headed by the Chief Engineer shoulders the responsibility of the implementation of Rural Water Supply & Sanitation, Roads & Bridges, Minor Irrigation and Buildings sectors.

The Administrative Charts of the Department

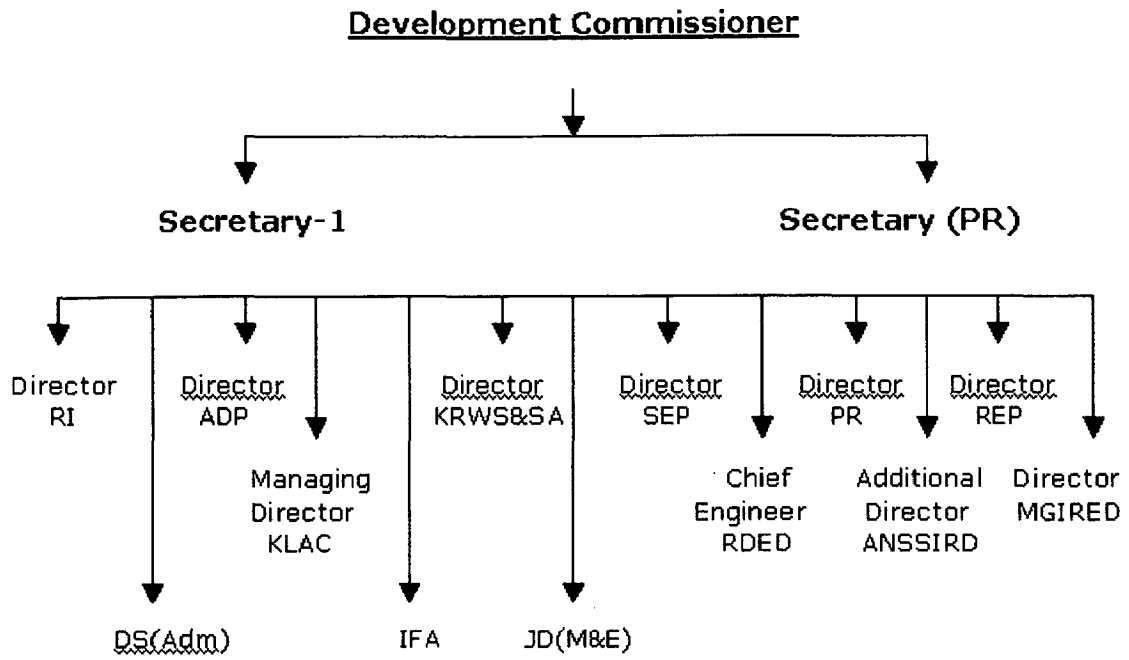
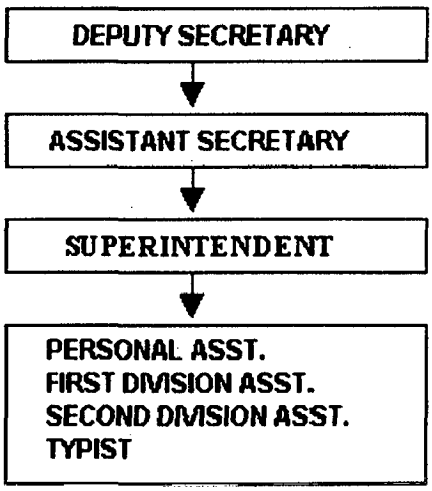


Chart 2: Administrative structure of Rural Development Department



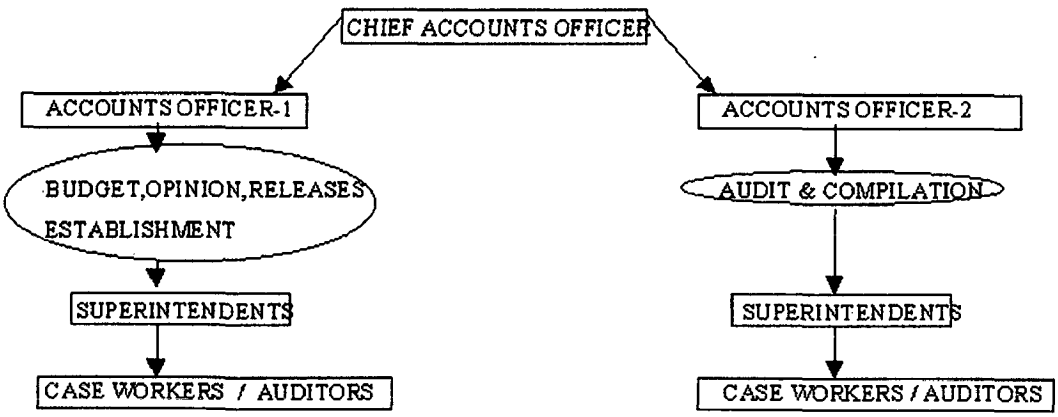


Chart 3: Administrative structure of Zilla Panchayat

Chart 4: Administrative structure of Account Section of Zilla Panchayat

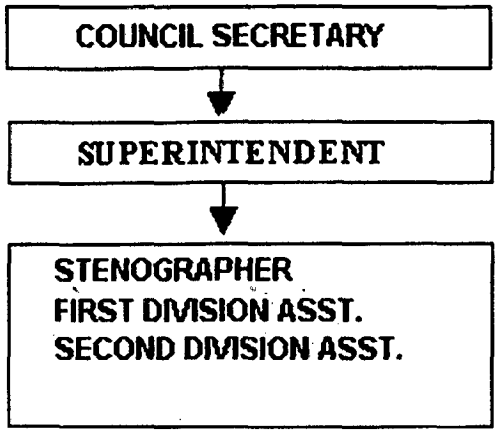


Chart 5: Council Setup of Zilla Panchayat

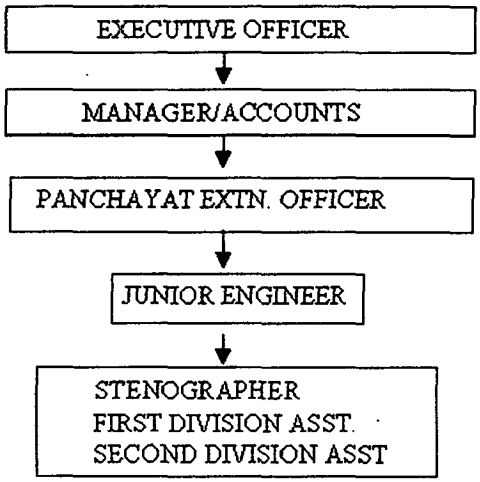


Chart 6: Administrative setup of Taluk Panchayat

ZILLA PANCHAYAT SETUP

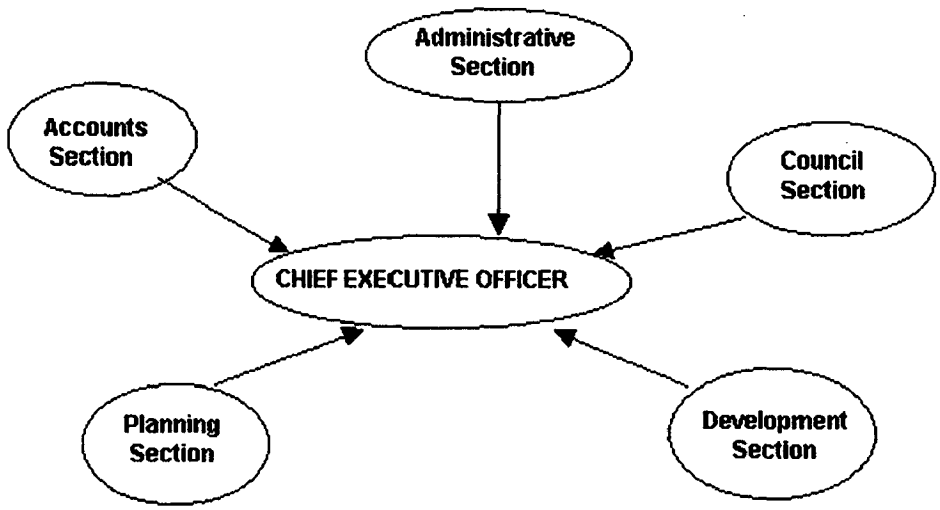


Chart 7: Zilla Panchayat Administrative setup

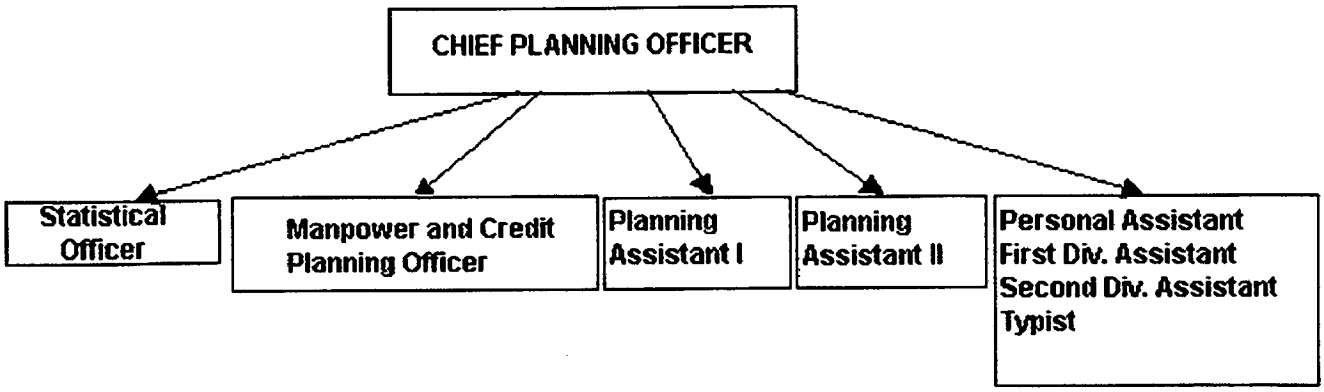


Chart 8: Setup of Planning Section of Zilla Panchayat

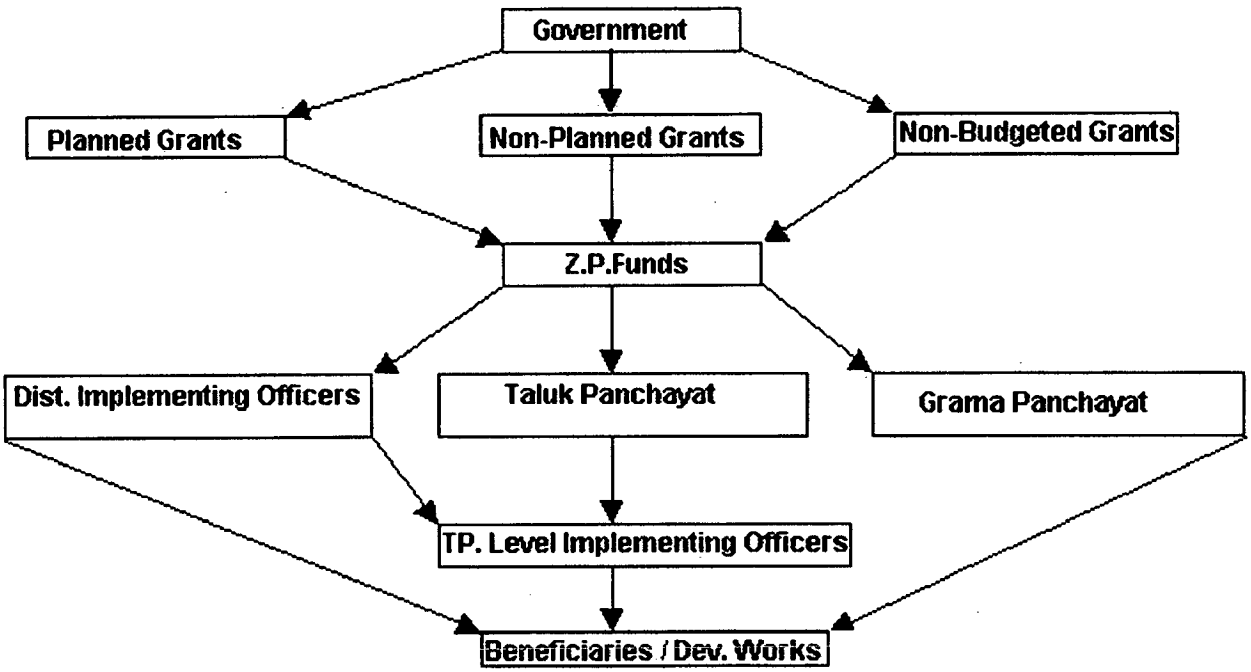


Chart 9: Fund Flow Mechanism of Gram Panchayat

Note: All the charts are compiled by author from secondary survey data

2.3 A DETAILED STUDY OF DIFFERENT SCHEMES DOVETAILED UNDER 'PURA' SCHEME

Planning Commission has dovetailed some schemes (pg-20) for successful implementation of 'PURA' concept. The fiscal as well as the physical components of these schemes is to be involved while implementation of 'PURA' scheme in a cluster.

PRADHAN MANTRI GRAM SADAK YOJANA

1. Objectives

1.1 The Pradhan Mantri Gram Sadak Yojana seeks to provide Road Connectivity, through good All-weather roads, to all Rural Habitations with a population of more than 500 persons by the year 2007 (end of Tenth Plan period). In the process, all unconnected Habitations having a population of more than 1000 persons would be covered in the next three years. Where a State has no uncovered Habitation of this population size, smaller Habitations may also be covered, subject to the minimum population size being 500. In case of hilly/desert tracts, this may not be less than 250.

1.2 The PMGSY covers only 'Other District Roads' (ODRs) and 'Village Roads' (VRs). Urban roads are excluded from the purview of this Programme.

Focus of PMGSY

1.3 **Under the PMGSY, the primary focus of the Programme will be on providing connectivity to Unconnected Habitations in a District.** Priority would be accorded to providing road connectivity, by means of All-weather roads of desired specifications, to Unconnected Habitations having a population of 1000 persons or more (according to 2001 Census).However, if there are no such Unconnected Habitation, then Unconnected Habitation with population between 500-999 persons can be taken up under the Programme. In all cases, preference should be given to Habitations having large Scheduled Caste/ Scheduled Tribe population. The District will be the unit for determining the presence or absence of Habitations of the targeted population size.

1.4 The objective under the Pradhan Mantri Gram Sadak Yojana is that every Habitation (of the designated population size) should have **one all-weather road** connectivity. It follows that if a Habitation is already connected to another Habitation or an All-weather road by way of an All-weather road, then this Habitation can not be taken up under the Pradhan Mantri Gram Sadak Yojana. In other words, already connected habitations can not be provided with more roads under the Programme unless all Unconnected Habitations with population above 500 persons have been provided connectivity in the District.

1.5 **The emphasis under PMGSY is to provide New Connectivity to Unconnected Habitations. If there are no Unconnected Habitation in the District (of the stipulated population criterion), Upgradation (to prescribed standards) of existing roads can be permitted to be taken up under**

the Programme. In taking up road-works relating to Upgradation, the population norms indicated inPara 1.1 above shall be observed. Priority would be accorded to Habitations of 1000 persons or more which are presently connected by All-weather Gravel roads and require to be upgraded to desired specifications. In case, no such roads are available, then Habitations connected by All-weather Gravel roads and having population between 500-999 persons can be taken up. Only thereafter, can Habitations connected by WBM roads can be taken up for Upgradation under the Programme as per the population norms.

1.6 Therefore, the priority, under the Pradhan Mantri Gram Sadak Yojana, would be provided to Unconnected Habitations. Only after all Unconnected Habitations in the District have been covered, the Upgradation of roads in already connected Habitations can be taken up. In these cases also, priority would be accorded to Habitations connected by Gravel Roads. The order of priority to be followed under the PMGSY is explained below:

S.N.	Population size	Category
1	1000 or more	Unconnected to roads of desired specification
2	500-999	Unconnected to roads of desired specification
3	1000 or more	Gravel to desired specification
4	500 –999	Gravel to desired specification
5	1000 or more	WBM to desired specification
6	500-999	WBM to desired specification

1.7 The Rural Roads to be taken up under the Pradhan Mantri Gram Sadak Yojana will, by an large be All-weather surfaced roads, i.e. roads with a bituminous or cement concrete surfacing , or WBM with surface dressing. However, the choice of surface of Rural Roads (Cement-concrete, Black-Topped, WBM with surface dressing, Gravel) would be determined, inter alia, by factors like traffic density, soil type and rainfall. Separate Guidelines will be issued regarding the Design and Specifications of the Rural Roads.

1.8 The objective under PMGSY is to provide connectivity to a Habitation or another All-weather road in such a manner as to provide the most economic and efficient road connectivity to the Unconnected Habitation. In other words, choice of alignment will be determined by the Utility Value of the Habitation/ Road that a Habitation is proposed to be connected to.

1.9 To sum up, it should be noted that-

- The Rural Roads to be connected/developed under the Pradhan Mantri Gram Sadak Yojana will cover only ODRs and VRs.
- An Unconnected Habitation is one with a population of more than 500 persons and located at a distance of at least 500 metres or more from an All-weather road or a connected village/Habitation.

- The Unconnected Habitations are to be connected to nearby Habitations or to another existing All-weather road so that services (educational, health, marketing facilities etc.),, which are not available in the unconnected Habitation, become available to the residents.
- The PMGSY envisages only single road Connectivity to be provided to the Habitations where it is not available. In other words, if a Habitation is connected to another Habitation by way of an All-weather road, then no further work can be taken up under the PMGSY unless all Unconnected Habitations with population above 500 persons have been provided connectivity in the District.
- Providing road connectivity through good All-weather road does not necessarily imply construction of Black-Topped roads.
- No urban roads can be constructed under the Pradhan Mantri Gram Sadak Yojana, for instance, two villages can not be connected through an urban area.

The year-wise allocation and expenditure under PMGSY are as follows:

Year/Phase	Allocation (Rs. In crore)	Expenditure (Amount released to States) (Rs. In crore)	No. of roads cleared	No. of roads completed (upto March, 2004)
2001-02 (Phase-II)	2500	2489.73	—	—
2002-03 (Phase-II)	2500	2469	11103*	7268*
2003-04 (Phase-III)	2325	2314.33	8419	992
2004-05 (Phase-IV)	2148 + 320 (EAP)**	48.47	1939**	—
Total	9793	7321.53	21461	8260

NATIONAL FOOD FOR WORK PROGRAMME

The National Food for Work Programme with an allocation of Rs. 2020 crores of Cash Component and 20 lakh tonnes of foodgrains has been launched in 150 districts of the country w.e.f. 14.11.2004. The programme was launched by Dr. Manmohan Singh, Prime Minister from Village Aloor in Ranga Reddy district of Andhra Pradesh. Rupees 297.91 crores and 20 lakh tonnes of foodgrains have been released as part of the current year's allocation to 150 districts of the country. The Scheme is being funded 100% by the Centre. For the States(other than special category States and States in the North Eastern region except Assam) most backward Districts have been chosen on the basis of an exercise undertaken by the Planning Commission using three parameters, namely, (i) agricultural

productivity per worker, (ii) agricultural wage rate and (iii) SC/ST population,. For the special category States and the States in NE Region (except Assam), districts were identified from out of the list selected under the Rashtriya Sam Vikas Yojana (RSVY).

SWARNJAYANTI GRAM SWAROZGAR YOJANA (SGSY)

The Swarnjayanti Gram Swarozgar Yojana (SGSY), a holistic programme of self-employment, was launched *w.e.f.* 01 April, 1999 following restructuring of the erstwhile Integrated Rural Development Programme (IRDP), Training of Rural Youth for Self Employment (TRYSEM), Development of Women and Children in Rural Areas (DWCRA), Supply of Tool Kits to Rural Artisans (SITRA) and Ganga Kalyan Yojana (GKY), Million Wells Scheme (MWS) etc.

Funding Pattern

As provided in the Scheme, the funding pattern is:

Central Allocation—75 per cent

State Allocation—25 per cent

Union territory Allocation—100 per cent by Centre

Objective

The objective of the SGSY is to bring the assisted poor families (Swarozgaries) above the poverty line by organizing them into Self Help Groups (SHGs) through the process of social mobilisation, training, capacity building and provision of income-generating assets through a mix of bank credit and Government subsidy.

Subsidy to individuals and Self Help Groups (SHGs)

Assistance under SGSY, to individual Swarozgaries or Self Help Groups (SHGs), is given in the form of subsidy by the Government and credit by the banks. There is no monetary limit on subsidy for irrigation projects. The subsidy is back ended. Cooperative, Regional- Rural and Commercial banks disburse the loan and subsidy.

Subsidy for Individuals

An individual is provided a subsidy @ 30 per cent of the project cost subject to a maximum of Rs. 7,500. In respect of SCs/STs/ disabled persons, the subsidy is 50 per cent of the project cost upto a maximum of Rs. 10,000.

Subsidy for Self Help Groups (SHGs)

Under the Scheme, 50 per cent of the project cost can be given as a Subsidy to SHGs subject to a ceiling of Rs. 1.25 lakh or Rs. 10000 per member of SHG whichever is less.

Implementation

The Scheme is implemented through District Rural Development Agencies (DRDAs) in various States with active involvement of Panchayati Raj Institutions, banks, line departments and the Non-Governmental Organisations.

As per the detailed Demands for Grants (2004-2005) under SGSY (Central Share), Rs. 900 crore have been allocated and Rs.100 crore have been kept in the Northeastern pool. Therefore, the BE 2004-2005 of SGSY is Rs. 1000 crore. The tentative credit mobilisation target under SGSY during 2004-2005 has been fixed at Rs. 2507.67 crore for the States and Union territories.

As per information given in the Annual Report (2003-2004) of the Ministry of Rural Development, performance of SGSY since inception upto 2003-2004 is as follows:—

(i) Number of SHGs formed — 17.35 lakh

(ii) Number of Swarozgaries assisted — 45.97 lakh

(a) Individual Swarozgaries — 25.75 lakh

(b) SHG Swarozgaries — 20.22 lakh

One of the basic aims of SGSY over the previous Programme IRDP is that the IRDP envisaged the benefit to the individual beneficiaries, while SGSY stresses on formation of Self Help Groups (SHGs). It has been provided in the SGSY guidelines that the SHGs may consist of 10-20 persons belonging to families Below Poverty Line (BPL). In case of minor irrigation Schemes, disabled persons and in difficult areas, *i.e.* hills, deserts and sparsely populated areas, the number of persons in a group may range from 5 to 20. Even if it is assumed that each of the 17.35 lakh Self Help Groups were formed with a minimum number of persons prescribed in the guidelines *i.e.* 5, the total number of Swarozgaries in these groups would have been more than 85 lakhs upto 2003-2004.

The Committee find that SGSY was launched in the place of IRDP and its allied Programmes which lays stress on formation of Self Help Groups. However, the Committee note that upto 2003-2004, number of individual Swarozgaries assisted under SGSY was significantly more than the Swarozgaries who were assisted in Groups. Since each Self Help Group should assist at least 10 persons belonging to families Below Poverty Line which might be reduced to 5 persons in hilly and difficult areas, the Committee are unable to understand as to how 17.35 lakh Self Help Groups reportedly formed during this period could assist only 20.21 lakh Swarozgaries which should have been about 85 to 170 lakh. Keeping in view the 19 information on the number of SHGs and the number of Swarozgaries, the Committee have come to a conclusion that the performance of SGSY in

this regard is not satisfactory. They would like the Department to explain the reasons to the Committee.

FLEXIBILITY IN SAMPOORNA GRAMEEN ROZGAR YOJANA (SGRY)

Gainful employment, food security and strengthening of infrastructure in rural areas are a must for national renewal for a resurgent India. This wage employment scheme provides additional employment in the rural areas.. There has been 10 per cent increase in the cash allocation of the scheme. More than 63 per cent of the cash component and 75 percent of the food grains have been released. Strict monitoring and vigilance by local beneficiaries of the Scheme has been introduced at all the three levels of the Panchyati Raj in the districts. After 1st of April, this year, now funds and food grains are to be distributed among three PRIs in ratio of 20:30:50 and scheme has been made flexible to meet the contingency of non-availability of food grains or non-availability of funds at local level.

SWARNJAYANTI GRAM SWAROZGAR YOJANA (SGSY)

During the current financial year, for the first time, first installments have been released to all most all districts. Rs. 497.81 crores have been released so far to all the states/union territories. Inter-ministerial Group was set up to design skill development as an activity to impart training in marketable skills to the rural youths. The Ministry also explored possibility of partnership with industry for training and placement of rural youths and to leverage their marketing network for the products of Self Help Groups (SHGs). Guidelines were also amended to give flexibility to the state/DRDAs in utilization of funds and to involve banks as facilitators in group formation. In addition, marketing avenues are being provided through SARAS Pavilion in the IITF, Regional SARAS Melas and Gram Shree Melas to help Swarozgaries to market their products.

DRINKING WATER SUPPLY AND SANITATION CAMPAIGN

Ministry of Rural Development is mandated to provide safe drinking water and toilet facility to every house hold in rural areas. For this purpose, Rs.248 crores have been provided over and above the normal funds for coverage of not covered or partially covered habitations. Action Plan has been prepared to cover all rural schools with drinking water and sanitation facilities by 2006-07.

RURAL HOUSING

To provide shelter to the rural poor, the Ministry of Rural Development is implementing Indira Awaas Yojana (IAY). The main objective of the Scheme to help construction of dwelling units for

the poor shelterless families by providing Grants-in-aid. Recently, the guidelines have been modified to quickly cover the rural housing shortage of about 149 lakhs. Budget allocation enhanced to Rs. 2500 crores in 2004-05 against the last year's allocation of Rs.1900 crores. During the current year so far Rs.1357 crores have been released to the almost all districts under first installment and to 54 districts under second installment.

(a) Indira Awaas Yojana (IAY) is being implemented since 1985-86 to provide assistance to Below Poverty Line (BPL) households belonging to the Scheduled Castes/Scheduled Tribes, freed bonded labourers and also to non-Scheduled Castes/Scheduled Tribes, households of rural BPL, families of ex-servicemen of the armed forces and para military forces killed in action. The ceiling on construction assistance under IAY is Rs.25,000 per unit for plain areas and Rs.27,500 for hilly/difficult areas and conversion of *kutcha* house into *pucca* house (upgradation) is Rs.12,500 *w.e.f.* 1.4.2004. The funds under the Scheme are shared between the Centre and the States in the ratio of 75:25. The Union territories are provided 100 per cent Central assistance.

(b) Credit-cum-Subsidy Scheme for Rural Housing: The Scheme was launched *w.e.f.* 01 April 1999. The Scheme targets rural families having annual income upto Rs. 32,000 while the subsidy is restricted to Rs.10,000 per household. The upper limit of construction, *i.e.* loan admissible under the scheme is Rs. 40,000 per household. The subsidy component is shared between the Centre and the States in the ratio of 75:25. The Union territories are provided 100 per cent assistance. The scheme has been merged with Indira Awaas Yojana *w.e.f.* 1.4.2004.

(c) Innovative Stream for Rural Housing and Habitat Development: The Scheme is being implemented on project basis since 1999-2000. Recognized educational/technical institutions, corporate bodies, autonomous societies, State Governments, development institutions and credible NGOs in the field of Rural Housing can apply for assistance under the Scheme. The maximum permissible assistance for Government agencies is Rs. 50 lakh.

(d) Rural Building Centres (RBCs): The Scheme of Rural Building Centres was launched *w.e.f.* 1.4.1999. The objective is to achieve technology transfer, information dissemination, skill upgradation through training of rural masons, plumbers etc., production of cost effective and environment friendly material. For setting up a RBC, a total Central grant of Rs.15 lakh is provided in three installments. The Scheme is being implemented and monitored by the Ministry of Rural Development with the assistance of Housing and Urban Development Corporation Limited (HUDCO).

Notes:

Definitions according to National Rural Employment Guarantee Act, 2005:

(a) "Adult" means a person who has completed his eighteenth years of age;

(b) "Applicant" means the head of a household or any of its other adult members who has applied for employment under the Scheme;

(c) ***"Block,"*** means a community development area within a district comprising a group of Gram Panchayats;

(d) "Central Council" means the Central Employment Guarantee Council constituted under sub-section (1) of section 10;

(e) "District Programme Coordinator" means an officer of the State Government designated as such under sub-section (1) of section 14 for implementation of the Scheme in a district;

(f) "Household" means the members of a family related to each other by blood marriage or adoption and normally residing together and sharing meals or holding a common ration card;

(g) "Implementing agency" includes any departrnent of the Central Government or a State' Government, a Zila Parishad, Panchayat at intermediate level, Gram Panchayat or any local authority or Government undertaking or non-governmental organization authorised by the Central Government or the State Government- to undertake the implementation of any work taken up under a Scheme;

(h) "Minimum wage", in relation to any area, means the minimum wage fixed by the State Government under section 3 of the Minimum Wages Act, 1948 for agricultural labourers as applicable in that area;

(i) "National Fund" means the National Employment Guarantee Fund established under sub-section (1) of section 20;

(j) "Notification" means a notification published in the Official Gazette;

(k) "Preferred work," means any work which is taken up for implementation on a priority basis under a Scheme; ,

(/) "Prescribed" means prescribed by rules made under this Act;

(m) "Programme Officer" means an officer appointed under sub-section (1) of section 15 for implementing the Scheme;

(n) "Project" means any work taken up under a Scheme for the purpose of providing employment to the applicants;

(o) "Rural area" means any area in a State except those areas covered by any urban local body or a Cantonment Board established or constituted under any law for the time being in force;

(p) "Scheme" means a Scheme notified by the State Government

(q) "State Council" means the State Employment Guarantee Council constituted

(r) "Unskilled manual work" means any physical work, which any adult person is capable of doing without any skill or special training.

(s) "Mandi" A market centre found in an urban area for trading agricultural products, generally having storing and warehousing facilities. A town where trading of agricultural products is the most important activity is called a *Mandi town.*

CHAPTER III: SUCCESSFUL IMPLEMENTATION OF 'PURA' SCHEME IN INDIA

CASE STUDIES: FOCUS ON ORISSA AND KARNATAKA

3.1] CASE STUDY I: 'PURA' IN JAGATSINGHPUR DISTRICT, ORISSA

3.1.1] INTRODUCTION:

Fifteen villages identified under the proposed PURA (Providing Urban Amenities in Rural Areas) scheme in Kujang block of Jagatsinghpur district of Orissa, constitute a cluster in close proximity of the port and the industrial township of Paradip. These villages are located on the either side of the NH5-(A) & the state highway – the two commercial lifelines connecting the mineral rich regions, the state capital and business centre of the state with the port.

Despite the strategic location, the area was yet to tap its development potential both in social & economic terms. The advantages of being close to the port and industrial towns were not yet fully exploited due to the gaps in different types of infrastructural facilities.

In order to realize the goal of providing urban amenities to the inhabitants of this area four core connectivities like physical, electronic, knowledge & economic had been envisaged in the project. The initiative aimed at addressing the issues of physical connectivity in terms of better road communications linking the villages with the highway and commercial hubs, electrification, healthcare, sanitation, supply of safe drinking water and education with an estimated budget of Rs.549.00 Lakhs.

For improvement of electronic connectivity among the villages, market place and the outside world provisions for better network of telecommunication and IT enabled services had been made with an estimated budget of Rs.15.00 Lakhs.

For the development of the local human resources by knowledge-based connectivity through up-gradation of skill, popularization of technical and vocational training and introduction of new skills would be achieved through integration with other government programmes.

Apart from the above infrastructural development, support for creation of viable livelihood options for enhancement of income of the local people is also proposed under the scheme. Market complexes, processing unit for dry fish, renovation of water bodies for pisciculture etc are proposed with an estimated cost of Rs. 336.50 Lakhs to attain economic connectivity as underlined in the Scheme for the development of this area into a self-sufficient economic zone.

An innovative approach was proposed to give the ownership rights on the created village-based assets to the landless and marginal rural workforce who would participate in the construction of these assets by contributing in terms of imputed labour. This unique partnership had ensured the

optimal use of these structures, generate regular returns accrued from the rental and make the venture sustainable.

The initiatives were proposed to popularize the use of alternative source of energy like solar energy and also introduce IT-enabled services through mobile IT-Kiosk in the initial stages.

