



Urban Development and Housing Department
Government of Bihar

City Development Plan (2010-30)

BETTIAH



EXECUTIVE SUMMARY

CDP Prepared By:



Support Programme for Urban Reforms in Bihar

(A Government of Bihar Initiative)

Supported by DFID, United Kingdom

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संदेश

मुझे यह घोषणा करते हुए अति प्रसन्नता हो रही है कि नगर विकास ने राज्य के प्रमुख 28 शहरों की नगर विकास योजना (CDP) तैयार की है। यह विभाग के लिए विशेष उपलब्धि है क्योंकि ये नगर विकास योजनाएँ (CDPs) राज्य में नगरीय आधारभूत संरचनाओं पर होने वाले व्यय के लिए मील का पत्थर साबित होगी।

समग्र विकास की धारणा से राज्य में नगरीय विकास में बड़ा लाभ मिलेगा। ये नगर विकास योजनाएँ (CDPs) विस्तृत विचार विमर्श के बाद वर्ष 2010 से 2030 तक के लिए बनाई गई हैं। विचार विमर्श द्वारा एक दृष्टिकोण परिभाषित हुआ है जिसे परियोजनाओं (Projects) के रूप में परिवर्तित किया जाएगा। नगर विकास योजनाओं (CDPs) में न केवल 20 वर्षों में आधारभूत संरचनाओं की जरूरतों को परिभाषित किया है बल्कि नगर सुधार की जरूरतों एवं परियोजनाओं के क्रियान्वयन के लिए धन राशि की उपलब्धता के लिए स्रोत को भी दर्शाया गया है। सभी नगर विकास योजनाओं (CDPs) में नगरीय स्तर पर वित्तीय सुधार पर जोर दिया है जो दीर्घ काल में न केवल विकास की जरूरतों को पूरा करने में लाभप्रद होगा बल्कि निजी क्षेत्र द्वारा निवेश को आकृष्ट करने में मदद करेगा। नगर विकास योजनाएँ (CDPs) राज्य को आर्थिक क्रिया कलापों के केन्द्र के रूप में नगरीय क्षेत्र के विकास के लिए पथप्रदर्शक होंगी।

ये नगर विकास योजनाएँ ब्रिटिश सरकार के अन्तराष्ट्रीय विकास विभाग (DFID) द्वारा वित्त पोषित संवर्धन परियोजना (SPUR) के तहत बनाई हैं। "संवर्धन" परियोजना वृहद आर्थिक क्रिया कलापों एवं सेवाओं जो गरीबों के विकास में सहायक हो सकती हैं को केन्द्र में रखते हुए आर्थिक वृद्धि एवं गरीबी उन्मूलन में विशिष्ट योगदान के लिए शहरी क्षेत्रों को मजबूती प्रदान करने पर केन्द्रित है।

जन प्रतिनिधि के रूप में मेरी हार्दिक इच्छा है कि बिहार अग्रणी राज्य की श्रेणी में खड़ा हो जैसे प्राकृतिक एवं मानवीय संसाधन में अग्रणी, आर्थिक एवं मानवीय विकास में अग्रणी, ऐतिहासिक रूप से अग्रणी। अभी हम इस दिशा में एक छोटा सा कदम रख रहे हैं।

(प्रेम कुमार)



संदेश

फोटो
सभापति

हमें यह घोषण करते हुए अति प्रसन्नता हो रही है कि बेतिया के दीर्घकालीन विकास के लिए समेकित दृष्टिकोण के साथ शहर की नगर विकास योजना (CDP) बन चुकी है। इस नगर विकास योजना में समेकित दीर्घकालीन कार्यनीति (दृष्टिकोण-2030) जो कि आगे अल्पकालीन, मध्यकालीन एवं अन्तकालीन कार्यनीति में विभाजित की गई है के साथ ही नगर निवेश योजना (CIP) का भी समावेश है। इस योजना के आधार पर बेतिया नगर परिषद्, योजना में वर्णित प्राथमिकता आधारित चिन्हित परियोजनाओं के लिए भारत सरकार, राज्य सरकार, स्वयं के वित्तीय स्रोतों एवं अन्य वित्तीय स्रोतों से धन राशि प्राप्त कर सकेगा। नगर विकास योजना में विभिन्न क्षेत्रों की परिचालनीय कार्यनीति (Operational Strategy) एवं प्रत्येक व्यवहारिक क्षेत्र के क्रियान्वयन हेतु कार्य योजना शामिल है। इसके अतिरिक्त नगर विकास योजना (CDP) में शामिल वित्तीय क्रियान्वयन योजना (FOP) के अनुसार नगर परिषद् चिन्हित परियोजनाओं के क्रियान्वयन के लिए वित्तीय संसाधन उपलब्ध करा सकेगा।

यद्यपि नगर विकास योजना तैयार करने के लिए उच्च स्तरीय तकनीकी कार्य किया गया है तथापि नगर विकास योजना विस्तृत विचार विमर्श के बाद तैयार की गई है जिसमें शहर के सामाजिक एवं आर्थिक विकास में भागीदारी सुनिश्चित करने के लिए जन प्रतिनिधियों, नगर निकायों के पदाधिकारियों, सम्बन्धित संस्थाओं, नीति निर्धारकों, निजी क्षेत्र की संस्थाओं, नागरिक समितियों एवं जन साधारण के विचारों को शामिल किया गया है। नगर विकास योजना में बेतिया शहर के भविष्य एवं विभिन्न क्षेत्र की परिचालनीय कार्यनीति (Operational Strategy) के बारे में एक दृष्टिकोण को प्रस्तुत किया गया है और क्रियान्वयन योग्य कार्य योजना को दर्शाया गया है।

यह नगर विकास योजना, ब्रिटिश सरकार के अन्तर्राष्ट्रीय विकास विभाग (DFID) द्वारा वित्त पोषित संवर्धन कार्यक्रम के तहत बनाई गई है। बेतिया नगर परिषद् इस सहयोग के लिए DFID का आभारी है।

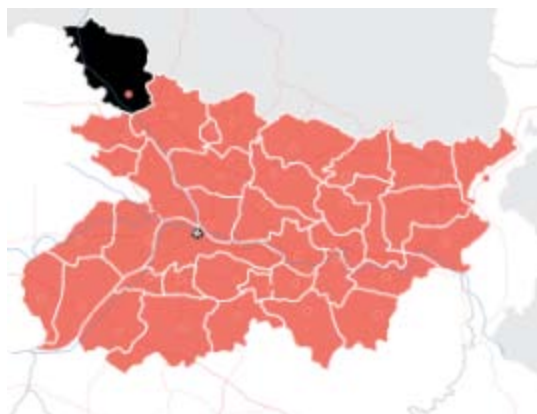
चंदन पाण्डेय

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(उपसभापति)
बेतिया नगर परिषद्

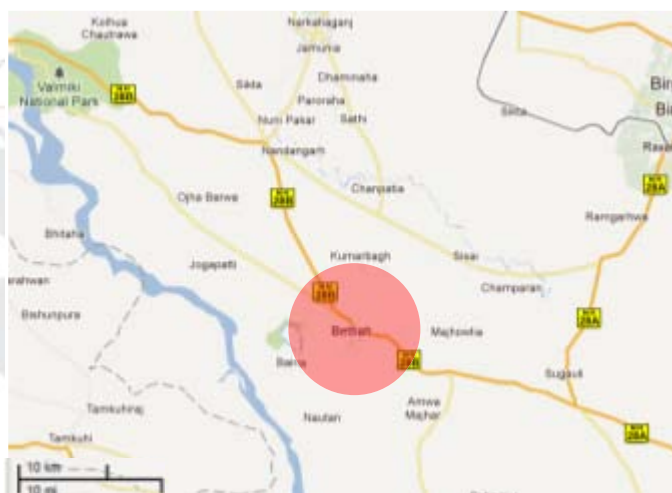
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बेतिया नगर परिषद्

Overview

Bettiah Nagar Parishad was established as a municipality in 1869 and is the district headquarters of West Champaran District. It is located 225 km north-west of Patna. Historically, Bettiah is the seat of the Bettiah Raj estate, established in the 17th century. Bettiah was one of the main Headquarters of the British during their rule in India. Bettiah inherits a very rich culture and history related to Indian national movement. Mahatma Gandhi started the 'Satyagrah Movement' from here in 1917.



