



Urban Development and Housing Department
Government of Bihar

City Development Plan (2010-30)

SASARAM



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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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।

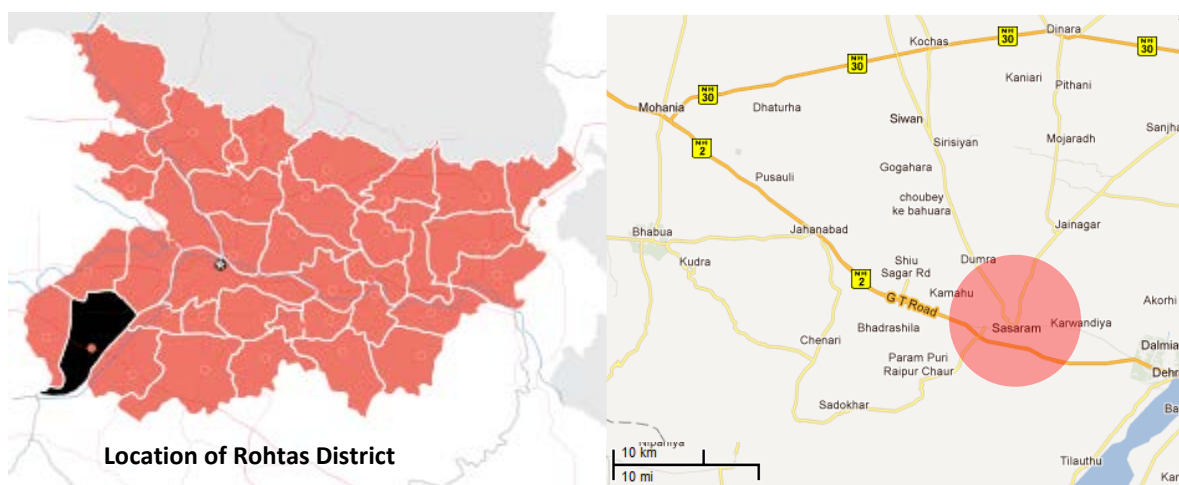
ये नगर विकास योजनाएँ ब्रिटिश सरकार के अन्तराष्ट्रीय विकास विभाग (DFID) द्वारा वित्त पोषित संवर्धन परियोजना (SPUR) के तहत बनाई हैं। "संवर्धन" परियोजना वृहद आर्थिक क्रिया कलापों एवं सेवाओं जो गरीबों के विकास में सहायक हो सकती हैं को केन्द्र में रखते हुए आर्थिक वृद्धि एवं गरीबी उन्मूलन में विशिष्ट योगदान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

Overview

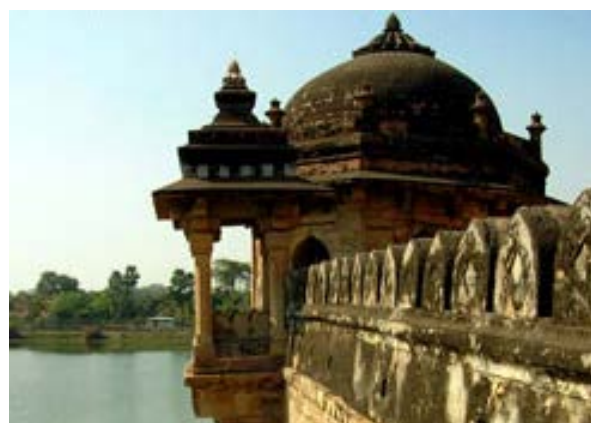
Sasaram is believed to be named after the sage Parashurama and the legendary King Sahastrabahu. Sasaram was also the birthplace of Sher Shah Suri, who ruled Delhi from 1540 to 1545 AD. The town is located in the south western part of Bihar and is the district headquarters of Rohtas District. The Kaimur Hills (12 km from the town) and the Kudra River are located towards the south. The southern part of the town has a rough topography with a slope from north to south and including areas such as Tara Chandi Hill and Chandan Shaheed or Peer while the northern and central town area is mostly plain.



Sasaram is located on NH-2 (Shersha Suri Marg) and is regionally connected with Delhi and Kolkata. The NH-2 runs in an east-west direction dividing the town into two parts. The town is connected to Patna on NH-30 via Arrah through SH-12. The town is also connected with Varanasi on the west and Gaya and Bodhgaya on the east through NH-2. Sasaram has a railway station located in the city centre on the Grand Trunk Road. This is an important station on the Grand Chord Broad Gauge Line of the Eastern Railway and is linked by rail to all the major cities in India.

Sasaram is a Nagar Parishad with an area of 10.90 sq km. It is divided into 40 wards and has an estimated population of 178719 (2011). The town has a number of water bodies and heritage sites.

The competitive advantage of Sasaram lies in its good connectivity and the historical importance of the town. The town has several National and State Highways, especially the Grand Trunk Road (now NH 2), that support its connectivity to other parts of the state and region. The town has a rich heritage that can potentially yield greater tourist attraction.



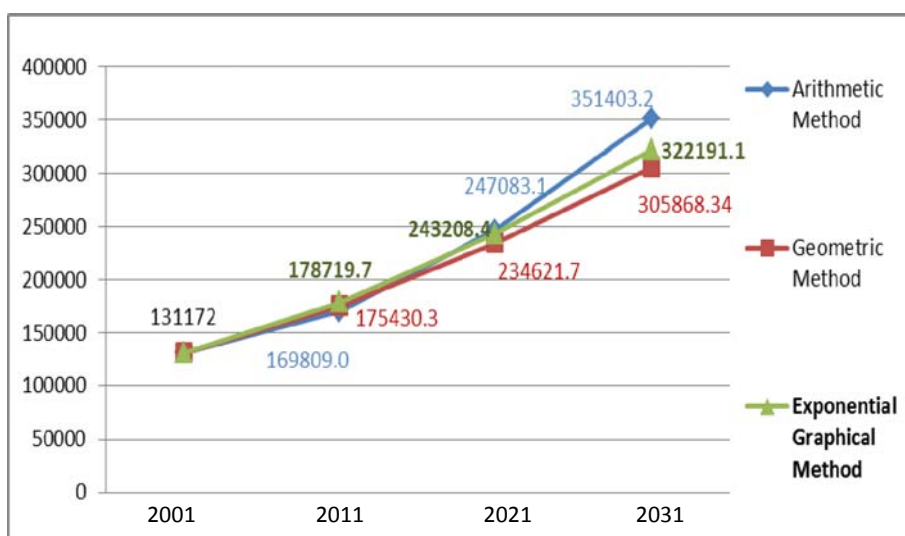
CITY VISION

The vision for Aurangabad 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: ***“Sasaram is visualized to be tourist destination prominently appearing on the tourism map of the Bihar; a regional service cum commercial centre with well-defined heritage & leisure destinations; a thriving sustained economy based on tourism, handloom and allied activities supported by quality basic physical & social infrastructure for citizenry and visiting tourist.”*** The identified vision forms the basis of sector-specific strategies adopted in framing the action plan.

Demography

The population of Sasaram city was 131172 in 2001 and it has been steadily increasing over the years. The population growth rate in the town till 1951 was low but in the last three decades there has been a tremendous increase in the growth of population. Sasaram is a tourist place as well as an administrative head quarter. It is estimated that the floating population of the town is about 10-12%. The density of population is high at 12034 persons per sq.km. The central core of the town and the south eastern part are very congested.

Based on population figures from Census 1961 to 2001, a population projection has been done using three different methods namely, Arithmetic Increase method, Geometric Method and Exponential Graphic Increase method that was found to be the most suitable in terms of trends identified through the census. The estimated projection shows that the population of Aurangabad will increase to about 3.22 lakhs (approx.) by year 2030.



Sector Assessments & Growth Strategies

A) Water Supply

Ground water is the main source of water in Sasaram. Sasaram has two pumping stations – the Bajjala pumping station to the north and the Karwandia pumping station to the south. The water is stored in 3 over head tanks with a capacity of 5 lakh gallons each. The present demand is 17.87 MLD. The present supply is 6.7 MLD. The town is divided into two water distribution zones – the Northern and Southern distribution zones. The total length of the distribution network is 52km (4.3km in the Northern Zone and 25km in the Southern Zone – the remaining are Rising Main and Jail Pipeline. The water supply duration is about 4 hours per day. Chlorination is the only form of treatment practiced at present. The town has one tube well in the Northern Zone and four tube wells in the Southern Zone. Water does not attract a separate charge – the municipality charges a flat fee of Rs. 700 as connection charges.