Creation of infrastructure for viable livelihood options and necessary market linkages had enhanced the income of the people, who would be able to afford the urban amenities in their rural environs.

3.1.2] PARADIP CLUSTER

The proposed project under PURA in a cluster of 15 villages of Kujang Block of Jagatsinghpur district of Orissa, envisaged the development of a prosperous and self-sufficient rural economic zone in the close proximity of the port town of Paradip and big industrial units like Oswal Fertilisers and Chemicals, Paradip Phosphates Ltd. & the Oil Refinery of IOCL.

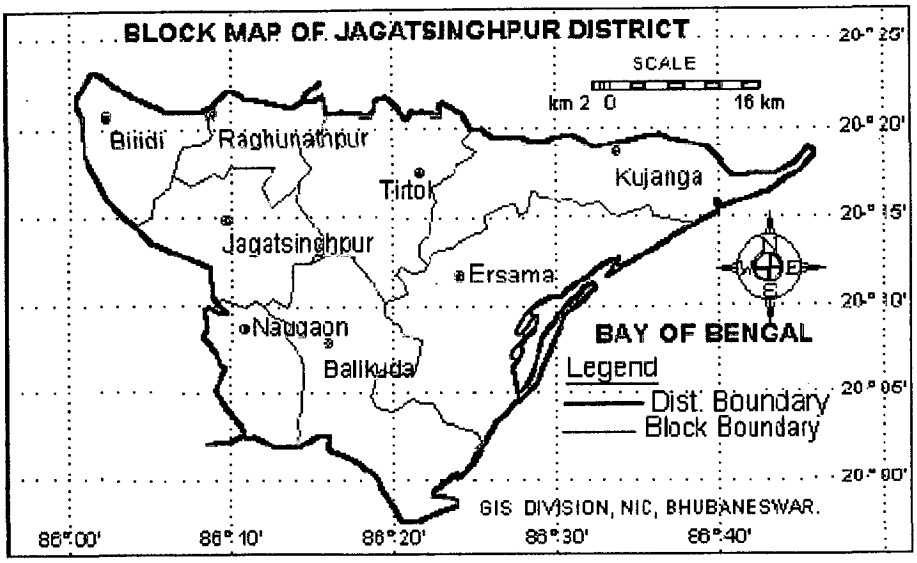


Fig. 2: Block Map of Jagatsinghpur District

Block: Kujang							**Total Population: 120889**				
	Total Rural Families	SC	ST	Women	PH	SF	MF	RA	AL	Total BPL Families	% of BPL
District	172300	29839	876	2268	310	2178	48692	3861	35884	90895	53
Kujanga	25229	3909	113	291	14	552	6745	519	3829	11445	45

Table 3: Demographic population data of Kujanga Block

Source: Report Prepared by District Rural Development Agency, Jagatsinghpur, Orissa

undertaken by putting in place feasible mechanisms for providing training under various extension programmes, and income generating schemes of the Govt.

As the area is mostly swampy and has a high level of soil salinity, agriculture and horticulture have not been a very viable and profitable livelihood system. However, pisciculture and animal husbandry will be very profitable by forward and backward linkages made possible through the proper infrastructural support provided to the people under PURA. The setting up of commercial hubs in two strategic locations at Bhutamundai and Paradeepgarh would provide marketing facilities for the local produce and also provide self-employment opportunities to the local entrepreneurs.

Livelihood Activities	Villages
Betel Vine	Nimidhi, Chounabelari & Katakula (Location Advantage)
Dry Fish	Pipala, Bhutamundai, Koladia, Chounabelari & Bijayachandrapur
Pisciculture	Proposed
Agriculture	Most villages

Table 5: Opportunities & present livelihood activities of PURA scheme villages
Source: Report Prepared by District Rural Development Agency, Jagatsinghpur, Orissa

Apart from the above two commercial centres, each village will have a multi-purpose agro / business-cum-service centre to facilitate information and knowledge sharing, training and other economic and trading activities. The locals who would contribute their labour for the construction of these village-based centres will have a stake in the created assets in terms of ownership. Thus this will ensure better maintenance and optimal productive use of the created facilities and their sustainability.

3.1.4] SWOT – ANALYSIS OF THE CLUSTER

The following is the Strengths- Weaknesses- Opportunities- Threats analysis for the cluster:

Strengths are as follows:

1. Satisfactory level of literacy of the people
2. Proximity to the port and industrial town of Paradip.
3. Easy access to state and National Highways
4. Availability of power and tele-communication facilities.
5. Canal irrigation facility
6. Navigational facilities available
7. Organised women groups
8. Presence of NGOs and CBOs.

Weaknesses are as follows:

1. Lack of entrepreneurial motivation among the people.

2. Untapped women force
3. High salinity of the soil and ground water.
4. Low and swampy land mass
5. Lack of health care facilities.

Opportunities are as follows:

1. Development of pisciculture and animal husbandry
2. Processing and value-addition of marine, diary, poultry and other animal products
3. Export potential of the local products.
4. Large tracts of unused water bodies, which can be utilised for pisciculture.
5. Scope for enterpreneural ventures in proposed commercial centres.
6. Employment of trained human resources in service sectors.

Threats are as follows:

Frequent occurrence of Natural calamities like cyclone, flood and water-logging

3.1.5] PROPOSED PLAN OF ACTION FOR IMPLEMENTATION OF PURA

An integrated approach through convergence of policies & activities of different departments of the Govt. PRI, NGOs & CBOs had been adopted with people's participation for successful implementation of the project. Emphasis had been given to social mobilization through CBOs & women's SHGs for greater participation in creation of village-based assets & sharing of accrued benefits.

The created infrastructure for providing amenities like drinking water had been handed over to the PRIs for future maintenance & management through collection of water taxes from the users. Though the management of the village-based multipurpose agro / business-cum-service centers would be vested in PRIs, a part of the income from rental of the said assets would be shared by the landless labourers of the concerned villages as dividends for their investment in the form of imputed labour contributed at the time of the construction of these facilities.

The four vital areas of connectivity as envisaged in the PURA Scheme had been implemented as per the local needs for the holistic development of the target cluster into a socio-economically

3.1.5A. Physical Connectivity

A-1 Roads:

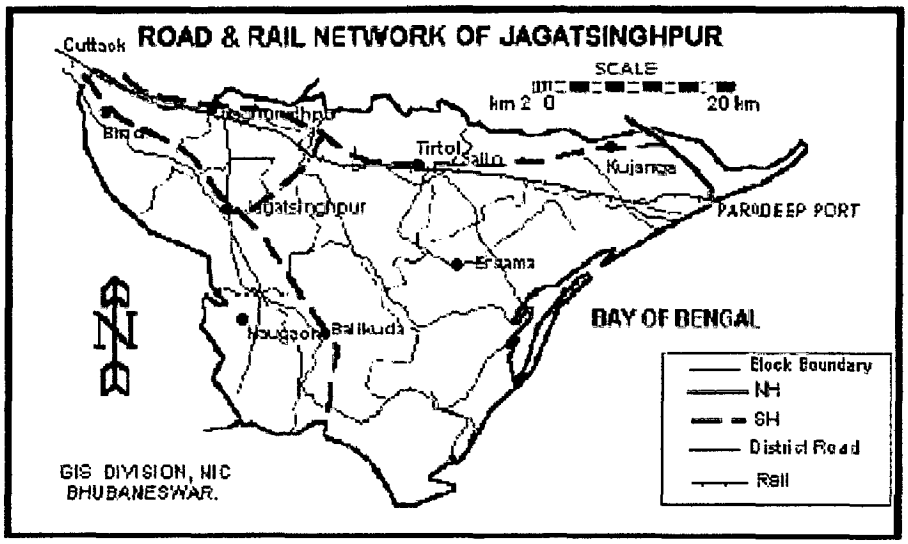


Fig. 3: Proposed road & rail Network of Jagatsinghpur

Though the target area was intersected by two major roads i.e. state highway & N.H.-5(A) linking the port & the industrial town in Paradip with the state capital & other commercial & mining areas of the state, the approach roads to the villages needed improvement for efficient all weather connectivity.

The following proposed roads would link all the target villages alongside these two highways.

Road No.	Road Name	Cat	Length (KM)	Inside Village Road (KM)	Village Aproach Road (KM)
R1	NH5A to Katakula via Chounabelari (New)	PS	BT 2.00		
R2	IOCL to Rangiagarh	VR	RCC 1.50		
R3	Talatunda Canal to Mahanadi Embarkment via Nuagarh	VR	2.50	RCC 1.20	BT 1.30
R4	Talatunda Canal to Nuagarh via Bijayachandrapur	VR	2.50	RCC 1.00	BT 1.50
R5	Talatunda Canal to Chounabelari via Singitali	VR	1.60	RCC 500 m	BT 1.10
R6	Talatunda Canal to Chounabelari via Balidia	VR	1.60	RCC 700 m	BT 900 m
R7	State Highway to Chakradharpur	VR	BT 1.20		
R8	NH to Pitambarpur	VR	1.20	RCC 700 m	BT 500 m
R9	NH to Koladia	VR	1.40	RCC 800 m	BT 600 m
R10	Pipal	VR	BT 700 m		
R11	Bhutamundai	VR	1.20	RCC 500 m	BT 700 m
R12	Kathada	VR	BT 300 m		
R13	Koladia to State Highway via Bhutamundai	VR	1.20		BT 1.20

Table 6: List of proposed new and to be upgraded roads
Source: Report Prepared by District Rural Development Agency, Jagatsinghpur, Orissa

A-2 Drinking Water:

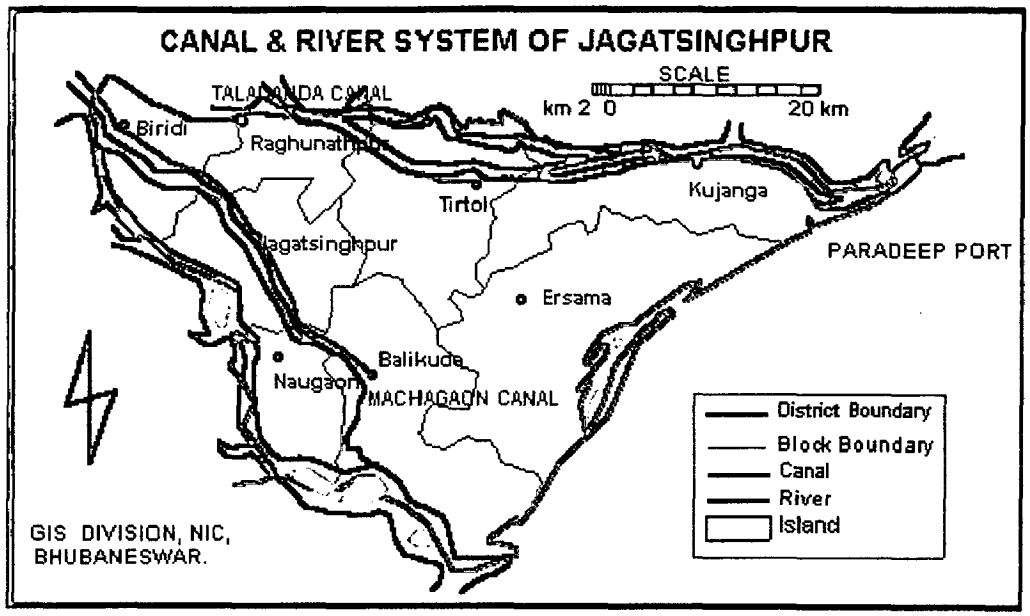


Fig. 4: Existing canal & river system of Jagatsinghpur

Though the average coverage under rural water supply in the district was comparatively better than the state average, the area under proposed PURA project faced the problem of high salinity of the ground water. Safe drinking water supply through pipelines was the only available alternative. However, the villages of Nuagarh, Balidiha, Singitali & Kathada are covered under pipe-water supply. Bijaychandrapur village was planned to be covered by the linkage with Nuagarh project.

	Tap	Hand Pump	Tube Well	Well	Tank, Pond	River, Canal	Spring	Other
Within Premises								
State(Rural)	5.42	20.95	17.87	55.12	0.53	0	0	0.11
District(Rural)	4.21	31.39	35.85	28.17	0.28	0	0	0.11
Near Premises								
State(Rural)	2.75	39.04	29.79	23.9	1.23	1.66	1.36	0.26
District(Rural)	3.43	38.57	40.18	16.56	0.39	0.39	0.17	0.31
Away								
State(Rural)	1.7	22.78	31.8	26.74	4.14	6.32	5.38	1.14
District(Rural)	4.78	24.3	48.72	17.63	1.09	1.33	0.07	2.08

Table 7: Percentage of households having access to drinking water
Source: Report Prepared by District Rural Development Agency, Jagatsinghpur, Orissa

The two more pipe-water projects were proposed to bridge the critical gap in the coverage of the entire area under safe drinking water supply. The one with estimated cost of Rs. 80 lakhs would cover the villages of Nimidih, Rangiagarh, Chakradharpur, Paradeepgarh, Choumabelari &

Katakula. Another project with an estimate of Rs. 72 lakhs would facilitate the villages Pipala, Bhutamundai and Koladia.

A.3 Sanitation:

Though the average coverage under sanitary latrines in the rural areas of the district is slightly more than the state average, the gap is huge between the existing facilities & the proposed 100% coverage of the target area. The district had been identified to be covered under WATSAN project & the intervention in the target area under PURA could be converged with the said project.

	Pit Latrine	Water Closet	Other Latrine	No Latrine
State (Rural)	3.09	3.29	1.33	92.29
District(Rural)	3.39	4.74	1.99	89.88
Drainage Connectivity				
	Closed	Open	Not Available	
State (Rural)	2.55	12.3	85.15	
District(Rural)	0.08	13.17	84.18	

Table 8: Percentage of households having latrine within the house & drainage connectivity
Source: Report Prepared by District Rural Development Agency, Jagatsinghpur, Orissa

Out of the total schools of the area, nine nos. of schools had no toilets & twelve nos. no separate toilets for girls. Under the TSC project all the schools within this cluster had been covered with a unit cost of Rs. 40,000 per school. A unit means separate boys & girls toilets.

Provision for water source with pump and overhead tank in each school to be made under the PURA scheme at an additional estimated cost of Rs1,25,000/- per school which could be done under government's "Swajaldhara" Scheme.

A.4 Electricity:

The average percentage of people using electricity in the district is lower than the state average. Though the area under the proposed scheme is fully covered under electrification, the number of consumers are much less due to the lack of affordability by the prospective consumers and the capacity of the installed transformers. As part of the reform in power sector in the state, the subsidy for agricultural use has been withdrawn and the cost of power has also gone up.

	Electricity	Kerosene	Solar Energy	Other Oils	Any Other	No Lighting
State	19.35	79.76	0.33	0.06	0.12	0.37
District	17.11	82.06	0.56	0.05	0.02	0.19

Table 9: Percentage of households having source of lighting of the district
Source: Report Prepared by District Rural Development Agency, Jagatsinghpur, Orissa

The enhanced income of the people had resulted in simultaneous demand on consumption of power. To meet the gap in the existing load factor and the demand some transformers installed in these target villages needed upgradation. It was proposed to upgrade the transformers in these villages Paradeepgarh, Balidia, Katakula & Bhutamunda and install new transformers in Bijayachandrapur and Koladia. Under the proposed PURA project steps had been taken to popularize alternative source of energy like solar power. For demonstration and popularizing the proposed village based multi-purpose agro/business-cum-service center has to be powered by solar energy. This use of solar energy will also work as power back up during the peak demand periods in summer.

A.5 Schools:

All the villages except Kathada are covered under primary school programmes and there are nine numbers of primary schools and seven nos. of UP schools in the area. There are four numbers of high school also operating in the area. The schools of adjacent Pitambarpur village cover the educational need of Kathada.

Village	Name	Students	Teachers	No. of Classroom	Electricity	Common Toilet	Girls Toilet
Nimidhi	Nimidihi Pry	192	4	6		Yes	
Rangiagarh	Jatadhari UP School	327	6	7		Yes	
Nuagarh	Pry & High School	575 & 200	3 & 7	6 & 6			
Balidia	Balidia Up School	294	3	4			
Singitali	Singitali Pry	64	2	2		Yes	
Pipala	1. Barei Primary School 2.Pipal UP School	46 & 262	2 & 5	3 & 4			
Bhutamunda	1.Fulbelari Pry., 2.Bhutumundai UP, 3Paradeep Port H/S	51, 673 & 220	2, 8 & 10	3, 13 & 12	Nil, Nil, Yes	No, Yes, Yes	No, No, Yes
Koladia	Koldia Pry	74	3	4			
Chakradharpur	Chakradharpur UP/High	148 & 180	3 & 10	6 & 4	Yes	Yes & No	Yes
Paradeepgarh	1.Sree Maa Vidyapitha, 2.Paradeepgarh UP	285 & 425	12 & 9	15 & 8	Yes	Yes	Yes
Chounabelari	Chuna Pry	115	2	4			
Pitambarpur	Pitambarpur	105	3	6		Yes	Yes
Kathada	No School						
Katakula	Katakula Pry/ UP School	108 & 83	2 & 2	2 & 2			
Bijayachandrapur	B'chandrapur Pry	142	2	4			

Table 10: List of Primary, Up and High Schools within the cluster villages
Source: Report Prepared by District Rural Development Agency, Jagatsinghpur, Orissa

A.6 Health care:

There was not a single health center or subcentre in the proposed cluster. However, there had been a long felt need for establishment of a PHC at Paradeepgarh village. This had been included in the proposed activities under PURA scheme. Subsequent growth of local economy will lead to establishment of private healthcare facilities like health clinics and nursing homes in the future.

Block	Health facility	Nos.
Kujanga	PHC	1
	PHC (New)	6

Table 11: Health Infrastructure in the Block
Source: Report Prepared by District Rural Development Agency, Jagatsinghpur, Orissa

Regular health check-up camps in all the villages of the cluster will be organized by healthcare providers for holistic heathcare e.g. curative, preventive, promotive and rehabilitative. The multipurpose agro/ business-cum-service centres of the villages can be used for conducting such programmes through dissemination of healthcare related information and training. The health department's outreach workers, volunteers of NGOs, CBOs and women groups will be sensitized on health, nutrition, sanitation, hygiene, immunization etc by these programmes.

3.1.5B. Electronic Connectivity:

The target cluster has the potential to grow into an economic zone with a lot of trading, manufacturing & service sector activities, which will necessitate the expansion of telecommunication & IT-enabled services. The average percentage of subscribers of the telephone service in the district is higher than the state average. This will be manifold in the coming years due to the enhanced commercial activities in the area. In the absence of landlines in some of the villages, there are a few WiLL phones installed for connecitivity. This gap, however, has to be bridged by wiring all the villages of the cluster.

State	1.65
District	2.27

Table 12: Percentage of households availing telephone facilities in the District
Source: Report Prepared by District Rural Development Agency, Jagatsinghpur, Orissa

Access to IT-enabled services in the area is yet in a nascent stage. Growing exposure to the benefits of e-commerce & e-governance will create the need for IT-Kiosks in each village. However, the beginning in that direction has to be made in the initial phases of implementation of the PURA project, through at least one mobile IT Kiosk unit servicing the 15 villages within this PURA cluster. This unit's services in terms of training, information dissemination on various government schemes and provisions, allowing access to information on land records and tax dues, access to information

on agriculture and cottage-based technology, sending & receiving of mails, documents etc. will be made available to each village once in every alternative week. The village-based multi-purpose agro / business-cum-service centers can be put to good use for this purpose. The subsequent demand for IT enabled services in the future will lead to the setting-up of permanent units in each village & commercial complexes by the qualified young entrepreneurs of the area.

This effort under PURA will also converge with the state govt.'s initiatives for ushering in e-governance in the state by setting up 5000 IT Kiosk which will also create self-employment opportunity and can be leveraged upon by the local qualified young people in availing loan under PMRY or other self-employment schemes of the govt. The state government recently has signed an MOU with Microsoft to promote e-governance initiatives in collaboration. The future evolution of the area as an EPZ will immensely benefit from this facility.

C. Knowledge-based Connectivity:

The comparatively high percentage of literacy among the people of the district can be linked to the early exposure to the modern civilization & system of education. The proximity of the region to the port & the industrial townships has the resultant fall out by the neighbourhood effect to create a need for learning for earning a livelihood. This will be further enhanced by the augmentation of income by different trading, commercial & manufacturing activities envisaged in the project.

Apart from the formal education, different skill & trade-based vocational trainings would be required to meet the increasing demand of qualified human resource. This segment can be tapped by the privately managed academic, professional institutions, NGOs & entrepreneurs. Computer courses can be introduced in all the schools by private operators or NGOs. The educated unemployed youths & members of women groups can go for computer training programmes.

The farmers of the cluster can benefit from various extension programmes conducted by agriculture, horticulture, animal husbandry depts. & NABARD on improved scientific agricultural practices, dairy, poultry, sericultures, pisciculture etc.

D. Economic Connectivity:

Agriculture & fishing has been the main source of livelihood in the area before 1960. The area is situated on the bank of Mahanadi & Taladanda canal which served as navigational routes connecting the interior western districts. After the establishment of the port at Paradip & construction of the Express Highway i.e N.H-5A linking the iron ore mines in Daitari & Chrome mines of Sukinda area with the port, a lot of non-farm option for livelihood were created.

Subsequently, the establishment of industrial units like PPL,OSWAL Fertilisers & Chemicals & the on-going oil refinery of IOCL have thrown up both direct and indirect employment opportunities for the local neighbouring population of the target area.

'000' hect.

	Rice	Wheat	Total Cereals	Pules	Total Foodgrains	Oil Seeds	Vegetables
State	4434	8.20	4638.81	554.69	5193.50	338.75	356.19
District	95	0.01	95.01	15.62	110.63	1.54	4.27

Table 13: Area under different crops in the state
Source: Report Prepared by District Rural Development Agency, Jagatsinghpur, Orissa

However, the huge women human resource is yet to be tapped for income generating activities. Most of these women folk of this predominantly agrarian society remained confined to the household chores. A few women belonging to landless & Scheduled Caste families only used to work mostly as farm & construction labourers. This trend is however, changing with the implementation of women empowerment programme under 'Mission Shakti' by the state govt. Many rural women are now organized into SHGs & carrying on thrift & credit activities & accessing loans from banks for several IGPs under different schemes. A federation of 300 such SHGs of the target area are going for a dry fish processing unit in Koladia village with the support of DRDA. This unit has tremendous growth potential because Paradip has a fishing jetty where tons of fish land everyday by hundreds of mechanized trawlers. The area is criss-crossed with a number of creeks & rivulets, canals & perennial water source of Mahanadi, having ample scope for trading & processing of both marine & sweet water fish. As there is a huge demand for dry fish in China, Thailand & Malaysia, this humble beginning of the women's cooperative has immense growth potential in the future. Proper training on quality control & packaging & use of better technology will make this enterprise access the international market directly in future.

The electronic connectivity through access to IT-enabled services will play a major role in the growth of this fish processing sector where the IT-savvy women & other entrepreneurs can be able to update themselves with the international market trends & source buyers directly. This can lead to the development of this area into an EPZ for marine products New chilling & freezing plants can be set up in the area by private entrepreneurship.

The following unused water bodies & marshy stretches of the dead rivers are proposed under the PURA scheme for renovation & excavation for pisciculture.

Village	Tank
Paradeepgarh	Chandan Pokhari
Bhutamundai	Anabadi Ganda
	G.P. Tank near GP office
	Pipal Nayan jore
	Pipal Nadi jore
Nuagarh	Singitali irrigation creek

Table 14: Proposed tanks & Water Bodies to be renovated for Pisciculture
Source: Report Prepared by District Rural Development Agency, Jagatsinghpur, Orissa

By establishing a new market complex in Bhutamundai alongside the state highway & near the intersection of NH-5 with it, a hub of commercial activities can be developed. Further expansion of the newly constructed shopping complex in Paradeepgarh alongside the NH-5-A will also catalyse the economic activities of the area by creating access to the market for the local produce as well as opening up self-employment opportunities for the local unemployed youths & entrepreneurs. The cluster being strategically located on the outer periphery of the port town & having the intersection of the state highway with NH5-A, it has the potential for the growth of automobile service centers, petrol pumps, spare parts shops, tyre-retreading shops, restaurants, dhabas & motels. These activities will create a lot of employment opportunities for local uneducated, skilled & semiskilled people. The Mahanadi river & numerous small islands & mangrove forest alongside the coast can be developed for promotion of eco-tourism which will contribute to the economic growth of the area. Apart from the centralized commercial activities from the two market complexes, each village will have a business-cum-service centre, which will be used by the village entrepreneurs for various economic & commercial activities. All these business establishments will effect greater degree of connectivity through telecommunication, road, transport, banking institutions etc. The trading & manufacturing activities with the linkages with both local and outside markets will lead to the development of a vibrant economic zone with a lot of growth opportunities for the local business.

The mobilization of landless labours, rural artisans, women and others of individual village to contribute in the form of imputed labour for the constructions of these village-based multipurpose agro/ business-cum-service centres will enable them to have stakes in the form of ownership rights on these assets to the extent of labour contributed as stock option. These premises can be hired by individuals, NGOs, CBOs, International agencies etc. on a daily rent basis for community based activities. It means the infrastructure will be put into use for various purposes for economic connectivity. The Panchayat Samithi can use apart of the rental collected from these premises for

maintenance and distribute the balance among the stakeholders in proportion to their stock holding. On behalf of the stakeholder Rs. 5/- per year as premium for Rs. 1000/- sum assured can be absorbed for organizing group insurance under the recently announced social security net for unorganized sector. This innovative approach of participatory action will involve the stakeholders to ensure best use of the assets to optimize revenue returns, maintenance and also ensure financial security in form of insurance.

These economic activities will ultimately translate into better earning capacity of the inhabitants helping them access & afford the amenities like, electricity, safe drinking water, telephone and better life style.

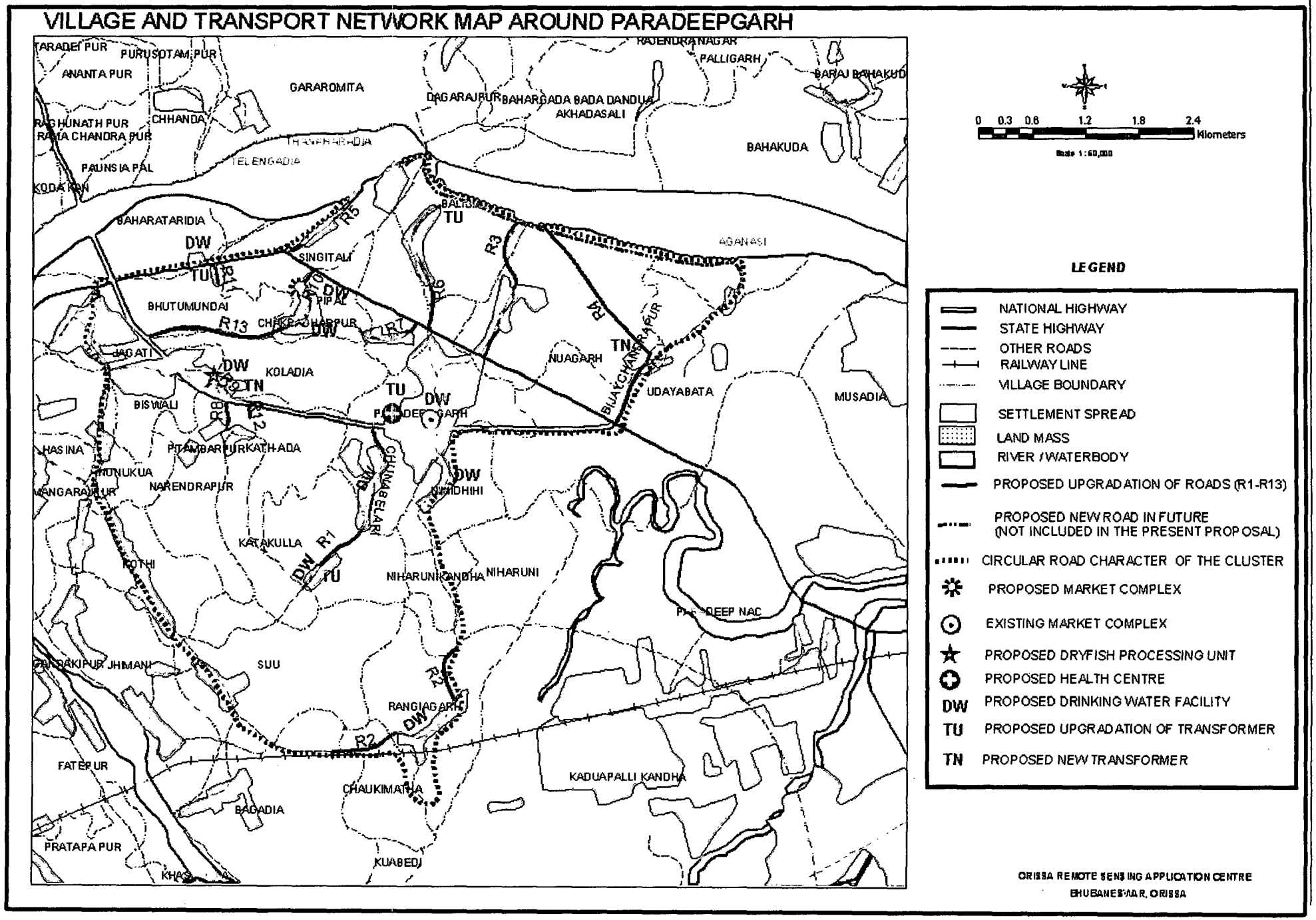


Fig. 5: Proposed Transport Network for Paradeep Cluster

3.1.6] KEYS TO THE SUCCESS OF THE SCHEME:

- Integrated & convergent approach by all the implementing departments & agencies.
- Simplification of procedural formalities.
- Inter-departmental co-ordination.
- Prioritization of proposed activities.
- Greater involvement of PRIs, CBOs, NGOs, women's groups etc.
- Sensitization of the stakeholders.
- People's financial participation in the form of imputed labour for construction of village-based agro/ business-cum-service center will assure regular returns and in turn ensure optimum use and better maintenance of the assets.
- Creation of synergy among different players of the Scheme by a representative apolitical body.
- Timely completion of the project.

List of Projects under PURA scheme of Paradip Cluster

Sl. No.	Proposed Projects	village	Estimated Cost in Lakhs	Total	Time frame
1.0	**Roads**				**Phase I**
1.1	Nh5A to Katakula via Chounabelari (New Connectivity)		45.00		Within one Year time frame
1.2	IOCL to Rangiagarh (Improvement)		25.00		
1.3	Talananda Canal to Mahanadi Embarkment via Naugarh		35.00		
1.4	Talananda Canal to Naugarh via Bijayachandrapur		30.00		
1.5	Talananda Canal to Chounabelari via Singtali		20.00		
1.6	Talananda Canal to Chounabelari via Balidia		22.00		
1.7	State Highway to Chakradharpur		9.00		
1.8	NH to Pitambarpur		16.00		
1.9	NH to Koladia		20.00		
1.10	Pipal		8.00		
1.11	Bhutamundai		15.00		
1.12	Kathada		4.00		
1.13	Koladia to SH via Bhutamundai		15.00		
				264.00	
2.0	**Safe Drinking Water**				**Phase II**
2.1	Pipe Water Project	Paradeepgarh	80.00		2 Months
2.2	Pipe Water Project	Bhutamundai	72.00		2 Months
				150.00	

3.0	**Sanitation**				**Phase II**
3.1	School Sanitation			15.00	2 Months
4.0	**Health Facility**				**Phase II**
4.1	PHC	Paradeepgarh		40.00	1 Month
5.0	**Market Complex**				**Phase II**
5.1	Shopping Complex	Bhutamundai	80.00		3 Months
5.2	Commercial Complex	Paradeepgarh	120.00		
				200.00	
6.0	**Multi-purpose Agro & other Service Centre**				**Phase II**
6.1	Per Village Rs. 3 lacs	15 Villages	45.00		Within one year
6.2	Solar Power @ Rs. 1.5 lacs		22.50		
				67.50	
7.0	**Pisciculture tanks**				**Phase III**
7.1	Chandan Pokhari	Paradeepgarh	10.00		Within 6 Months
7.2	Anabadi Ganda	Bhutamundai	4.00		
7.3	G.P. Tank near GP office	Bhutamundai	2.00		
7.4	Pipal Nayon Zone	Bhutamundai	15.00		
7.5	Pipal Nadi Zone	Bhutamindai	10.00		
7.6	Singitali Irrigation Creek	Naugarh	8.00		
				49.00	
8.0	**Dry Fish Processing Centre**				**Phase III**
8.1	Koladia Processing Centre	Koladia	20.00		2 Months
				20.00	
9.0	**Electrification**				**Phase III**
9.1	Transformer New & Upgrading	15 Villages		80.00	Within one year
10.0	**IT Kiosk**				**Phase III**
10.1	Mobile Unit	15 Business Centres			Within one year
10.2	Internet Connection				
				15.00	
	Grand Total			900.50	3 Years

Table 15: List of Proposals for the Paradeep Cluster against cost and time frame
Source: Compiled by Author

Conclusion:

This project started from March 2004 and till March 2006 all the proposed development works have been completed successfully as the report submitted by District Development Agency. Now only works under Phase III are left. From the pace of development it can be forecast that these works will be also completed within the estimated time frame, if and only if the funds released from Government of India is regular as before and there is no obstacle in smooth flow of funds till the bottom level.

