

Report Of Spatial Planning In Gram Panchayats
Ministry Of Panchayati Raj,

Govt. Of India



By School of Architecture and Planning
KIIT University , Bhubaneswar



Acknowledgement

School of Planning and Architecture , KIIT University is immensely grateful to Ministry of Panchayati Raj (MoPR), Government of India for its sustained support to the research. We thank Shri Sunil Kumar, IAS, Hon'ble Secretary, MoPR and Mr. K. S. Sethi, IAS, Joint Secretary, MoPR for reposing confidence in us by entrusting us with such a prestigious project. We appreciate the support provided from time to time by Shri D K Singh, Principal Secretary, Panchayati Raj and Drinking water Department, and Smt. Swayamprava Mohanty , Joint Secretary, Government of Odisha and thank them for their cooperation and sharing necessary information with us.

We owe a lot to National Informatics Centre (NIC) and National Remote Sensing Centre (NRSC) especially Dr Y K Srivastava , Sr Scientist ,NRSC for always being there for us during the mobile survey and providing the relevant maps.

We are deeply indebted to Sh. Bhagyadhar Nandi, Gram Panchayat Sarpanch of Pratapsasan for making himself available whenever we had visited or called him and providing all the necessary information. He also contributed a lot in facilitating stakeholder discussions in the village. We thank the all the Gram Panchayat officials for sharing their vision with us .

We are thankful to our Hon'ble Founder of KIIT University ,Dr Achyuta Samanta , Member of Parliament for supporting us in this endeavour.

Last but not the least, we are thankful to all our project associates for their continuous support in household surveys, mapping, and data compilation throughout the Project period.

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Executive Summary

After the introduction of Census Town in 2001 by the Census of India, urbanisation has spread to rural areas as well, especially in terms of land use conversion of rural areas from that of agriculture to non-agricultural areas. This necessitated land use plans for the rural areas of India.

The earlier 73rd Constitutional Amendment Act though brought in the XI Schedule for planning of all aspects such as social, agriculture, environment etc, but short of Land Use Plan in rural areas. The efforts brought in by the Ministry of Panchayati Raj, in 2020 to attempt to develop land use plan for the rural areas of India integrated into the Gram Panchayat Development Plan is towards the organised land use plan for the rural areas on line of urban areas.

In 2016, Ministry of Panchayat Raj (MoPR) came out with a Rural Area Development and Plan Formulation and Implementation (RADPFI) Guidelines. Mainly focussed on peri-urban areas, the RADPFI came out with details of land use plan. However, it was short of linking to GPDP in terms of land use plan. The Svamitva programme of digitalisation of villages, the RURBAN MISSION are programmes that are all moving towards developing rural areas of India.

School of Architecture and Planning, KIIT University selected Pratapsasan GP ,Khorda district of Odisha State, in consultation with Panchayati Raj and Drinking water Department, Odisha. Here, we present the detailed Spatial Village Development Plan for Pratapsasan in Baliana Community Block, Khorda District. Being located, just off the Bhubaneswar Puri National Highway(316), Pratapsasan has been experiencing rapid spatial changes .

Pratapsasan is traditionally known for its Brass and Bell Metal Industry but now the traditional heritage is dying and needs certain incentives to revive it so that it can give good livelihood opportunities to the artisans. Hence its unique location on the tourism and handicraft trail has been leveraged to catapult the growth of the GP onto a successful trajectory of social and economic growth and sustainability.

We hope that this inclusive model of involving the growth of the residents will be a successful role model for other villages to follow suit in other parts of the state and country.

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1 INTRODUCTION

1.1 Introduction

The Indian Constitution provides three tiers administrative levels; specifically the Union Government, the State Governments, and the Local Governments (urban and rural). 73rd and 74th Constitutional amendment act have created the third tier of local governance in urban and rural areas. The Eleventh and Twelfth schedule (Article 243G and 243W) of the constitution explain the jurisdiction of rural Governments (called Panchayats) and Urban Governments. The jurisdiction of rural Government includes agriculture, agricultural extension, rural housing and poverty alleviation programmes; while the jurisdiction of urban Governments includes urban planning including town planning, regulation of land use and construction of buildings, water supply, sanitation and solid waste management, slum improvement and upgradation and urban poverty alleviation etc. It is a well-established norm that while urban centers, towns and cities have progressed, the rural areas in India continue to suffer the ill effect of little or low development.

The Government of India has taken substantive measures to reach out to rural India. The role of Panchayats, as the third tier of governance and the tier closest to the people, becomes significant for assisting the people. Indeed during the Covid pandemic, the Panchayats have implemented a range of preventive and protective measures in the most effective manner which also came in for special praise by the Hon'ble PM during the course of his interaction with Panchayat functionaries on the occasion of National Panchayati Raj Day on 24th April, 2020.

The State of Odisha, in recognition of the effective role of Panchayats, has delegated the powers of the District Magistrate to GP head so as to enable them to play their role in controlling the spread of Coronavirus more effectively in the days to come. A new Central Sector Scheme called Survey of Villages and Mapping using improvised technology in village areas (SVAMITVA) has been launched by the Prime Minister on the National Panchayat Raj Day. It is proposed to map the "Abadi" areas in villages using professional-grade drones to provide the citizens with Property Cards in respect of their residential assets, a deed hitherto impossible. This will not only provide the people with an actionable record of rights but also lead to the sourcing of loans against these assets from financial institutions and provide the Panchayats with a way to tax these properties and raise their own revenues. The value of the residential assets is also expected to go up, as will realisable rentals. Through the use of drone-based survey of the rural residential assets by the Survey of India under this Scheme, maps of 1:500 scale will be produced, which will improve manifold the ability of the Gram Panchayat to plan interventions accurately.

Further, the Constitution Article 243G mandates for the Panchayats to be endowed with such powers and authority to empower them for the preparation of plans for economic development and social justice within their respective areas. Therefore, it's a natural corollary for the Panchayats to be capacitated to take over the larger canvas of local economic development in all spheres amongst their constituent villages, much in a manner similar to the spatial developmental planning undertaken by the Urban Local Bodies in the country. This potential for rapid economic development is particularly high in those Panchayats which are located on the National or State Highways. Up till now, the rural communities have not been able to fully exploit the vantage position offered to these villages in terms of high volume of traffic flow (cars, trucks etc) along these arterial highways and potential for commercial development of land along the NHs and SHs. Frequently, entrepreneurs from nearby urban areas have instead exploited the potential through the mushrooming growth of motels, hotels, restaurants and entertainment spots.

As already stated, the Panchayats constitute the third tier of government in the rural areas and have been specifically mandated by Article 243G of the Constitution for planning for economic development and social justice within their respective areas. However, in their present setup, the Panchayats neither have the means nor the capacity to undertake such an effort. Land is the most important natural resource which is indispensable for development activities and for meeting the social, economic and ecological requirements and aspirations of the people. Therefore, to begin with, if the Panchayats are to do any meaningful planning for economic development within their geographical jurisdiction, it is important for them to envision and correlate economic development with land use classification, both present and for the future.

1.2 Vision of Gram Panchayat Spatial Development Plan (GPSDP)

The Gram panchayat Spatial development plan for the Panchayat will act as the levers for

- ❖ Managing growth and change;
- ❖ Providing for orderly and predictable development;
- ❖ Protecting environmental resources;
- ❖ Setting priorities for developing and maintaining infrastructure and public facilities;
- ❖ Strengthening local identity;
- ❖ Creating a framework for future policy decisions;
- ❖ Promoting open, democratic planning;
- ❖ Providing guidance to land-owners, developers, and Government authorities

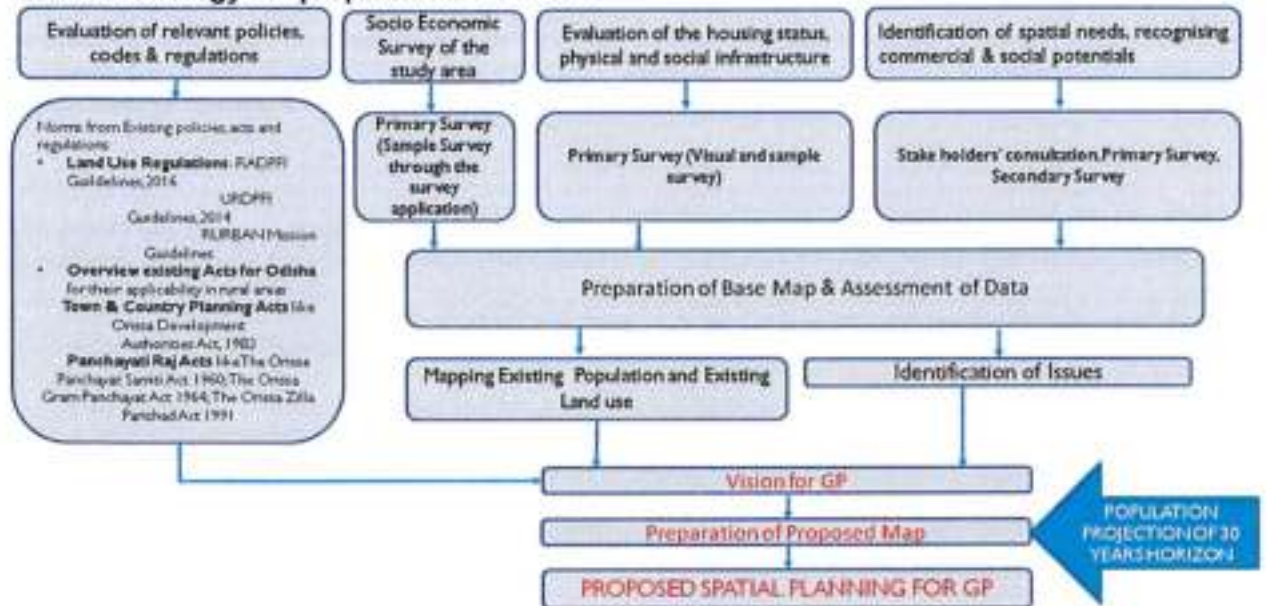
Well-designed rural communities and areas are places where people want to live and invest in the future. Therefore, there is a need for a scientific and orderly disposition of land resource, which would in turn foster economic development, and contribute to the ease of living. Community cohesion and pride would also manifest into improvement in quality of life.

1.4 Project Objective

Under the principal objective of preparation of Gram Panchayat Spatial Development Plan for rapid economic development of the GPs, the Specific objectives are:

- ❖ Assesment of socio-economic status of the study area.
- ❖ Evaluation of the housing status, physical and social infrastructure of the project area.
- ❖ Evaluation of relevant policies, codes & regulations.
- ❖ Identification of spatial needs, recognising commercial and social potentials through inclusive and participatory approach.
- ❖ Preparation of Spatial Development Plan.

1.5 Methodology for preparation of GPSDP



1.6 Data Collection Methods

Secondary Data has been collected from

1. Panchayat Office, Revenue Inspector Office, Sub Registrar Office
2. NRSA Maps
3. Government Reports on Policies, Regulations and Acts
4. Open data sources on Government Web Portals

Primary Data has been collected from

1. Panchayat Office and residents of GP
2. Visual Survey/ Reconnaissance in Field visits
3. Mobile App based Survey using GPSDP Survey developed by NRSA

Mobile App based Survey Sampling Strategy:

1. 12% of total households of GP
2. Random Sampling to represent all 18 Sahis (Settlements) present of GP

The National Remote Sensing Centre (NRSC) has come with this unique mobile application for GPSDP Survey wherein the geo locations of the respondents are captured along with their answers which can be populated on a map to know the positions.

The mobile application has been shown below:

19:43 100% 4G LTE Wi-Fi

← Start New HH Survey 1/12

Name of the Respondent *

Respondent Name

Religion

Select

Caste

Caste

Address

Address

Landmark

Landmark

Year in YYYY format

House

Select

House Rent

Waiting Location Information...

Cancel Send Later Next

2 REGULATORY FRAMEWORKS

2.1 Categorization of Villages for Planning

The census has given classification for the villages only according to their population size. No classification has been given by the Census for the rural areas on the basis of which rural areas can be categorized and used for future planning. However there is a need for categorization of the villages because the evolution of unplanned development in vicinity of urban centers in the extended *Abadi* area of the village leads to unauthorized development which later requires regularization and retrofitting. The interrelationship between metro cities and villages require the development plan for the provision of services and infrastructure. The anticipated spatial expansion of urban area makes it important to plan the rural areas in vicinity. The rise in real estate price leads to non-farm activities which require infrastructural services due to connectivity of the villages to the nearby metro city. The planning of the activities to be permitted in the fast-transforming villages needs to be decided, for making a sustainable environment in the village.

Ministry of Panchayati Raj, Government of India, has prepared the draft Rural Area Development Plan Formulation and Implementation Guidelines (RADPFI), 2016 covering various aspects of rural development including some rural land uses. The RADPFI guidelines aim to provide norms and spatial standards for making rural development plans, in synergy with the ICAP and RURBAN Mission.

The RADPFI Guidelines, 2016 has hence categorized the rural areas/villages on the basis of the following criteria:

1. Villages within Planning Area of the delineated Metropolitan area/city/town
2. Villages adjacent to corridor development
3. Villages in the interior
4. Villages according to Population Size

These guidelines focus on land use and spatial planning, formulate spatial standards for social service delivery and spatial connectivity through roads, public mode of transport and information technology. These aspects play a significant role in the process of development plan formulation while categorizing the villages/cluster, spatial planning of priority areas and preparation of annual budget. The villages are selected for spatial planning based on these categorization. As per the categorization of RADPFI guidelines, Pratapsasan GP can be categorized as a

1. Rural Area Fringe which is adjacent to a National Highway and within the urbanisable limit of Municipal Corporation. Pratapsasan is dependent on urban centre of Bhubaneswar present in vicinity, for its economic activities and growth and not only has agricultural activities but has diverse non-farm economic activities. The village character is in transition in land use, social and demographic characteristics, lying between (a) the continuously built- up urban and suburban areas of the central city, and (b) the rural hinterland, characterized by the almost complete absence of non-farm dwellings, occupations and land use, and of urban and rural social orientation. The 74th CAA, mentions about the *Transition areas* where Nagar Panchayat would be the ULB to provide for the development for areas in transition from a rural area to urban area.
2. Village dependent on tourist city centre- RADPFI defines such villages where

- At least more than 50% of population engaged in tertiary activities based on tourism in the city.
 - People commuting from village to city for daily work.
 - Villages being on the way of the existing tourism circuit, if any.
3. Villages according to Population Size- Pratapsasan falls under Class 1 category of villages as per Census 2011. The categorization given by Census 2011 is as follows:

Table 2.1-Categorisation of Villages as per Population Size.

Class Size	Population Size	Total Villages	Total Population	% of rural population	Average population	Remarks
Class I	10000+	4,682	7,23,66,805	8.68	15456	Large villages which may be purely depended on flourishing agricultural or other primary activities.
Class II	5000-9999	18,641	12,38,08,537	14.85	6642	Villages which are having population next to Class I village, and would also be urban, if near metropolitan areas.
Class III	2000-4999	96,388	28,86,37,987	34.63	2995	Medium sized villages which can be grouped together to form a cluster, if have geographical contiguity.
Class IV	1000-1999	1,39,136	19,74,96,806	23.70	1419	
Class V	500-999	1,41,761	1,032,91,220	12.39	729	Small sized villages where cluster plans

						would be feasible.
Class VI	200-499	1,14,726	39,68,3027	4.76	346	
Class VII	Less than 200	82,149	81,79,066	0.98	100	Isolated hamlet, where villages are located on hilly terrain, desert or tribal areas, and spatial plans shall be based on connectivity and sharing of resources.
	Uninhabited	43,384	-	-		
	Total	6,40,867	83,34,63,448	100.00		

Source: RADPFI Guidelines,2016

RADPFI states that 58.33% of the villages have population between 1000-5000 and are ideal for preparation of Gram Panchayat Spatial Development Plan. However, the villages having more than 5,000 population, the Spatial Development Plan can be prepared on the basis of URDPFI guidelines, 2014.

2.2 Integrating with RADPFI Guidelines

RADPFI guidelines provide a methodological framework of spatial planning at village level to ensure integrated rural development. The spatial development plan prepared for Pratapsasan Gram Panchayat is based on rural spatial standards formulated in these guidelines. Land and land use are essentially State subjects. Proper planning of land and its resources allows for rational and sustainable use of land catering to various needs, including social, economic, developmental and environmental needs. Proper land use planning based on sound scientific, and technical procedures, and land utilisation strategies, supported by participatory approaches empowers people to make decisions on how to appropriately allocate and utilize land and its resources comprehensively and consistently catering to the present and future demands. There is a need for scientific, aesthetic and orderly disposition of land resources, facilities and services with a view to securing the physical, economic and social efficiency, health and well-being of communities. The land use prescription shall form the internal component of the Spatial Development Plan. Further, how the landuses are to be regulated within the Pratapsasan Gram Panchayat and at the fringe of urban centre of Bhubaneswar

become a crucial aspect. This is backed by the fact that rural areas also needs to ensure adequate food security and hence rich fertile land need not be converted into non agricultural uses.

Table 2.2-Land Use and Associated Aspects for Built up areas under RADPFI guidelines	
Residential Residences*	Residential Residences*
Commercial/Economic	Retail shopping ,Informal Shop,Daily market, weekly, informal , regulated and specialised markets,Godowns, Storage ground
Industry	Service and Light industry(MSMEs, Household industries, agrobased industries, khadi industries, cottage industry, industries depended on indigenous raw materials and art and craft Location of SEZ and Big Industries.
Educational	School ,Anganwadis, Training Centres,Vocational Institute,College ,Skill development institute/Organisation
Health Services	Subcentre/PHC/CHC,Dispensary,Pvt. Clinic,Vetrinary Hospital/Clinic,Hospital
Utilities and Services	ATM,Credit Society,Police thana,Cremation ground/Burial ground/Crematorium Community Hall,Dharamshala,Public ToiletSocial Welfare Centre
Special Area	Temple,Heritage area,Scenic Value Area, Government Restricted Areas
Recreational	Playgrounds,Garden,Chaupal,Public open space
Transportation &Communication	NH/SH/MDR/ODR/VR,Village access roads,Railways,Bypass,Bus stand/ Railway station/Integrated Customs
Land Use and Associated Aspects for NonBuilt up areas under RADPFI guidelines	
Barren and UnCulturable use	Agricultural land/ cultivable land/ culturable land
Permanent Pasture and other Grazing land	
Land under miscellaneous tree crops	
Culturable Waste Land	Agricultural land/ cultivable land/ culturable Fallow land other than land
Fallow land other than Current Fallows	
Current Fallows	
Net Sown Area	

Source: RADPFI Guidelines,2016

Since villages often, do not have clear cut demarcated zones RADPFI Guidelines allow Gram Panchayat to modify the land use zones according to the local situation. (, For instance, there may be a household serving as a residence and a shop and a micro scale household cottage industry) However the restricted/prohibited activities which pollute the air, water and land resources in the local area are mentioned in the land-use plan. The socio cultural environment of the community in the village is considered while preparing the land-use plan.

2.3 Integrating with URDPFI Guidelines

Ministry of Urban Development adopted Urban and Regional Development Plan Formulation and Implementation Guidelines (URDPFI) in 2015, a part of which is relevant for rural development. The URDPFI Guidelines recommend a planning framework, which considers various plans to be a part of an urban and regional planning system. The suggested planning system framework is based on a hierarchy, spatial extent, scale of planning, contents of a plan and specialty. Urban and regional planning system has been divided under two heads (a) Core Area Planning and (b) Specific and Investment Planning. Core Area Planning comprises of a set of four interdependent plans (i) a long term Perspective Plan with a vision and policy orientation (ii) a sustainability based long term Regional Plan and District Plan with optimal use of regional resources for development (iii) a comprehensive long term settlement plan called development plan for urban and peri-urban areas (iv) A short term rolling local area plan within the framework of a development plan. Specific and investment planning comprises a set of three plans: (i) A rolling special purpose plan for special areas within the framework of a development plan (ii) Annual plans to translate physical and fiscal resource requirement of development and local area plans and (iii) Project or research to focus on items of execution.

According to the URDPFI Guidelines, small towns can be referred to as 'transitional towns' as mentioned in the 74th CAA where a Nagar Panchayat (as a municipality) is to be formed for an area in transition from a rural area to an urban area. These areas could include block headquarters, rural settlements with large population size implying that a cluster should be able to function efficiently like an urban area.

URDPFI Guidelines, 2014, gives definition of peri urban area as zone which is within the planning limits but outside the urbanisation limit of the municipal corporation/authority or metropolitan planning committee or authority. URDPFI suggests planning for integration of plans of such settlements through two approaches:

- The plans can be prepared by the developmental body in consultation with the village authority and implemented jointly by the village authority or developmental body,
- Village bodies may prepare the plan and such plans will be compiled and made part of overall developmental plan of the region by developmental body

2.4 Integrating with RURBAN Mission

The Shyama Prasad Mukherji Rurban Mission (SPMRM) makes provision for the preparation and implementation of an Integrated Cluster Action Plan (ICAP) for planning and development of rural areas. A rurban cluster would be a cluster of geographically contiguous villages with a population of about 25,000 to 50,000 in plains and coastal areas, and with a population of 5,000 to 15,000 in desert, hilly or tribal areas. Clusters of villages would follow administrative convergence units of gram panchayats and shall be within a single block or tehsil for administrative convenience.

Table 2.3 Proposed Model Rural Land Uses for Rurban Clusters

Land Use Category	Proposed Permitted Activities	Colour Code
Residential	Predominantly residential may house a small shop, tiny industrial unit (non-hazardous), cattle and poultry shed, small storage for own agricultural produce, and home tuition space	Yellow
Commercial	Formal commercial activities: Retail shops, market complex, godowns, storage units; grain and vegetables mandi, slaughter house. Informal commercial activities: Weekly markets, haats and space for selling cattle	Red
Industrial	Medium, small and micro enterprises (MSMEs), household industries, agro-based industries, khadi and cottage industries, small SEZ, heavy industry	Purple
Public and Semi-Public	Anganwadis, school, training institute, skill development centre, sub health centre, dispensaries, primary health centre, maternity centre, community health centre, hospital, private clinic, veterinary clinic and hospital, community hall, dharmashala, social welfare centre, bank and ATM, RO plant, cooperative and credit society, police post and station, cremation ground, burial ground, temple, mosque, church, and other religious institutions, government and private offices, panchayat ghar, chaupal, common village land, and government land	Blue
Utilities	Water (W), wastewater (S), drainage (D), solid waste (SW), electricity (E)	Grey
Transportation and Communications	National and state highway, district road, village road, cycle track, railway line, railway station, bus stand, freight complex, truck terminal, water ways, ferry ghat, transmission and communications	Dark Grey
Recreational	Park, playground and maidan or public open space	Light Green
Agriculture	Agriculture, horticulture, sericulture, animal husbandry, poultry, dairy farm, fish farming area, aqua-culture, nursery, land used for growing animal fodder, <i>gaushala</i> , and land currently being used for non-agricultural activities (tube well shed, storage space, etc.) incidental to agriculture	Light Green
Fallow land	Cattle grazing	White
Mining	Brick kiln and shallow mining, stone crushing	Light Purple
Waste land	Cattle grazing	Dark Grey
Protected Forests	Wood and fodder for cattle by local population as per government guidelines, tourism, tracking	Dark Grey
Water Bodies	River, canal, lake, well, pond, backwater, lagoon, wetland, mangroves, marshy lands, salt pans	Blue

Source: RURBAN MISSION Guidelines,2019

2.5 Integrating with State Panchayati Raj Acts and Town and Country Planning Acts

Panchayati Raj System in Odisha

The three tiers Panchayati Raj System was introduced in the state with the enforcement of the Orissa Panchayat Samiti and Zilla Parishad Act, 1959, w.e.f. 26th January 1961 which was further strengthened with the implementation of Orissa Zilla Parishad Act, 1991 w.e.f. 1st November 1993.

The major objective of the Panchayati Raj System is to entrust the people with the management of local affairs and develop their capacity for self-governance. In the three tier system of Panchayati Raj, the Panchayat Samiti functions as the inter-mediary between Zilla Parishad at district level and the Gram Panchayat at village level and each of them functions within its own jurisdiction for the development of the rural areas of the district for a normal tenure of five years. Zilla Parishad, the apex body in the district constitutes the following members. Each Panchayat Samiti in the district elects two members to the Zilla Parishad. Elected Members of Legislative Assembly and Members of Parliament from the district become the members of the Zilla Parishad.

Chairmen of all Panchayat Samities of the district, Chairman of the Municipalities/ NACs and Co-operative banks of the district, the district officers of Health, Education, Public Health, Agriculture, Forests, Works and Co-operative development become the ex-officio members of Zilla Parishad.

There is reservation of seats for scheduled caste and scheduled tribe members on the basis of proportion of their population while 1/3rd of the seat is reserved for women members including scheduled caste and scheduled tribe women. The members of the Zilla Parishad elect one amongst them as President and another as Vice President. The Collector of the district acts as the Chief Executive Officer. The Zilla Parishad, besides formulating policies for the key areas of rural development in the district, monitors and evaluates the various developmental programmes of the government, which are implemented by the Panchayat Samities in their respective areas of the district.

The Panchayat Samities, which act as the inter-mediary between Zilla Parishad and Gram Panchayats were established throughout the state in accordance with the provisions of the Orissa Panchayat Samiti Act, 1959 and its jurisdiction is co-terminous with the area of the Community Development Block. The Block Development Officer is the Executive head of the Samiti. Other Block level officers are the official members. Sarpanchs of all Gram Panchayats within the C.D. Block become non-official members of the Panchayat Samiti. The elected members of the Panchayat Samiti elect one amongst them as the Chairman and another as Vice-Chairman, of whom one must be a woman. Panchayat Samities are not only responsible for the planning, execution and supervision of all types of Governmental development

programmes in their areas but also look after the spread of primary education, management of trust and endowments etc. and all other developmental matters in their respective localities.

The Gram Panchayat at the primary level is constituted of a group of villages, which are divided into wards. The voters of each ward directly elect ward members. The voters of all the wards under the Gram Panchayat elect the Sarpanch of the Panchayat and one Naib Sarpanch is elected from amongst the ward members to look after the work of the Panchayat. This primary unit of democratic de-centralisation is the main agency to mobilize the rural manpower. Functions of the Gram Panchayat include sanitation, supply of drinking water, maintenance of ferry ghats and wells, construction and maintenance of Panchayat roads, cattle pounds, providing streetlight and implementing different agricultural schemes in the villages under its jurisdiction.

The names of the Panchayat Samities, number of Gram Panchayats and number of villages under each Panchayat Samiti in the district are given below:

Town and Country Planning Acts in Odisha

Under the Orissa Town Planning and Improvement Trust Act, 1956, provisions are made for the preparation of master plans for urban areas and setting up of urban improvement trusts. However little is given about areas beyond the urban boundaries in the state. Orissa Development Authorities Act, 1982 also provides for the development of urban and rural areas according to the plan. Development areas can be declared for the purposes of proper development of such areas under this act (Rurban Mission,2019).

There are District Planning Committees(DPC) in Odisha under the Odisha State Act No. 1282 Cuttack, October 8, 1998 where in DPCs have been constituted in 26 districts of the state with an MLA from the

district as Chairman. The function of DPC as per the State Act is

- Consolidate the plans prepared by the Panchayats and the Municipalities in the district.
- Prepare a draft development plan for the district as a whole. Review implementation and municipalities and to make such recommendation as deemed appropriate.

2.6 Norms and Standards for Planning

Norms and Standards for Infrastructure provision and construction activities are essential to promote development of amenities as well as sustainable built up environment for human habitation. There have been standards and norms in existence and enforced to a certain extent by the relevant statutory authorities in urban areas but compliance to the same in rural areas is virtually non-existent. Hence the construction activities in rural areas are by and large unregulated resulting in organic growth which is characterized by haphazard development and access to basic facilities remains a big challenge in rural areas.

2.6.1 Habitat and Commercial Planning

2.6.1.1 RADPFI Guidelines

While planning for housing in rural settlements the following factors shall be taken into consideration:

- Ecosystem and Biodiversity.
 - Topography with its direct effect on climate, likelihood of natural disasters, natural drainage, etc.
 - Identity of the place rooted in its culture and heritage.
 - Nearness and connectivity with nearby urban centers.
 - Occupation related requirements.
 - Water and Waste management.
 - Land records and Land tenure.
 - Site selected shall be conveniently approachable and suitably developed and shall not be subjected to water logging/flooding.
 - Facilities like branch of co-operative bank, a fertilizer depot, a veterinary hospital, market place and a branch of the co-operative consumer store besides facilities for educational and health care should be available within a maximum distance of 5 km from any settlement.
- Proposed Road Hierarchy

Norms for Low Income Housing development.

- Plot size : 80 m² , Minimum
- Density (Gross) : 60 plots per hectare, Maximum
- Minimum frontage : 6 m
- Ground coverage : 33percent (subject top a maximum of 50 percent)
- Floor area ratio (FAR) : 2, Maximum
- Open spaces : 1.21 hectare open space for a village with 200 houses.

2.6.2 Social Infrastructure

2.6.2.1 RADPFI

Table 2.4-RADPFI Norms for Socio-cultural Use

Category	Population server per unit	Minimum land area requirement
Crematorium	One per block	0.5 hectare
Cremation Ground	One per gram panchayat of 5000 population	400 square metres
Burial ground	5000 residents observing burial rituals in a habitation or a gram panchayat	500 square metres
Open spaces /Parks	One housing area park per 5000 population and neighborhood park for 15000	0.5 hectare and 1 hectare respectively
Playground/ Ground for fairs and festivals	One per 5000 population	1 hectare
Religious Places	5000	400 sq metres
Fire Station	2 lakh population or 10 km radius	0.6 hectare

2.6.2.1 Norms as per RURBAN Mission

Table 2.5-RURBAN Norms for Socio-cultural Use

S. No	Amenities at Village Level	Facilities	Applicable Standard	Population Range
1	Skill Development Center	Number of people employed in gainful economic activities	Minimum one person per household	1000-5000
		Number of skilled members in a household	Minimum one person per household	
2	Agriculture Services and Processing Center	Distance to agri processing services	At least one within 10 kilometre	1000-5000
		Distance to market facilities like mandis and agro markets	At least One within 5 kilometre	
3	Community Health Centre	1 for every 50,000 population		
4	Primary Health Centre (minimum 6 beds for observation purposes)	1 for every 20,000 in hilly areas and 30,000 in plain areas		
5	Health Sub centre	1 for every 5,000 in plain areas and 3,000 in hill areas		3000-5000
6	Dispensary	1 for every 5,000		
7	Veterinary Hospital	1 for every 50,000 persons		
8	Veterinary Clinic or Centre	1 for every 5,000 persons		
9	Primary School	1 for every 2,500 and within 1 km distance from every habitation		1 for 2500

10	Secondary School	1 for every 5,000		1 for 5000
11	Higher Secondary School	1 for every 7,500		
12	Number of households with at least one digital literate	At least one person per household		
13	Number of people with digital know how	At least 20 percent population		
14	Internet connectivity through fibre optic cables	Each village is connected with fibre optic network		
15	Citizen service centres at the village level	1 for every 5,000 persons or 1 per village panchayat (Gram Sabha)		1/1000
16	Access to LPG connections at the household level	Each household should have access to LPG		
17	Access to LPG distributary services at village level	One LPG agency per 1,800 households		1/2500

Table 2.6-RURBAN Guidelines for Reserving Land for Public Purposes at Village Level

S. No	Amenities at Village Level	Population Range	Area Requirements	Related Road widths
1	Skill Development Center	1000-5000	300-500	Hilly areas is $\geq 4m$ and Plain areas is $\geq 6m$
2	Agriculture Services and Processing Center	1000-5000	300-500	Hilly areas is $\geq 4m$ and Plain areas is $\geq 6m$
3	Warehouses for Cold and Dry Storage	1000-5000	300-500	Hilly areas is $\geq 4m$ and Plain areas is $\geq 6m$
4	Primary School	1 for 2500	800	Hilly areas is $\geq 4m$ and Plain areas is $\geq 6m$
5	Secondary School	1 for 5000	4000	Hilly areas is $\geq 4m$ and Plain areas is $\geq 6m$
6	Health Sub centre	3000-5000	800-1200	Hilly areas is

				>=4m and Plain areas is >=6m
7	LPG Distribution Centre	2500	100	Hilly areas is >=4m and Plain areas is >=6m
8	Common Service Centre	1000	100	Hilly areas is >=4m and Plain areas is >=6m

2.6.3 Physical Infrastructure

Norms as per RADPFI Guidelines

2.6.3.1. Water Supply

While implementing the Rural Water Supply Schemes, the following norms can be adopted for providing potable drinking water for the population. The minimum supply for areas with extreme conditions of access of water resource, 40 litres per capita per day can be set as the minimum. In addition, provision should be allowed at 30 lpcd for animals in hot and cold desert/ecosystems. With normal output of 12 litres per minute, one handpump or standpost is estimated for every 250 persons. In case of an independent habitation /hamlet /Wadi /Tola /Majra / Mohra etc, if their population is less than 250 persons and there is no potable water source within its location, one source may be provided. A rural habitation not having any safe water source with a permanently settled population of 20 households or 100 persons, whichever is more, may be taken as the unit for coverage with funds under the Accelerated Rural Water Supply Programme. However, the State Government could cover any habitation regardless of its size/population/number of households.

The above is the minimum to be provided. The recommended provision is in the range of 70-100 lpcd within walking distance of 50 metres. Individual states can adopt higher norms, supplying above 100 lpcd.

2.6.3.2 Sanitation

Proper sanitation provisions is necessary for a healthy habitat. The Swacch Bharat Mission aims to establish sanitary facilities in all houses, schools, anganwadis, places of community congregation, and for Solid and Liquid Waste Management activities through awareness generation, triggering behavior change and demand segregation.

Dwelling with individual conveniences shall have at least the following fitments:

- One bathroom provided with a tap,
- One water closet
- One nahani or sink raised from the floor with a tap.