Location of West Champaran District



The total area under the jurisdiction of Municipal Council is about 8.01 sq km with a population of 132,896 persons as per census 2011 and 116,670 as per census 2001, leading to population density of 165 pph and 145 pph respectively. At present the town is witnessing unplanned and haphazard growth. There is potential to grow towards the north, north-east and east on account of (i) Ribbon development along National Highway- 28B and State Highway- 54, (ii) the Outer Ring Road that provides good connectivity and acts as bye-pass and (iii) growth towards the Mithanpura Industrial Area. The commercial area is mostly concentrated in the core of the city leading to congestion in the inner of the city. This area has mixed land use dominated by commercial activities.

The competitive advantages of Bettiah lies in its location as a transit point for all tourists going to Raxaul and Kathmandu and also as the district headquarter of West Champaran, which has one of the highest agriculture and fruit productivity and livestock population in Bihar. West Champaran is the highest producer of sugarcane with a cropping intensity at 1.40 (2007-08); the third highest producer of wheat and the second highest producer of maize and rice in the state. It is among the top ten districts for the production of fruits and vegetable in the state (2008-09). The district also ranks seventh in cattle population and fourth in fish and fish seeds production.



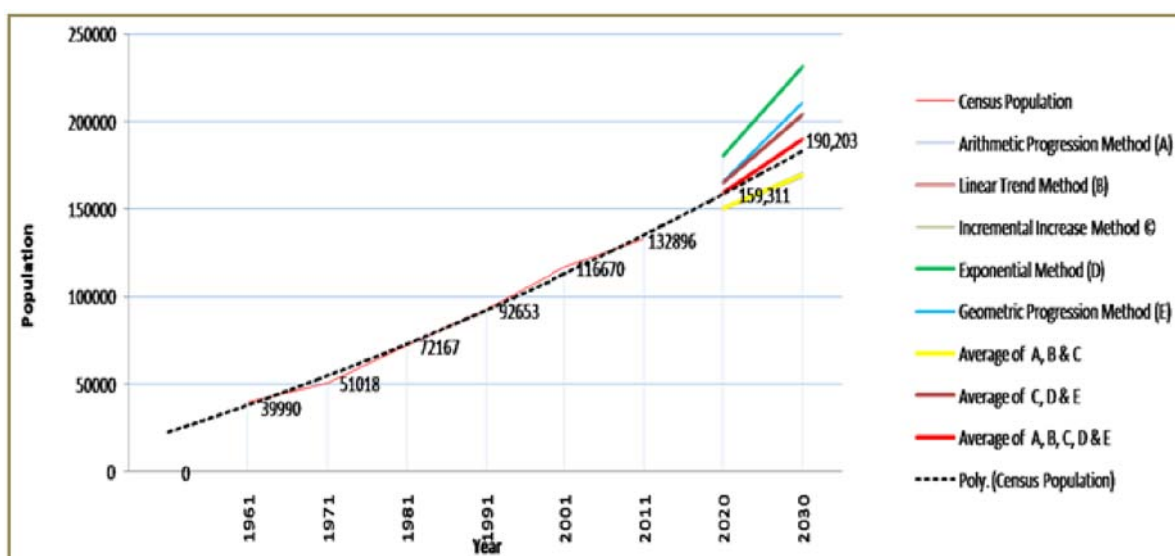
CITY VISION

Bettiah is a significant town near the Indo-Nepal border and the state of Uttar Pradesh. The town's regional potential is for agro-based products and at present, the town is an agricultural trade centre. The town is also known for manufacturing brass, metal-ware and leather goods. The town is also a tourist transit point for visitors to Kathmandu and Valmiki national park. The vision was formulated through a series of workshops as well as individual and focus group discussions. The identified vision is as follows: ***"To develop Bettiah as an agro based industrial centre and as a tourist transit point."***

Demography

The population growth of the town has been fluctuating in the past decades. The population growth rose in the decade 1971-81 by 41.5% on account of the large influx of refugee population from Bangladesh. The average decadal population growth rate from 1961 to 2011 is 27.9%.

The population for Bettiah town has been projected on the basis of census provisional figures for 2011, using five different methods viz. linear trend method, arithmetic progression method, incremental increase method, geometric projection method and exponential growth method and further, studying various trend curves for different permutations and combinations of the results of above stated methods; finally, choosing the projected population for the target year 2030, as the average of all the five methods, since this trend curve virtually matches the census population data. The estimated population of Bettiah is 190,203 at the end of 2030.



Sector Assessments & Growth Strategies

A) Water Supply

The River Gandak at Valmikinagar is the main source of water supply to the town although ground water is also being used for this purpose. At present, the town has only 2.24% of households connected to the network. The per capita water supply (2010-11) is 14 LPCD which is much lower than the CPHEEO standard. The water supply system is decentralized with 4 OHTs, 39 tube wells and 156 hand pumps. As per the present population (2011), the town's total water requirement is 17.9 MLD whereas the supply is only 1.86 MLD.

Key Issues: Some of the key issues impacting water supply include the absence of water quality monitoring to check turbidity and pH levels. There is no billing and metering and overall insufficient volume available for supply. Water supply network plans and other relevant data are not readily available with the authorities. Poor electricity supply adversely affects the water supply system resulting in inefficient utilization of available capacity. The ULB does not provide tanker supplies to address supply shortages. The table below summarises the proposed time lines for various interventions in the sector.

PROJECTS	I st Yr. (11-12)	II nd Yr. (12-13)	III rd Yr. (13-14)	IV th Yr. (14-15)	2016-21	2021-30
Establishment of Chlorination Units	70.00	210.00	-	-	-	-
Tube Wells	-	36.00	-	-	-	-
Pumping station	-	150.00	-	-	-	-
Construction of OHTs	96.25	288.75	-	-	-	-
Construction of UG tanks	122.50	367.50	-	-	-	-
Distribution pipeline (CI)	375.00	562.50	562.50	-	-	-
Water Conservation awareness programme	10.00	-	-	-	-	-
SUB TOTAL WATER SUPPLY	673.80	1614.80	562.50	-	-	-
Grand Total	Rs. 2851.10 Lakhs					

All figures in Rupees Lakhs

B) Sewerage and Sanitation

Bettiah does not have a sewerage system. As per Census 2001, about 22% of the population practiced open defecation. The town has 8 community toilets that are in very poor condition. All the waste water and sewage is discharged untreated into the river and other water bodies like Sagar Pokhar causing pollution and deteriorating the natural environment of the city. The situation is aggravated in the rains. The table below summarises the time lines for achieving improvements in the system that will help the town achieve its goal of 100 % sanitation.

City Development Plan for Bettiah: EXECUTIVE SUMMARY

PROJECTS	I st Yr. (11-12)	II nd Yr. (12-13)	III rd Yr. (13-14)	IV th Yr. (14-15)	2016-21	2021-30
Construction of Sewage Treatment Plant	-	337.50	1012.50	-	-	-
Laying down sewerage network (tentative calculation):	-	3750.00	5625.00	5625.00	-	-
Re-construction/ Repair of existing public toilets (Male & Female toilets)	80.00	-	-	-	80.00	-
Construction of new public toilets (for male & female)	-	-	-	-	150.00	-
Sanitation Awareness Programmes	10.00	-	-	-	-	-
SUB TOTAL SEWERAGE	90.00	4087.50	6637.50	5625.00	230.00	-
Grand Total	Rs. 16670 Lakhs					

All figures in Rupees Lakhs

C) Storm Water Drainage

The natural slope of Bettiah town is about 4.5 to 5.5 feet to a mile. The existing drainage system comprises one trunk drain in which all the branch drains discharge. The total length of drains is approximately 22 Km while the demand is 140 Km – the gap is 118 Km. There is intermixing of storm water and sewerage in the existing drains that ultimately discharge into the river and other existing water bodies. The capacity of the drains is impacted with the discharge of garbage in them. Currently around 30% of the town is covered under drainage network. Significant improvements including construction will be required to improve the situation in the town. Since Bettiah is located in a flood prone zone; the CDP suggests the development of a systematic Drainage Master Plan. The table below summarises the time lines for achieving improvements in the system.