3.2] CASE STUDY 2: PROVISION OF URBAN AMENITIES IN RURAL AREAS OF CHIKBALLAPURA CLUSTER, KOLAR DISTRICT, KARNATAKA

3.2.1] INTRODUCTION TO CHIKBALLAPUR TOWN AND CLUSTER VILLAGES

Chikballapura is one among the eleven taluks of Kolar district. Chikballapur is the taluk headquater which at a distance of 63 Km from district headquater and 56 Km from Bangalore. The taluk is bounded by Gundibanda, Shidlagttam and Gowribidanaur taluks of Kolar district and Doddaballapura and Devanhalli taluks of Bangalore Rural district. The taluk geographically lies between $77^0$35'58" and $77^0$52' longitude and $13^0$19'54" and $13^0$39'57" latitude. The geographical area of the town is 18 sq. kms, whereas the total taluk area is 644 sq. kms.

The National highway (NH-7), State Highway and other major district and taluk roads connect the town to other parts of the district as well as outside district also.

The following chart shows exiting infrastructure of the town:

Sl. No	**Particulars**	**Chikballapura town**
1	***Areas (Hectares)***	***1800***
2	***Total population (Nos.)***	***54938***
	Male	27957
	Female	26981
	Schedule Caste (Total)	7827
	Schedule Tribe (Total)	1572
	Literates	39046
	Total Workers	17945
3	***Occupational Structure (Nos.)***	
	Agriculture	1902
	Business/ Service	1298
	Factory	987
	Agricultural Labourers	1061
	Others	16293
4	***Totals no of households***	***12039***
5	***Housing (Nos.)***	
	Ashraya Scheme	450
	Ambedkar Scheme	45
	Indira Awaz Yojana	-
6	***Protected water supply***	

	Tap Connections	5368
	Borewells	84
	MWS	-
	Hand Pumps	13
	OHT	6
	Sump Reservoir	18
7	***Total Telephone Connections (Nos.)***	
	No Of Houses	5544
8	***Internet Facilities***	
	No. of computer training centres	5
	Cyber Café/ Browsing Centres	0
9	***Road Infrastructure (kms)***	
	Interior Roads	80Km
	MDRs, SHs, NH	12 Km
10	***Education***	
	Primary & Middle School	36
	Higher Secondary School	10
	Junior College & Degree College	03
	Professional college	03
11	***Health***	
	Private Clinics	05
	ANM Sub Centre	-
	Primary Health Centre	01
	Govt. Hospital	01
	Veterinary unit	0
12	***Marketing Facility to Agricultural Produce***	
	APMC Yard	01
	Shandy Area	01
13	***Important Industries***	
	SSI	600
	HHI	200
14	***Sanitation System***	
	Individual Latrines	1260
	Community Toilets	4

	No. of soak Pits	860
15	***Entertainment***	
	Cinema Halls	03
	Theatre Halls	01
	Mela ground	0
	Community library	0
	Religious buildings	02
	Stadium	01
16	***No. of Post Offices***	***I head post office, 3 sub post office***
17	***Power Supply Details***	
	No. of Houses electrified	15269
	No of street lights	5830
	Existing sub stations- 66/ 11 KV	2
	No. of Transformers	60
18	***Police Station***	***02***
19	***Fire Station***	***01***
20	***Petrol Pump***	***03***

Table 16: Existing infrastructural facilities of Chikballapur Town
Source: Report prepared by Government of Karnataka on Chikballapur Cluster

The villages under Chikballapur Cluster proposed for development are as follows:

1. Gerahalli	2. Agalagurki	3. Ankanagundi
4. Mynapanahalli	5. Honnenahalli	6. Anakanur
7. Sabbenahalli	8. Kanajenahalli	9. Koojanahalli
10. Dinnehosahalli	11. Tippenahalli	12. Mustoor

A brief detail on distance of each village and connecting Road from Chikballapur town to the village is given below:

Sl No	Name of the Village	Connecting road's name	Distance from Chikballapur Town Centre
1	Gerahalli	Chikballapur- Ketanahalli Road	3
2	Mynapanahalli	Chikballapur- Kalavar Road	2
3	Sabbenahalli	Chikballapur- Manchanabele Road	1.5

4	Dinnehosahalli	Chikballapur- Hanuanthpur Road	2
5	Agalagurki	1.5 Km from NH-7 (Bangalore-Bellary Road)	2
6	Honnenahalli	Chikballapur- Bagepalli SH	3
7	Kanajenahalli	Chikballapur- MG Road	1
8	Tippenahalli	Chikballapur- Gouribidnur Road	3
9	Ankanagundi	Chikballapur- Hanuanthpur Road	
10	Anakanur	Chikballapur- Sidlagatta Road	2
11	Koojanahalli	Chikballapur- Sidlagatta Road	1
12	Mustoor	Chikballapur- Ketanahalli Road	1

Table 17: Connectivity of 12 Villages with Chikballapur Town
Source: Report prepared by Government of Karnataka on Chikballapur Cluster

The salient features on socio-economic, demographic features of each village are as follows:

Sl No	Particulars	Gerahalli	Myppanahalli	Sabbenahalli	Dinnehosahalli	Agalagurki	Honnenahalli	Kanajenahalli	Thippanahalli	Ankanagundi	Anakanoor	Poojanahalli	Mustoor
1	*Area (h.a)*												
	Total area	394	480	347	353	436	305	284	605	105	374	0	630
	Total cropped Area	197	240	173.5	176.5	218	152.5	142	302.5	329	187	0	315
2	*Total population*	772	1623	850	996	1658	1316	841	1440	556	1255	325	2029
	Male	304	950	450	305	860	339	429	719	281	635	190	1035
	Female	275	673	400	491	798	334	412	721	275	620	135	994
	Schedule Caste	197	355	185	202	390	110	171	548	338	257	300	774
	Schedule Tribe	0	283	0	82	63	109	27	0	16	136	10	84
	Literates	219	1250	580	361	1200	800	538	843	247	925	280	1187
	Total workers	469	950	560	260	975	950	348	992	472	850	225	1169
3	*Occupational Structure*												
	Agriculture	241	153	350	157	450	300	180	510	20	400	70	471
	Business/ Service	0	25	10	6	100	30	52	26	0	10	5	22
	Factory	0	30	0	0	75	25	4	2	0	5	10	74
	Agricultural laborers	200	450	200	97	350	400	115	384	452	300	130	602
	Others	28	292	190	336	683	195	493	578	80	135	0	860
4	***Income Level***												

	Below poverty line	65	171	70	28	271	5	105	232	103	161	50	297
5	***Total No. of Househ***	129	292	123	128	481	144	186	410	183	216	63	547
6	***Major Crop Product (MT)***												
	Ragi	151.2	149	130	82	104	70	96	200	163	145	0	176
	Maize	26	120	42	141	84	110	24	80	81	75	0	77
	Paddy	35	45	30	44	320	125	175	140	805	82	0	187
	Pulses	3	17	6	30	16	9	6	12	27	6	0	18
7	***Housing under sche (total)***	26	64	13	22	80	18	75	54	50	30	20	152
	Ashraya Scheme	11	30	10	11	35	3	28	26	12	17	10	55
	Ambedkar Scheme	5	15	2	5	25	3	9	8	5	6	5	60
	Indira Awas Yojna	6	15	1	2	20	7	17	20	8	7	4	30
	Others	4	4	0	4	0	5	21	0	25	0	0	7
8	***Electricity Nos.***												
	No of Houses Electri	120	201	105	106	450	130	147	289	94	195	5	368
	Availability of Street	15	32	28	15	85	18	30	39	13	45	5	48
9	***Protected Water sup Nos.***												
	Total borewells	1	3	1	2	3	1	3	4	2	1	1	3
	MWS	1	1	1	1	3	1	1	1	1	0	0	2
	Hand Pumps	2	3	1	1	7	2	2	2	1	4	2	2
	OHT	0	1	0	0	2	1	0	1	0	1	0	1
	Cistern	2	1	4	6	3	3	1	5	3	0	1	2
10	***Total telepghone Connectivity (houses***	10	30	15	15	80	4	20	10	4	10	1	50
11	***Road connectivity to Village***												
	MDR (Distance-Km)	1.5	2	1.5	2	2	1.5	2	3	2.75	3	3	0.5
	State Highway (Distance-Km)	1	1.5	1.5	2.5	2	2	2.5	0	0.5	0.25	0.25	1
	NH (Distance-Km)	2	2.5	2	2	0.25	0	2.5	2.5	2	2	2	1
12	***Education***												
	Lower primary	0	1	1	1	1	0	1	1	1	1	0	0
	Higher primary	1	1	1	0	1	1	0	1	0	1	0	0
	College	0	0	0	0	1	0	0	0	0	0	0	0
	Professional College	0	0	0	0	2	0	0	0	0	0	0	0
13	***Health***												
	Private Clinics	0	0	0	0	0	0	0	0	0	0	0	0
	ANM Subcentre	0	0	0	0	1	0	0	1	0	0	0	0
	Family Welfare Cent	0	0	0	0	0	0	0	0	0	0	0	0

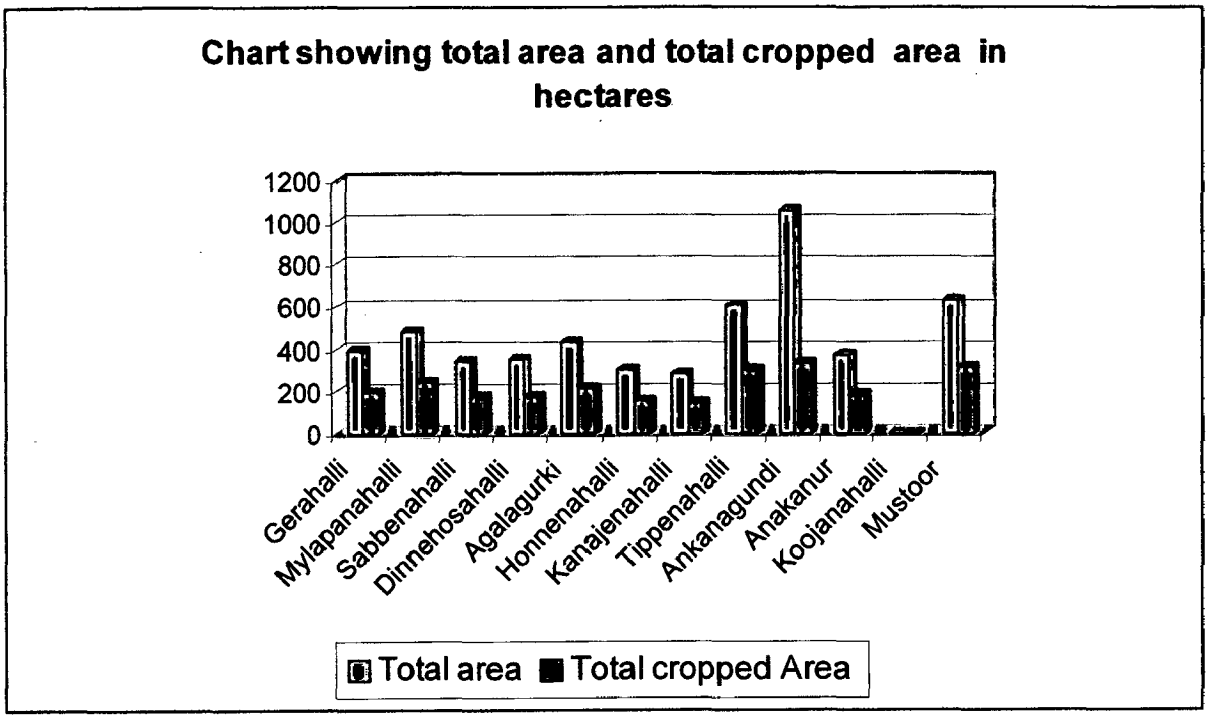
	Primary health centre	0	0	0	0	0	0	0	0	0	0	0	0
	Primary Health Cent	0	0	0	0	0	0	0	0	0	0	0	0

Table 18: Infrastructural Facilities of the Cluster Villages

Source: Report prepared by Government of Karnataka on Chikballapur Cluster

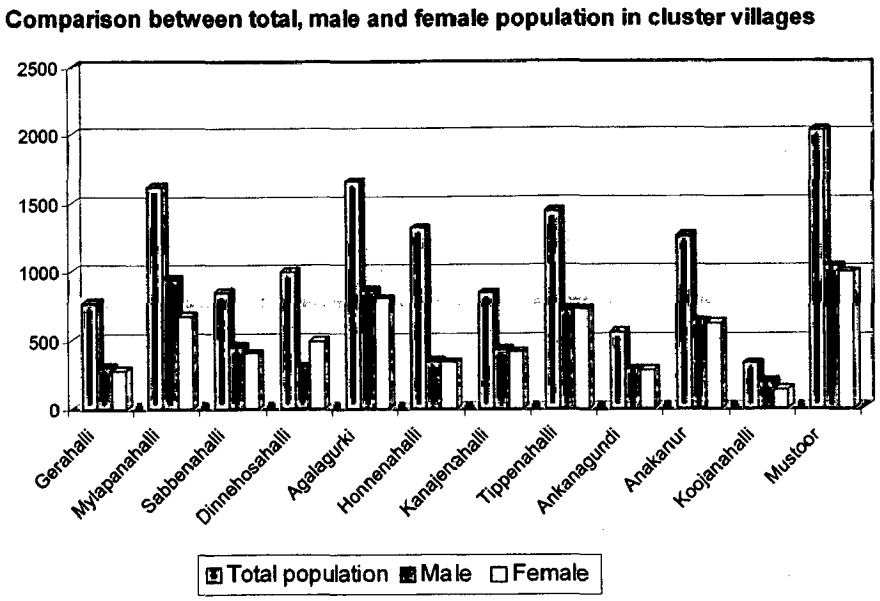
3.2.2] DATA ANALYSIS

Area Analysis:

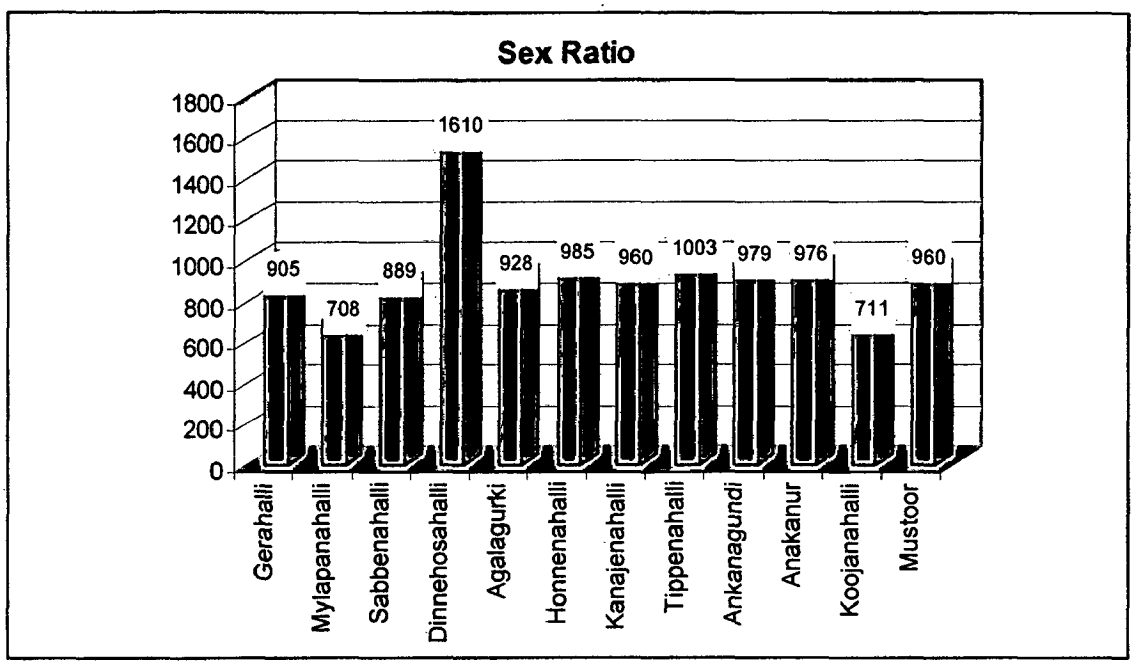


Graph 6: Area Analysis of Cluster Villages around Chikballapur

Population analysis:



Graph 7: Demographic Profile of Cluster Villages around Chikballapur



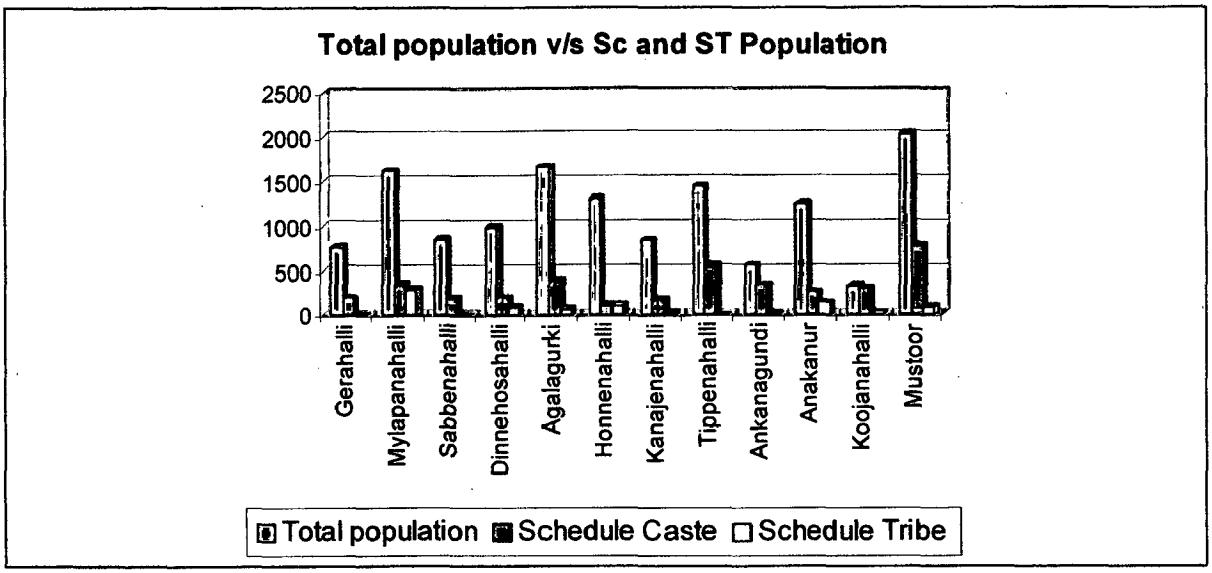
Graph 8: Sex Ratio of Cluster Villages around Chikballapur

	Chikballapur Town
Total population	54398
Male	27957
Female	26981
Sexratio	965

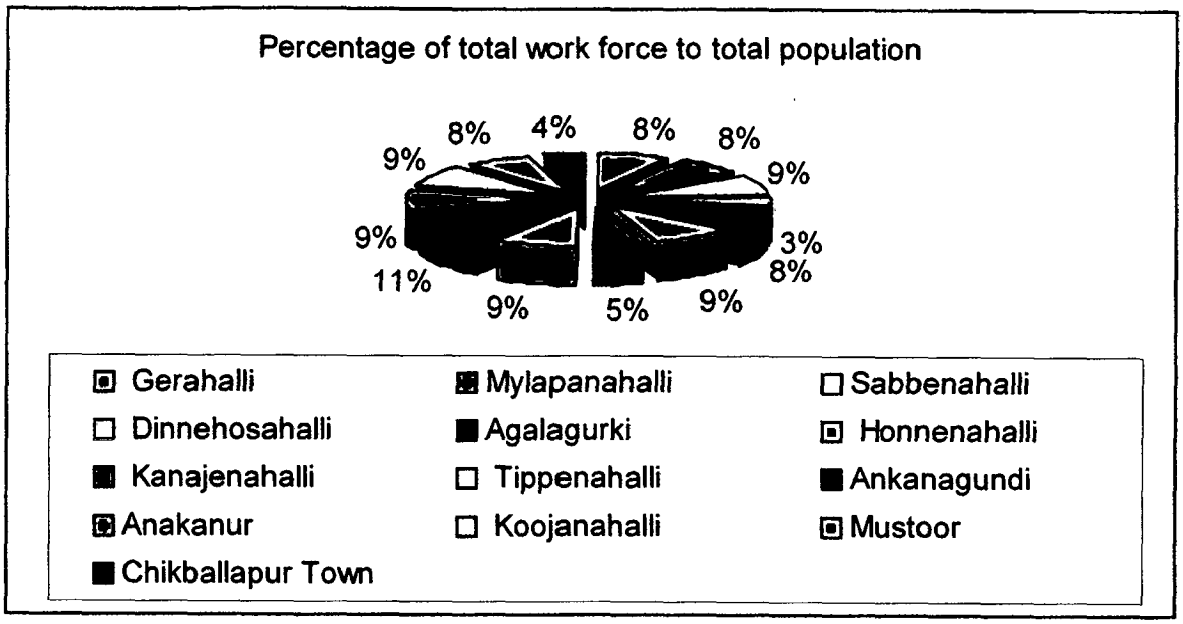
Table19: Sex Ratio of Chikballapur

	Chikballapur Town
Total population	54398
SC	7827
ST	1572

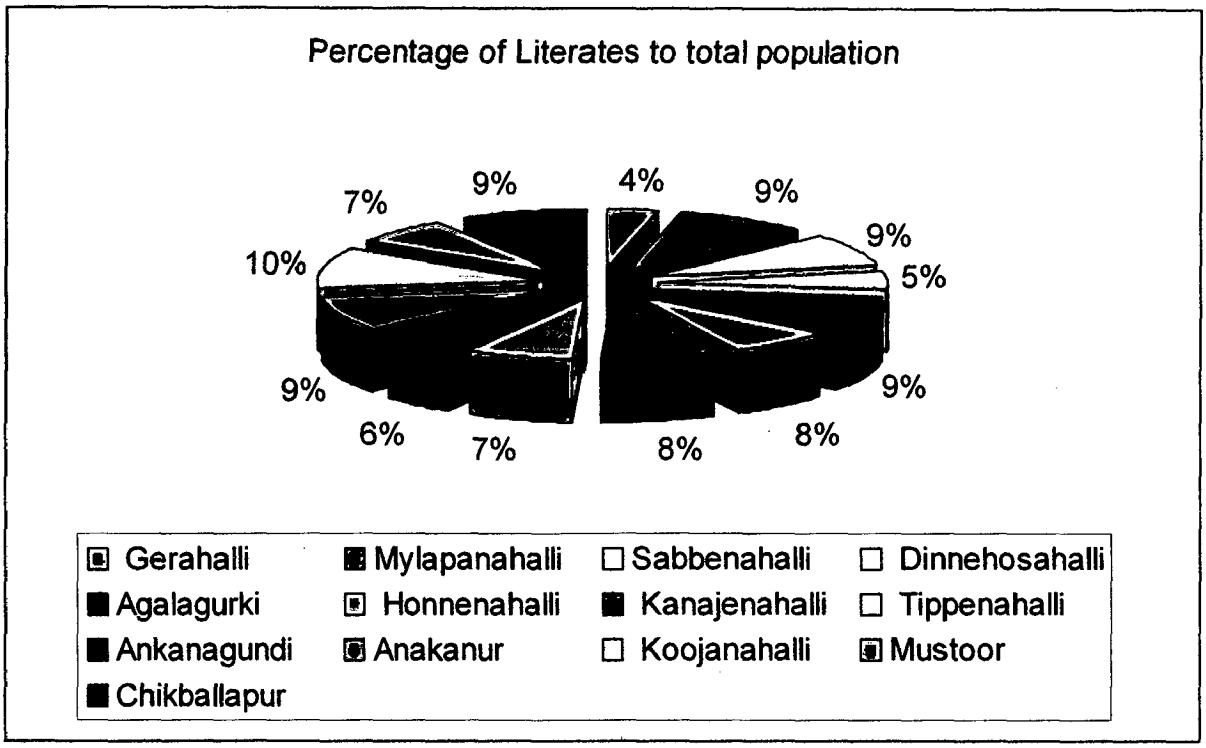
Table 20: SC & ST Population of Chikballapur



Graph 9: SC & ST Population of Cluster Villages around Chikballapur



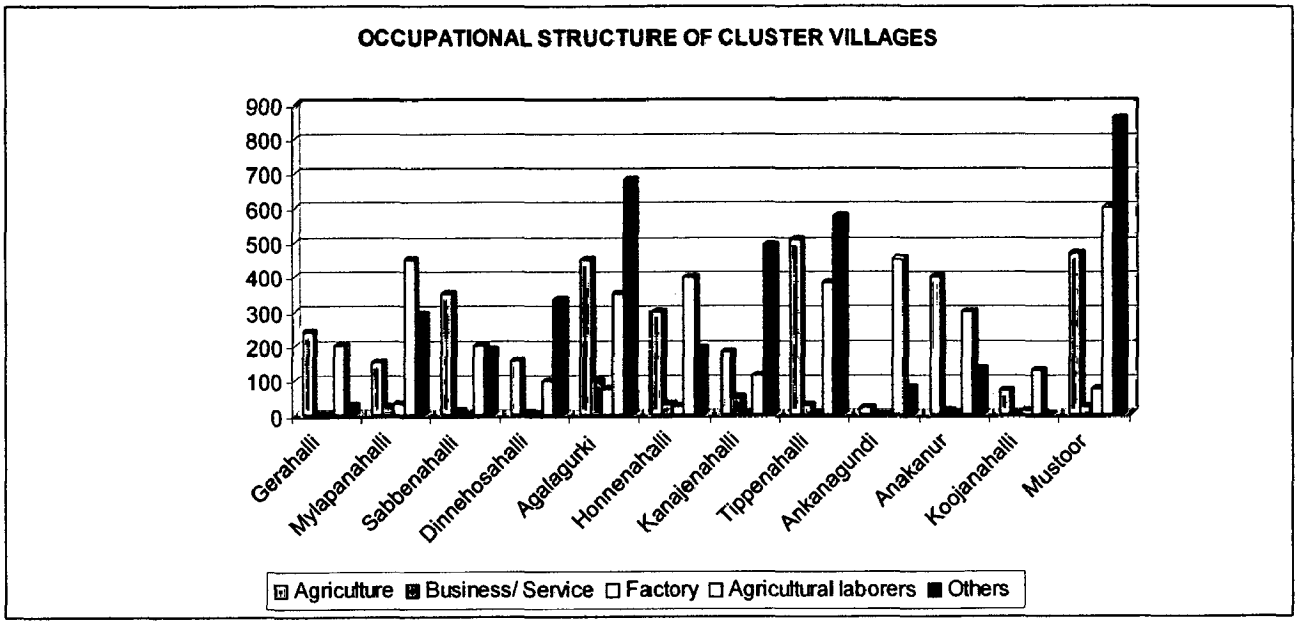
Graph 10: Total Work Force percentage to Total Population of the Chikballapur Cluster



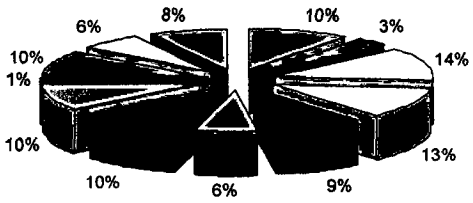
Graph 11: Total Literates percentage to Total Population of the Chikballapur Cluster

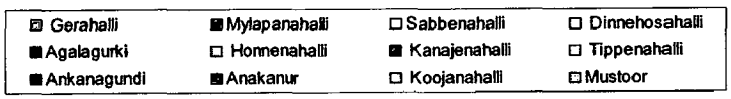
Occupational Structure Analysis:

Graph 12: Occupational Structure in the Cluster Villages around Chikballapur

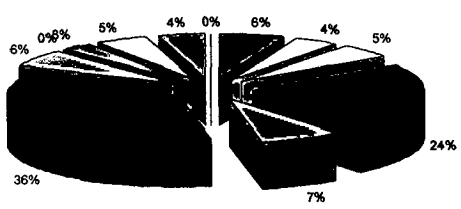


Percentage of agriculturist to total work force

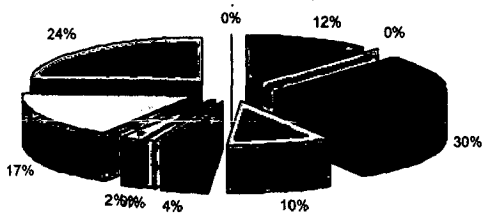




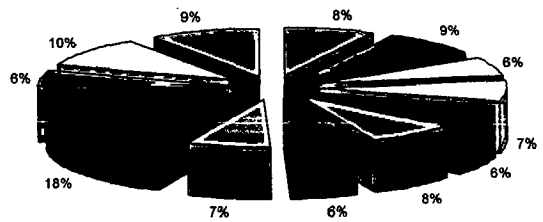
Percentage of population engaged in Business/ Services to total work force



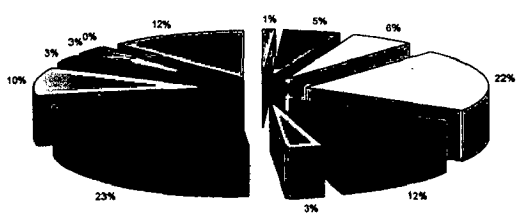
Percentage of factory workers to total work force



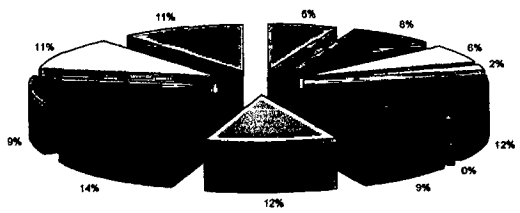
Percentage of agricultural labourers to total work force