Strategies: The CDP suggests:

- The design of a comprehensive water supply augmentation scheme
- Achievement of target of 100 lpcd supply in Phase-I and 135 lpcd in Phase-II
- Minimisation of transmission losses
- Ground water recharging through rain water harvesting, conserving water bodies and controlling ground water extraction
- Recycling of treated waste water and promoting use through installation of dual pipelines
- Reduction of non-revenue water; introduction of metering and recovery of O & M costs through realistic user charges

Detailed Project	Phase-I (2011-16)		Phase-II (2016-21)	
	Quantity	Investment (in Rs. Crore)	Quantity	Investment (In Rs. Crore)
Main W/S pipeline	10km	2.50	-	-
Fixtures and Fittings (20% of Main)	-	0.50	-	-
Up-gradation of existing pipeline	52km	5.20	-	-
Distribution W/S pipeline	34km	5.10	15km	2.25
Fixtures and Fittings (20% of Distribution Line)	-	1.02	-	0.45
Construction of underground Tank, Pump house with 4 no. of pump sets (Raw Water)	1Nos.	1.60	-	-
Overhead reservoirs (10 lakh capacity each)	4Nos.	8.00	3Nos.	6.00
Pumps and pumping station (20% of OHR)	-	1.60	-	1.20
Fixtures and Fittings (20% OHT + Pumps)	-	1.92	-	1.44
Underground reservoirs	2Nos.	3.20	2Nos.	3.20
Filtration / treatment works (40 MLD capacity)	-	11.78	-	9.48
Contingency Charges (10%)	-	4.24	-	2.40
Sub Total		46.66		26.41
Grand Total	Rs. 73.07 crores			

B) Sewerage and Sanitation

Sasaram has no organised sewerage system. The absence of a systematic wastewater disposal system has led to waste water and sullage into the rivers/storm water drains that are mostly open. It is estimated that 70% of households have access to toilets. Sasaram town has 3 public conveniences. It is estimated that the current waste generation is about 14.29 MLD and this is projected to increase to 34.79 MLD. At present, waste water and sullage are discharged into the Sher Shah Suri canal and other nallahs and drains. The present system is inadequate and poses a potential threat to overall health and hygiene.

Strategies: The key strategies in the CDP are:

- Provision of community and public toilets at appropriate locations through PPP wherever possible
- Design of an integrated 'city-wide' network that includes collection, treatment, disposal of waste water
- Integrated planning and implementation of water supply-drainage-sewerage-SWM to optimize the benefits including recycling and reuse
- Exploring incentives for use of recycled water

Project	Phase I (2011-2016)		Phase II (2016-2021)		Phase III (2021-2030)	
	Quantity	Investment (In Rs. Crores)	Quantity	Investment (In Rs. Crores)	Quantity	Investment (In Rs. Crores)
Main Pipe line installation	10 Km	10	-	-	-	-
Secondary & Collector line	50 Km	17.5	26 km	9.1	15 Km	5.25
1 nos. of treatment plant of 50 MLD	-	-	1 Nos.	25	-	-
Community Toilet	8 Nos.	0.2	2 Nos.	0.05	-	-
Public Toilet	2 Nos.	0.1	-	-	-	-
Sub Total		27.80		34.15		5.25
Grand Total	Rs. 67.20 crores					

C) Storm Water Drainage

The drainage system in general is inadequate. Sasaram town has only 7.65 kms of drains covering 20% of its area – 4.65km of drains are pucca and 3km are kutcha. All carry mixed waste water and sullage. The drains open into the Sher Shah Suri Canal and other low lying areas of the town. Water logging is a problem in the Canal Area especially in the rainy season. Other water

Strategies: The key strategies in the CDP are:

- Design of a drainage disposal system to reduce the pollution load in the Sher Shah Suri Canal
- Construction of new drains and strengthening existing drains on priority
- Installation of waste water treatment plants

logging prone areas include the south and old market areas and low lying areas along Gandhi Path, Bauliya Road, GT Road and Bus Stand Area.

Project	Phase I (2011-2016)		Phase II (2016-2021)	
	Quantity	Investment (In Rs. Crores)	Quantity	Investment (In Rs. Crores)
Main drain line installation	10 km	3.00	-	-
Secondary & Tertiary drains	154.35km	30.87	30km	6.00
Strengthening of existing drains	7.65km	0.38	-	-
Construction of Waste Water Treatment Plant of 5 MLD capacity each	1Nos.	0.25	1 Nos.	0.25
Sub Total		34.50		6.25
Grand Total	Rs. 40.75 crores			

D) Solid Waste Management

It is estimated that Sasaram generates about 44.67 tonnes of garbage per day. Garbage generation is expected to increase to 112.36 tonnes per day by 2030. About 40% of the waste generated is collected while the rest is unattended. Collection of wastes is mainly through street sweepings and secondary collections from 25 dustbins in different parts of the city. The ULB uses 40 thelas and 40 cycle rickshaws for collection. The waste is manually loaded into open tractors for disposal. The ULB has 5 bullock carts, 5 Tippers and 3 tractors to collect and transport garbage. The ULB has not identified any sites for disposal of wastes and most of it is dumped along roads.

Strategies: The key strategies in the CDP are:

- Introduction of door to door collection in phases
- Segregation of wastes with separate bins at major collection sites
- Mechanisation of waste handling
- Development of sanitary landfill
- Involvement of private sector in solid waste management
- Effective IEC campaigns to support interventions

Identified Projects	Phase-I (2011-16)		Phase-II (2016-21)		Phase-III (2021-30)	
	Quantity	Investment (In Rs. Crore)	Quantity	Investment (In Rs. Crore)	Quantity	Investment (In Rs. Crore)
Solid Waste Management (Operational Cost from Collection to Disposal)		13.69		-		-
Vehicles and Equipment's related to collection, transportation & disposal *	800 Nos.	3.95	400	1.98	242	1.19

City Development Plan for Sasaram: EXECUTIVE SUMMARY

Landfill Site Development	1	0.04	-	-	-	-
Sub Total		17.68		1.98		1.19
Grand Total	Rs. 20.85 crores					

* Community bins, Containers, handcarts, tricycles, dumper, trailer, bulldozer, compacters, excavators etc.

E) Roads, Traffic, and Transportation

Sasaram has a total road length of 86 kms of which 46km is pucca and 40km kutcha. The carriageway is narrow on account of encroachments and on-street parking. The major roads in the town run in an east-west direction (Old GT Road), the Gandhi Path, Bauliya Road and Sher Shah Suri Road are the main roads running in a north to south direction. About 70% of traffic in the town is attributable to cycles and pedestrians. Some important junctions in the city are

Dharamshala or Gandhi Chowk, Bauliya Chowk, Gola Bazar Chowk, Post Office Chowk, Bus Stand Chowk, Dak Bungalow Chowk – these need to be upgraded and developed. Sasaram has one bus stand along the GT Road.

Strategies: The key strategies in the CDP are:

- Removal of encroachments to increase road width
- Conversion of existing kutcha road to pucca road; construction of new roads and construction of link roads where required
- Improvement and/or development of intersections
- Construction of new footpaths along all the major roads and secondary roads
- Organised parking
- Installation of street lights; signages
- Preparation of a Comprehensive Mobility Plan

Project	Phase -I (2011-2016)		Phase -II (2016-2021)		Phase -III (2021-2030)	
	Quantity	Investment (In Rs. Crores)	Quantity	Investment (In Rs. Crores)	Quantity	Investment (In Rs. Crores)
Up gradation of Bus Terminal	1Nos.	2.50	-	-	-	-
Truck Terminal	1 Nos.	15.00	-	-	-	-
Footpaths (Rs. 1000/sq. m.)	10	1.50	10	1.50	-	-
Parking lots (4 nos.)	2	5.00	2	5.00	-	-
Construction of passenger sheds	6	0.60	2	0.20		
Up-gradation and Strengthening of roads within the city and for missing links.	40	20.80	-	-	-	-
New Road and Link Road construction	-	-	15	22.50	-	-
Repairing of the city Road	33	16.50	13	6.50	-	-
Signage, Road Markings and Pedestrian Crossing etc	6	0.12	5	0.10	-	-
Foot Over Bridge	1	0.50	1	0.50	-	-

Junctions and Traffic signal improvement	5	2.00	3	1.20	-	-
Comprehensive Mobility Plan	-	-	1	0.50	-	-
Sub Total		64.52		38.00		
Grand Total	Rs. 102.52 crores					

F) Street Lighting and Fire Fighting

Street lighting is inadequate with only 27 street light points and 3 high mast light points.

Project	Phase -I (2011-2016)		Phase -II (2016-2021)		Phase -III (2021-2030)	
	Quantity	Investment (In Rs. Crores)	Quantity	Investment (In Rs. Crores)	Quantity	Investment (In Rs. Crores)
Conventional street lights	1500 Nos.	4.50	800 Nos.	2.40	190 Nos.	0.57
Solar lights	500 Nos.	2.00	250 Nos.	1.00	100 Nos.	0.40
Sub Total		6.50		3.40		0.97
Grand Total	Rs. 10.87 crores					

G) Housing and Urban Poverty

Sasaram has 92 slums with a population of 41119 (SPUR Survey December 2010). Approximately 25% of the city's population reside in slums. Only 21% of slums have access to a toilet facility while open defecation is the norm in the other slums. Water supply is mainly through hand pumps, public and private. The slums do not have any drainage facilities and, only 24km of road length is available in the 92 slums. None of the slums have organised solid waste. In general, access to infrastructure is poor leading to unhygienic conditions in slums.

Strategies: The key strategies in the CDP are:

- Access to basic infrastructure including housing
- Integrated development of slums with the town
- Provision of community toilets where individual toilets are not possible

Detailed Project	Phase-I (2011-16)		Phase-II (2016-21)		Phase-III (2021-30)	
	Quantity	Investment (In Rs. Crore)	Quantity	Investment (In Rs. Crore)	Quantity	Investment (In Rs. Crore)
Housing for poor	2500 Nos.	25.00	2000 Nos.	20.00	1454 Nos.	14.54
Grand Total	Rs. 59.54 crore					

H) Social Infrastructure

An assessment of social infrastructure in Sasaram was done. The town has 3 Cinema Halls, 3 Post Offices, 2 Playgrounds, 1 Multipurpose Community Hall, 3 Public Libraries and 2 Parks (Nehru Children's Park and Sher Shah Park). Sasaram has 5 colleges, 1 General Hospital (100 bed). There are limited facilities for specialized medical treatment in the town.

