



Urban Development and Housing Department  
Government of Bihar

## City Development Plan (2010-30) **BHAGALPUR**



### EXECUTIVE SUMMARY

CDP Prepared By:



LEA Associates South Asia Pvt. Ltd., New Delhi



**Support Programme for Urban Reforms in Bihar**

(A Government of Bihar Initiative)

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**प्रेम कुमार**  
मंत्री  
नगर विकास एवं आवास विभाग  
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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



हमें यह घोषण करते हुए अति प्रसन्नता हो रही है कि भागलपुर 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 भागलपुर नगर निगम 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 (IOP) के अनुसार नगर निगम चिन्हित परियोजनाओं के क्रियान्वयन के लिए वित्तीय संसाधन उपलब्ध करा सकेगा।

प्रत्यपि 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 भागलपुर 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। भागलपुर नगर निगम इस सहयोग के लिए DFID का आभारी है।

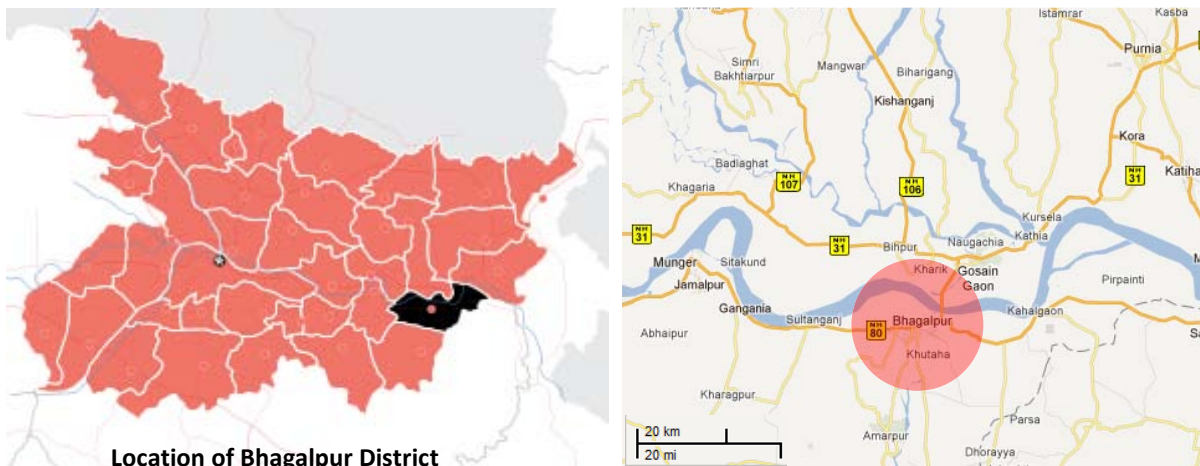
(उपमहापौर)  
भागलपुर नगर निगम

(महापौर)  
भागलपुर नगर निगम



## Overview

**Bhagalpur**, the Silk City of Bihar, is famous for its sericulture, manufacture of silk yarn, and weaving of Tussar silk. The Bhagalpur cluster ranks second highest in silk fabric production and exports after the silk cluster in Karnataka. The third largest urban centre of the state, Bhagalpur is a district headquarter serving multiple functions of an administrative, trade and commerce, service and distribution centre, especially for crops, cottage industry of silk products and tourism.



Bhagalpur is located 220 km east of Patna and 410 km North West of Kolkata. Geographically, it is located at 25° 15' 0" North latitude and 87° 0' 0" East longitude on the southern alluvial plains of River Ganga. Bhagalpur is well connected with the rest of the country through rail and road networks. NH 80 runs through the city and connects it to Patna. In addition, SH 19 and 25 are the main arterial roads.

Bhagalpur is a Nagar Nigam covering 30.17 sq km. The town is divided into 51 wards. The population of the town was 3.40 lakhs as per Census 2001 – this was 14% of the district population. The average population density of the town is 113 persons per hectare. Bhagalpur is the third largest urban centre in the state.

**The competitive advantage of Bhagalpur** lies in its tradition as a silk weaving centre; the potential for river front development of the River Ganga; the potential for its development as a logistics hub to promote trade and commerce; the development of an open air theatre for celebrating the Vikramshila Mahotsav; development of open spaces.

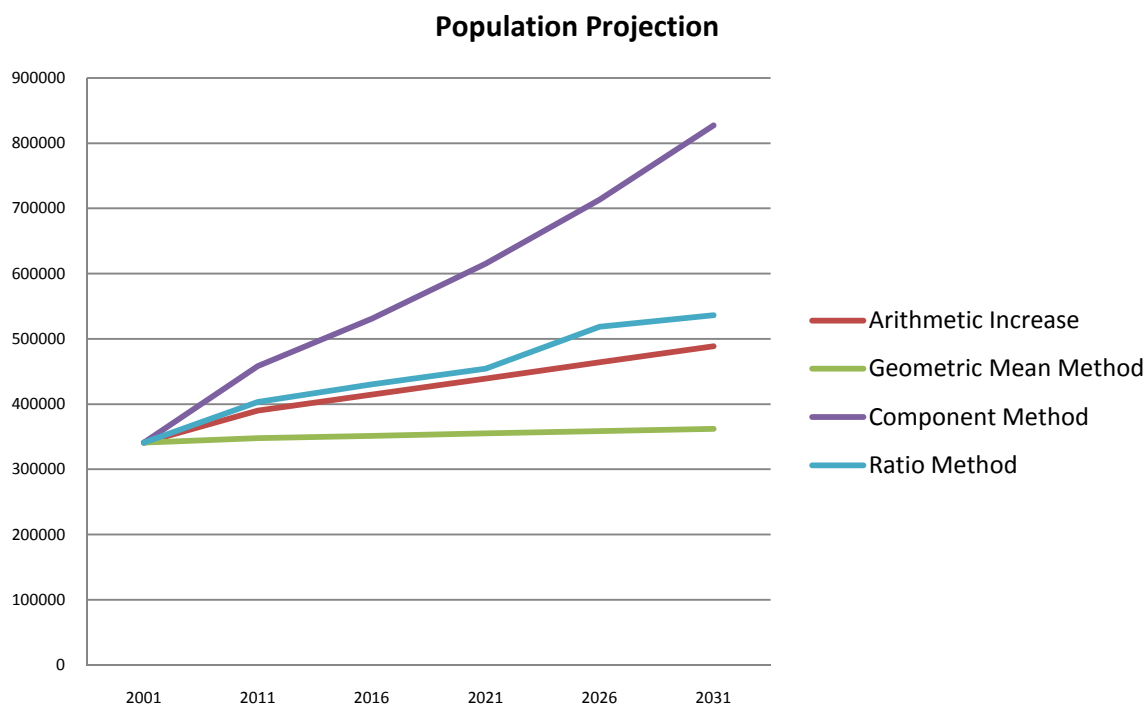


## CITY VISION

The vision for Bhagalpur was derived on the basis of the status assessment of the city, stakeholder consultations and focused group discussions. Participatory consultations during the visioning process concluded that there is need to revive growth and improve the overall quality of life of its citizens. The identified Vision is as follows: ***“To develop Bhagalpur as a premier silk production centre and hub for agricultural produce with higher order infrastructure facilities.”*** The identified vision forms the basis of sector-specific strategies

## Demography

The population of Bhagalpur has been projected for the horizon period-2030 by studying the following aspects: (a) State trends in urban growth; (b) Migration characteristics of population into urban areas; (c) District level and city migrant population characteristics; (d) Economic opportunities in the city; and (e) Regional potential of the city. The projection of population has been done by various methods. The ratio method has been adopted due to its growth rate being similar to the projected urban population growth rate of the state by the Census of India. The population of Bhagalpur is projected to be 5.36 lakhs in 2030.