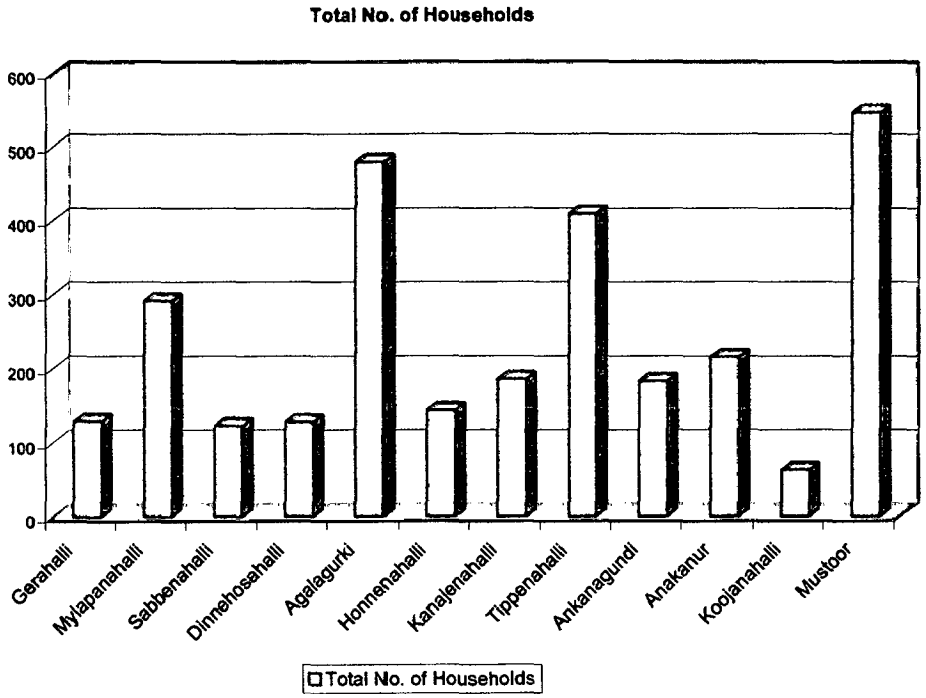


Percentage of other workers to total work force

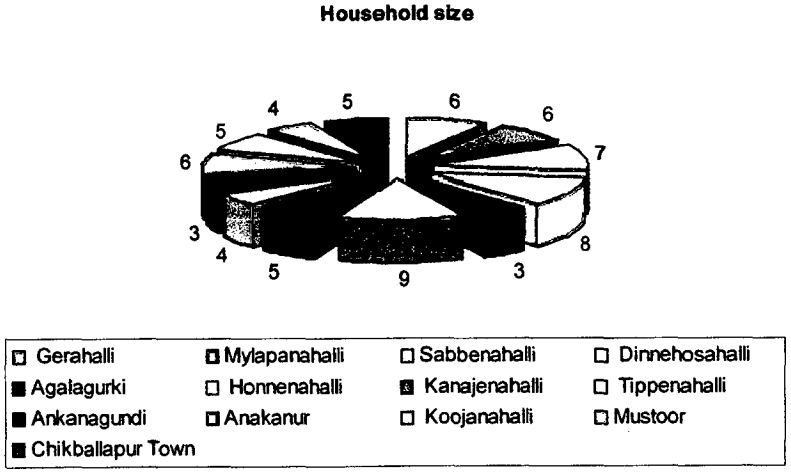


Percentage of population below poverty line

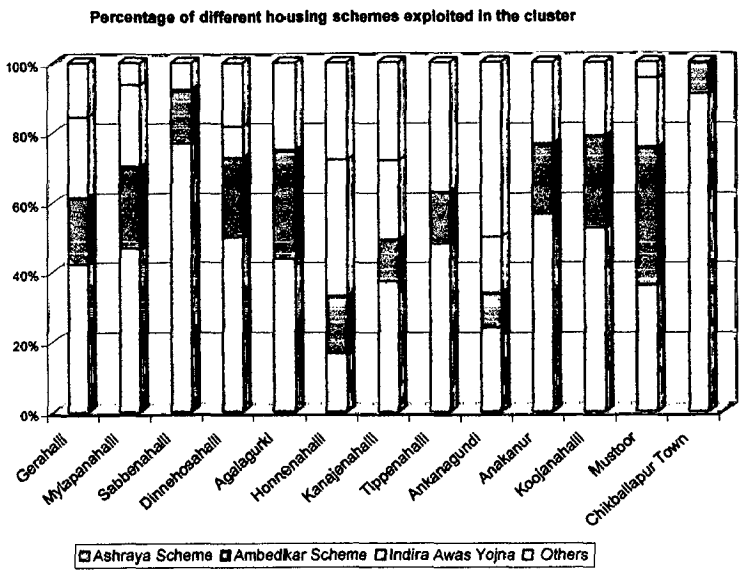




Graph 13: Comparative Analysis of number of households in Cluster Villages around Chikballapur

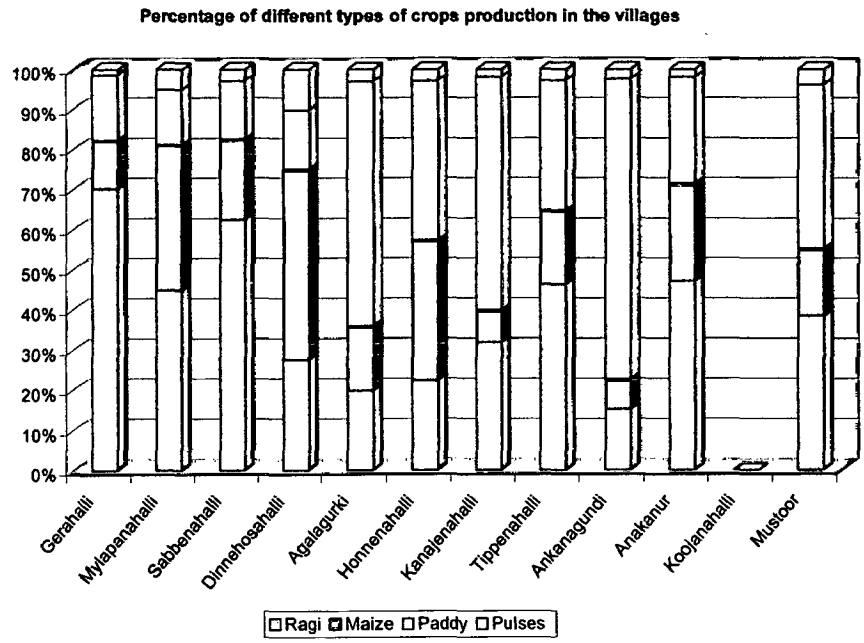


Graph 14: Comparative Analysis of household size in Cluster Villages around Chikballapur



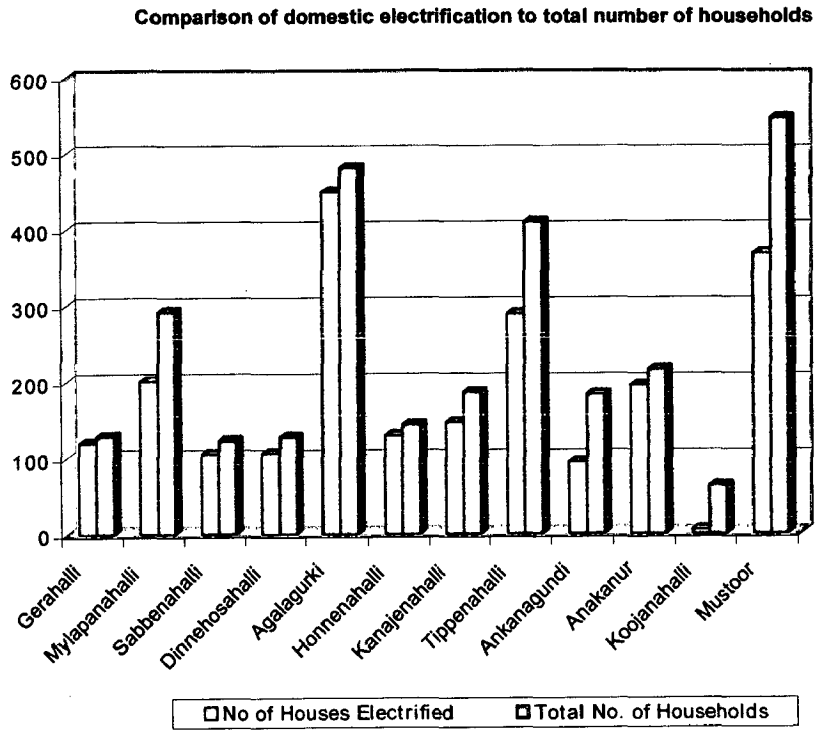
Graph 15: Percentage of number of households built under different schemes in Cluster Villages

Crop production analysis:

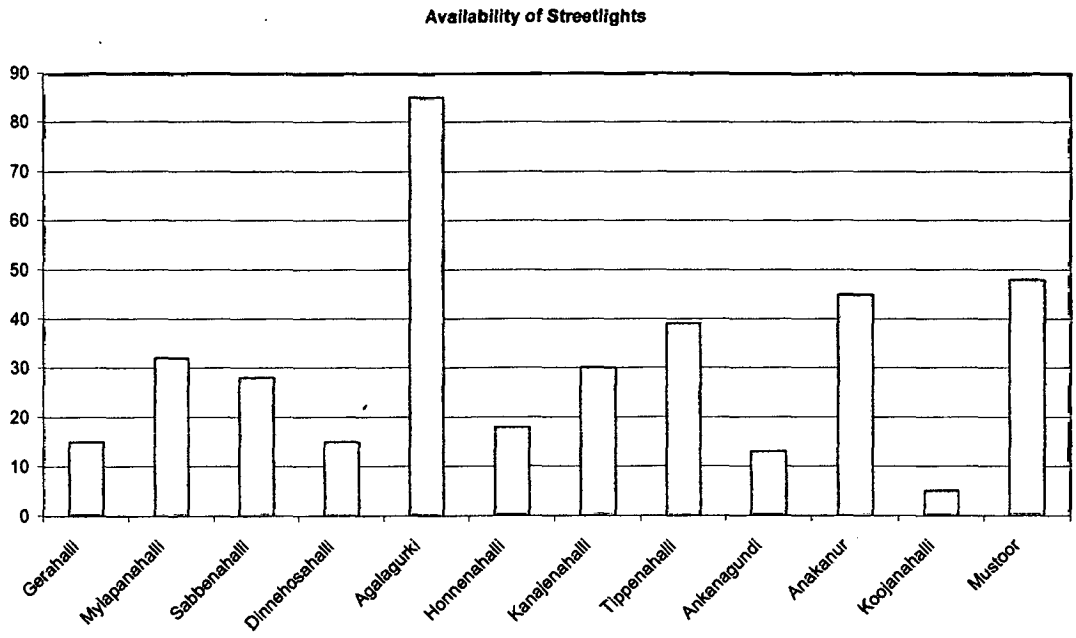


Graph 16: Percentage of Different Crops in Cluster Villages around Chikballapur

Electrification:



Graph 17: Comparative Analysis of Domestic Electrification in Cluster Villages around Chikballapur



Graph 18: Comparative Analysis of Street Lighting in Cluster Villages around Chikballapur

Source of all the graphs & tables: *Report prepared by Government of Karnataka on Chikballapur Cluster, Compiled by Author*

To implement this special concept the first basic necessity is to identify the infrastructure gaps with respect to the following facilities:

- Housing
- Provision of reliable Power supply to the household level
- Provision of water supply
- Provision of roads facilities
- Provision of reliable telecom, internet and IT services
- Upgrading existing schools to the next higher level facilities
- Upgradation of health facilities
- Marketing facilities for agricultural produce.

Based n the above information, the gaps have been identified and the consolidated estimate for development of the Cluster Villages under PURA Scheme is given in the following table:

Sl No	Particulars	Requirement (nos.)	Amount (Rs. In Lakhs)
1	Housing (nos.)	167	33.20
2	Electricity & street lighting	LS	20.00
3	Constn. Of Anganwadi bldg.	7	11.00
4	School & Education		
	Construction of additional rooms (each of built up area of 200ft)	32	24.00
	Toilet block	14	1.50

	Compound wall	2,250	6.75
	Audio visual equipment & Computer	12	14.00
	Electrification of school bldg.	LS	3.25
5	Construction of individual latrines, pipe line & septic tank	LS	35.85
6	Development of internal roads (Kms.)	29	328.41
7	Construction of BS slab side drain (Km)	37	104.14
8	Borewell with necessary accessories	LS	12.00
9	Over Head tank (50,000 llts capacity) with necessary pipe line for distribution of water	12	120.00
10	Primary Health care centre	10	50.00
11	Upgradation of ANM Subcentre	2	16.00
12	Community Hall (nos0	4	20.00
13	Creation of Internet & computer services	12	24.00
14	Creation of Shandy platform	12	42.00
	TOTAL		**866.60**

Table 21: List of Proposals against Cost Estimate for Chikballapur Cluster
Source: Report prepared by Government of Karnataka on Chikballapur Cluster, Compiled by Author

The total estimated budget for development of infrastructure in 12 villages under PURA scheme in Chikballapur is Rs. 866.60.

Project implementation

A separate construction agency should be identified along with involvement of NGO for implementation of PURA scheme. Project is proposed to be implemented over a period of three years.

I Year	II Year	III Year
264.88	350.84	250.88

Table 22: Year wise funds required for implementation o PURA scheme in the Cluster
Source: Report prepared by Government of Karnataka on Chikballapur Cluster

Project Monitoring

A separate monitoring committee should be formed under the chairmanship of Chief Executive Officer, ZP, Bangalore Rural District and officers of NGO, Construction Agency and representatives of Line Departments as members and Executive Officer of Chikballapur taluka Panchayat as Member-Secretary to review the progress and monitoring the project.

Conclusion: Socio- economic impacts of the implementation of the PURA concept

♦ Construction of houses for needy persons would help to improve the living conditions of the villagers. The present mandays spent on repairs to the kutcha houses would be drastically reduced if permanent pucca houses are provided to them.

♦ Providing electricity for lighting of individual houses and streets, box type drainage, construction of individual latrines and sanitary facilities, augmenting water supply system, etc. will help to improve the living conditions of the villagers. This is expected to bring down the rate of migration of rural people to urban areas.

♦ The quality of life would be improved as reflected by income generation, health care facilities, primary education and social facilities, proposed to be created under PURA scheme.

♦ Construction activities will provide employment opportunities for local persons such as masons, artisans, skilled workers etc. during the implementation period.

♦ Food security is foundation of our economic security and economic security leads to national security and forms of social security like health security, education and employment opportunities. This can be achieved only through adopting modern agricultural techniques in our farm sector. The provision of electrification in the village under the programme would enable the villagers to take up irrigation and improve yields adding to their income.

♦ Water supply would be facilitated at the doorstep and lighting would help to improve education of the children in the villages.

♦ The improvement of the roads would help in easy transportation of agricultural produce to the market yard. Perishable and high value products such as fruits, vegetables, milk etc. will secure a ready market at taluka place due to the faster movement of the goods and provide reliable market to the products of the villagers. The improved roads under the cluster would enhance connectivity to the neighbouring villages as well as taluka centre. Improved roads would reduce the travel time and enhance travel comfort to the villagers.

♦ Improved educational facilities and system would help in highlighting the importance of entrepreneurship among the rural youths and students to get themselves oriented towards setting of self employment of their own.

♦ Installation of audio- visual equipment and computers in the school provides an effective educational facility and also awareness on IT related matters among educated youths of the villages.

♦ Establishments of health centres at village level would benefit the villagers to avail the Medicare facilities at their doorsteps without any hurdles.

♦ Construction of toilets, soak pits, septic tanks would improve living and health conditions. Providing storm water drains to lead off rain water and waste water from the village limits would avoid water logging problems and breeding of insects, thereby, enhancing hygiene of the villages.

♦ Establishment of shandy areas to conduct maket in each village would enhance opportunities to the villagers for marketing their agricultural produce. This will also enhance establishing connectivity with the neighbouring villages including the Doddaballapura town. This facility will enable to avoid middlemen role in business transactions and enhance more profit to the villagers due to direct selling of the products.

3.3] INFERENCES FROM THE CASE STUDIES

For successful implementation of the PURA concept the following keywords are very significant:

1. **Convergence:** All the implementation agencies and departments should work hand -in- hand so that the ideas and finance converge at the same site of action.

2. **Integration:** For successful implementation, one should plan for balanced integrated development. One or two piece-meal project/s a year can barely bring about any development of such areas. The physical planning approach should be integrated while fiscal planning may be phased-out.

3. **Participation:** Participation at micro level planning indicates public participation. A person residing at the site of action knows best about the lacunas and the advantages. So public should be the best consultant to planners. The public help is also required for implementation and development procedure. In rural areas the technology applied for development should be socially acceptable and economically viable and easily transferable. So local people's participation is required for application purpose.
4. At macro level planning, participation indicates public-private partnership. Usually rural areas are not profit seeking, so private enterprises are never attracted towards them. The trade depends on the planners to entice the private entrepreneurs to invest in rural areas privately or in partnership with public agencies.

5. **Ownership:** Economic condition of an area or affordability of the residents depends on the asset ownership of individual household. The blueprint for implementation should plan for employment generation and capacity building.

6. **Sustainability:** The plan for implementation of PURA concept should be sustainable enough. For this local people awareness should be created through different training programmes so hat maintainance can be done by local people only. The blueprint should be socially acceptable, technologically viable and economically feasible in context to the site, while retaining the rural character.

7. **Connectivity:** the four types of connectivity provision is the vital programme in PURA concept so that should kept in mind while planning as per requirement of the site.

8. **Innovation:** Innovative as well as cost effective technologies are essential for best possible implementation of the concept.

3.4] PLANNING STANDARDS DERIVED FROM THE CASE STUDIES FOR SUCCESSFUL IMPLEMENTATION OF PURA SCHEME

The minimum requirement of some the physical and social infrastructure has been derived from the case studies and the book "Shelter for Poor in the Fourth World" by R.G.Gupta (Vol.2) for future application in the study area:

Sl no	Items	Minimum Requirements	Maximum Requirements
1	Domestic electrification	Power requirement @ 2KW per household daily and one electric substation of 11KV for 15,000 population is required.	100%
2	Street lights	1 per 60 mts of road length	1 per 60 mts of road length
3	Water supply: OHT MWS Borewells Handpumps	70 lpcd One of 50,000 lts 3 2 3	135 lpcd
4	Sanitation	Sewage disposal @ 64 Gallons per day	Individual toilet to all U- shaped Drainage all along the length of road Repairing of culverts Septic tank installations 2 Community Toilets in each village
5	Telephone lines	@ 10 people or 2 families	Connectivity for all
6	Road	12- 15% of the total Village area	

7	Education	2 Anganwadis & 1 Lower primary school for each village	Nursery School each for 1500 population Primary School each for 5000 population Senior Sec. School each for 7500 population College each for 1,50,000 population
8	Health	1 Primary Health Care Unit for 25,000 population of 500 Sq. Mt	
9	Market facility	1 Shandy area 1 shop of 8-12 Sq.Mt. for 12-15 families	
10	Police Post	One for 25,000 population of 500 Sq. Mt.	
11	Parks, Playgrounds, Open Spaces	5% to 1.6% based on Neighbourhood Density	
12	Commercial Establishments	0.5% to 16.4% based on Neighbourhood Density	
12	Total Public/ Semi-public Facilities	12.4% to 37.3% based on Neighbourhood Density	
14	Community Centre	One for 40,00 population of 1,000 Sq.Mt.	

Table 23: Planning Standards

Source: Compiled by Author from Case Studies & book "Shelter for Poor in the Fourth World" by R.G.Gupta (Vol.2)

The fund allotted by the Central Government for the PURA Scheme alone is 3 Crores for each Cluster. But in both the case studies one has noticed that the estimated project cost is nearly 9 crores. This balance amount has been procured in each case from the different schemes dovetailed under the PURA Scheme and the rest has been procured by taking low/ zero interest loans from different private or semipublic sectors.

CHAPTER IV: APPLICATION OF 'PURA' CONCEPT IN BANGALORE RURAL DISTRICT

PROFILE OF DODDABALLAPURA TOWN & CLUSTER VILLAGES-

PHYSICAL AND DEMOGRAPHIC FEATURES

The chapter consists of an introduction to Doddaballapura Town and Cluster. Then is consists of detailed discussion on existing infrastructure scenario of the town and the nine cluster villages.

4.1] DODDABALLAPURA TOWN- Physical Features and Location

In Karnataka, Government of India has selected 25 towns and corresponding cluster of villages covering Arasikere, Bantwal, Basavakalyan, Challakere, Chamarajanagar, Harihara, Godak, Haveri, Indi, Kampli, Karwar, Kundapura, Madikeri, Malavalli, Nalagund, Rabhkavi Banahatti, ramanagar, Sagar, Sindhanoor, Sira, Tarikere, Gangavathi, Chikballapura, Doddaballapura and Hoskete.

Bangalore Rural district is one of the 25 districts in Karnataka, formed in 1986. There are 2 divisions, 8 talukas, , 35 hoblies, 1713 inhabited and 177 uninhabited villages, 9 towns and 228 gram panchayats.

Doddaballapura Taluk comes under Bangalore Rural District covering 78760 hectares having 5 hoblies:

- Doddaballapura
- Doddabelavangala
- Madhure
- Sasalu
- Thubagere

Doddaballapura Town is theTaluk headquater which at a distance of 40Km north- west of Bangalore. The town is situated along the Bangalore- Hindpur State Highway No. 9 and Bangalore-Guntakal Railway Line. It is also situated on the right bank of River Arkavati in $13^0$18' N Latitude and $77^0$26' East Longitude at an altitude of 892 Mts. above M.S.L It is connected by SH- 74 bordering west and north of the town. The geographical area of the town is 2576 Ha. It is basically a Mandi town.

Doddaballapura cluster in Bangalore Rural district consisting of 9 villages have been proposed for development under PURA scheme. The villages under this cluster are:

1. Thippapura	2. Thammasettihalli	3. Alahalli
4. Palanjogihalli	5. Arehalli	6. Kariyenahalli
7. Mallathahally	8. Basettihalli	9. Shivapura

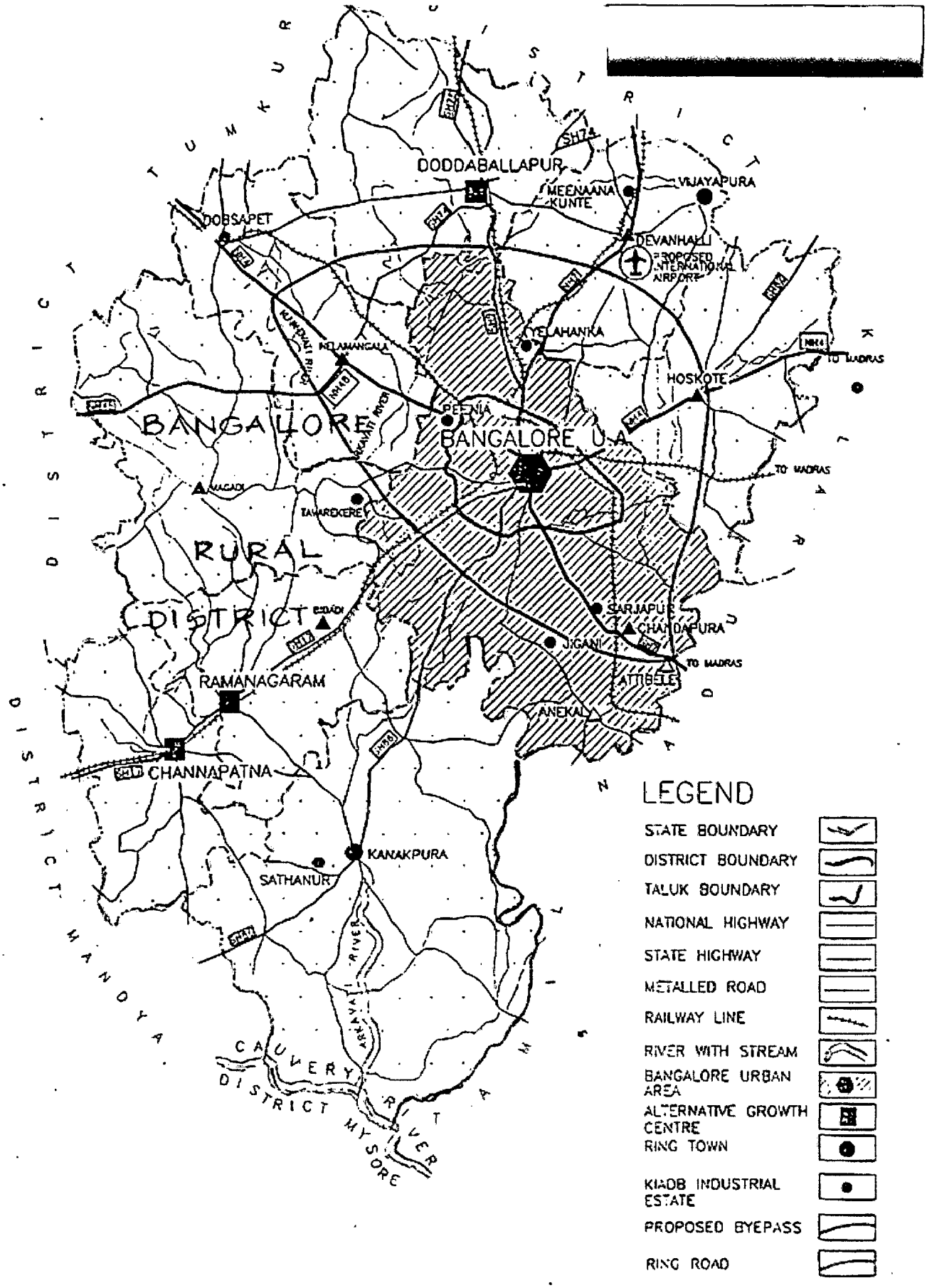


Fig. 6: Location of Doddaballapura Town in Bangalore Rural District

Source: Zilla Panchayat Office, Redrawn by Author

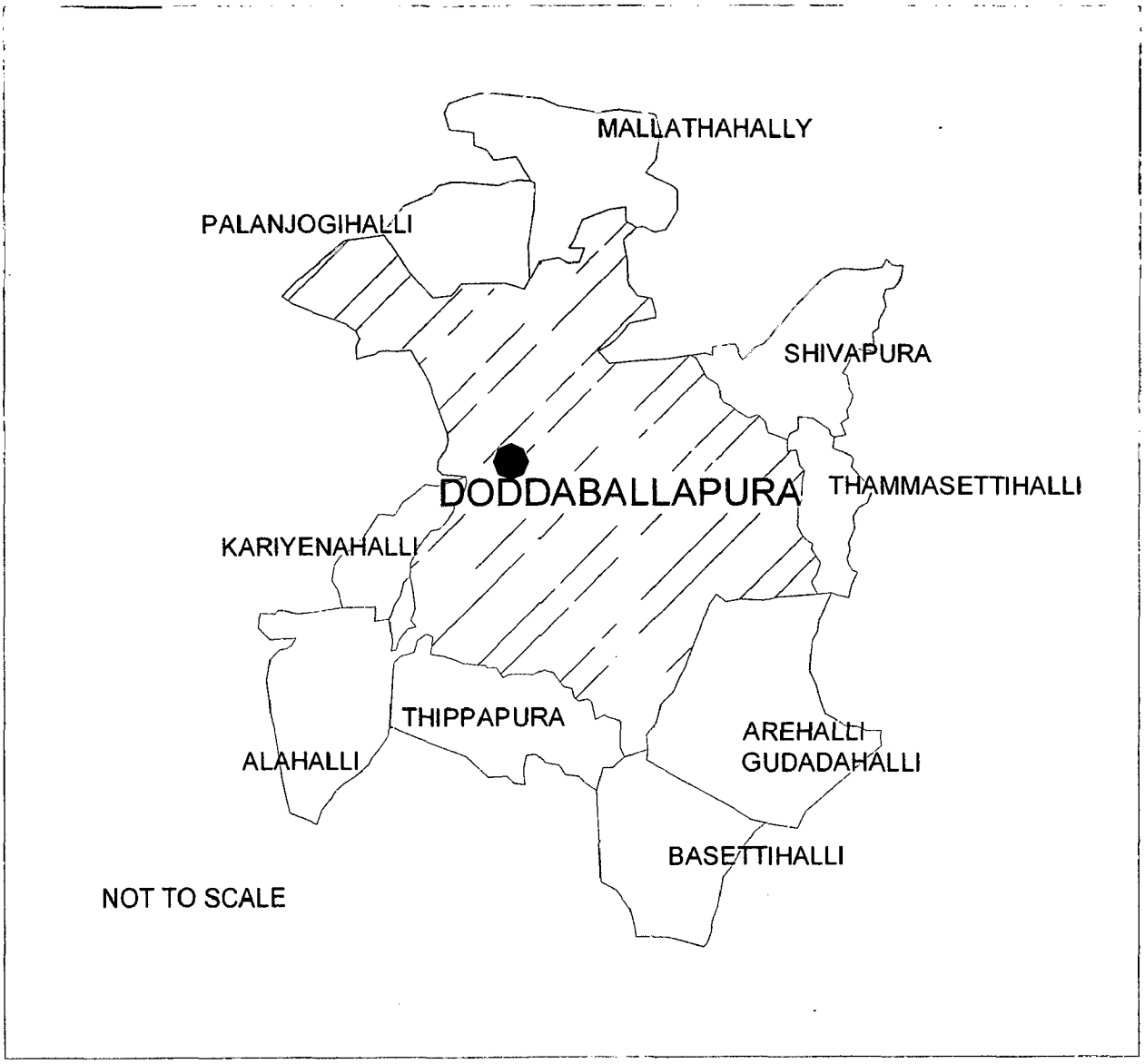


Fig. 7: Map of Doddaballapura Cluster

Source: Zilla Panchayat Office, Redrawn by Author

4.2] EXISTING INFRASTRUCTURE OF DODDABALLAPURA TOWN

4.2.1] Regional linkage & accessibility

Doddaballapura is well connected to prominent places of the region with rail and road. The town is connected by three state highways and two MDRs. The three state highways viz. SH-9, SH-74 and SH-76 link Doddaballapura with Bangalore, Neelamangala and Gauribidnaur and the MDRs link with Chikballapur and Devanhalli. The NH-207 passes through the city connecting to Nandi Hills and Devanhalli. The total length of road network is approximately 150 km. Out of 80% is paved / asphalted and the rest is gravel/ mud road.

Total length of railway tracks in the Taluka (broad gauge throughout) is 24km. Doddaballapura Station is located at the south- eastern part of the town, very close to SH-9.

There are two bus stands in the town and the available vehicular modes are Auto and Buses (both Private and KSRTC).

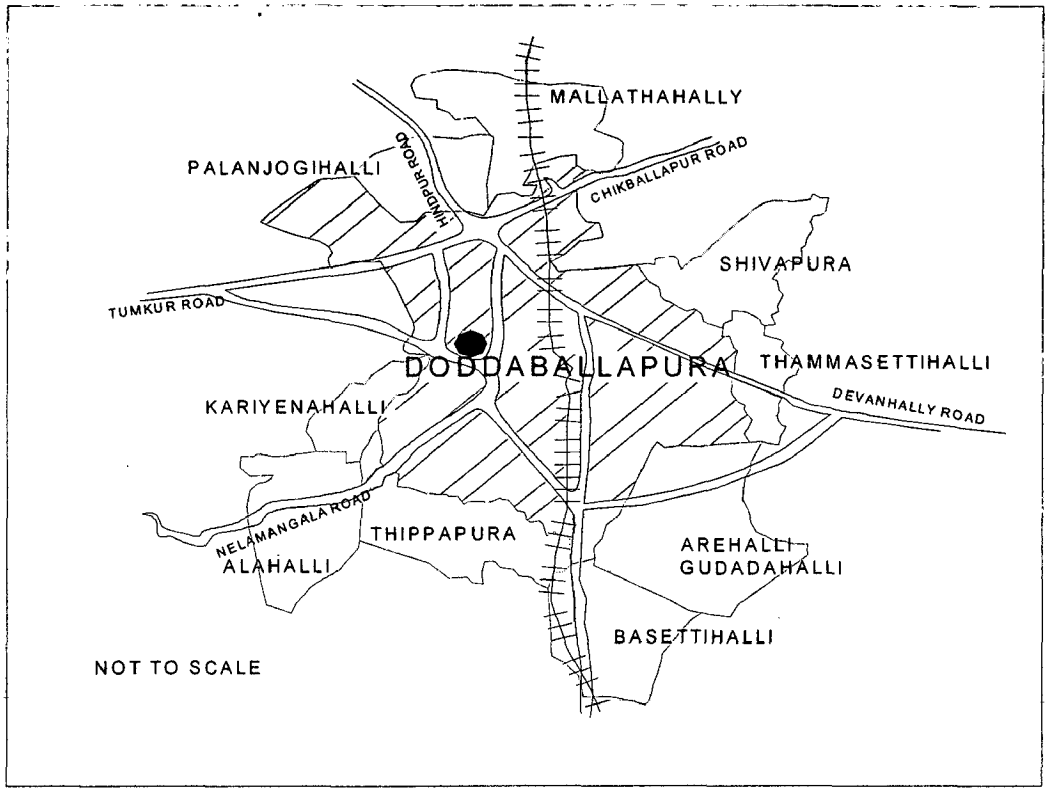


Fig. 8: Map showing Regional Connectivity of the Doddaballapura Cluster
Source: Drawing prepared by Author

4.2.2] Post and telegraph

Doddaballapura town has one head post office, one sub post office and one telephone exchange. There are 4334 telephone connections in the town.