Similarly provision of public or community toilets is to be taken up in rural areas. Public toilets are meant for floating population, i.e, for people on the move and community toilets are meant for a community that resides in the area and has a common provision of convenience. The following norms for number of seats, urinals, bathrooms and area for washing may be adopted:

Table 2.7- RADPFI norms for Sanitation

Types of toilets	Toilet seats	Bath Units	Urinal units	Clothes washing area
Community toilets	One seat per 50 users	One unit per 50	One unit per 200-300 users	4 - 5 sq. metres per 10 toilet seats; min 1.5m x 1.2 m
Public toilets near railway stations (may be used at all hours)	One seat per 100 users	One unit per 70	One unit per 300-500 users	4 - 5 sq. metres per 30 toilet seats; min 1.5m x 1.2 m
Public toilets near market place/ offices (will mostly be used during working hours)	One seat per 100 users	One unit per 50	One unit per 200-300 users	4 - 5 sq. metres per 10 toilet seats; min 1.5m x 1.2 m

2.6.3.3 Solid and Liquid Waste Management

Solid Waste: Any waste other than human excreta, urine and wastewater is called solid waste. Solid waste can be classified into two types: biodegradable and non-biodegradable. Biodegradable waste is that which can be decomposed by biological processes, for example, vegetable peel, food, farm waste, and so on. Organic waste is biodegradable and can be recycled; and Non-biodegradable waste cannot be broken down by biological processes, for example, paper, glass, metal, and so on. Though, the form of waste (both solid and liquid) generated in rural areas is predominantly organic and biodegradable yet is becoming a major problem to the overall sustainability of the ecological balance.

For e.g. it is estimated that rural people in India are generating liquid waste (greywater) of the order of 15,000 to 18,000 million liters and solid waste (organic/recyclable) 0.3 to 0.4 million metric tons per day respectively (DDWS-UNICEF, 2008). Generation of solid waste in rural areas ranges between 50 gm/cap /day and 250 gm / cap / day as mentioned below:

Rural (Peri-urban or Urban outgrowth) 150 to 250 gm / cap / day.

Rural (Remote /Tribal) 50 to 150 gm / cap / day.

Liquid Waste: Liquid waste is water which has been used once and is no longer fit for human consumption or other uses where clean water is required. Broadly, there are two types of liquid waste or wastewater :

- Black water is wastewater from toilets containing fecal matter, and
- Gray water or sullage is wastewater from bathrooms or kitchens. Gray water generally contains fewer pathogens than black water.

The waste management in rural areas can be initiated through sensitization and cooperation of people. The process of waste segregation and collection is to be encouraged for a collective disposal and treatment. Inorganic wastes can be recycled locally or can be collected to be sold off for recycling. The various ways to manage solid waste, one of them is as follows:

Composting: Decomposition of organic waste is a natural process. Rural waste generation is largely organic in nature and can be put to an organized method of producing compost manure.

There are following options for composting of wastes:

- Pile method of Composting
- NADEP Method

One hectare of composting site can handle 83.33 tonnes per day. A composting site for biodegradable waste collected in the village can be accordingly built on a site away from the habitation as well as water body, close to the agricultural fields, where the manure generated can be put to use. The **non biodegradable** waste generated of some value like , paper, plastic , metal can be sold off through the central recycling chain through scrap dealers. In spite of composting, re-use and recycling, some waste remains untreated/unmanaged which requires final disposal, either by incineration or by **land filling**.

Gram Panchayat can organize themselves to construct and maintain landfill. Gram Panchayat may make use of Youth Club members/Women Self Help Groups.

Selection of Landfill Site: Gram panchayat in consultation with Zilla Parishad/ BlockPanchayat (as the case may be) should select the landfill site which should be:

- Located at the outskirts of the village
- Accessible
- On vacant/uncultivated land
- Located in the natural depressions with slight slopes
- Site should be such as to avoid surface water and ground water pollution.

2.0.1.1 Norms as per RURBAN Mission

Table 2.8- RURBAN Mission Norms for Physical Infrastructure

Components	Facility	Applicable Standard	SLB (per cent)
Sanitation	Individual household toilets	One in every household	100
	wastewater collection network, Collection of wastewater	Should be there	50
	wastewater treatment facility	One for 25,000 people in a rural cluster	50
Piped water supply	Household water supply	One connection per household	100

	connections		
	Per capita supply of water	70 Litres Per Capita Per Day	100
	Duration of water supply	A minimum of two hours uninterrupted water supply every day	100
	Quality of water Supplied	pH value 6.5 – 8.5; E. Coli is nil; TDS less than 500.	100
Solid Waste Management	Household level coverage	Door to door collection	50
	Efficiency of collection of solid waste	Coverage of all households	50
	Extent of segregation	Bio degradable and non biodegradable	50
	Extent of scientific disposal	Landfill sites	50

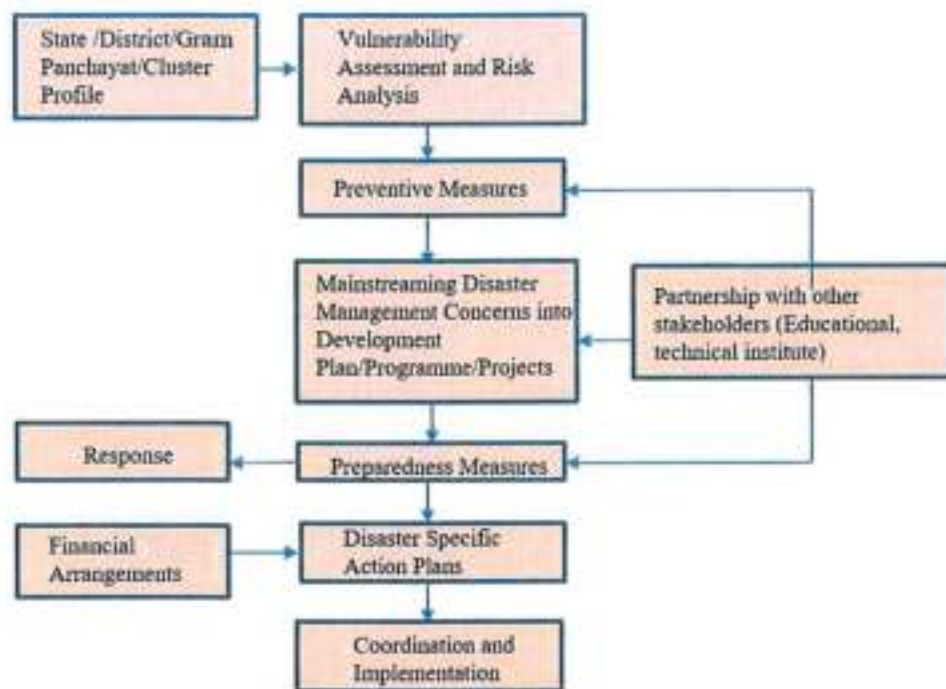
2.6.4 Disaster Management

2.6.4.1 RADPFI

The Village Disaster Management Plan (VDMP) emphasizes the local level as the first line of response, since communities are often the most familiar with local sources of risk and the first on the scene after disaster strikes. It can be used to tap human and material resources in the aftermath of a disaster and describe the roles and responsibilities of the concerned officials and teams related to that village.

Development of Village Disaster Management Plan is the most important ingredient in implementing Community Based Disaster Risk Management in any area. It refers to a list of activities a village agrees to follow to prevent loss of life, livelihoods and property in case a disaster .It also identifies in advance, action to be taken by individuals in the community so that each one knows what to do when a disaster strikes or when a warning is received. The main objective is to empower the community to deal with disasters on their own as a way of life. The following figure shows the process of disaster management.

Fig 2.1- Process of Disaster Management



(Source: NDMA Guidelines, Preparation of State Disaster Management Plans)

Prevention Preparedness and Mitigation Measures

Prevention consists of actions that reduce risk from natural or manmade disaster incidents. It is required to list and elaborate all types of measures (like - building codes, floodplain management, storm water management, coastal area zoning and management plan, etc.) – planned and implemented by the districts as a part of prevention measures. It is good to have long term mitigation goals in place and connect these goals with measures that district has planned and implemented.

These goals may include (but not limited to):

1. Provide better early warning methods for flood, storms, cyclone
2. Reduce the destruction and loss of life within buildings
3. Provide for safer environments for transportation systems
4. Eliminate flooding in populated areas
5. Ensure redundant water supply systems
6. Reduce environmental degradation and restoration of livelihood
7. Reduce effects of the natural environment on the infrastructure
8. Ensure redundant power systems on critical facilities
9. Ensure adequate materials available for road maintenance

Protection reduces or eliminates a threat to people, property and the environment. Primarily focused on adversarial incidents, the protection of Critical Infrastructure and Key Resources (CIKR) is vital to local habitations, national security, public health & safety and economic vitality. Protection includes actions or measures taken to cover or shield assets from exposure, injury or destruction. Protective actions may occur before, during or after an incident and prevent, minimize or contain the impact of an incident.

Mitigation, with its focus on the impact of a hazard, encompasses the structural and non-structural approaches taken to eliminate or limit a hazard's exposure; impact on people, property and the environment. Besides flood proofing, river desiltation, change in land use pattern and shelter belt plantation.

Examples of mitigation activities also include:

1. **Town Planning Act:** Planning, adopting and enforcing stringent building codes, flood-proofing requirements, seismic design standards and cyclone wind-bracing requirements for new construction or repairing existing buildings.
2. **Zoning Regulations:** Planning and adopting zoning ordinances that steer development away from areas subject to flooding, storm surge or coastal erosion.
3. **Development Control Regulations:** Incorporate the disaster management concerns into development. This should include all Government Sponsored Developmental Programs and Schemes.
4. **Undertaking retrofitting** work on public buildings to withstand ground shaking or cyclone-strength winds.
5. **Specificity of disaster:**
6. **Land use regulation:** Planning and building community shelters and cyclone safe rooms to help protect people in their homes, public buildings and schools in hurricane and tornado-prone areas.
7. **Safety norms** for economic and social infrastructures including places of worships and crowd management: Steps taken for developing and implementing public safety norms for critical infrastructures and places of worships.
8. **Capacity Building for Mitigation:** Steps taken for human resource development and capacity building for effective disaster mitigation at District Level.
9. **Awareness generation** on disaster mitigation.

For further information National Disaster Management Guidelines and Handbook for Effective Disaster Management at Micro Level- NDMA&IGNOU, can be consulted.

6.6.3.3 Roles and Responsibilities at local level

Local Authorities have the following duties:

- i. To provide assistance to the District Collector in disaster management activities.
- ii. To ensure training of its officers and employees and maintenance of resources so as to be readily available for use, in the event of a disaster.
- iii. To undertake capacity building measures and awareness and sensitization of the community
- iv. To ensure that all construction projects under it conform to the standards and specifications laid down.
- v. Each department of the Government in a district shall prepare a disaster management plan for the district. The local authorities need to ensure that relief, rehabilitation and reconstruction activities in the affected area, within the district, Block, Cluster and Gram panchayats are carried out.
- vi. Trust / Organisations managing Places of Worships & Congregation
 - a) Each establishment / organisation identified as —critical infrastructure and key resource in a Gram Panchayat or cluster.
 - b) Including places of congregation in a Gram Panchayat shall prepare —on-site and —off-site disaster management plan.
 - c) Carry out mitigation, response, relief, rehabilitation and reconstruction activities.

Community Groups and Volunteer Agencies:

- i. Local community groups and voluntary agencies including NGOs normally help in prevention and mitigation activities under the overall direction and supervision of the DDMA or the Collector.
- ii. They should be encouraged to participate in all training activities as may be organized and should familiarise themselves with their role in disaster management.

3 CONTENTS OF THE GRAM PANCHAYAT SPATIAL DEVELOPMENT PLAN

Rural development is the main pillar of state development. Rural Orissa has lagged behind in development because of many historical reasons. The thrust of policies and programmes of Panchayati Raj department is on all round economic development and social justice through empowerment. The activities of Panchayati Raj Department can be classified into following categories:

Poverty Amelioration Programme

Orissa's poverty is an enigma for planners and administrators. The state is endowed with rich natural resources in form of vast mineral deposits, forests, fertile land, plentiful surface and ground water resources, long coastline and picturesque tourist potential. But such resources have not been exploited adequately to raise the PQLI of people. Poverty eradication strategy therefore has to be a combination of natural and human resources management. This programme has four major components and these are :

1. Wage-employment Programme.
2. Self Employment Programme.
3. Housing for the poor.
4. Development of Rural Infrastructure.
5. Marketing initiative through ORMAS.

3.1 Panchayati Raj Institutional setup in Odisha State and its linkages

Orissa Grama Panchayat Act was enacted in the year 1948. Subsequently in the year 1961, 3 tier system of Panchayati Raj Institutions was introduced in Orissa. Over the last 50 years Panchayati Raj Institutions have emerged as the powerful institutions in bringing about rapid and sustainable development and socio-economic transformation in rural Orissa. It has an integrated prospective towards improving the quality of lives of rural people and ensuring equity and effective peoples' participation. 73rd amendment of the Constitution has conferred constitutional status to Panchayati Raj Institutions.

The Provisions of Panchayats (Extension to Scheduled Areas) Act aims at empowering Panchayati Raj Institutions in Scheduled areas for economic development and social justice. In the year 2002, election to 3 tier of Panchayati Raj Institutions held in conformity with 73rd amendment and PESA thereby empowering tribal people as envisaged under the PESA. The Government have the obligation to bring up Panchayati Raj Institutions as Institutions of Self - Government as per 73rd amendment of the Constitution of India 1992. 73rd Amendment marks a new era in the federal set up of the country and provides constitutional status to the PRIs.

The prime objectives of the three tiers Panchayati Raj System are to eradicate poverty, uplift standard of living of people in the rural areas, and bring about a healthy society by creating awareness for hygiene, sanitation and eradication of illiteracy. The state has established a State Election Commissioner to conduct the election of PRIs. The 73rd amendment of the Constitution mandates Government to endow the Panchayati Raj Institutions with such powers and authority as may be necessary to enable them to function as institutions of self-Government. It also provides that powers and responsibility shall be devolved upon PRIs subject to such conditions

as may be specified therein, with respect to the preparation of plans for economic development and social justice and implementation of schemes for economic development and social justice as may be entrusted to them including those listed in the 11th Schedule.

Odisha at a Glance:

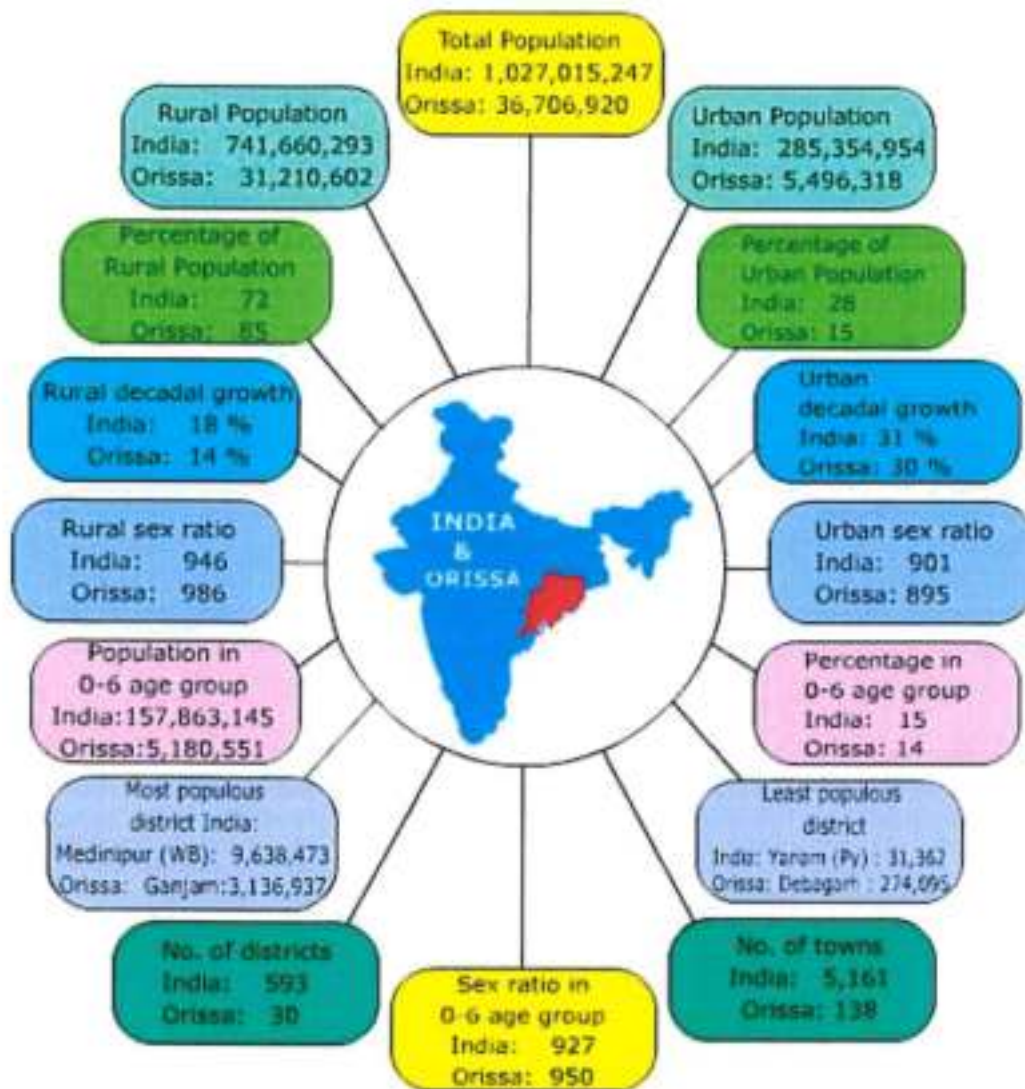


Fig 3.1- Odisha at a glance

Basic Services

Panchayats at village levels are expected to perform certain obligatory functions to provide basic services to all the people living in the area. Gram Panchayats in Orissa have been empowered to levy taxes and manage community assets created out of different poverty eradication and area development schemes. They as constitutional bodies represent the model of community participation and social empowerment. Basic services among others include:

1. Primary education
2. Primary health
3. Safe Drinking water
4. Sanitation and street lighting
5. Environment protection
6. Common property resources (CPR) management

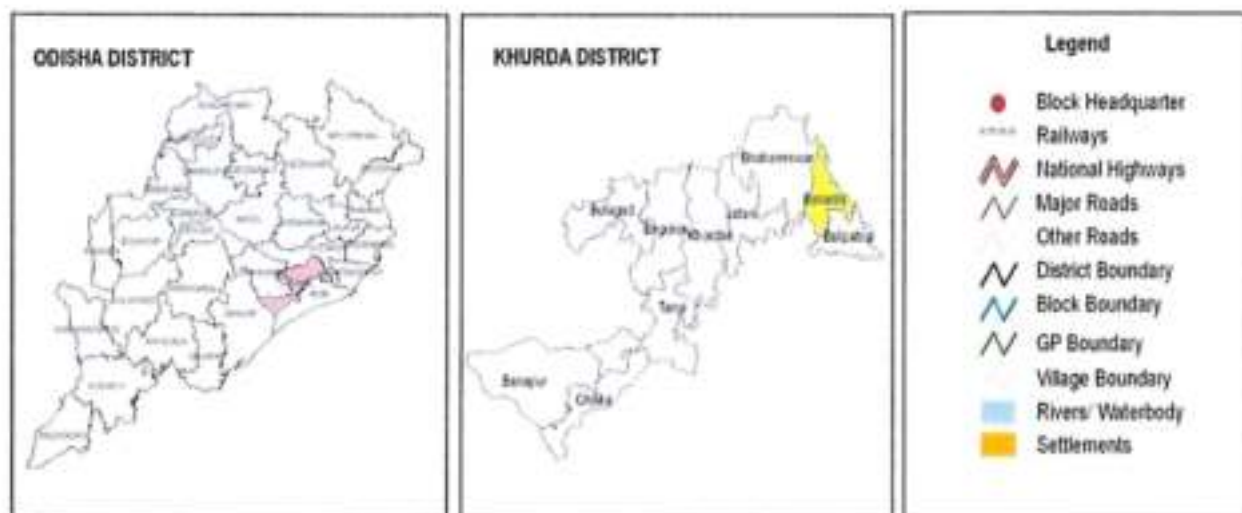


Fig 3.2- Location of Baliantha Block and Khurda District in Odisha State

3.1.1 Khorda District

The District Khordha came in to existence on 1st April 1993, by dividing it off its earlier Puri district. Puri was divided into three districts Puri, Khordha and Nayagarh. The geographic location of khordha district stands at 19degree 55minutes to 20 degree 25minutes North Latitude and 84 degree 55minutes to 86 degree to 5minutes East Longitude. Its bioclimatology is much influenced for the short radial distance from the Bay of Bengal and presences of a huge water body like the Chilika Lake. The district enjoys normal 1408mm with maximum and temperature 42.2 degree Celsius and 11.1 degree Celsius respectively. Similarly, the mean relative Humidity ranges from 46% to 89% .It is situated in the East & Southeastern costal plain and the agro-climatic zone blessed with sandy-loam, Lome, clay-lome and clayey soil in varied agro-eco system. Khordha into two district sub-regions one is Deltaic Alluvium sub-region which comprises of 3 blocks Baliantha, Balipatna and Chilika Whereas Banpur, Begunia, Bhubaneswar, Bolagarh, Jatni, Khordha & Tangi belong to Lateritic sub-region.

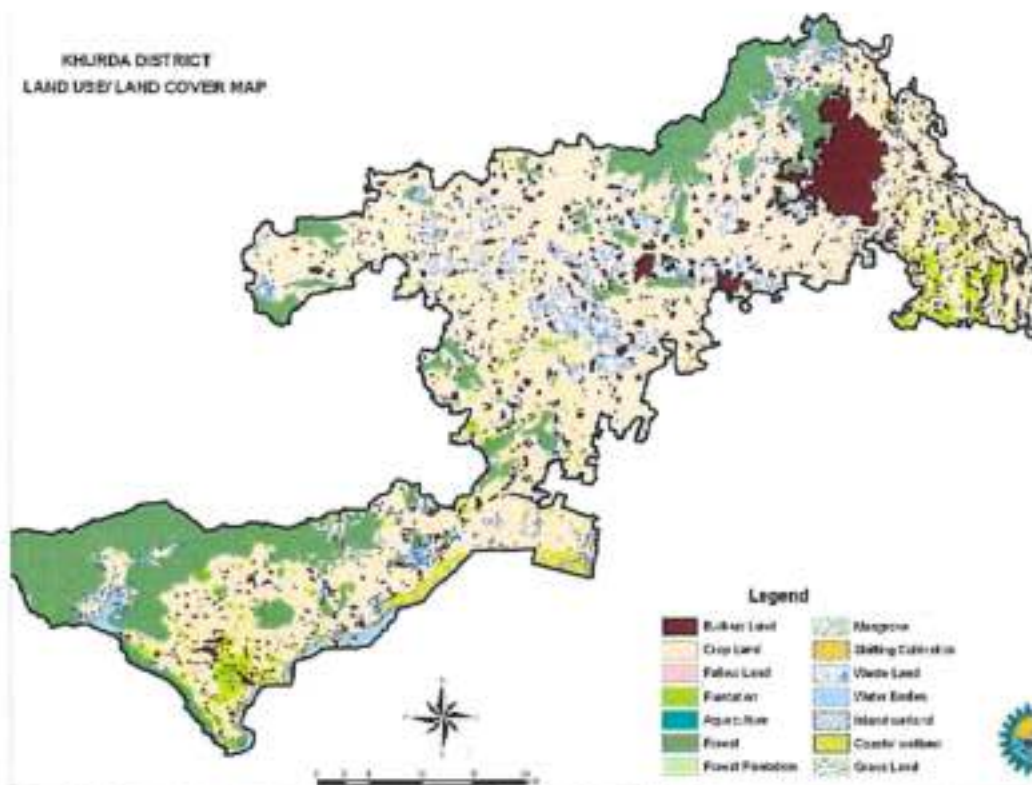


Fig 3.3- Land Use Land Cover Map of Khurda District

3.1.2 Baliana Block

There are 16 panchayats with 97 villages in Baliana block. This Block started functioning w.e.f. 01.06.1960 and passing stage-I period from 1.6.1960 to 31.5.1970. The Block has entered into stage-II period from 1.6.1970. This Block is functioning in its own building at Garhsrirampur village of Umadei Brahmapur Grampanchayat with a distance of 8 K.M from Bhubaneswar and 40 K.M from District Head quarter Khordha. The river Kuakhai flows in west side and the river Kusabhadra flows in North side. The Balipatana Block situated in the East side and the river Bhargabi flows in the south side. Historical places like Jayadev Janmapitha at a distance of 20 K.Ms and 64 Yogini Pitha, Hirapur at distance of 3 K.Ms are situated from Block head quarter. The geographical area of this block is 37505 Ac with 15 nos of GPs and 97 nos of Revenue villages.

Allocation of Business:

- a) Chairman: The executive authority of the Samiti is vested in the Chairman.
- b) Block Development Officer (B.D.O): The Executive officer of the Samiti.
- c) To Supervise and Monitor Implementation of Wage Employment and Anti-Poverty programmes.



Fig 3.4- Location of Pratapsasan GP in Baliana Block, Khurda District

Duties to be performed to achieve the Panchayati Raj Mission:

- a) To plan and execute development programmes, scheme & works relating to Community Development.
- b) Management, Control and Spread of Primary Education in the Block area.
- c) Management & Control of the Public Distribution.
- d) To provide Social Security to Weaker Section.
- e) To provide Wage Employment with the Goal of Reducing unemployment and under employment to a negligible level and to provide food security against hunger and to create durable assets.

Details of Services Rendered:


- a) Rural connectivity.
- b) Rural housing for BPL families under IAY.
- c) Creation and improvement of water bodies.
- d) Distribution of OAP/ NOAP/ ODP/ WP.
- e) Sponsoring loan application under income generating scheme.
- f) Training program for Swarojgari.
- g) Construction of school/ Anganwadi building, etc.
- h) Overall development in all sections.
- i) Providing job to job seekers regd. under MGNREGS.
- j) Distribution of Pre-Matric Scholarship of SC & ST Students
- k) Rural housing under "MOKUDIA" yojana to rural poor.


3.2 Current Flagship programs of Govt. of India and Odisha Govt. in Pratapsasan


The **Mahatma Gandhi National Rural Employment Guarantee Scheme** is a "People's Act" in several senses. The Act was prepared through a wide range of consultation with people's organizations. Second, the Act addresses itself chiefly to working people and their fundamental right to life with dignity. Third, the Act empowers ordinary people to play an active role in the implementation of employment guarantee schemes through Gram Sabhas, social audits, participatory planning and other means. More than any other law, MGNREGA is an Act of the people, by the people and for the people.


MGNREGA calls for the formulation of a Rural Employment Guarantee Scheme (REGS) by each State Governments within six months of the date of commencement of the Act. The purpose of the Scheme is to give effect to the legal guarantee of work, by providing at least 100 days of guaranteed employment to every rural household whose adult members volunteer to do unskilled manual work subject to the conditions of this Act. Each Rural Employment Guarantee Scheme is required to have the minimum features specified in Schedule I and Schedule II of the Act.


Name of the Programme	Objectives	Implementation Strategy
<p>Mahatma Gandhi NREGS</p> 	<ul style="list-style-type: none"> • To provide 100 days guaranteed wage employment to each household in a village with in a financial year who volunteers to do unskilled manual work. • Creation of durable income generating assets • Prevention of rural-urban migration • Enhancement of livelihood security ensuring social implementation. 	<ul style="list-style-type: none"> • Approval of Action Plan through Palli Sabha & Grama Sabha. • Registration of name in GP to set job card. • Application to GP/PS & other executing agency to provide work. • As per MGNREGS guideline. • Convergence with other flagship programmes • Convergence with line department programmes


Name of the Programme	Objectives	Implementation Strategy
<p>DAY-NRLM</p> 	<ul style="list-style-type: none"> • To enhance the socio economic condition of the rural poor through promotion of sustainable community based institutions. • Mobilization of targeted poor through SHG, Federation & CLF / GPLF. • Creating effective institution platform for increase of household income of rural poor. 	<ul style="list-style-type: none"> • Implemented through DPM / BPM Block livelihood coordination of OLM. • Convergence and Partnership

Name of the Programme	Objectives	Implementation Strategy
<p style="text-align: center;">DDU-GKY</p> 	<ul style="list-style-type: none"> • Skill enhancement in various trades for the rural youth 18-35 years across the state through vocational training • Promotion of entrepreneur development programme through RSETI. • To create a cadre of skilled rural youth for better livelihood through assured job linked placement after successful completion of training. 	<ul style="list-style-type: none"> • Implemented by ORMAS through empanelled Project Implementing Agency for different vocational training.

Name of the Programme	Objectives	Implementation Strategy
<p>Rural Housing Schemes :</p> <p style="text-align: center;">PMAY (G) (Central Scheme)</p> 	<ul style="list-style-type: none"> • To provide pucca house with basic amenities to all houseless and households learning in kutcha and dilapidated house in Rural areas. 	<ul style="list-style-type: none"> • Work order is given to the beneficiaries as per the approved list of SECC 2011 beneficiary approved in the Grama Sabha • Unit cost of house Rs. 1.30 in IAP and Rs. 1.20 in non IAP District which will be given in 4 installments. • IHHL must be constructed in the house. • Convergence with MGNREGA and SBM

Name of the Programme	Objectives	Implementation Strategy
<p style="text-align: center;">BPGY (State Scheme)</p> 	<ul style="list-style-type: none"> • Destitute & homeless beneficiaries who have not received house in the PMAY (G) scheme through they are eligible to get house. • House Guttled people, Flood damaged affected beneficiary nodal nuxule affected beneficiary. 	<ul style="list-style-type: none"> • Extra 95 days wage in IAY & 90 days in non IAY district employment is provided to a beneficiary. • Incentive is given for early impletion of house.

Name of the Programme	Objectives	Implementation Strategy
<p style="text-align: center;">FCA (14th CFC & 4th SFC)</p> 	<ul style="list-style-type: none"> • Show of tax revenue of State Govt. & Central Govt. to local bodies for self Governance. • Citizen centric basic civil services to the people of rural areas such as <ul style="list-style-type: none"> ✓ Drinking Water ✓ Street Lighting ✓ Creation of durable assets for income generation & maintenance of capital assets. • To create Adarsh Grama and Model GP. 	<ul style="list-style-type: none"> • Planning Process through GPDP by approving the same through participatory process in the Grama Sabha as need based developmental works.

Name of the Programme	Objectives	Implementation Strategy
<p>GGY</p> 	<ul style="list-style-type: none"> To provide additional developmental assistance to bridge the critical gaps in infrastructure in Rural Areas. Supplementary existing resources with special focus on Bijli, Sadak & Pani in every village. To attend need based demand of most populations village on priority basis in case of Bijili, Sadak & Pani. 	<ul style="list-style-type: none"> Implemented by Block on receipt of Action Plan approved by DPC of the district.

Name of the Programme	Objectives	Implementation Strategy
<p>RURBAN</p> 	<ul style="list-style-type: none"> To stimulate local economic development in cluster approach. Enhance basic services Reduction of poverty & unemployment by stimulating local economic development. Attracting investment in rural areas. Development of Cluster villages with focus on equity and inclusiveness for urban life. 	<ul style="list-style-type: none"> Implemented by SPMU at state level and PD DRDA and BDOs of respective blocks by working out detail project reports of the clusters for various activities to be undertaken for economic development and social justice for the area and providing urban facilities in those clusters

Name of the Programme	Objectives	Implementation Strategy
<p>RASHTRIYA GRAM SWARAJ ABHIYAN (RGSA)</p> <p>Central Share: 60 State Share: 40</p> <p>TRAINING & CAPACITY BUILDING FOR STRENGTHENING PANCHAYATS</p>	<ul style="list-style-type: none"> • Training and Capacity Building of Elected Representatives of 3-tier PRIs • Upgrading of Knowledge ,Skill and Attitude of PRI representatives & functionaries to better perform their responsibilities. • Creating infrastructure for CB related activities 	<ul style="list-style-type: none"> • Implemented by SIRD&PR through Collaborative Partner Agencies and Empanelled Resource Persons

Digitalizing the Governance and Development Process through Panchayat Enterprise Suite and Scheme based MIS



MGNREGA	nrega.nic.in
PMAY (G)	rhreporting.nic.in
DDU-GKY	ddugky.gov.in
SBM	sbm.gov.in
FCA	Plan Plus ActionSoft PriaSoft NAD PFMS
DAY-NRLM	aajeevika.gov.in

All schemes are digitalized through MIS in the above system
(Source: State Institute of Rural Development & Panchayati Raj , Odisha)

4 INTRODUCTION TO PRATAPSASAN

4.1 Location and Regional Setting of Pratapsasan GP

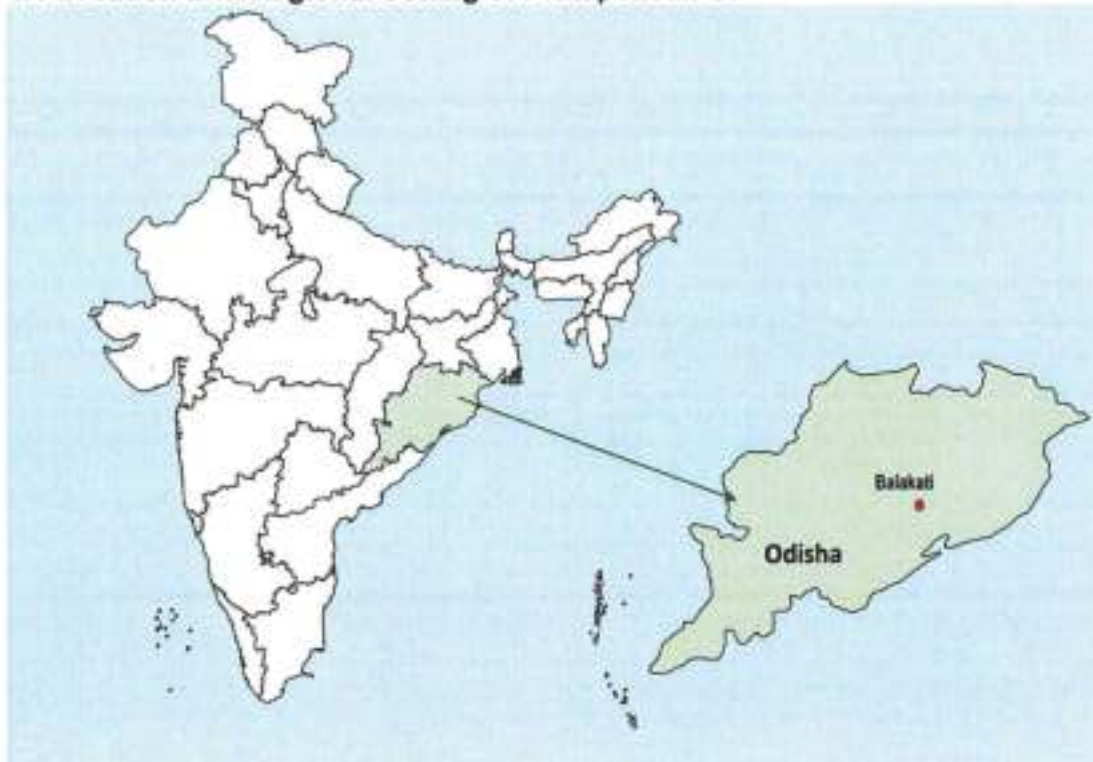


Fig 4.1- Map of India showing Location of Odisha and Pratapsasan(Balakati)

District: KHORDHA (386), Sub-District: BALIANTA (03042)/ Development Block: BALIANTA (3042), Gram Panchayat: PRATAPSASAN (407607)

Civic Status: Census Town

Area: 6.65 Sqkm (Census 2011)

Total Population: 12830 (Census 2011)

Bounded by River Daya, Bhargavi and Mimodorha Canal

Geographical Location: Longitude 85.850 E to 85.890 E
Latitude 20.190 N to 20.220 N

Village Pratap Sasan (Balakati) is substantially a large village and stands on the eastern bank of the Daya river, a tributary of the Kathajuri river and comes under the administrative control of Baliana Police Station in the district of Khurda. The village is well known for bell metal products since 14th Century and is only about 10 kms. away from Bhubaneswar, the capital city of the state and is connected by all weather pucca roads over the Daya with the State capital, district, sub-division and tahasil headquarters. Although, Balakati does not act as a centre of termination of Bus services, a number of buses to Banamalipur, Bhingarpur, Konark etc. ply through this village. Moreover, the village can be easily approached from Uttarachhak, a place on the

Bhubaneswar-Puri National Highway, which is only one kilometer away in the western side of the village. Besides, a number of mini busses, Trekkers engaged in the passenger traffic also operate through the village. The nearest rail station on the south eastern railway is Bhubaneswar railway station which is only about 10 kms away. The villagers also can avail of the air transport facilities at Bhubaneswar. There is one Engineering college only 2 kms. away from the village. The National level Research Institute of Central Institute of Fishery Aquarium (CIFA) is located near the village. The village is also well equipped with Telephone facilities, Educational Institutes, Post Office, PHC and Banks also.