## Sector Assessments & Growth Strategies

### A) Water Supply

Water supply in Bhagalpur is based both on surface water and ground water. The town receives about 17.1 MLD of piped water from the River Ganga. Tube wells account for 18 MLD of supply and hand pumps 2.25 MLD. It is estimated that 37.35 MLD of water is supplied covering 18.36% of the town. The current installed storage capacity is 67% of the supply – there are 7 over head tanks.

**Strategies:** The CDP suggests:

- Implementation of ADB funded new scheme
- Improvement of existing system
- Extension of water supply to uncovered areas
- Reduce UFW by minimizing transmission losses
- Introduction of effective measures for cost recovery

Ground water is high in nitrate and arsenic. Per capita water supply is estimated at 33 lpcd and supply is for 7 hours a day. It is estimated that the demand for water will increase to 86.57 MLD in 2030. The current water treatment capacity is 83.25 MLD and this is expected to increase to 93.25 MLD in 2030. Bhagalpur is implementing an integrated water supply scheme with funding from the Government of Bihar. It is also expected to enhance capacity through an ADB funded supply augmentation project that is to be completed in 3 years.

Detailed Project for Phase 1	Investment Requirements (In Rs. Crores)		
	Phase I 2011-16	Phase II 2016-2021	Phase III 2021-30
Laying of distribution line – 172 km	46.00	3.60	12.82
System augmentation for increasing household connections			
Bulk metering to check UFW			
Installation of leak detector machineries			
Grand Total	Rs. 62.43 crores		

### B) Sewerage and Sanitation

Bhagalpur has a minimal sewerage system. It is estimated that the town generates 44.29MLD waste water. The town has one treatment plant with an installed capacity of 11 MLD. Only 4 MLD of waste water is collected and treated (primary) with the remaining waste water being discharged into the River Ganga with no treatment. In Bhagalpur 75% households have individual toilets with septic tanks and soak pits; 20% households practice open defecation and 5% use dry toilets.

**Strategies:** The key strategies in the CDP are:

- Prepare a comprehensive plan for wastewater management under UIDSSMT/NGRBA
- Involve private sector
- Assessment of needs for community toilets especially in poor areas
- Construction of individual toilets under ILCS
- Restrict disposal of untreated black water into River Ganga and other water bodies

## City Development Plan for Bhagalpur: EXECUTIVE SUMMARY

The town has 26 community toilets of 10 seats each but all are poorly maintained. Only 20% of the town has sewage network services. On account of its location on the banks of the River Ganga, Bhagalpur will benefit from the World Bank supported sewerage and sanitation programme, the National Ganga River Basin Authority project. A DPR for this has been commissioned.

Detailed Project for Phase 1	Investment Requirements (In Rs. Crores)		
	Phase I 2011-16	Phase II 2016-2021	Phase III 2021-30
Laying of 232.59km of pipeline	210.91	28.42	72.16
Provision of STP (63 MLD) and treated water storage reservoir			
Household connections - 236720			
Grand Total	Rs. 311.50 crores		

### C) Storm Water Drainage

The total drainage network in Bhagalpur municipal area covers 162km. Of this, 112km drains are pucca open drains and 50km are kutchha open drains. Drains are normally seen on one side of the road and therefore cover 50% of the roadside coverage. The town may be divided into two drainage zones – north and south. The natural drainage is from the south to the north. The existing drainage system is highly choked by indiscriminate garbage dumping and silting. All discharge from the drains is disposed directly into the River Ganga. The storm water drains carry waste water from households as well.

**Strategies:** The key strategies in the CDP are:

- Preparation of a comprehensive plan for design, construction and management of drains
- Involve private sector in implementation of plan
- De-silting, watering, channelization and covering of major drains
- Extension of coverage of drainage to all areas – at least 90% coverage in the next 5 years
- Construction of storm water drains with a design that prevents water logging

Detailed Project for Phase 1	Investment Requirements (In Rs. Crores)		
	Phase I 2011-16	Phase II 2016-2021	Phase III 2021-30
Construction of new drains – 201 km	56.79	56.25	113.62
De-silting of existing drains – 162 km			
Grand Total	Rs. 226.67 crores		

### **D) Solid Waste Management**

It is estimated that Bhagalpur generates about 225 tonnes of waste per day of which 87% (196 tonnes) is collected. In the last year, the municipal corporation has introduced door to door collection and transportation, road sweeping and drain cleaning through a private operator in 10 wards of the town. The corporation has limited equipment for solid waste management – 12 tractors, 1 JCB, 1 road roller and 220 hand carts. There is no treatment of the garbage prior to disposal. At present the garbage is dumped on available open spaces. The CDP estimates that Bhagalpur will generate 321.62 tonnes of garbage daily by 2030.

**Strategies:** The key strategies in the CDP are:

- Develop scientific landfill site
- Promote door to door collection with private sector participation
- Assessment of infrastructure needs for solid waste management
- Generate awareness about safe handling of wastes
- Follow MSW Handling Rules 2000

Detailed Project for Phase 1	Investment Requirements (In Rs. Crores)		
	Phase I 2011-16	Phase II 2016-2021	Phase III 2021-30
Litterbins for primary collection – 75705 of 25L capacity; 1516 of 50L capacity; 759 of 240L capacity; 153 of 1100L capacity	141.63	2.57	119.38
Containerized mechanized tri-cycles – 6264			
Pick up vehicles – 716			
Equipments for secondary collection – 216 containers of 4 cu.m.; 109 containers of 2 cu.m.; 80 tipper vehicles			
Land development for SWM site			
Grand Total	Rs. 263.59 crores		

### **E) Roads, Traffic, and Transportation**

Bhagalpur town has 175km of roads with a density of 5.8 (ratio of total road length to city area). The main roads in the town include NH80, SH25 and SH19. The overall traffic characteristics are heterogeneous and the town has 21810 registered vehicles. The road network is largely undivided with no footpaths, high levels of encroachment, lack of road over-bridges that contribute to traffic jams. Intra city transport is mainly by way of cycles and auto rickshaws while, for inter-city transport, there are 96 State Transport buses.

**Strategies:** The key strategies in the CDP are:

- Preparation of a traffic management plan
- Improving road geometries, provision of footpaths, junction improvements
- Promote inter departmental coordination for road up-gradation
- PPP in construction of ROBs and FOBs
- Development of existing bus stands
- Street lights along all major roads



## City Development Plan for Bhagalpur: EXECUTIVE SUMMARY

Detailed Project for Phase 1	Investment Requirements (In Rs. Crores)		
	Phase I 2011-16	Phase II 2016-2021	Phase III 2021-30
Upgradation of roads – 175km	20.77	31.55	126.75
Construction of new roads – 12km			
Construction of ROB’s – 3; FOBs - 8			
Improvement of junctions – 19			
Construction of pedestrian walkways – 20km			
Renovation of existing bus stand			
Development of parking lots			
Provision of street lighting			
Grand Total	Rs. 179.07 crores		

### F) Street Lighting and Fire Fighting

The town has 2164 street light poles.

### G) Housing and Urban Poverty

Bhagalpur has 175 slums (SPUR survey 2010) housing 28% of the city population. It is estimated that nearly 40.3% of the households (22994) are Below Poverty Line (BPL) in the city. Basic facilities are practically absent in slums. The situation is aggravated by the poor coverage of poverty and slum upgradation schemes. 90% of road length in the slum pockets is kutcha without any drainage network. Handpump is the primary source of water and one handpump serves the requirement of more than 70 households. Majority of the households (90%) live in semi kutcha or kutcha houses, use unsafe dry latrines or defecate openly and do not have access to health facilities. Under Integrated Housing and Slum Development Programme (IHSDP) 1100 houses are planned for new construction.