4.2.3] Power supply

Doddaballapura town is facilitated with 16,263 domestic electric connections and 307 streetlights, 5 sub stations (66/11KV) and 104 transformers (including 25KVA, 63KVA, 100KVA, 200 KVA AND 250 KVA).

4.2.4] Other Facilities: The other infrastructure facilities such as health facility, number of households, water supply system, internet facilities, education facilities, marketing facilities to the agricultural produce, existing industries, etc. are enumerated in the following table.

Sl. No	Particulars	Doddaballapura town
1	***Areas (Hectares)***	***2596***
2	***Total population (Nos.)***	***71606***
	Male	37039
	Female	34567
	Schedule Caste (Total)	7124
	Schedule Tribe (Total)	948
	Literates	48325
	Total Workers	28122
3	***Occupational Structure (Nos.)***	
	Agriculture	195
	Business/ Service	1308
	Factory	7297
	Agricultural Labourers	246
	Others	17751
4	***Totals no of households***	***14917***
5	***Housing (Nos.)***	
	Ashraya Scheme	550
	Ambedkar Scheme	75
	Indira Awaz Yojana	-
6	***Protected water supply***	
	Tap Connections	5477
	Borewells	70
	MWS	94
	Hand Pumps	6
	OHT	3
	Sump Reservoir	1
7	***Total Telephone Connections (Nos.)***	
	No Of Houses	4334
8	***Internet Facilities***	

	No. of computer training centres	1
	Cyber Café/ Browsing Centres	2
9	***Road Infrastructure (kms)***	
	Interior Roads	150 Km
	MDRs, SHs, NH	SH-9, SH-74, SH-76 NH- 207
10	***Education***	
	Primary & Middle School	30
	Higher Secondary School	09
	Junior College & Degree College	03
	Professional college	-
11	***Health***	
	Private Clinics	03
	ANM Sub Centre	-
	Primary Health Centre	02
	Govt. Hospital	01
	Veterinary unit	01
12	***Marketing Facility to Agricultural Produce***	
	APMC Yard	01
	Shandy Area	01
13	***Important Industries***	
	SSI	749
	HHI	118
14	***Sanitation System***	
	Individual Latrines	1638
	Community Toilets	10
	No. of soak Pits	600
15	***Entertainment***	
	Cinema Halls	02
	Theatre Halls	01
	Mela ground	01
	Community library	01
	Religious buildings	25
	Stadium	01

16	***No. of Post Offices***	***03***
17	***Power Supply Details***	
	No. of Houses electrified	13805
	No of street lights	307
	Existing sub stations- 66/ 11 KV	5
	No. of Transformers	104
18	***Police Station***	***02***
19	***Fire Station***	***01***
20	***Petrol Pump***	***02***

Table 24: Existing Infrastructural Facilities of the Doddaballapura Town
Source: Compiled by Author from the Data collected by the Primary Survey

4.3] CLUSTER VILLAEGS

It is proposed to develop infrastructure facilities in the following nine villages of Doddaballapura Cluster under PURA Scheme. A brief detail on distance of each village and connecting Road from Doddaballapura town to the village is given below:

Sl No	Name of the Village	Connecting road's name	Distance from Doddaballapura Town Centre
1	Basettihalli	Bangalore-Hinpur SH	3
2	Alahalli	Doddaballapura-Neelamangala SH	2
3	Arehalli Gudadahalli	Devanhalli road	3
4	Kariyenahalli	1 Km from Doddaballapura- Neelaman SH	2
5	Palanjogihalli	Bangalore-Hinpur SH	4.5
6	Shivapura	1.5 Km from Doddaballapura- Devanhalli SH	4
7	Thippapura	Bangalore-Hinpur SH	2
8	Mallathahally	1/2 from Bangalore-Hinpur SH	4.5
9	Thammasettihalli	Doddaballapura- Devanhalli SH	3

Table 25: Contextual position of Nine Villages in the Doddaballapura Cluster
Source: Compiled by Author from the Data collected by the Primary Survey

The other socio- economic, demographic features of each village are enumerated in table - 3. The table indicates details on population, occupational structure, number of households, housing schemes, major crop production, household electricity, water supply, telephone connections, road connectivity to the village, education facilities, health facilities, etc.

Socio Economic, Demographic Features and Present Infrastructure details of 9 Doddaballapura Cluster

Sl No	Particulars	Basettihalli	Alahalli	Arehalli Gudadahalli	Malathahalli	Thammasettih	Palanjogi halli	Thippapu	Kariyena-halli	Shivapura
1	*Area (h.a)*									
	Total area	481.06	556.06	878.21	378.2	50.5	354	538	98.82	609.32
	Total cropped Area	226.04	428.38	399.16	104.17	0	201.2	410	80.2	481.81
2	*Total population*	4060	977	1228	1242	14	3184	1888	1840	2486
	Male	2343	496	619	608	8	1672	979	945	1231
	Female	1717	481	609	634	6	1512	909	875	1255
	Schedule Caste	717	96	411	511	0	303	499	59	465
	Schedule Tribe	270	0	52	5	0	42	78	20	9
	Literates	3088	500	740	659	9	1946	1008	978	1404
	Total workers	2011	513	421	598	10	1259	911	889	1166
3	*Occupational Structure*									
	Agriculture	56	199	98	214	0	58	137	47	360
	Factory	25	0	20	10	0	187	57	182	67
	Agricultural laborers	179	60	59	125	3	12	05	47	472
	Others	1451	170	221	203	7	852	488	94	411
4	***Income Level***									
	Below poverty line	820	287	750	600	4	494	270	301	402
5	***Total No. of Households***	1036	204	225	375	6	1008	412	206	522
6	***Major Crop Production (Quintals)***									
	Ragi	2250	3750	250	4500	0	2625	4500	600	3750

	Maize	3000	6000	6000	3000	0	1200	6000	1200	6300
	Paddy	Nil	400	1000	600	0	-	200	-	2000
	Tur	1072	2546	4824	6700	0	670	670	670	2345
	Arhar Dal	100	300	520	390	0	50	50	100	400
7	***Housing under schemes (total)***	80	27	26	42	0	66	25	25	22
	Ashraya Scheme	30	14	12	21	0	25	15	12	17
	Ambedkar Scheme	10	-	2	7	0	4	-	-	-
	Indira Awas Yojna	16	7	5	8	0	22	5	8	5
	Others	24	6	7	6	0	15	5	5	0
8	***Electricity Nos.***					0				
	No of Houses Electrified	1004	160	220	270	4	1008	415	200	350
	Availability of Streetlights	27	30	22	30	2	35	25	20	32
9	***Protected Water supply Nos.***									
	Total borewells	2	2	2	1	0	8	-	-	3
	MWS	1	1	1	1	0	2	-	2	-
	Hand Pumps	2	2	2	3	0	-	4	3	4
	OHT	-	-	-	-	0	-	-	-	-
	Cistern	-	-	-	-	0	-	-	-	-
	Pipe water supply	1	0	1	1	0	-	1	-	1
10	***Total telephone Connectivity (houses no)***	215	110	90	115	0	300	50	75	70
11	***Road connectivity to Village***									
	MDR (Distance-Km)	Nil	10 inside	3Km away	-	-	-	1.5	-	15 inside
	State Highway	Bangalore-	-	-	1.5	Doddaballapur-	1	Bangalore-	Doddaballapu	-

	(Distance-Km)	Hindpur SH				Devanhalli SH		Hindpur SH	Neelamangala SH	
	NH (Distance-Km)	Nil	-	-	-	-	-	-	-	NH207
12	***Education***									
	Anganawadi	2	-	1	2	0	-	1	-	-
	Lower primary	1	-	-	-	0	-	-	1	-
	Higher primary	1	1	1	1	0	1	1	1	1
	College	Nil	-	-	-	0	-	-	-	-
	Professional College	Nil	-	-	-	0	-	-	-	-
13	***Health***									
	Private Clinics	Nil	-	-	-	0	-	-	-	-
	ANM Subcentre	1	-	-	1	0	1	-	-	-
	Family Welfare Centre	Nil	-	-	-	0	-	-	-	-
	Primary health centre	Nil	-	-	-	0	-	-	-	-
	Primary Health Centre	Nil	-	-	-	0	-	-	-	-
14	***Community facility***									
	Cinema	Nil	-	-	-	0	-	-	-	-
	Theatre Hall	Nil	-	-	-	0	-	-	-	-
	Stadium	Nil	-	-	-	0	-	-	-	-
	Community Centre	Nil	-	-	1	0	-	-	1	1
	Religious Buildings	1	-	-	2	0	1	-	-	2
15	***Sanitation facility***									
	No of individual toilets	175	7	64	120	2	615	290	77	350
	Community Toilets	Nil	-	-	2	0	-	-	1	2
	No of soakpits	120	7	50	100	2	375	290	60	180
16	***Drainage system***	Yes	No	Yes	Yes	No	No	No	Yes	No
17	***Post office***	1	-	-	No	-	1	-	-	-

18	***Industries***									
	SSI	Nil	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes
	HHI	Yes	No	Yes	Yes	No	No	No	No	No
	Dairy unit	1	1	-	1	No	No	1	No	1

Table 26: Existing Infrastructural Facilities of the Nine Villages in the Doddaballapura Cluster
Source: Compiled by Author from the Data collected by the Primary Survey

It is clear from the statistics that in the areas of Water Supply, Drainage and Sanitation and some of social amenities, the cluster is far behind than the minimum standards. To highlight the above points a detailed analysis the data collected through primary and secondary surveys is a basic necessity to find out the gaps. So the next chapter i.e. Chapter 5 deals with detailed analysis

ILLUSTRATION 1:
DODDABALLAPURA TOWN AT A GLANCE

ILLUSTRATION 2: 15,000 LTS OHT AT THE CENTRE OF DODDABALLAPURA TOWN

ILLUSTRATION 3: VIEW OF THE STADIUM AT DODDABALLAPURA TOWN

ILLUSTRATION 4: VIEW OF AN INTERNAL ROAD IN DODDABALLAPURA TOWN

ILLUSTRATION 5: VIEW OF THE DODDABALLAPURA - DEVANAHALLI STATE HIGHWAY PASSING THROGH THE DODDABALLAPURA TOWN

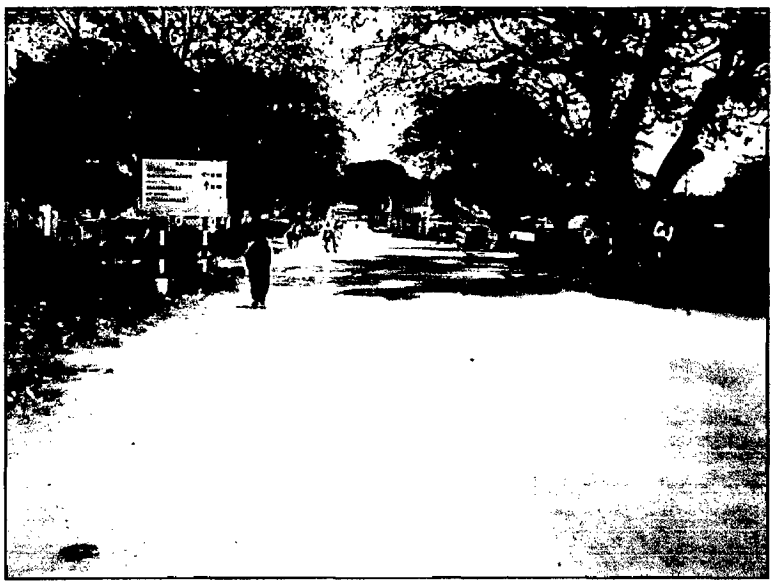


ILLUSTRATION 6: VIEW OF THE RAILWAY TRACK PASSING THROUGH THE DODDABALLAPURA TOWN

ILLUSTRATION 7: VIEW OF THE 11KV ELECTRIC SUB STATION AT DODDABALLAPURA TOWN

ILLUSTRATION 8: VIEW OF THE DODDABALLAPURA RAILWAY STATION.

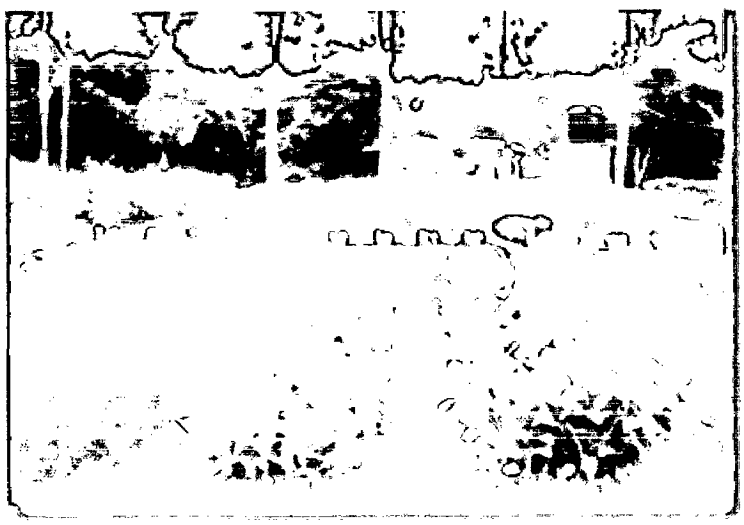


ILLUSTRATION 9: VIEW OF THE SOCIAL FORESTRY AT PALNJOGIHALLI VILLAGE

ILLUSTRATION 10: VIEW OF THE BESCOM OFFICE AT DODDABALLAPURA TOWN

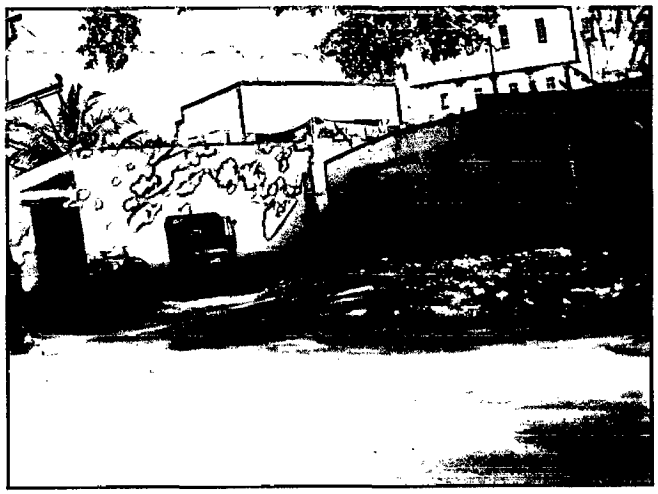


ILLUSTRATION 11: SNAP SHOWING THE CNDITION OF INERIOR ROADS WITHIN THE DODDABALLAPURA TOWN AND HOW GARBAGE HAS BEEN DUMPED AT THE SIDE OF THE ROAD

ILLUSTRATION 12: SNAP INDICATES PRESENCE ELECTRICITY EVEN AT THE OOTER LIMITS OF DODDABALLAPURA TOWN

ILLUSTRATION 13: VIEW OF ALAHALLI VILALGE

ILLUSTRATION 14: VIEW OF SOCIAL FORESTRY AT DODDABALLAPURA TOWN

ILLUSTRATION 15: VIEW OF BASETTIHALLI VILLAGE

ILLUSTRATION 16: VIEW OF TYPICAL 'NITTU' HOUSE CONSTRUCTED WITHIN THE CLUSTER

ILLUSTRATION 17: VIEW OF ROAD CONDITION WITHIN THE DODDABLLAPURA TOWN

ILLUSTRATION 18: VIEW OF SCHOOL AT BASETTIHALLI VILLAGE

ILLUSTRATION 19: SNAP SHOWING ROAD CONSTRUCTION WORK N PROGRESS AT MLTHAHALLI VILLAGE FROM STATE FUNDS

ILLUSTRATION 20: SNAP SHOWING ELECTRIFICATION AT SHIVAPURA VILLAGE FROM STATE FUNDS

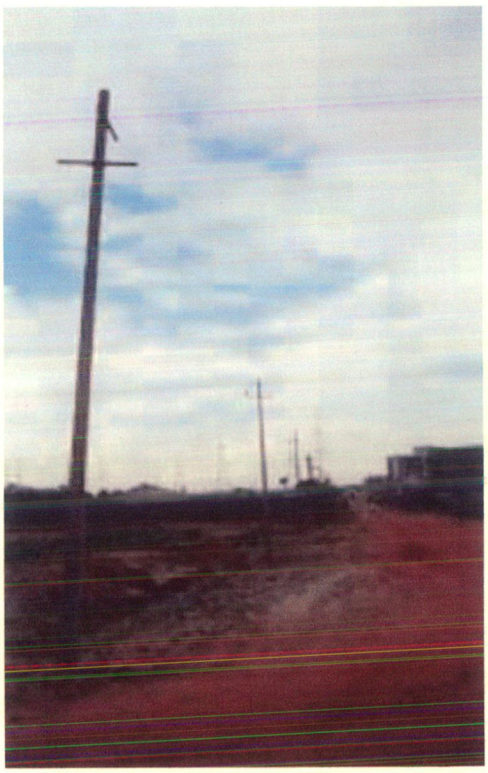


ILLUSTRATION 21: SNAP SHOWING AN ATTEMPT FOR WATER HARVESTING AT SHIVAPURA VILLAGE

ILLUSTRATION 22: SNAP SHOWING A HOUSEHOLD INDUSTRY IN FORM OF CARPET MAKING INDUSTRY AT BASETTIHALLI VILLAGE

ILLUSTRATION 23: VIEW OF THE SILK WEAVING INDUSTRY AT KARIYENAHALLI

ILLUSTRATION 24: VIEW OF THE POWERLOOMS AT SILK WEAVING INDUSTRY AT KARIYENAHALLI

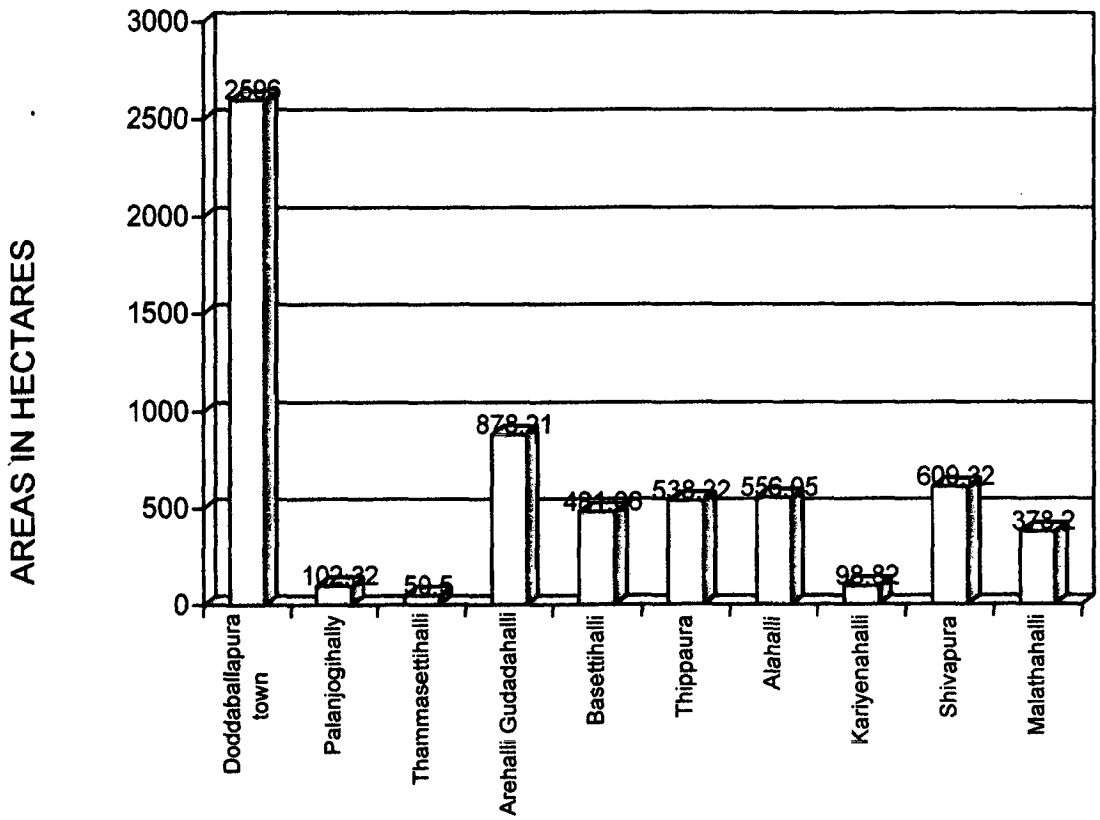
ILLUSTRATION 25: VIEW MULBERRY CULTURE AT SILK WEAVING INDUSTRY AT SHIVAPURA

CHAPTER V: COMPARATIVE ANALYSIS OF INFRASTRUCTURE FACILITIES AVAIALBLE IN DODDABALLAPURA TOWN V/S CLUSTER VILLAGES

The following chapter consists of comparison among the nine villages and Doddaballapura Town of the cluster with respect to area, demographic profile, occupational structure, cropping pattern, physical and social infrastructures. Under physical infrastructure, housing, roads and transportation, water supply, sewerage and drainage, electricity, telecommunication, post and telegraph facilities etc. are dealt with. Under social infrastructure, health facilities, educational facilities and community facilities are dealt with.

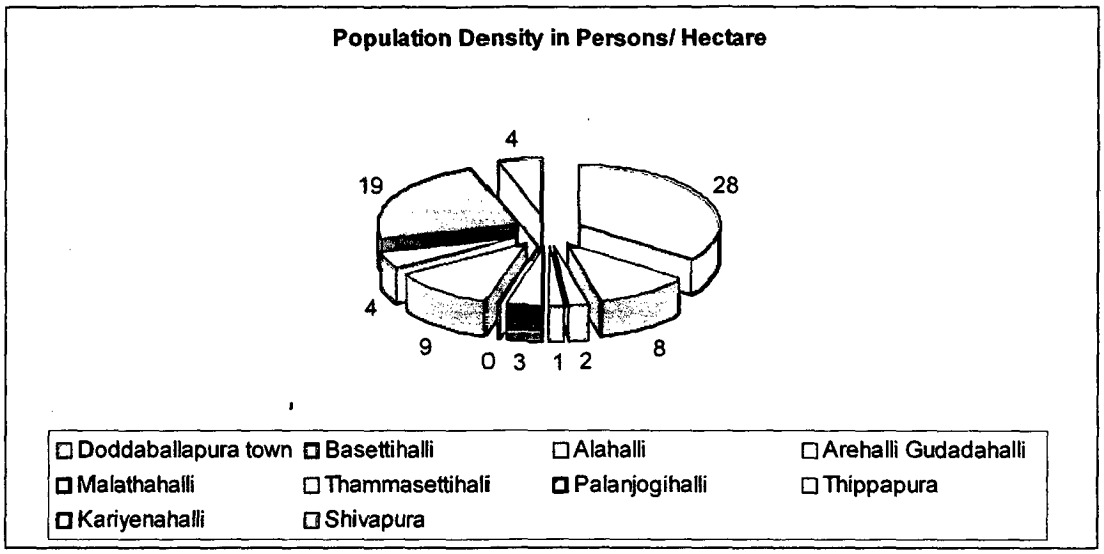
5.1] GEOGRAPHICAL AREA

1. Doddaballapura town spreads over a geographical area of 2596 hectares. Among the 9 villages of this cluster, Thammasettihalli is the smallest one, having an area 50.5 hectares.



Graph 19: Comparative analysis of area amongst the villages & town in Doddaballapura cluster
Source: Compiled by Author from primary survey

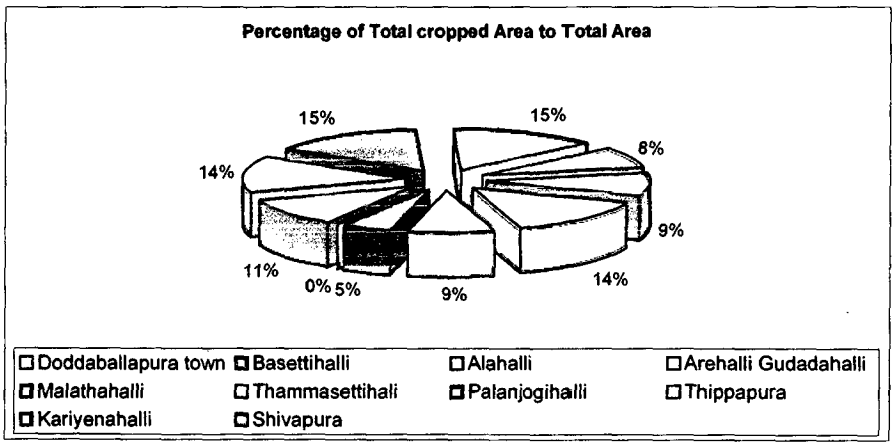
2. Next smallest village is Karyenahalli spreading over an area of 90.02 hectares with a percentage of 3.47 when compared to Doddaballapura town. The largest village is Arehalli Guddadahalli having 870.21 hectares with a percentage of 33.52 comparing to Doddaballapura town area.
3. Leaving out the Thammasettihalli, Malathahalli has the lowest percentage (5%) of cropped area and Kariyenahalli has the highest percentage (15%) as compared to 8% of Doddaballapura Town.



Graph 20: Comparative analysis of Population Density amongst the villages & town in Doddaballapura cluster

Source: Compiled by Author from primary survey

4. Doddaballapura being a town has the highest population density whereas Kariyenahalli being a village is having a striking figure of 19-person/ hectare. Arehalli Guddadahalli has the lowest population density of 1 person/ hectare.



Graph 21: Comparative analysis of Total Cropped Area amongst the villages & town in Doddaballapura cluster

Source: Compiled by Author from primary survey

Table showing availability of vacant land in the town and cluster villages:

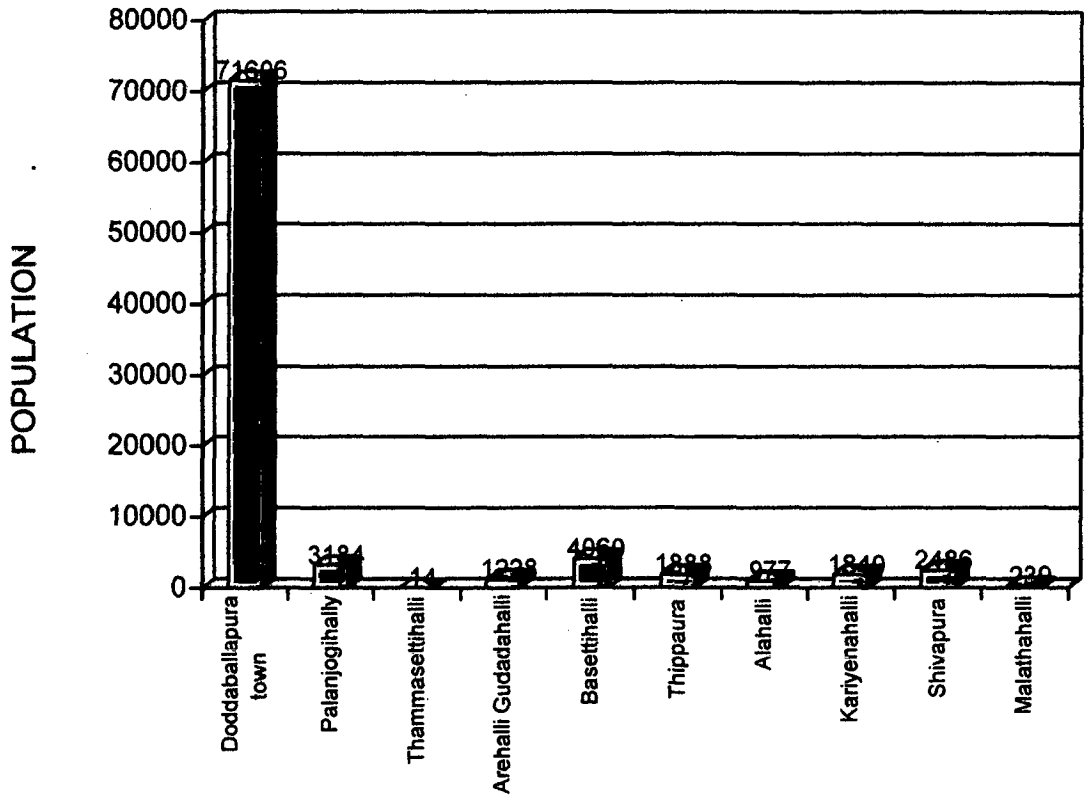
Name of the Village/ Town	Vacant Land in Hectares
Doddaballapura Town	93.5
Alahalli	82.17
Arehalli Gudaddahalli	55.4
Basettihalli	31.21
Kariyenahalli	-

Malathahalli	50.64
Palanjogihalli	-
Shivapura	171.49
Thammasettihalli	-
Thippapura	-

Table 27: Availability of vacant land in the Doddaballapura cluster
Source: compiled by Author from primary survey data

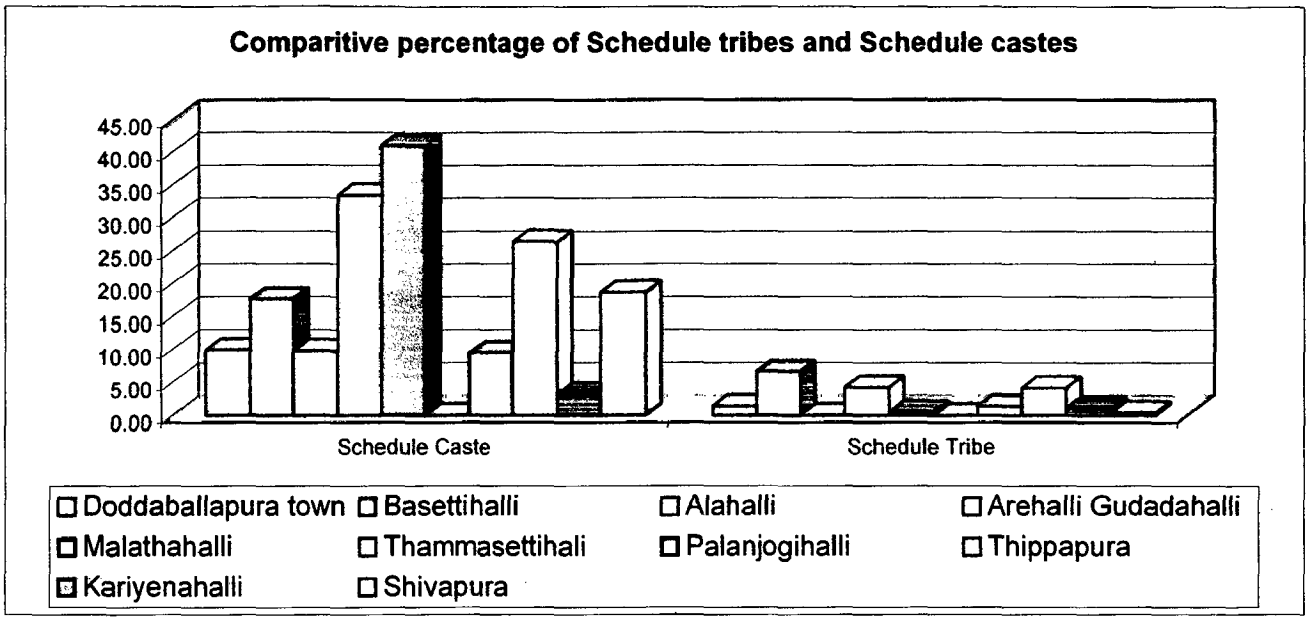
5.2] POPULATION DETAILS

1. Thammasettihalli is having total population of 14 numbers with .02 percent and Basettihalli village is having highest population of 4060 among the nine villages and making a percentage of 5.67 when compared to Doddaballapura town population of 71606.