Fig 4.2- Satellite image of Pratapsasan GP showing GP Boundary

Regional Connectivity to Tourist Circuit and Handicraft Circuit

It lies on the Religious tourist Circuit of Bhubaneswar-Pratapsasan-Niali-Nimapada-Kakatpur-Gop-Konark-Puri. Also lies on the handicraft circuit of Bhubaneswar-Pratapsasan-Pipili-Raghubrajpur-Puri.



Fig 4.3 – Regional Connectivity of Pratapsasan to Tourist and Handicraft Circuit

Niali



Saint poet Jaydev who was born in the 12th Century AD grew up in an environment which worshiped Madhaba hence Gita Govinda was the result of his devotion to the Lord. Niali was the place where the poet use to worship Madhaba, hence the temple which was built in the 13th Century, has a special place in the history of Odisha.

Madhab Temple at Niali



Nimapada

Nimapada is famous for Nimapada Sweets



Kakatpur is famous for Maa Mangala Temple is a 15th-century temple and a symbol of the ancient heritage of [Kalinga](#).



Gop

Maa Gangeswari temple, which is also called 'Mini Konark' temple, is located in Gop. The temple was built in 13th century. Its architecture and sculptures are duplicate copies of the Sun temple. Maa Gangeswari was worshipped in the temple since then.



Konark

The Sun Temple or Black Pagoda at Konark was built in the 13th century and designed as a gigantic chariot of the Sun God, Surya, with twelve pairs of ornamented wheels pulled by seven horses. Some of the wheels are 3 metres wide. Only six of the seven horses still stand today.^[6] The temple fell into disuse after an envoy of Jahangir desecrated the temple in the early 17th century.



Puri

The **Shree Jagannath Temple** is an important Hindu temple dedicated to Jagannath, a form of Vishnu, in Puri in the state of Odisha on the eastern coast of India. The present temple was rebuilt from the 10th century onwards, on the site of an earlier temple, and begun by King Anantavarman Chodaganga Deva, first of the Eastern Ganga dynasty. The Puri temple is famous for its annual Ratha yatra, or chariot festival, in which the three principal deities are pulled on huge and elaborately decorated temple cars.



Raghurajpur

It is a heritage crafts village known for its master Pattachitra painters, an art form which dates back to 5 BC in the region and Gotipua dance troupes, the precursor to the Indian classical dance form of Odissi. The village is also home to crafts like Tussar paintings, palm leaf engravings, stone and wood carvings, wooden, cowdung and papier mache toys, and masks.



Pipili

It is famous for designing beautiful Applique handicrafts. It is a town of artisans famous for their colourful fabrics.



Jatni

Jatni, also known as Khurda Road Junction in Indian Railways parlance, acts as an important railway junction between the main railroads running

between Kolkata and Chennai, with diversions to the Hindu pilgrimage city of Puri, and also with another diversion to the vast tribal hinterland of Odisha.



Khordha

Khordha is a city and a municipality area in Khordha district.



Bhubaneswar

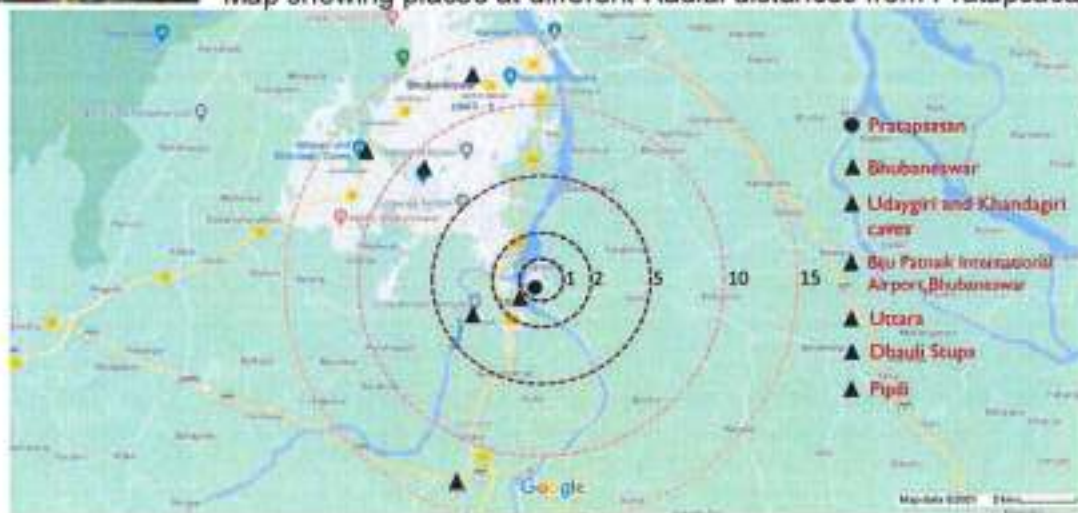
Capital of Odisha famously known as a Temple city (at present around 700 temples), notable being the Lingaraj Temple



Cuttack

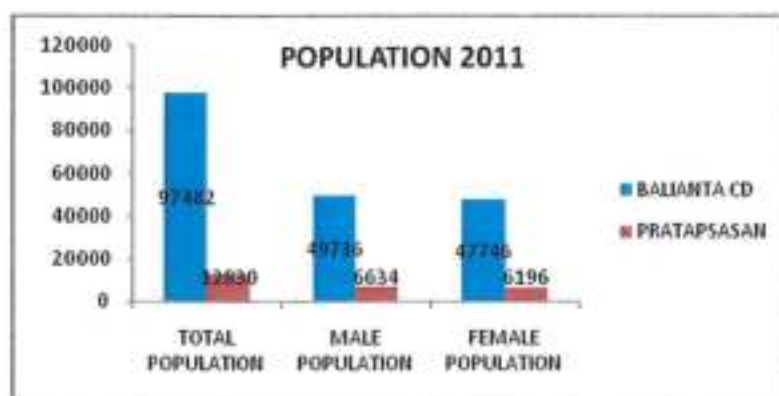
Old Capital of Odisha which has the High Court.

Map showing places at different Radial distances from Pratapsasan



4.2 Demographic Profile of Pratapsasan

Table 4.1 Demographic distribution of Male and female Population in Pratapsasan versus Balianta CD Block (Source: Census,2011)



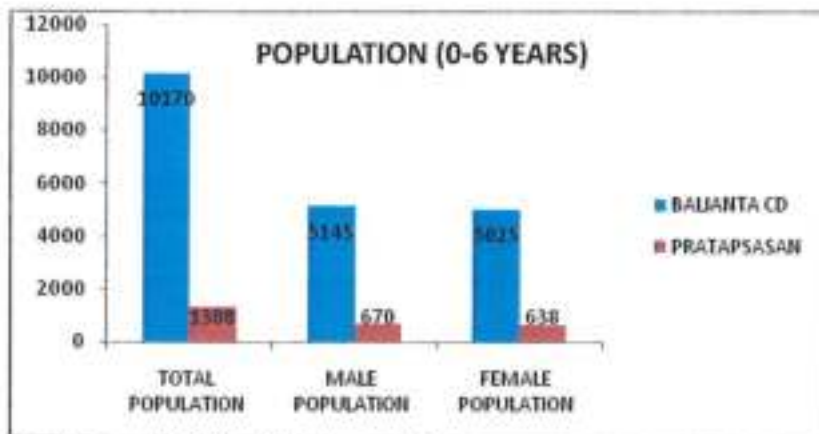
- Pratapsasan population forms **13% of Balianta block**
- Its sex ratio is **934** vs the blocks' 960

POPULATION	TOTAL POPULATION	MALE POPULATION	FEMALE POPULATION
BALIANTA CD	97482	49736(51%)	47746(49%)
PRATAPSASAN	12830	6634(51%)	6196(49%)

Table 4.2 Demographic distribution of Male and female literate Population in Pratapsasan versus Balianta CD Block (Source: Census,2011)

	TOTAL LITERATE POPULATION	MALE LITERATE POPULATION	FEMALE LITERATE POPULATION	LITERACY RATE
BALIANTA BLOCK	73403	40481	32922	75.2
PRATAPSASAN	9980	5489	4491	77.7

Being near the urban centre of Bhubaneswar, the **literacy rate of Pratapsasan at 77.7%** is much higher than the state average of 72.9% and block average of 75.2%



0-6 years population is 8 % of total population

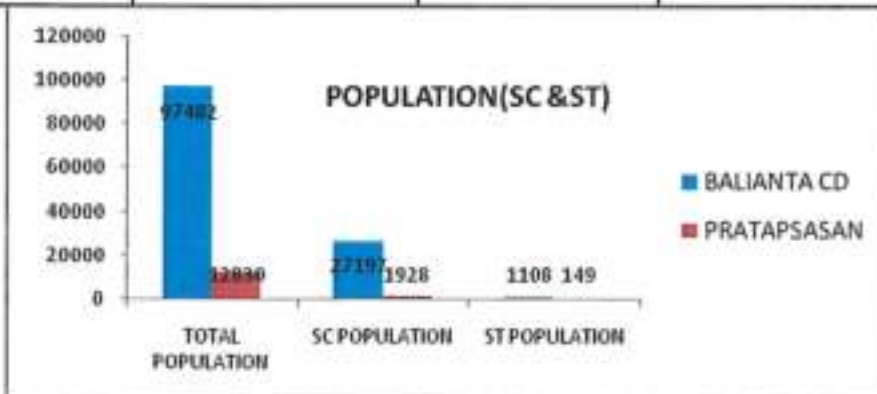
Table 4.3- Demographic distribution of 0-6 years age male female population of Pratapsasan versus Balianta CD(Source: Census,2011)

POPULATION	TOTAL POPULATION (0-6 years)	MALE POPULATION (0-6 years)	FEMALE POPULATION (0-6 years)
BALIANTA CD	10170	5145	5025
PRATAPSASAN	1308	670	638

Table 4.4- Demographic distribution of SC & ST population of Pratapsasan versus Balianta CD(Source: Census,2011)

SC population is 15% and ST population is 1 % of total population in Pratapsasan

POPULATION	TOTAL POPULATION	SC POPULATION	ST POPULATION
CD BLOCK	97482	27197	1108
PRATAPSASAN	12830	1928	149



Caste	Total Houses	% of Houses
Badhel	2	1.8
Baiya Karana	6	5.3
Bania	2	1.8
Barya	2	1.8
Elava Brahmin	2	1.8
Brahmin	2	1.8
Gaude	3	2.7
Gopala	40	35.6
Gudla	2	1.8
Kansari	2	1.8
Kuta	2	1.8
Khandayata	2	1.8
Rangani	4	3.6
Teli	18	16.0

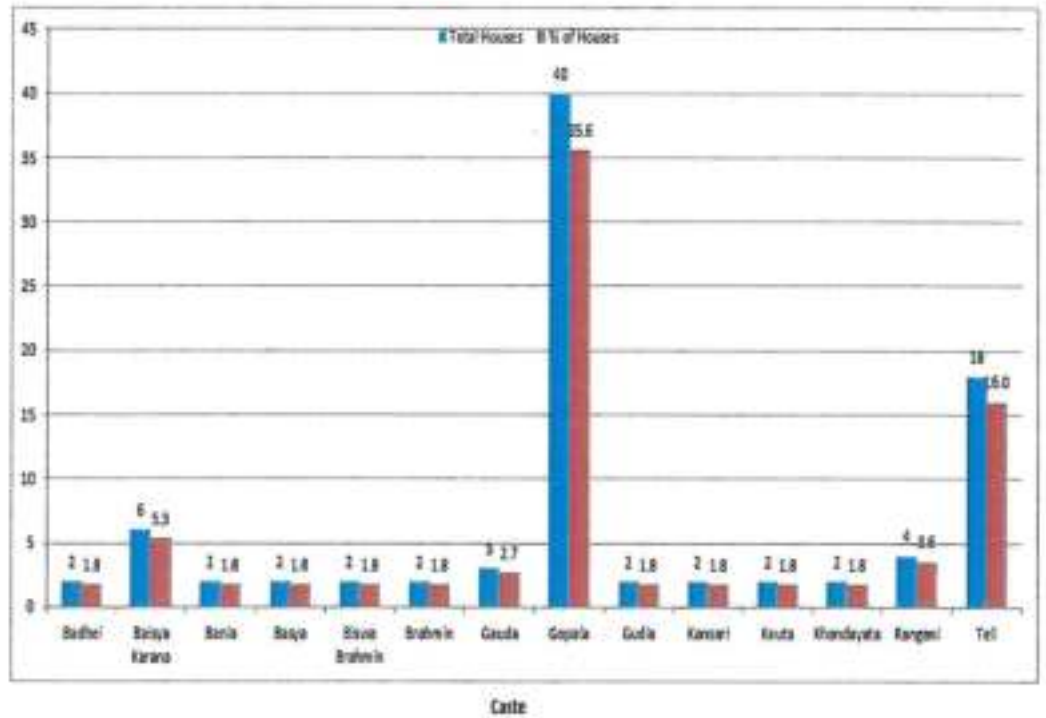
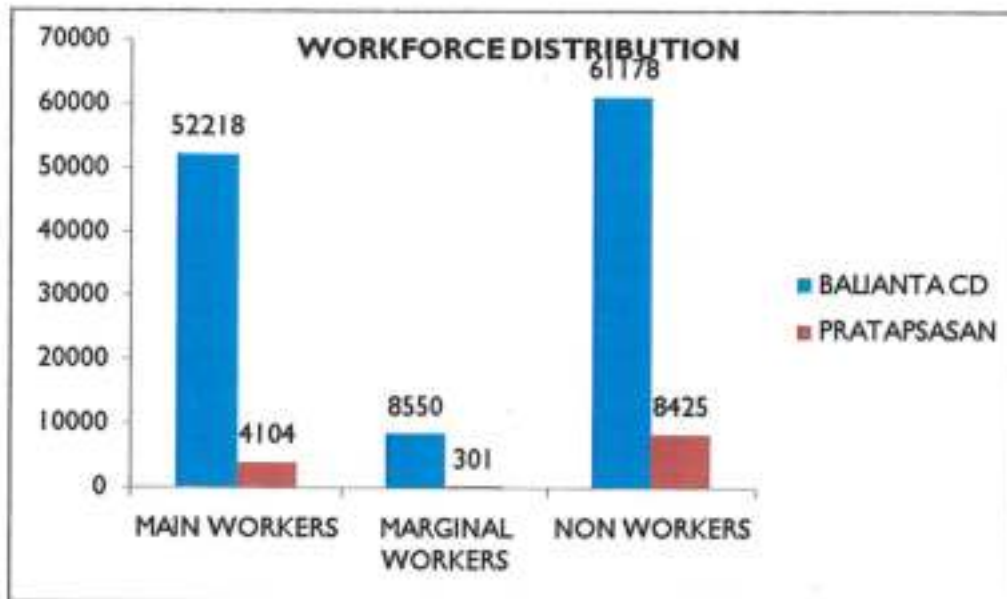


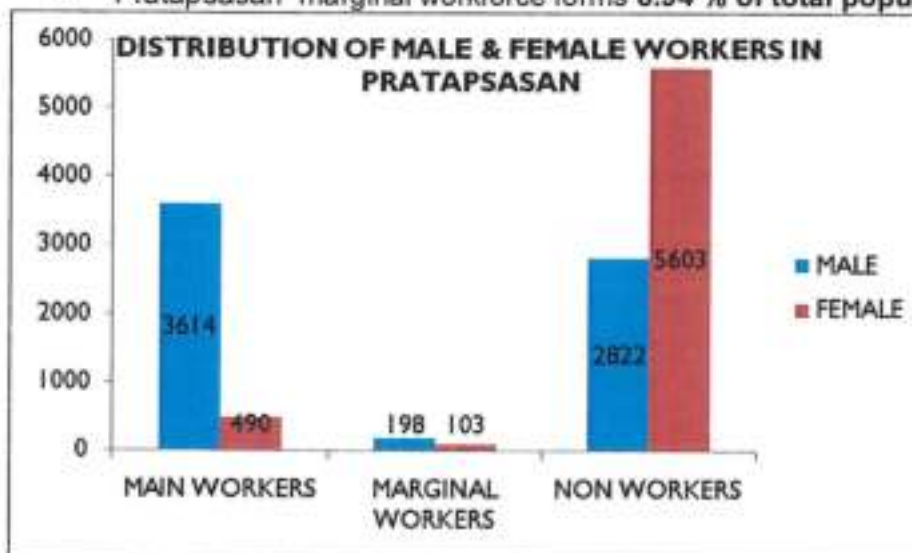
Fig 4.5 – Distribution of Caste in households surveyed (Source:Primary Data with Mobile Application)
The Gopala community was the largest caste in the sample surveyed.

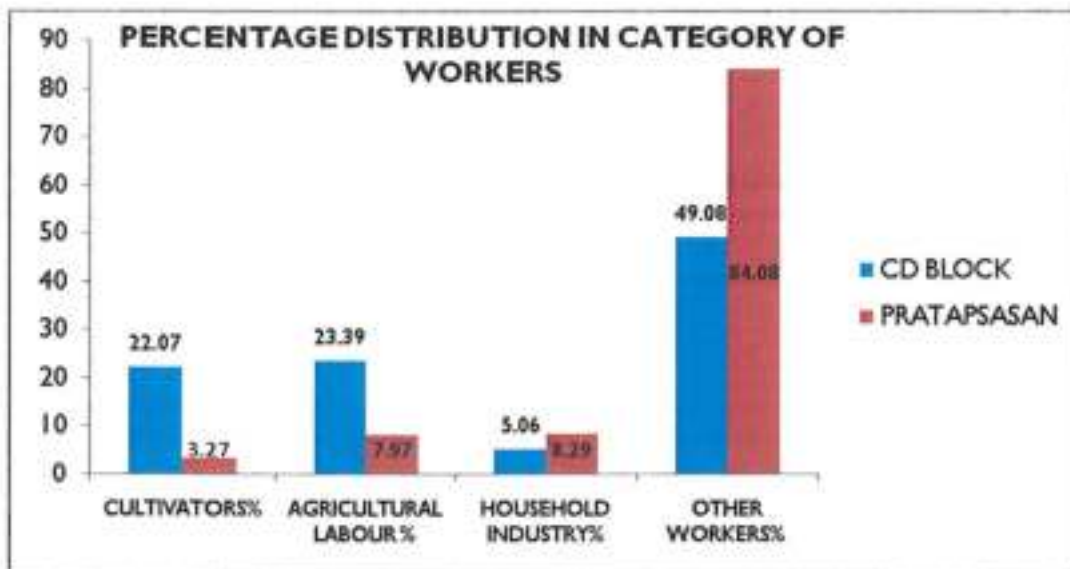
4.3 Economic Base and Occupational Distribution

Table 4.6-Workforce Distribution(Source: Census,2011)



- Pratapsasan main workforce forms 28.47 % of total population
- Pratapsasan marginal workforce forms 8.94 % of total population





- Only 11% of the workers are engaged as Cultivators and agricultural Labour
- Around 89% of the workers are engaged in Household industry-bell metal, Brass work , gold and silver work.(Census 2011)

Table 4.7-Percentage Distribution in workforce category(Source: Census,2011)

WORKFORCE DISTRIBUTION	MAIN WORKERS			MARGINAL WORKERS			NON WORKERS		
	%	MALE	FEMALE	%	MALE	FEMALE	%	MALE	FEMALE
BALIANTA CD	28.47	27754	24464	8.94	4447	4103	62.76	20827	40351
PRATAPSASAN	31.99	3614	490	2.35	198	103	65.67	2822	5603

- Since metal work is the main occupation and it is a labour intensive industry mostly male folk are involved
- In Balianta Block however a 50-50 % distribution among male and female population

Availability	Total Houses	% Houses
BPL Card	6	6.74
Ration Card	68	76.40
Electricity Supply	85	95.51
LPG Availability	77	86.52

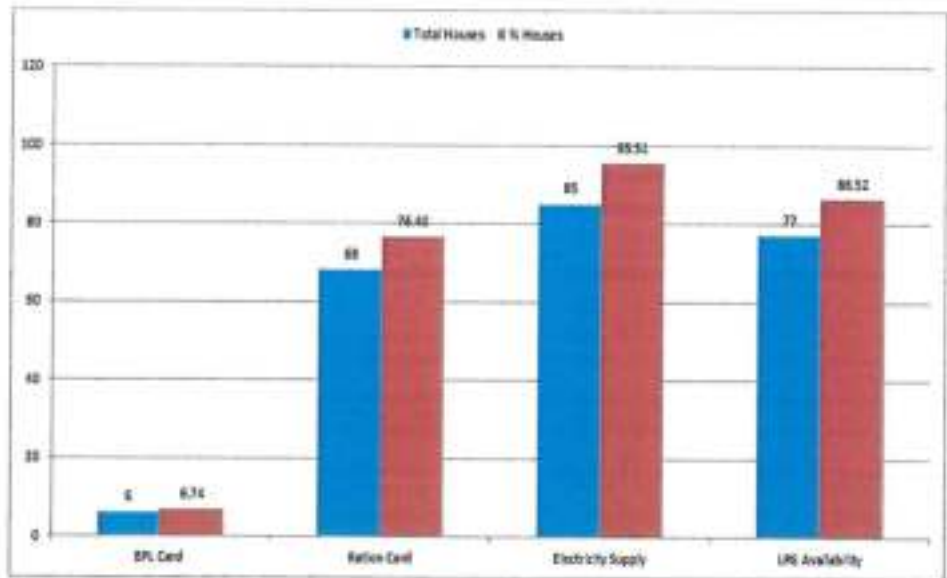


Fig 4.5 - Availability of BPL Card, Ration Card and LPG in households(Primary Survey-Mobile App survey)

Avg. Exp.	10373
-----------	-------

Expenditure	Total Houses	% Houses
3K	3	3.37
4K	3	3.37
5K	10	11.24
6K	9	10.11
7K	3	3.37
8K	18	20.23
9K	11	12.36
12K	9	10.11
14K	6	6.74
15K	5	5.62
18K	3	3.37
20K	8	8.99
30K	2	2.25

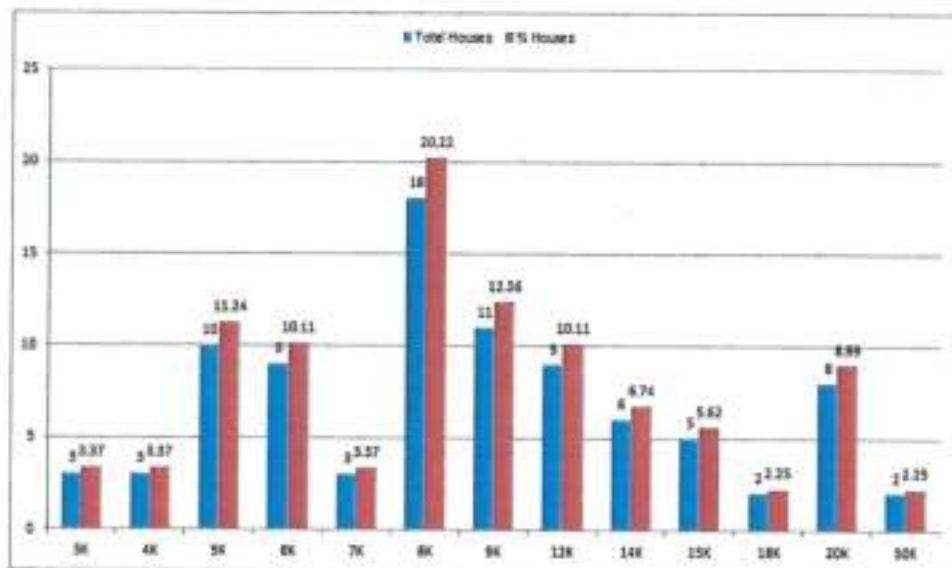


Fig 4.6 Expenditure Survey of Sample Households (Primary Survey-Mobile App survey)

4.3.1 Findings

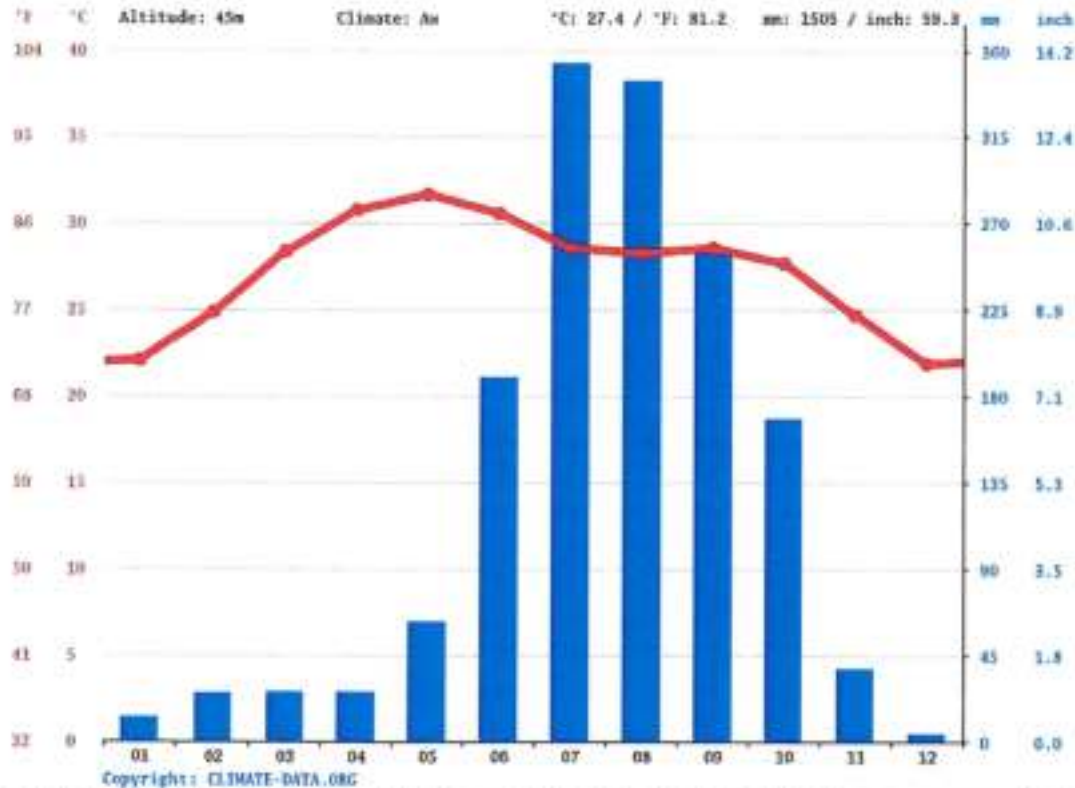
The GP is comparatively ahead of the Block in terms of literacy and economic base.

4.4 Natural Resources

4.4.1 Climate

Pratapsasan is 45m above sea level and has a tropical climate. In winter, there is much less rainfall than in summer. The average annual temperature is 26.6 °C | 79.9 °F . The annual rainfall is 1628 mm | 64.1 inch.

Table 4.8 Monthly Temperature and Rainfall graph



The driest month is January, with 10 mm | 0.4 inch of rainfall. With an average of 401 mm | 15.8 inch, the most precipitation falls in July. The warmest month of the year is May, with an average temperature of 31.4 °C | 88.5 °F. January has the lowest average temperature of the year. It is 21.1 °C | 70.0 °F

Table 4.9 Monthly Weather Data

	January	February	March	April	May	June	July	August	September	October	November	December
Avg. Temperature °C (°F)	21.1 °C (70) °F	24.6 °C (76.3) °F	26.2 °C (79.2) °F	28.4 °C (83.1) °F	31.4 °C (88.5) °F	29.9 °C (85.8) °F	27.9 °C (82.2) °F	27.6 °C (81.7) °F	27.4 °C (81.3) °F	26.4 °C (79.5) °F	25.7 °C (78.3) °F	21.1 °C (70) °F
Min. Temperature °C (°F)	15.3 °C (59.5) °F	16.8 °C (62.2) °F	22.9 °C (73.2) °F	25.8 °C (78.4) °F	27.4 °C (81.3) °F	27.1 °C (80.8) °F	25.9 °C (78.6) °F	25.5 °C (77.9) °F	25.1 °C (77.2) °F	23.1 °C (73.6) °F	19.1 °C (66.4) °F	15.7 °C (60.3) °F
Max. Temperature °C (°F)	27.5 °C (81.5) °F	31.1 °C (88) °F	34.9 °C (94.8) °F	36.9 °C (98.4) °F	37 °C (98.6) °F	33.8 °C (92.8) °F	30.9 °C (87.6) °F	30.6 °C (87.1) °F	30.5 °C (86.9) °F	28.6 °C (83.5) °F	26.6 °C (80) °F	26.6 °C (80) °F
Precipitation / Rainfall mm (in)	10 (0.4)	19 (0.7)	25 (1)	26 (1.1)	61 (2.4)	241 (9.5)	401 (15.8)	377 (14.8)	365 (14.4)	149 (5.9)	40 (1.6)	15 (0.6)
Humidity(%)	65%	62%	62%	65%	69%	75%	85%	86%	86%	81%	73%	68%
Rainy days (d)	1	2	3	4	5	14	26	26	18	11	3	1

The difference in precipitation between the driest month and the wettest month is 391 mm | 15 inch. During the year, the average temperatures vary by 10.3 °C | 50.6 °F.

4.4.2 Geo-morphology

- Coastal Deltaic Plain having good alluvial soil



Fig 4.7 Geomorphology Map of Pratapsasan

Pratapsasan is in Coastal Deltaic Plain having good alluvial soil. Hence it is very good for agriculture. (Source: Bhuvan)

4.4.3 Ground water resources and Potential

- Ground water availability
 - < 30m except for a minor portion 30-60 m level from ground

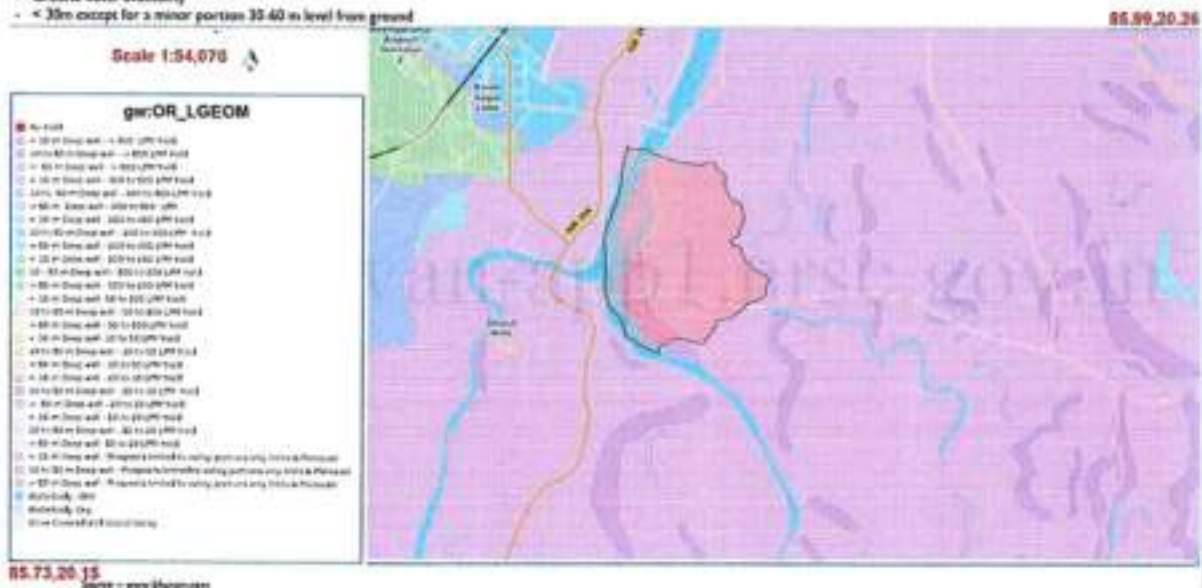


Fig 4.8 Ground water availability Map (Source: Bhuvan)

Ground water availability is very good at less than 30m except for a minor portion which has water availability at 30-60 m level from ground, hence the main source of water is by handpumps. However water quality is hard.