PROJECTS	I st Yr. (11-12)	II nd Yr. (12-13)	III rd Yr. (13-14)	IV th Yr. (14-15)	2016-21	2021-30
De-silting of drains	2.20	-	-	-	-	-
Repair & covering of drains	110.00	330.00	-	-	-	-
Construction of new drains	1125.00	1687.50	1687.50	-	-	-
Preparation of Comprehensive Drainage Master Plan	20.00	-	-	-	-	-
SUB TOTAL DRAINAGE	1257.20	2017.50	1687.50	-	-	-
Grand Total	Rs. 4962.20 Lakhs					

All figures in Rupees Lakhs

D) Solid Waste Management

It is estimated that Bettiah generates about 34 MT of solid wastes per day. The collection efficiency is estimated at 50%. The municipality practices manual loading and unloading of garbage that is waste

City Development Plan for Bettiah: EXECUTIVE SUMMARY

collected from various places in the town and disposed at four identified sites. There is no segregation or door to door collection. The municipality has 117 hand trolleys, 3 open-tractors and 1 tipper for managing solid waste in the town. The key issues in the sector include the absence of any primary collection; open dumping and non functional equipments. The table below summarises the time lines for achieving improvements in the system. The town is keen to explore possibility of introducing PPP in this sector.

PROJECTS	I st Yr. (11-12)	II nd Yr. (12-13)	III rd Yr. (13-14)	IV th Yr. (14-15)	2016-21	2021-30
Development of Sanitary Landfill Site	20.00	60.00	-	-	-	-
Compost plant at landfill site	12.50	37.50	-	-	-	-
Containerized Handcarts (750)	-	12.95	-	-	12.95	26.60
Containerized Tricycles (50)	-	1.56	-	-	1.56	2.88
Community bins for Slums (500)	-	0.19	-	-	0.19	0.38
Silt Removal machine (1)	-	9.00	-	-	-	-
Small vehicles for direct collection of waste (4)	-	6.50	-	-	-	6.50
Closed dumper placers containers 4.5 cu.mtr. Volume	-	17.50	-	-	17.50	35.00
Containers for domestic hazardous waste	-	1.16	-	-	1.16	2.03
4.5 cu. Mtr skips for construction waste	-	1.05	-	-	1.05	1.40
Construction Waste collection Vehicle	-	-	-	-	-	15.00
Small van for hospital waste collection	-	3.50	-	-	3.50	3.50
Bull Dozers/Wheel Dozers	-	-	-	-	-	40.00
Incineration Plant	-	-	-	-	-	50.00
JCB Machine	-	9.50	-	-	-	9.50
Septic Tank Cleaning Machine	-	20.00	-	-	-	-
Street Sweeping Machines	-	36.00	-	-	-	36.00
SWM Awareness Generation Programmes	10.00	-	-	-	-	-
SUB TOTAL SWM	42.50	216.40	-	-	37.91	229.00
Grand Total	Rs. 525.81 Lakhs					

All figures in Rupees Lakhs

E) Roads, Traffic and Transportation

Bettiah is connected by NH-28B, SH-54, SH-64 and an outer ring road to other parts of the state. The major roads within the town limits include Tin Lantern Chowk, Dwar Devi Chowk, Station Road, Harivatika Chowk, Chhavani Road, Najani Chowk, Kotwali Chowk and Naya Bazaar Road. The total length of the road network is approximately 72 km which is around 0.5 Km per 1000 population. The roads are managed by various departments - NHAI, PWD and BMC. The average width of the right of way of the surfaced roads varies between 5.5 m to about 3.5m on account of encroachments. Around 11% roads are metalled and approximately 10% are non-metalled. Most of the existing roads are in poor condition. Internal roads are narrow and not maintained properly specially in Meena

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Bazar, Bazaar Samiti and Naya Bazaar areas. There is only one bus stand that has an area of about 4 acres – this too is encroached by dwelling units and Informal activities. Intercity connectivity is by way of 5 government buses and 200 privately operated buses. Tongas and cycle rickshaws are the prime mode of public transport in the town. Encroachments on roads and pavements especially in old city are a major problem. Informal establishments along roads reduce the effective width of the carriageway for vehicular movement. On-street parking is common as is the absence of pedestrian facilities and signages and signalized intersections.

Strategies for sector improvement include construction of new road length of 146 Km as per the requirement for 2030; 100% signalization of junctions; geometric improvements of rotary; improvement of existing bus terminal; construction of transport Nagar; provision of economical, environment friendly and convenient public transport system; development of parking spaces at important and congested commercial sites; widening and improvement of the roads.

PROJECTS	I st Yr. (11-12)	II nd Yr. (12-13)	III rd Yr. (13-14)	IV th Yr. (14-15)	2016-21	2021-30
Development of a Transport Nagar	-	-	-	-	-	2500.00
Development of Parking spaces	-	-	-	-	-	-
Bus stand, Railway station, Lal Bazar & Meena Bazar	-	-	-	-	50.00	150.00
Road Widening & Improvement with Street Lighting	433.00	1300.00	-	-	-	-
Redesigning and Renovation/ Refurbishment of existing bus terminal with Commercial complex	-	-	-	-	-	2000.00
Establishment of Taxi stand	-	-	-	-	-	1000.00
Establishment of city bus based public transport system	-	-	-	-	700.00	-
Signalisation & beautification of major intersections	12.50	37.50	-	-	50.00	150.00
SUB TOTAL URBAN TRANSPORT	445.80	1337.50	-	-	800.00	5800.00
Grand Total	Rs. 8383.30 Lakhs					

All figures in Rupees Lakhs

F) Street Lighting and Fire Fighting

At present, the municipality has not provided any street lights. There are 5 vapor lights installed and maintained at the major intersections by the Collectorate. Existing street light poles are largely non-functional and it is estimated that there is a demand for 1733 lights in the town.

G) Housing and Urban Poverty

Bettiah town has a total of 8,161 households with a population of 40805 living in 110 notified slums – this is about 45% of households. All wards have at least one slum within their boundary with the maximum number being in the wards covering the Bettiah Raj area. There is a shortage of access to basic infrastructure in the slums and overall conditions are unhygienic. As per 2001 Census, about 8% of the total numbers of houses are in dilapidated condition.

City Development Plan for Bettiah: EXECUTIVE SUMMARY

Proposed strategies include upgradation and improvement of the quality of life of slum dwellers; provision of basic infrastructure including anganwadis and health facilities. The CDP advocates the need for a comprehensive slum development strategy at state level including interventions for skill building and livelihoods.

PROJECTS	I st Yr. (11-12)	II nd Yr. (12-13)	III rd Yr. (13-14)	IV th Yr. (14-15)	2016-21	2021-30
Construction of roads in slums (with road side drains)	3060.40	4590.60	4590.60	-	-	-
Provision of community taps in slums						
Street lighting in left out areas of slums						
Community toilets						
Skill Development & Training for Slum dwellers	10.00	-	-	-	-	-
SUB TOTAL HOUSING & SLUMS	3070.40	4590.56	4590.56	-	-	-
Grand Total	Rs. 12251.52 Lakhs					

All figures in Rupees Lakhs

H) Social Infrastructure

As per the UDPFI guidelines Bettiah town is deficient in social infrastructure facilities. Facilities both in terms of number and condition are lacking. The town lacks recreational facilities, community facilities like cinema hall, club, library, parking lots, playgrounds, technical equipments etc. Existing hospitals are in poor condition and facilities are poor in academic institutions. The table below summarises the demand and gap between the existing and future requirement of educational and medical facilities in the city.

PROJECTS	I st Yr. (11-12)	II nd Yr. (12-13)	III rd Yr. (13-14)	IV th Yr. (14-15)	2016-21	2021-30
Construction of Primary Schools	-	-	-	-	400.00	700.00
Construction of Senior Secondary Schools	-	-	-	-	1000.00	1800.00
Construction of School of Handicapped	-	-	-	-	-	150.00
SUB TOTAL EDUCATION	-	-	-	-	1400.00	2650.00
Construction of Intermediate Hospital (category-A, 200 beds)	-	-	-	-	-	5000.00
Construction of Intermediate Hospital (category-B, 80 beds)	-	-	-	-	1300.00	1300.00
SUB TOTAL HEALTH	-	-	-	-	1300.00	6300.00
Grand Total	Rs. 7600 Lakhs					

All figures in Rupees Lakhs

I) Environment

The combination of the Chandrawat River, the Kohada drainage channel together with a small drainage channel along west, plantations covering almost the whole outer area of the town and the presence of an ox-bow lake and Udaipur jungle at a distance of 3 km to the west contribute to the towns' unique ecosystem. These natural features have potential for development into recreational

City Development Plan for Bettiah: EXECUTIVE SUMMARY

and eco areas. The town lies in a flood prone zone and seismic zone V which is high risk zone. The town is located at an average mean sea level of about 65 meters (213 feet). It receives heavy annual rainfall of about 200-400 mm mostly in the monsoons. The unplanned growth of the city with reclamation of low lying areas and dumping of garbage has adversely affected the overall environment of the town.