**Strategies:** The key strategies in the CDP are:

- Ensure systematic implementation of slum upgradation and poverty alleviation programmes
- Assessment of infrastructure needs of slums
- Develop model rehabilitation colonies with private sector participation
- Encourage community participation

Detailed Project for Phase 1	Investment Requirements (In Rs. Crores)		
	Phase I 2011-16	Phase II 2016-2021	Phase III 2021-30
Construction of 1188 EWS housing units under IHSDP	34.26	10.50	24.84
Provision of infrastructure facilities in slums			
Construction of new toilets as identified under ILCS - 11860			
Grand Total	Rs. 69.60 crores		

## H) Social Infrastructure

Bhagalpur, being a district headquarters has good quality social infrastructure facilities including higher level education and health facilities. However, recreational and community facilities are insufficient in the city. The Jawaharlal Nehru Medical College and Hospital (JLNMC) is the largest hospital in the city as well as the district with the facilities of 716 beds, 34 doctors and 325 nurses and modern equipment.

**Strategies:** The key strategies in the CDP are:

- Provision of basic water and sanitation in schools and hospitals
- Increased access to healthcare for poor
- Construction of high schools and ITIs
- Establishment of better recreation and community facilities
- Involving private sector in maintenance of parks, playgrounds and community halls

The city is also a hub of educational activities for the surrounding towns and villages. There are 406 government schools comprising 308 primary schools, 74 middle schools, and 24 high schools, including degree colleges (6), Engineering colleges (1), Medical colleges (1), Agriculture University, ITI (1) and polytechnic (1) for higher and technical educational facilities in the city. The recreational facilities include Jayaprakash Udyan (City Level Park), Lajpat Park (Neighbourhood Park), Forest and Railway Park (Neighbourhood park), Town Hall (1) and 1 Vivah Bhawan (community hall).

Detailed Project for Phase 1	Investment Requirements (In Rs. Crores)			
	Phase I	Phase II	Phase III	
	2011-16	2016-2021	2021-30	
	Construction of high schools - 10	16.18	32.02	47.75
	Construction of district hospital - 1			
	Construction of dispensary - 11			
Construction of library - 4				
Construction of 3 community halls and 11 parks				
Grand Total	Rs. 95.95 crores			

## I) Local Economy

It is estimated that the workforce participation in the town is 26%. Main workers account for 84%. Bhagalpur's economic base depends on silk production and trade and commerce. The annual silk production is estimated at 2million metres per year of tussar silk. Bhagalpur town is the district level wholesale market for agriculture produce. There are two industrial estates located in the town – Berari (covering 51 acres) and Bahadurpur (covering 15 acres) – both are dedicated to cottage industries. The town has a strong presence of informal sector – 6800 units – contributing to 30-40% of the city economy. Bhagalpur has significant potential to develop as a 'silk city'. It is the second highest producer and exporter of silk in the country after Karnataka. About 50% of the silk produced in Bhagalpur is exported. The traditional handloom clusters in the town are Nath Nagar, Hussainabad and Mirzanhat. Weaving is a cottage industry concentrated in 90% of houses in Wards 1 to 10.

## City Development Plan for Bhagalpur: EXECUTIVE SUMMARY

The industry provides employment to 30,000 weavers and the value of trade from this cluster is estimated at Rs. 100 crores. The main silk products here include sarees, dress materials and home furnishings. Bhagalpur also has potential to develop as a trade and commerce centre. It is a major distribution centre for agricultural produce with the main wholesale market being located at Mirzanhat. The other major markets in the town include Nath Nagar Bazar, Muzahidpur, Ali Ganj, Tilka Manjhi and the main city area. The municipal corporation estimates that there are more than 5000 shops and offices in the town.

**Strategies:** The key strategies in the CDP are:

- Promotion of silk industry through provision of training, skill development, facilitation for access to finance and markets
- Incentives to cottage industries for procurement of raw materials and marketing of silk products
- Development of the town as a logistics hub for agriculture produce and trade
- Development of a logistic hub and Silk Park
- Optimum utilisation of industrial estates
- Development of agro based industries
- Improving regional connectivity and related infrastructure

Detailed Project for Phase 1	Investment Requirements (In Rs. Crores)		
	Phase I 2011-16	Phase II 2016-2021	Phase III 2021-30
Renovation and extension of erstwhile APMC near Mirzanhat	2.50	5.50	1.00
Establishment of Silk Park			
Construction of mini markets at Mandi Chowk and Barari Industrial Area			
Construction of vendor zone at Mirzanhat area			
Grand Total	Rs. 9.00 crores		

### J) Urban Heritage and Tourism

'Heritage' in Bhagalpur may be described as architectural, natural and living and traditional. Architectural heritage sites include the ancient site of Vikramshila University (Atichak); the Rock Temple (Golgong); the Patalpuri Cave and land adjoining the Bateshwar Cave on the Patharghata Hill (Madhorampur) and the rock sculptures at Patharghata. The natural heritage includes the River Ganga and four city water bodies; the Vikramshila Gangetic Dolphin Sanctuary covering the Bhagalpur to Kahalgaon stretch of 55km. The living and traditional heritage includes the silk industry that has been in existence for the last 200 years. The annual inflow of tourists is estimated at 6.18% with the highest inflows recorded in July-August at the time of the regional festivals like

**Strategies:** The key strategies in the CDP are:

- Protection, maintenance and beautification of monuments
- Advertisement and promotion of Vikramshila Gangetic Dolphin Sanctuary
- Development of infrastructure and facilities for tourists
- Cleaning and maintenance of water bodies and green areas

## City Development Plan for Bhagalpur: EXECUTIVE SUMMARY

Bihula and Madhu Sravani. Tourist infrastructure is inadequate; heritage structures are poorly maintained and there is little awareness among the locals about the heritage value of sites.

Detailed Project for Phase 1	Investment Requirements (In Rs. Crores)		
	Phase I 2011-16	Phase II 2016-2021	Phase III 2021-30
Provision of tourist infrastructure; beautification of heritage & tourist spots; river front development of the Ganga; construction of gateway on the east and west of the city; construction of Open Air Theatre and services for Vikramshila Mahotsav	1.02	30.66	0.70
<b>Grand Total</b>	<b>Rs. 32.38 crores</b>		

## Financial Position of the Local Body

The Bhagalpur Municipal Corporation has shown an increase in income from Rs. 830.65 lakhs in 2005-06 to Rs. 1372.95 lakhs in 2008-09. The total expenditure too has been increasing – from Rs. 934.67 lakhs in 2005-06 to Rs. 891.90 lakhs in 2008-09. Grants and subsidies comprise 62% of the total

**Key Findings:** The key findings in municipal finance identified in the CDP are:

- Revenue income registered a 34.50% growth
- 38.29% is average increase in contribution of 'own sources' to total income
- High dependency on grants and subsidies – 62%
- Poor collection ratio of property tax – 25.94%

revenue income. The 5-year average contribution of property tax to municipal income was 8.60%. Establishment accounted for an average 77% of the revenue expenditure in the last 5 years.