5 EXISTING ECONOMY AND LIVELIHOOD

5.1 Brass and Bell Metal Industry

Kansari Community associated with Bell metal wares. Since it involves a lot of physical labour the role of women and children is limited and that too in engraving only. Manufacturing involves no mechanisation, operation scale depends on raw material and fuel (charcoal) availability. Key trade association-Balakati Kansa Pital Hastasilpa Unnayana Sangha

There are 103 functional units. The number of registered Small Scale Industry in Balakati Cluster-11(2 in Nuapatna, 9 in Rathijema). The turnover of cluster is 25 crores (2011)

Exports is Nil. There are thousand households employed in the cluster. Average investment in Plant and Machinery is Rs 50000 to Rs 5 lakhs. Brass and Bell Metal Cluster at Balakati is being looked after by ORMAS (Marketing) and Directorate of Cottage Industries and Handicrafts, Odisha.

Only three cooperative societies which is active (out of 8) and providing the role of facilitator in marketing of the product manufactured by their members.



Fig 5.1 Production Process

Production process

The production process of brass products involves melting of raw materials, casting in moulds, shaping & forming and finishing operations. The major steps involved in the production are explained below. The process flow of a typical processing plant is shown in figure above.

i) Melting

The raw materials i.e. brass scraps are directly supplied by middlemen who would provide generally good quality raw materials and sorting out of any foreign material may not be required at the unit level. Brass scraps are added in a melting crucible. Different capacities of crucibles used in the cluster include 25 kg, 34 kg and 50 kg. Generally, a crucible can effectively be used for about 25 heats or melting after which it is generally replaced with a new crucible procured from local market.

The brass scrap is melting in pit type coal fired furnaces. Although the melting point of brass is about 900-940 OC, it was reported in the cluster that melting being carried out at about 1100-1200 OC, which is very high. However, the units have not been equipped with any instrumentation for temperature measurements. Fluxing agent is added and slag is removed from top and the melt is ready for pouring.

ii) Casting

The moulds used in the units are clay based small cups. The moulds are kept in a row and the inner portion is coated with spent lube oil procured from local market. The brass melt is taken out manually from the furnace using a small ladle and poured into moulds. The melt solidifies and takes the shape of the mould.

iii) Forming and shaping

The monolithic castings are base materials for production of all types of brass articles produced in Balakoti cluster. The forming and shaping operations are carried out in subsequent days after melting operation. The castings produced in moulds are subjected to forming and shaping processes. This activity is accomplished through skilled workers who generally work a number of units in the cluster.

Charcoal is used for heating the castings while subjected to forming and shaping operation. The temperature requirement for this process is about 350-400 OC. This is a cold-working process and Based on the weight, the castings are formed into different products such as plates, cups, bells, etc. meeting the requirements of customers.

iv) Finishing operations

The articles formed in previous steps would require finishing and polishing. This process is done manually. The formed article is mounted to a rotating shaft using wax fixed at its back. The article is manually adjusted for its centre alignment so that there is no wobbling. The finishing and polishing operation is carried out manually to provide shining to the product.

The workshop

Unlike folk metal artisans, who have temporary and open air furnaces or forges and a Verandah or part of the dwelling house utilized as workshop, the Kansari have their workshop in a permanent or semi permanent constructed house. The workshop (Sala) is usually located in a room with a rectangular ground plan, wattle and daub or mud walls, gable shaped straw thatch roofing with or without a wattle and a daub ceiling (attu-type) as a precautionary measures against arson. The workshop is situated at the front of rear part of the site but never in the

courtyard for privacy. A suitable workshop is always provided with a verandah for better accommodation. It accommodates the artisans, furnaces, tools and equipment and follows a consistent pattern of orientation because of the systematized production process. There are variations in workshop plans as are required by different techniques of production.

A minute observation of the ground plan and of the operation of various stages of work under the wrought metal technique shows that there is also a definite orientation amongst the artisans both skilled and unskilled in the Brass and Bell Metal workshops. This orientation does not only represent the personnel organisation but also the inter personal relationship among the artificers. All Hammer men sit in front of the Garha artificer and the space between them accommodates the stoneanvil (akarma shila) embedded in the ground. The Kora hammer man occupies his seat in front of Garha, the Pasia, Maihi Pasia and Pardi Pasia hammer men towards the right hand side and the bada bhatia hammer man and sana bhatia hammer man cum below/ blower operator are at the left hand side of the Garha. The hammer man deliver blows upon the semi processed metal as directed by the Garha systematically to avoid any collision.

There is very poor light and ventilation in the workshops and space is cramped and insufficient for the activities



Fig 5.2 Housing and Workshop
Needs of brass & bell metal cluster

- Diversification of product
- Modernisation of technology
- Flow of credit
- Regular skill development programmes
- Strengthen the associations of the artisans
- Complete Mechanization
- Brand building

Spaces needed

- Raw material Godown

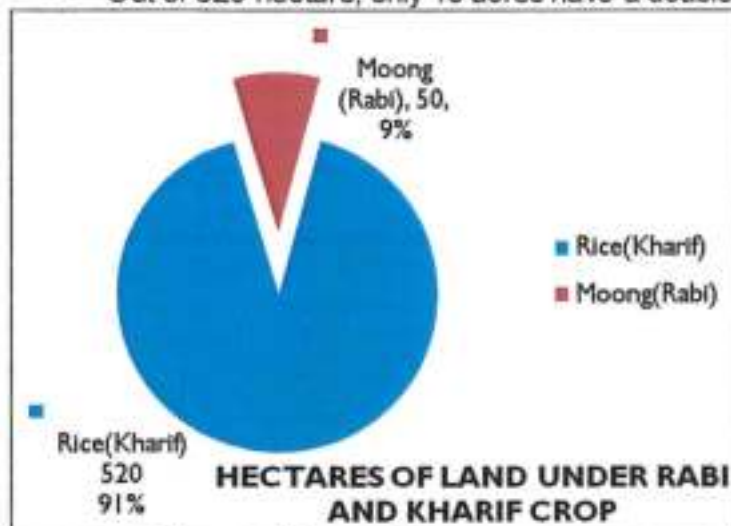
- CFC for demonstration and adaptation of technology, export facilitation
- Permanent Showroom
- Skill development training centre
- R & D Testing Laboratory

(Source : *Diagonostic Report of Brass and Bell Metal Cluster at Balakati (2006), Ministry of Small Scale Industries*)

5.2 Agriculture

Irrigation

- Irrigation is plentifully available and is from the Mimodisia canal
- Only 5-10 nos rely on boring.
- Out of 520 hectare, only 10 acres have a double crop (Rabi).



Source : *Primary Survey*

Fig 5.3 Distribution of hectares of land under rabi and kharif crop

5.3 Livestock

Live Stock	Total Houses	% Houses
Cow/ Buffalo	32	35.96
Ox	1	1.12
Goat	8	8.99
Other	4	4.43

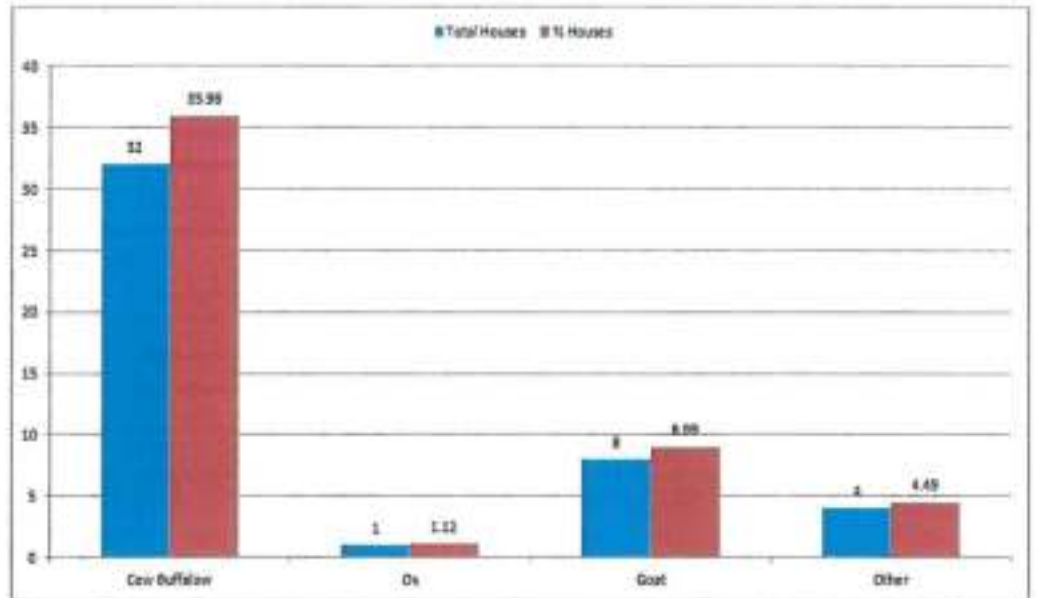


Fig 5.4 Livestock in households sample survey

Out of the 300 houses surveyed, 47 houses had some livestock which was mainly cow and buffaloes followed by goats and chicken.

5.4 Availability of Assets among the household

Table 5.1 Availability of Assets among the household(Source:Census 2011)

Availability of assets											
Radio/ Transistor	Television	Computer/Laptop		Telephone/Mobile Phone			Bicycle	Scooter/ Motorcycle/Moped	Car/ Jeep/ Van	Households with TV, Computer/Laptop, Telephone/mobile phone and Scooter/ Car	None of the assets specified in col. 10 to 19
		With Internet	Without Internet	Landline only	Mobile only	Both					
558	1,670	39	114	65	1,469	162	2,133	922	59	93	140

It appears that the residents enjoy a good standard of living compared to other GPs.

6 CURRENT SPATIAL ANALYSIS

6.1 Existing Land Use Plan

The current land use map shows the GP bounded on 3 sides by water bodies – River Kathjodi, River Bhargavi and the Mimodisia Canal. The commercial development shown in dark blue is along the Banamalipur Road. There are several encroachments on this road.

Most of the Settlement (abadi) area is on the eastern part of the GP shown in yellow. On either side of Canal are agricultural lands. There are several low lying areas which are water bodies as shown in light blue. The largest among them is the Chandan Pokhari and Raja Pokhari. The river bed is indicated in light grey.

The areas marked in red are Public and semi-public areas which house the educational and health institutions, Private and Government offices (like Police stations, Panchayat Office) and other socio cultural amenities. The schools and anganwadis are distributed across the residential lots.

The industrial area is on the west of the canal indicated by purple and brick kilns are indicated in ochre in the north and south of the GP. There are some water logged areas in the western part near the canal shown in blue grey shade. There is a cremation ground to the east of the Bainchua Road along the banks of the River which is used by the citizens of Bhubaneswar too.

There is a difference of 13 metres from the highest level to the lowest level in the GP. The land is gradually sloping towards the east and North. At present there is plotting along the northern side of the GP for housing and a 5 floor housing complex is coming up along the canal side (east of the canal).

The southern side the GP is mostly government land and has schools, hospitals and Veterinary hospital and degree colleges. They are mostly along the main transportation spines. There are reserved forests in the north and south. It is indicated by dark green. There are several open areas but they are not developed for playground and recreational activity.

The Fig 6.1 shows the current land use map which has been obtained by overlaying the RI Tehsil map with current uses, contours and GP boundaries

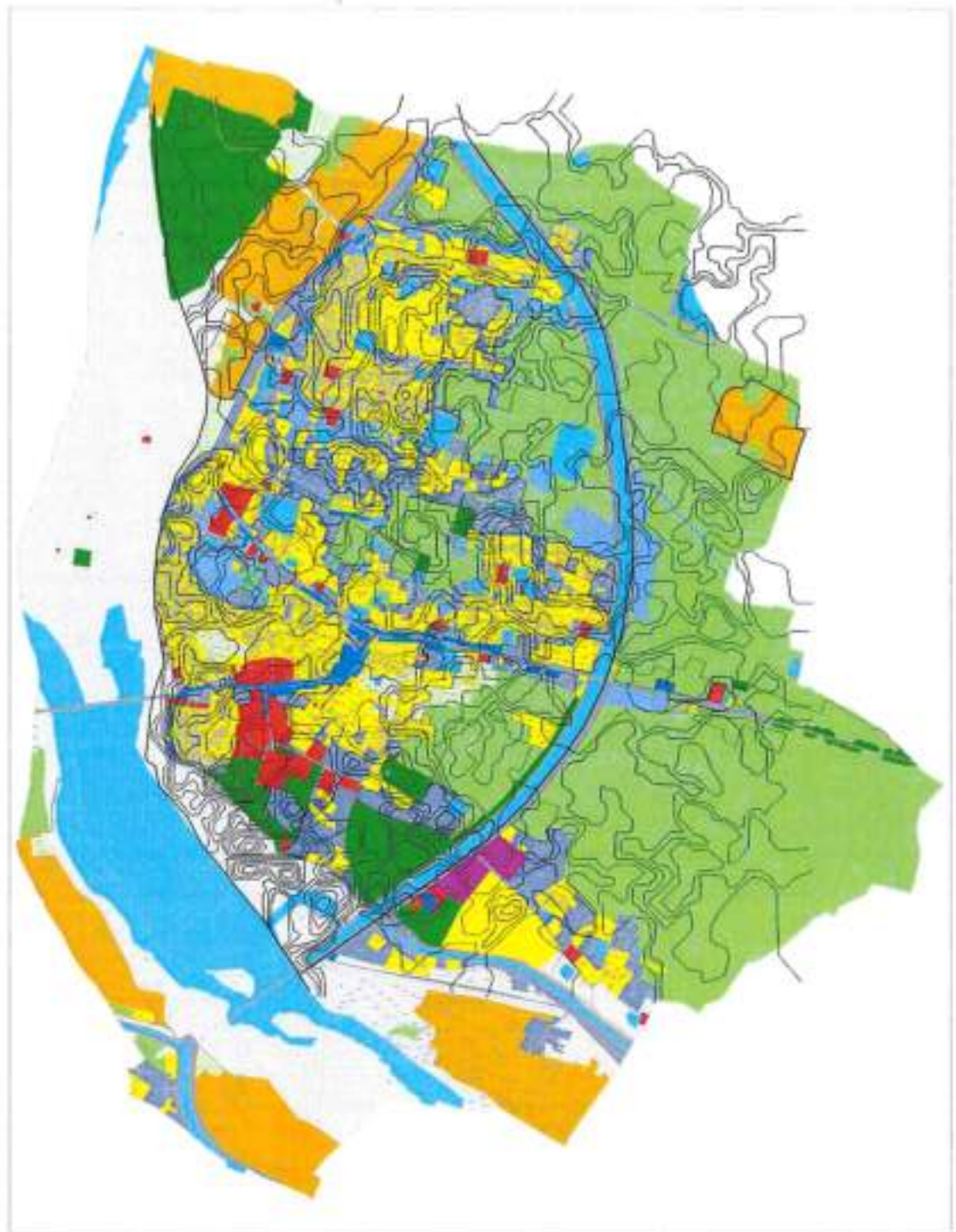


Fig – 6.1 Existing Land Use Plan(Source: Primary)

6.2 Existing Built use Plan

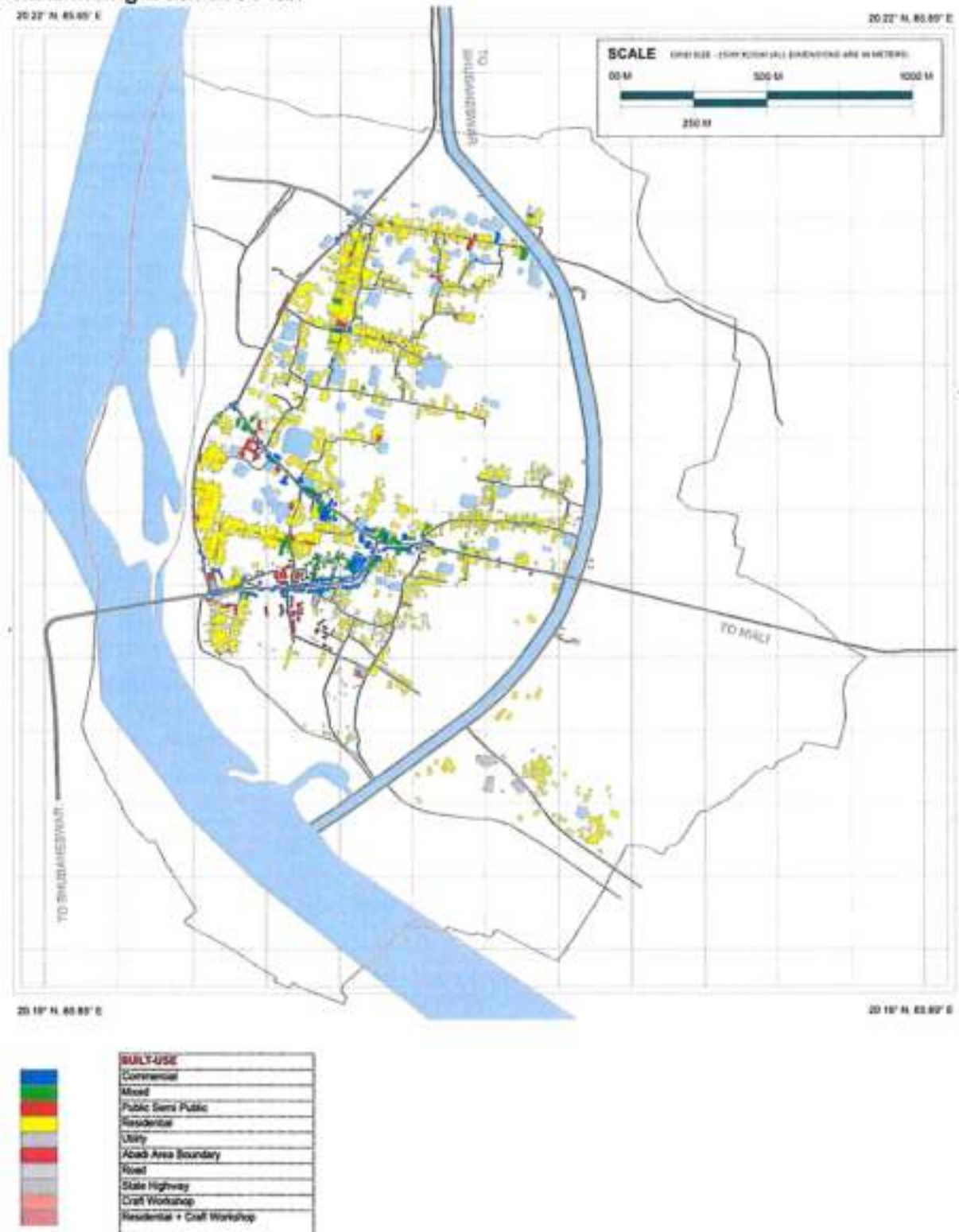


Fig 6.2 Existing Built Use Map

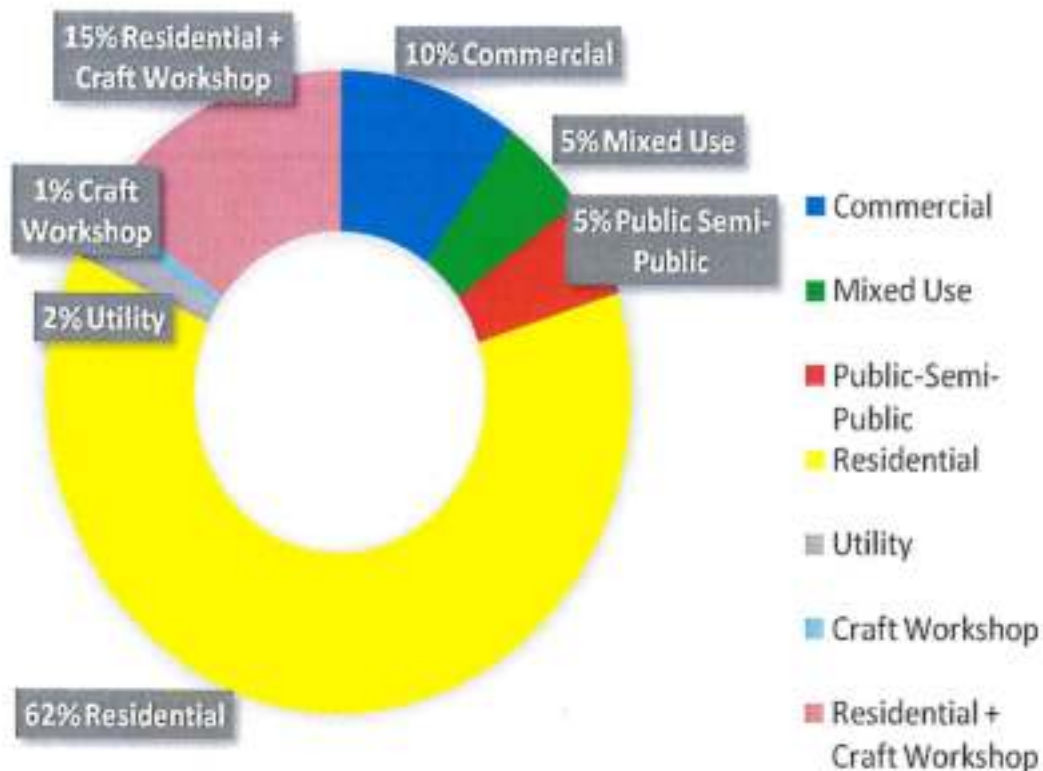


Fig 6.3 – Pie chart showing distribution of different built uses

A look at Fig 6.2 showing the existing built use map shows that the residential settlement indicated by yellow is densely placed along the older areas of Rathijema in the north (which has long linear plots) and in the west. The blue areas indicating the commercial development is along the Banamalipur Road and the road which meets the bainchua road. There are several ponds as can be seen by light blue. The green shows mixed use development (residential plus commercial). Grey areas are utility areas. State Highway 13 has been shown in dark grey.

The areas marked in red are Public and semi-public areas which house the educational and health institutions, Private and Government offices (like Police stations, Panchayat Office) and other socio cultural amenities. The schools and anganwadis are distributed across the residential lots.

Fig 6.3 shows the distribution of various built uses is:

1. Residential-62%
2. Public Semi Public-5%
3. Mixed use-5%
4. Commercial-10%
5. Residential +Craft-15%
6. Craft- 1%
7. Utility- 2%

6.3 Growth Stages and Direction

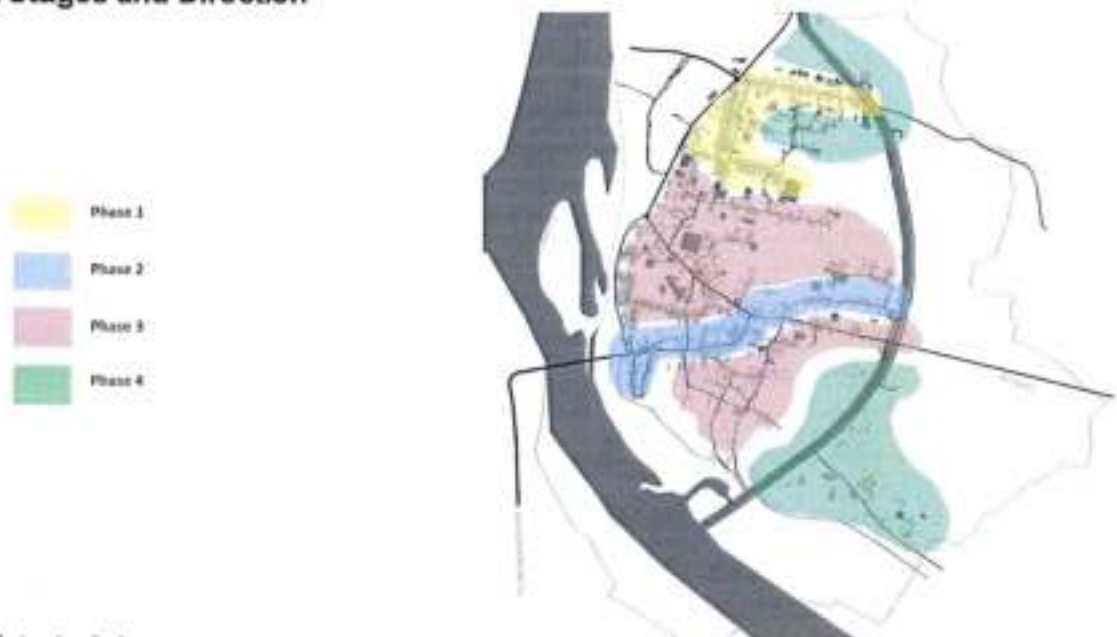


Fig 6.4 Stages of growth in GP

The first phase of growth happened in Rathijema with the Brass and Bell Metal cluster coming up since 1400 AD. The second stage of growth happened along the Banamalipur Road, Then there was infill type of development between the two as indicated in blue and now the fourth stage of growth is towards the north and south. The bounding water bodies (rivers and canals) are the limiting factors.

Fig 6.5 Stages of growth from 2005 to 2010 (shown below)



6.4 Housing

6.4.1.1 Type of Structure

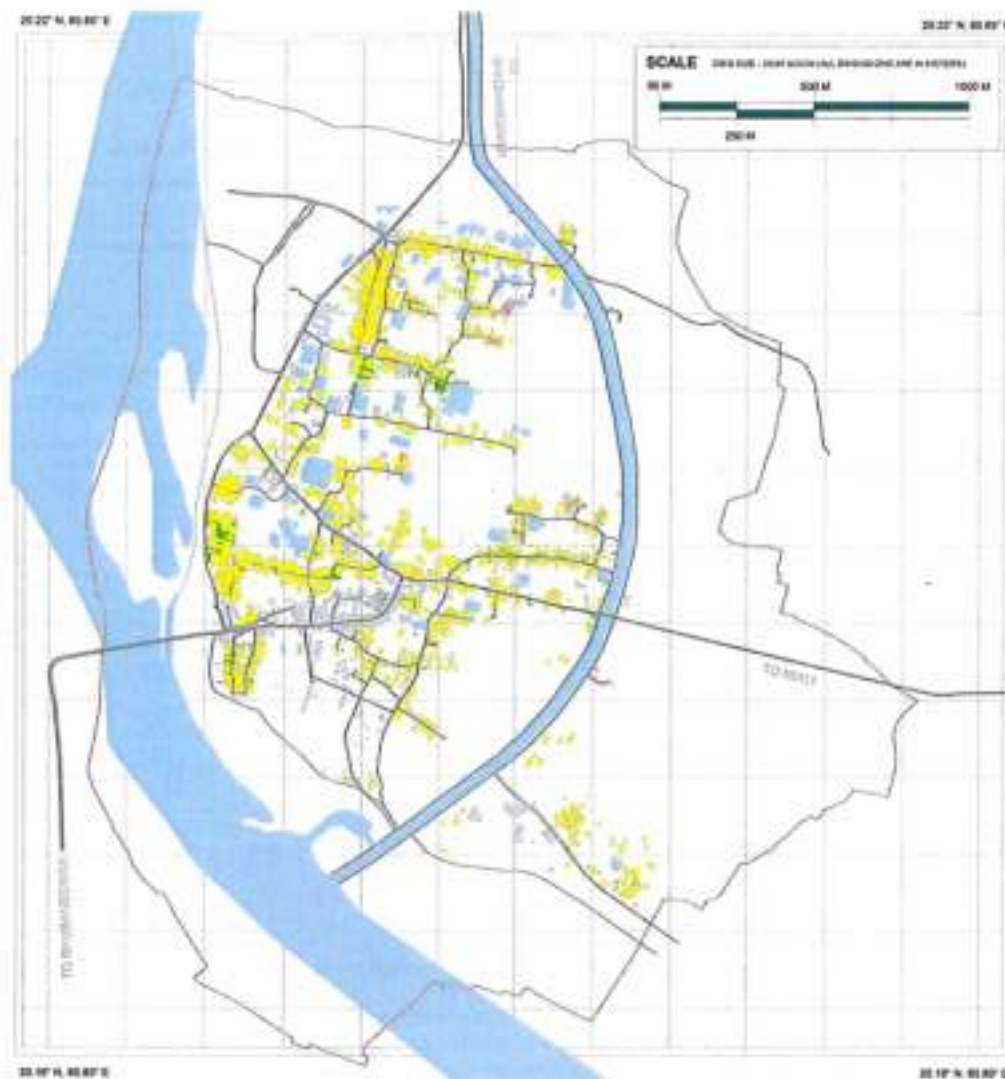
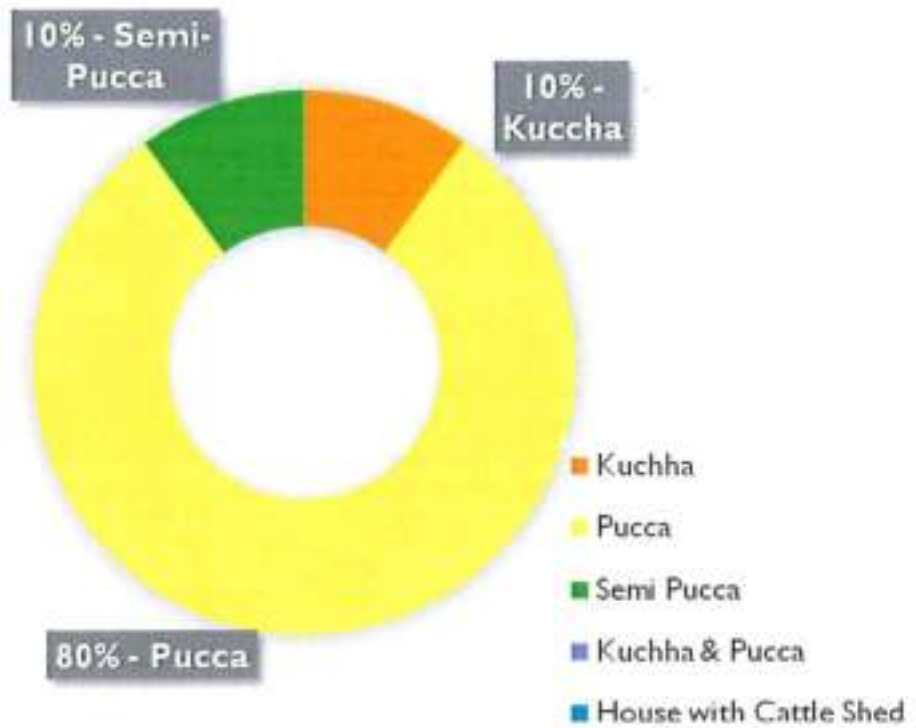


Fig 6.6 Map showing the distribution of HousingType (Source:Primary)
 80% of the houses are pucca. The kuchha houses are located mostly along the periphery of the GP where the harijan Basti exists. There are a few houses with cattle sheds along the eastern side of the GP

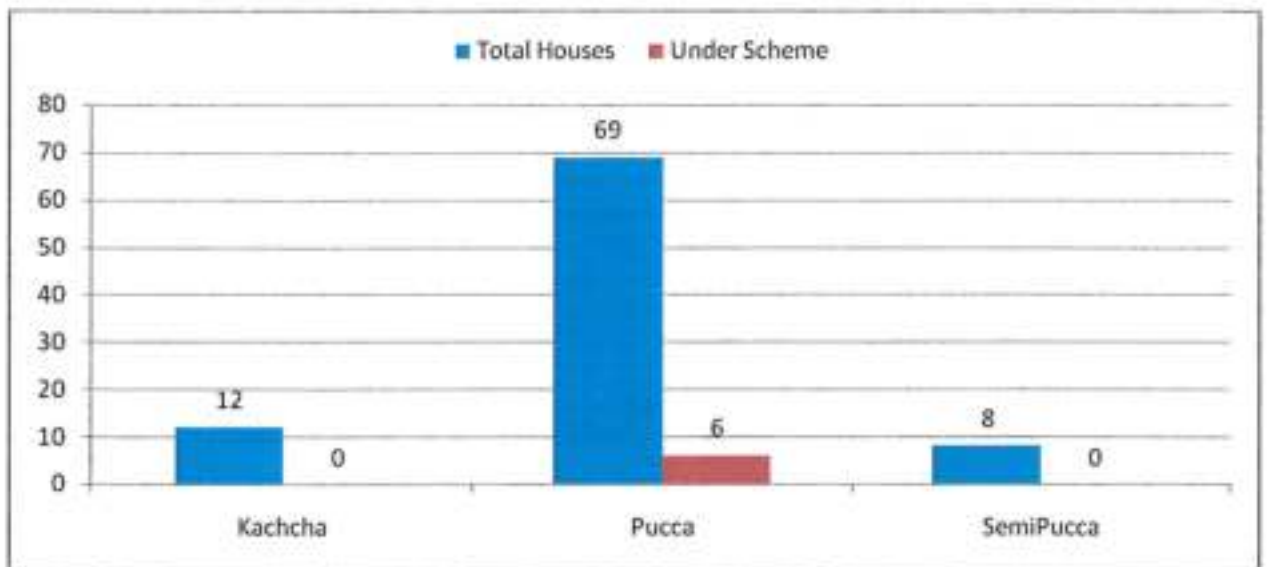
Total	Pucca	Semipucca	Kuchha	Dilapidated
3,061	2,515	270	268	8