The CDP recommends the need for policies and reforms along with institutional strengthening with emphasis on development controls and building bye laws. There is also need for a comprehensive study of the region together with mapping of environmentally sensitive areas that will form the basis of recommendations for sustainable interventions.

PROJECTS	I st Yr. (11-12)	II nd Yr. (12-13)	III rd Yr. (13-14)	IV th Yr. (14-15)	2016-21	2021-30
Plantation & beautification along the River	-	-	-	-	-	30.00
Rejuvenation of 8 ponds	-	-	-	-	-	80.00
Redevelopment/ beautification of Recreational areas/parks	-	-	-	-	-	150.00
Mapping of Environmentally sensitive areas & data compilation	-	-	-	-	-	20.00
Preparation of a disaster management plan for the town	-	-	-	-	-	25.00
Community Awareness for Rain Water Harvesting	10.00	-	-	-	-	-
SUB TOTAL ENVIRONMENT	10.00	-	-	-	-	305.00
Grand Total	Rs. 315.00 Lakhs					

All figures in Rupees Lakhs

J) Urban Heritage and Tourism

The main tourist destinations within the town are Circuit House, Roman Catholic Mission, Kaali Bagh Mandir, Maharaja's Palace, K.R. High School, Sagar Pokhar, Saint Ghat, Machhli Lok, Jangi Masjid etc. Bettiah is also a transit point for tourists visiting Raxaul and the Valmiki National Park. Facilities available for tourists are poor. This is an untapped sector that has potential to enhance the financial resources of the municipality. The identified Vision in the CDP is based on development of tourism. Proposed strategies therefore include undertaking a detailed inventory of existing tourist sites; developing a strategy for their conservation and development of relevant tourist as well as town level infrastructure.

PROJECTS	I st Yr. (11-12)	II nd Yr. (12-13)	III rd Yr. (13-14)	IV th Yr. (14-15)	2016-21	2021-30
Roman Catholic Mission	-	-	-	-	-	30.00
Kali Bagh Temple	-	-	-	-	-	30.00
Maharaja's Palace	-	-	-	-	-	30.00
R.K.High School	-	-	-	-	-	30.00
Sagar Pokhar	-	-	-	-	-	30.00
Shiv Temple, Sagar Pokhar	-	-	-	-	-	30.00
Saint Ghat	-	-	-	-	-	30.00
Machhli Lok	-	-	-	-	-	30.00
Jangi Masjid	-	-	-	-	-	30.00

City Development Plan for Bettiah: EXECUTIVE SUMMARY

Boating facility in Sagar Pokhar	-	-	-	-	-	100.00
Tourist Information Centre	-	-	-	-	-	100.00
Construction of a Dharmshala / Motel	-	-	-	-	-	500.00
SUB TOTAL HERITAGE	-	-	-	-	-	970.00
Grand Total	Rs. 970.00 Lakhs					

All figures in Rupees Lakhs

K) Urban Economy

The projects for rejuvenating the city economy are listed below.

PROJECTS	I st Yr. (11-12)	II nd Yr. (12-13)	III rd Yr. (13-14)	IV th Yr. (14-15)	2016-20	2021-30
Development of a Commercial complex/ shopping area	-	-	-	-	5000.00	-
Preparation of Master Plan	25.00	-	-	-	-	-
Redevelopment/ renovation of CBD & city core areas	-	-	-	-	-	2500.00
Development of Vendor Zone	-	-	-	-	1500.00	-
Construction of Slaughter House	25.00	75.00	-	-	-	-
SUB TOTAL ECONOMY	50.00	75.00	-	-	6500.00	2500.00
Grand Total	Rs. 9125.00 Lakhs					

All figures in Rupees Lakhs

L) Urban Governance

The projects for improving municipal governance are listed below.

PROJECTS	I st Yr. (11-12)	II nd Yr. (12-13)	III rd Yr. (13-14)	IV th Yr. (14-15)	2016-20	2021-30
Establishment of e-governance & Single Window System	100.00	300.00	-	-	-	-
Establishment of Double Accounting System	12.50	37.50	-	-	-	-
Capacity building of Municipal officials	25.00	-	-	-	-	-
SUB TOTAL GOVERNANCE	137.50	337.50	-	-	-	-
Grand Total	Rs. 475.00 Lakhs					

All figures in Rupees Lakhs

Financial Position of the Local Body

The income of BMC has decreased substantially to Rs. 94 lakhs in the FY 2009-10 from Rs. 674 lakhs in FY 2008-09. This decrease is basically due to decrease in tax and non-tax revenue, revenue grants and capital grants. The municipality was running in deficit in the FY 2009-10 by Rs. 197 lakhs. The collection efficiency is low in regard to tax revenue income due to which their growth in revenue is not as high as the existing potential of the town. The assessment done is also very low as compared to growth rate of population which indicate that the lack of data collection on account of BMC.

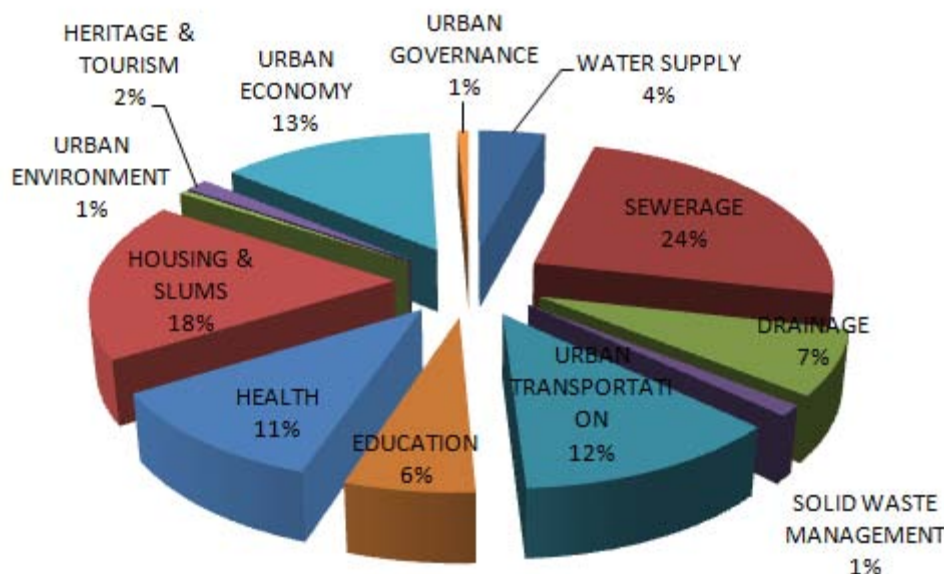
City Development Plan for Bettiah: EXECUTIVE SUMMARY

The investment sustaining capacity of BMC is ascertained based on a financial operating plan (FOP), which is essentially a 20-year forecast of municipal income and expenditure, based on certain trend-based and revenue enhancement assumptions. Similarly the investment phasing of control investment is worked out and shown in investment phasing plan.

Capital Investment Plan (CIP)

The projects are derived based on the BMC estimates and aimed at ensuring optimal and efficient utilization of existing infrastructure systems. The total estimated capital investment required for providing efficient services to the population of BMC by the year 2030 is about **Rs. 64,128.93 Lakhs**. The table below presents the summary of sector-wise investment requirements.