Graph 22: Comparative analysis of population amongst the villages & town in cluster
Source: Compiled by Author from secondary survey, 2001 Census

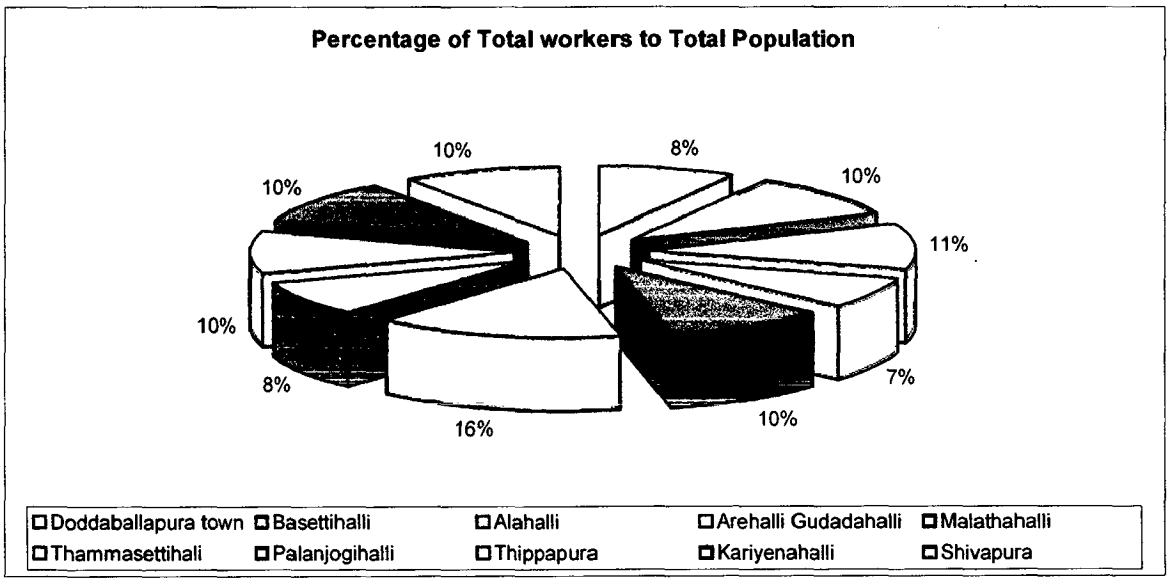
2. The Sex Ratio is highest in the Malathahalli village and lowest in the Basettihalli Village.
3. Leaving apart Thammasettihalli, Kariyenahalli is having less number of SC population of 59 out of 1840 with a percentage of 3.2 percent and Malathahalli is having the highest population of SC of 511 out of 1242 population with 41.1 percent compared to Doddaballapura town SC population of 7124 numbers.



Graph 23: Comparative analysis of SC/ST population amongst the villages & town in Doddaballapura cluster

Source: Compiled by Author from secondary survey, 2001 Census

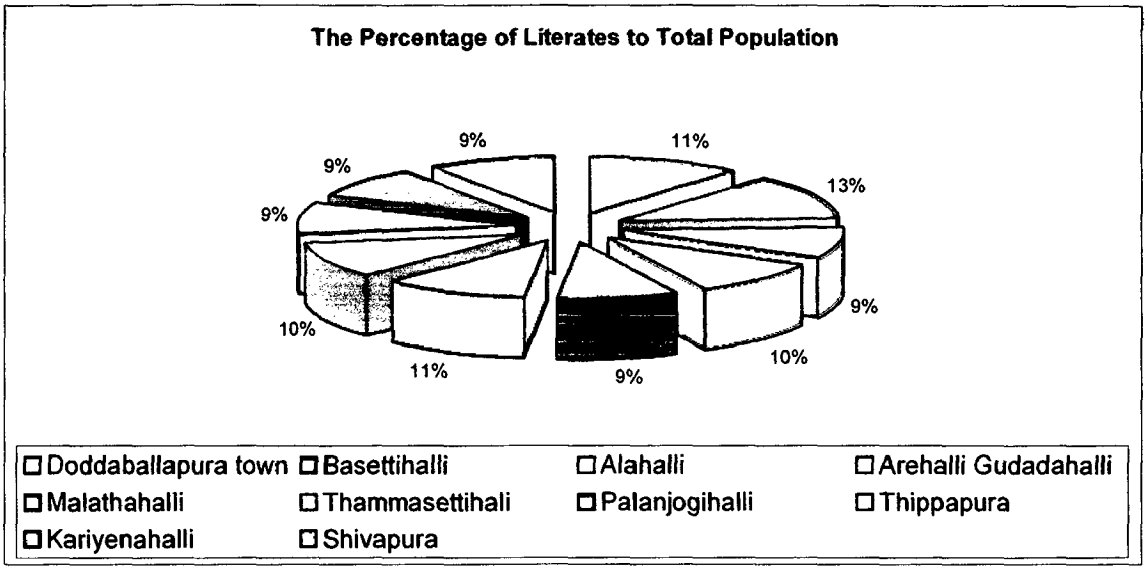
4. Alahalli and Thammasettihalli villages have no ST population whereas Shivapura has lowest ST population of 0.36 percent (9 out of 2486) and Basettihalli has the highest population of 6.65 percent (270 out of 4060) as compared to Doddaballapura ST population of 948 (i.e. 1.32%)



Graph 24: Comparative analysis of Total Workers to total population amongst the villages & town in Doddaballapura cluster

Source: Compiled by Author from secondary survey , 2001 Census

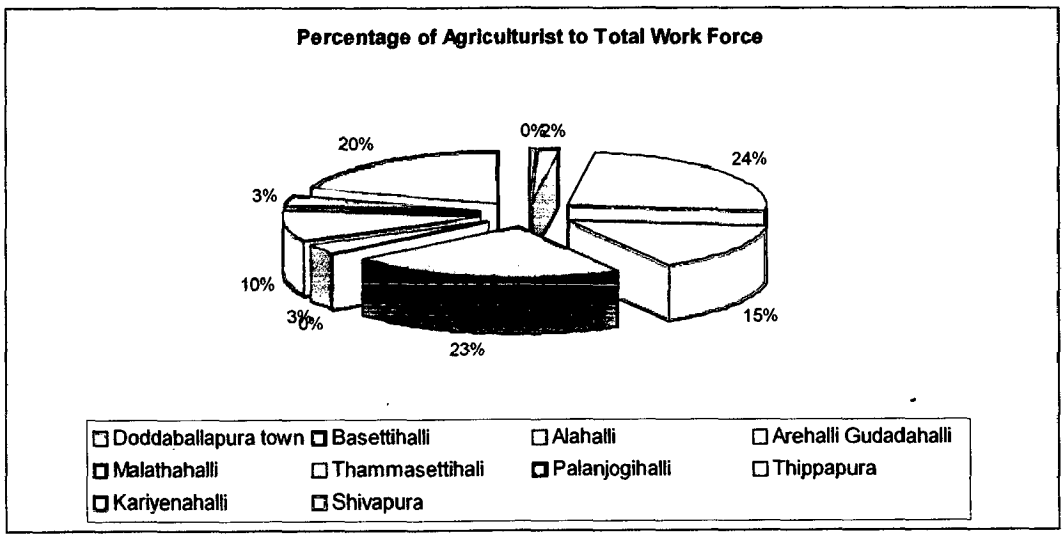
5. The cluster has a standard percentage of literates varying from 9- 13%. Basettihalli is having the highest percentage of literates of 3088 population.



Graph 25: Comparative analysis of total literates to total population amongst the villages & town in Doddaballapura cluster

Source: Compiled by Author from secondary survey, 2001 Census

5.3] OCCUPATIONAL STRUCTURE

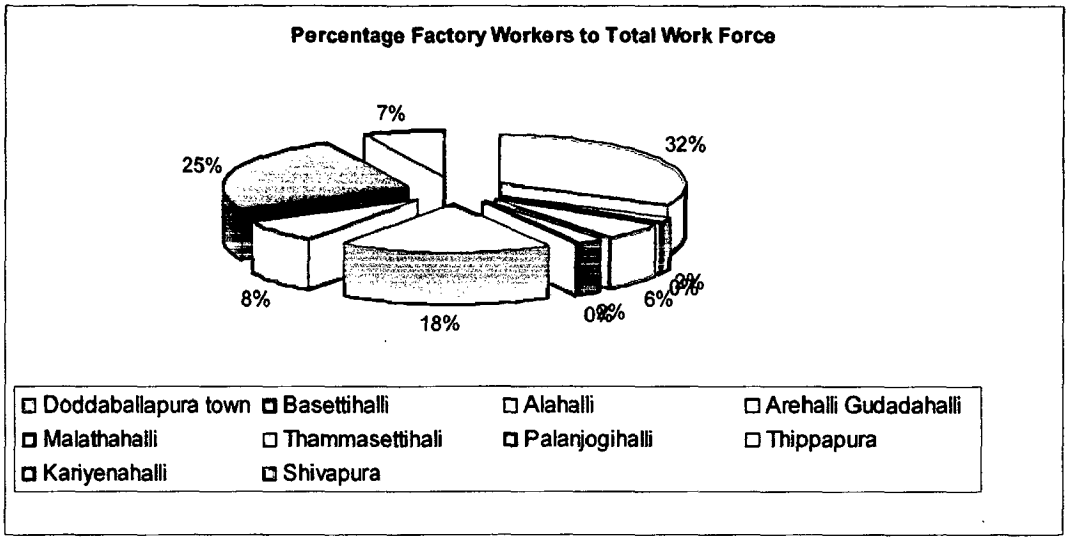


Graph 26: Comparative analysis of percentage of agriculturist to total work force amongst the villages & town in Doddaballapura cluster

Source: Compiled by Author from secondary survey , 2001 Census

1. Alahalli has the highest percentage of agricultural farm holders whereas Basettihali has the lowest percentage of farm holders. Thammasettihalii and Thippapura have no farm holders.
2. Thammasettihalli and Alahhali have no factory workers, whereas Basettihalli and Malathahalli have very low percentage of factory workers. Palanjogihalli has the highest percentage of factory workers and Doddaballapura being a town has also high percentage factory workers. These villages and town contribute to the industries of Doddaballapura Industrial Estate, Bangalore, Yelankha and Small Scale Industries and Households Industries in the villages. The

Small Scale Industries comprise of silk weaving and the HHI comprise of carpet making, bee-keeping, pickle making, papad making etc.



Graph 27: Comparative analysis of percentage of factory workers to total work force amongst the villages & town in Doddaballapura cluster

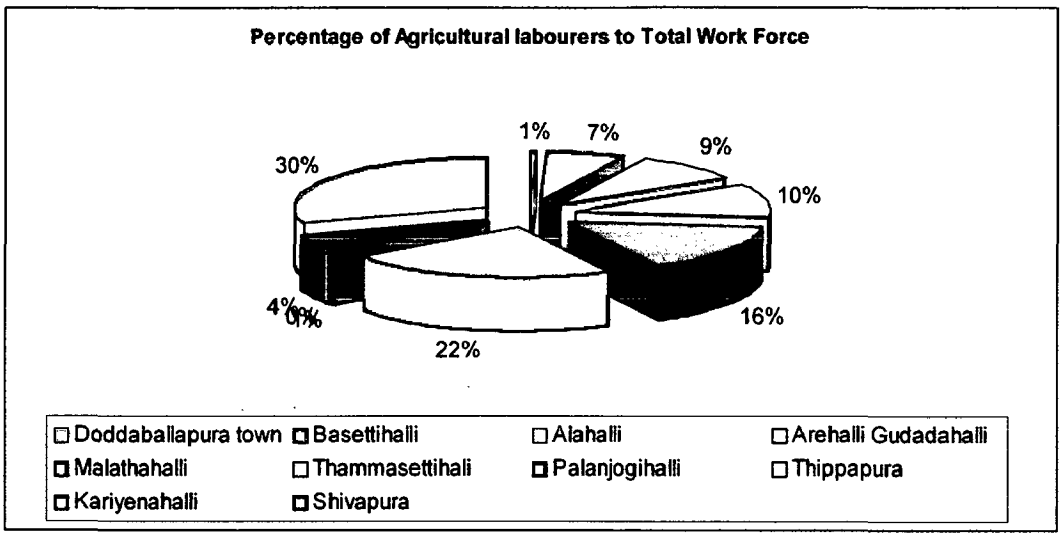
Source: Compiled by Author from secondary survey , 2001 Census

The following table indicates the industrial structure of the cluster villages:

Village Name	SSI Silk Weaving	HHI	Dairy Unit
Alahalli	20-30 Power looms	-	1
Arehalli Gudaddahalli	3-4 Handlooms	Bee keeping	-
Basettihalli	-	Carpet making Bee keeping	1
Kariyenahalli	150 Power looms	Pickle making	-
Malathahalli	30 Power looms 15 Handlooms	Papad making	1
Palanjogihalli	2 Power looms	-	-
Shivapura	30 Power looms	Pickle making	1
Thammasettihalli	-	-	-
Thippapura	20 Power looms 15 Handlooms	Pickle making Papad making	1

Table 28: Industries in the villages & town in Doddaballapura cluster

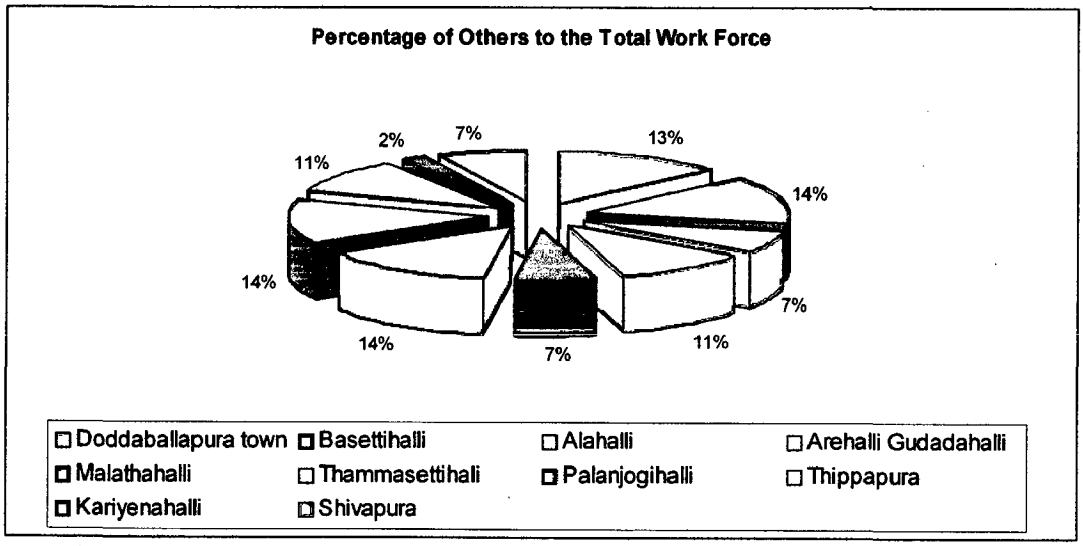
Source: Compiled by Author from primary survey



Graph 28: Comparative analysis of percentage of agricultural labourers to total work force amongst the villages & town in Doddaballapura cluster

Source: Compiled by Author from secondary survey, 2001 Census

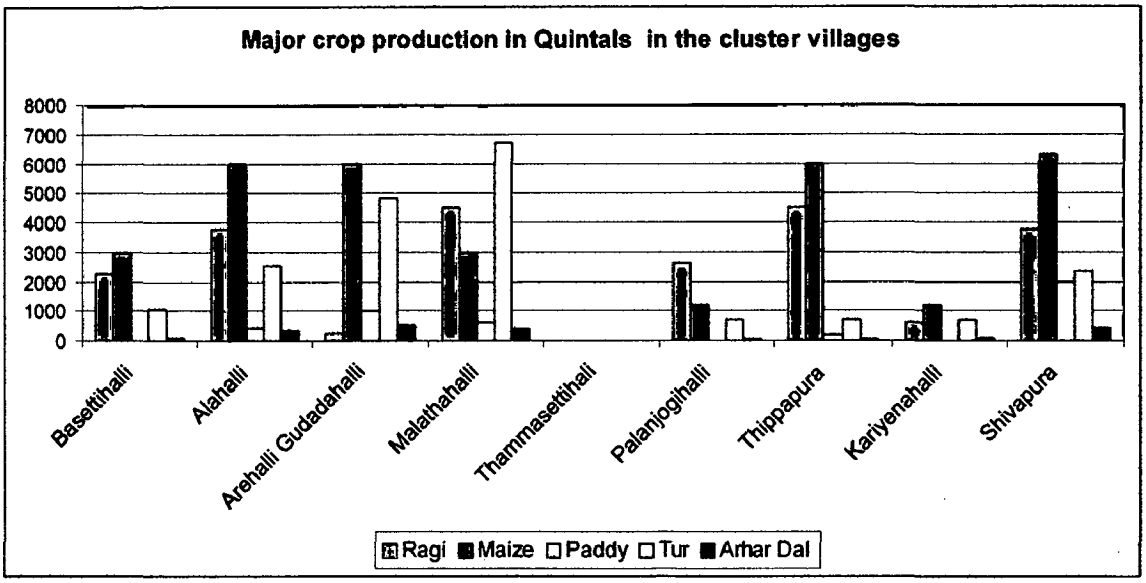
3. The villages mostly comprise of agricultural labourers. Most of them fall below poverty line and maintain a very low standard of living. They live on hand to mouth wages and live in unhygienic condition. Shivapura has the highest percentage of labourers and Palanjogihalli has lowest percentage. Thippapura has no labourers as such and Doddaballapura being a growth centre has only 1% of labourers.



Graph 29: Comparative analysis of percentage of other occupation to total workers amongst the villages & town in Doddaballapura cluster

Source: Compiled by Author from secondary survey, 2001 Census

5.4] CROP PRODOCTION



Graph 30: Comparative analysis of various productions of crops amongst the villages in Doddaballapura cluster

Source: Compiled by Author from primary survey

1. Malathahalli and Thippapura have the highest production of Ragi and Arehalli Guddadahalli has the lowest production.
2. Shivapura has the highest production of Maize and Palanjogihalli and Kariyenahalli have the lowest production.
3. Only four villages, namely, Alahalli, Arehalli, Malathahalli and Shivapura are producing paddy. Shivapura is the largest producer of paddy.
4. Malathahalli is the highest producer of Tur and Palanjogihalli, Thippapura and Kariyenaalli are lowest producers of Tur.
5. Arhar Dal is produced in all the villages in good quantities excepting Palanjogihalli and Thippapura. Thammasettihalli have no production at all, since it is covered by forest area.

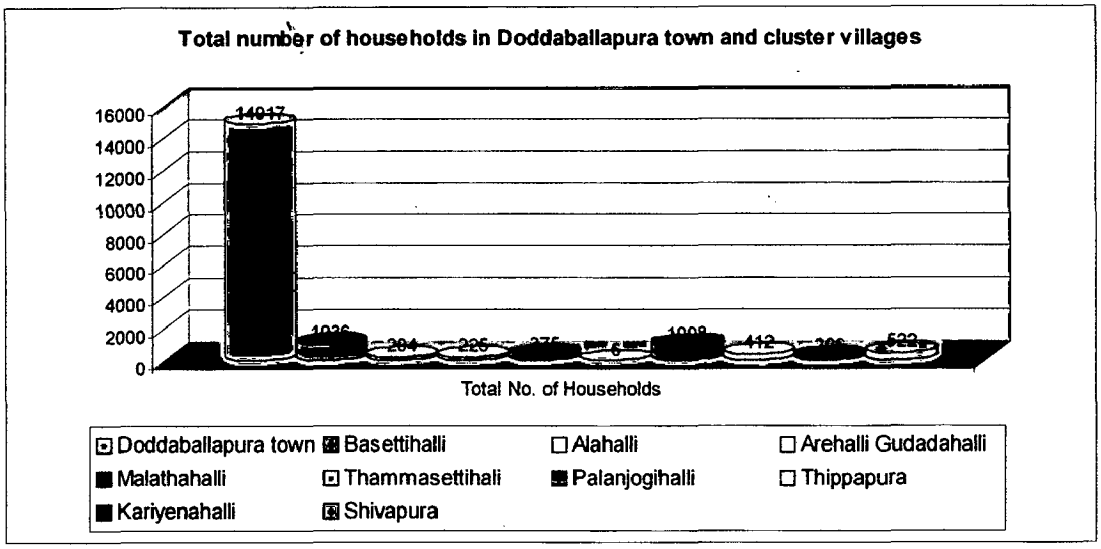
5.5] PHYSICAL INFRASTRUCTURE

5.5.1] HOUSING

1. Thammasettihalli has very few households, only six. This is mostly an inhabited village with no basic infrastructure of its own. It has also the lowest household size of 2. Basettihalli has the highest number of households, being mostly populated and it is having a household size of 4. Kariyenahalli has an average household size of nine. For other villages the size ranges from 3 to 5.
2. Apart from Doddaballapura town, Shivapura has the highest percentage of houses built under Ashraya Scheme. Palanjogialli and Basettihali have the lowest percentage built under this

scheme. Generally it is observed that Ashraya Scheme has been utilised most regularly for provision for shelter in the cluster.

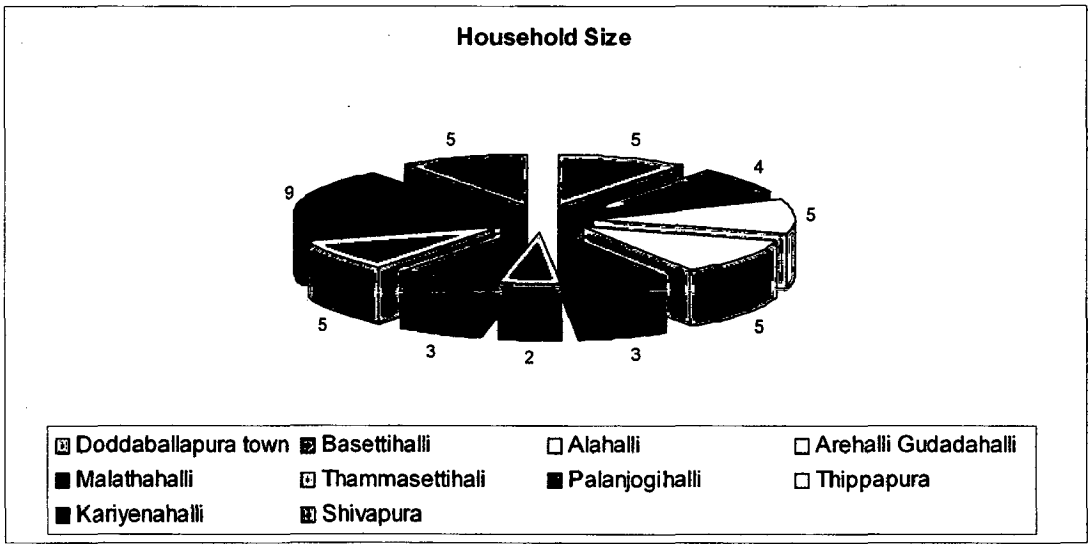
3. Next mostly used scheme for the villages is Indira Awas Yojna. All villages has average of 20% utilisation of this scheme with exception of Palanjogihalli, which has 30% utilisation.



Graph 31: Comparative analysis of total number of households amongst the villages and town in Doddaballapura cluster

Source: Compiled by Author from primary survey

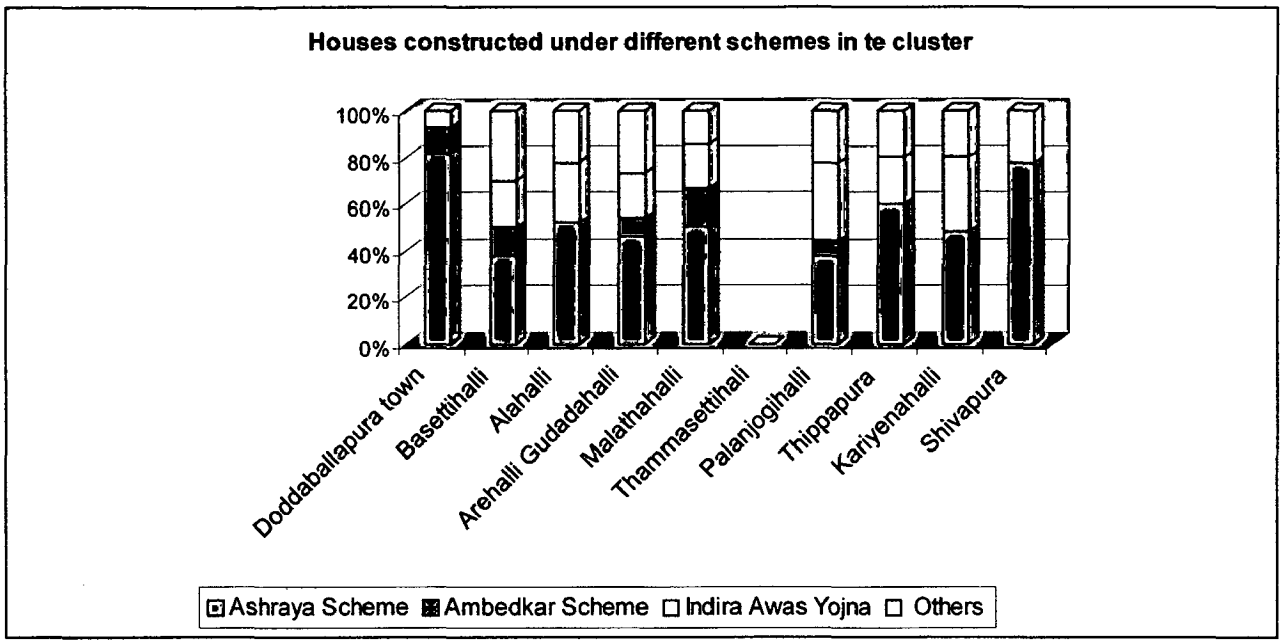
4. Ambedkar Scheme has been used in only four villages, namely, Arehalli, Alahalli, Malathaalli and Palanjogihalli apart from Doddaballapura town.



Graph 32: Comparative analysis of household size amongst the villages and town in Doddaballapura cluster

Source: Compiled by Author from primary survey

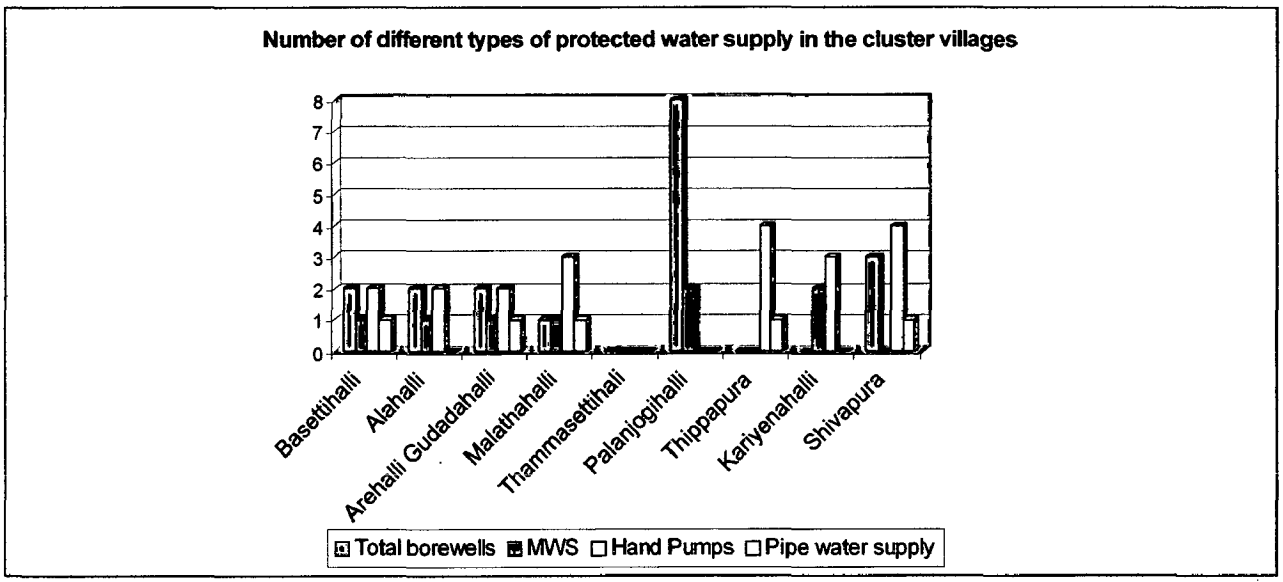
5. The others schemes like MP Ashraya, Additional Ashraya, SGRY, NFFWP etc has also been used for construction of shelter in almost all the villages and in the Town.



Graph 33: Comparative analysis of houses built under various housing schemes amongst the villages and town in Doddaballapura cluster

Source: Compiled by Author from primary survey

5.5.2] WATER SUPPLY SYSTEM



Graph 34: Comparative analysis of various protected water supply sources existing amongst the villages in Doddaballapura cluster

Source: Compiled by Author from primary survey

1. None of village is having OHT or sump reservoir, whereas only the town has 3 OHTs and 1 sump reservoir.

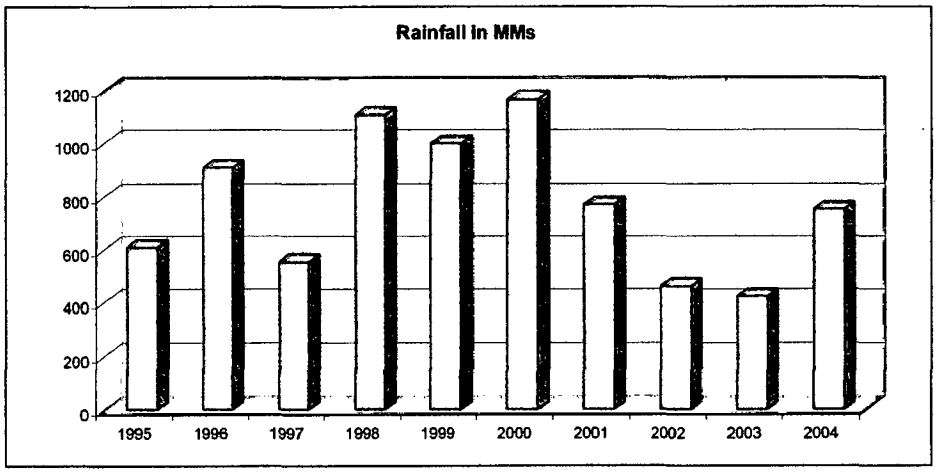
2. Basettihalli, Malathahalli, Thippapura and Shivapura are having one tap water/ pipe water connection each.

3. Palanjogihalli has the highest number of borewells,whereas vilages like Thammasettihalli, Thippapura and Kariyenahalli have no borewell.