### Revenue Receipts

Income from Tax Sources (In Rs. Lakhs)		
Source	5-Year average (FY 2005-06 to FY 2009-10)	Percentage to Total Revenue Income
Property Tax	84.71	8.60
Water Tax	67.76	6.90
Latrine Tax	67.76	6.90
Education Tax	42.36	4.30
Health Tax	42.36	4.30
Professional Tax	5.27	0.50
Other Taxes	2.49	0.20
<b>Total Tax Income</b>	<b>312.71</b>	<b>31.80</b>
Income from Non-Tax Source (In Rs. Lakhs)		
Income from properties	30.52	3.00
Other income	37.05	3.10
Miscellaneous	3.95	0.40
<b>Total Non-Tax Income</b>	<b>71.52</b>	<b>6.50</b>

## City Development Plan for Bhagalpur: EXECUTIVE SUMMARY

### Revenue Expenditure

Revenue Expenditure (In Rs. Lakhs)		
Item	5-Year average (FY 2005-06 to FY 2009-10)	Percentage to Total Revenue Expenditure
Establishment	726.83	76.60
Operation and Maintenance	275.53	22.90
Debt Servicing	10.00	0.50
<b>Total Revenue Expenditure</b>	<b>1012.36</b>	<b>100</b>
Capital Expenditure (In Rs. Lakhs)		
Construction works and PWD	41.92	21.54
Water Supply	4.27	4.90
Street lighting/electricity	3.26	3.45
Others	85.97	70.11
<b>Total Capital Expenditure</b>	<b>135.42</b>	<b>100</b>

### Key Parameters

Indicators	2005-2006	2006-2007	2007-2008	2008-2009	2009-2010	Average
Per Capita Revenue Income	Rs. 141.02	Rs. 169.26	Rs. 218.86	Rs. 293.21	Rs. 453.59	Rs. 255.19
Per Capita Revenue Expenditure	Rs.183.18	Rs. 122.12	Rs. 138.39	Rs. 198.85	Rs. 612.55	Rs. 251.02
Income Generated internally	50%	38%	40%	20%	43%	38%
Dependency on Grants	50%	44%	47%	72%	44%	52%
Operating Ratio (Revenue Expenditure /Revenue Income)	1.30	0.72	0.63	0.68	1.35	0.90
Capital Utilization Ratio	0.7	0.9	0.0	0.5	55.7	11.60
Establishment cost as % of Revenue Expenditure	50%	87%	90%	91%	65%	77%
Establishment cost as % of Revenue Income	65%	63%	57%	62%	88%	67%

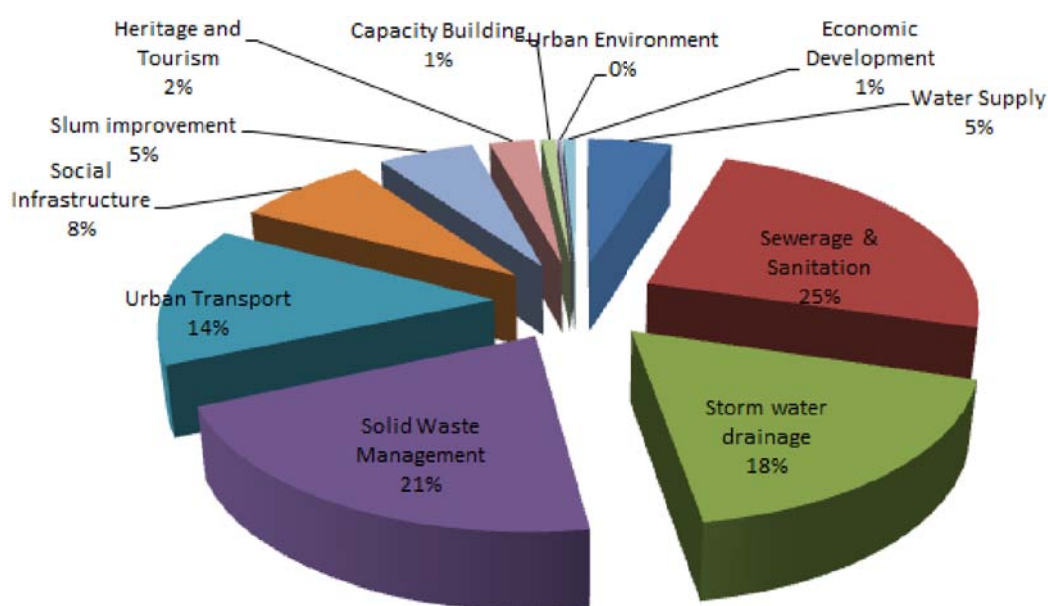


## Capital Investment Plan (CIP)

The total funding over the life of the CDP period, i.e. up to year 2030, is estimated at **Rs. 1262.92 crores**. Sector-wise details of the investments have been defined for the entire period.

The scheduling or phasing of the CIP is based on the analysis of fiscal resources for new investments and O&M, technical capacity for construction and the choice of specific improvements to be taken up over the CDP period. About 21% of capital investment is envisaged for sewerage and sanitation; 20% for social infrastructure and 18% for solid waste management.

Sectors	Investment Required (In Rs. Crores)			Total	Sectoral Distribution (%)
	Phase I 2011-2016	Phase II 2016-2021	Phase III 2021-2030		
Water Supply	46.00	3.60	12.82	62.43	4.94
Sewerage & Sanitation	210.91	28.42	72.16	311.50	24.67
Storm water drainage	56.79	56.25	113.62	226.67	17.95
Solid Waste Management	141.63	2.57	119.38	263.59	20.87
Urban Transport	20.77	31.55	126.75	179.07	14.18
Social Infrastructure	16.18	32.02	47.75	95.95	7.60
Slum improvement	34.26	10.50	24.84	69.60	5.51
Heritage and Tourism	1.02	30.66	0.70	32.38	2.56
Capacity Building	8.22	1.52	0.48	10.23	0.81
Urban Environment	1.00	1.00	0.50	2.50	0.20
Economic Development	2.50	5.50	1.00	9.00	0.71
<b>Total</b>	<b>539.28</b>	<b>203.59</b>	<b>520</b>	<b>1262.92</b>	<b>100</b>
<b>Phase-wise Distribution (%)</b>	<b>42.70</b>	<b>16.12</b>	<b>41.17</b>		



## Financial Operating Plan (FOP)

The FOP has been prepared for short term (Phase I), medium term (Phase II) and long term (Phase III). This is in line with the town's vision and approach to development and priorities and action plans approved by stakeholders. The FOP has been prepared by projecting the finances based on trends discussed previously and with various assumptions and options. Implementation Options are taken as (i) Option 1: Cost summary – Normal; (ii) Option 2: Cost summary with select infrastructure and (iii) Option 3: Cost summary without social infrastructure. Funding options are taken as (i) Option 1: Loan (20%); Grant (70%); ULB contribution (10%); (ii) Option 2: Loan (10%); Grant (80%); ULB contribution (10%) and (iii) Option 3: Loan (0%); Grant (100%); ULB contribution (0%). New loan assumptions are taken assuming 15 years tenure, with interest rate at 9%, moratorium at 2 years and repayment period of 13 years. The six comparative scenarios of the FOP with select social infrastructure facilities are shown below.