SN	Sector	Total Investment (Rs. Lakh)	Phase-I	Phase-II	Phase-III
			2011-16	2016-21	2021-30
1	WATER SUPPLY	2851.10	2851.10	-	-
2	SEWERAGE	16670.00	16440.00	230.00	-
3	DRAINAGE	4962.20	4962.20	-	-
4	SOLID WASTE MANAGEMENT	525.81	258.90	37.91	229.00
5	URBAN TRANSPORTATION	8383.30	1783.30	800.00	5800.00
6	SOCIAL INFRASTRUCTURE	7600.00	-	1300.00	6300.00
7	HOUSING & SLUMS	12251.52	12251.52	-	-
8	URBAN ENVIRONMENT	315.00	10.00	-	305.00
9	HERITAGE & TOURISM	970.00	-	-	970.00
10	ECONOMY, TRADE & COMMERCE	9125.00	125.00	6500.00	2500.00
11	URBAN GOVERNANCE	475.00	475.00	-	-
	TOTAL	64128.93	39157.02	8867.91	16104.00



Financial Operating Plan (FOP)

The full project investment scenario is based on all the proposed investments identified for Bettiah municipality and the requirement for upgrading the town's infrastructure is estimated and phased based on the construction activity. Implications of this investment in terms of external borrowings required, resultant debt service commitment and additional operation and maintenance expenditure are worked out to ascertain sub-project cash flows. Revenue surpluses of the existing operations are applied to the sub-project cash flows emerging from full project investments – the municipality fund net surpluses indicates the ULB's ability to sustain full investments. The growth rates for the various heads of income and expenditure have been arrived based on the past growth rates and the future estimated population growth. Improvements to the existing current and arrears collection percentages have been assumed for the various revenues directly collected by the municipality, which implies that it would have to improve its collections to sustain full investments. Three scenarios have been worked out to check financial sustainability of ULB under different assumptions. The scenarios considered are:

1. **Scenario I** - Estimation of Investment Capacity by considering all projects and all financial reforms
2. **Scenario II** - Estimation of Investment Capacity by considering all projects excluding Education & Health and all financial reforms
3. **Scenario III** - Estimation of Borrowing and Investment Capacity by considering all Projects without Financial Reforms.

The borrowing capacity of municipality was taken as the minimum of the (i) 30% of revenue projections and (ii) Primary Operating Surplus (Surplus before Interest & Depreciation).

City Development Plan for Bettiah: EXECUTIVE SUMMARY

The net present value (NPV) of the least of the above has been worked out to arrive at the borrowing capacity of the Municipality. The Investment Capacity has been arrived on dividing the borrowing capacity by loan component percentage.

Summary of Borrowing and Investment Capacity			
	Scenario - I	Scenario - II	Scenario - III
Borrowing Capacity (in Rs. Lakhs)	12500	13200	6300
Investment Capacity (in Rs. Lakhs)	147000	156000	75000
Investment Requirement (in Rs. Lakhs)	69500	40000	69500
Sustainable Investment Capacity % - IC / IR	211%	207%	107%

Inference

- Municipality would be in a position to undertake the projects mentioned in FOP only if the financial reforms are carried out.
- The borrowing capacity of Bettiah Municipality works out to Rs. 12,500 lakhs.
- The investment capacity of Bettiah Municipality works out to Rs. 147,000 lakhs.
- As against the total investment requirement of Rs. 69,500 lakhs, the investment capacity works out to Rs. 147,000 lakhs. Thus the sustainable investment capacity works out to Rs. 211,000.

Overall Assessment


The table below indicates the assessment of the existing service delivery levels for Bettiah town. This shows that there is need for significant improvements in all sectors.

SN	Parameter	Indicators	Bettiah
1	Status of Infrastructure and Service Delivery Levels		
	a.	Coverage of Water Supply	
	b.	Per Capita Availability of Water	
	c.	Continuity of Water Supply	
	d.	Coverage of Individual Toilets	
	e.	Door to Door Collection	
	f.	Collection Efficiency of Solid Waste	
2	Financial Management		
	a.	Operating Ratio	
	b.	Growth in Revenue Income	
3	Poverty Level		
	a.	Population Below Poverty Line (BPL)	
4	Organization Structure		
	a.	Staffing pattern, availability of sufficient staff, competency level of existing staff for implementing proposed projects	

City Development Plan for Bettiah: EXECUTIVE SUMMARY

5	Leadership		
		a. Leadership quality, awareness and understanding regarding urban sector, proactive approach for implementing reform measures	
6	Economic Development Potential		
		a. Potential for Development, linkages to the state capital and other cities, status of existing infrastructure	
7	Environment Sustainability		
		a. Status of Environment, quality of water, air	
8	Participation		
		a. Level of Participation from Citizen/Citizen Forums/Welfare Association in municipal affairs	
9	Compliance with Reforms		
		a. Status of reform implementation and preparedness for implementation	