Table 6.1 Distribution of HousingType (Source:Census 2011)



House Type	Total Houses	Under Scheme
Kachcha	12	0
Pucca	69	6
SemiPucca	8	0

Table 6.2 Distribution of HousingType (Source: Mobile Application Sample Survey)



Age of Structure	Kachcha	Pucca	SemiPucca
<10	0	3	2
10--20	7	33	0
20-50	5	33	6

Table 6.3 Distribution of HousingType with age of house(Source: Mobile Application Sample Survey)

6.4.2 Housing Condition

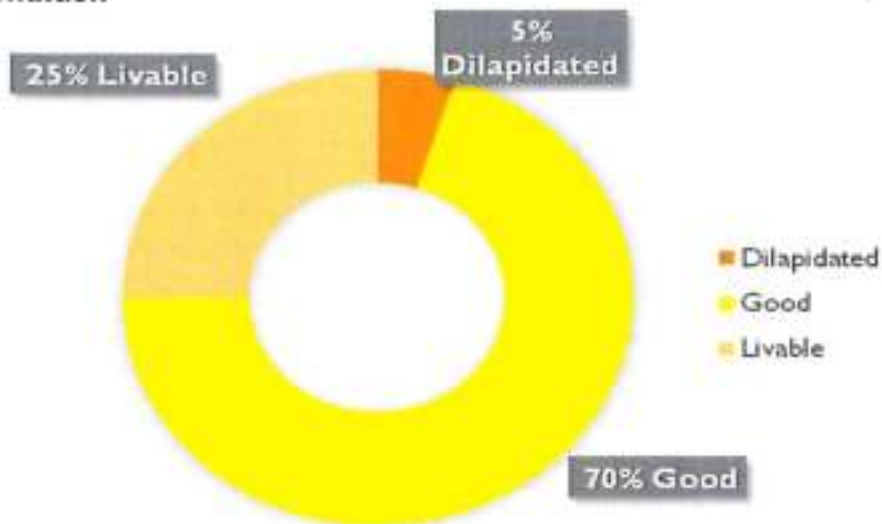


Fig 6.7 Pie Chart showing distribution of Housing as per housing condition

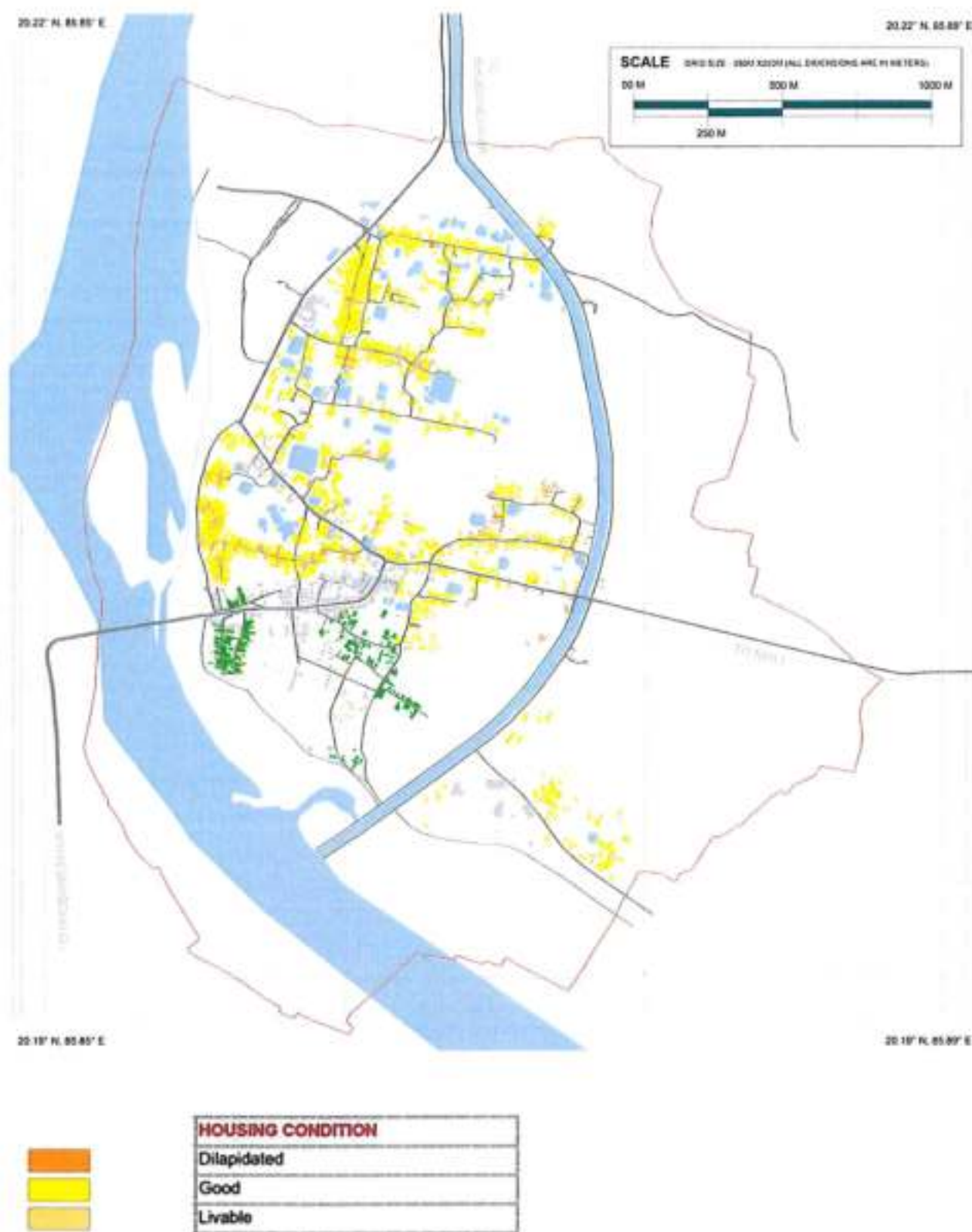
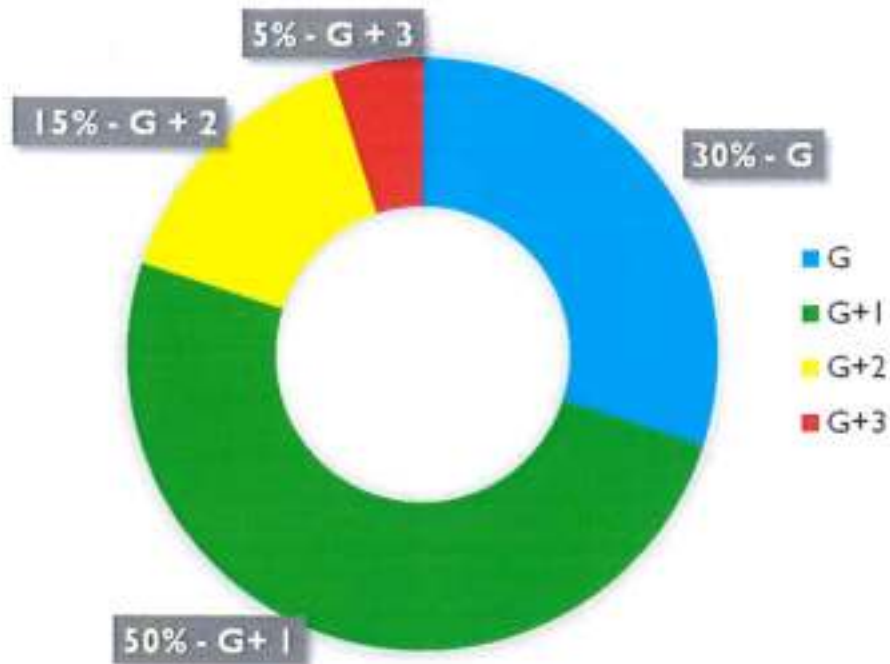


Fig 6.8 Map showing distribution of houses as per housing condition(Primary Source)

6.4.3 Housing by height

Fig 6.9 Map showing distribution of houses as per height of structure(Primary Source)



Most of the houses are G+ 1 (2 floor structures) at 50%. Around 30% of houses are only single floor. 15% of the houses are 3 floored and 5% are 4 floored.

Hence the rural appearance of a low rise settlement is slowly vanishing with the influx of people from Bhubaneswar Urban Centre who stay in the GP but work in Bhubaneswar. This accounts for the rising land prices which threaten to convert the open spaces for built purposes.

Most of the higher rise buildings are at the entrance to the GP on the east of the Banamalipur Road.

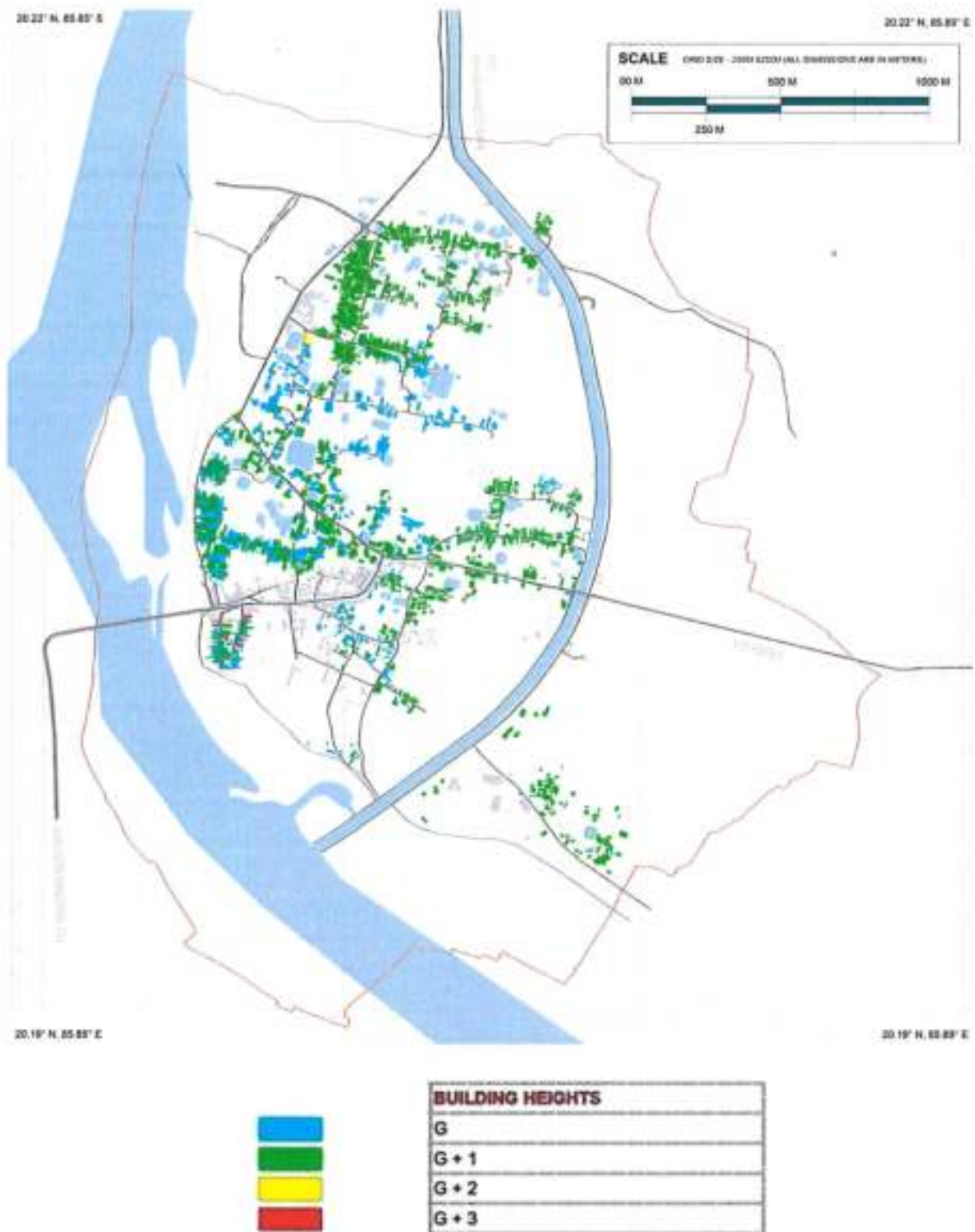


Fig 6.10- Map showing distribution of houses as per height of structure(Primary Source)

6.4.4 Housing by Age

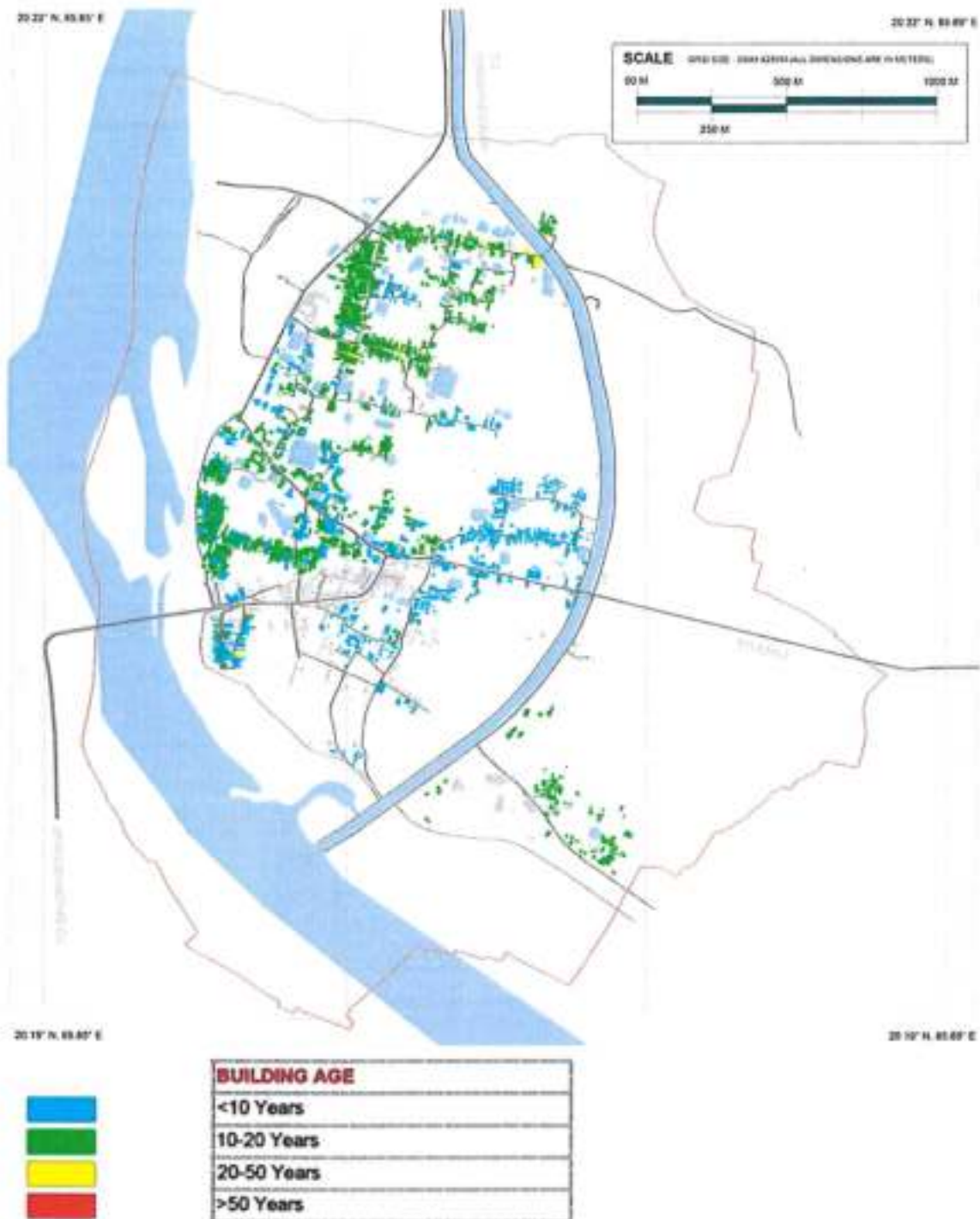


Fig 6.11- Map showing distribution of houses as per age of structure(Primary Source)

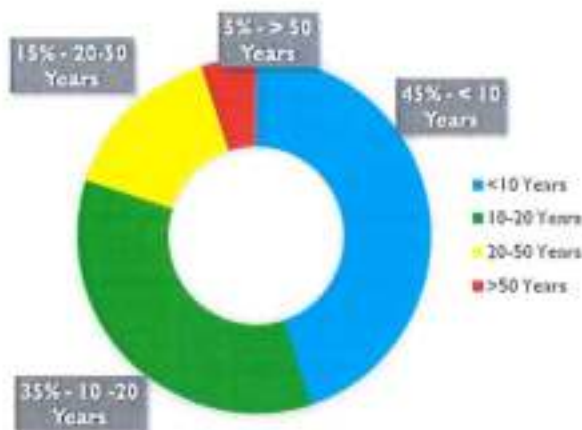


Fig 6.12 Pie Chart showing distribution of houses as per age of structure(Primary Source)

As can be seen most of the houses are new constructions (less than 10 years old) indicating the influence of the people from urban centre of Bhubaneswar. 35% of the houses are between 10-20 years. There is a large influx of people in recent years

Age of Structure	Kachcha	Pucca	SemiPucca
<10	0	3	2
10--20	7	33	0
20-50	5	33	6

Table 6.4 Distribution of HousingType with age of house(Source: Mobile Application Sample Survey)

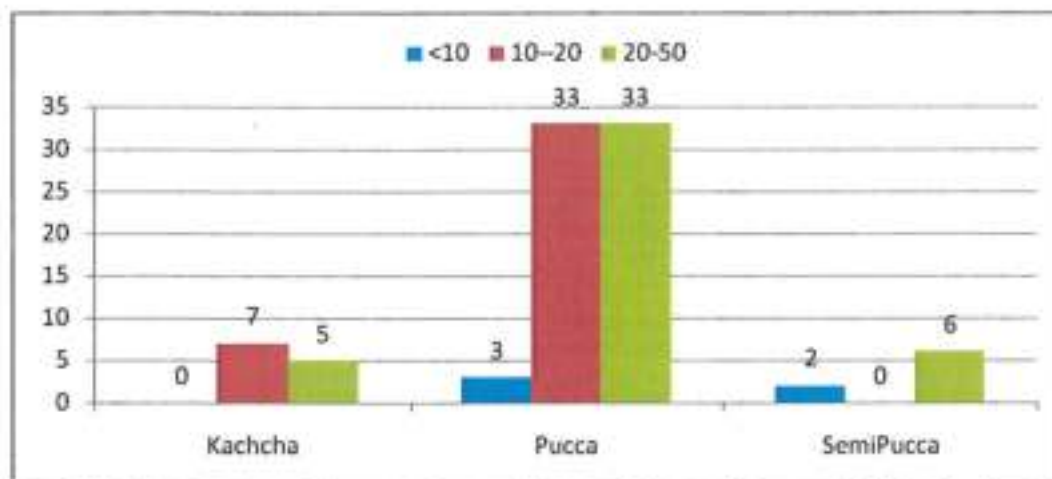


Fig 6.13 Distribution of HousingType with age of house(Source: Mobile Application Sample Survey)

6.4.5 Household distribution

6.4.5.1 By drinking water source

Water Supply	Total Houses	% of Houses
BoreWell	3	3.4
Handpump	78	87.6
PrivateTap	2	2.2
PublicTap	4	4.5
Well	2	2.2

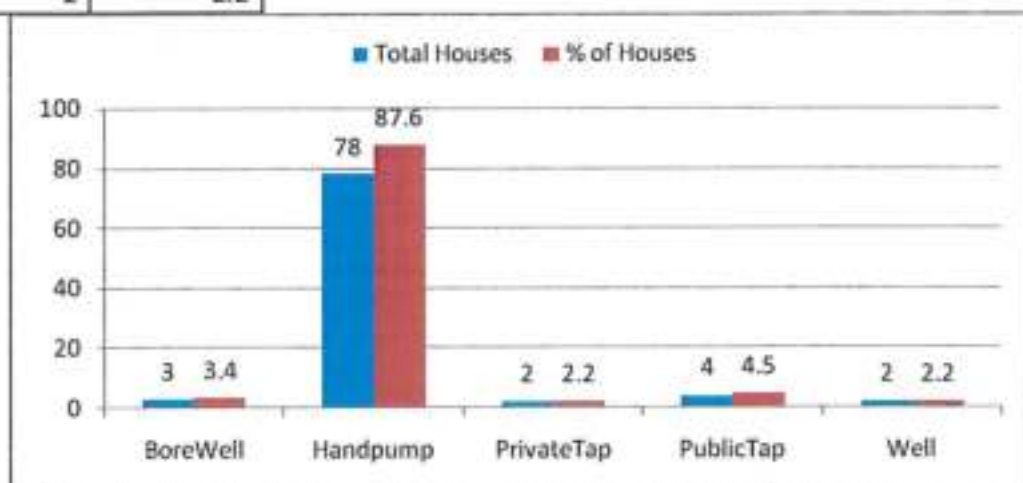


Table 6.5 Distribution of Household with drinking water source(Source: Mobile Application Sample Survey)

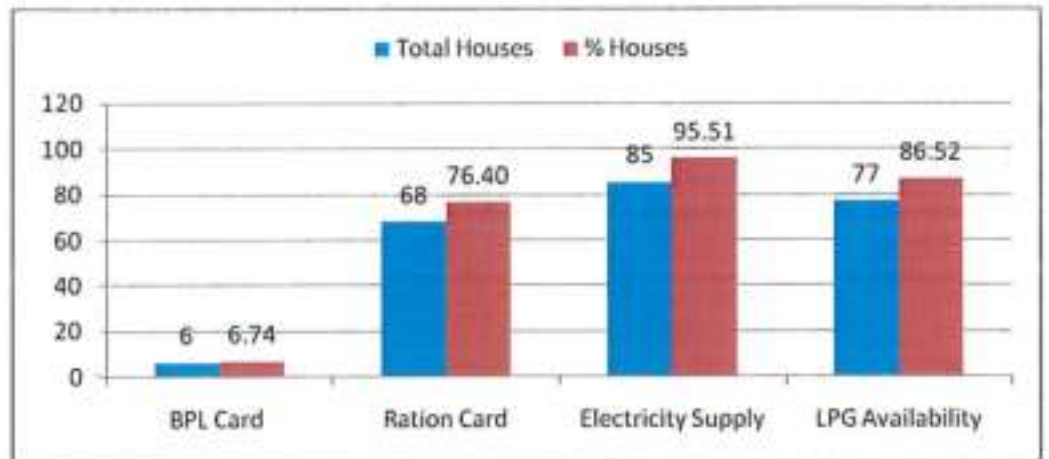
As can be seen that because of good ground water availability the handpumps are the prime source of water.

6.4.5.2 By type of fuel for cooking

Most of the households have electricity(95%) and BPL card holding persons are very less at only 6.74%.LPG is also available and used commonly. This indicates a good level of amenities and a good standard of living too.

Table 6.6 Distribution of Household with BPL Card, Ration Card, Electricity Supply and LPG availability(Source: Mobile Application Sample Survey)

Availability	Total Houses	% Houses
BPL Card	6	6.74
Ration Card	68	76.40
Electricity Supply	85	95.51
LPG Availability	77	86.52



Total Households	Firewood	Crop residue	Cowdung cake	Coal/Charcoal	Kerosene	LPG	Electricity	Any other
2521	1297	39	491	1	112	549	1	31

Table 6.7 Distribution of Household with type of fuel for cooking (Census 2011)

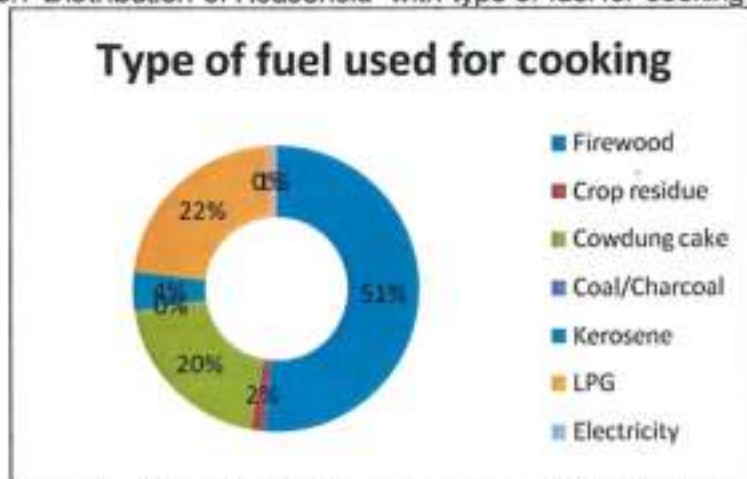


Fig 6.14 Pie chart showing Distribution of Household with type of fuel for cooking (Census 2011)

6.4.5.3 By toilet facilities

Pit System	Flush System	Service	Other
28	904	0	4

Table 6.7 Distribution of Household with Toilet Facilities, Census 2011

Flush Toilet			Pit System		Night soil disposed into open drains	No Toilet	
Piped sewer system	Septic tank	Other system	With slab/ventilated improved pit	Without slab/open pit		Public Latrine	Open defaecation
6	887	11	3	25	4	6	1579

Table 6.7 Distribution of Household with Toilet Facilities, Census 2011

6.4.5.4 By roof material

Grass/thatch/bamboo/wood/mud	Plastic	Tiles	Stone/slate	GI/Asbestos	Concrete	Any other
247	1	14	19	374	1428	432

Table 6.8 Distribution of Household with Roof Material, Census 2011

6.4.5.5 By wall material

Grass/thatch/bamboo/wood/mud	Plastic	Tiles	Stone/slate	GI/Asbestos	Concrete	Burnt brick	Wood
100	16	168	1738	6	109	805	111

Table 6.9 Distribution of Household with Wall Material, Census 2011

6.4.5.6 By Floor Material

Mud	Wood/Bamboo	Burnt Brick	Stone	Cement	Mosaic	Any other
382	110	13	52	2542	40	12

Table 6.10 Distribution of Household with Floor Material, Census 2011

The high presence of RCC floor and roof indicates a high standard of living. Also it is a village which is classified as Open defaecation free with toilets in a large number of houses (many of

which have been added under the Swacchh Bharat Scheme)

6.5 Social Infrastructure

6.5.1 Educational Facilities

INFRASTRUCTURE FACILITY	2011 STATUS
Anganwadi	5
Primary School	7 (Govt)+2(Private)
Middle School	3(Govt) +1(Private)
Secondary School(HIGH SCHOOL)	2(Govt) +1(Private)
Sr.Secondary School(+2)	1(Govt) +1(Private)
Colleges	1 Govt. Degree College- Art and Science Only +1 Govt. and 1 Private Degree College- Art,Science and Commerce
Special School for disabled	1 Govt

Table 6.15- Educational Facilities (Census 2011)

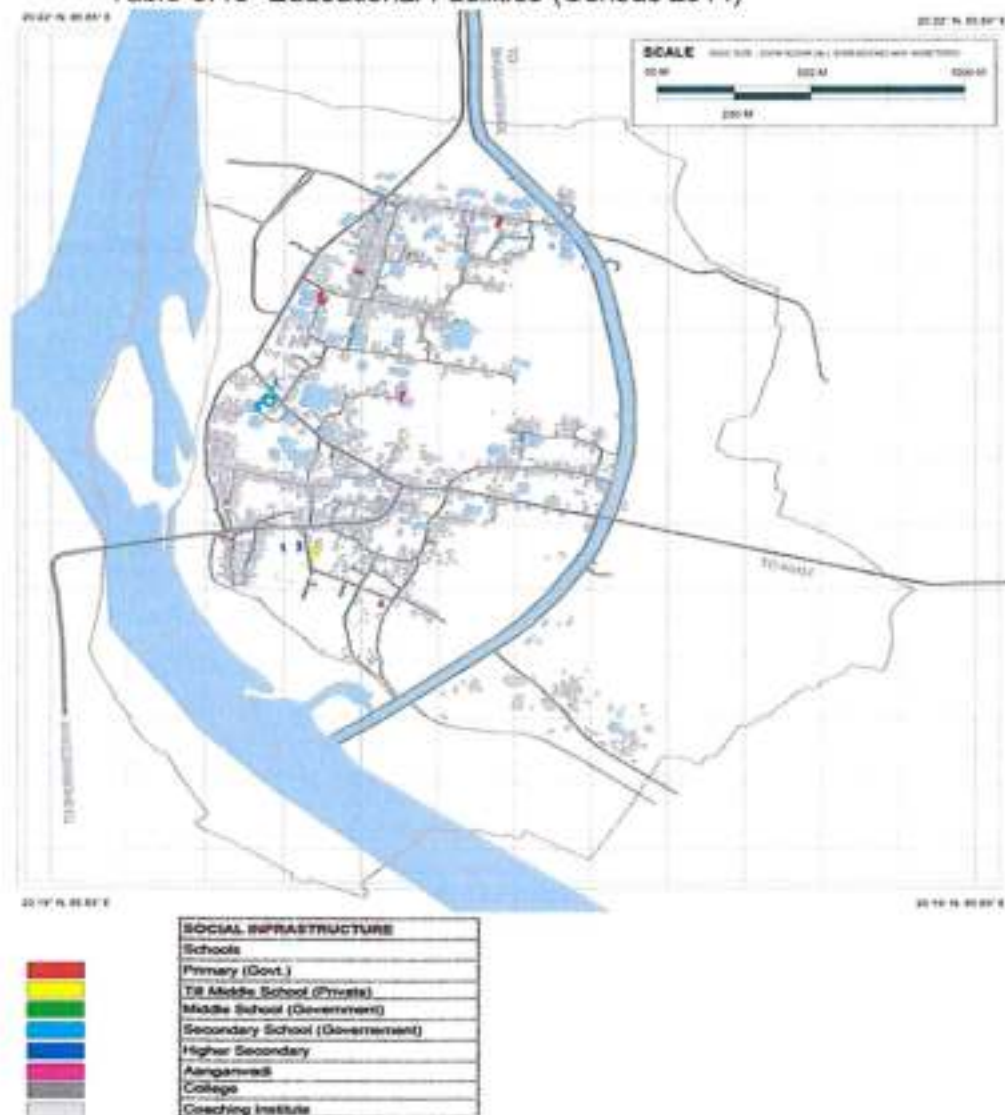


Fig 6.15 Map showing location of educational facilities(Primary)

6.5.2 Health Care Facilities

Facility	
Pr.HealthSubCentre	1 Health Centre with 2 beds with 1 doctor and 2 paramedics
Primary Health Centre	1 Health Centre with 6 beds with 1 doctor and 4 paramedics
Maternity and Child welfare	1 Health Centre with 8 beds with 1 doctor and 1 paramedic
Hospital (Community Health Centre)	1 with 6 beds, 5 doctors and 25 paramedics

Table 6.16 Health Care facilities(Census 2011)

6.5.3 Socio-Cultural Facilities

Others	Numbers
Veterinary Hospital	1
PostOffice	1
Community Room	4 Community Hall
Community hall & Library	2 Community Hall+1Govt.-Public Reading Room + 1 Private Reading Room
Commercial& CoperativeBank	2 Nationalised and 1 Co-operative Bank
Skill development Centre	-
Agriculture Services (Repair and Maintenance of Implements)and Processing Centre (fertilizer, seeds and pesticides)and Paddy Collection Centre	1 Existing with godown and needs repair
Kalyan Mandap	1 Govt+ 1 Private

Table 6.17 Socio Cultural facilities(Census 2011)

6.5.4 Other Public and Semi Public Facilities

Facilities	Numbers
Warehouses for Cold and Dry Storage	
Livestock Aid Centre	1
Industrial Cooperative Society	3 Non agricultural
Common Service Centre	
Banks	3 Nationalised Bank + 1Private Commercial Bank + 1Co-operative Bank
Short hand and Typing	1 Govt and 2 Private
Control Ration shop	5

Table 6.18 Other Public and semi public facilities(Census 2011)

6.5.5 Commercial Facilities

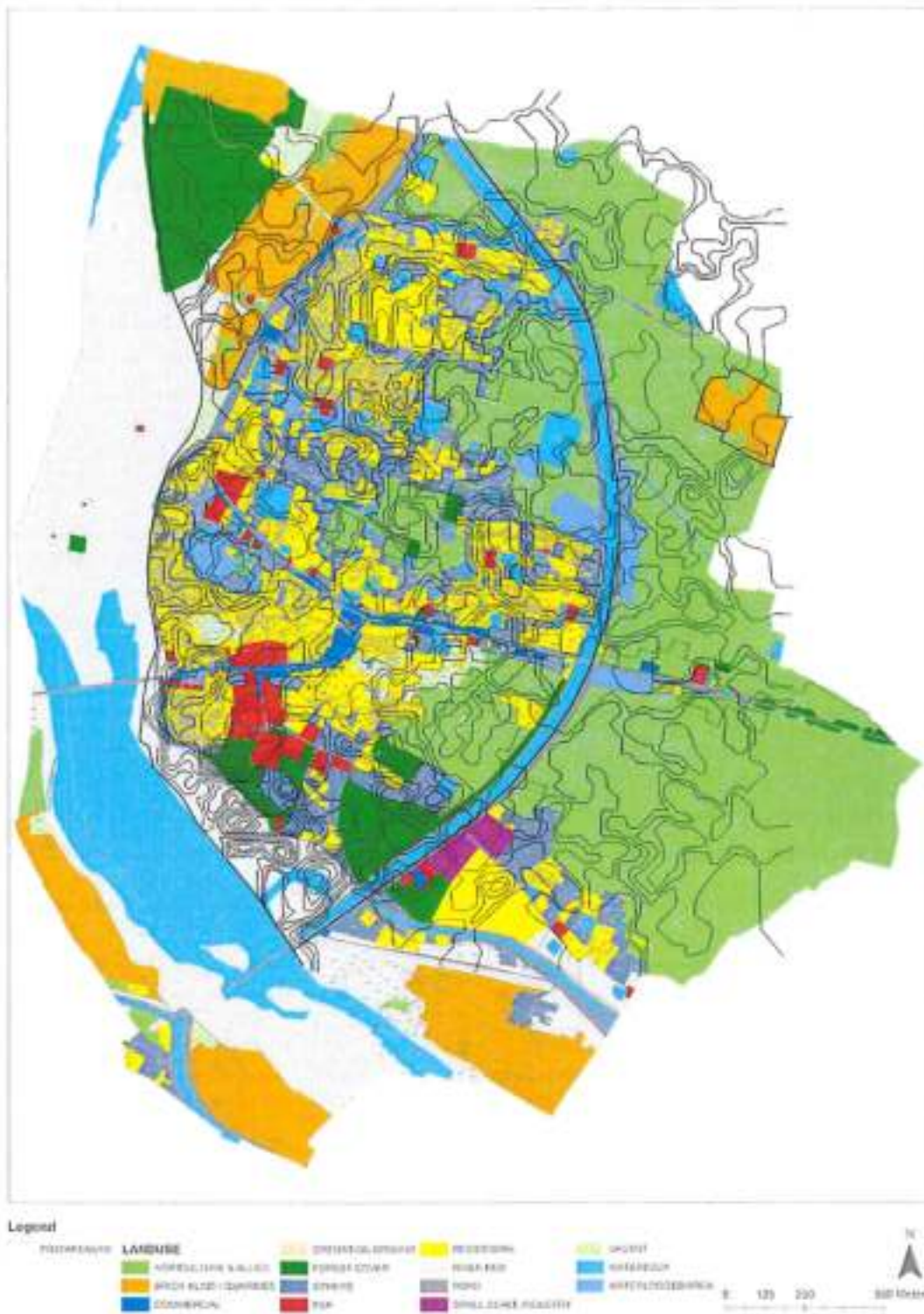


Fig 6.16 Map showing location of commercial facilities(Primary) marked in deep blue