### Funding Option 1 – 20 : 70 : 10 (L : G : U)

(Rs. lakhs)

	Base FOP			FOP with management measures			FOP with management measures and Investments		
	2015-16	2020-21	2030-31	2015-16	2020-21	2030-31	2015-16	2020-21	2030-31
Operating Surplus	-2672.34	-7475.43	-50796.44	-2426.56	-6639.42	-41851.21	-4303.64	-8686.99	-44150.17
Closing balance	-9598.44	-35592.47	-285648.66	-8544.54	-31493.77	240089.12	-18410.15	-52386.58	288399.13
TE / TR	1.71	1.98	2.35	1.61	1.80	1.93	2.08	2.00	1.94
DS / TR	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	21%	9%	1%

	FOP with reforms			After introducing new investments			FOP with PPP models		
	2015-16	2020-21	2030-31	2015-16	2020-21	2030-31	2015-16	2020-21	2030-31
Operating Surplus	-1382.72	-3731.40	-23525.40	-2885.41	-7701.70	-39556.92	-2885.41	-7701.70	-39556.92
Closing balance	-5555.06	-20283.34	157336.11	-15610.31	-46238.52	251955.57	-15610.31	-46238.52	251955.57
TE / TR	1.30	1.36	1.42	1.77	1.98	2.01	1.77	1.98	2.01
DS / TR	0%	0%	0%	23%	10%	2%	23%	10%	2%

TE/TR: Total recurring expenditure to total recurring income

DS/TR: Total debt services by the ULB in proportion to its total recurring income

#### Inference when investments are not incorporated: Scenarios 1, 2 and 4

- Financial status improves with introduction of management and reform measures
- Average TE/TR which is 1.96 at the base case improves to 1.74 with introduction of management measures; this further improves to 1.42 with introduction of reform measures
- Performance of the ULB improves with introduction of new investments in the proposed phasing
- Even with the best of reforms, the corporation does not break even – the revenue growth in absolute terms does not match the expenditure

#### Inference when investments are incorporated: Scenarios 3, 5 and 6

- Different options of capital expenditure have been considered
- In this case TE/TR is never less than 1 – the ULB cannot take up big investments at one go even with PPP
- A planned system of implementing suggested reforms will help in making the ULB financially strong and sustainable

## Overall Assessment

An overall assessment of the existing service delivery levels on various indicators. It is observed that in Bhagalpur town most of the service levels are Good and Below Average.

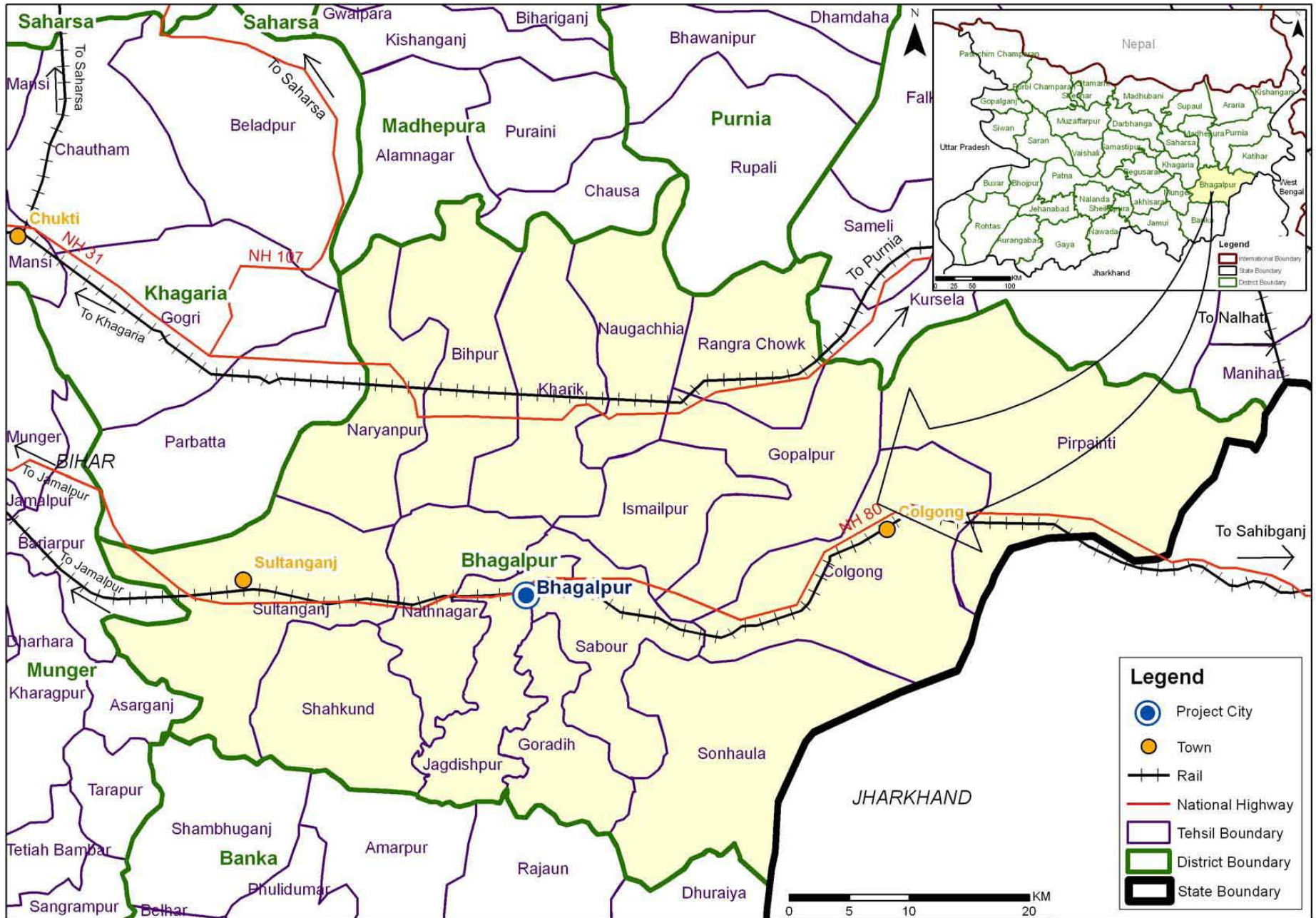
S. No.	Parameter	Indicators	Category	Colour Code for Status
1	Status of Infrastructure and Service Delivery Levels	Coverage of Water Supply	11 to 30%	
		Per Capita Availability of Water	Less than 40 lpcd	
		Continuity of Water Supply	Above 4 hrs	
		Coverage of Individual Toilets	Above 60%	
		Door to Door Collection of SWM	21 to 40%	
		Collection Efficiency of Solid Waste	Above 70%	
2	Financial Management	Operating Ratio	Less than 1	
		Growth in Revenue Income	Above 15%	
3	Poverty Level	% of Below Poverty Line (BPL) Population	21 to 40%	
4	Organization Structure	Staffing pattern, availability of sufficient staff, competency level of existing staff for implementing proposed projects	Observation Based	
5	Leadership	Leadership quality, awareness and understanding regarding urban sector, proactive approach for implementing reform measures	Observation Based	
6	Economic Development Potential	Potential for Development, linkages to the state capital and other cities, status of existing infrastructure	Observation Based	
7	Environment Sustainability	Status of Environment, quality of water, air	Observation Based	
8	Participation	Level of Participation from Citizen/Citizen Forums/Welfare Association in municipal affairs	Observation Based	
9	Compliance with Reforms	Status of reform implementation and preparedness for implementation	Consultant's Analysis	