Protected water supply	Doddaballapura town
Total bore wells	70
MWS	94
Hand Pumps	6
OHT	3
Cistern	1
Pipe water supply	5477

Table 29: Protected water supply sources in Doddaballapura town.
Source: compiled by Author from primary survey

4. Water scarcity is daily order of the whole Karnataka district. All the villages along with the town suffer from restricted water supply. Water availability per capita per day is less than the minimum requirement of 70-100 Lpcd for town and 70 Lpcd for villages. Doddaballapura being an industrial and mandi town has still more requirement of 45 Lpcd more.
5. The following is the rainfall in mm. of the region:



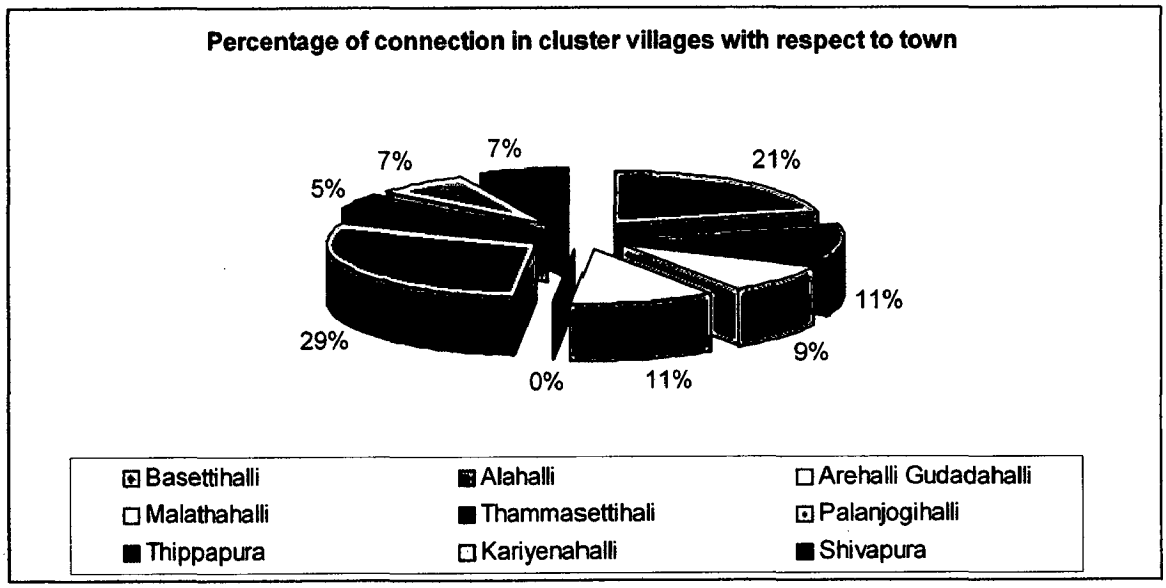
Graph 35: Comparative analysis of rainfall in mm in Doddaballapura cluster from the year 1995 to 2004
Source: Compiled by Author from secondary survey, Geological survey of India

5.5.3] ELECTRONIC CONNECTIVITY

(a) Telephone Facility

	Doddaballapura town	Basettihalli	Alahalli	Arehalli Gudadahalli	Malathahalli	Thammasettihali	Palanjogihalli	Thippapura	Kariyenahalli	Shivapura
Total telephone Connectivity (houses no)	3434	215	110	90	115	0	300	50	75	70

Table 30: Number of telephone connections in the Doddaballapura cluster
Source: Compiled by Author from primary survey data



Graph 36: Comparative analysis of telephone connectivity within the villages with respect to Doddaballapura town in the Cluster
Source: Compiled by Author from primary survey

(b) Internet Facility

1. No village is having facility of computer training centres, Cyber café etc. whereas Doddaballapura town is having one computer training centre and 2 cyber cafes.

5.5.4] ROAD INFRASTRUCTURE

Road connectivity to Village	Basettihalli	Alahalli	Arehalli Gudadahalli	Malathahalli	Thammasettihali	Palanjogihallli	Thippapura	Kariyenahalli	Shivapura
State Highway (Distance-Km)	Bangalore-Hindpur SH	-	-	1.5	Doddaballapur-Devanhalli SH	1	Bangalore-Hindpur SH	Doddaballapur Neelamangala SH	-
MDR (Distance-Km)	Nil	10 inside	3Km away	-	-	-	1.5	-	15 inside
NH (Distance-Km)	Nil	-	-	-	-	-	-	-	NH207

Table 31: Road network within the villages in the Doddaballapura cluster
Source: Compiled by Author from primary survey data

	Doddaballapura town	Basettihalli	Alahalli	Arehalli Gudadahalli	Malathahalli	Thammasettihali	Palanjogihalli	Thippapura	Kariyenahalli	Shivapura
Interior Metalled roads in Kms	110	3	8	2.5	9.5	0	10.5	1.5	1	3
Total length of interior road (Kms)	150	18	20	22.5	21	1.5	12.5	19.5	11	15

Table 32: Condition of roads in the Doddaballapura cluster
Source: Compiled by Author from primary survey data

1. Apart from the metalled roads in villages, the rest are mud road.
2. Total length of railway tracks in the Taluka (broad gauge throughout) is 24km. Doddaballapura Station is located at the south- eastern part of the town, very close to SH-9.
3. There are two bus stands in the town and the available vehicular modes are Auto and Buses (both Private and KSRTC).
4. For upgradation of transport communication the intracity traffic movement study is very important. The following table gives an estimate of percentage uses of different modes during peak hour on different roads:

Name of road/ road section	Percentage Modes				
	Two Wheeler	Auto	Car/ Jeep	Buses	Others
Devenhalli Road	34.71	12.15	10.85	16.05	26.24
Nanihill Rod	47.93	10.74	9.92	11.57	19.84

Hindupur Road	26.12	4.71	13.70	14.98	40.50
Neelamangala Rroad	42.05	4.67	5.61	3.74	43.93

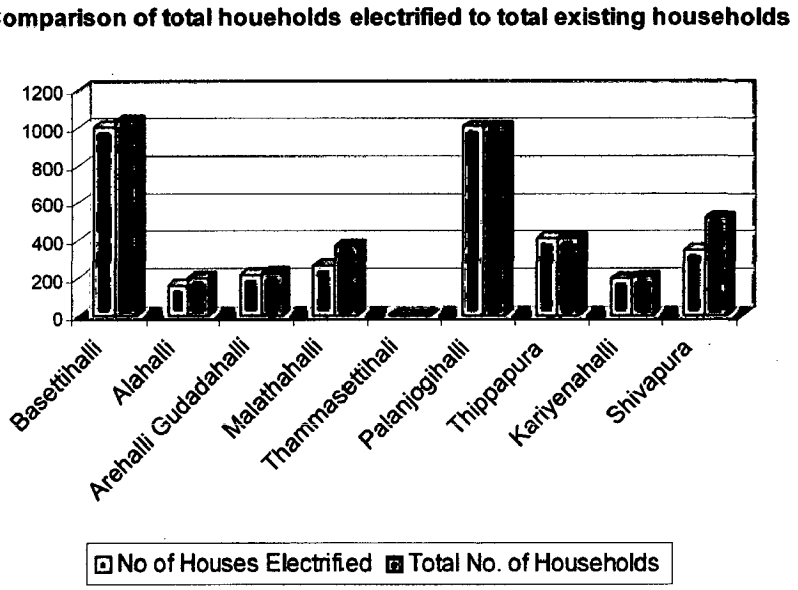
Table 33: Percentage of different modes on the roads passing through the Doddaballapura cluster

Source: Compiled by Author from primary survey data

5.5.5] POST AND TELEGRAPH FACILITY

1. Basettihalli and Palanjogihalli have one post office each. None of the other village is having any post office facility.
2. Thippapura population prefers going to Veerapura post office (.5 Km) nearby to Doddaballapura post office.
3. The town is having 1 main post office and 2 sub post offices and nearly 10 pot boxes distributed all over the town.

5.5.6] POWER SUPPLY DETAILS



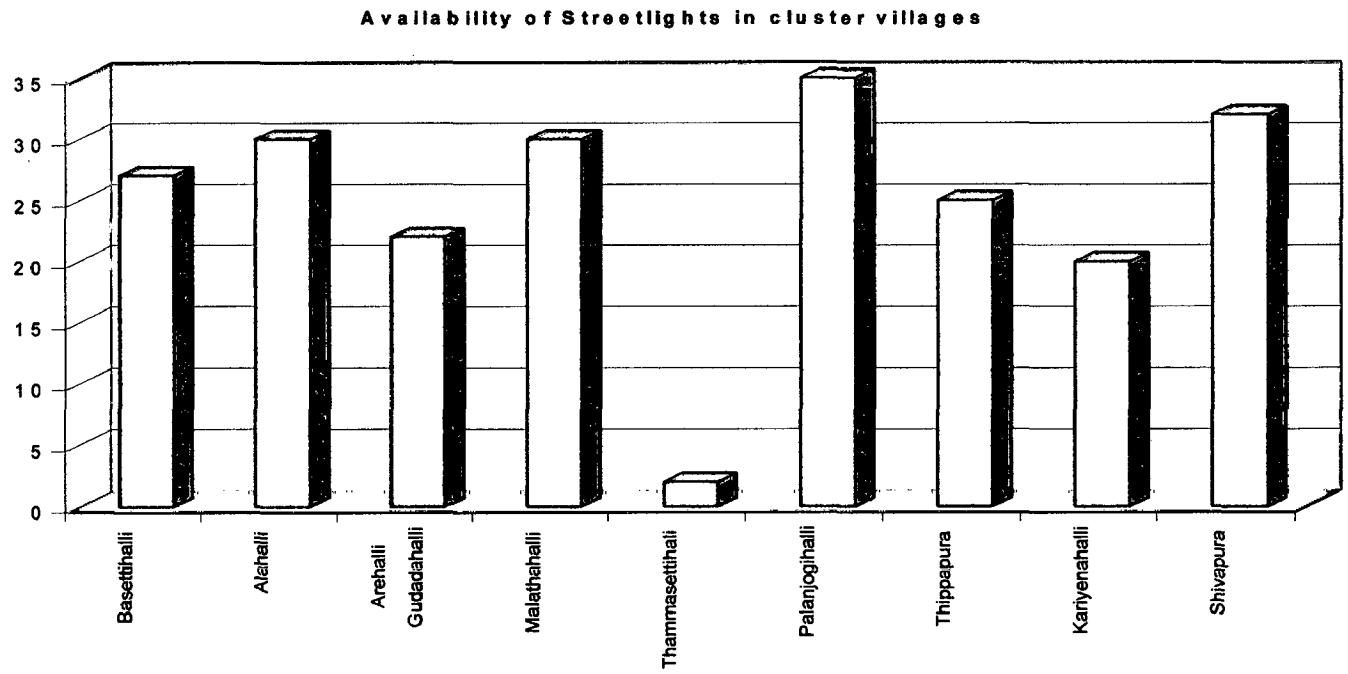
Graph 37: Comparative analysis of households electrified within the villages I the Doddaballapura Cluster

Source: Compiled by Author from primary survey

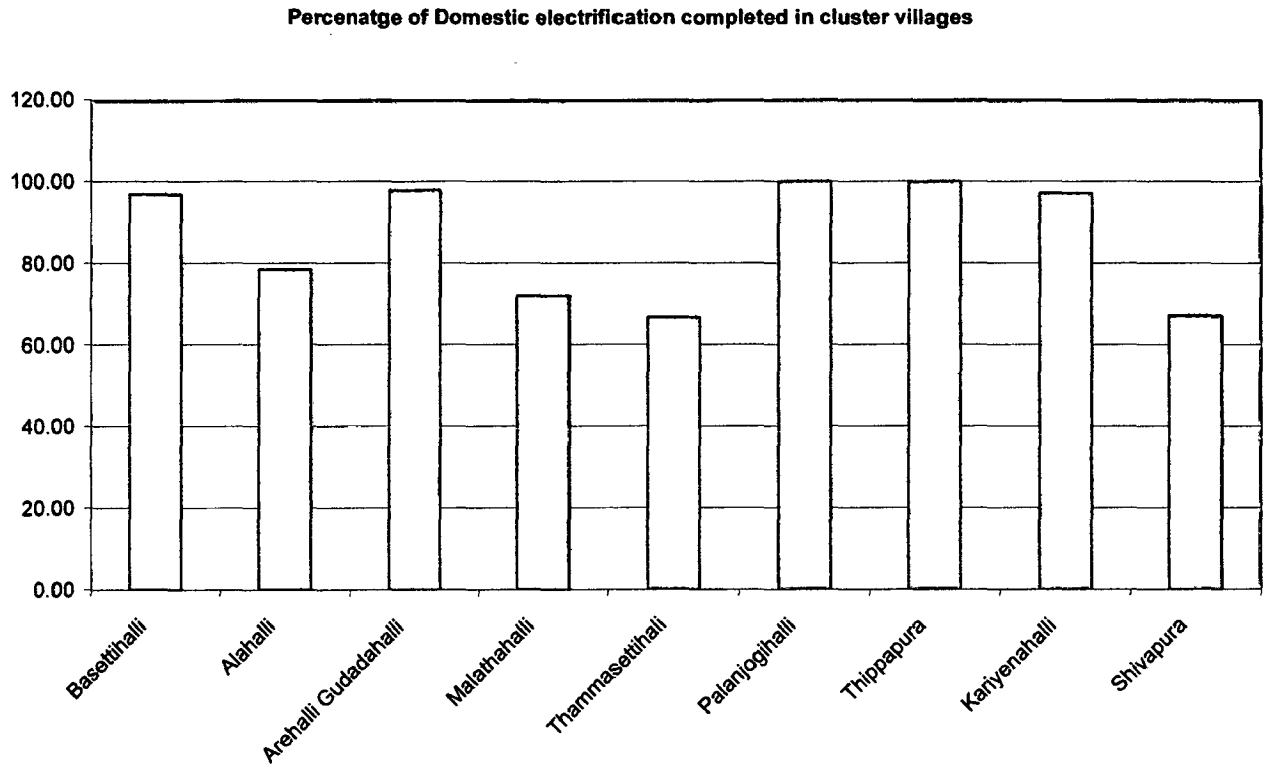
1. The domestic electrification is totally completed in Palanjogihalli and Thippapura villages.
2. Electrification has to be provided mostly to Thammasettihalli,, Shivapura, Malathahalli and Alahalli in the first phase of project implementation.

POWER SUPPLY DETAILS OF DODDABALLAPURA TOWN	NUMBERS
Total no. of households	14917
No. of houses electrified	13805
Percentage of domestic electrifiction	92.5
No. of Street lights	307
Existing sub stations- 66/ 11KV	5
No. of Transformers	104

Table 34: Power supply details of Doddaballapura
Source: compiled by author from primary survey data



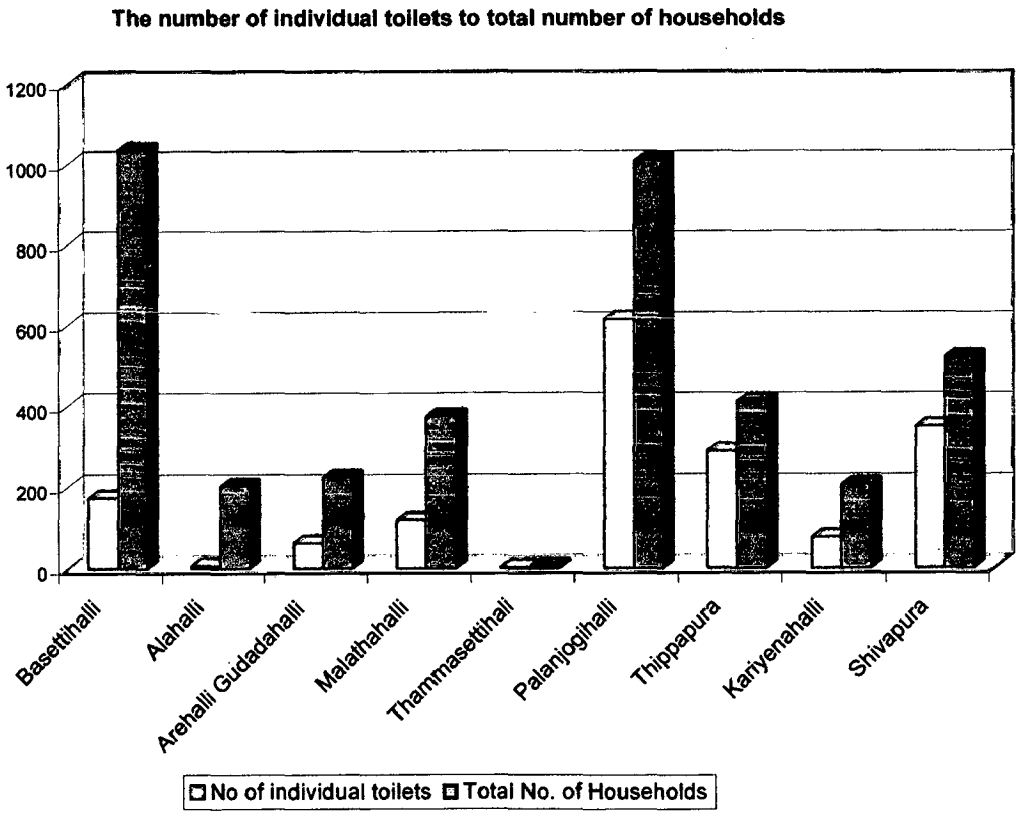
Graph 38: Comparative analysis of availability of street lights within the villages of Doddaballapura Cluster
Source: Compiled by Author from primary survey



Graph 39: Comparative analysis of percentage of domestic electrification completed within the villages of Doddaballapura Cluster

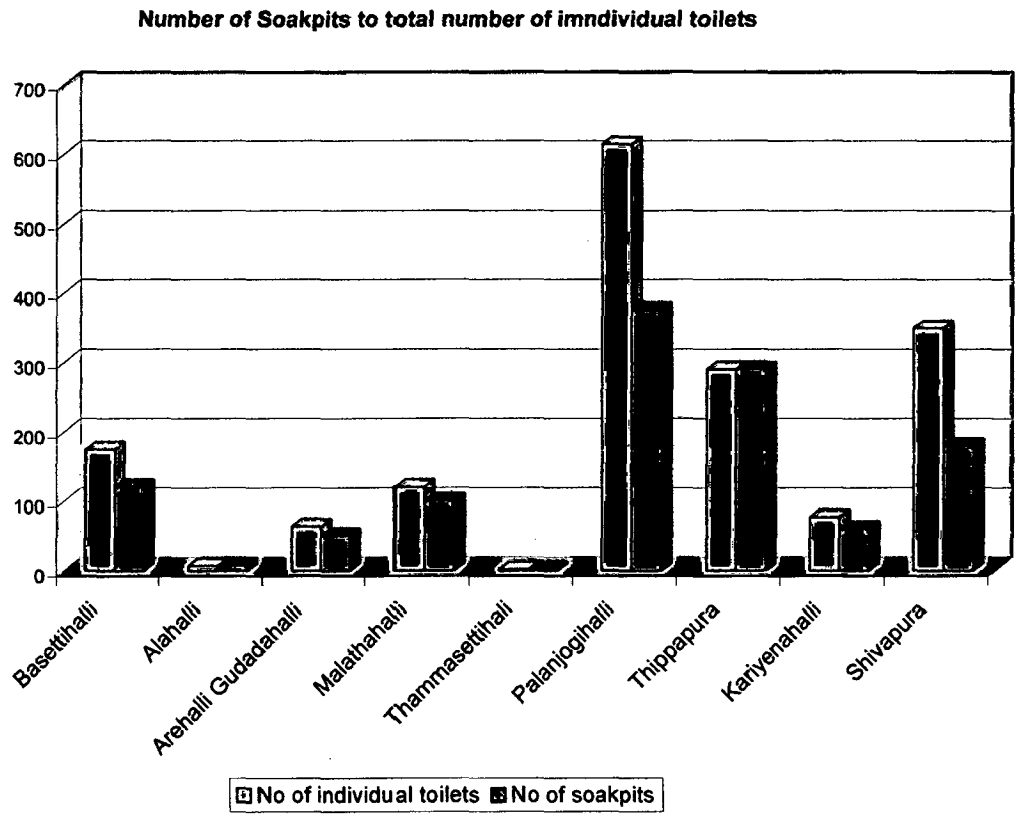
Source: Compiled by Author from primary survey

5.5.7] SANITATION AND DRAINAGE FACILITY



Graph 40: Comparative analysis of availability of individual toilets to total households in the villages of Doddaballapura Cluster

Source: Compiled by Author from primary survey



Graph 41: Comparative analysis of number of soakpits to total number of individual toilets in the villages of Doddaballapura Cluster

Source: Compiled by Author from primary survey

	Basettihalli	Alahalli	Arehalli Gudadahalli	Malathahalli	Thammasettihali	Palanjogihalli	Thippapura	Kariyenahalli	Shivapura
Community Toilets	0	0	0	2	0	0	0	1	2
Drainage system	Yes	No	Yes	Yes	No	No	No	Yes	No

Table 35: Comparative analysis of availability of community toilets and drainage in the villages of Doddaballapura Cluster

Source: Compiled by Author from primary survey data

1. The graphs clearly reflect that nearly 40-45% of the total number of households in the villages have individual toilets and amongst them lee than 70% have soak pits.
2. Palanjogihalli has the highest number and Arehalli has the lowest number of individual toilets.
3. Villages like Basettihalli, Arehalli Guddadahalli, Malathahalli and Kariyenahalli have drainage system, while the rest of the villages have no drainage facility.

Sanitation System of Doddaballapura Town	
Total number of households	14917
Individual Latrines	1638
Community Toilets	10
No. of soak Pits	600

4. Malathahalli and Shivapura have 2 community toilets each and Karieynahalli has 1 comminity toilet.

Table 36: Comparative analysis of availability of community toilets and drainage in the villages of Doddaballapura Cluster

Source: Compiled by Author from primary survey data

5.6] SOCIAL INFRASTRUCTURE

5.6.1] COMMUNITY FACILITIES

Community facilities in Doddaballapura town	
Cinema Halls	2
Theatre Halls	1
Mela ground	1
Community library	1
Religious buildings	25
Stadium	1
Police Station	2
Fire Station	1
Petrol Pump	2

Table 37: Comparative analysis of availability of community facilities Doddaballapura

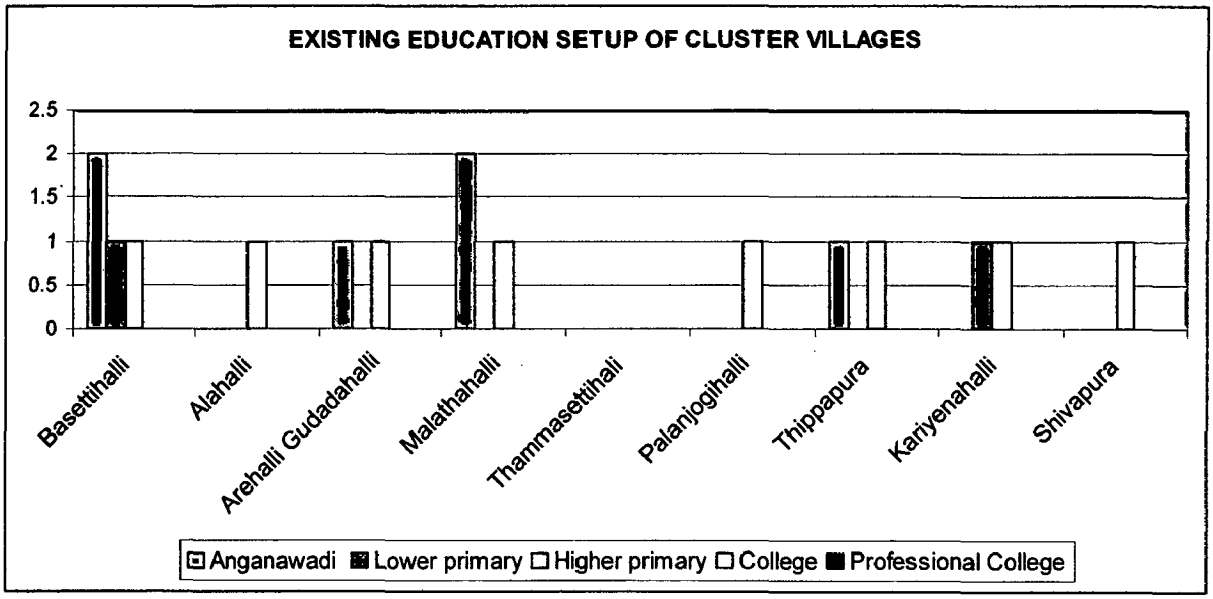
Source: Compiled by Author from primary survey data

1. Basettialli has one religious building, Malathahalli and Shiapura have 2 religious buildings each.
2. Malathahalli, Kariyenahalli and Shivapura have one Community Centre each.
3. Other villages are totally devoid of any community facility, but there are cultural sprits enlightened in them. The villages have different 'Sanghas' to conduct Cultural programmes

5.6.2] HEALTH FACILITIES

1. Palanjogihalli, Malathahalli and Basettihalli have one ANM Subcentre each. Other then these none of the villages is having any health facility. All come over to the Doddaballapura town for medical aid. Doddaballapura Town has 1 Government Hospital, 3 Private Clinics, 2 Primary Health Centres and one Veterinary Hospital. Population of Shivapura Village goes to Konaghatta (2 Km) for primary health centre.

5.6.3] SCHOOL AND EDUCATION FACILITY



Graph 42: Comparative analysis of number of various category of schools in the villages of Doddaballapura Cluster

Source: Compiled by Author from primary survey

1. The literacy awareness is strikingly high in all these villages. Each village is atleast having one higher primary school upto 7th standard. In all the villages the classrooms are not sufficient and needs upgradation. Most of the schools, especially the lower and higher primary schools are having roper toilet and lighting facilities. The Anganwadis in none of the villages have lighting facility
2. There is no Degree College or Technical College in the cluster villages. Doddaballapura town has 30 numbers of primary and middle schools, 9 higher secondary school and 3 numbers of junior and Degree College.

5.6.4] MARKETING FACILITY TO AGRICULTURAL PRODUCE

1. None of the villages are having any marketing facility such as shandy area, APMC Yard etc. Doddaballapura town has 1 APMC Yard and 1shandy area. All the farmers come to Doddaballapura market or Bangalore City market to sell their produce, which involves both consumption of time and money.

Based on the data compiled, a SWOT analysis of the Doddaballapura Cluster can be done.

The strengths of the cluster are:

1. Availability of large amount of vacant land.
2. Availability of work force different sectors.
3. Connectivity of villages with State and National Highways.
4. Nearness of Bangalore City from Doddaballapura town.
5. The villagers are skilled with art of carpet making, bee keeping, pickle making, papad making and silk weaving.
6. Availability of power and telecommunication facilities.
7. Presence of efficient Panchayati Raj institutions.

The weaknesses of the cluster are:

1. Lack of entrepreneurial motivation among the people.
2. Lack of agricultural work force.
3. 20% of population lies below poverty and this section is suffering from acute poverty.
4. Lack of drinking water sources and continuously decreasing ground water level.
5. Housing stock is lacking.
6. Lack of health care facilities.
7. Lack of community facilities.
8. Lack of sanitation and drainage facilities.
9. Apart from the Doddaballapura Town, the villages have lack of educational facilities.

The opportunities of the cluster are:

1. Commercialization of silk weaving and carpet making.
2. Processing and value addition of diary, poultry and other animal products.
3. Export potential of local products like diary products, bee wax, honey, papad, pickle etc.
4. Scope of tourism development.
5. Employment of skilled labour in small and household industries.
6. Employment of skilled labour in building industries.

Threats of the cluster are:

1. Major shift in occupation of people from primary sector to secondary and tertiary sectors is ruining the rural character of the cluster.
2. Frequent occurrence of droughts.

P_o = population of base year, 2001

r= recent growth rate and t= time span of 10 years from 2001 to 2011

The average dwelling size in 2001= 5.58

Housing Stock in 2001= P_o / The average dwelling size in 2001

The average dwelling size in 2011= 5.4

Housing Stock in 2011= P_n / The average dwelling size in 2021

Housing shortage = Housing Stock in 2021 - Housing Stock in 2001

The total housing requirement in each village and the town has to be compensated through full exploitation of different housing schemes like Ashraya Scheme, Ambedkar Scheme, Indira Awas Yojna and others

Town/Village	Population (2001 Census)	Population(E) (2011 Census) GR- 12%	Housing Stock (2001)	Housing Stock (2011)	Shortage
Doddaballapura	71606	222400	12833	41185	28352
Basettihalli	4060	12610	728	2335	1607
Alahalli	977	3034	175	562	387
Arehalli Gudadahalli	1228	3814	220	706	486
Malathahalli	1242	3860	223	715	492
Thammasettihalli	14	44	3	8	5
Palanjogihalli	3184	9890	571	1832	1261
Thippapura	1888	5864	338	1086	748
Kariyenahalli	1840	5715	330	1058	728
Shivapura	2486	7720	446	1430	984
Total	**88,525**	**2,74,951**	**15,867**	**50,917**	**35,050**

Table 38: Estimated number of houses to be built for fulfilling the requirement of 2011 population
Source: Compiled by Author

6.2] POWER SUPPLY TO THE HOUSEHOLD

Electricity connectivity is one of the important infrastructural requirements for development of cluster as a whole. Provision of electrification in the village under the programme would enable the villagers to take up irrigation and improve yields adding to the income. In addition electricity would also help in getting water supply connection, lighting of houses and streets. This will have impact on over all development of the village.

As per planning standard (UDPFI Guidelines), Power requirement is @ 2KW per household daily and one electric substation of 11KV for 15,000 population is required.

By 2011, the total population of the cluster will be 2,74,951. **The total number of 11KV sub stations required for the cluster = 18.** There are already 5 sub stations, **so 13 more have to be provided in different locations.**

Street lighting along the road length of 21-Km interior roads has to be completed for the whole cluster.

6.3] WATER SUPPLY AND SANITATION FACILITY

The villages are facing an acute shortage of water due to various reasons such as low yield from the existing bore wells, less number of bore wells, less facility for shortage of water, increase in population excessive utilisation of ground water etc.

Minimum requirement of water supply for the cluster, based on population is 100 lpcd. At present condition, the water supply is as low as 60-65 lpcd. So more requirement is provision of more and more piped water supply from Arkavati River or Cauvery river, introduction of water harvesting technologies and construction of one OHT each village having a capacity of 50,000 lts under 'PURA' Scheme.

Sewerage is considered to be at the rate of 80% of the water supply of any area. So the treatment of sewerage is essential to check the environmental degradation as well as to provided hygienic condition for the population.

So the requirement construction of additional latrines and septic tanks, or introduction of low cost sanitation technologies. Proper covered drainage channels should be constructed through the villages and the town leading to proper sewerage treatment plant. Each household should have individual toilet and each of should two community toilets.

6.4] ROAD FACILITIES

Road transport occupies a dominant place among various modes of transport. Apart from being a vital link between centres of production and markets in economic sectors, roads plays a significant role in generating employment generation and facilitating movement of people. The other benefits are:

1. To increase socio- economic condition of the local people.
2. To facilitate smoother movement of goods, agricultural and horticulture products in the region.
3. To ease vehicular movement.
4. To connect remote villages to urban areas.

The existing roads in the villages are worn out at some places and have developed some pits and ruts. The sub- grade provided is not commensurate with the present traffic intensity and transportation of heavy goods.

From the analysis of primary data, it is evident that a total length of 152 Kms of interior roads have to be metalled under 'PURA' Scheme. Apart from that provision of a ring road connecting all the villages around the Doddaballapura town has to be constructed. The upgradation of existing roads is required and wherever there is no connectivity of a village with the town, a road has to be constructed as per rules of the 'PURA' Concept.

6.5] TELECOMMUNICATION FACILITY

Present total of the total cluster is 88,525 and the total number of telephone connections in the cluster is 4459. That indicates there is one telephone connection per 20 persons whereas the minimum is one connection per 10 people.

By 2011, when the population will be 2,74,951 nearly about 27,500 connections will be required. That indicates that with time the telephone has to increase their rate of distribution to reach the target.

The cluster has no Internet kiosk except that Doddaballapura Town has 2-cyber cafés.

6.6] POST AND TELEGRAPH FACILITIES

The cluster has sufficient post and telegraph facilities per requirement of the population. The only requirement is provision of post boxes in the villages.

6.7] EDUCATION FACILITY

Education in the main root of development of any region. From the primary survey one can observe that for total population of 88,525 (2001), there are 6 anganwadis, 2 lower primary and 8 higher primary schools in nine villages and in the town there are 30 lower and higher primary schools, 9 higher secondary schools and 3 degree colleges.

1. As per 'PURA' concept and planning standard (UDPFI Guidelines), there should be:
2. 1 or 2 Anganwadis in each village based on population;
3. 1 lower primary school for 1,500 population;
4. 1 higher primary school for 5,000 population;
5. 1 higher secondary school for 7,500 population;
6. 1 college for 1,50,00 population.;

By 2011, the population of the cluster will reach 2,74,951 the requirements are:

1. 20 number of Anganwadis;

2. 183 lower primary schools
3. 55 higher primary schools;
4. 36 higher secondary schools;
5. 2 colleges;

The shortage is:

1. 14 anganwadis;
2. 163 lower primary schools
3. 129 higher primary schools;
4. 27 higher secondary schools;

The schools are to be provided with boundary wall for safety and security. Here due to lack of rooms, classes are held in open air or in congested condition. Toilets are there in some of the schools, only their conditions are to be upgraded.