6.5.6 Industrial Facilities

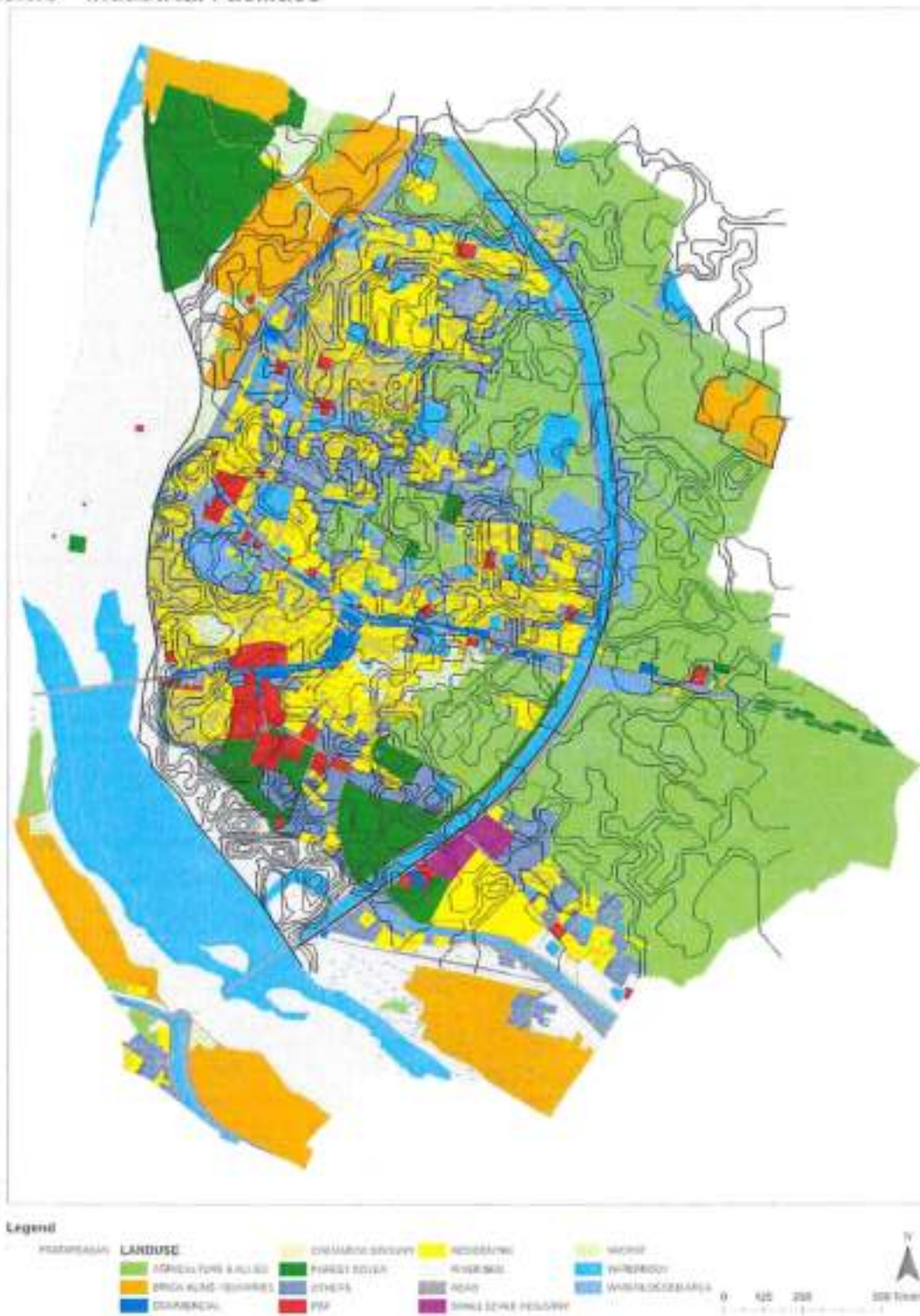


Fig 6.17 Map showing location of industrial facilities(Primary) marked in purple

6.5.7 Recreational Facilities and Open spaces

Although there are many open spaces and playground areas near schools but they are not equipped with play equipments. One ground near the Pratapsasan Girls High School is enclosed with compound wall but it is not developed. There are no parks , neighborhood or children's parks .

6.5.8 Others

Veterinary Hospital	1
PostOffice	1
Community Room	4 Community Hall
Community hall & Library	2 Community Hall+1Govt.- Public Reading Room + 1 Private Reading Room
Commercial& CoperativeBank	2 Nationalised and 1 Cooperative Bank
Skill Development Centre	-

Table 6.19 Other facilities(Census 2011)

6.6 Physical Infrastructure

6.6.1 Water Supply

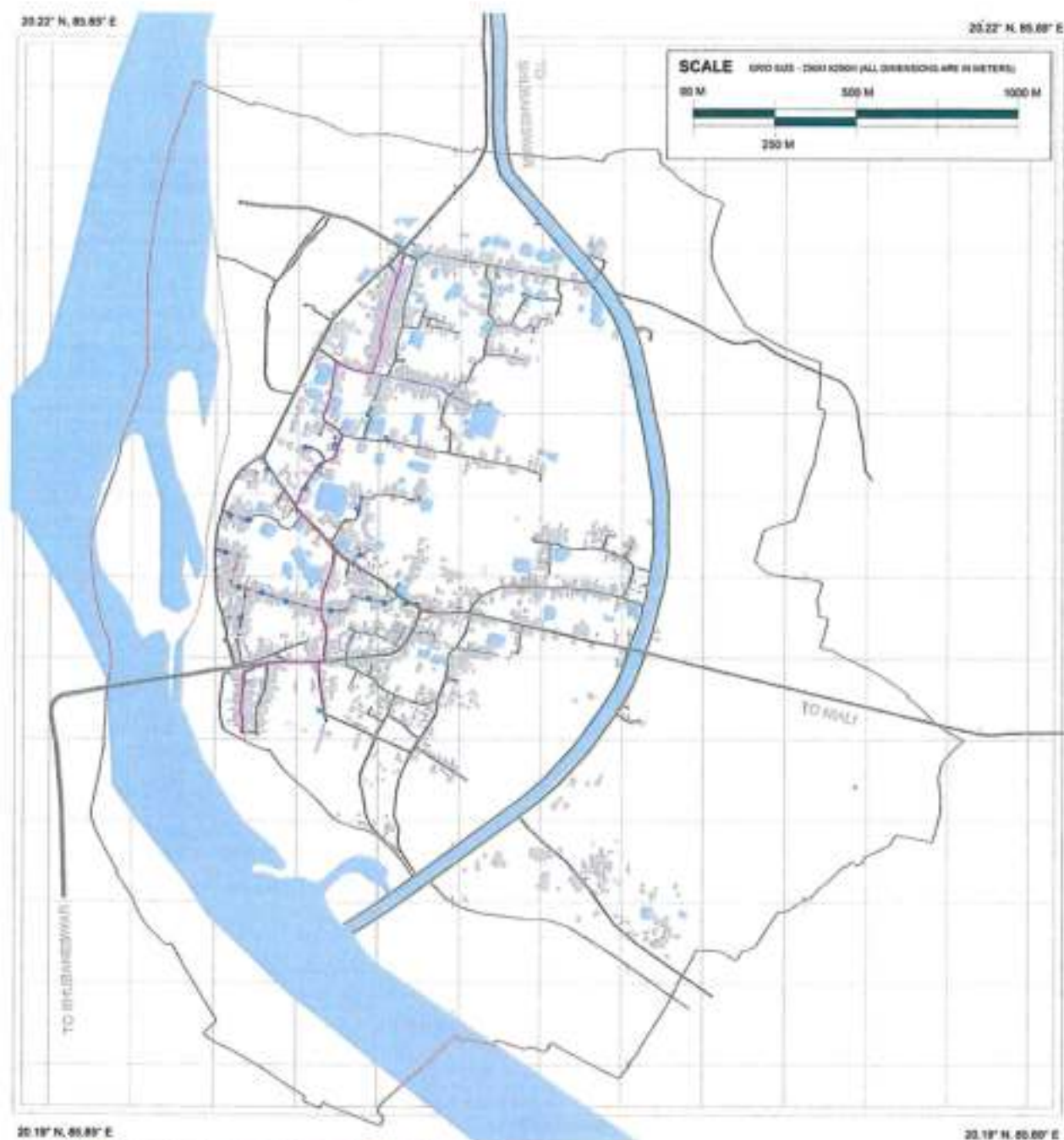
Tap water from treated source	Tap water from untreated source	Covered well	Uncovered well	Handpump	Tubewell	All others
179	44	45	98	1438	663	54

Table 6.20 Main Source Of Drinking Water (Census 2011)

At present there is 5.13 lakh litres of water storage in overhead tanks . In addition there are 2 tanks with 6 lakh litres under construction which is sufficient till 2021. But taking the water requirement standards as per RADPFI @ 70 litres per capita per day there is a requirement of 14 lakh litres for which provision will have to be made. Most of the water supply is from hand pumps and sent to overhead tanks from where it is supplied by piped network.

Infrastructure Facility	2011 Status(Existing)
Handpump	Shown in Map
Water Requirement (litres)@70 lpcd min	5,13,200+6,00,000(under construction)

Table 6.21 Main Source Of Drinking Water (Primary)



	5.4	WATER RELATED INFRASTRUCTURE
	5.4.1	Well
	5.4.2	Water-line
	5.4.3	OHT
	5.4.4	Hand-pump/Municipal Tap

Fig 6.18 Map showing location of water related infrastructure(primary)

6.6.2 Drainage System
 6.6.2.1 Sewerage System
 6.6.2.2

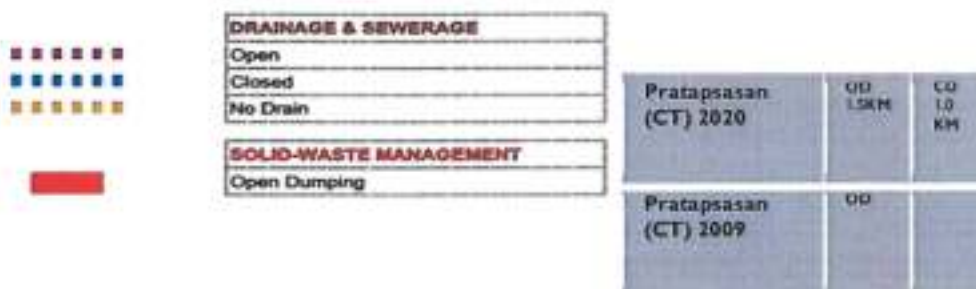
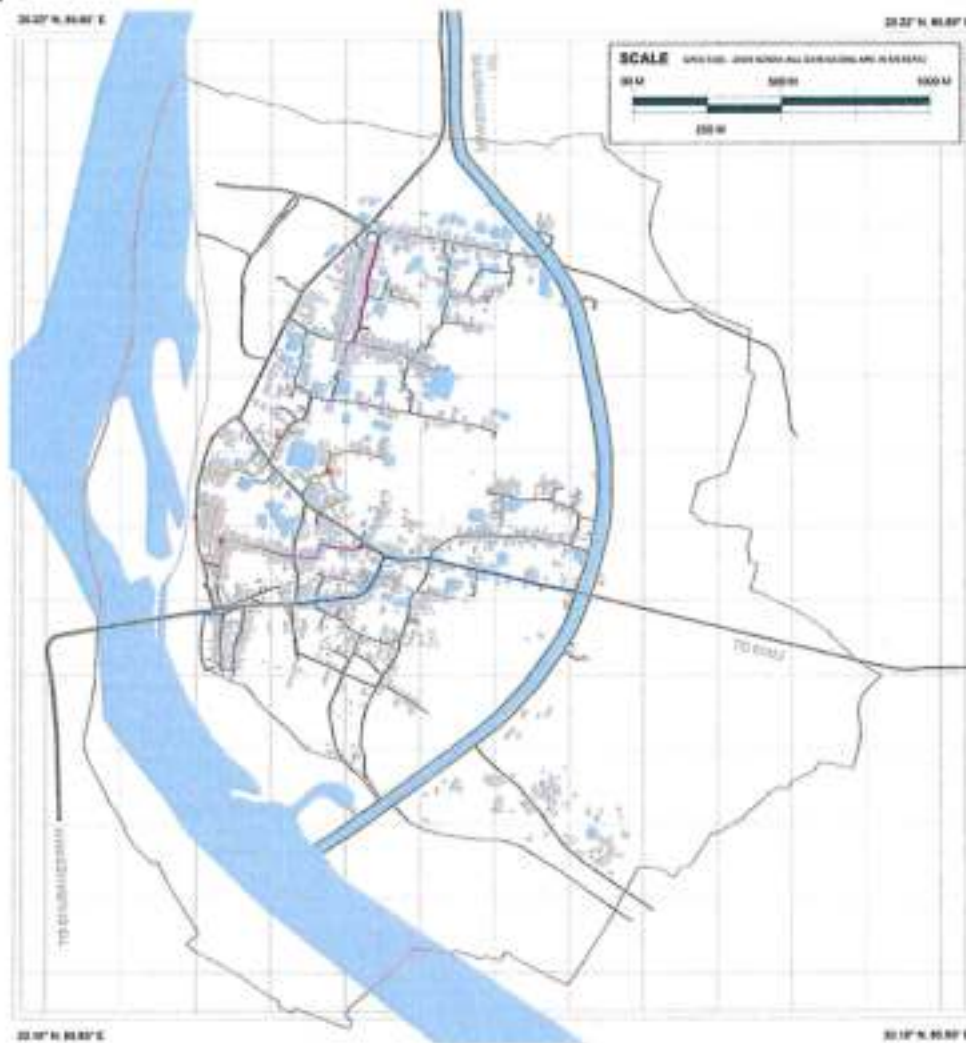
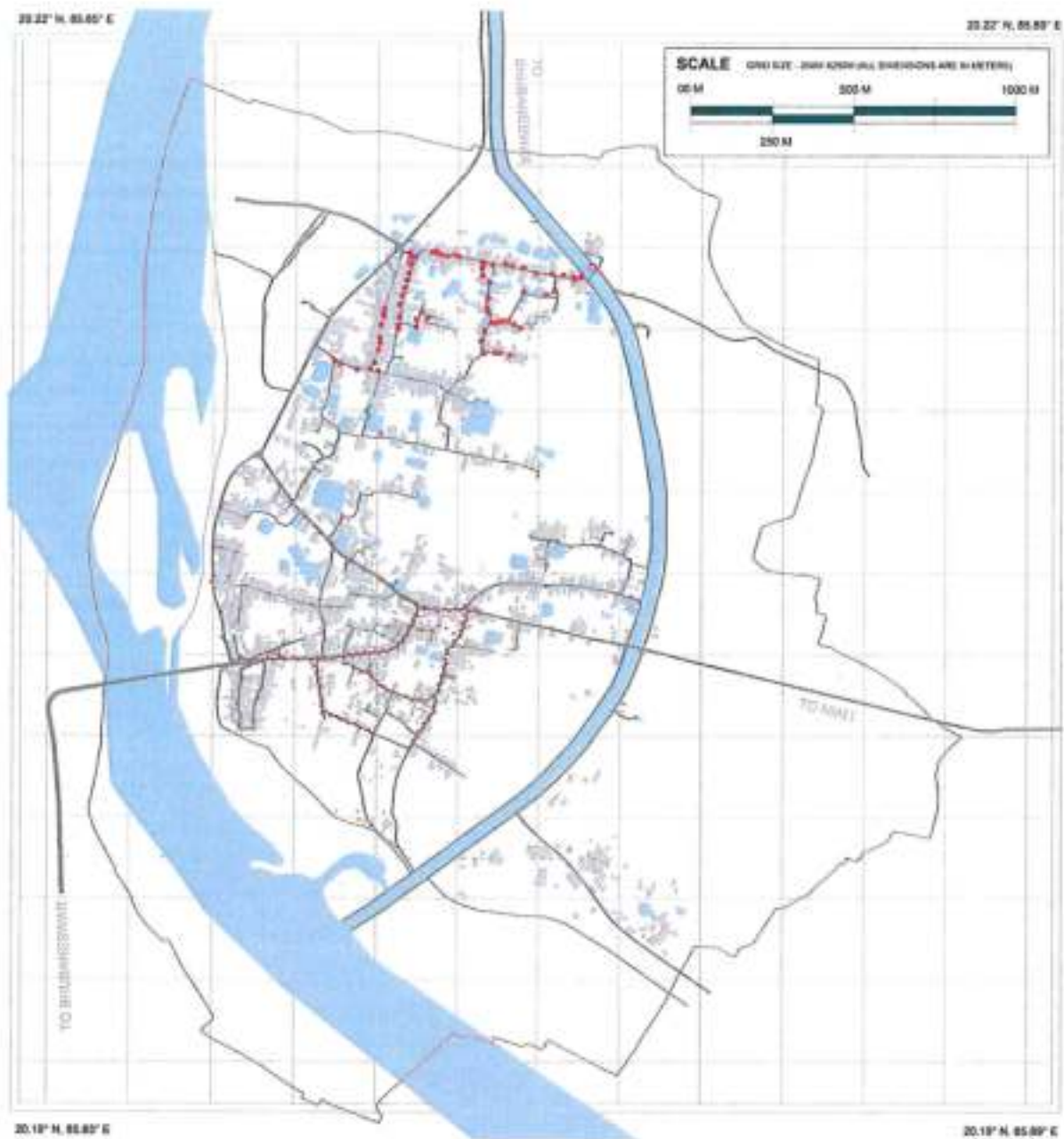



Fig 6.19 Map showing Drainage and Sewerage and Solid Waste Network (Census 2011).



	5.7 ELECTRICAL INFRASTRUCTURE
	5.7.1 Light Posts
	5.7.2 Transformer

	Domestic	Industrial	Commercial	Road Lighting	Others
Pratapsasan (CT) 2009	1326	25	221	145	0
Pratapsasan (CT) 2020	3000 Approx.				

Fig 6.20 Map showing Electrical Infrastructure Network

6.6.6 Transportation

6.6.6.1 Existing Road Network

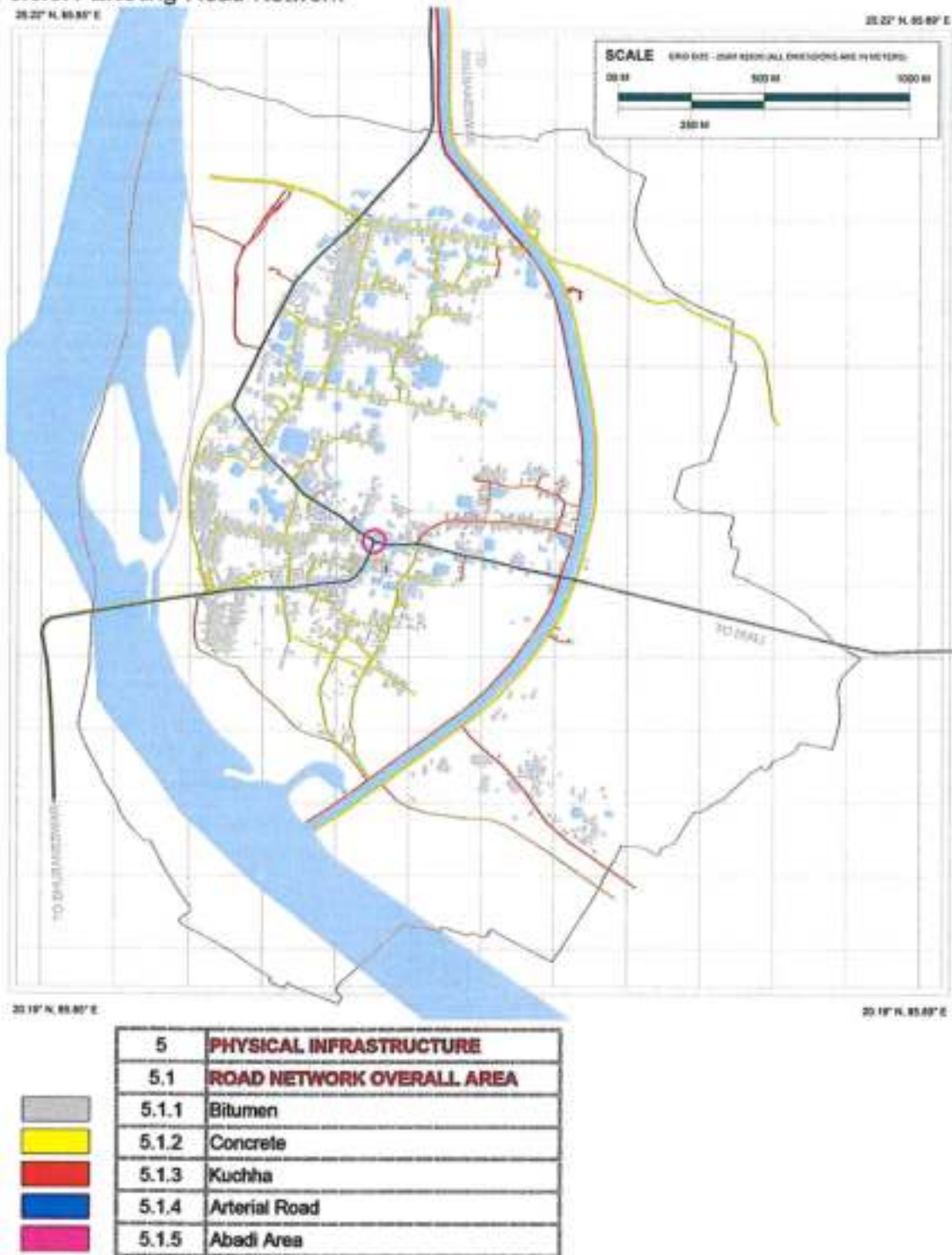
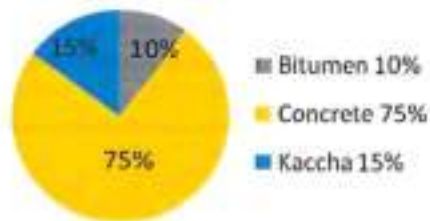
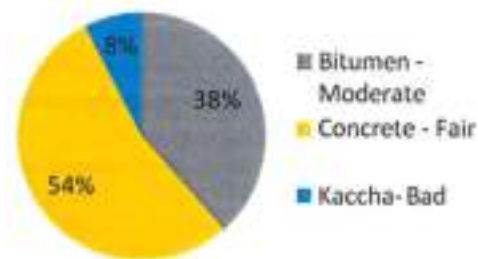


Fig 6.21 Map showing Road Network

Type and percentage of Road serving Pratapsasan.



Condition of roads



The main arterial road experiences heavy traffic throughout the day. Ring roads (Bandha roads) are narrow and non-motorable. There is no provision of shoulders in the Cement Concrete road sections as a result the edge drop was found to be very high at places raising safety concern for the vehicles plying on the roads during crossing and overtaking maneuvers and also the edges are prone to damage in such conditions. Speed breakers were not provided on the busy road and neither near health and educational institutions. Encroachment was found along the major arterial roads leading to congestion and the within the thickly habitated portions of the village making it inaccessible for the emergency services and also leaving no space for construction of drains. Newly developed residential areas and the fringe areas were not provided with concrete roads and mostly accessible by semi-kaccha or kaccha roads. Way finding was difficult because of absence of signage and legible directions to destinations.

7 PROPOSED SPATIAL DEVELOPMENT

7.1 Stakeholders Perception

A meeting was held with the Sarpanch, Panchayat Officer and Panchayat workers to discuss the issues and vision of the GP .





They identified some development areas for the GP

1. A market complex on Banamalipur Road . The GP has a weekly mandi where all the nearby villages come . As the GP is the commercial hub for all the surrounding GPs in Baliana block, the market complex is very crucial for the economic development of the block.
2. Landfill for dumping- 1 completed near Nuapatna and 1 to be done near Rathijema.
3. Proposal for a dustbin in every ward but collection is a problem as there is no manpower.
4. Chandan Pokhari to be developed as a religious gathering place.
5. Raja Pokhari also to be developed as a religious gathering place for rituals and ceremonies.
6. Harijan basti at the periphery of the GP to be developed in terms of proper roads and infrastructure like storm water drainage and sewerage connections and street lighting.
7. Bhagabati colony to be developed GP to be developed in terms of proper roads and infrastructure like storm water drainage and sewerage connections and street lighting..
8. Exhibition Space with Auditorium and Playground near Pratap Sasan girls high school

for fairs and festivals and display .

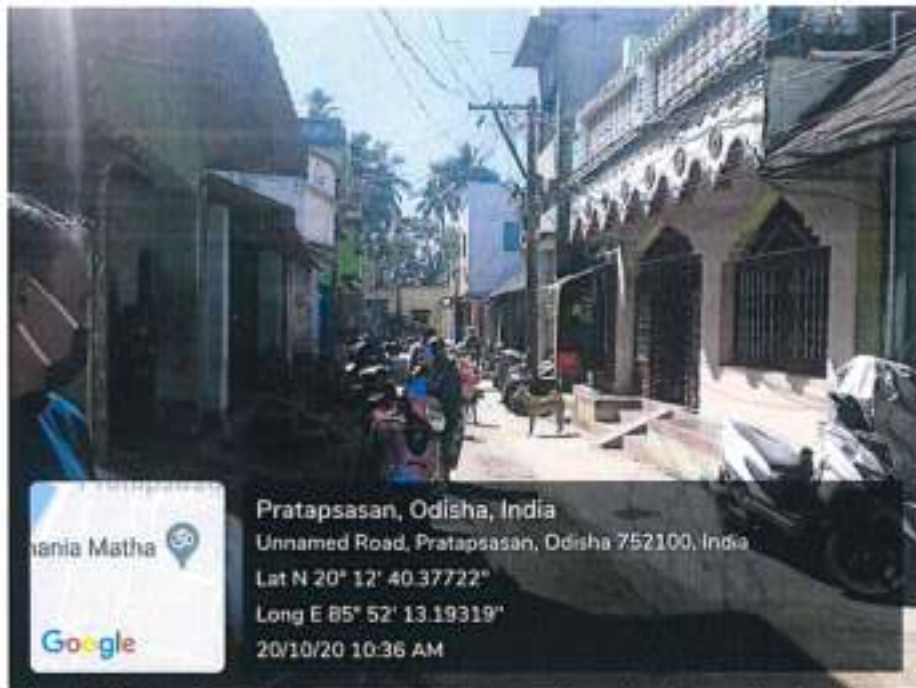
7.2 Identification of Issues



Majority of the roads did not have storm water drains and hence there is waterlogging on the roads. The buildings were abutting the roads with no setback and the upper floors projecting on the roads increased the waterlogging. There was no porous surface on the road to take care of ground water absorption.



The steps to houses projected onto the road with handpumps located in the middle of the road which caused a lot of congestion and inconvenience to moving traffic and four wheeler movement. The buildings at junctions disturbed the visibility from adjacent road perpendicular to it.



Waste Water from baths and toilets were directly released onto the roads . Only some of the toilets had soakpits.





Waste water from kitchen and baths in the house being released directly onto the streets



Corner buildings have no setbacks obstructing visibility.



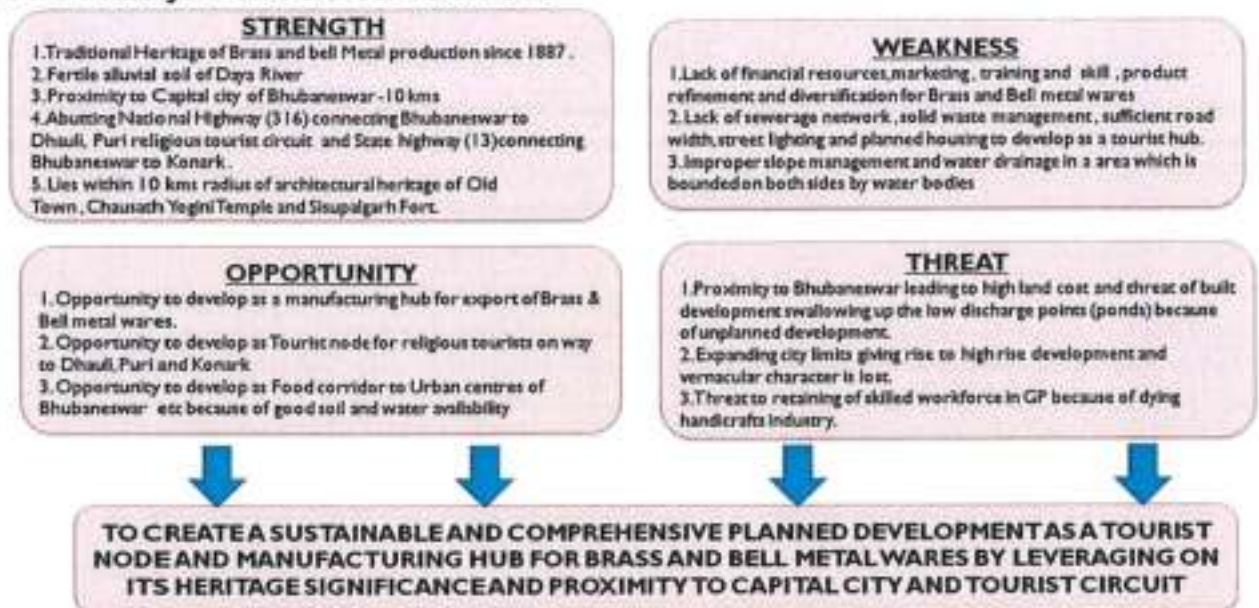
Insufficient setbacks between buildings which do not allow natural light and ventilation.
No designated dustbins and hence all open areas are dumping grounds



ISSUES IDENTIFIED AT GP LEVEL

<p>Economy of Brass and Bell Metal Industry</p>	<p>Dependance on Mahajans for Raw Materials is too high at 72%. Hence there is a need for Raw Material Godown by Government to prevent exploitation at the hands of the Mahajan. Also the sales distribution channel dependence on Middlemen is very high so the artisan association should be strengthened to handle the sales and distribution</p> <p>No training facilities and Promotion Centres(Display, Marketing, Exhibition) available in Balakati. The artisans have to go to Bhubaneswar and Cuttack. There needs to be product diversification and proper training centers for design development in products other than household utensils. They can diversify into home decoration items which are in great demand using professional services of designers and architects and market them through their own websites for the export market.</p> <p>Strengthening of artisan association. Most of the cooperatives have become defunct. There is a need to revive them .</p> <p>Present Working Sheds and working conditions not suitable as per standards. The light and ventilation is very poor. The areas are not sufficient and cramped.</p> <p>Some processes can be mechanized to enable bulk orders. Casting and moulding can be done using mass production techniques to reduce the delivery times.</p>
<p>Education</p>	<p>High literacy level(much higher than state and block level literacy). The women literacy level is also very high at 72% on account of being near an urban centre. This advantage should be used for technological advancement and digital marketing.</p> <p>Educational institutes are more than adequate and well accessible. Self employment opportunities should be exploited to enhance livelihood.</p>
<p>Transportation</p>	<p>Well connected to nearby towns by State (13)and National Highway(316)</p> <p>Congestion because of encroachment in the arterial road -Banamalipur Road . This is the commercial spine of the GP and has many encroachments which needs to be demolished for developing the tourist node and proposed transport node</p> <p>Concrete roads in residential zone were encroached leaving no space for drains and accessibility to emergency services</p>
<p>Housing</p>	<p>Housing conditions were good but lack infrastructure services. Houses are abutting the streets with no setbacks.</p> <p>No Street lighting and storm water drainage were provided in residential areas</p> <p>No sewerage network and solid waste collection within housing areas</p>
<p>Social Infrastructure</p>	<p>Ample open spaces present but not developed /equipped as playgrounds and parks. There should be play equipments and seating places and developed landscape in open spaces so that they do not become dumping grounds for garbage.</p> <p>Absence of development around ponds as religious and recreational spaces. All congregation activities happen on the roads which disrupt the traffic . Instead the Pokhris and spaces around temples should be developed for gatherings on religious occasions. It will prevent the ponds from being converted into built spaces due to pressure of rising land values and leading to drainage issues as they are natural water sinks of the area.</p> <p>Potential for Riverfront development along banks</p>

7.3 SWOT Analysis and VISION Statement



7.4 Projection and Future Spatial Development

7.4.1 Demographic Projection

7.4.1.1 Arithmetic Increase

This method is suitable for large and old city with considerable development. If it is used for small, average or comparatively new cities, it will give low result than actual value. In this method the average increase in population per decade is calculated from the past census reports. This increase is added to the present population to find out the population of the next decade. Thus, it is assumed that the population is increasing at constant rate. Hence, $dP/dt = C$ i.e. rate of change of population with respect to time is constant. Therefore, Population after nth decade will be $P_n = P + n.C$ Where, P_n is the population after n decade and P is present population.

$$P_{1991} = 9576$$

$$P_{2001} = 11971$$

$$P_{2011} = 12830$$

From 1991 to 2001 and from 2001 to 2011 the average increase in population is $= (2395 + 895) / 2 = 1645$

$$P_{2021} = 12830 + 1 * 1645 = 14475$$

$$P_{2031} = 12830 + 2 * 1645 = 16120$$

$$P_{2041} = 12830 + 3 * 1645 = 17765$$

$$P_{2051} = 12830 + 4 * 1645 = 19410$$

Year	1991	2001	2011	2021	2031	2041	2051
Population	9576	11971	12830	14475	16120	17765	19410

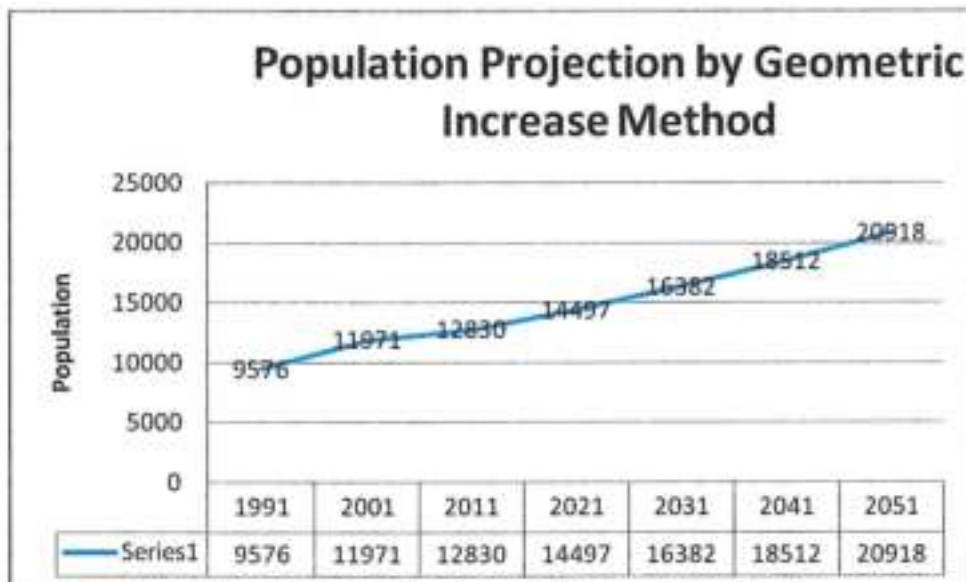


Fig 7.2- Population Projection by Geometric Increase Method

Since Pratapsasan is a census town at the fringes of the capital city of Bhubaneswar and at the beginning of development, hence population projection by the geometric increase method has been used.