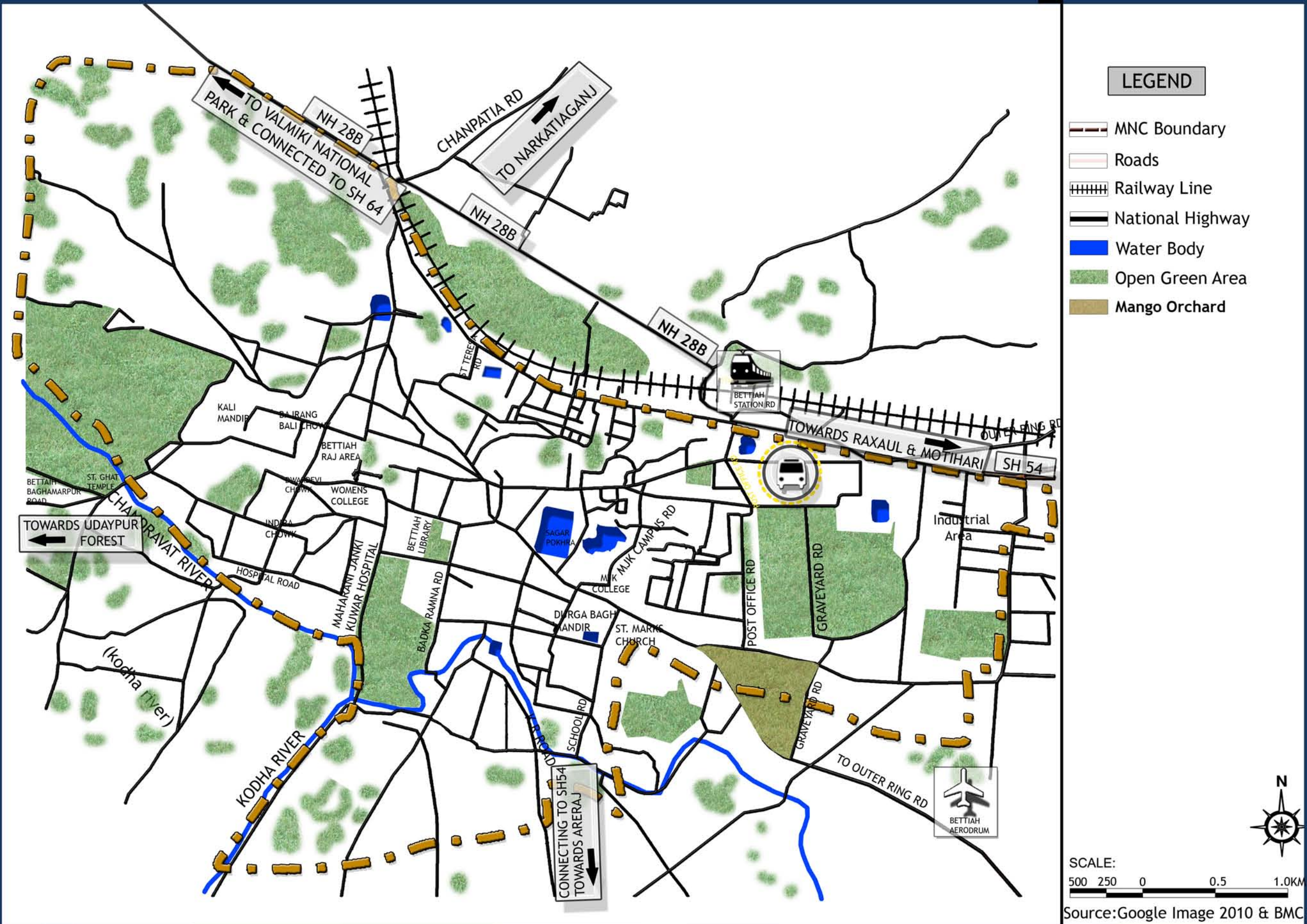
Legend

Alarming 

Average 

Below Average 

Good 



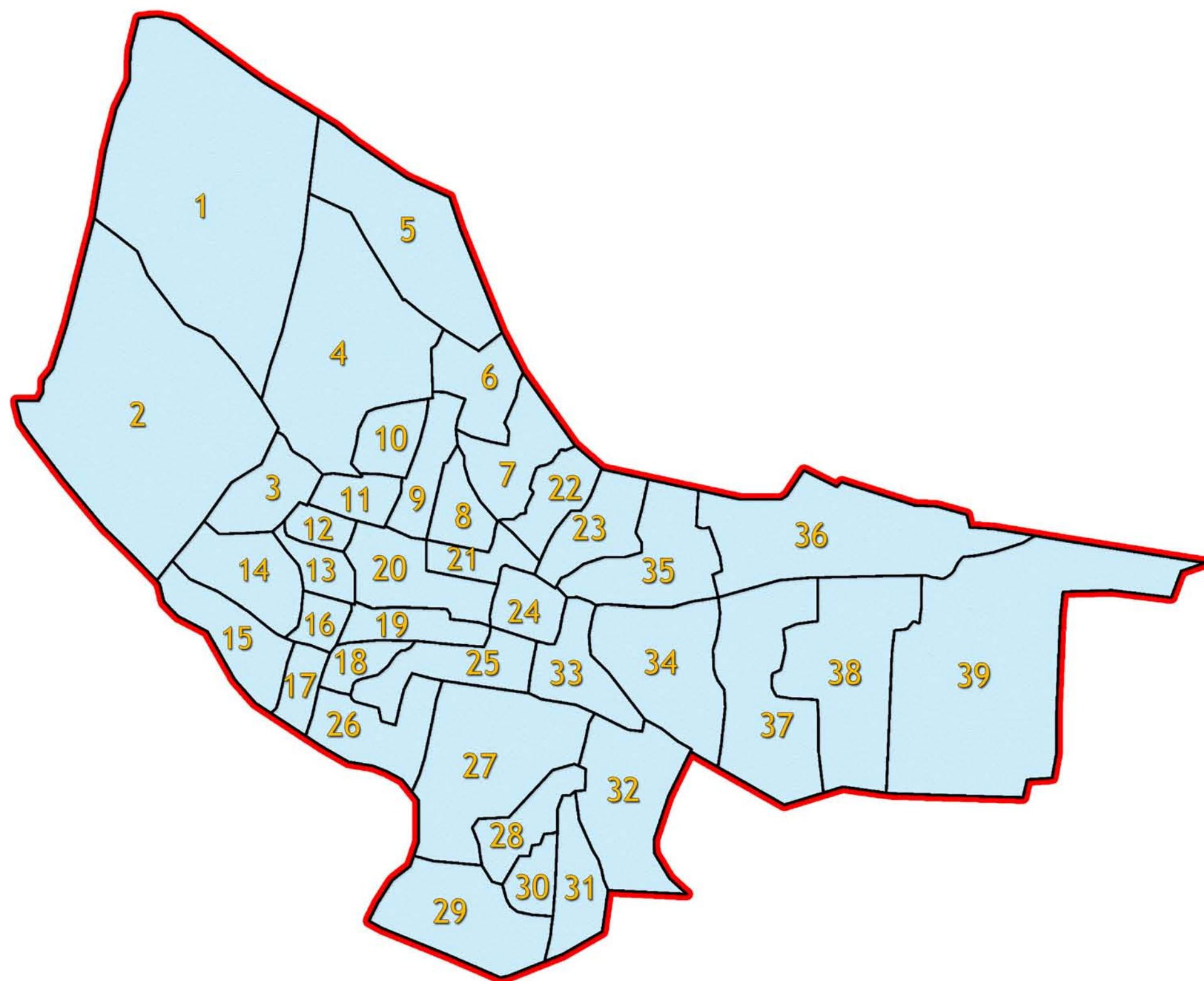
BETTIAH MUNICIPAL COUNCIL City Map Of Bettiah



Voyants Solutions Pvt. Ltd, Gurgaon



Submitted to:
Urban Development and Housing Department,
Government of Bihar
Project Co-ordination:
Support Programme For Urban Reforms in Bihar (SPUR)