### Legend

Alarming  Average  Below Average  Good 

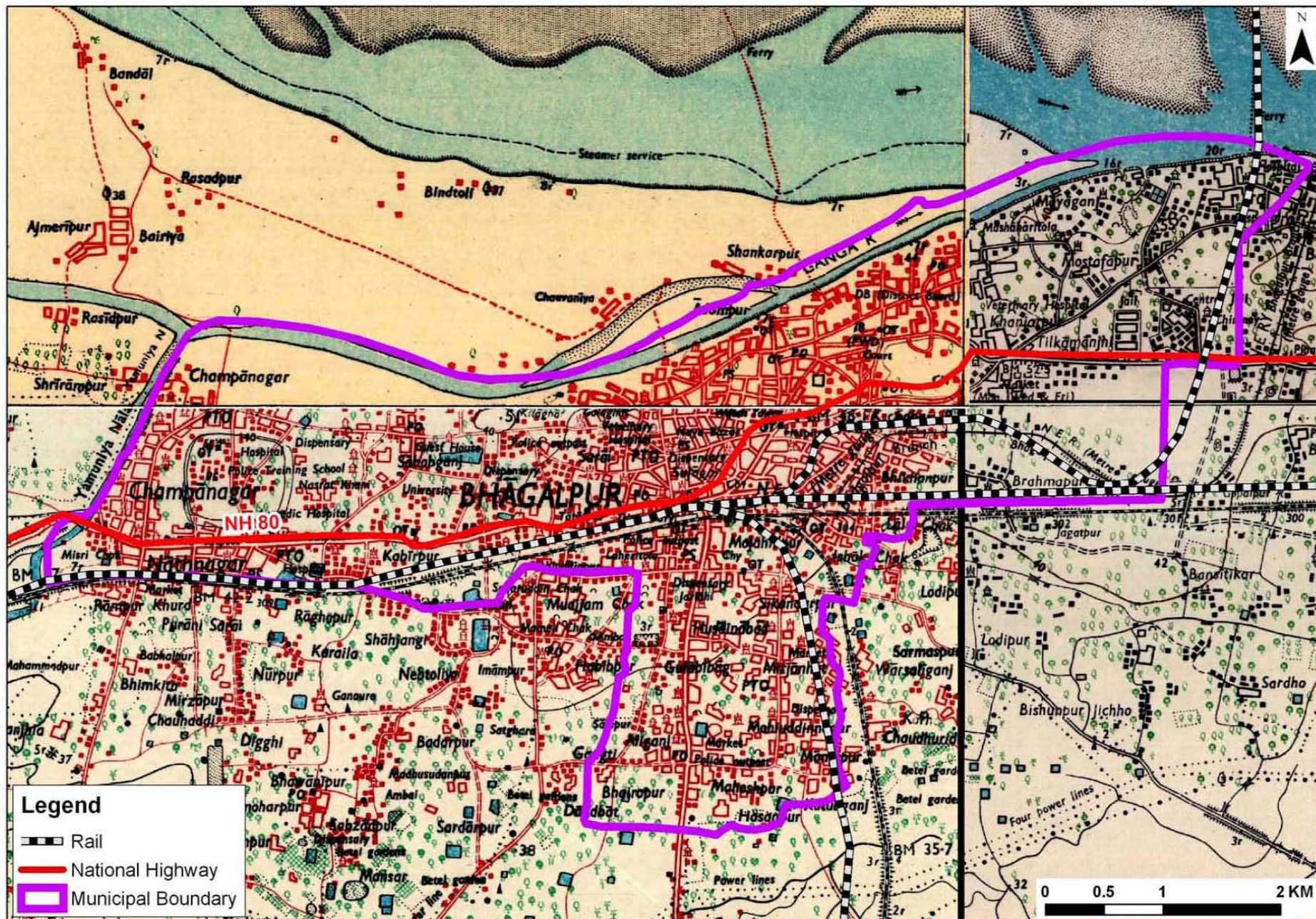


# LOCATION MAP - BHAGALPUR TOWN



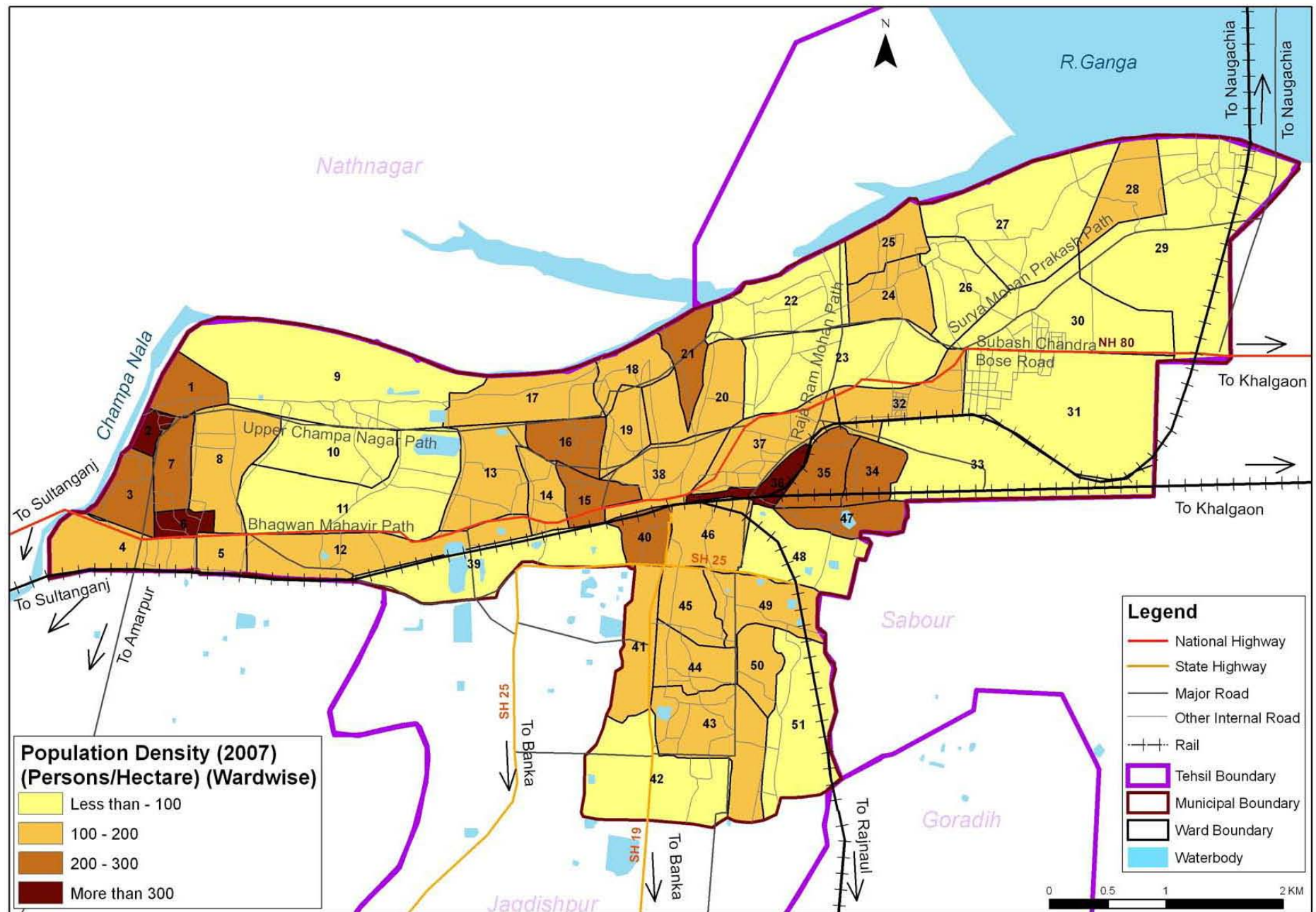