7.4.2 Economic Revitalisation

7.4.2.1 Tourism and Heritage Zone Development Guidelines

The heritage zone development guidelines should be adhered to like uniform and aesthetically pleasing signages. Community participation should be encouraged. Instead of pulling down the heritage structures an alternative of adaptive reuse to be considered. So a heritage trail which is economically, socially, environmentally and culturally sustainable should be adopted as specified in the HRIDAY(National Heritage City Development and Augmentation Yojana) guidelines.

7.4.2.1.1 Tourist Node Development

Pratapsasan enjoys a very strategic position in the religious tourist trail and also the handicrafts circuit of Odisha. It is located off the NH 316 connecting Bhubaneswar to Puri. It also falls enroute the state highway(13) connecting Bhubaneswar to Konark. Lying at the banks of the River Kuakhai which splits into its distributaries Daya and Bhagirathi, it has a huge potential of getting leveraged as a tourist node.



Fig 7.3 – Map of Prapatapsasan for development as Tourist node

Since it also lies on the handicraft circuit of Pipli (famous for Chandua /appliqué work) Raghurajpur (artisan village famous for pattachitra paintings) Nimapada (for Nimapada sweets), it has enormous potential of being developed as a handicraft and heritage circuit.

7.4.2.1.2 Riverfront Development and Tourist Cottages

There are two connections to the GP. One from the Uttara Chakk which crosses the River Bhagirathi by a bridge and goes on to as the Banamalipur Road. The other connection is from the Tankapani Bridge and continues along the banks of the Kuakhai as Bainchua Road. There is huge potential of developing this area as a Riverfront promenade with several tourist and recreational activities. Hence a proposal of Riverfront development (18) in Fig is suggested which will emphasize the River's history and connection to the Ashokan times when the sight of blood filled water had transformed Chanda Ashok to Dharma Ashok. Public activities and events, such as sidewalk cafés, street fairs and vendors will enliven connections and boost the tourism and economy.

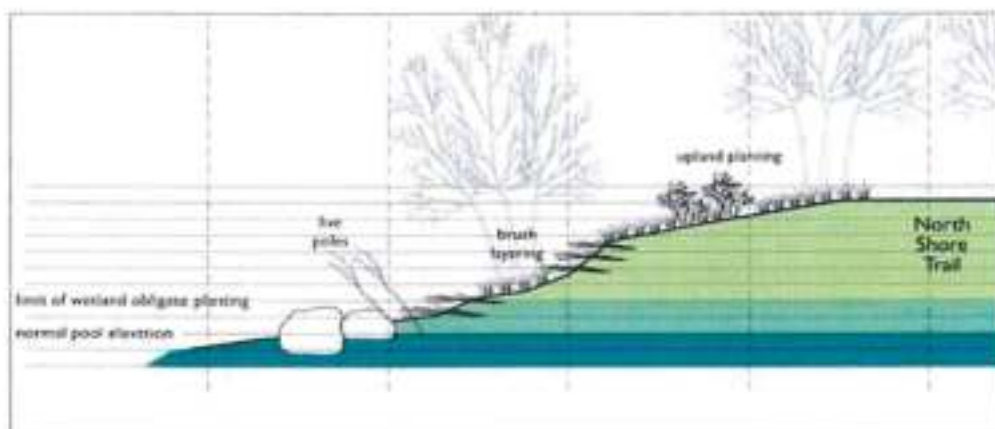
Scenic drives, pedestrian trails, riverfront streets are important parts of riverfront development. A tourist resort with cottages (on the existing brick kiln which are environmentally polluting and presently banned) will enhance the potential as it connects to Chausath Yogini temple, Sisupalgarh and other heritage centres.



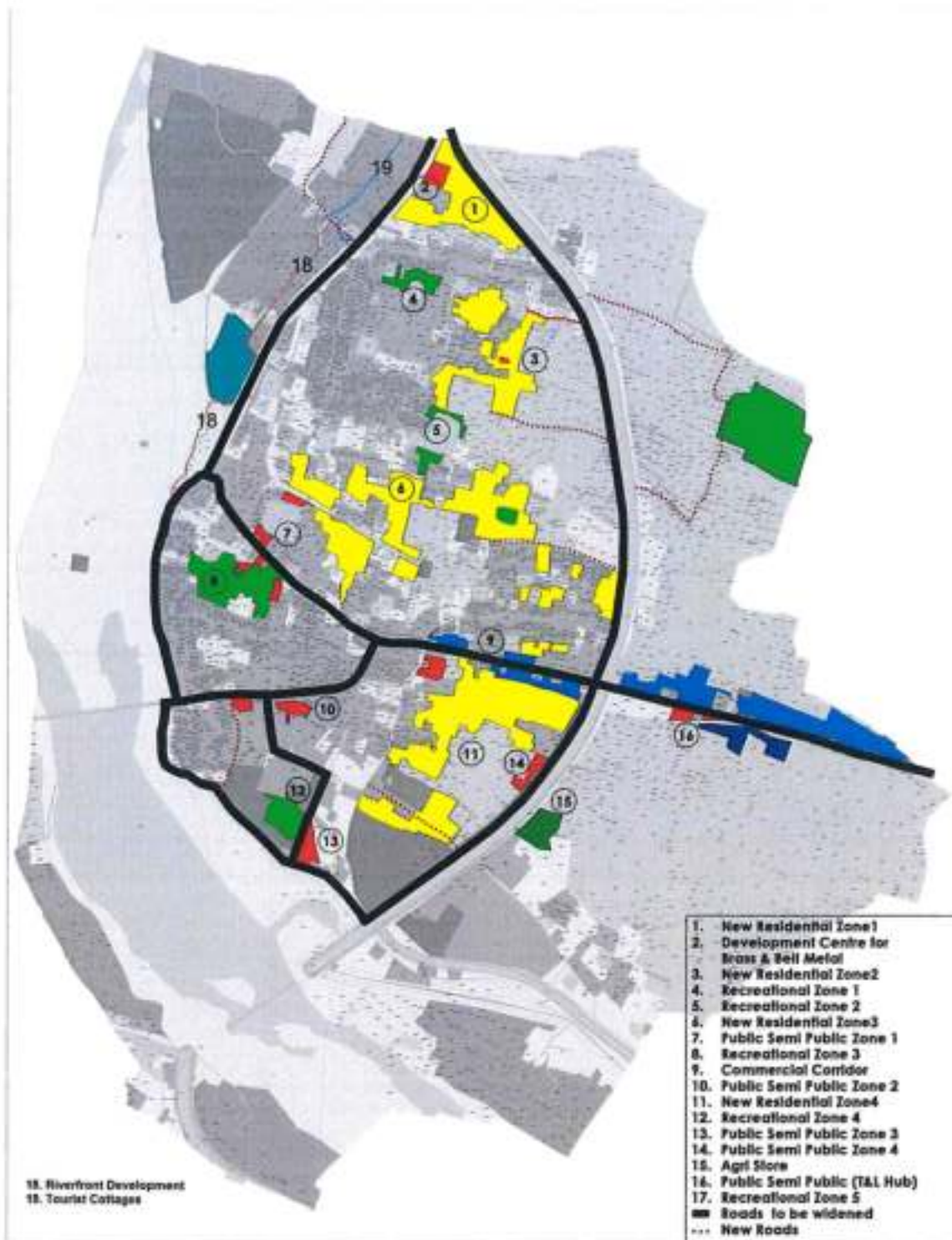
Fig 7.4 –Section through River Bank development

Ecological Conservation and Open-Space Buffer Zone

For open spaces along the river, a buffer zone should include design and development techniques that will provide and enhance the following: provision of ecosystem services, ecological restoration, conservation and improvement of biodiversity, increased habitat corridor potential, improved public trail access, open-space amenities, and environmental education.



Typical river section showing steep bank stabilization underneath fairly continuous layer of canopy trees. Andropogon 2006



Legend

PRATHAPASAM	LANDUSE	CREMATION GROUND	RESIDENTIAL	VACANT
	AGRICULTURE & ALLIED	FOREST COVER	RIVER BED	WATERBODY
	BRICK KILN / QUARRIES	OTHERS	ROAD	INTERLOCKED AREA
	COMMERCIAL	PSP	SMALL SCALE RESIDENTY	

0 125 250 500 Meters

Fig 7.5- Proposed Land Use plan till 2051 showing Riverfront development

7.4.2.2 Brass and Bell Metal Industry

Contemporary adaptation of Craft to reinvent the use of Brass and Bell Metal in Interior decoration, Building fixtures (door knobs and handles), hanging lamps and diyas , lighting fixtures, furniture and electrical fixtures



Balakati diya

The origin ethos of native folks. Enthused from the ethnic ritual of nearby Balakati village and made up of bell-metal.



Applique Work

The most gorgeous and elegant handiwork of nearby village pipili. Embroils a practice of embroidering and stitching of small piece of colored cloth, representing a specimen of customary knack.



Development of contemporary products

Innovating the process for mass manufacturing so that certain processes like casting and moulding can be mechanized. There is a need for creating a market niche which will cater to high end demand in interiors and building furnishing and fixtures. A Team of professionals can collaborate with craftsman community like Architects/ industrial designers/ fashion designers from KIIT University and guide them on designs and process and product innovations.



7.4.2.3 Agriculture Fishery and Livestock

Since the soil is good alluvial soil and irrigation is available from the canal, this area is very suitable for agriculture. There are numerous ponds some of which can be used for fishery and some as retention ponds used for irrigating vegetable cultivation. As the cropping pattern is dominated by paddy, the crop diversification will consider crop rotation with pulse crops. Farmers need to be encouraged to conserve rainwater in their own fields. Construction of open wells to be promoted as it will help in ground water recharge.

The produce from agriculture, fishery and poultry would require a cold and dry storage warehouse which can be placed as shown as 15 in Fig in Proposed Land Use Plan. For a 10 MT cold storage unit, the room dimensions required would be 5.5m x 3.5m x 3.5m. The refrigeration capacity shall be 30000 Btu/hr. The investment for a 10 MT cold storage which as per norms is estimated to cost nearly Rs.15,00,000/- except the cost of land. (Source: <https://www.agrifarming.in/cold-storage-project-report-cost-and-subsidy> : : :te t=The%20cold%20storage%20room%20basic,to%20be%3A%20 3%CB% A C.)

Food processing should be encouraged like rice processed products(rice flakes, rice puffs etc) fruits and vegetable processed products like jams and jellies, spice production.

The Milk based processing activity (viz., khoa, paneer and butter) is missing in the GP and will require a milk chilling centre. Poultry farming does exist and can be encouraged with adequate provisions.

There are several large sized natural ponds which should be developed for fishery to revitalize the economy and prevent conversion of low lying open areas into built structures. Naveen Patnaik, CM of Orissa has recently launched a scheme namely Fish Pond Scheme. This

scheme aims to provide freshwater fishes in the state. Under this scheme the applicants will get subsidy in loan. This scheme will also help the farmers to encourage freshwater aquaculture across nearly 2200 hectare of land.

Key Features

- **Freshwater creation:** Under this scheme state will provide subsidy to create additional freshwater for fisheries. Farmers will be given loan to create more water for freshwater aquaculture under this scheme.
- **Subsidy:** The subsidy will be given on the loan farmers will take for the water body. The state government will pay half of the loan amount that the farmers will take.
- **Land:** Around 2200 Hectare of land will be available under this scheme. In this vast land farmers will create water bodies for the aquaculture.
- **Benefits:** Apart from having additional water bodies the scheme will generate more employment and will increase income of the farmers. This will also increase the freshwater fish culture in the state.

7.4.2.4 Women Entrepreneurship

Since there is very less involvement of women in the Brass and Bell Metal Industry which is labour intensive, there is scope to involve women, in small scale organic cultivation of vegetables. They may rely on the manure generated by the vermiculture pits and the biogas plant and grow organic vegetables. Organic produce needs to be certified by a certifying authority and the soil in which the produce is grown needs to be free from the use of chemicals for at least three years. The individuals would need to be educated and trained with regard to the parameters and process of organic farming of vegetables. Land may be given to Self help groups as a starting point from Government land.

7.4.3 Housing Projections and Shortage

Table 7.1-Projections of Housing Shortage

Year	Households	Acceptable Housing (Growth @2%Every Year)	Congestion(6.5% of No Of Households)	Obsolete(4.3% Of Acceptable Housing(Permanent + Semi-permanent)	Total Housing Shortage	Housing Requirement
2011	2576	2413	167	103	433	2846
2021	3221	2941	209	126	615	3556
2031	3640	3558	236	152	470	4028
2041	4113	4306	267	185	259	4565
2051	4648	4934	302	212	228	5162

Estimated household size= 4.5 persons per household.

Total Housing Shortage =(Total Households – Acceptable Housing) + Congested Housing + Obsolete Housing

Acceptable Housing growth every year is assumed at 2%. Congestion is assumed at 6.5% of no of households and Obsolete housing is 4.3% of Acceptable Housing.

(Calculation based on Planning Commission Estimation of Rural Hsg Shortage for 12th Five Year Plan)

7.1.1.1 Land Area Requirement

Projected Housing Requirement till 2051

Additional number of housing required = 5162-2413=2749

Proposed density (RADPFI)= 60 plots per hectare

Land area required for housing = 45.81 hectares(2749/60)

Required Open Spaces(RADPFI)= 1.21 hectare/200 houses

Land area required for Open spaces= 16.63 hectares (1.21*2749/200)

7.1.1.2 Neighborhood Planning

These are the requirements for Playgrounds , housing area parks and Neighborhood parks as per RADPFI guidelines which have been projected for every decade till 2051.

Table 7.2-Projections of Open space requirements till 2051

Infrastructure Facility	2011 status(existing)	RADPFI STANDARDS, 2016	Infrastructure Facility	Requirements After Population Projection			
				2021 (14497)	2031 (16382)	2041 (18512)	2051 (20918)
Playground	Need 2.5 hectares	1.00 hectare open area for 5000	1/5000	3 hectare	3 hectare	3.5 hectare	4 hectare
Housing Area Park	Need 1.25 hectares	0.5 hectare for 5000 people	1/15000	1.5 hectare	1.6 hectare	1.85 hectare	2.1hectare
Neighbourhood Area Park	Need 1 hectare	1 hectare for 15000 persons		1 hectare	1.1 hectare	1.2 hectare	1.4 hectare

7.1.2 Social Infrastructure Projections

7.1.2.1 Education Facilities

Table 7.3-Projections of Educational Facility requirements till 2051

INFRASTRUCTURE FACILITY	2011 STATUS/EXISTING	RADPFI STANDARDS, 2016	State Town & Country Planning Acts & Panchayati Raj Acts	RURBAN MIS SION(2019)	Requirements After Population Projection			
					2021 (14497)	2031 (16382)	2041 (18512)	2051 (20918)
Anganwadi	5	1/5000			3	3	3	4
Primary School	7 (Govt)+2(Private)	1/5000	1/Km Radius For 300 Pop Minimum 2 Classroom 2 Teachers 1 Classroom&1teacher Per 40	1/2500 of land area 800 sqm	3(6)	3(6)	3(7)	4(8)

			Students					
Middle School	3(Govt) +1(Private)	1/15000	1/3 Km Radius For 500 Pop	1/5000 with land area 4000 sqm	1(3)	1(3)	1(3)	1(4)
Secondary School (HIGH SCHOOL)	2(Govt) +1(Private)	1/15000	1/GP	1/5000 with land area 4000 sqm	1(3)	1(3)	1(3)	1(4)
Sr. Secondary School(+2)	1(Govt) +1(Private)	-	2/Block		1	1	1	1
Colleges	1 Govt. Degree College- Art and Science Only +1 Govt. and 1 Private Degree College- Art, Science and Commerce	-	1/Block		1	1	1	1
Special School for disabled	1 Govt				-	-	-	-

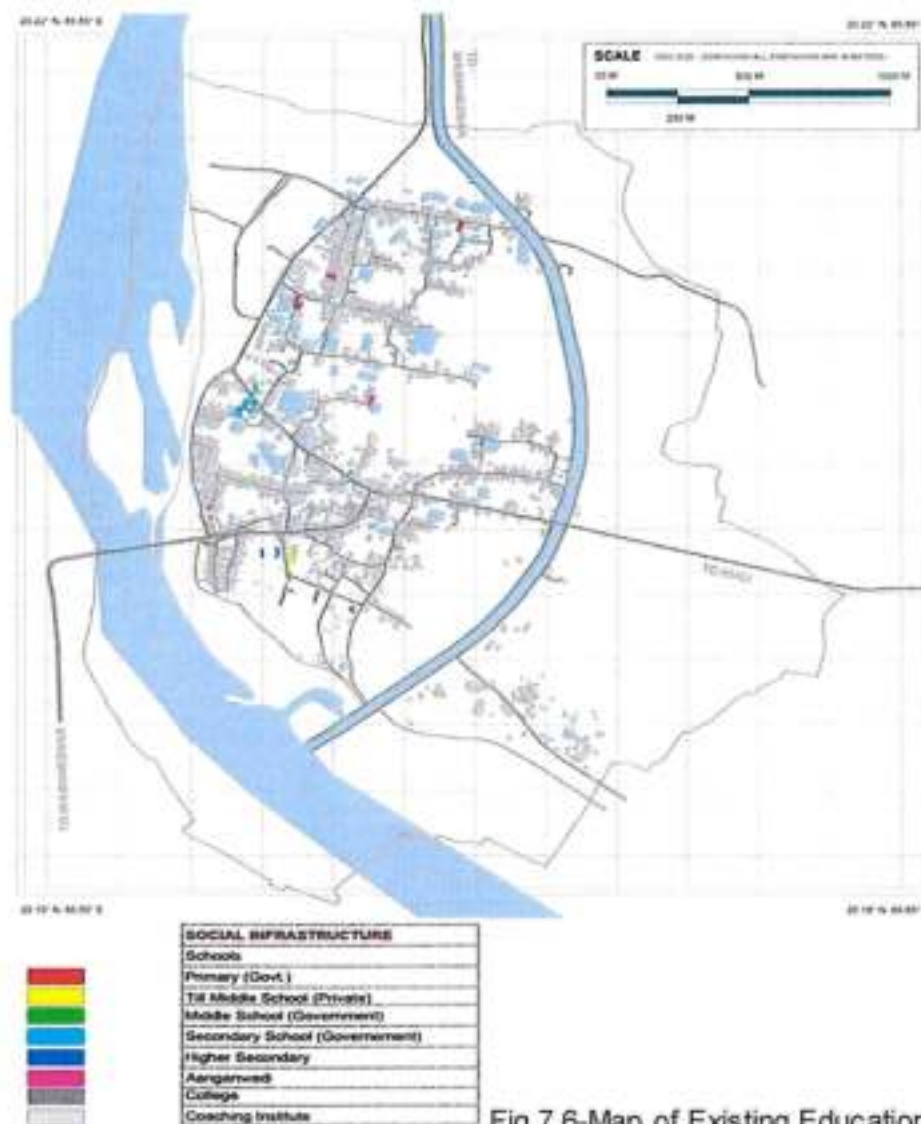


Fig 7.6-Map of Existing Educational Facilities

7.1.2.2 Health Care Facilities

Table 7.4-Projections of Health Facility requirements till 2051

Infrastructure Facility	2011 Status(Existing)	RADPDFI Standards,2016	State Town & Country Planning Acts & Panc hayati Raj Acts	RURBAN MISSION(2019)	Requirements After Population Projection			
					2021	2031	2041	2051
					(14497)	(16382)	(18512)	(20918)
Pr. Health Sub Centre	1 Health Centre with 2 beds with 1 doctor and 2 paramedics	1/15000	1/Gp With 2 Health Workers	1/3000-5000 with land area 800-1200 sqm	1	1	1	1
Primary Health Centre	1 Health Centre with 6 beds with 1 doctor and 4 paramedics		1/30,000 Population		-	-	-	-
Maternity and Child welfare	1 Health Centre with 6 beds with 1 doctor and 1 paramedics				-	-	-	-
Hospital (Community Health Centre)	1 with 6 beds, 5 doctors and 25 paramedics				-	-	-	-

7.1.2.3 Socio-Cultural Facilities

Table 7.5-Projections of Socio Cultural requirements till 2051

Infrastructure Facility	2011 Status(Existing)	RADPDFI Standards,2016	State Town & Country Planning Acts & Panc hayati Raj Acts	RURBAN MISSION(2019)	Requirements After Population Projection			
					2021	2031	2041	2051
					(14497)	(16382)	(18512)	(20918)
Veterinary Hospital	1				-	-	-	-
Post Office	1	-	1/GP		1	1	1	1
Community Room	4 Community Hall		1/5000		3	3	3	4
Community hall & Library	2 Community Hall + 1 Govt. - Public Reading Room + 1 Private Reading Room	1/5000	1/15000		3(1)	3(1)	3(1)	4(1)
Commercial & Cooperative Bank	2 Nationalised and 1 Cooperative Bank	-	-	-	-	-	-	-
Skill development Centre	-				-	-	-	-
Agriculture Services (Repair and Maintenance of Implements) and Processing Centre (fertilizer, seeds and pesticides) and Paddy Collection Centre	1 Existing with godown and needs repair			1/1000-5000 of land area 300-500 sqm	3	3	3	4

Kalyan Mandap	1 Govt + 1 Private						
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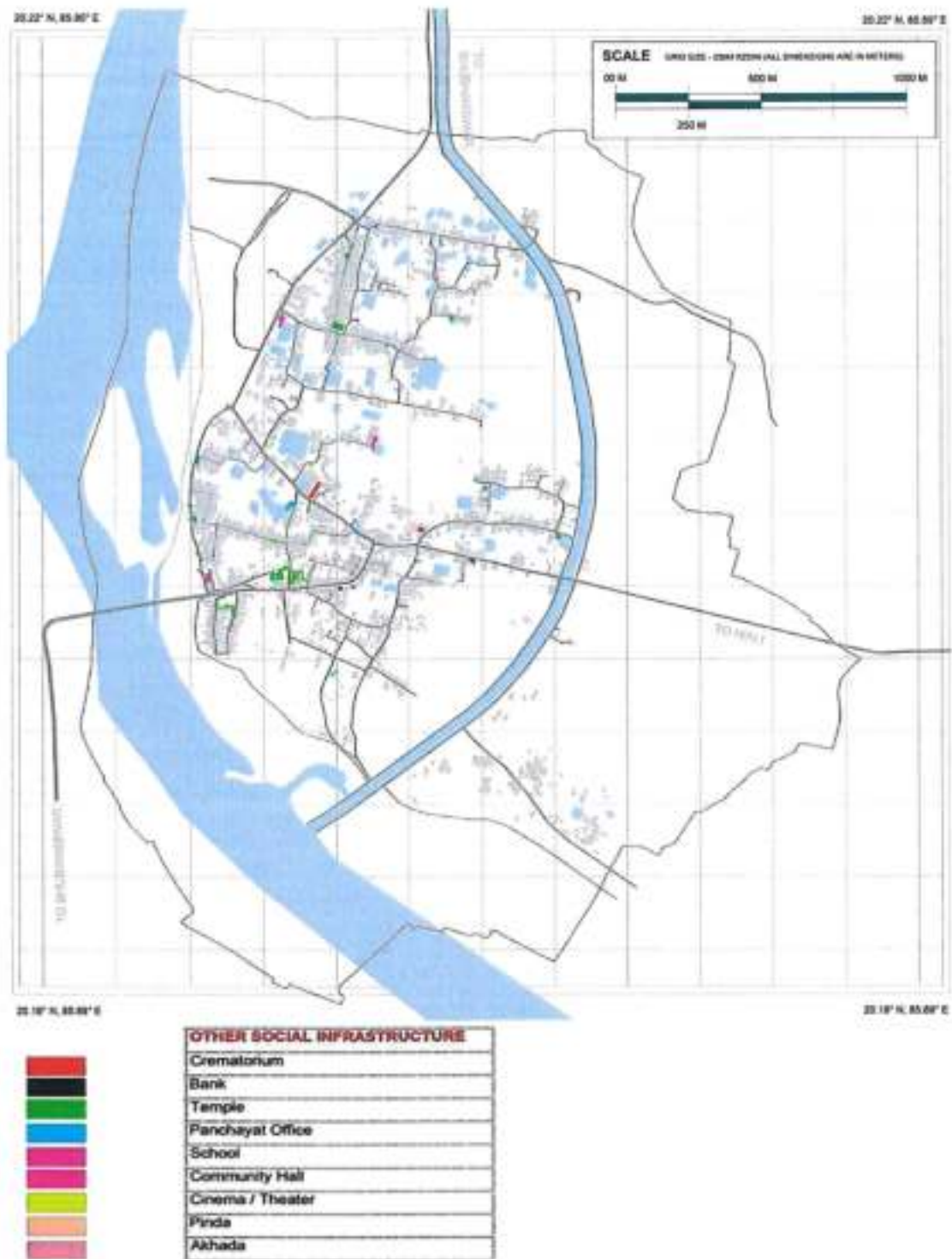


Fig 7.7- Map showing Existing Other Social Infrastructure

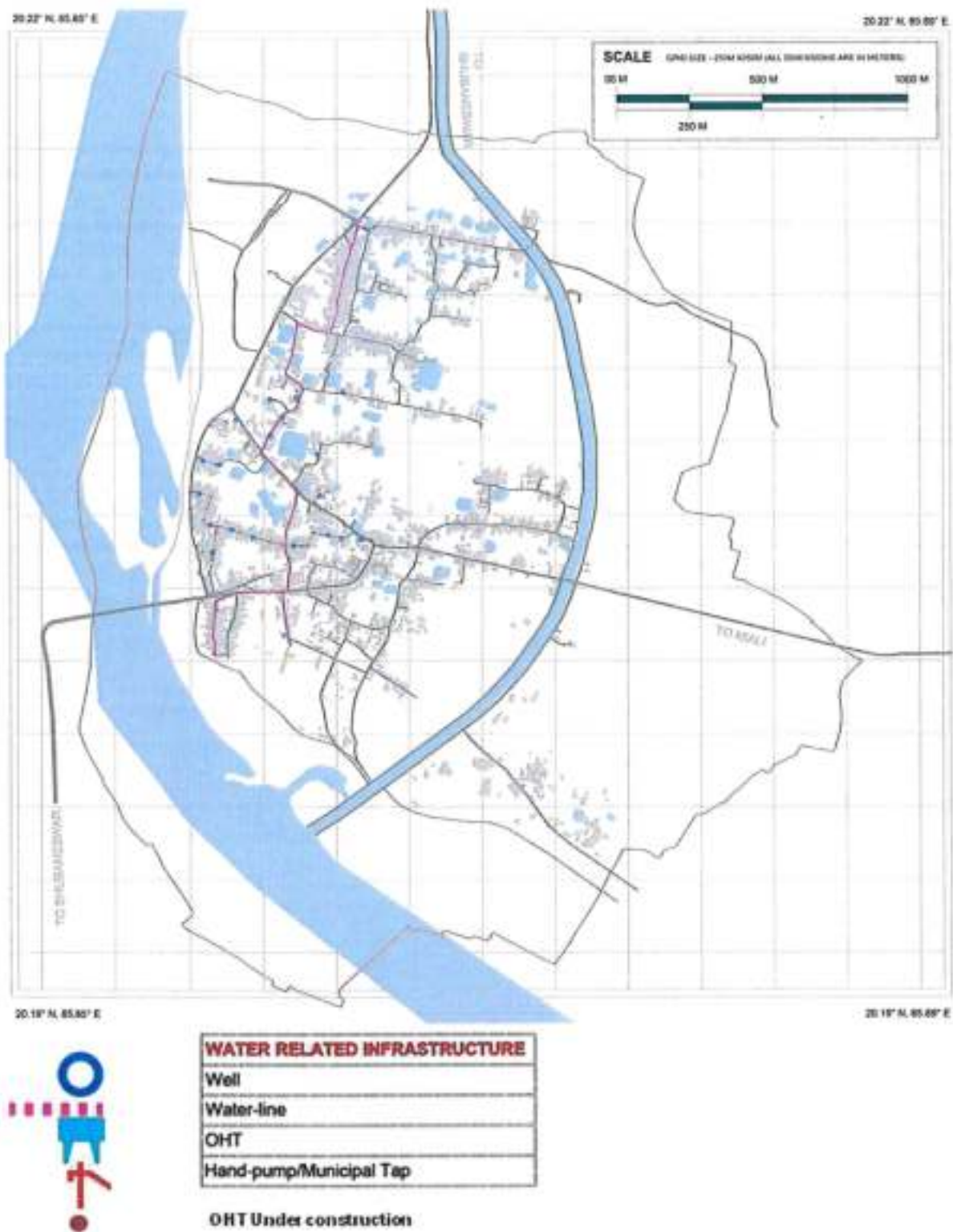


Fig 7.8- Map showing layout of water related infrastructure

7.1.3.2 Drainage System

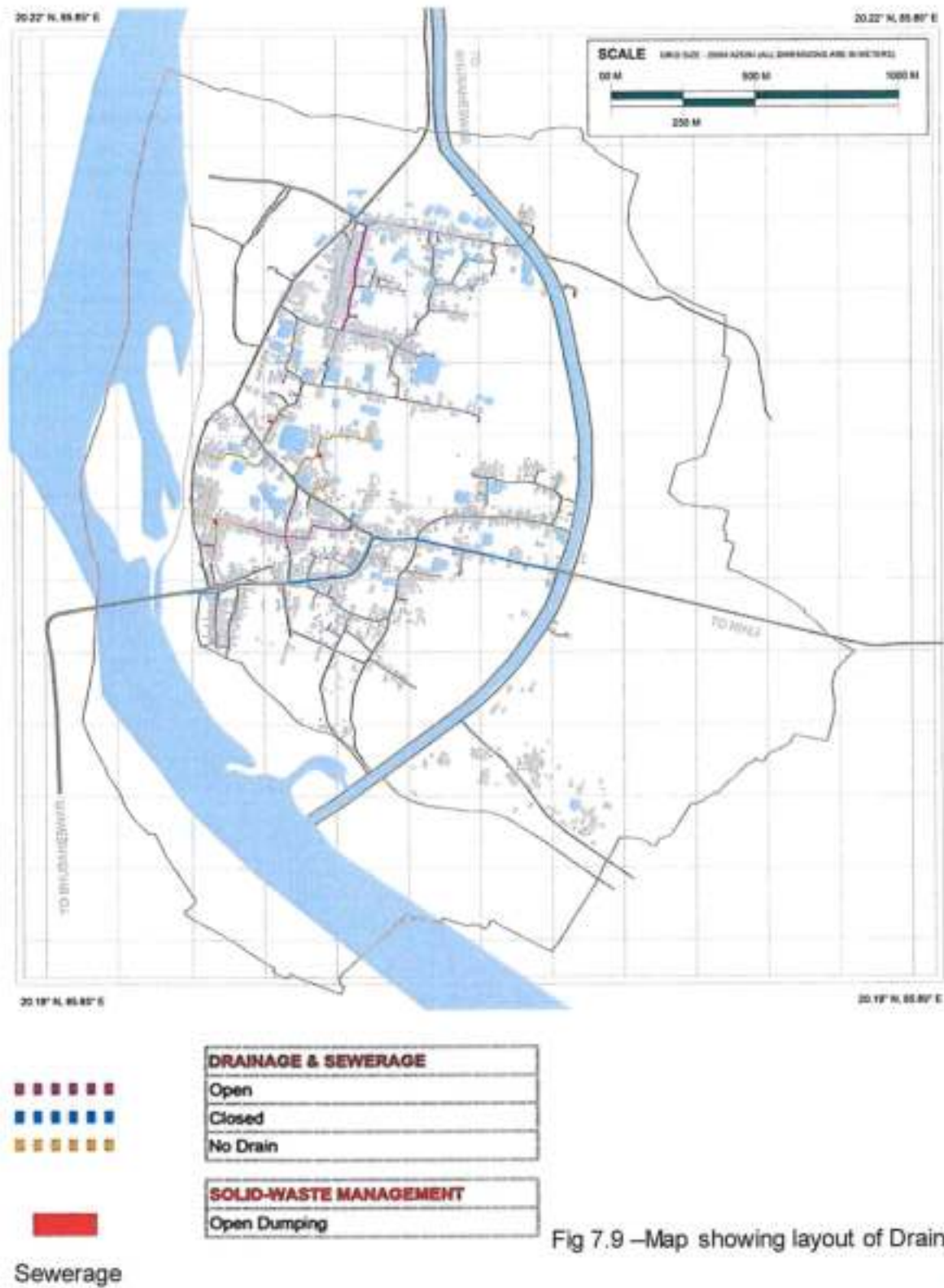


Fig 7.9 –Map showing layout of Drainage and

Table 7.7-Sewerage and Solid waste management Projection

Infrastructure Facility	2011 Status(Existing)	RADPDFI Standards, 2016	Requirements After Population Projection			
			2021 (14497)	2031 (16382)	2041 (18512)	2051 (20918)
Community Toilet	Shown in Map	1 wc/100 users, 1 bath /100 users & 1 urinal / 100 users	1 community toilet for 500 users	1	1	2 community toilets for 500 users each
Solid Waste	1 hectare of composting site and landfill can handle 83.33 tonnes	150-250gms/cap/day	3624 kg/day 1 acre of landfill and composting site	4095kg/day	4628kg/day	5229kg/day 1 acre of landfill and composting site
Liquid Waste			15,000 to 18,000 million liters/day	15000 million litres		

The sewerage and liquid waste disposal is mainly through a system of soakpits and septic tanks. Several houses have availed the system of toilet construction through Swacch Bharat Mission. However there is no proper disposal of waste water which is released into the street from the houses. There is only 1 community toilet at the Village haat on Banamalipur Road which is also inadequate.