LEGEND

- BMC Area
- BMC Boundary
- Ward Boundary



SCALE:
500 250 0 0.5 1.0KM

Source:Google Image 2010 & BMC

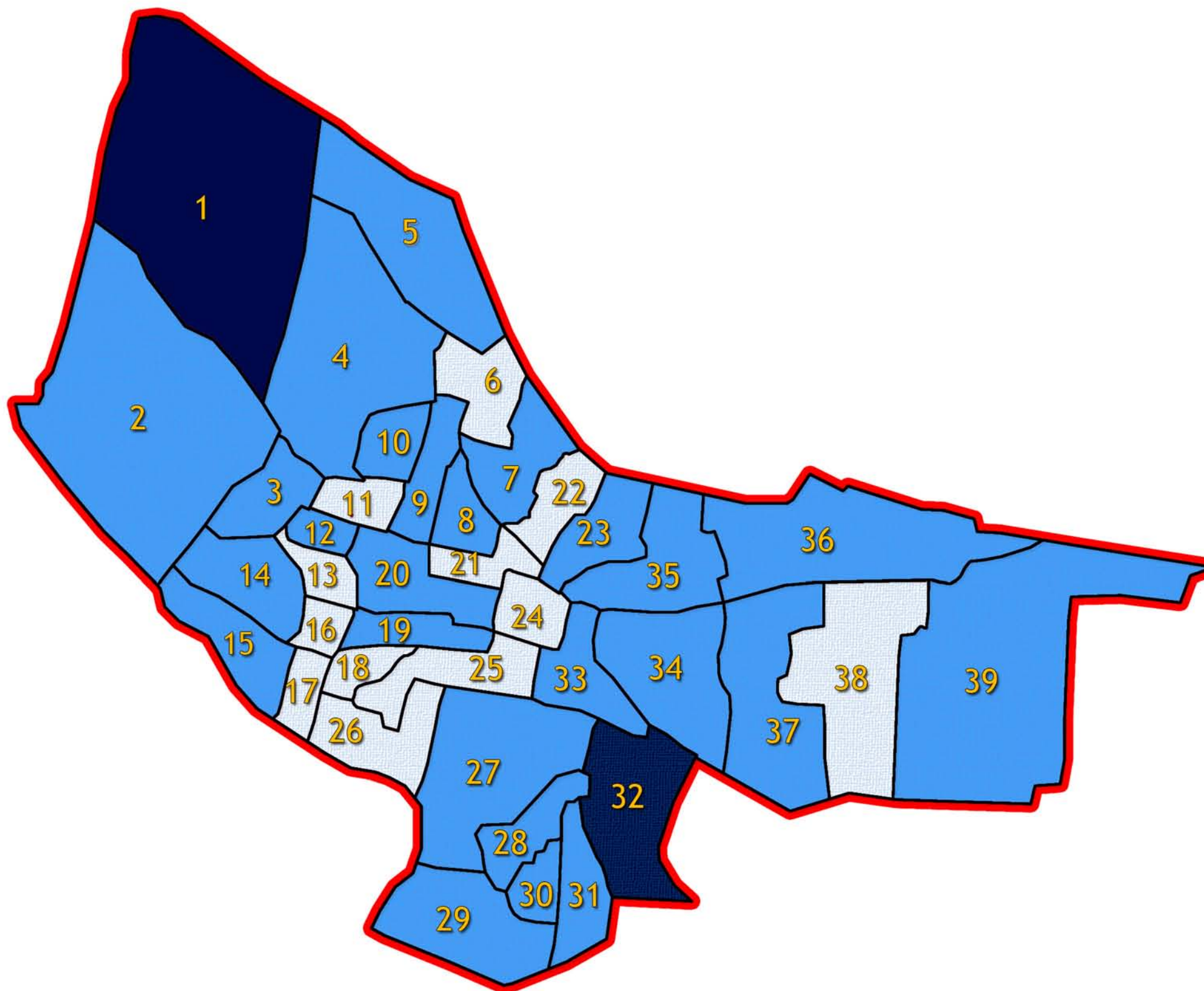
BETTIAH MUNICIPAL COUNCIL Ward Map



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LEGEND

- BMC Boundary
- Ward Boundary
- 1000-3000
- 3000-5000
- >5000



SCALE:
500 250 0 0.5 1.0KM

Source: Google Image 2010 & BMC

BETTIAH MUNICIPAL COUNCIL

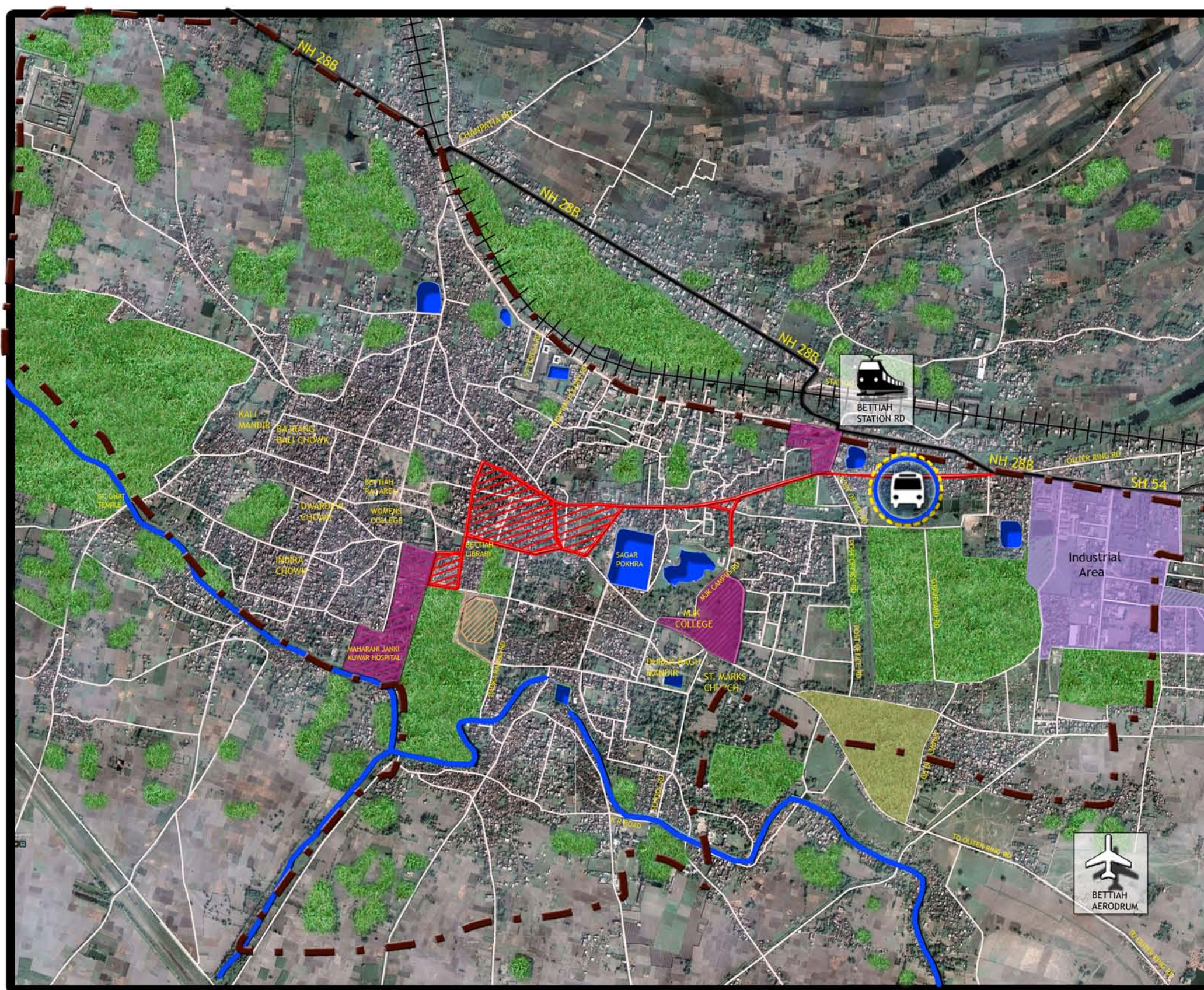
Ward wise population distribution of BMC (2001)



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LEGEND

- MNC Boundary
- Roads
- Railway Line
- National Highway
- Water Body
- Industrial Area
- Open Green Area
- Public & Semi Public Area
 - MJK College
 - Maharaja Stadium
 - MJK Hospital
 - Collectrait
- Commercial Area
 - Lal Bazaar
 - Meena Bazaar
 - Naya Bazaar
- Mango Orchard

SCALE:
500 250 0 0.5 1.0KM

Source:Google Image 2010 & BMC

BETTIAH MUNICIPAL COUNCIL
Existing Land Use





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LEGEND

-  National Highway
-  Roads
-  Water Body

Existing Main Drains



SCALE:

500 250 0 0.5 1.0KM

Source: Google Image 2010 & BMC

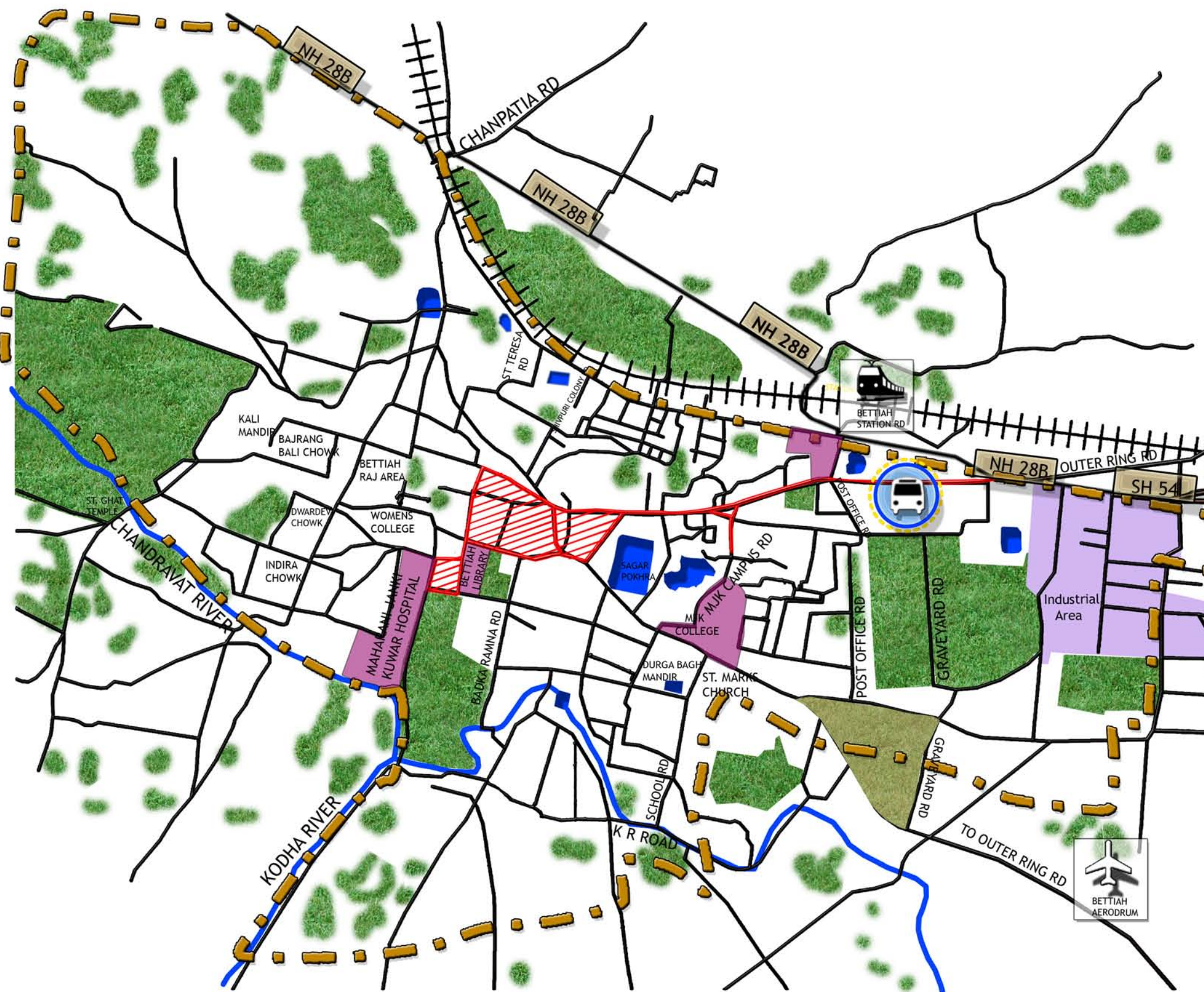
BETTIAH MUNICIPAL COUNCIL
Existing Main Drains