Strategies: The key strategies in the CDP are:

- Development of recreational facilities
- Development of city park & open spaces
- Installation of Entry and Exit Gates
- Night shelters for the poor

Detailed Project	Phase-I (2011-16)		Phase-II (2016-21)		Phase-III (2021-30)	
	Quantity	Investment Requirements (In Rs. Crore)	Quantity	Investment Requirements (In Rs. Crore)	Quantity	Investment Requirements (In Rs. Crore)
Multipurpose/Community Hall	2 Nos.	1.00	1 Nos.	0.50	1 Nos.	0.50
Neighborhood Parks	3 Nos.	0.75	2 Nos.	0.50	1 Nos.	0.25
Recreational Centers	1 Nos.	1.50	-	-	-	-
City Park	1 Nos.	0.40	-	-	1 Nos.	0.40
Playgrounds	1 Nos.	0.20	-	-	-	-
Night Shelters	1 Nos.	0.05	-	-	-	-
Welcome Gate	2 Nos.	0.07	1Nos.	0.04	-	-
Fire Station	1 Nos.	5.00	1 Nos.	5.00	-	-
Cremation Ground	3 Nos.	0.15	2 Nos.	0.10	1 Nos.	0.05
Sub Total		9.12		1.14		6.20
Grand Total	Rs. 16.45 crores					

I) Local Economy

It is estimated that the workforce participation in the town is 22.68%. Main workers account for 88% and marginal workers 12%. This region is known as 'Dhaan ka katora' (Bowl of Food Grains). Trade and commerce constitutes the major economic base – Sasaram serves as a regional trade and commercial centre. The commodities traded are food grains, cloth, ornaments, building materials, medicines. The major markets in the town are Gandhi Chowk Market, Chaukhandi, Gola Market and Navratan Bazar. The government services also provide some

Strategies: The key strategies in the CDP are:

- Development of organised market complexes
- Promotion of household and small scale units
- Development of agricultural produce processing units
- Establishment of permanent platforms for weekly vegetable market

employment opportunities. There are some small and medium scale units – stone mining, rice polishing, flour mills, wooden furniture, iron rods (gates, windows etc). Most of these economic activities are unorganized adding to the overall haphazard development in the town.

Detailed Project	Phase-I (2011-16)		Phase-II (2016-21)	
	Quantity	Investment Required (In Rs. Crore)	Quantity	Investment Required (In Rs. Crore)
Renovation of existing municipal Markets	3 Nos.	1.20	2 Nos.	0.80
Construction of Industrial Sheds / Promotion Zone to accommodate 250 household and small scale Units/ industries with storage	75 Nos. of 50 sq m each	15.00	-	-
Shopping / Commercial Complex	1 Nos.	5.00	1 Nos.	5.00
Platforms for Weekly Market/ Vegetable	1 Nos.	2.00	2 Nos.	4.00
Sub Total		23.20		9.80
Grand Total	Rs. 33.00 crores			

J) Heritage and Tourism

Rohtas district has a rich history dating back to the pre-historic era. Tourism is not developed here but there is a huge potential for development. Some of the places of historic and religious importance in and around Sasaram include the tomb of Sher Shah Suri, the

Strategies: The key strategies in the CDP are:

- Inclusion of Sasaram in the tourist circuit of the state
- Conservation and development of existing tourist sites
- Development of adequate infrastructure and facilities for tourists

Rohtas Fort, the Chaurasan Mandir, the tomb of Chandan Shaheed, the Tara Chandi Hill Temple, the Gurudwara Takshal Sangat, the Gupteshwar cave, Deo Marjandeya, Bhaluni Dham etc.

Detailed Project	Phase – I (2011-16)	Phase – II (2016-21)
	Investment Required (In Rs. Crore)	Investment Required (In Rs. Crore)
Conservation of heritage sites and tombs (Sher Shah Suri, Hasan Shah Suri etc.) – conservation, street scaping, development of water bodies, pathways etc.	30.00	-
Redevelopment and up-gradation of temples and religious places	3.20	-
Preservation of Sher Shah Suri Canal (bioremediation, landscaping, pathways etc.)	6.00	-
Sub Total	3.00	-
Grand Total	Rs. 39.20 crore	

Financial Position of the Local Body

The revenue income of the Sasaram Nagar Parishad was Rs. 81.24 lakh in 2008-09 and this increased to Rs. 453.67 lakh in 2009-10. However, income from tax sources has been erratic – it was Rs. 120.52 in 2009-10 and reducing to Rs. 61.00 lakhs in 2010-11. The average growth in tax revenue was 20.07% per annum; non tax income registered a growth of 19.96% per year. The tax component accounts for 33.25% of the total income and the non-tax component accounts for 26.32% of the total income. The average tax collection efficiency has been estimated at 9.18% underlining the need for stringent measures for improvement. Expenditure on salaries and wages constitute the largest spend. Development expenditure accounted for as little as Rs. 5 lakh in 2010-11.

Municipal Income

Year	Total Owned Income (Rs. Lakhs)	Assigned Rev, Rev Grants & Other income (Rs. Lakhs)	Total Revenue Income (Rs. Lakhs)	Capital Grants (Rs. Lakhs)	Total Income (Rs. Lakhs)
2008-09	78.39	2.85482	81.24	0	81.24
2009-10	173.43	280.23	453.67	0	453.67
2010-11*	117.00	149.00	266.00	0	266.00
*Annual Growth Rate	20.02	197.74	59.30		59.30

Municipal Expenditure

Year	Non Development Expenses (Rs. Lakhs)	Development Expenditure (Rs. Lakhs)	Total Expenditure (Rs. Lakhs)
2008-09	81.38	85.87	85.87
2009-10	82.71	87.45	87.45
2010-11*	85.00	90.00	90.00
Annual Growth Rate	2.17	2.35	2.35

Key Parameters

Year	Total Income (Rs. Lakhs)	Total Expenditure (Rs. Lakhs)	Surplus /Deficit (Rs. Lakhs)	%	Income from Own Sources (Rs. Lakhs)	Financial Sustainability (%)
2008-09	81.24	85.87	-4.63	-5.69	78.39	-9.54
2009-2010	453.67	87.45	366.22	80.72	173.43	50.42
2010-11	266.00	90.00	176.00	66.17	117.00	76.92
Average				47.07		39.27

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

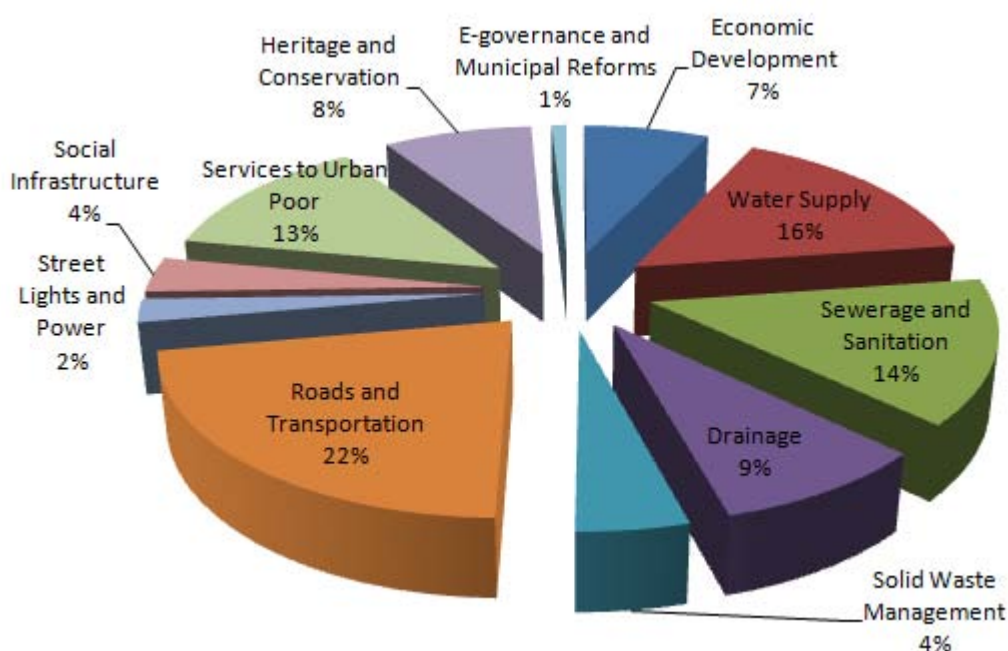
- 91.69% of expenditure is for 'non developmental' purposes and only 8.31% is for 'development' purposes
- Average surplus with the ULB is 54.89% in the last three decades
- The share of 'own resources' in total income is about 20.02%
- On an average 39.27% of expenditure is financed by own sources of the ULB

Capital Investment Plan (CIP)

The total funding over the life of the CDP period, i.e. up to year 2030, is estimated at **Rs. 467.41 crore**. 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 22% of the capital investment estimate is envisaged for roads and transportation; 16% for water supply and 14% for sewerage and sanitation.

Sectors	Investment Required (Rs crore)			Total	Sector-wise Distribution (%)
	Phase-I	Phase-II	Phase-III		
	2011-2016	2016-2021	2021-2030		
Economic Development	23.20	9.80	0	33.00	7.06
Water Supply	46.66	26.41		73.07	15.63
Sewerage and Sanitation	27.80	34.15	5.25	67.20	14.38
Drainage	34.50	6.25	0	40.75	8.72
Solid Waste Management	17.68	1.98	1.19	20.85	4.46
Roads and Transportation	64.52	38.00	0.00	102.52	21.93
Street Lights and Power	6.50	3.40	0.97	10.87	2.33
Social Infrastructure	9.12	1.14	6.20	16.46	3.52
Services to Urban Poor	25.00	20.00	14.54	59.54	12.74
Heritage and Conservation	39.20	0	0	39.20	8.39
E-governance and Municipal Reforms	3.95	0	0	3.95	0.84
TOTAL	298.13	141.12	28.15	467.41	100.00
Phase-wise Distribution (%)	63.78	30.19	6.02	100.00	



Financial Operating Plan (FOP)

The investment capacity of the Sasaram Nagar Parishad is assessed through a Financial Operating Plan (FOP) that gives a multi-year forecast of finances of the local body for the short term period. The FOP is generated to assess the investment-sustaining capacity of the ULB, if it adopts a project funding structure comprising grants with internal resources and loans accounting for the rest. The level of investment that the ULB can sustain is then determined by studying the overall surpluses/year-to-year opening balance and debt service coverage ratio (DSCR).

An important aspect that needs to be considered in raising financial resources is beneficiary contribution. This practice has to be promoted and the concept of PPP also needs to be introduced to make the services sustainable. Thus a total investment of Rs. 298.13 crores in the short-term (2011-12 – 2015-16) can be pooled by implementing PPP – this further decreases the financial burden of the ULB in the next five years.

Sector	Amount (Rs Crore)	Funding Pattern (Rs. Crore)			
		Other Funding sources including GOI	GoB	ULB	PPP
Water Supply	46.7	37.3	4.7	4.7	0.0
Sewerage and Sanitation	27.8	22.2	2.8	2.8	0.1
Drainage	34.5	27.6	3.5	3.5	0.0
SWM	17.7	11.0	1.4	1.4	4.0
Transport	64.5	2.1	35.7	4.2	22.5
Social Infrastructure	9.1	0.0	6.9	0.8	1.5
Urban Poor	25.0	20.0	2.5	2.5	0.0
E-Governance	4.0	0.0	3.6	0.4	0.0
Economic Development	23.2	9.0	4.5	8.2	1.5
Street Light	6.5	0.0	5.9	0.7	0.0
Heritage & conservation	39.2	31.4	3.9	3.9	0.0
Total	298.1	160.5 (53.8%)	75.2 (25.2%)	32.9 (11.0%)	29.6 (9.9%)

The FOP assumes that in the short term:

- At least 10% contribution of the overall fund requirement will be from the ULB
- Rs. 0.10 crores (Sewerage and Sanitation) for public toilets will be through PPP
- Rs. 4.00 crores (Solid Waste Management) towards vehicles and equipments will be through PPP
- Rs. 22.50 crores (Roads and Transportation) towards up-gradation of bus terminal, construction of truck terminal and parking lots will be through PPP

The key considerations for the FOP are:

- At least 10% of the overall fund requirement will be from the ULB therefore, stringent steps and interventions are required to enhance its 'own' resource base
- It is assumed that in cases where funding other than state government will be available (could be loans from financial institutions, central government, other funded programmes), there will be part contribution from the state government and the ULB will contribute at least 10%
- Emphasis to be on developing projects on PPP wherever possible

Overall Assessment

An overall assessment of the existing service delivery levels on various indicators. It is observed that in Sasaram town the service levels give a mixed scenario, but still inclining towards Below Average.

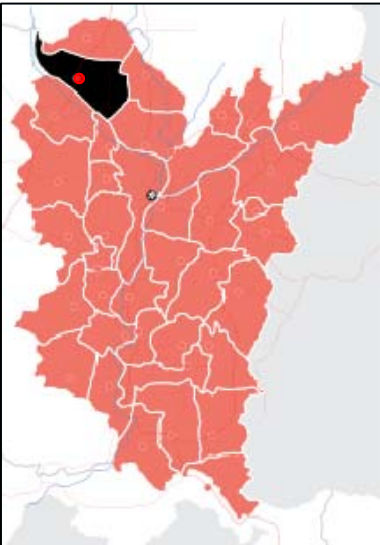
	Parameter	Indicators	Category	Colour Code for Status
1	Status of Infrastructure and Service Delivery Levels	Coverage of Water Supply Connections	30%	
		Per Capita Availability of Water	25 – 30 LPCD	
		Continuity of Water Supply	4 hrs	
		Coverage of Individual Toilets	77.6%	
		Door to Door Collection of SWM	0%	
		Collection Efficiency of Solid Waste	40%	
2	Financial Management	Operating Ratio	> 1	
		Growth in Revenue Income	59.3%	
3	Poverty Level	% of Below Poverty Line (BPL) Population	approx.. 24%	
4	Organization Structure	Staffing pattern, availability of sufficient staff, competency level of existing staff for implementing proposed projects	<i>Observation Based</i>	
5	Leadership	Leadership quality, awareness and understanding regarding urban sector, proactive approach for implementing reform measures	<i>Observation Based</i>	
6	Economic Development Potential	Potential for Development, linkages to the state capital and other cities, status of existing infrastructure	<i>Observation Based</i>	
7	Environment Sustainability	Status of Environment, quality of water, air	<i>Observation Based</i>	
8	Participation	Level of Participation from Citizen/Citizen Forums/Welfare Association in municipal affairs	<i>Observation Based</i>	
9	Compliance with Reforms	Status of reform implementation and preparedness for implementation	<i>Consultant's Analysis</i>	

Legend

Alarming  Average  Below Average  Good 

SASARAM

BIHAR



KEY MAP

Legend	
	Major Road
	Other Road
	Railway Line
	Transportation Facilities
	Bridge
	River/Canal/Water Bodies
	Drain
	Municipal Boundary
	Major Landmark

MAP : 10.2

EXISTING ROAD & TRANSPORTATION

Scale

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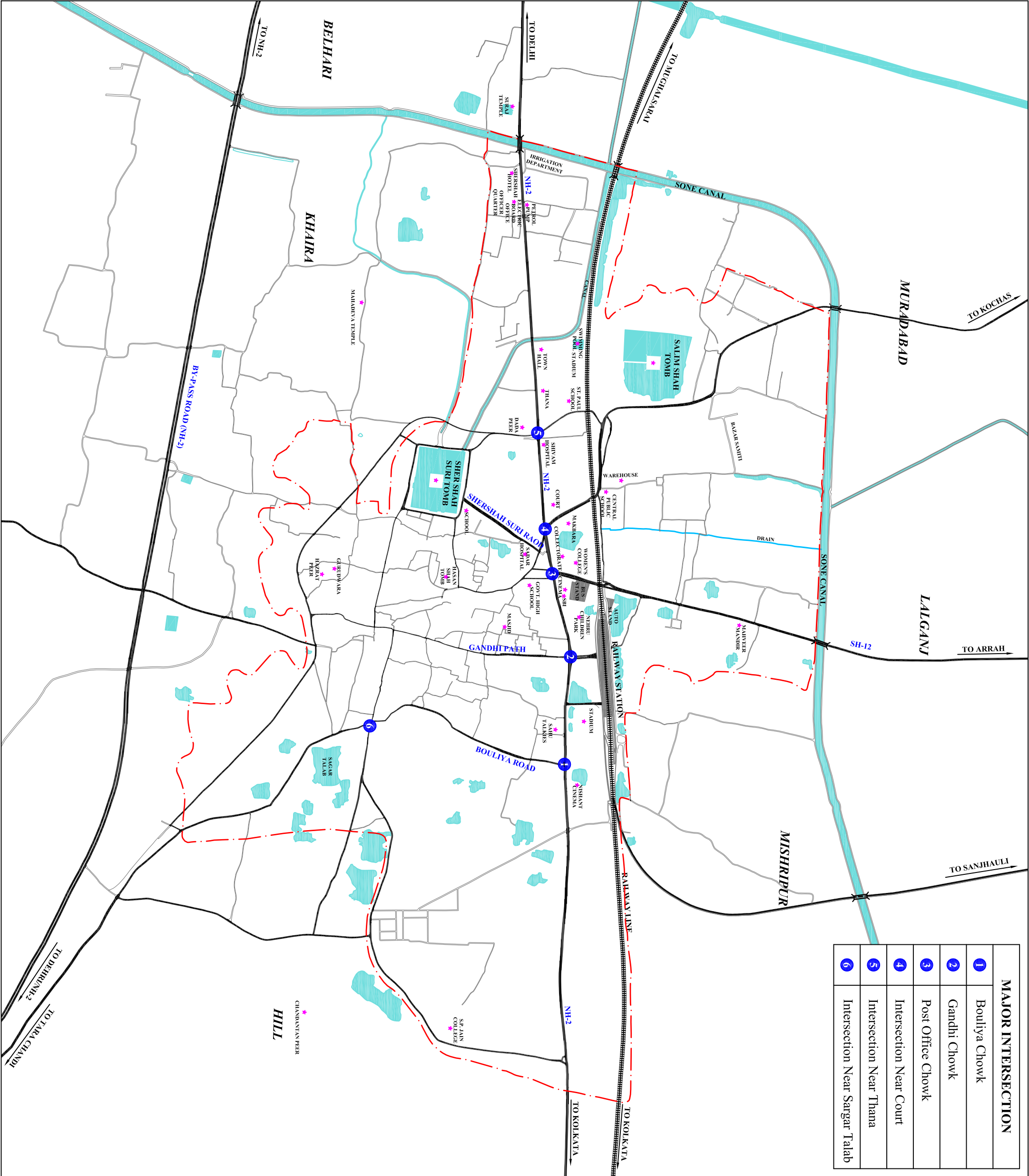
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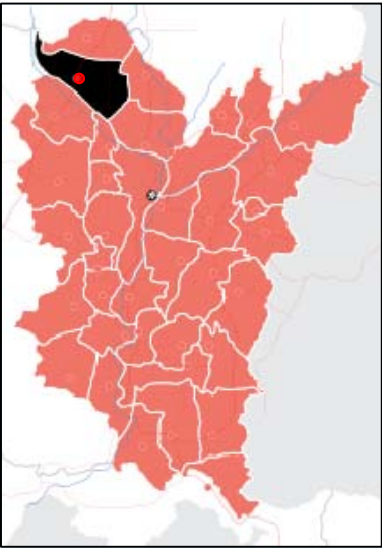
consulting engineers pvt. ltd.

MAJOR INTERSECTION	
1	Bouliya Chowk
2	Gandhi Chowk
3	Post Office Chowk
4	Intersection Near Court
5	Intersection Near Thana
6	Intersection Near Sargar Talab



SASARAM

BIHAR



KEY MAP

Legend	
	Proposed Parking Lot
	Proposed Passenger Shed
	Proposed Foot Over Bridge
	Proposed Truck Terminal
	Road
	Railway Line
	Transportation Facilities
	Bridge
	River/Canal/Water Bodies
	Drain
	Municipal Boundary
	Major Landmark
	Major Intersection

MAP : 10.3

PROPOSED

TRANSPORTATION

INFRASTRUCTURE

Scale

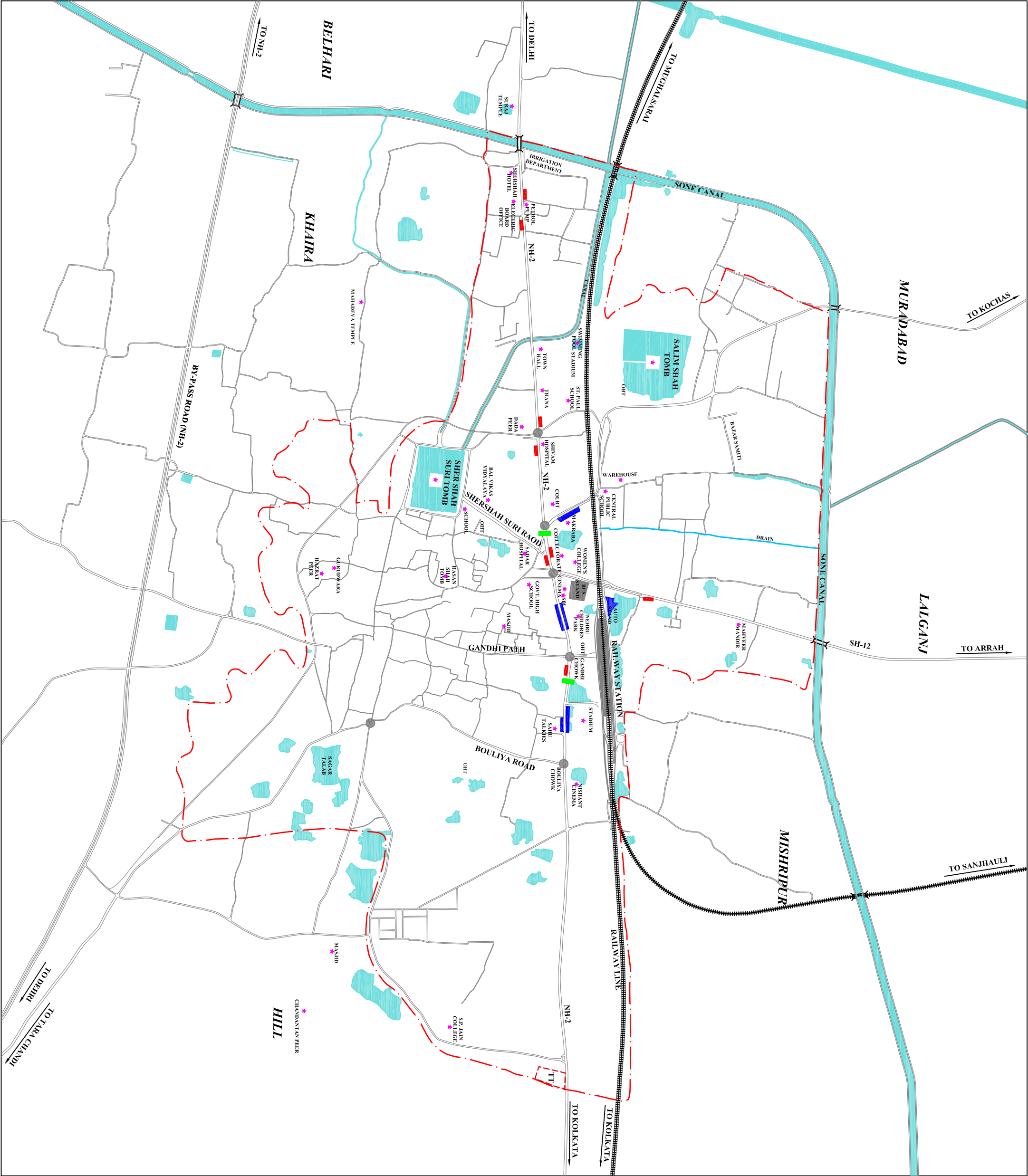
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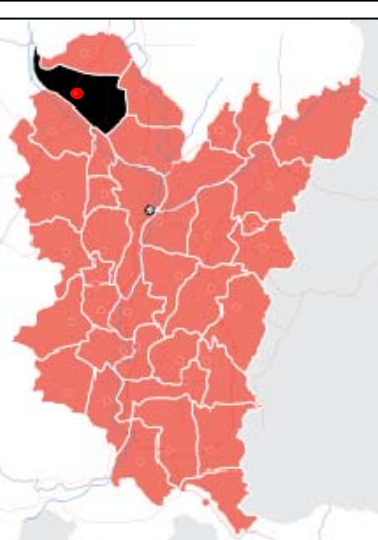
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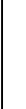


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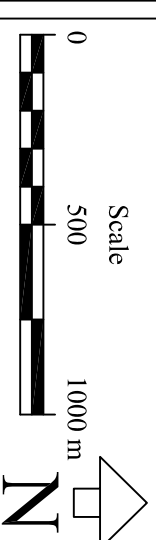
KEY MAP

Legend

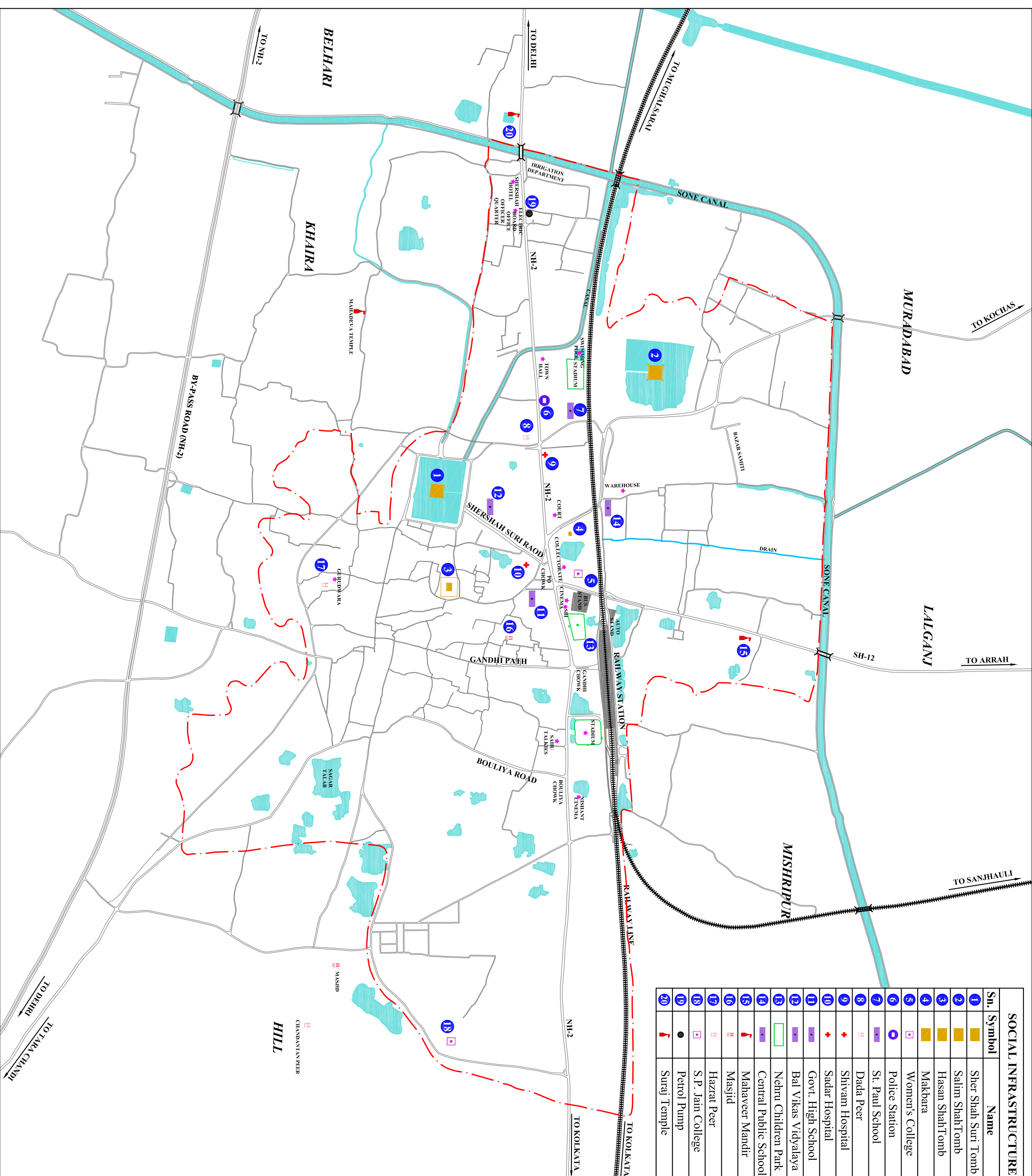
	Road
	Railway Line
	Transportation Facilities
	Park/Stadium
	Bridge
	River/Canal/Water Bodies
	Drain
	Municipal Boundary
	Major Landmark

SOCIAL INFRASTRUCTURE

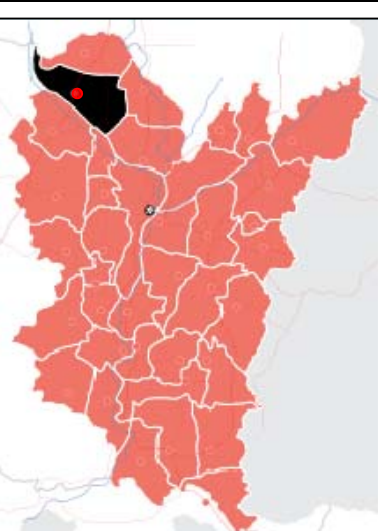
MAP : 11.1



SOCIAL INFRASTRUCTURE		
Sl. No.	Symbol	Name
1	■	Sher Shah Suri Tomb
2	■	Salim Shah Tomb
3	■	Hasan Shah Tomb
4	■	Makbara
5	□	Women's College
6	⦿	Police Station
7	■	St. Paul School
8	⚡	Dada Peer
9	+	Shivam Hospital
10	+	Sadar Hospital
11	■	Govt. High School
12	■	Bal Vikas Vidyalaya
13	□	Nenu Children Park
14	■	Central Public School
15	⚡	Mahaveer Mandir
16	⚡	Masjid
17	⚡	Hazrat Peer
18	□	S.P. Jain College
19	●	Petrol Pump
20	⚡	Suraj Temple













BIHAR



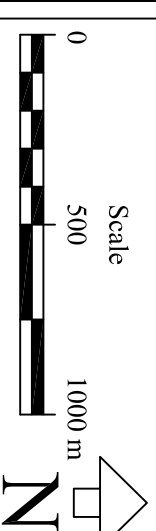
KEY MESSAGE

Legend

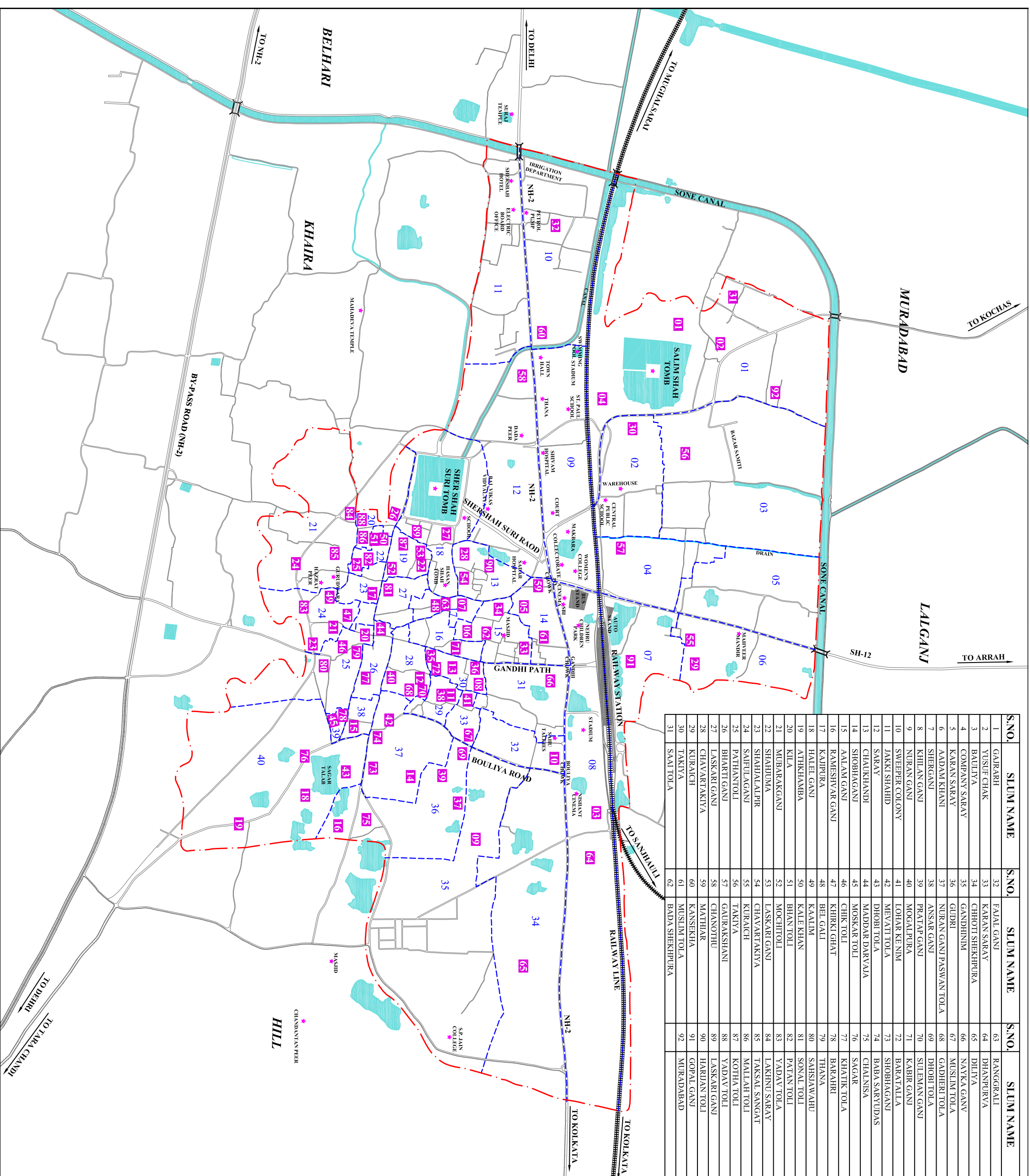
	Municipal Boundary
	Ward Boundary
	Notified Slums
	Road
	Railway Line
	Transportation Facilities
	Bridge
	River/Canal/Water Bodies
	Drain
	Major Landmark

MAP : 12.1

SLUMIAH

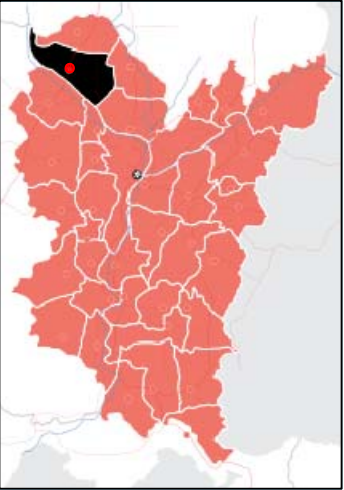


S.NO.	S.LUM NAME	S.NO.	S.LUM NAME	S.NO.	S.LUM NAME
1	GAIRABH	32	FALAL GANJ	63	RANGRAULI
2	YUSUF CHAK	33	KARAN SARAY	64	DHANPURA
3	BAULIYA	34	CHHOTI SHEKHPIRA	65	DILIYA
4	COMPANY SARAY	35	GANDHINI	66	NAKA GANV
5	KARAN SARAY	36	GUDRI	67	MUSLIM TOLA
6	AADAM KHANI	37	NURAN GANJ PASWAN TOLA	68	GADHEDI TOLA
7	SHERGANJ	38	ANSAR GANJ	69	DHOBI TOLA
8	KHILAN GANJ	39	PRAPAP GANJ	70	SULEEMAN GANJ
9	NURAN GANJ	40	MOGALPURA	71	KABIR GANJ
10	SWEPPER COLONY	41	LOHAK KE NIM	72	BARATALLA
11	JAKKI SHAHID	42	MEVATI TOLA	73	SHOBHAGANJ
12	SARAY	43	DHOBI TOLA	74	BABA SARUYDAS
13	CHAKHANDI	44	MADDAR DARVAYA	75	CHALUNSA
14	SHOBBAGANJ	45	MOSKAR TOLI	76	SAGAR
15	AALAM GANJ	46	CHIK TOLI	77	KHATIK TOLA
16	RAMSHYAR GANJ	47	KHIRKI GHAT	78	BARAHHI
17	KAJIPURA	48	BEL GALI	79	THANA
18	HALEL GANJ	49	KALIM	80	SAHSANWAHU
19	ATIKHAWABA	50	KALE KHAN	81	SONAL TOLI
20	KILA	51	BHAN TOLI	82	PATAN TOLI
21	MUBARAKGANJ	52	MOCHTOLI	83	YADAV TOLA
22	SHAHIDVA	53	LASKARI GANJ	84	LAKHND SARAY
23	SHAHULALPIR	54	CHAVARTAKIYA	85	TAKSAL SANGAT
24	SAIFULGANJ	55	KURACH	86	MALLAH TOLI
25	PATHANTOLI	56	TAKIYA	87	KOTHA TOLI
26	BHARTI GANJ	57	GAURAKSHANI	88	YADAV TOLI
27	LASKARI GANJ	58	CHANOTHI	89	LASKARI GANJ
28	CHAVARTAKIYA	59	MAHTHAR	90	HARIDAN TOLI
29	KURADH	60	KANSIKHA	91	GOPAL GANJ
30	TAKIYA	61	MUSLIM TOLA	92	MURADABAD
31	SAALI TOLA	62	BADA SHEKHPIRA		



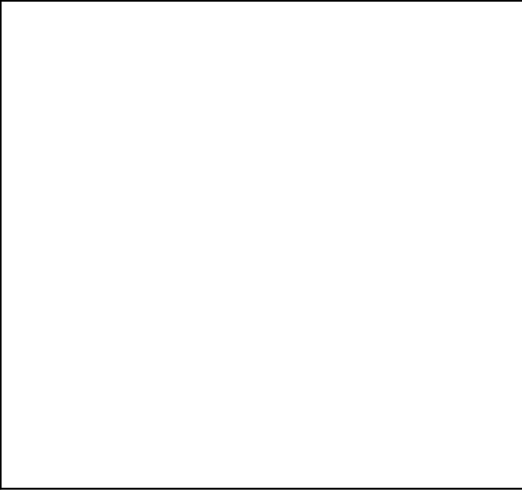
SASARAM

BIHAR



KEY MAP

Legend	
	Road
	Railway Line
	Transportation Facilities
	Bridge
	River/Canal/Water Bodies
	Drain
	Municipal Boundary
	Major Landmark



MAP : 13.1

HERITAGE & TOURISM

Scale

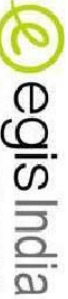
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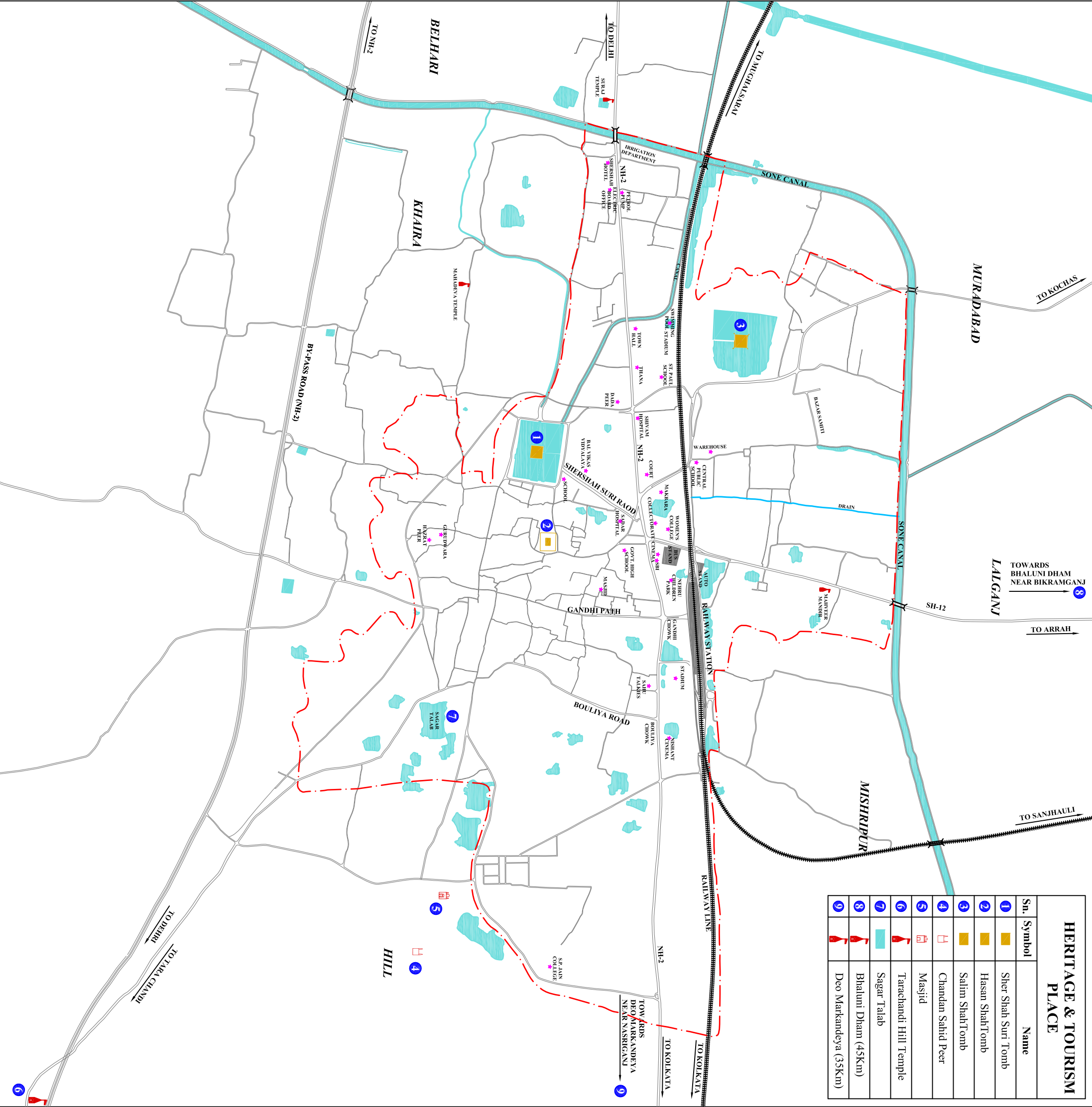
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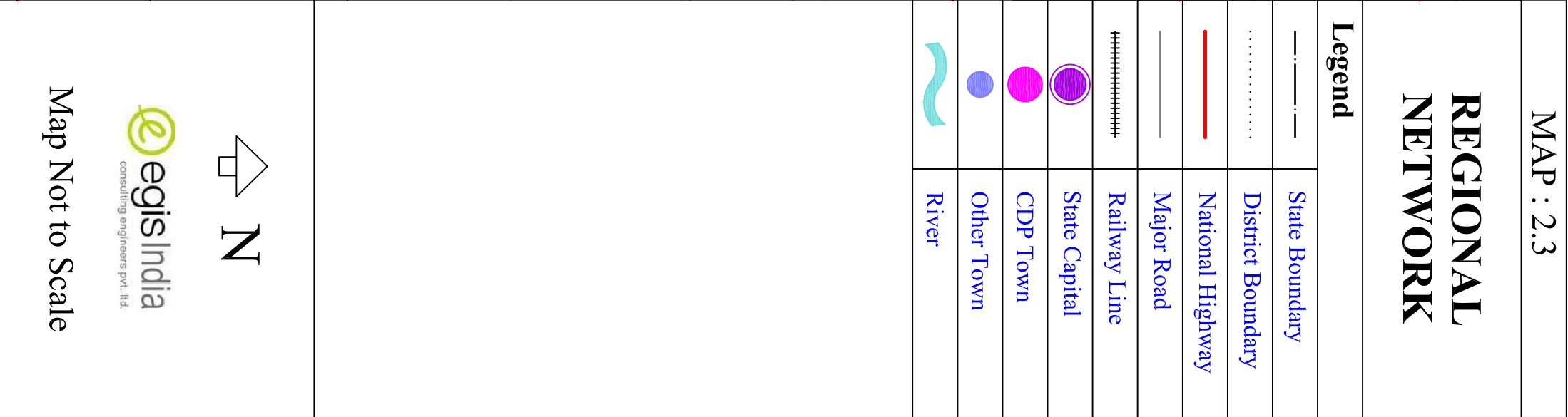
HERITAGE & TOURISM PLACE		
Sn.	Symbol	Name
1		Sher Shah Suri Tomb
2		Hasan Shah Tomb
3		Salim Shah Tomb
4		Chandan Sahid Peer
5		Masjid
6		Tareelhandi Hill Temple
7		Sagar Talab
8		Bhaluni Dham (45Km)
9		Deo Markandeya (35Km)



MAP : 2.3

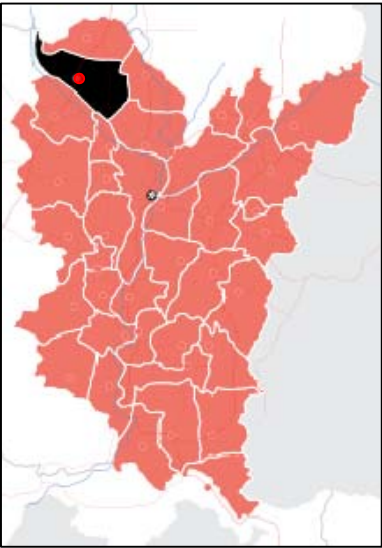
Legend

	State Boundary
	District Boundary
	National Highway
	Major Road
	Railway Line
	State Capital
	CDP Town
	Other Town
	River



SASARAM

BIHAR

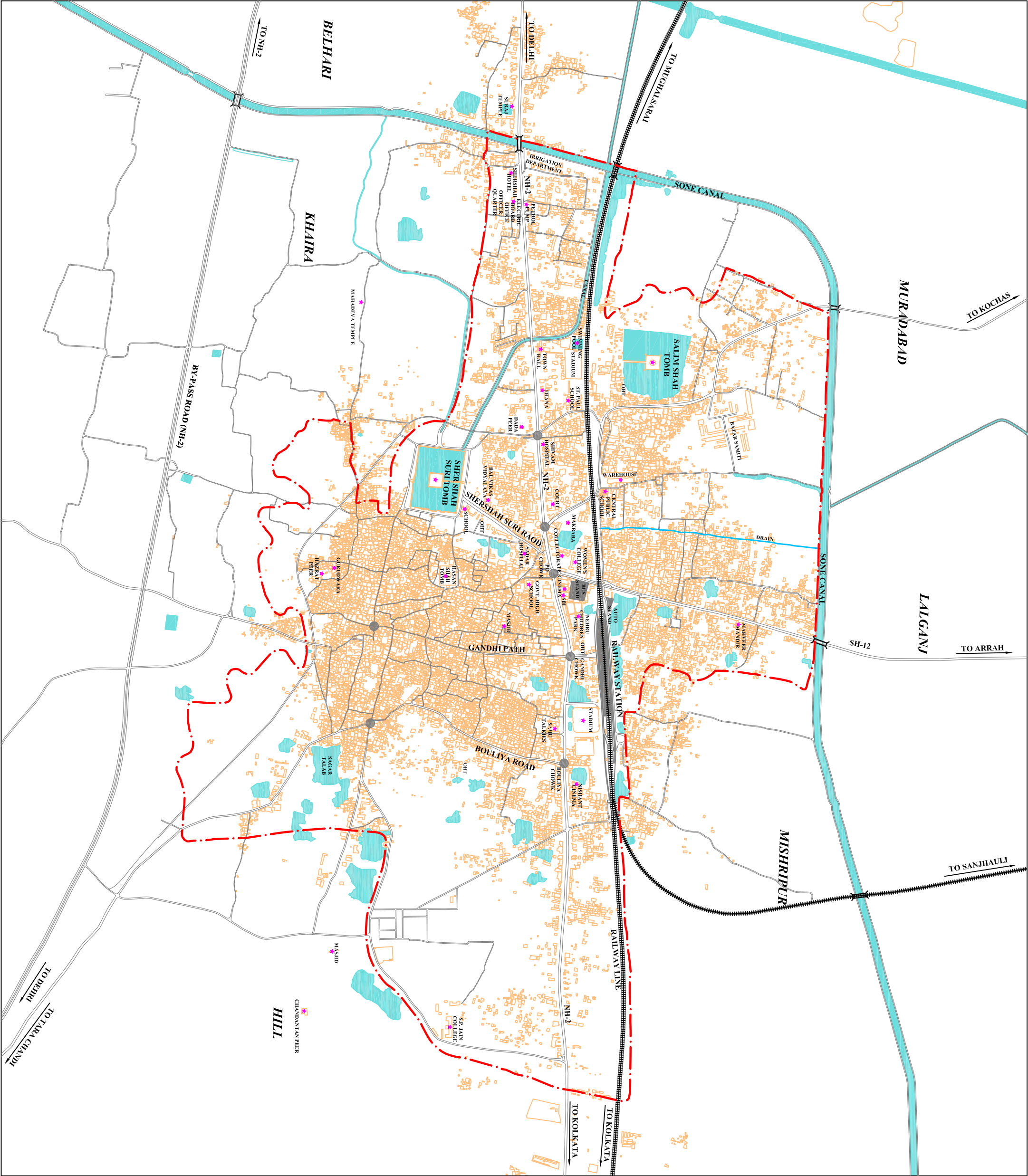
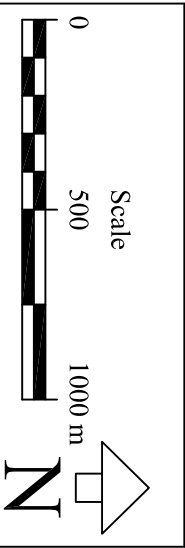


KEY MAP

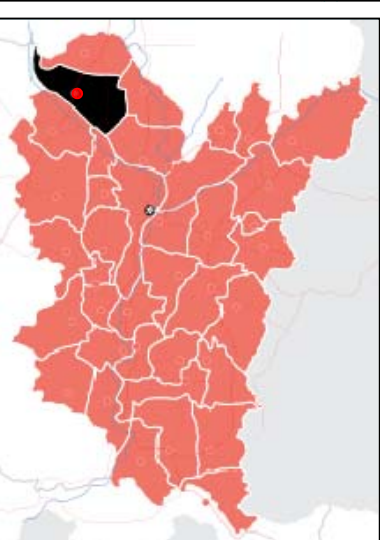
Legend	
	Road
	Railway Line
	Built-up
	Transportation Facilities
	Bridge
	River/Canal/Water Bodies
	Drain
	Municipal Boundary
	Major Landmark
	Major Intersection

MAP : 2.4

CITY MAP













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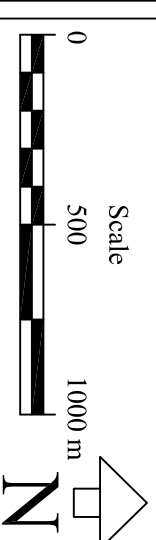
KEY MA

Legen

	Municipal Boundary
	Ward Boundary
	Road
	Railway Line
	Transportation Facilities
	Park/Stadium
	Bridge
	River/Canal/Water Bodies
	Drain
	Major Landmark

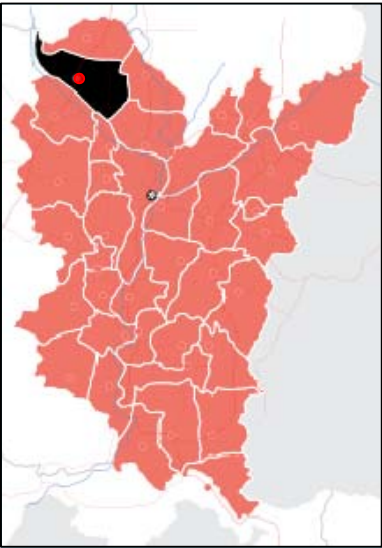
MAP : 3.

WARD MA



SASARAM

BIHAR

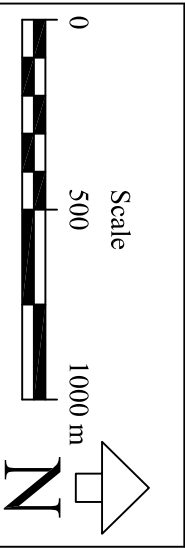


KEY MAP

Legend	
---	Municipal Boundary
---	Ward Boundary
---	Road
 	Railway Line
	Bridge
	River/Canal/Water Bodies
---	Drain
★	Major Landmark
Population Size Distribution	
●	<3000 Persons/Hect.
●	3000-3500 Persons/Hect.
●	>3500 Persons/Hect.

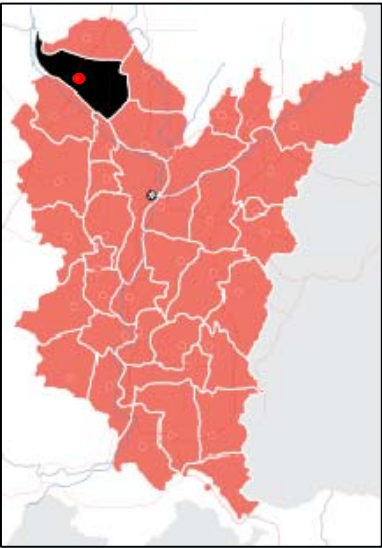
MAP : 3.2

POPULATION SIZE DISTRIBUTION



SASARAM

BIHAR



KEY MAP

Legend	
	Commercial
	Road
	Railway Line
	Transportation Facilities
	Bridge
	River/Canal/Water Bodies
	Drain
	Municipal Boundary
	Major Landmark

MAP : 4.1

COMMERCIAL

ACTIVITIES