A uniform system needs to be devised for segregation of Solid waste at source and collection of solid waste .Segregation need to be done according to the following categories:

- Organic waste – that can be converted into manure. This manure would be used in the organic farming activities. Additionally, the organic waste may be sourced from surrounding poultry farms, and added to the vermiculture pits to convert them into manure.
- Domestic Biohazardous waste. Domestic Bio medical/hazardous waste needs to be segregated at the household level and collected separately. The concerned health department needs to then be contacted to dispatch the same to the nearest incineration facility.
- Reusable waste- Reusable or recyclable materials can be converted into sheets or used in construction activities. A norm may be set that these waste materials must be used in place of at least 15% of the construction materials for construction of new structure.

Recyclable Waste include:

- paper, cardboard - recycled into handmade paper, stationery products
recyclable plastic bags
- metal, glass, bottles etc – which can be collected by scrap dealers
- Dry Waste – incineration, pulverizing etc.

At present there is not enough manpower for door to door solid waste collection . Hence all the solid waste is dumped in open areas which are overflowing with garbage. This is very unsanitary and unhygienic as can be seen in the photo . There is a proposal for a dustbin in every ward



Gram panchayat should select the landfill site which should be:

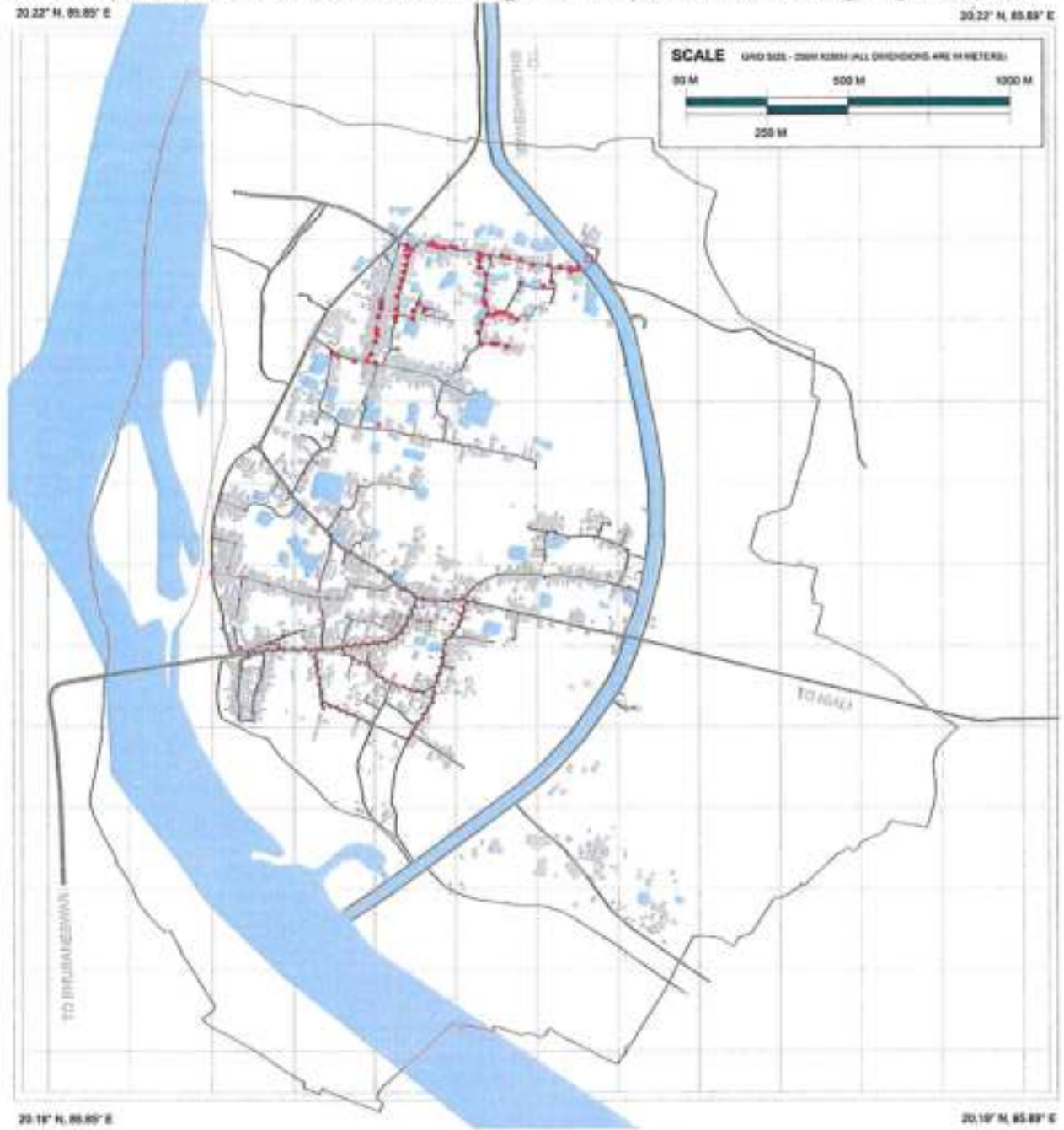
- Located at the outskirts of the village
- Accessible
- On vacant/uncultivated land
- Located in the natural depressions with slight slopes
- Site should be such as to avoid surface water and ground water pollution.

One such landfill site is under construction at Nuapatna and there is a proposal for another at Rathijema. Since 1 hectare of composting site and landfill can handle 83.33 tonnes , one acre of land is sufficient to handle the 5.2 tonnes/day (upto 2051) as seen in above Table 7.7

7.1.3.3 Electrical Infrastructure

Electrification in the GP is adequate at 99%. For street-lighting -though the posts are present there is absence of Street Lighting apart from few junctions and along the commercial stretch of

Banamalipur Road and others as shown in Fig 7.10. Peripheral road Street lighting is required





5.7	ELECTRICAL INFRASTRUCTURE
	5.7.1 Light Posts
	5.7.2 Transformer

Fig 7.10- Map showing Electrical Infrastructure

7.1.3.4 Transportation

The main arterial road experiences heavy traffic throughout the day. Ring roads (Bandha roads) are narrow and non-motorable.

There is no provision of shoulders in the CC road sections as a result the edge drop was found to be very high at places raising safety concern for the vehicles plying on the roads during crossing and overtaking maneuvers and also the edges are prone to damage in such conditions.

Speed breakers were not provided on the busy road and neither near health and educational institutions.

Encroachment was found along the major arterial roads leading to congestion and the within the thickly habitated portions of the village making it inaccessible for the emergency services and also leaving no space for construction of drains.

Newly developed residential areas and the fringe areas were not provided with concrete roads and mostly accessible by semi-kaccha or kaccha roads. Way finding was difficult because of absence of signage and legible directions to destinations.

Fig 7.11 shows the various categories of roads but the widths should be maintained as per the norms given in Table 7.8. Banamalipur Road and Bainchua Road should be of R2 category. Other internal roads should be of R3 and R4 category.

Rural Connectivity is a key component of Rural Development in India. Rural roads contribute significantly to generating increased agricultural incomes and productive employment opportunities, alongside promoting access to economic and social services. Rural Roads are the virtual lifelines for the vast multitude residing in rural areas. However, even today, only about 60% of villages/ Habitations in the country are connected by roads. A **Road Network** in a Block or District comprises of all categories of roads, such as National Highways, State Highways, Major District Roads, Other District Roads and Village roads, which facilitate the essential movement of persons and goods in an area. The **Road system** in India has been classified by the Indian Roads Congress into three categories.

The following table gives the minimum road widths for Village Roads

Table 7.8 : Norms for Village Roads

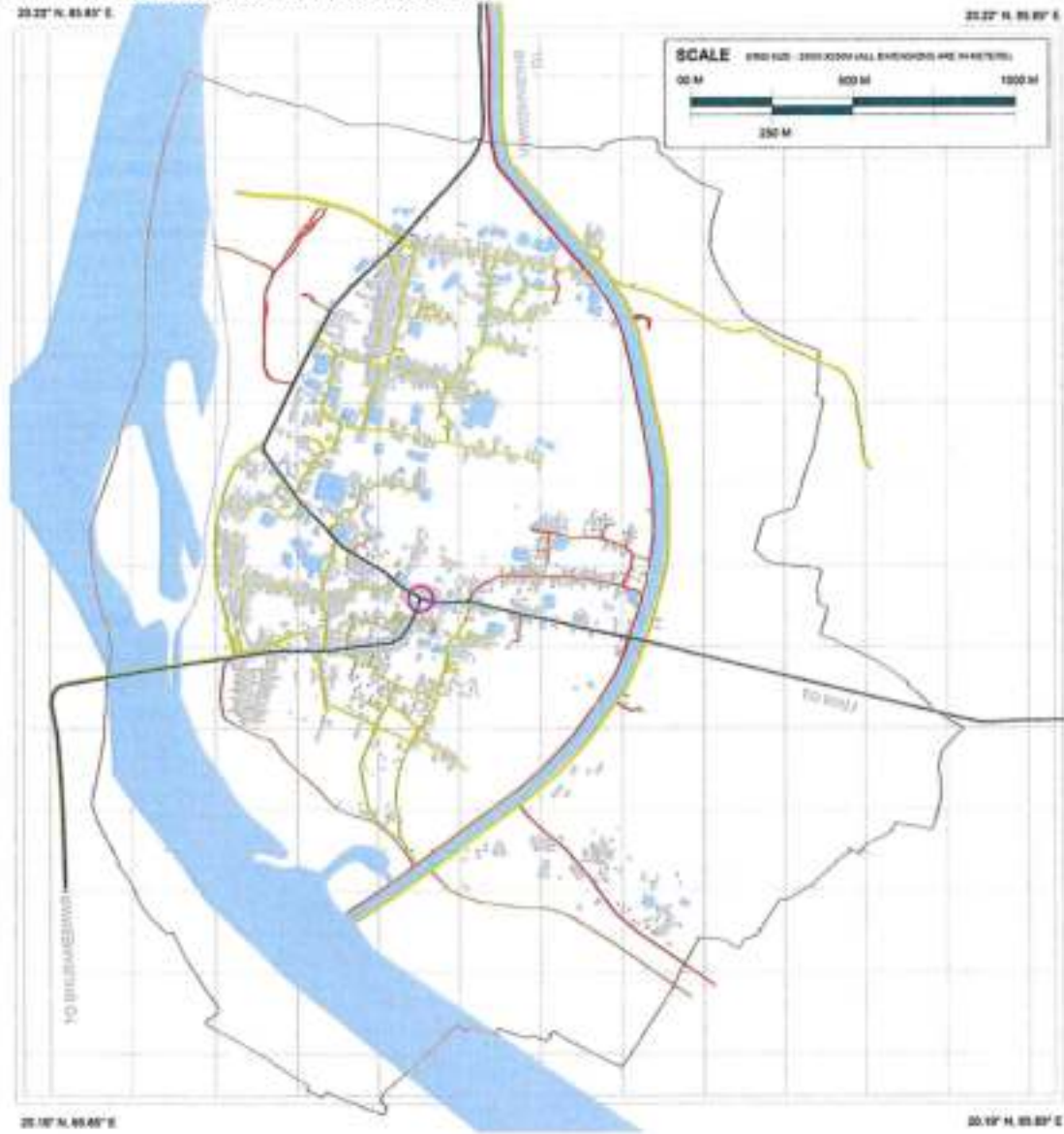
Village Road type	Road Description	Minimum Road Width (in metres)	Functions /remarks
R1	Link Roads	6M	Inter village , ODR, highways connectors.
R2	Major Through Roads	7.5M	Main village roads with drain on both sides to facilitate drainage system of the village
R3	Minor Through roads	4.5M	Other Village Roads
R4	Minor Through roads	3.75M	Village Lanes

(Source: Draft National Building Code, Doc: CED 46 (8064) WC, Nov 2015; Rural Roads Manual, 2002, Indian Road Congress)

Control of building activities along Highways and roads

In order to regulate and control building activities along National Highways, State Highways, Major District roads and major urban roads as notified by – PWD, the persons responsible for carrying out excavation, earth work, construction, demolition or repairs to all sites within 100 m. from these roads shall apply to the Panchayat concerned for permission to carry out such

work in accordance with the set back .



PHYSICAL INFRASTRUCTURE	
ROAD NETWORK OVERALL AREA	
Bitumen	Grey
Concrete	Yellow
Kuchha	Red
Arterial Road	Blue
Abadi Area	Pink

Fig 7.11- Map showing Transportation network

7.1.4 Land Use Projections

The area requirement as per RADPFI guidelines to accommodate the projected population till 2051 is as follows

Table 7.9- Land Use projections

Housing

- Land area required for housing = 40 Hectares
- Land area required for Open Spaces in Housing Areas = 14.6 Hectares

Social Infrastructure

- 1 Agriculture Services & Processing Center and Paddy Collection Center
- 1 Warehouse for Cold & Dry Store
- 2 Community Toilets

Developed Open Spaces

- 4 Hectares of Playground
- 2 Hectares of Housing area parks
- 1 Hectare of Neighbourhood Area Park

Physical Infrastructure

- Street Light
- Water
- Roads
- Storm Water Drainage
- Bus Stop & Auto Stands

Brass & Metal Industry

- Raw Material Godown
- CFC for demonstration and adaptation of technology, export facilitation
- Permanent Showroom
- Skill Development and training center
- Co-operative Society
- R & D Testing Laboratory
- Exhibition Ground

7.1.5 Land Use Control and Development Strategy

Given are the building development control norms specified by RADPFI for residential, commercial, industrial, institutional and Community, Educational and Health Use.

Norms for Residential development

S No	Plot area in Sqm	Max Ground Coverage (in %)	FAR	No of DU	Max height in metres	Setback (in metres)		
						Front	Side	Back
1	Below 50	90	1.8	2	6	1.2	-	-

2	51-100	80	1.6	2	6	2.0	-	1.5
3	101-150	75	1.5	3	9	2.0	-	2.0
4	151-250	66	1.3	3	9	3.0	-	3.0
5	251-500	60	1.2	3	9	4.5	1.5	3.0
6	Above 501	50	1.0	3	9	4.5	3.0	3.0

Norms for Commercial Development

S.No	Use	Ground Coverage(in percent)	FAR	Max height (in metres)	Setback (in metres)	
					Front	Back
1	Convenience Shops	75	1.0	6	2	-
2	Local Shopping Centre	50	1.0	6	3	-
3	Community (Gram Panchayat) Shopping Centre	40	1.2	9	4.5	-

Norms for Industrial Use

S No	Plot size(in sq metres)	Ground coverage(in %)	FAR	Height	Setbacks		
					Front	Side	Back
1	100-400	60	1.2	8	3	-	3
2	400-1000	55	1.1	8	4.5	-	3
3	100-4000	50	1.0	8	6	3	3
4	Above 4000	45	0.9	8	9	3	4.5

Norms for Institutional and Community Use

S No	Plot size (in sqm)	Ground Coverage (in percent)	FAR	Height	Setbacks		
					Front	Side	Back
1	500-1500	40	1.2	9	4.5	3	3
2	1001-2000	33	1.0	9	4.5	3	4.5
3	2001-4000	30	0.9	9	6	3	4.5
4	Above 4001	25	0.9	12	9	3	6

Norms for Educational and Health Use

S No	Use	Min Plot area in Sqm	Max Ground Coverage (in %)	FAR	Max height in metres	Setback (in metres)		
						Front	Side	Back
1	Nursery/Anganwadi	1500-5000	33.3	1.0	10	4.5	3	3
2	Primary School	1500-3000	30	0.9	10	6	3	6
3	Senior Secondary	4000-10000	25	1.0	12.5	9	4.5	6
4	Nursing Home	250	35	0.7	6	3	-	3.0
5	Dispensary	251-500	33.3	1.0	9	4.5	3	3.0
6	Diagnostic Centre	Above 501	30	1.0	12	6	3	4.5

7.1.6 Proposed Land Use Plan

1. Development of the area as a tourist hub.

In line with the vision for the GP to develop it as a Tourist Hub owing to its strategic position in the Tourist circuit and handicraft circuit, it is proposed to develop the ring roads (Bainchua Road) and Banamalipur Road to R2 category roads of 7.5 m wide with drains on both sides. The encroachment on the Banamalipur Road should be removed to allow the road widening. Commercial Use is proposed on either side of Banamalipur Road . A Transport and Logistic Hub with Bus and auto stand is proposed at 16 to take care of tourists changeover to Konark. It will be well equipped with motels, eateries and refueling stations. On the peripheral road it is proposed to have a tourist information hub, exhibition grounds, display of brass and bell metal wares (shown13).

2. Link the area with the potential tourist circuit

At present it is linked to NH 316 via the bridge . The entrance to the GP is proposed to be widened at Banamalipur Road with proper signages and Welcome boards.

3. Creating a handicraft corridor and connecting it with the existing handicraft circuit

It is proposed to create a handicraft corridor linking Pratapsasan to Pipili and Raghurajpur where there will be stopover for tourists to explore the traditional brass and bell metal handicrafts

4. Integration of the area with the Bhubaneswar expansion program

Since Pratapsasan falls in the peripheral villages of the Bhubaneswar Development plan , it will be part of the Bhubaneswar expansion program in another 20 years so it has to be planned to retain the vernacular character and prevent the rapid urbanization by high rise structures and become the breathing lungs of the city expansion program taking care to retain its essence of environmental sustainability.

5. Quantitative and Qualitative improvement of the existing social and physical infrastructure

There is a need to increase the qualitative aspect of existing Social and physical infrastructure in terms of maintenance of educational and health infrastructure and following of norms in terms of qualified staff. There is a need of quantitative and qualitative improvement in terms of physical infrastructure like electrical, water, drainage and solid waste disposal as discussed earlier.

The spaces marked in red are earmarked for public and semipublic uses at 10,14 and 2. The space marked in blue is earmarked for crematorium

6. Enhance the socio-economic development and improve the quality of life.

To boost the **Brass and Bell metal industry** it is proposed to have a

1. **Brass and Bell Metal Development centre**

Raw Material Godown

CFC for demonstration and adaptation of technology, export facilitation

Permanent Showroom

Skill Development and training center

Co-operative Society

R & D Testing Laboratory

Exhibition Ground

2. **Agristore**(at14)(at 2) having

Dry and cold Warehouses for agricultural, fishery and poultry produce to encourage commercial marketing

3. **Market Complex** (at 10) for giving permanence to existing haat

4. **Fishery** at the several existing ponds by developing them under the Fish Pond Scheme launched by Chief Minister Naveen Patnaik.

7. Development of infrastructure for capacity building.

8. Conservation and development of existing water bodies.

The existing water bodies will not be built over but used only for eco parks used for recreational purposes or for Fishery purposes. This will prevent the environmental degradation

9. Incorporation of River front development program.

The Riverfront development program will be incorporated as discussed under 7.4.2.1.2 with promenages and tourist cottages.

10. Conservation of agricultural and forest land for sustainability of the GP.

The agricultural lands and grazing lands have been maintained at its present status to retain agriculture, dairy and poultry as a significant form of livelihood for economic sustainability and also environmental sustainability

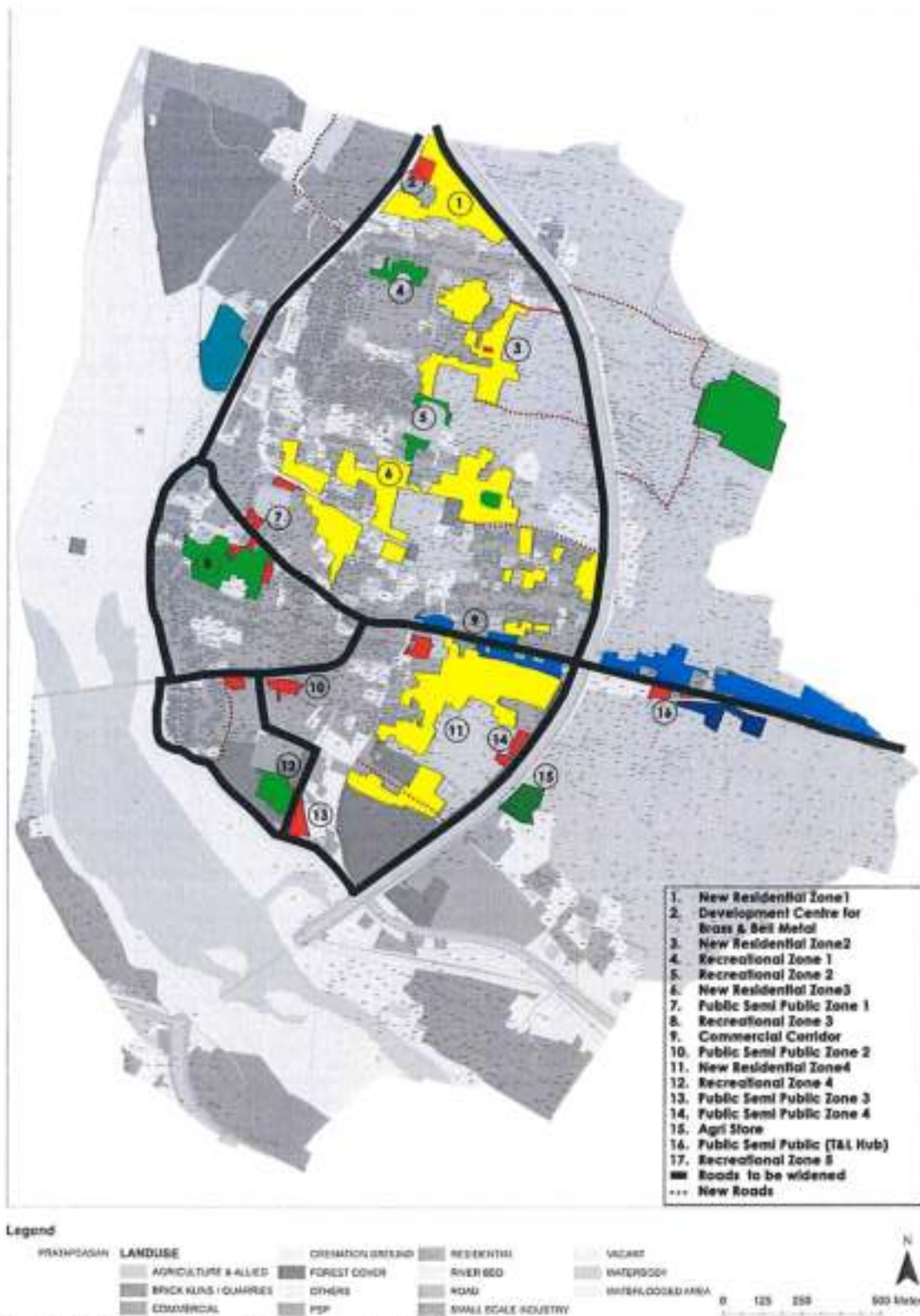


Fig 7.11 Map showing Proposed Land Use Plan

7.1.7 Environmental Sustainability by treatment of contaminants from Brass and Bell Metal Industry

The pollution from brass industry impacts both air and water quality. The value of air quality parameters like SO₂, NO₂, SPM, and RSPM is considerably high in areas where brass industries are located. Level of water quality parameters (BOD and COD) are also not in prescribed safe limits. Besides this the effluence has been found to contain lead and arsenic too. Besides having socio-economic impacts brass industry has serious adverse health impacts on workers and they suffer from tuberculosis, bronchitis, burns, skin diseases, etc. Brass industry is a labour intensive and majority of workers are illiterate and belong to poor section thereby unaware of hazardous nature of brass industry, which makes them more vulnerable to health problem.

Suitable healthcare needs to be provided in collaboration with hospitals and insurance agencies through group insurance. In order to ensure health and hygiene, an effluent treatment plant is also suggested with the help of Panchayat.

7.1.8 Institutional Support and Governance

The GP level plans would need to be in harmony with the Block and District level Plans. The investment decisions at the local level would need to take into account the effects of Central/State Plans in that area and of neighboring localities. The cluster of GPs as rural areas and propensity to develop faster, is intended to be the primary area for GPSD local planning. Area specific development programs will help deal with the problems of regional imbalances and intra-regional variations. The GPSD planning projects would require specific technical skills and manpower resources within a framework of guidelines formulated at the local level. The GPSDP implementation by the Gram Panchayat would also need to effectively monitor with a view to ensuring that for each scheme various targets relating to time and cost, generation of services, social and economic benefits relating to the individual projects through the rural industries, agricultural, primary education, irrigation, drinking water and sanitation, rural roads connectivity, primary health or any other sector of the rural economy are achieved.

The GPSDP implementation by the Gram Panchayat would also need to effectively monitor with a view to ensuring that for each scheme various targets relating to time and cost, generation of services, social and economic benefits relating to the individual projects through the rural industries, agricultural, primary education, irrigation, drinking water and sanitation, rural roads connectivity, primary health or any other sector of the rural economy are achieved.

For the effective implementation of GPSDP, all the schemes falling in same sector needs to identified first and integrated with spatial planning.

Roads	The Pradhan Mantri Gram Sadak Yojana (PMGSY), as a part of a poverty alleviation strategy to provide connectivity to unconnected Habitations. Govt. of India is trying to set high and uniform technical and management standards for facilitating development and planning at the State level to ensure sustainable management of the rural roads network.
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<p>Infrastructure</p>	<p>Provision of Urban Infrastructure in Urban Areas (PURA). PURA is a strategy for Rural Development in India, proposed by former President APJ Abdul Kalam. PURA focuses on providing urban infrastructure and services in rural areas. As this will prevent migration of people from rural areas to urban areas.</p> <p>For there to be the provision of urban facilities in rural areas under the Rurban Mission. There should be good quality and well-maintained rural roads facilitating improved connect. To transform the rural areas as growth engines for development to provide sustainable development and urban facilities in rural areas. This scheme aims at developing 300 clusters at village level till 2020. For selection of clusters in various states, a scientific method of cluster selection involves an objective analysis at the District, Sub District and Village level, of the demography, economy, tourism and pilgrimage significance and transportation corridor impact, based on this ministry will provide suggestive list to State Government, based on set principles State Government will then select clusters in District and Sub-district.</p> <p>Gram Panchayat Development Plan- Sabki Yojana Sabka Vikas-To strengthen the role of 31 lakh elected Panchayat leaders and 2.5 crores SHG Women under DAY-NRLM in effective gram sabha and to connect rural people to the mainstream while keeping in focus the principle of 'Sabka Saath Sabka Vikas'.</p> <p>Sansad Adarsh Gram Yojana (SAGY) for development in the villages which includes social development, cultural development and spread motivation among the people on social mobilization of the village community. Provide rural India with quality access to basic amenities and opportunities. The outcomes will include 100% immunization, 100% institutional delivery, reduced IMR, MMR, reduction in malnutrition among children etc.</p>
<p>Rural Economy</p>	<p>Under Scheme of Fund for Upgradation and Regeneration of Traditional Industries (SFURTI), Common Facility Centres (CFCs) are to be set up to facilitate cluster-based development</p> <p>Under Scheme for Promotion of Innovation, Rural Industry and Entrepreneurship (ASPIRE), Livelihood Business Incubators (LBIs) and Technology Business Incubators (TBIs) to be set up in 2019-20 to develop 75,000 entrepreneurs in agro-rural industry sectors</p> <p>Pradhan Mantri Matsya Sampada Yojana (PMMSY) to be established to robust fisheries management framework including modernisation, productivity, quality control etc.</p>
<p>Water and Sanitation</p>	<p>Under Jal Jeevan Mission, 100 per cent of rural households to have functional household tap connections by 2024 and 100 per cent of the rural habitations to have full access to safe drinking water. All rural households to have access to toilets (Individual Household Latrines) and for 100% of villages to be Open Defecation Free (ODF).</p> <p>Gram Samridhi Evam Swacchata Pakhwada-to give a boost to development activities in rural areas. The campaign focuses on educating villagers about hygiene and cleanliness through self-help groups, Anganwadi centres and schools, and conducting training programmes</p> <p>Swacchh Bharat Mission- To bring about an improvement in the general quality of life in the rural areas, by promoting cleanliness, hygiene and eliminating open defecation. To accelerate sanitation coverage in rural areas to achieve the vision of Swacchh Bharat by 2nd October 2019.</p>

Health	<p>The National Rural Health Mission (NRHM), now initiated under National Health Mission, is a Central government's Mission which aims to provide accessible, affordable and accountable quality health services even to the poorest households of the rural areas</p> <p>Prime Minister Arogya Yojana- The objectives of the scheme are to reduce out of pocket hospitalisation expenses, fulfil unmet needs and improve access of identified families to quality inpatient care and surgeries</p> <p>Sansad Adarsh Gram Yojana (SAGY) for development in the villages which includes social development, cultural development and spread motivation among the people on social mobilization of the village community Provide rural India with quality access to basic amenities and opportunities. The outcomes will include 100% immunization, 100% institutional delivery, reduced IMR, MMR, reduction in malnutrition among children etc.</p> <p>Antodaya Anna Yojana- The main objective of the scheme was to provide food grains to around 2 crores Below Poverty Line (BPL) families at a very subsidized rate. Under this scheme, a total of 35 kgs of food grains are provided to a family. Rice is provided at the rate of Rs. 3/kg and wheat at Rs.2/kg</p>
Education	<p>Sarva Siksha Abhiyaan- The main aim to make free and compulsory education to children between the age group of 6 to 14 years, a fundamental right under "Right to education" related to the 86th Amendment to the Constitution of India. This programme was pioneered by former Indian Prime Minister Late Atal Bihari Vajpayee.</p>
Housing	<p>Indira Awas Yojana revamped as Pradhan Mantri Gramin Awaas Yojana in 2016 is a welfare programme created by the Indian Government to provide housing to rural poor people in India. The goal of this scheme is to provide a home to all citizens until 2022. The government assured to provide electricity and clean cooking facility to all willing rural families by 2022 under Ujjwala and Saubhagya Yojana</p>
Digitalisation	<p>Under Bharat-Net, internet connectivity will be expanded to local bodies in every panchayat. To speed up Bharat-Net project assistance from Universal Obligation Fund under a PPP arrangement is to be utilized</p>
Skill Upgradation	<p>Rural Self Employment Training Institute-The objective is to provide necessary skill training and skill up-gradation to the rural BPL youth in order to mitigate the unemployment problems. RSETIs are managed by various commercial banks with active co-operation from the Government of India and State Government.</p> <p>Swarnjayanti Gram Swarozgar Yojana which is redesigned as National Rural Livelihood Mission. Also known as Ajeevika, the scheme was aided by World Bank and aimed at creating efficient and also effective institutional platforms for poor people. Ajeevika is aimed to empower the women's self-help group model across the country.</p> <p>Deen dayal Antlyodna -National Rural Livelihood Mission -DAY-NRLM is a poverty alleviation programme to promote self-employment and organization of rural poor. It was implemented by the Union Ministry of Rural Development with the objective of organizing the rural poor into SHGs and make them capable of self-employment. However, it has a special focus on women empowerment.</p> <p>Deen Dayal Upadhyay Grameen Kaushalya Yojana-Aims at adding diversity to the incomes of rural poor families and cater to the career aspirations of rural youth. In fact, DDU-GKY uniquely focuses on rural youth between the age group of 15 to 35 years coming from poor families. As a part of the Skill India campaign, it has played an</p>

	important role in the social and economic programs of the government like Make In India, Digital India, Smart Cities and Start-Up India, Stand-Up India campaigns.
Brass and Bell metal Industry	State Institute for Development of Arts & Crafts (SIDAC) under MSME Development Policy ODSHA(District Industries Centre) for following Schemes Modernisation and Technological Up-gradation of Handicraft Industries Guru Shishya Parampara Training Craft Village Program Sipi Unnati Yojana Strengthening of Primary Handicraft Co-op Societies Design Development under Handicrafts Exposure visit of handicraft artisans

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