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LEGEND

- MNC Boundary
- Roads
- Railway Line
- National Highway
- Water Body
- Industrial Area
- Open Green Area
- Public & Semi Public Area
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SCALE:
500 250 0 0.5 1.0KM

Source:Google Image 2010 & BMC

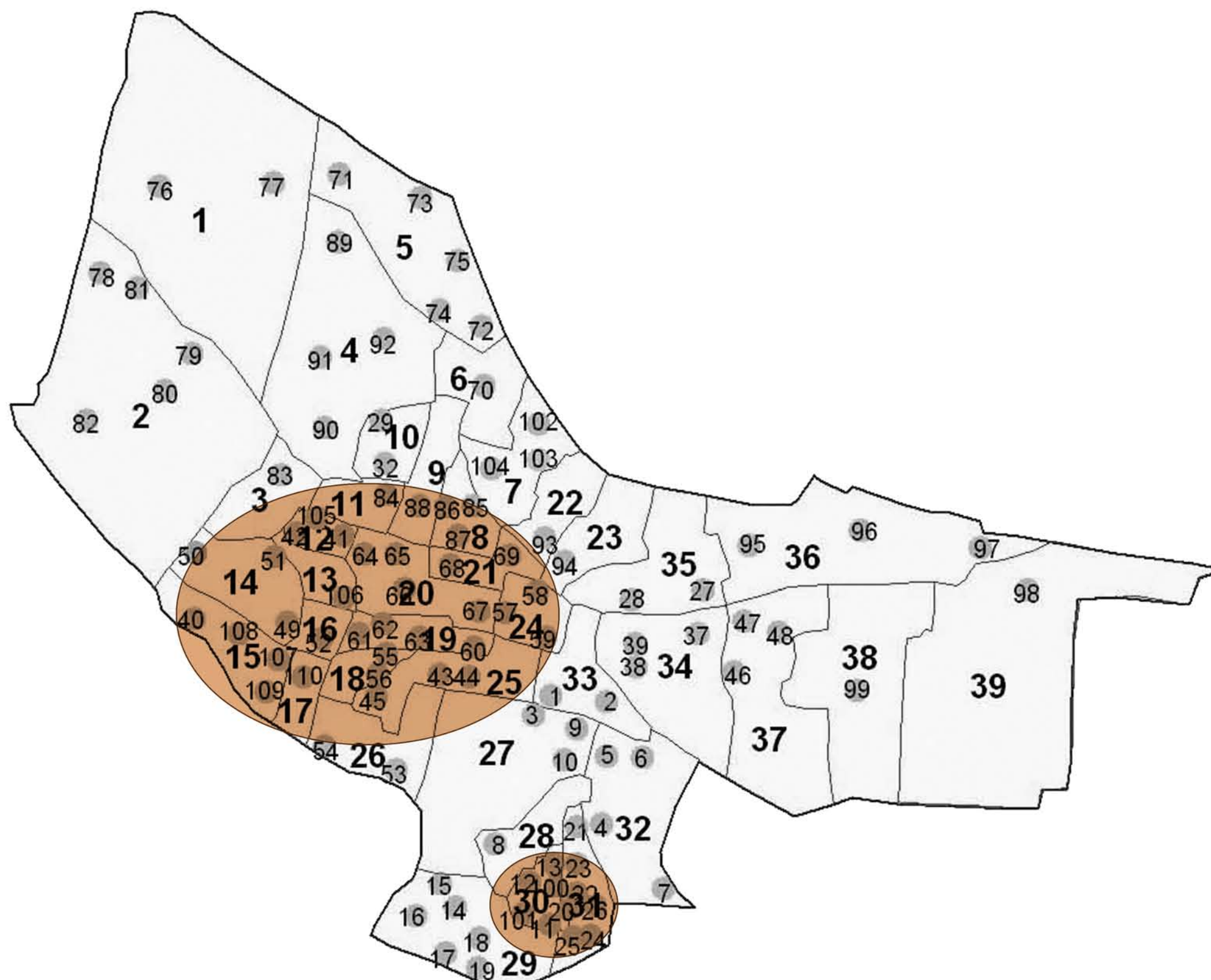
BETTIAH MUNICIPAL COUNCIL Road Network Map of Bettiah



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LEGEND

- Municipal Boundary
- Ward Boundary
- Slums
- Other Poverty Pocket
- Ward No.
- Slum No.
- High Concentration Of Slums

1 Kodhiya Patti	60 Chik Patti, Nazneen Chowk
2 Alkatra	61 Kujra Patti
3 Jagjeevan nagar	62 Teli Patti
4 Pioni Bagh	63 Jolha Patti
5 Nauranga Bagh	64 Miskar Tola
6 Durga Bagh	65 Gadoha
7 Bel Bagh (Bengali Colony)	66 Halwai Patti
8 Pachim Muhalla (Banswariya)	67 Behind Ganesh Mandir
9 Dom Tola	68 Kurmi Tola (Rajguru Chowk)
10 Imli Chowk (Paasi tola)	69 Dargah Muhalla
11 Pakdi Muhalla	70 Maharani Jankiput Nagar
12 Madhukunj Nagar	71 Pasiya Tola
13 Gyanodaya Nagar	72 Harijan Tola
14 Dhuniya Patti	73 Musal Tola
15 Damadwa Tola	74 Mirza Tola
16 Jagdambha Nagar	75 Noniya Tola
17 Gond Patti	76 Jamadar Tola
18 Badhai Tola	77 Basant Tola
19 Narayani Colony	78 Nagdahiya
20 Ambedkar Colony	79 Badhai Tola
21 Ghusukpura	80 Ahir Tola
22 Gyanodaya Nagar	81 Hazari Camp (Bengalis)
23 Michael Colony	82 Hazari Tola
24 Sikshak Nagar	83 Kishan Bagh
25 Gandhi Nagar	84 Nayka Bazaar Chowk (Lohar Tola)
26 Kureshi Muhalla	85 Chik Patti
27 Mahawat Tola	86 Purani Gudari Dih
28 Ujjain Tola	87 Rajguru Chowk (Geeta Gunai's backyard)
29 Kujra Tola, Dhobi Tola, Tatwa Tola	88 Patel Nagar (Darji Tola)
30 Gond Tola, Harijan Tola, Turha Tola, Noniya Tola	89 Gusukpur Kujra Patti
31 Pijua Pokhra	90 Noniya Dih
32 Ujjain Tola	91 Gusukpur (Rajender Nagar)
33 Dak Ghar (West)	92 Uttarwari Pokhra
34 Naya Tola, Badhai patti	93 Dargah Muhalla
35 Mistar Tola	94 Bholu Babu Colony
36 Gondwan Tola	95 Station Pokhra
37 Hospital Road, Paasi Tola	96 Noon Masjid (Bus Stand Road)
38 Hospital Road, Harijan Basti	97 Hari Vatka chowk
39 Muslim Basti	98 Noniya Tola
40 Adarsh Colony	99 New Bus Stand Road - Durga Nagar
41 Koiri Tola	100 Noniya Tola
42 Station Chowk	101 Daroga Tola
43 Diwan Patti	102 Noniyar patti
44 Kishan Bagh (DM kothi)	103 Badhai Tola
45 Kali Bagh Muhalla	104 Chikpatti
46 Paasi Tola (Ganj No. 01)	105 Chik Tola
47 Pashupati Nagar	106 Hajam Tola
48 Lodh Patti	107 Tatma Tola
49 Ghasya Patti	108 Beldaar Tola
50 Red Light area (Nazneen Chowk)	109 Badhia Tola
51 Noniya Tola	110 Mali Tola
52 Shaheed Chowk (Mohammedan Tola)	
53 Gurudwara	

SCALE:

500 250 0 0.5 1.0KM

Source:Google Image 2010 & BMC

BETTIAH MUNICIPAL COUNCIL Slum Location Map



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