# TOWN MAP - BHAGALPUR

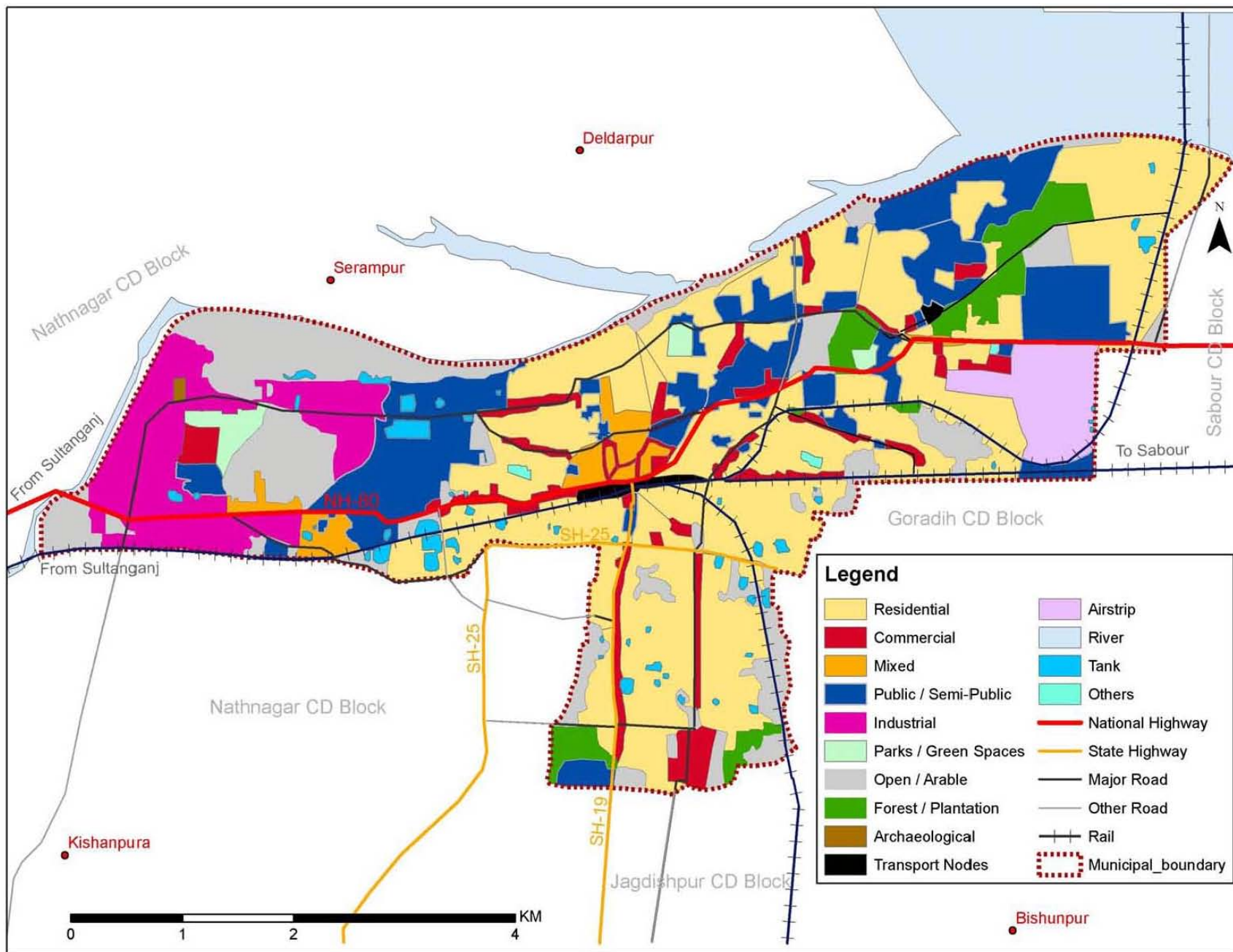




# POPULATION DENSITY – BHAGALPUR TOWN

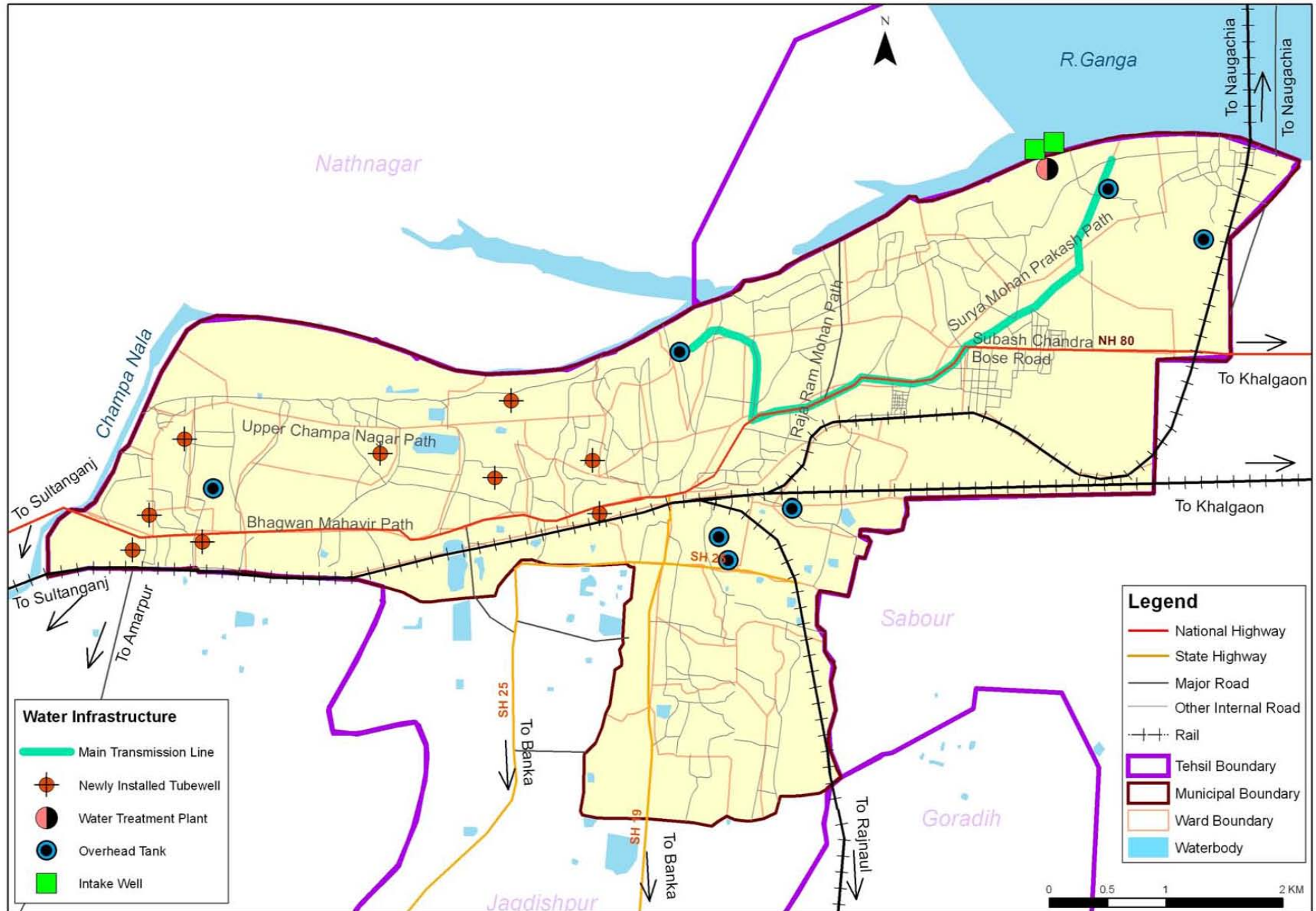


# LANDUSE – BHAGALPUR TOWN

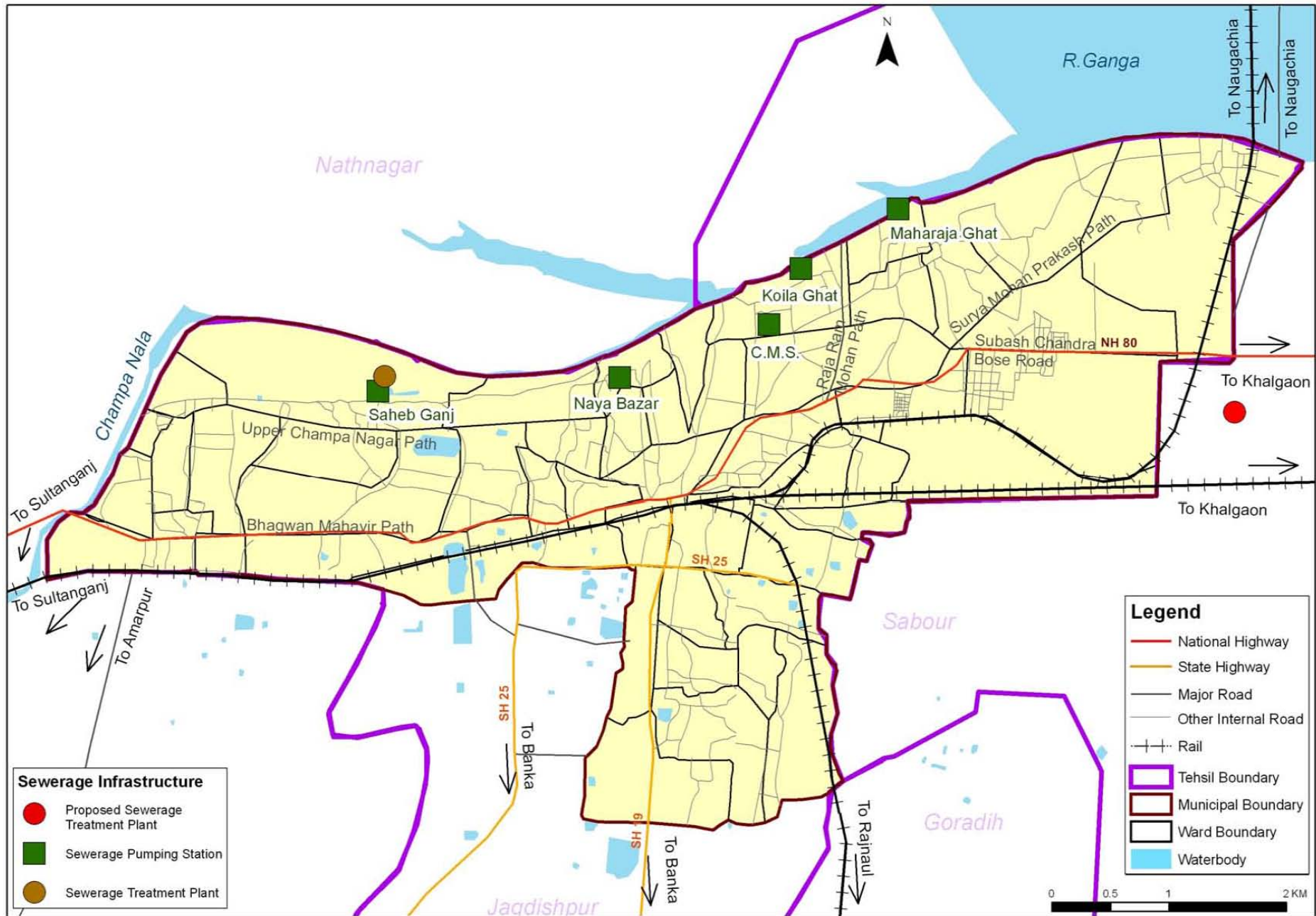




# WATER INFRASTRUCTURE – BHAGALPUR TOWN

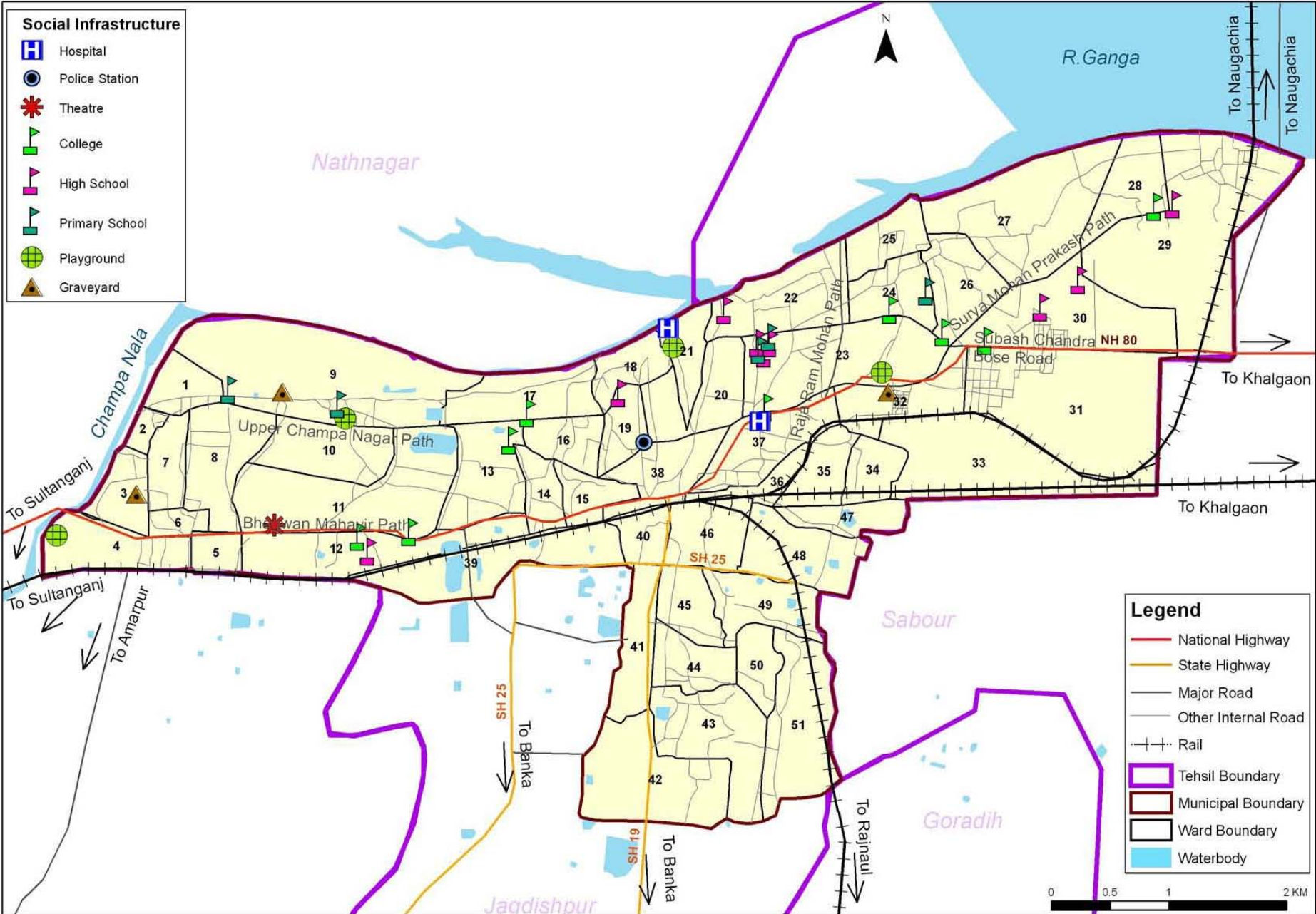


# SEWERAGE INFRASTRUCTURE – BHAGALPUR TOWN





# SOCIAL INFRASTRUCTURE – BHAGALPUR TOWN





# SLUM LOCATION – BHAGALPUR TOWN