Schools have sufficient lighting but the Anganwadis are to be provided with electricity. The modern teaching aids are absent in the schools.

6.8] HEALTH FACILITY

Palanjogihalli, Malathahalli and Basettihalli have one ANM Subcentre each. Other then these none of the villages is having any health facility.

Doddaballapura Town has 1 Government Hospital, 3 Private Clinics, 2 Primary Health Centres and one Veterinary Hospital.

People of Shivapura Village go to Konaghatta (2 Km) for primary health centre.

As per guidelines formed under 'PURA" Concept and UDPFI guidelines,

1. There should be at least one ANM centre and one clinic in each village.
2. A dispensary of 25 to 30 beds for 15,000 population.
3. A nursing home or child care centre of 25 to 30 beds for 45,000 population.
4. A polyclinic for 1 lac population.
5. An intermediate hospital of 80-100 beds for 1 Lac population.
6. A general hospital of 300 beds for 2.5 Lac.

By 2011, the population of the cluster will be 2,74,951, there should be:

1. Nine ANM centre and nine private clinics in each village.
2. 18 dispensaries all around the cluster.
3. 6 nursing homes.
4. 2 polyclinics
5. 1 general hospital.

6.9] COMMUNITY FACILITIES

1. Doddaballapura town has:

2 cinema halls	2 police stations
1 theatre hall	1 fire station
1 meal ground	2 petrol pumps
1 community library	
1 stadium	
5 religious buildings	

2. Malathahalli, Kariyenahalli and Shivapura are having one community centre each.
3. There are six religious builings in the cluster villages.

As "PURA' guidelines as well as UDPFI guidelines for estimated population of 2,74,951,

1. There should be atleast 7 community centres in the cluster @ one community hall for 40,000 population.
2. Nine more police chowkies in nine villages

6.10] MARKET FACILITIES

Doddaballapura town has one APMC yard and one Shandy Area.

As per 'PURA' guidelines, there should be nine more shandy areas, each for one village.

CONCLUSION:

Based on the above identified gaps in the physical and social infrastructures of the cluster, the blueprint for application of 'PURA' concept in Doddaballapura Cluster is prepared and the strategies are formed following in five layers:

- PROVISION OF PHYSICAL INFRASTRUCTURE
- PROVISION OF SOCIAL INFRASTRUCTURE
- PROVISION OF COMMERCIAL INFRASTRUCTURE
- ECONOMIC REGENERATION
- FUND MECHANISM

CHAPTER VII: ISSUES AND RECOMMENDATIONS

This chapter deals with the major issues or bottlenecks in the successful implementation of 'PURA' Scheme and based on identified gaps a five layered strategy has been formed for development of Doddaballapura Cluster in the line of Paradip cluster, Orissa and Chikballapur cluster, Karnataka.

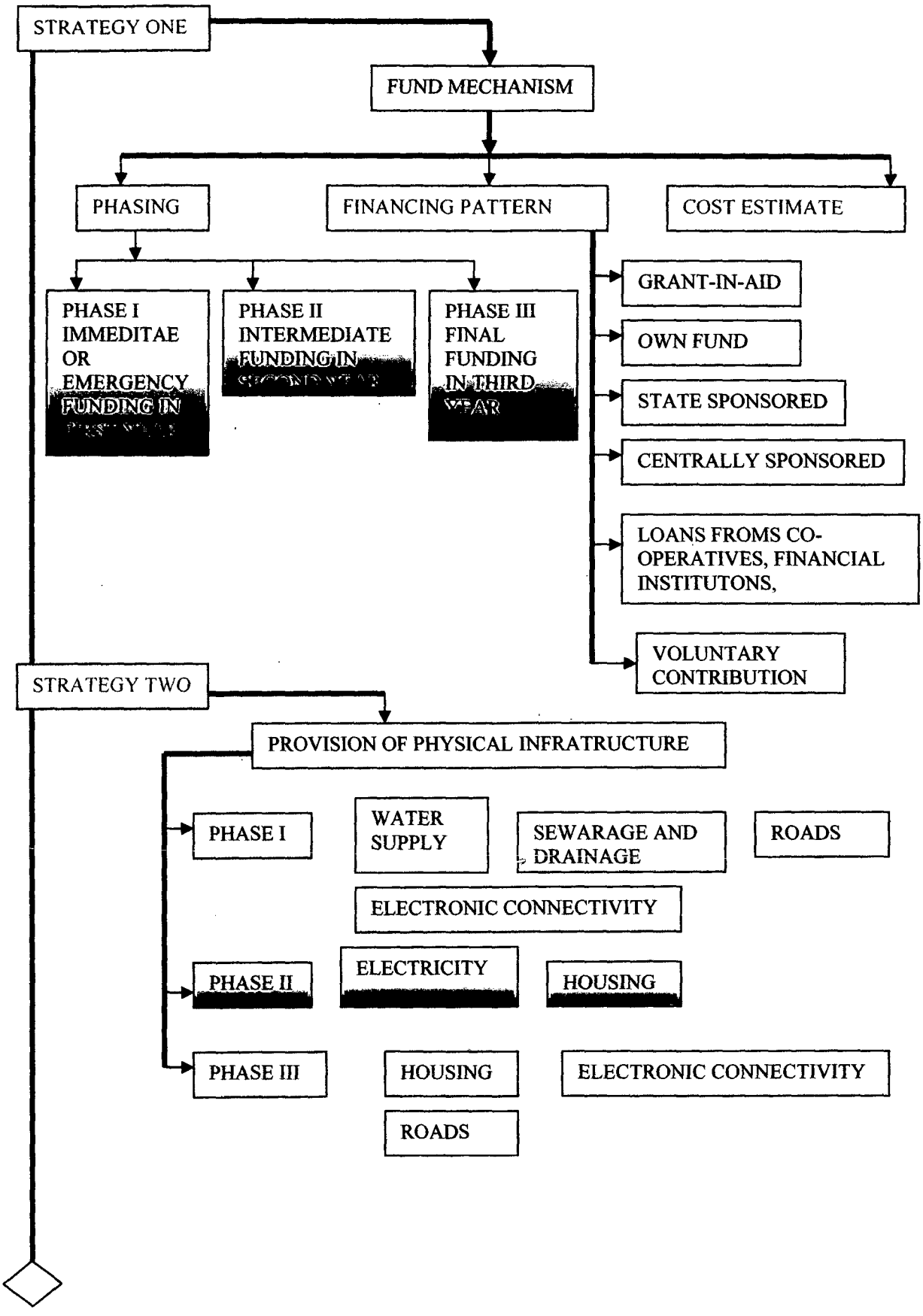
7.1] BOTTLENECKS IDENTIFIED IN IMPLEMENTATION OF THE SCHEME

Successful implementation of any scheme envisages proper coordination and involvement of the stakeholders, viz., the Government, the Public and Private Institution. Some of the major possible bottlenecks in the implementation of PURA concept in Doddaballapura cluster may be:

1. Timely release of funds to implement the project as per schedule is necessary.
2. Proper coordination among the line departments is necessary.
3. Lack of Public/ Private partnership in carrying out major infrastructure development works like roads, culverts, water supply and power supply system in these rural areas.
4. Lack of involvement of public in the development activities. The villagers have a reluctant attitude towards participation in development works and leave all the responsibilities for the Government only.
5. Lack of volunteers and voluntary organisations to create awareness about the development schemes among the rural people.
6. Lack of participation of representatives of local bodies in implementation of various rural development schemes.

7.2] RECOMMENDATIONS

7.2.1] The strategies for successful implementation of 'PURA' concept in Doddaballapura Cluster have in formed in five layers as follows:



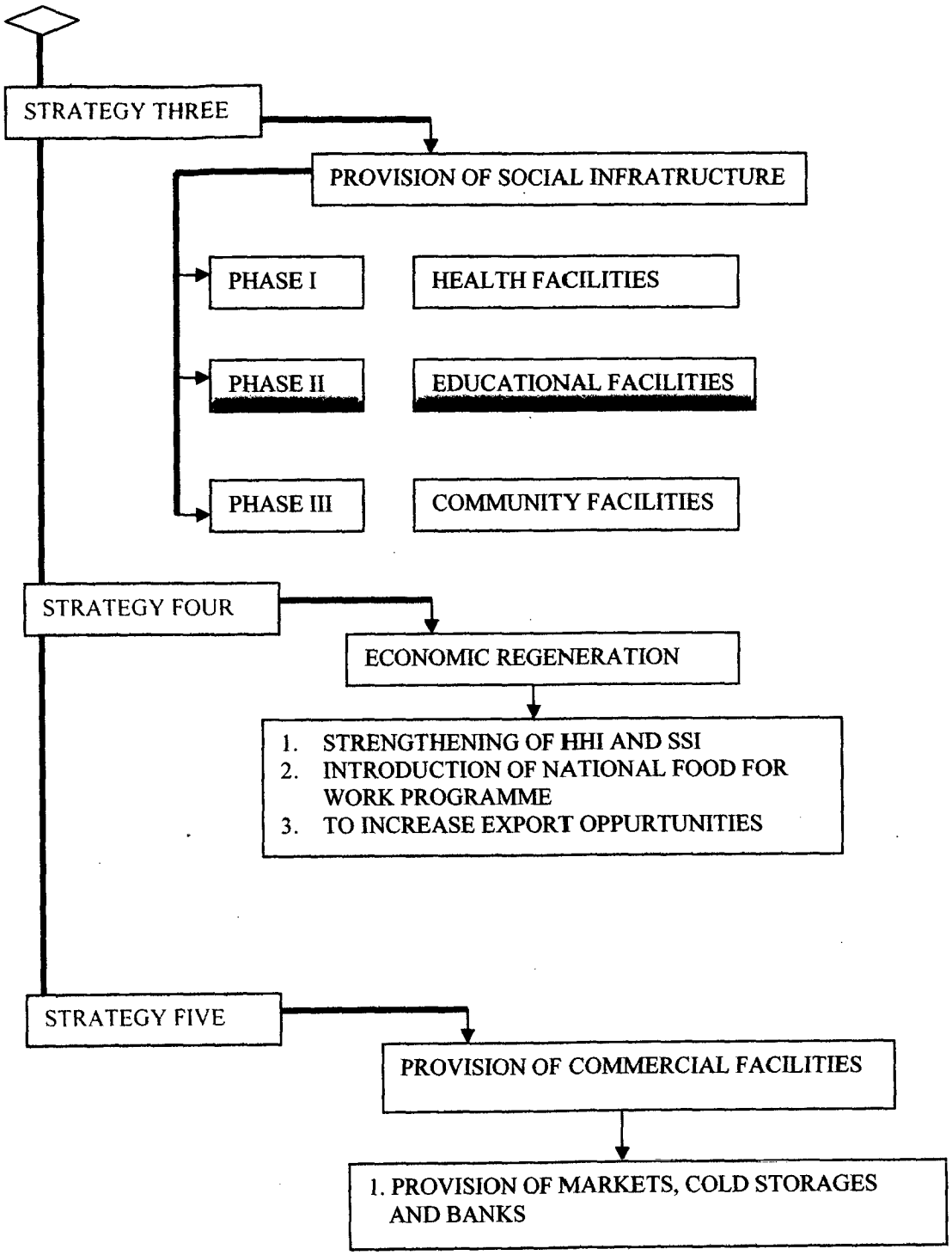


Chart 10: A brief on five layered strategies for application of 'PURA' concept
Source: Compiled by Author

7.2.2] Application of Growth Pole Theory in Doddaballapura Cluster

The urban amenities to be provided in the cluster has been distributed in the order of hierarchy based on population and location of villages and Doddaballapura town. **The Doddaballapura town** being most densely populated and located at the centre of the cluster as well as a Mandi town can be considered as **the primary growth pole.** The major facilities like colleges, general hospitals etc. should be located in the growth pole only.

Basettihalli, Palanjogihalli and **Shivapura** can be considered as secondary **growth poles.** The facilities next lower in the order from primary growth pole like higher secondary schools, polyclinics etc should be provided in these secondary growth poles.

Alahalli, Arehalli Gudadahalli, Malathahalli, Thammasettihalli, Thippapura and **Kariyenhalli** are considered to be the **tertiary growth poles**, where distributed functions like primary schools, dispensaries etc. are to be provided.

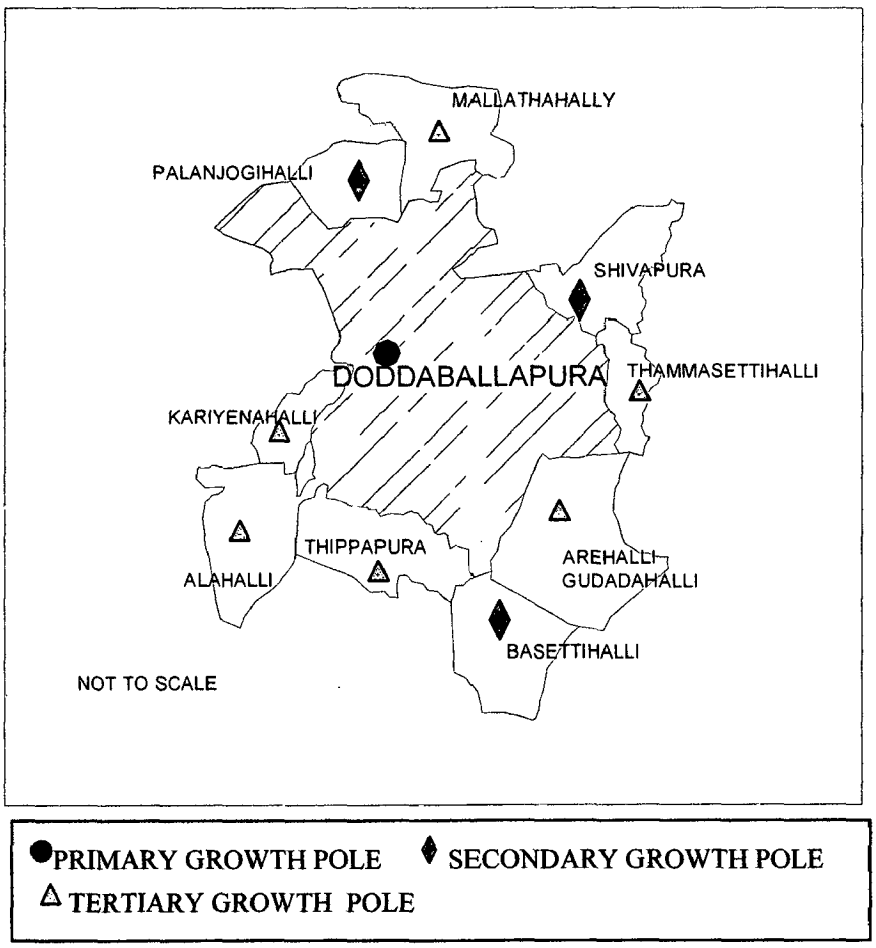


Fig. 9: Application of Growth Pole Theory in Doddaballapura cluster
Source: Drawn by Author

7.2.3] PROPOSALS

(A) STRATEGY I: PROVISION OF PHYSICAL INFRASTRUCTURE

COMPONENTS OF 'PURA'	PROPOSALS BY PLANNING COMMISSION
PHYSICAL CONNECTIVITY	1.ENABLES MOVEMENT OF PEOPLE AND GOODS 2.IMPROVE ACCESS TO EDUCATION AND HEALTH FACILITIES. 3.DISTRIBUTION OF POWER, WATER & COMMUNICATION NETWORK.
ELECTRONIC CONNECTIVITY	1. VILLAGE INTERNET KIOSKS 2. E- GOVERNMENT ACCESS 3. E-MARKET ACCESS 4. TELE-TRAINING ON FARMING 5. E- BANKING/ ATM CENTRES
HOUSING	1. QUALITY HABITAT DESIGN

Table 39: First three components of 'PURA' concept as laid by Planning Commission
Source: Planning Commission, Compiled by Author

PROPOSALS BY AUTHOR

ROADS

1. A ring road of nearly 32 Kms has to be laid connecting all the villages, intersecting the Bangalore- Hindpur state highway from 'PURA' funds.
2. The villages having no direct connectivity with Doddaballapura town have to be connected by approach roads by taking funds from Pradhan Mantri Gram Sadak Yojna.

2.1] Kariyenahalli has to be connected by RCC approach road of 1km. From Doddaballapura-Neelamangala SH.

2.2] Malathahalli has to be connected by RCC approach road of 0.5 km from Bangalore- Hindpurs SH.

2.3] Shivapur has to be connected by RCC approach road of 1.5 km from Doddaballapura-Devanahalli SH.

2.4] Thippapura has to be connected by RCC road of 1.5 km from Doddaballapura- Neelamangala SH.

3. BT village roads of 112 Kms within all the cluster villages has to be laid by taking funds from Pradhan Mantri Gram Sadak Yojna.
4. 40 km of RCC roads within the Doddaballapura town has to be upgraded from 'PURA' funds.

WATER SUUPLY

1. Water supply should be upgraded to the standard of 100 lpcd for the whole cluster.

2. Villages Alahalli, Thammasettihalli, Palanjogihalli, and Kariyenahalli have to be covered by piped water supply under the scheme of Rajiv Gandhi Rural Water Supply Mission. .
3. Doddaballapura town has 3 OHT of 15,000lts capacity. For whole cluster 8 more OHTs of same capacity have to be built to distribution of safe drinking water within the cluster from 'PURA' funds.
4. Rainwater harvesting should be made compulsory for each dwelling unit to reduce the over exploitation of ground water from beneficiary or voluntary funds.
5. Awareness should be spread and training should be given for latest technologies on rainwater harvesting and re-cycling of water in the cluster by NGOs.

POWER SUPPLY

1. For power supply the target should be 100% electrification of the cluster. For that 13 more 11KV substations have to be constructed in different locations of the cluster through full privatisation or public-private partnership.

SEWAGE DISPOSAL

1. Sewage disposal channels should be laid in the all the villages and they should be so designed that it can carry the load of 64 gallons pdpc. The vacant land available in the cluster can be used for construction of sewage treatment plant for environmental sustainability. 1700 dwelling units out of 15,867 are having individual toilets connected to soakpits. The rest of the houses have to be provided with individual toilets. Each village has to be provided with one or two community toilet/s based on population. The proposal can be implemented partly under the scheme of Swachha Grama Yojna and partly by taking loan from any Techno-financial organisation like HUDCO who can render consultancy for construction work also.

TELECOMMUNICATION

1. Telephone connectivity distribution should reach to the standard of 100 lines per 1000-population by 2011.
2. This project can be implemented by public-private partnership.

ELECTRONIC CONNECTIVITY

1. Each village should be provided with one internet kiosk and the Doddaballapura Town should have 4-5 kiosks.
2. The kiosks at primary growth pole should have E- Governance access.

3. The kiosks at secondary growth poles should have E-Market access to bring about transparency in business and reduce the role of agents. There can be tele-training facilities in these kiosks for farming, floriculture etc.
4. At tertiary growth poles the kiosks should be having one or two computers accessible to villagers for E- Banking or further usage.
5. This project can be totally handed over to the private investors like Wi-Fi or Reliance.

HOUSING

1. Quality habitat design can be partly implemented by taking loan from financial institutions like CIDCO, HUDCO etc. and partly under the schemes like Ashraya Scheme, Rural Building Centre, MP Ashraya Scheme, Indira Awas Yojna, Ambedkar Housing scheme etc.
2. 35, 050 houses have to be built in the total cluster in the second and third phase of project implementation. Due to financial constraint, only 2% of total housing shortage can be mitigated.
3. Quality habitat design includes maintainance of environmental sustainability also.

(B) STRATEGY II: PROVISION OF SOCIAL INFRASTRUCTURE

COMPONENT OF 'PURA'	PROPOSALS BY PLANNING COMMISSION	PROPOSALS BY AUTHOR
SOCIAL INFRASTRUCTURE	1. VOCATIONAL TRAINING	1. THE VOCATIONAL TRAINING FOR FARMING, POTTERY, BEE KEEPING, CARPET MAKING, SILK WEAVING, SEWING ETC. CAN BE CARRIED OUT IN THE SCHOOLS BUILDINGS DURING FREE HOURS BY DIFFERENT NGOs OR SHGs.
	2. INCRERASE IN KNOWLEDGE BASE	1. PROVISION OF UP-DATE EDUCATIONAL FACILITIES IN THE CLUSTER BY PROVISION OF MODERN QUIPMENTS, REQUIRED LIGHTING FACILITY, SANITATION AND SAFE SCHOOL COMPOUNDS. 2. TWO ANGANWADIS TO BE PROVIDED IN EACH VILLAGE AND TOWN EXCEPT ONE IN THAMMASETTIHALLI. 3. THERE SHOULD BE 36 HIGHER SECONDARY SCHOOLS DISTRIBUTED OVER DODDABALLAPURA, BASETTIHALLI, PALANJOGIHALLI AND SHIVAPURA. 4. THERE SHOULD BE 55 HIGHER PRIMARY AND 183 LOWER PRIMARY SCHOOLS DISTRIBUTED ALL OVER THE CLUSTER. 5. THE SCHOOLS CAN BE CONSTRUCTED FROM THE GRANT-IN AID FUNDS, STATE FUNDS AND 'PURA' FUNDS.

	3.HEALTH FACILITIES	1. THE CLUSTER SHOULD HAVE ONE 100 BEDDED GENERAL HOSPITAL LOCATED AT DODDABALLAPURA, WHICH IS ALREADY THERE IN SATISFACTORY CONDITION. 2. THE CLUSTER SHOULD HAVE ONE VETERENARY HOSPITAL AT DODDABALLAPURA AND THREE CLINICS EACH AT BASETTIHALLI, PALANJOGIHALLI AND SHIVAPURA. 3. THERE SHOULD BE 6 NURSING HOMES DISTRIBUTED OVER PRIMARY AND SECONDARY GROWTH POLES. 4. 2 POLYCLINICS SHOULD BE THERE AT DODDABALLAPURA 5. 18 DISPENSARIES, 9 ANM CENTRES AND 12-15 PRIVATES CLINICS SHOULD BE DISTRIBUTED ALL OVER THE CLUSTER. 6. THE FUNDING FOR HEALTH FACILITIES BE TAKEN FROM STATE FUNDS AND 'PURA' FUNDS, NGOs AND CBOs.
	4. POST AND TELEGRAPH FACILITIES	1.THE CLUSTER HAS SUFFICIENT POST AND TELEGRAPH FACILITIES PER REQUIREMENT OF THE POPULATION. THE ONLY REQUIREMENT IS PROVISION OF POST BOXES IN THE VILLAGES.
	5. FIRE STATIONS 6. POLICE STATIONS 7. PETROL PUMPS 8. STADIUM 9. MELA GROUND 10. COMMUNITY CENTRES 11. CINEMA/ THEATRE HALLS 12. LIBRARY 13. RELIGIOUS BUILDINGS	1.THERE SHOULD BE ATLEAST 7 COMMUNITY CENTRES IN THE CLUSTER @ ONE COMMUNITY HALL FOR 40,000 POPULATION. 2.NINE MORE POLICE CHOWKIES IN NINE VILLAGES 3. THE REST OF COMMUNITY SERVICES ARE UPTO SATISFACTORY LEVEL. 4.THE FUNDING FOR COMMUNITY SERVICES CAN BE PARTLY BEARED BY 'PURA' SCHEME AND PARTLY BY OWN FUND OF PANCHAYATS

Table 40: Proposals for Strategy II
Source: Planning Commission, Compiled by Author

(C) STRATEGY III: PROVISION OF COMMERCIAL FACILITIES

COMPONENT OF 'PURA'	PROPOSALS BY PLANNING COMMISSION	PROPOSALS BY AUTHOR
COMMERCIAL INFRASTRUCTURE	PROVISION OF MARKETS AND IMPROVED CONNECTIVITY TO CITY MARKETS	1. PROVISION OF SHANDY AREAS FOR DAILY SELL AND PURCHASE OF LOCAL PRODUCTS IN EACH VILLAGE. 2. AT SECONDARY GROWTH POLES THE SHANDY AREAS SHOULD BE BIGGER TO PROVIDE SPACE FOR WEEKLY MARKETS. 3. AT PRIMARY GROWTH POLE THERE SHOULD BE SHOPPPING COMPLEXES AND LARGE SCALE MARKETING FACILITY FOR THE WHOLE CLUSTER. 4. COLD STORAGES SHOULD BE CONSTRUCTED AT PRIMARY AND SECONDARY GROWTH POLES FOR STORAGE OF EXCESS PRODUCES. 5. RURAL BANKS AND CREDIT CO-OPERATIVE SOCIETTIES ARE TO BE ESTABLISHED FOR BENEFIT OF THE VILLAGERS. 6. SINCE COMMERCIAL INFRASTRUCTURE INVOLVES FAST DIRECT RETURNS, PRIVATE INVESTORS CAN BE INVITED FOR ITS IMPLEMENTATION.

Table 41: Proposals for Strategy III
Source: Planning Commission, Compiled by Author

(D) STRATEGY IV: ECONOMIC REGENERATION

COMPONENT OF 'PURA'	PROPOSALS BY PLANNING COMMISSION	PROPOSALS BY AUTHOR
ECONOMIC REGERATION	1. EMPLOYMENT GENERATION	1. STRENGTHENING OF SSIs AND HHIs THROUGH MORE FUNDING, PRIVATISATION, ADDITION OF SKILLED LABOUR, INCREASING PRODUCTIVITY WILL LEAD TO WIDENING OF INCOME OPPURTUNITY, ULTIMATELY LEADING TO MORE EMPLOYMENT GENERATION. 2. THE VILLAGERS CAN BE TRAINED WITH CONSTRUCTION ACTIVITIES AND CAN BE EMPLOYED FOR DEVELOPMENT OF CLUSTER UNDER NFFWP IN CONSTRUCTION OF BUILDINGS, ROADS ETC. 3. NGOs CAN TRAIN THE VILLAGERS WITH ENTERPRENUERAL SKILLS TO START THEIR OWN BUSINESS.

	2. WOMAN EMPOWERMENT	1. WOMAN IN THE CLUSTER CAN BE EMPOWERED BY ENDOWING THEM WITH VOCATIOAL SKILLS BY NGOs TO HELP THEM TO SET UP THEIR OWN BUSINESS.
	3. INCREASING EXPORT OPPURTUNITIES	1. THE IMPROVED CONNECTIVITY OF THE CLUSTER WILL OPEN UP BIG MARKETS IN THE BANGALORE CITY FOR ITS PRODUCTS. THIS INCREASED EXPORT OPPURTUNITY WILL INCREASE INCOME DIRECTLY.

Table 42: Proposals for Strategy IV
Source: Planning Commission, Compiled by Author

(E) STRATEGY V: FUND MECHANISM

E.1] COST ESTIMATE

Sl No	Particulars	Requirement (nos.)	Cost/ Unit (Rs)	Amount (Rs. In Lakhs)
1	Housing (nos.)	350	20000	140.00
2	Electricity & street lighting		LS	20.00
3	Constn. Of Anganwadi bldg.	14	150000	22.00
4	School & Education			
	Construction of additional rooms (each of built up area of 200ft)	6	75000	4.50
	Toilet block	10	10000	1.00
	Compound wall	1,250	300/rft	3.75
	Audio visual equipment & Computer	8		8.0
	Electrification of school bldg.	LS		3.00
5	Construction of individual latrines, pipe line & septic tank	LS		36.00
6	Development of internal roads (Kms.)	30		330.00
7	Construction of BS slab side drain (Km)	38.5		110.00
8	Borewell with necessary accessories	LS		10.00
9	Over Head tank (50,000 llts capacity) with necessary pipe line for distribution of water	8	1000000	80.00
10	Primary Health care centre	10	500000	50.00
11	Upgradation of ANM Subcentre	3	LS	15.00
12	Community Hall (nos)	5	500000	20.00
13	Creation of Internet & computer services	9	200000	18.00
14	Creation of Shandy platform	9	400000	36.00
	TOTAL			**907.25**

Table 43: COST ESTIMATE OF THE PROJECT *Source: Compiled by Author*

E.2] FINANCIAL PATTERN

The total cost of the project is nearly 9.1 crore, whereas the funds released by the Central Government for implementation of 'PURA' scheme is only 3 crore. The rest of the funds are arranged from the dovetailed programmes under 'PURA' scheme (Chaper1&2) and by taking loans from techno financial organisations like CIDCO, HUDCO etc.

E.3] PHASING OF THE PROJECT

PHASE I	PHASE II	PHASE III
5.21 CRORES	1.3225 CRORES	2.54 CRORES

Table 44: Funds released in three phases of implementation
Source: Compiled by Author

The strategy formulation and fund mechanism alone can never make a project successful until and unless the project is implemented and monitored properly. So, the next chapter deals with project implementation and monitoring.

7.3] PROJECT IMPLEMENTATION

7.3.1] Involvement and commitment of villagers

The infrastructural requirement proposed under 'PURA' Scheme such as housing, sanitation, improvement of roads, health facilities, school and education system, providing IT services, marketing facilities for agricultural produce, opportunity for self employment would be created with the involvement of the villagers.

To utilise the under utilised manpower resources in the rural areas and to direct these resources towards development of infrastructural requirement, to create awareness among the beneficiaries to provide psychological satisfaction, avoiding a middle man's role n any areas, it is proposed to introduce self help and mutual help concepts in the implementation of the 'PURA' Scheme.

7.3.2] Involvement of voluntary Organization:

in order to have desired impact of the 'PURA' scheme, efforts would be made to bride the gap between the target group and bureaucracy. Involvement of voluntary organization in the implementation of such projects would be very supportive. The NGO could play a vital role in the areas of dissemination of information, creating awareness among the villagers and organizing people and their involvement, training and motivation.

7.3.3] Selection of established construction agency

Since the project has construction works, mainly, an established construction agency could be selected for construction of various infrastructure facilities in the Cluster Villages.

8.2] PROJECT MONITORING

The identified NGO will work in close association with Taluk Panchayat, selected construction agency and respective line of departments. The monitoring review committee of 'PURA' scheme would consist of the following members:

1. Chief Executive Officer, Zilla Panchayat, Bangalore Rural District - Chairman
2. Monitoring Officer of identified NGO - Member
3. Managing Director, Construction agency - Member
4. Representatives of respective line of departments
   In the Taluk, viz. Agriculture, Horticulture,
   Department of Women & Child Welfare, KPTCL,
   PWD, Health, ZP Engineering division, APMC,
   Education Department, Telecom Department, IT
   Department etc. - Member
5. Executive officer of Taluk Panchayat -Member Secretary

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ANNEXURE

PRIMARY SURVEY PROFORMA

1. Distance from Doddaballapura town:

2. Population:
Male: **Female:** **SC:** **ST:**
Total work force:
Male: **Female:**
Decadal growth rate:
Literates:
Male: **Female:**

3. Total geographical area:
4. Total cropped area:

5. Occupational structure:
Farmers: **Labourers:**
HHI workers: **Others:** outside)

6. Income level- BPL:

7. Major crops production in Quintals:
Ragi: **Tur:** **Maize:**

Paddy: **Arhar Dal:**

8. Total Number of households:

9. Houses built under different schemes:
Ashraya Scheme:
Ambedkar Scheme:
Indira Awas Yojna:
Others:

10. Percentage of electrification:
Number of houses electrified:
Availability of street lights:

11. Protected water supply in numbers:
MWS:
Hand Pumps:
Pipe water Supply:

12. Total number of telephone connections:

13. Road connectivity:
MDR (Km):
NH (Km):
SH (Km):

Village roads (Km):

14. Education:
Anganwadi:
Lower primary (upto 4th):
Higher primary (upto 7th):
Junior College & Degree College:
Professional College:

15. Health facilities:
Private clinics:
ANM subcentre:
Family welfareunit:
Primary health unit:
Primary health centre:
Vetereanry clinic:

16. Marketing facility:

17. Industries:
SSI:
Cottage Industries:
Dairy unit:

18. P&T facility:

19. Internet facility:

20. Sanitation system:
Individual latrines:
Community toilets:
Number of soak pits:

21. Presence of drainage:

22. Presence of Irrigation channels:

23. Entertainment facility:
Cinema:
Drama theatres:
Stadiums: