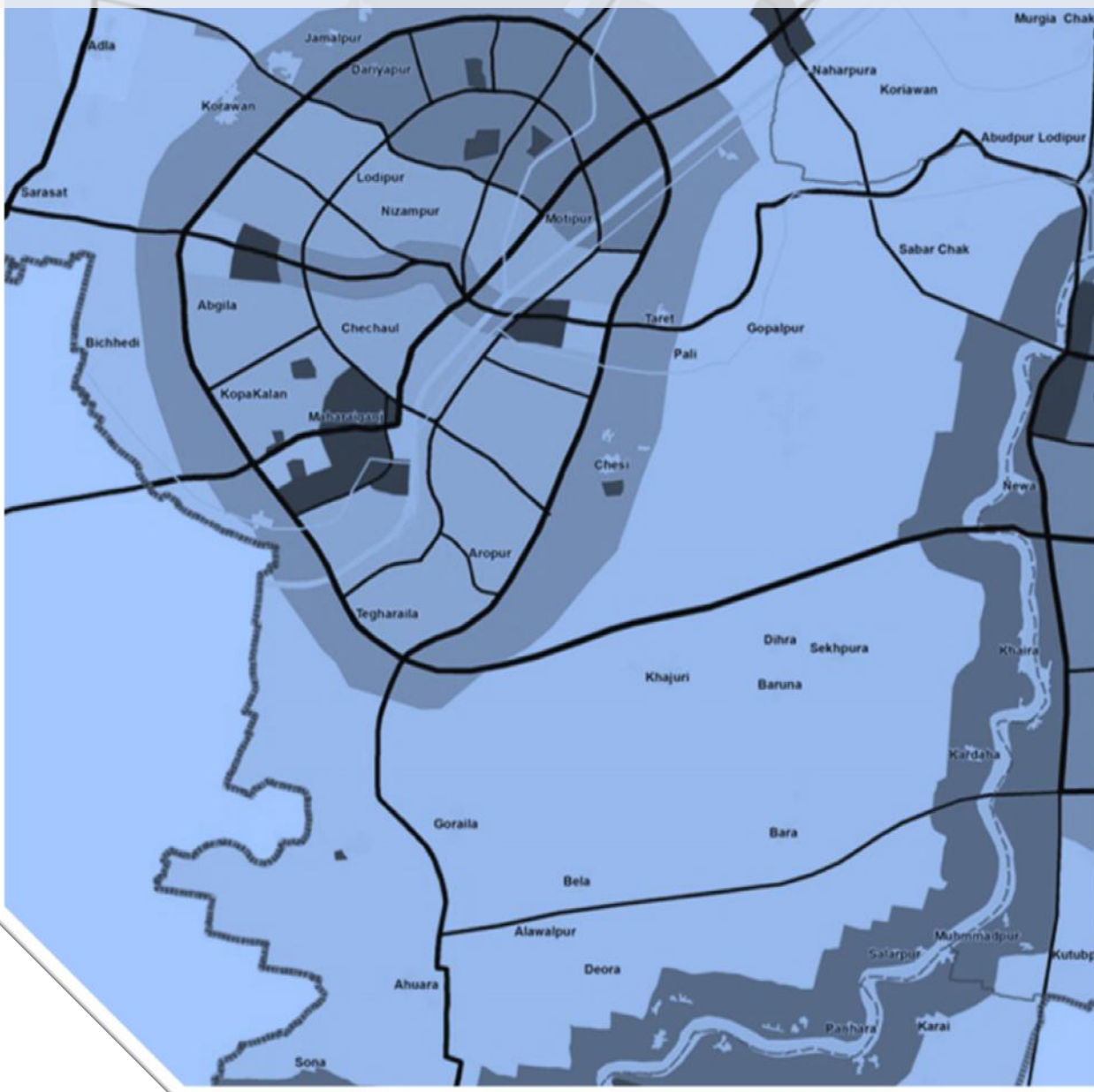




# PATNA MASTER PLAN 2031



**Town and Country Planning Organisation**  
**Urban Development & Housing Department**  
**Patna, Bihar**



In association with

Center for Environmental Planning and Technology (CEPT) University



# **PATNA MASTER PLAN 2031**



**URBAN DEVELOPMENT & HOUSING DEPARTMENT  
GOVERNMENT OF BIHAR**



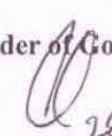
**Government of Bihar**  
**Urban Development & Housing Department**

**NOTIFICATION**

No. 11/न०वि०मा०प्लान (समिति)-17/2014.....<sup>832</sup>....., UD&HD, In exercise of the powers conferred by Section-27 of the Bihar Urban Planning and Development Act, 2012 read with Rule-33 of the Bihar Urban Planning and Development Rules, 2014, and in view of the recommendation and consent of the Bihar Urban Planning & Development Board and Patna Metropolitan Planning Committee, the Government of Bihar hereby notify the Patna Master Plan - 2031 (including Report, Maps and Development Control Regulation) for planned and integrated development of City of Patna with immediate effect.


The existing Bihar Building Byelaws, 2014 shall be effective as Development and Control Regulation for Patna Master Plan area, however its Chapter - III, Land Use Classification and Permissible Uses shall be substituted by Land Use Classification and Permissible Uses as provided in Patna Master Plan -2031.

By the order of Governor,

  
( Chaitanya Prasad )  
Principal Secretary

Memo No. -11/न०वि०मा०प्लान (समिति)-17/2014 .....<sup>832</sup>...../UD&HD/Patna, dated .....<sup>28/10/16</sup>.....  
Copy to - Superintendent, Secretariat Printing Press, Gulzarbag, Patna, E-Gazette Cell, Finance Department, Patna, Bihar (with CD) for publication in an extra ordinary issue of the Bihar Gazette.

It is requested to make available 200 copies of published Gazette to this department for official use.

  
Principal Secretary

Memo No. -11/न०वि०मा०प्लान (समिति)-17/2014 .....<sup>832</sup>...../UD&HD/Patna, dated .....<sup>28/10/16</sup>.....  
Copy to - Chief Secretary Bihar/ Development Commissioner Bihar/Members of the Bihar Urban Planning and Development Board/ All the members of the Metropolitan Planning Committee/ Divisional Commissioner, Patna/ District Magistrate, Patna/ Municipal Commissioner, Patna Municipal Corporation/ P.S to Hon'ble Minister, UD&HD/ concerned Executive Officers and Circle Officers/ All Departmental Officers, UD&HD for information and necessary action.

  
Principal Secretary

**बिहार सरकार**  
**नगर विकास एवं आवास विभाग**  
**अधिसूचना**

संख्या-11/न०वि०मा०प्लान (समिति)-17/2014 ...831... न०वि० एवं आ०वि०, बिहार शहरी आयोजना तथा विकास अधिनियम, 2012 की धारा-27 सहपठित बिहार शहरी आयोजना तथा विकास नियमावली, 2014 के नियम-33 के द्वारा प्रदत्त शक्तियों का प्रयोग करते हुए बिहार सरकार, एतद् द्वारा बिहार शहरी आयोजना तथा विकास बोर्ड एवं पटना महानगर आयोजना समिति की अनुशंसा एवं सहमति के आलोक में, पटना शहर के सुनियोजित एवं समेकित विकास हेतु पटना मास्टर प्लान, 2031 (प्रतिवेदन, मानचित्र एवं विकास नियंत्रण विनियमावली सहित) तुरन्त के प्रभाव से अधिसूचित करती है।

वर्तमान बिहार भवन उपविधि, 2014 पटना महायोजना क्षेत्र के लिए Development Control Regulation के रूप में प्रभावी होगी, जिसके अध्याय-III, भूमि उपयोग वर्गीकरण और अनुमत उपयोग (Land Use Classification and Permissible Uses) को पटना महायोजना, 2031 में यथा प्रावधानित भूमि उपयोग वर्गीकरण और अनुमत उपयोग (Land Use Classification and Permissible Uses) द्वारा प्रतिस्थापित किया जाएगा।

बिहार राज्यपाल के आदेश से।

(चैतन्य प्रसाद)

प्रधान सचिव,

नगर विकास एवं आवास विभाग,

ज्ञापांक -11/न०वि०मा०प्लान (समिति)-17/2014 ...831.../न०वि० एवं आ०वि०, पटना, दिनांक-28/10/16  
प्रतिलिपि -अधीक्षक, राजकीय मुद्रणालय, गुलजारबाग, पटना/ई-गजट कोषांग वित्त विभाग, पटना (सी०डी० के साथ) को बिहार गजट में अतिरिक्त प्रकाशन हेतु सूचनार्थ एवं अनुरोध है कि प्रकाशित गजट की 200 प्रतियाँ कार्यालय उपयोग के लिए उपलब्ध कराया जाय।

प्रधान सचिव,

ज्ञापांक -11/न०वि०मा०प्लान (समिति)-17/2014 ...831.../न०वि० एवं आ०वि०, पटना, दिनांक-28/10/16  
प्रतिलिपि -मुख्य सचिव, बिहार / विकास आयुक्त / बिहार शहरी आयोजना तथा विकास बोर्ड के सदस्य/महानगर आयोजना समिति के सभी सदस्य/ प्रमण्डलीय आयुक्त, पटना/ जिलाधिकारी, पटना/नगर आयुक्त, नगर निगम, पटना/विभागीय मंत्री के आप्त सचिव, न०वि० एवं आ०वि०/संबंधित कार्यपालक पदाधिकारी एवं अंचलाधिकारी/ विभागीय सभी पदाधिकारियों को सूचनार्थ एवं आवश्यक कारवाई हेतु प्रेषित।

प्रधान सचिव,

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- B. DEVELOPMENT CONTROL REGULATION
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**ABBREVIATIONS**

BRTS	Bus Rapid Transit System
BUPDA	Bihar Urban Planning and Development Act 2012
CB	Cantonment Board
CD Blocks	Community Development Blocks
CPHEEO	Central Public Health & Environmental Engineering Organization
DFID	The Department for International Development
UD&HD	Urban Development & Housing Department
GC	Growth Centre
IEM	Industrial Entrepreneurs Memorandum
lpcd	Liters per Capita per Day
M Corp	Municipal Corporation
MDR	Major District Roads
MLD	Millions of Liters Per Day
NA	Notified Area
NH	National Highway
OG	Out Growth
PMC	Patna Municipal Corporation
PPA	Patna Planning Area
PMAA	Patna Metropolitan Area Authority
PCRMC	Patna Capital Region Management Committee
PMPC	Patna Metropolitan Planning Committee
PRDA	Patna Regional Development Authority
PUA	Patna Urban Agglomeration
PUAA	Patna Urban Agglomeration Area
SH	State Highway
SPUR	Support Program for Urban Reforms
Sq.km.	Square Kilometer
Sq.m.	Square Meter
STP	Sewerage Treatment Plant
TOD	Transport Oriented Development
UDPFI	Urban Development Plans Formulation & Implementation
URDPFI	Urban & Regional Development Plans Formulation & Implementation

**SECTION B. DEVELOPMENT CONTROL REGULATION**

## CHAPTER III LAND-USE CLASSIFICATION AND PERMISSIBLE USES

**SECTION C. MAPS OF PATNA MASTER PLAN 2031**

<b>TITLE OF THE MAPS</b>	<b>MAP REFERENCE NO.</b>
1. Existing Land-Use of Patna Planning Area -	TCPO/PMP2031/M-01
2. Patna Planning Area Boundary Map -	TCPO/PMP2031/M-02
3. Cadastral Map of Patna Planning Area -	TCPO/PMP2031/M-03
4. Proposed Land-Use Plan of Patna Planning Area -	TCPO/PMP2031/M-04
5. Special Area Land-Use Plan of Patna Planning Area -	TCPO/PMP2031/M-05
6. Proposed Road Network of Patna Planning Area -	TCPO/PMP2031/M-06
7. Proposed Drainage Network of Patna Planning Area -	TCPO/PMP2031/M-07
8. Proposed Mass Transit Route of Patna Planning Area -	TCPO/PMP2031/M-08
9. Cadastral Survey Maps Of Patna Planning Area -	TCPO/PMP2031/M- 09 /GRID 1-27 & SA -1,2
10. Survey of India Toposheet superimposed on Proposed Land-Use Plan -	TCPO/PMP2031/M-10
11. Proposed Zonal Divisions of Patna Planning Area -	TCPO/PMP2031/M-11
12. Proposed Phases of Development of Patna Planning Area -	TCPO/PMP2031/M-12



# REPORT

## 1 INTRODUCTION

### Chapter Contents

- ❖ *Patna- Capital of Bihar*
- ❖ *Planning significance of Patna as a City*
- ❖ *Economic Profile*
- ❖ *Existing Land Use - Patna Municipal Corporation Area*
- ❖ *Need for the Master Plan*
- ❖ *Planning initiatives since 1951*
- ❖ *Methodology*



internal growth of population of Patna has contributed to this phenomenon. To meet this Department of Urban Development & Housing has decided to delineate the Patna Planning Area (PPA) comprises Patna City, its Patna Urban Agglomerates, and their influence area to prepare a Revised Master Plan of Patna up to the year 2031.

Master Plan is a policy document showing the ways and means to achieve the desired objectives of the sustainable development of the concerned Planning Area vis-à-vis the population living therein for a given period. It is pertinent to note that development means integrated development of both physical infrastructures (basic amenities) and community development including health care facilities in the planning area.

The main objective of the Master Plan is to ensure improved quality of life for the population residing in the PPA at present and in the future (i.e. up to the year 2031) mainly through allocation of land for various uses, specifying demands for various physical and social infrastructure.

The target population of the Master Plan includes not only the resident population of the Planning Area. In addition, the populations of the influence zone of the Planning Area, daily commuters, and floating population, like tourists etc. It has been done to avoid the future shortfall in terms of land allocation for various uses and urban infrastructure both physical and socio-economic.

**Table 1: Area and Population of Patna Urban Agglomeration Area**

Name of Place	2001 Area (in sq.km)	1991 Population (in Lakhs)	2001 Population (in Lakhs)	Density of Population (pph) 2001	Growth Rate of Population 1991-2001
Patna Municipal Corporation	99.45	9.17	13.66	137.40	48.97
Patliputra Housing Colony (outgrowth of PMC)	0.64	0.04	0.05	70.31	2.18
Digha-Mainpura (Out Growth of PMC)	6.99	0.35	0.53	77.20	55.20
Sabazpura (Outgrowth of PMC)	0.39	0.01	0.02	44.65	48.22
Khalilpura (Outgrowth of PMC)	0.80	0.03	0.05	60.53	73.43
Badalpura (Outgrowth of PMC)	0.67	0.01	0.01	10.86	24.49
Phulwarisharif Nagar Parishad	6.48	0.35	0.53	82.49	52.18
Danapur Nagar Parishad	11.63	0.85	1.31	112.79	55.03
Danapur Cantonment Area	3.42	0.23	0.28	82.56	20.19
Khagaul Nagar Parishad	3.66	0.40	0.48	131.98	19.41
Saidpura (Outgrowth of Khagaul)	1.66	0.02	0.05	27.72	181.86
<b>Total for PUA Area</b>	<b>135.79</b>	<b>11</b>	<b>16.97</b>	<b>125</b>	<b>48.13</b>

Source: Primary Census Abstract, Census 2001, Directorate of Census, India

PUA Area had a population of 16.97 lakhs as per the 2001 Census while the PMC had a population of 13.66 lakh (2001 Census). The growth of population in the PUA has increased rapidly in 1991-2001. Thus, using the 1991-2001 decadal growth rate as an indicator, the population of the PUA is expected to be 22.50 lakhs in the year 2011 and 28.01 lakhs in the year 2021. In addition, the floating population who commute from the districts to the PUA each day is expected to be 3.00 lakhs by 2021 against around 2.00 lakhs at present. The population of the PMC constitutes 80% of the population of the PUA. The density of population of the PMC is 137.40 persons per hectare (pph). The next highest density is of Khagaul NP, Phulwarisharif NP and Digha-Mainpura areas respectively. The areas with high growth rate, which varies from 48-73%, are Saidpura OG, Khalilpura OG, Digha-Mainpura OG, Danapur NP, Phulwarisharif NP, PMC and Sabazpura OG. The extraordinary growth rate of Saidpura is due to the increase of its area. (\*City Development Plan Report, Patna, 2006)

### 1.3 Economic Profile

The old part of city known as Patna city was a very major trading center in Eastern India and even today it is a major trading center. The economy of Patna Urban Area is predominantly in the tertiary sector i.e. commerce, administration, urban services and community facilities like health, education, recreation, etc.

The economy of the hinterland of Patna Urban Area is predominantly agrarian. A large number of orchards produce fruits like mangoes, guavas, bananas etc. There are few factories within it and is surrounded by agricultural land. Even though, many factories have closed down in the recent past due to various factors.

**Agriculture Activities**



**Market –Agricultural Market**



**Brick Kilns**



**Construction Activities**





Industrial activities are not significant to contribute much to the regional economy. Local and external trade and commerce are primarily linked to agriculture and allied activities. The Industrial Economy of Bihar State received a major setback after the reorganization of States and the creation of Jharkhand State where most of the large Industrial centers and important mineral producing districts of erstwhile Bihar were transferred. Currently, in Bihar, mineral based industries are almost non-existent. The large industrial establishments of the PUA include: Shri Lakshmi Cold Storage Ltd., Patna City; Pradip Lamp Works, Patna; The Bihar Cotton Mills, Phulwarisharif; Shri Baidynath Ayurvedic Bhavan Ltd. Patna; Hindusthan Manufacturing & Industrial Corporation Ltd., Phulwarisharif; Ambuja Electocasting Ltd. Patna; Bata India Ltd. Bataganj, Patna; Modi Steels Ltd. and others.

There are also several brick kilns lined along roads and the River Ganges. It has developed the first Software Technology Park of Bihar at Patna has been developed by the Bihar State Electronics Development Corporation Limited (BSEDC), the nodal agency for development of IT industry in the State.

The total workers population of PUA is 25.2% of the total population; whereas the male worker population is 3.8 lakhs (41.4%) and that of females is 0.45lakhs (5.8%). This is lesser than the percentage of workers population in Bihar state, which is 33%. Industries are spread over the PUA whereas services and institutions are concentrated in the PMC area.

#### 1.4 Existing Land Use – Patna Municipal Corporation Area

Patna is growing and emerging as trade and business center in last ten-fifteen years and witnessing rapid in migration from immediate hinterland and different part of the state of Bihar. It resulted in to rapid urbanization in neighboring areas of Patna Municipal Area become outgrowths of Patna City. In the absence of planning interventions since 1981, rapid growth led to haphazard development in the city of Patna. Haphazard development resulted into deterioration of open space and forest area (only 2.34 sq.m. per capita), uncontrolled and unregulated construction activities and brick Kilns in and along the riverbed of Ganga, formation of slum and unregulated construction within core city.

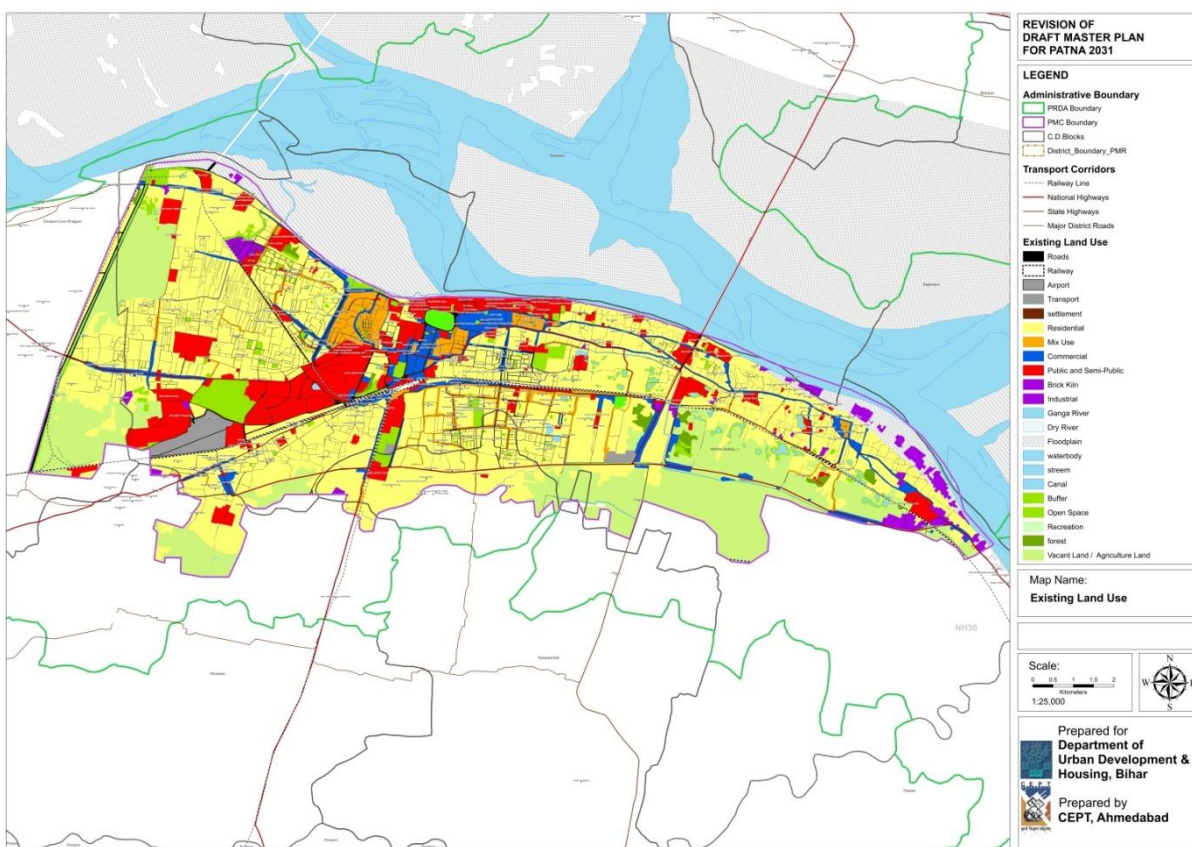
The existing land use map is updated based on data collected through ground surveys and it is also verified by the govt. officials.

**Table 2: Existing Land use – Patna Municipal Corporation Area**

Land Use	Area (sq.km)	Percentage (%)
Residential	49.56	47.55
Commercial	4.65	4.46
Mix Use	3.52	3.37
Industrial	1.09	1.05
Public and Semi-Public	10.61	10.18
Open Space / Recreational	3.20	3.07
Transport / Roads	6.15	5.90

Airport	1.10	1.05
Brick Kiln	0.73	0.70
River / Flood Plain	3.49	3.35
Water Body	1.06	1.01
Vacant Land / Agriculture Land	18.40	17.66
Forest	0.67	0.64
<b>Total PMC Area*</b>	<b>104.22</b>	<b>100</b>
*Note: Total Area is subject to change based on cadastral information		

Map 1 : Existing Land use Map – Patna Municipal Corporation Area



Source: CEPT, Ahmedabad

### 1.5 Need for the Master Plan

Being Capital City, Patna does not possess the Master Plan since 1981.

The first Master Plan was prepared in the year 1962-81 and in reality; it was a quick land use exercise. After the formation of PRDA, the master plan was updated in the year 1982-2001. This master plan was only partially successful due to various socio-economic forces as well as statutory compliances. There was no constitutional intervention after 1962-81 Master Plan leading to lack of infrastructure investment and a rapid overflow of (unplanned and haphazard) physical growth of the city beyond the former jurisdiction of the urban development authority.

To cater the demand of population and to regulate the development, PRDA decided to prepare a Master Plan of Patna Urban Area for the year 2001-2021. As per provision of section 16, 17 and 18 of Bihar Regional Development Authorities Act, 1981 was statutory obligation to prepare Master Plan for all urban centers located within PRDA's defined territorial jurisdiction i.e. Patna, Danapur, Khagaul, Hajipur, Fatuha and Phulwari Sharif. Directives were issued to the PRDA vide letter no. Na Vi/Ni/106/80-2272 dated 20th December 1980 for preparing revised Master Plan. However, priority for preparation of Master Plan was given to Patna considering its primacy as a capital of the State, its rank, size and complexities of its problems. However, in 2006-07, Patna Regional Development Authority (PRDA) was dissolved which resulted in an immediate requirement for apex institutional framework to ensure integrated and inclusive development of Patna and Its Urban Agglomerates as well as Neighboring Urban Centers such as Maner Nagar Panchayat and Fatuha Nagar Panchayat.

In the absence of statutory planning intervention, Patna witnessed unplanned and haphazard development within city area as well as in the peripheral areas which deteriorates built fabric, basic urban infrastructure facilities such water roads, water supply, drainage. Patna is also facing a major problem of drainage, as the city is surrounded by major rivers Ganga, Sone, and Punpun; during the monsoons, the spillover from river tends to flood the city. Therefore, there is a need to channelize and provide storm water channels as rational measures from flooding.

### 1.6 Planning Initiatives since the year 1951

The details of the initiatives taken under different urban development authorities for the planned growth of the former region are listed below:

**Table 3: Chronology of urban events and initiatives**

Year	Events	Agency setup
1951	Bihar Town Planning and Improvement Trust, 1951 (Bihar Act XXXV of 1951) and prepared Master Plan for Patna	Patna Improvement Trust
1967	Master Plan approved by State Government vide Notification No. 4860 dated 20th June	-
1982	Bihar Regional Development Authorities Act	Patna Regional Development Authority
1979-81	Directives issued for Revision of Master Plan for Patna 1981-2001 (Not Notified by Govt.)	-
August, 1985	Constitution of sub-committee for scrutiny	-
1986	Draft of Revised Master Plan for Patna (1981-2001) prepared by PRDA	-
1989	Scrutiny of Master Plan completed	-
1990	Revised Master Plan-2001 approved by PRDA	-
2006	Draft Master Plan 2021 prepared and approved by PRDA	

2007	Patna Municipal Act. 2007 came into existence and Bihar Municipal Act was repealed	Strengthen the Urban Local Body
2008	Draft Master Plan 2021 submitted to UD&HD for Approval	-
2011	Revision of Draft Master Plan 2021 was taken up by UD&HD	CEPT, Ahmedabad was appointed to prepare DRAFT MASTER PLAN for 2021
2012	Bihar Urban Planning & Development Act, 2012	
2014	Bihar Urban Planning & Development Rules, 2014	Formation of Bihar Urban Planning & Development Board
Source: CDP, Patna and Draft Master Plan Report, prepared by DCPL, Kolkata and updated by CEPT, Ahmedabad		

### 1.6.1 Master Plan (1961-81)

In order to initiate for the planned development, a legislation was enacted in the form of Bihar Town Planning and Improvement Trust Act 1951 (Bihar Act XXXV of 1951) and the Patna Improvement Trust was set up there-under. In accordance to section 33 of the said Act, the Trust prepared a Master Plan for Patna for a 20 years period which was approved by the State Government vide Notification No. 4860 dated 20th June, 1967. Furthermore, the Trust did not have adequate infrastructure or legal support to implement the Plan. It was set up according to the new Act enacted in form of the Bihar Regional Development Authorities Act, 1981 transforming the Ordinance of The 1975 under which the Patna Regional Development Authority was constituted.

### 1.6.2 Plan Update (1981-2001)

Development, which happened in and around Patna during the period 1962 to 1982, was largely unplanned in addition to existing organic growth. This prompted the authorities of Urban Development Department, Government of Bihar, to take up a new plan before the lapse of the period. The city and its suburbs were facing urgent problems related to traffic and transportation, housing, drainage, water supply etc. due to population growth, putting pressures on all lifestyles. A re-orientation of the whole land use system was required for the area. After a series of meetings of technical and administrative personnel of Government of Bihar during 1979-81 directives were issued to the Patna Regional Development Authority for preparing a revised Master Plan for Patna. As per provisions of section 16, 17 and 18 of Bihar Regional Development Authorities Act, it was a statutory obligation to prepare Master Plans for all urban centers located within PRDA's defined territorial jurisdictions i.e. PUA, Fatuha, Maner, Hajipur and Sonapur. However, priority for preparation of plan was required for PMC considering its primacy as the capital of the State, its rank, size, and complexities of its problems. Draft of the Revised Master Plan of PMC for the period 1982 - 2001 was prepared for PRDA by a team of planners and other urban agglomerations experts of Patna in 1986.

These were then placed before a sub- committee specifically constituted by the Authority vide its resolution no.40/85 dated 13th. August 1985. The committee went into merits and demerits of each objections/comments separately and where necessary visited concerned site before finally coming

to a unanimous conclusion on related issues. This process of scrutiny was completed in August 1989 and maps and reports were modified in the light of sub-committee's resolution soon thereafter. The revised Master Plan was prepared for the plan period up to 2001. However, this could not be notified.

### 1.6.3 Master Plan 2001-21

PRDA took the initiative to prepare Master Plan for year 2021 to augment Patna's infrastructure in terms of Sewerage, Drainage, Water Supply and Solid Waste Disposal. Hence, PRDA decided to prepare a Master Plan of Patna Urban Area for the year 2001-2021.

After repeal of Bihar Regional Development Act, 1981, PRDA was dissolved, hence Patna Municipal Corporation had submitted Draft Patna Master Plan – 2021 for Patna to the Urban Development and Housing Department in the year- 2008 for approval.

In the absence to legal framework and lack of geo-spatial reference of Master Plan proposals, it was inconceivable to approve the Draft Patna Master Plan – 2021. The Government took immediate response to prepare Bihar Urban Planning & Development Act and proceeded for modification in Draft Patna Master Plan, 2021. As a result, Bihar Urban Planning and Development Act 2012 and Bihar Urban Planning and Development Rule 2014 came into existence. Bihar Urban Planning and Development Board has been constituted under the framework of the act mentioned above. Such apex institutional framework is responsible for planned development of urban centers in the state of Bihar.

## 1.7 Methodology

The project is largely concerned with the revision of Patna Master Plan 2021. The methodology comprised of preparing baseline information on population characteristics and its socio-economic attributes, revising, proposing land utilization details in order to cater the requirement of the projected future population growth, density, migration, and employment into consideration. Modifications/new, proposals made in the provided draft plan by keeping proposed developments in the region in addition to the natural growth of Patna. The detailed methodology adopted for every stage is given below:

### 1.7.1 Stage 1: Project initiation

The objective of this stage was to initiate the project by finalizing the work plan, methodology, and the familiarization of the project team with the project area.

- **Project team mobilization:**  
The project team was mobilized and a local office was setup in Patna in order to initiate the work on the Revised Master Plan for Patna 2031.
- **Identification of secondary sources and required data:**  
The project team initiated identification and collection of secondary data from respective sources immediately after the team mobilization.

- **Baseline profile of the project area:**  
The baseline profile of the project area was compiled as the part of this stage i.e., inception report. It comprised of description of location, area, administrative units, physical setting, regional connectivity along with delineation rationale, demographic and economic aspects of the project area.
- **Conceptualization of the project area:**  
Conceptualization was prepared based on initial understanding of the project area by reconnaissance survey. It was prepared along major development and transportation corridors in order to understand the varying spatial patterns and upcoming development along outer rings for the delineated study area.
- **Finalization of the methodology and work plan**
- **Initial perception of the project area**
- **Study of previous planning initiatives:** It involves the review of the previous planning initiatives that has been undertaken by different authorities for the project area. It was done to assess the constraints and shortcomings associated with the previous plans.

### 1.7.2 Stage 02 and 03: Analysis of existing situation & Future projections and Concept Plan

At this stage, analysis of existing situation of larger area as project area was done to delineate the Patna planning area . Following steps were involved in accomplishment of the task:

- **Socio-Economic Analysis:**  
At this stage socio-economic analysis were prepared for all the 21 CD blocks as well villages coming under the project area for the year 1991 and 2001. Population growth, distribution occupational structure, workforce participation rate etc were analyzed and further converted into thematic maps in order to show the spatial variation.
- **Settlement Structure Analysis:**  
Under this, the settlement hierarchy in terms of population size was analyzed to understand the spatial distribution of the settlement structure both in urban and rural settlements.
- **Land Potential Analysis:**  
The Land Potential Analysis was prepared in order to identify the potential areas for development under different land uses. The Parameters considered for evaluation of the project area are: connectivity (major/minor road analysis), proximity to existing urban centers and village sites, proximity to existing industrial areas, land/property values, etc.
- **Existing Infrastructure Assessment:**  
Existing infrastructure and demand estimates for social infrastructure such as education, health facilities demand assessment was undertaken at village and town level. It also involves an analysis of physical infrastructure such as road, railways, water supply, solid waste management, sewerage, sanitation, drainage etc. It would help in assessing the demand-supply scenario, identification of gaps and related issues.



- **Future Projections and Final Concept Plan:**

Population projection was prepared for the year 2031 based on trend. In order to estimate population, share and shift method has been adopted. It has been projected for the region as a whole as well as CD block and village level. It has also been validated by the provisional figures released by Census of India.

Economic forecasting has been prepared in terms of requirement of workforce including skilled and professional workforce. This forecasting comprises of two main components i.e., forecasting occupational structure and employment structure. This is based on percentage share of primary, secondary, and tertiary workers in the region to understand the need of redistribution of development activities and prioritizing future growth.

### 1.7.3 Stage 04: Updated Base Map and Existing Land Use Map

Due the increase in the present area of the existing PUA as proposed by CEPT, need for updating the existing base map prepared by DCPL consultants aroused for the extended PPA. The following steps were taken in order to accomplish the task:

- Information available and updated base map: base map is a map containing visible surface features and boundaries, essential for locating additional layers or types of geo-referenced information for the project area. Generally, it includes administrative boundaries, city boundaries, water features, physiographic features, parks, landmarks, highways, roads, railways, airports, and buildings overlaid on land cover and shaded relief imagery for added context. Various other maps in a geographic information system were developed from the control document.

The purpose of making base map was to delineate the project area from surrounding and segregating the administrative divisions coming within area. The following information were captured in the base map at this stage of the project which also represented the most latest information related to that features which we have received from various sources.

**Table 4: List of information available and data sources**

No	Spatial Data	Sources	Features
1	Topo sheets – 1:50000	Survey of India	Natural features like rivers, wetlands, water bodies
2	Patna, Saran and Vaishali District Maps	Administrative Atlas Census of India 2001	Administrative boundaries of Municipal Corporation and villages, major road & railway
3	LANDSAT Image (2005)	Imagery provided by DFID-SPUR, Bihar with 30 meter resolution	Used for geo-referencing cadastral maps
4	Cadastral Maps	Procured from Bihar Survey office for entire villages and urban centers coming within delineated region by CEPT	Village boundaries, survey boundaries with numbers. Spatial coordinates, major roads & railways

5	Google earth images	Google earth	Used for geo-referencing cadastral maps in order to update the land use and cadastral boundaries
6	Road Alignment and Section	Updating base map prepared by DCPL (hard copy)with the help of Revenue Map, Toposheets, information provided by Road Construction Department, DCPL and DFID-SPUR	Road ROW, Section, Alignment for regional connectivity and detailed Municipal roads
7	Water Supply Network	DCPL report, City Development Plan	Pipeline alignment for municipal area
8	Solid waste management	DCPL report, City Development Plan	

#### **The databases used for preparing base map:**

Census villages and CD Blocks Maps – 1991- 2001: CD Block level and village Census maps are used as the base source in order to initiate the mapping exercise. Census maps are the authentic source for capturing the administrative boundaries. All individual villages and CD Block maps have been scanned, and then they are intermediated as mosaic image to minimize the overlapping errors. Following features have been captured from the mosaic image:

- Administrative Features
- District, CD Blocks and Village Boundaries
- Village Codes & Names
- Inhabited and Un-inhabited Villages
- Physical Features
- Roads – National Highway, State Highway, Other District Road
- Railways – Broad Gauge, Meter Gauge
- Natural Features
- Water Bodies – Rivers etc
- Soil
- Forest
- Geology and Geomorphology

**Topographical Maps/sheets:** A topographic map is characterized by large-scale detail and quantitative representation of relief, usually using contour lines in modern mapping of any demarcated area. It provides the data, which has been surveyed in 1976.

#### **Identification of Natural Resources:**

Identification of natural resources will incorporate the location and spatial extent of the above mentioned features. There are different sources that have been used for the identification of natural resources as listed below:



- Census Map
- Topographical sheets
- Other relevant department (like DFID-SPUR)

Land Resource Inventories: Building land resource inventory entails a comprehensive collection of information and data related to land use and land cover. The enlisted information in the inventories are collected from different sources, and they are arranged in a systematic form.

The purpose of preparing land resource inventories is to formalize the method of land capability and land suitability classification for appropriate allocation of land uses in the region. The key features included in the inventories have been extracted as per the requirement of features in the land capability and land suitability classification.

**Table 5: Data classification for land resource inventories**

Sr. No.	Classification / Data inputs	Category	Type	Data source
1	Geographical area	-	-	Census maps, 2001
2	Reporting Area for land utilisation statistics	-	-	
	I. Reserve and protected forest	Land cover	Spatial	Census maps, topography sheets
	II. Not available for cultivation	Land cover	Spatial	Village Directory, 2001
	III. Other uncultivated land (excluding fallow land)	Land cover	Spatial	Topography sheets
	(a) Permanent Pastures and other grazing land	Sub-class	-	-
	(b) Land under Miscellaneous tree crops and groves (not included in net area sown)	Sub-class	-	-
	(c) Culturable Wasteland	Sub-class	Quantitative	Village directory, 2001
	IV. Fallow Land	Land cover	Spatial	LANDSAT
3	Irrigated area	Land use	Spatial	Village directory, 2001

#### 1.7.4 Stage 5: Final Master Plan and Development Control Regulations

Finally, proposals were made and Master Plan was prepared in order to ascertain the future development trends. It provides the land requirement for future development with appropriate density standards and requirements for various activities and land use zones along with zoning, phasing as well as land development mechanisms for the same, which will enable possible ways of generating revenue. Bihar Building Bye-Laws, 2014, with amended Chapter-III (Land Use Classification and Permissible Uses) is a part of this Patna Master Plan -2031 as Development Control Regulations (DCR).

## 2 PATNA PLANNING AREA: STUDY, ANALYSIS AND DELINEATION

### Chapter Contents

- ❖ *Project Study Area*
- ❖ *Parameters and analysis for delineation of Patna Planning Area*
- ❖ *Alternatives for Patna Planning Area*
- ❖ *Patna Planning Area: Boundary and its Constituents*

## 2.1 Project Study Area

To delineate the Patna Planning Area (PPA), study was carried out in context to the demographic and Socio-economic dividend, spatial location of urban administrative units of 21 CD Blocks neighboring to Patna Rural CD Blocks. The study area comprises jurisdiction of erstwhile Patna Regional Development Authority Area and its influence area. Patna district includes 15 CD blocks (5 fully and 10 partially falling in the area), Saran district (3 partially falling in the area) and Vaishali district (3 fully falling in the area.) The total population of Patna Planning Region is 42.35 lakhs of which 20.36 lakh (48.1%) is urban and 21.98 lakh (51.9%) is rural having an area of 2258.1 sq. Km and total 1155 villages.

**Table 6: Study Block falling in the Project Area**

District	S. No.	CD blocks	Partially/ fully falling in the Project area
Patna	1	Maner	Partial
	2	Danapur-cum-Khagaul	Full
	3	Patna rural	Full
	4	Sampatchak	Full
	5	Phulwari	Full
	6	Bihta	Partial
	7	Naubatpur	Partial
	8	Masaurhi	Partial
	9	Dhanuara	Partial
	10	Punpun	Full
	11	Fatuha	Partial
	12	Daniawan	Partial
	13	Khusrupur	Partial
	14	Bakhtiyarpur	Partial
	15	Athmagola	Partial
Saran	1	Dighwara	Partial
	2	Dariyapur	Partial
	3	Sonepur	Partial
Vaishali	1	Hajipur	Full
	2	Raghopur	Full
	3	Bidupur	Full

## 2.2 Parameters and Analysis for Delineation of Patna Planning Area

Patna would be declared as an emerging trade and centre, the second in the country's eastern region after Kolkata. It's a primate city in the state and has witnessed rapid growth leading the uncontrolled population expansion beyond the urban jurisdiction. The uncontrolled expansion could turn into haphazard development and obnoxious cityscape. Hence, realizing the need for controlled development, the extent of Planning Area proposals were developed. These proposals of the Patna Planning Area were prepared after understanding the following needs below:

- To develop the potentiality of the region by enhancing the urban-economic growth
- To identify the growth centers and formulating organization of urban centers in the Planning Area
- Enhance the industrial development in the region with conformity to the development and land utilization aspects.

The delineation proposals with 3 alternative options were based on the following factors below:

#### **Administrative boundary**

An administrative unit is one of the formal parameter which delineates area on the basis of political boundaries. The Delineation was done on the basis of District Boundary, Community Development Block Boundary (CD Block). The delineated region was lying within the districts of Patna, Saran and Vaishali, which belong to three different administrative divisions.

#### **Natural setting**

Natural setting includes rivers and/or water bodies are paramount for the delineation of the Patna Planning area. Patna is located on the south bank of the Ganga river also straddles the rivers Sone, Gandak and Punpun. A characteristic of the geography of Patna is its confluence of rivers. Ganga joined by Gandak, Punpun and Sone; Patna is unique in having four large rivers in its vicinity.

#### **Ecologically fragile area**

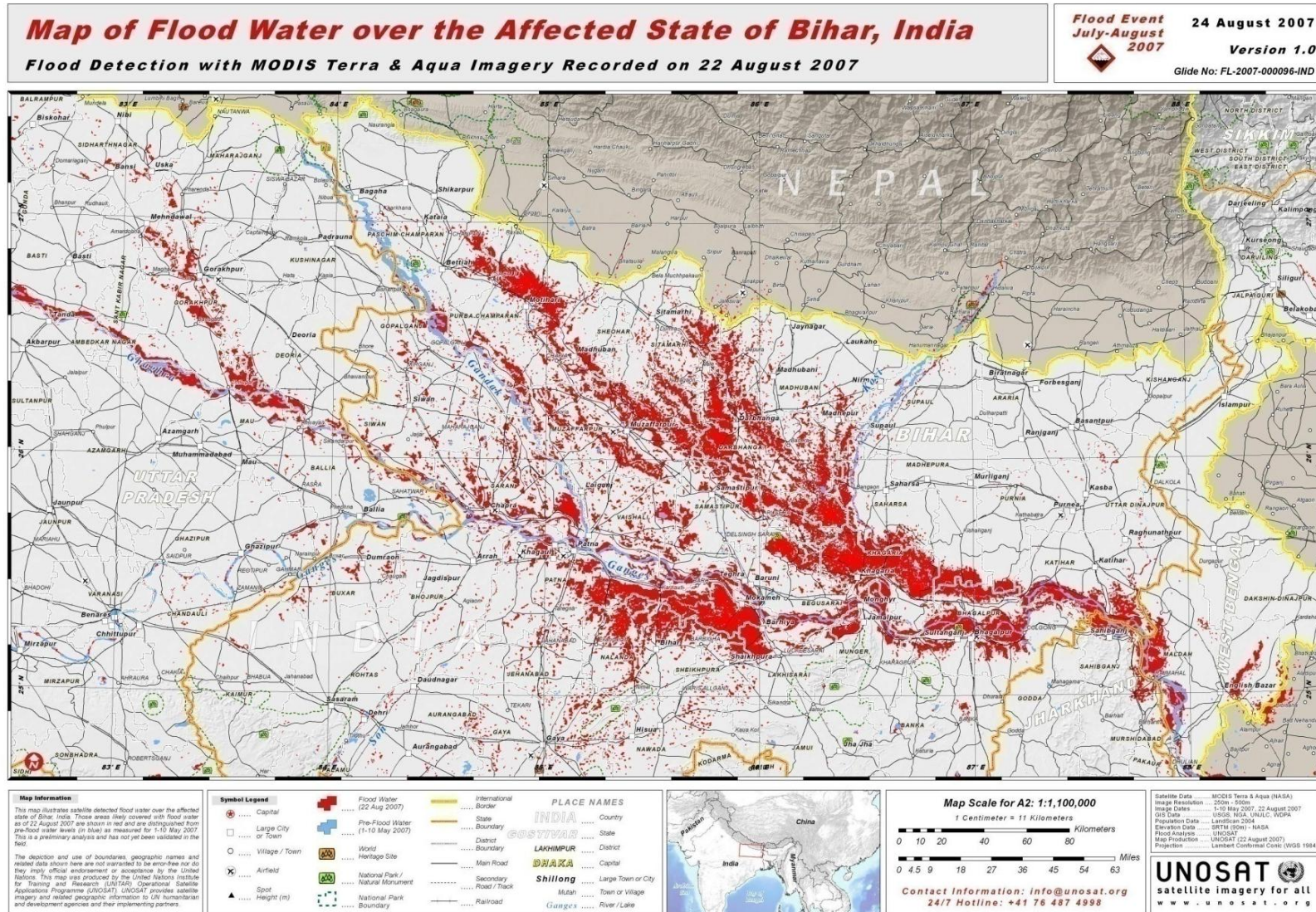
Ecologically fragile zones are the most sensitive environments, which have to be protected, conserved and managed. Detailed study and analysis had been made for all natural determinants like flood, cyclones and seismic zones.

The Patna Planning Area falls at the risk zone for floods. The Planning Area is along the middle course of River Ganga, where the vulnerability of flood along these rivers is very high. This vulnerable position has caused immense damage to the Planning area. Punpun River causes heavy flood damages to the east of Patna Planning Area. A series of bund/embankments have been constructed along River Punpun to control the floodwaters. *Map 2* shows the floodwater over the affected State of Bihar, India.

Apart from being flood prone Patna is also at risk of cyclones and it lays in the high wind damage risk zones as well as lies in zone IV of the seismic zones.



Map 2: Map Showing Flood Water over the affected State of Bihar, India



### **Transportation Axis**

Features like National Highways, state highways, major district (metalled) roads and railway lines has been used to demarcate the Planning area.

The Patna Planning Area (PPA) proposals were well connected by railway, road, air, and waterways. The Planning area is served by several major road highways like NH-19 that links Uttar Pradesh with Patna and NH-31 is important as it acts as a gateway to the states in north-east India. NH- 83 and 30 are entirely within the state and forms the regional connectivity of the area. Patna city is also a major railway hub as it forms the core of the Planning area; hence the area is well connected by rails.

The city has a fixed terminal on National Waterway No.1., this route of navigable water runs from Haldia on the Bay of Bengal, across the extremity of Jharkhand province, across the centre of Bihar and then to Allahabad in Uttar Pradesh. The inland waterways system along River Ganga links it to Kolkata. The Ganges is navigable throughout the year and there is considerable boat traffic for transporting cargo. The smaller rivers, e.g., Punpun and Dardha become navigable only during the rains when they are used for transporting agricultural produce to the grain market at Fatuha.

### **Analysis of Demographic and Economic Attributes**

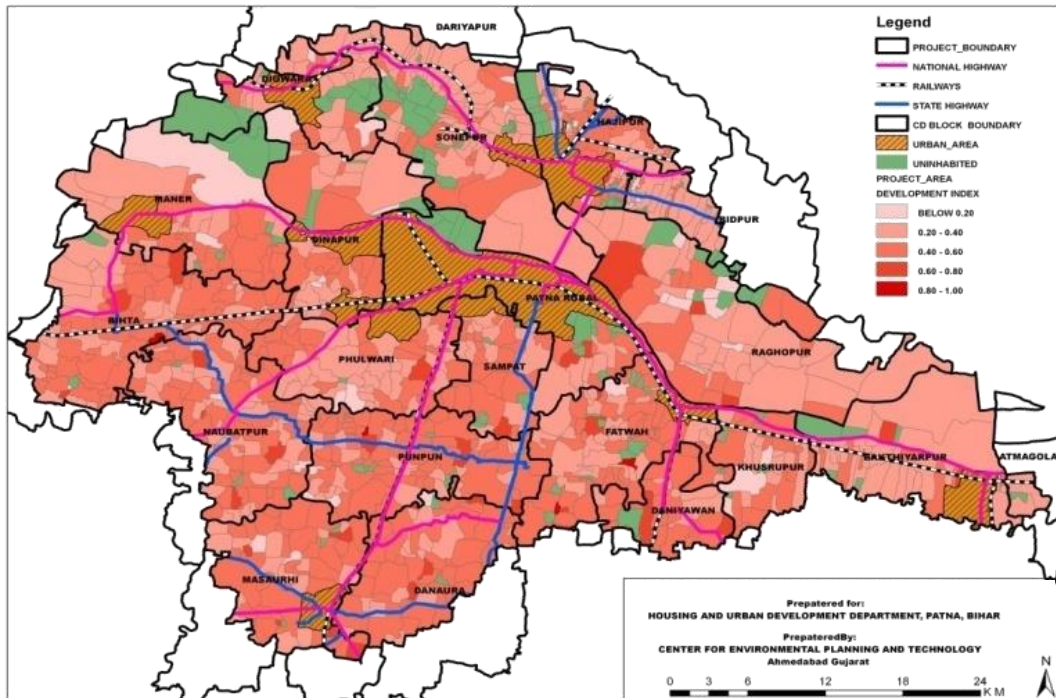
Demographic and socio-economic attributes used for the delineation of the master plan to know growth areas and employment areas. The following are the parameters studied:

- Population Density
- Population Growth Rate
- Sex-Ratio
- Literacy Rate
- Percentage (%) Main Worker
- Percentage (%) Marginal Worker
- Percentage (%) Non- Primary Worker

The map shows that nearly 98 villages are developing in the project area in all the above respect.



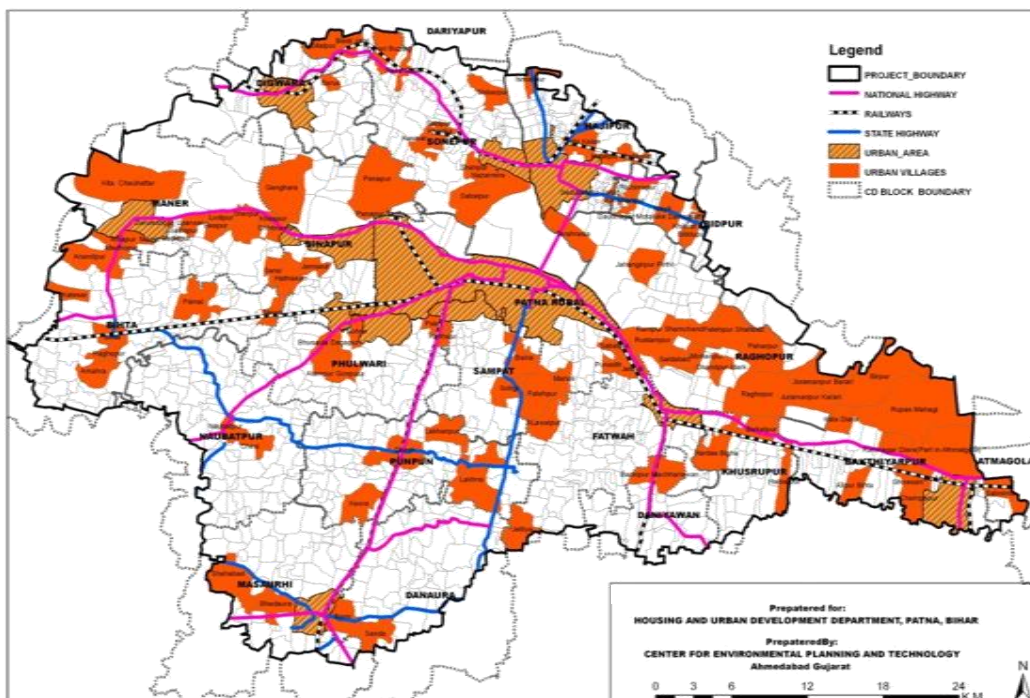
Map 3: Map Showing Development Index



**Urbanization**

The Urban areas are located around the Patna city and the urban settlements have developed along the transportation axis. The lists of factors studied are growth rate, population density, sex ratio, workforce participation, and literacy rate, percentage workforce in main, marginal, and other categories. The analysis shows that there are nearly 55 villages, which have population of 5000 or above. The map shows the transformation of villages into urbanization.

Map 4: Map Showing Urban Villages in the Project Area

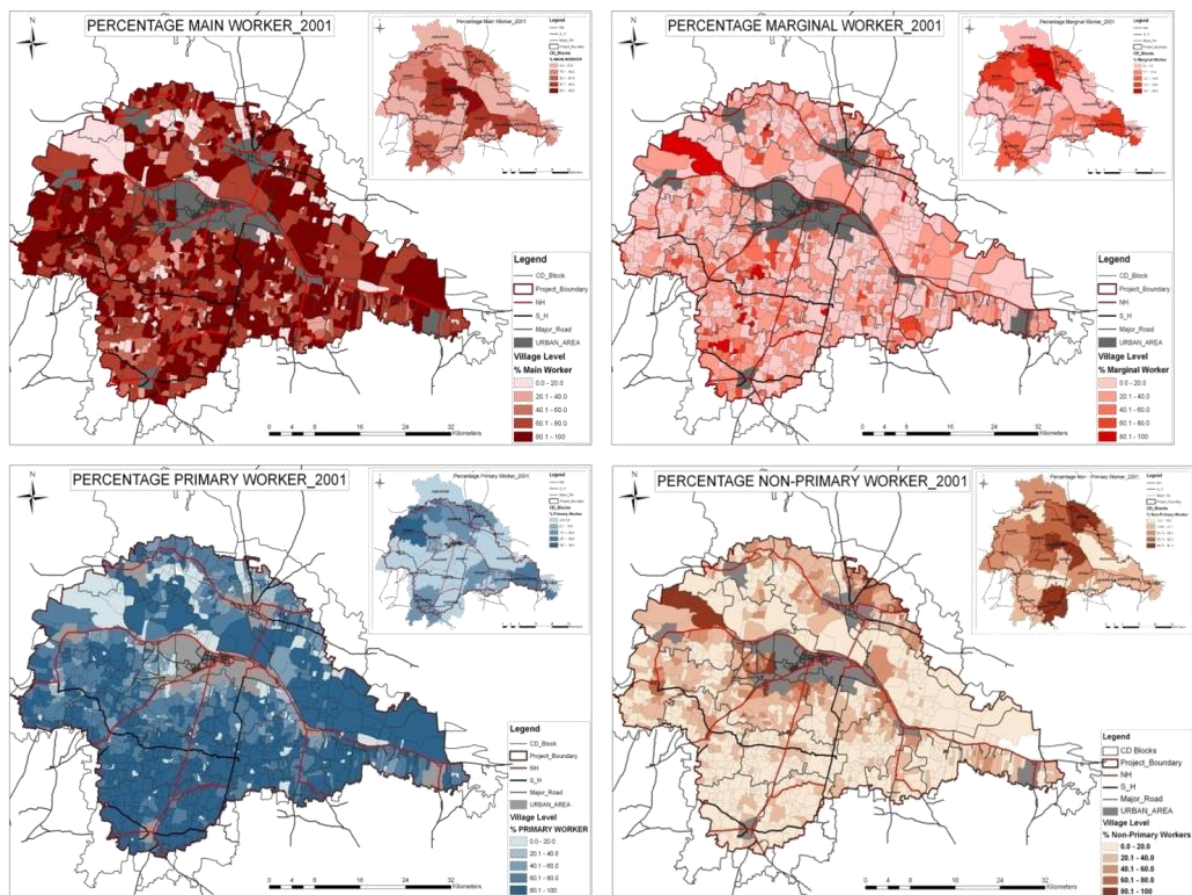


## Economy

Economy is one of the significant features for formal delineation of sub region. Economy includes main & marginal workers, primary secondary and tertiary workers.

Patna is an important commercial centre and the major commercial establishments are located along the major roads. The study analysis shows that the concentration of non-primary activities (secondary & tertiary) in and around Patna and other emerging urban areas is more.

**Map 5: Map Showing Demographic and Socio-Economic Profile of the Project Area**



## 2.3 Alternatives for Patna Planning Area (PPA)

Three different alternatives were proposed for delineation of the Patna Planning Area (PPA) as described below:

The process for delineation of Patna Planning Area (PPA) began by analyzing the 9 districts surrounding Patna. These districts were Saran, Vaishali, Samastipur, Begusarai, Lakhisarai, Sheikhpura, Nalanda, Jahanabad and Bhojpur. The basic premise of analysis is to depict the socio-economic, urbanization and demographic aspects. In order to delimit the jurisdiction of the planning area, 3 alternatives were proposed, on the basis of the above factors. The basic difference between the models was the extent of the area.



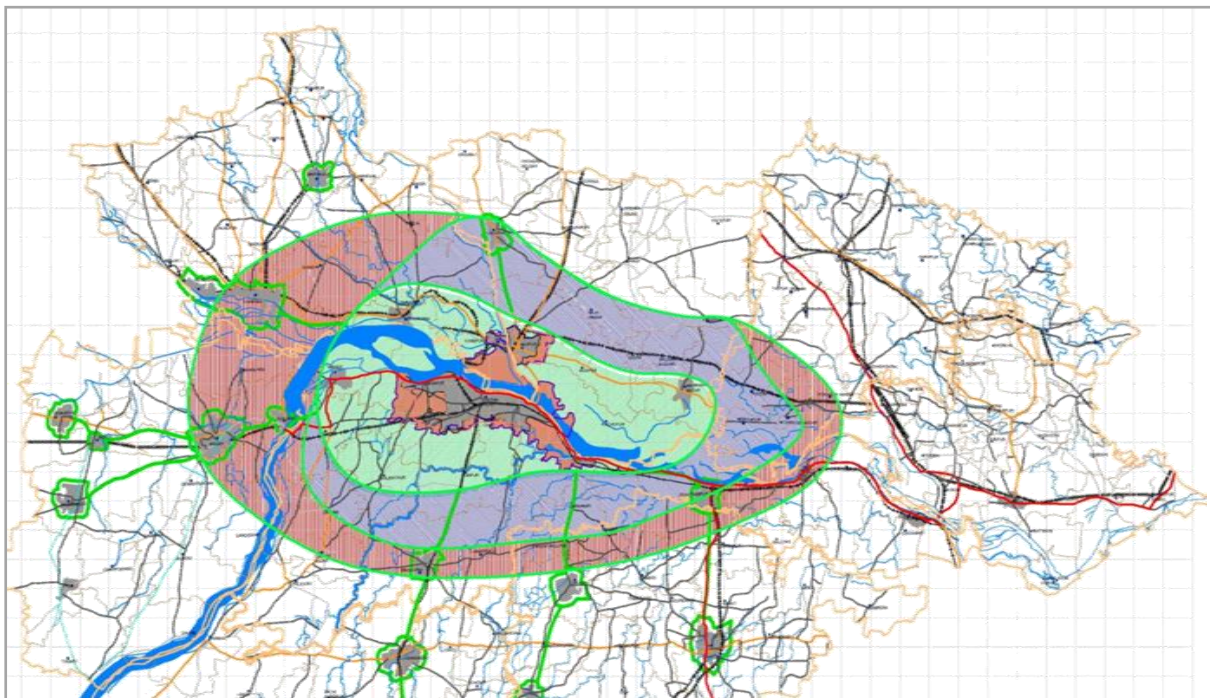
**Table 7: Delineation of PPA - Alternatives**

Alternative Options for Delineation of Patna Planning Area	Area in Sq. Km	No. of Districts	No. of CD Blocks
<b>Option 1 (preferred)</b>	<b>1500</b>	<b>3</b>	<b>20</b>
Option 2	3000	5	36
Option 3	4000	6	51

**Option 1 (1500 Sq.Km):** It focussed on the integrated development physically near to the urban centres such as Patna, Danapur, Phulwarisharif, Khagaul, Maner of Patna District, Hajipur (Vaishali District) and Sonapur (Saran District)

**Option 2 (3000 Sq.Km):** This option emphasized on promoting regional development considering the locations of urban centres and connectivity. In this, alternative, apart from urban centres of option 1, Dighwara from Saran District also taken into consideration.

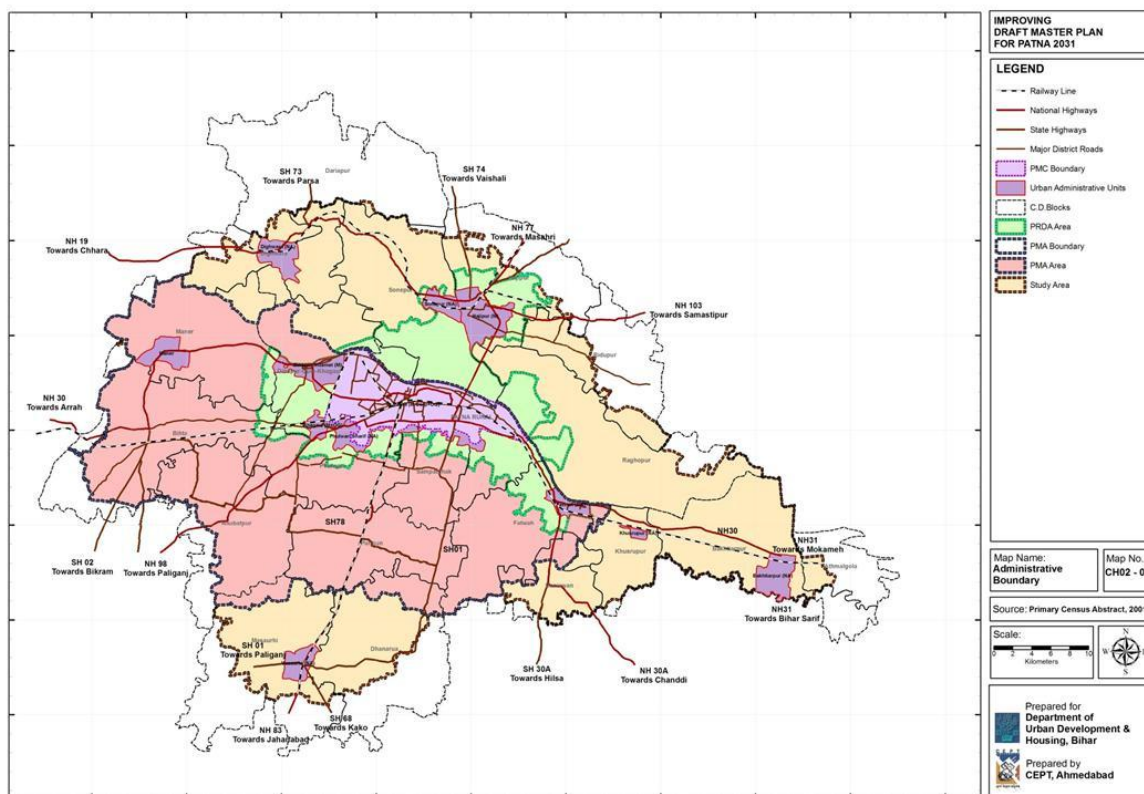
**Option 3 (4000 Sq.Km):** This option comprised of Masaudhi (Patna District), Chhapra (Saran District) and urban centres of option 1 are considered. This option was required to promote the regional connectivity and development in the surrounding areas of the city.

**Map 6: Delineation of PPA – Conceptual Plan**

**Preferred Option – 1,500 sq.km**

The spread of urban characteristics from Patna Planning Area to immediate surroundings which could be concluded by analyzing the parameters like population density, population growth rate, urban villages and non-primary workers along the Patna Planning Area. In addition, the maps relating to Literacy Rate, Work Force Participation Ratio, Sex Ratio, and Main Workers were studied to garner a better understanding to help and simplify the analytical process. Based on the analysis of 3 options mentioned above, a final option was proposed. CEPT in consensus with the Urban Development and Housing Department, Govt. of Bihar, finalized the proposal. CEPT had proposed Patna Planning Area of 1167.04 Sq. Km. comprises Patna City and its urban agglomerates and neighboring urban viz. Maner Nagar Panchayat and Fatuha Nagar Panchayat of Patna District and their influence rural area.

**Map 7: Study Area to delineate the Patna Planning Area**



**2.4 Patna Planning Area: Boundary and its Constituents**

Finally, the Patna Planning Area remained extended only to the district of Patna only, comprising 13 CD blocks (Patna, Danapur cum Khagual, Maner, Bihta, Naubatpur, Punpun, Phulwari, Sampatchak, Fatuha, Dhanarua, Daniawan, Masuadhi and Khusrupur) fully and partially, and 575 revenue villages; notified on **13/08/2014**, vide notification no. **337/338. (Annexure 1)**

Proposed Patna Planning Area has an area of 1,167.04 km. It spreads across thirteen Community Development Blocks (C.D. Blocks) of Patna Districts. There are 575 revenue villages and 6 Urban Administrative Units namely Patna Municipal Corporation, Danapur Nagar Parishad, Khagaul Nagar Parishad, Phulwari Nagar Parishad, Maner Nagar Panchayat and Fatuha Nagar Panchayat. The list of C.D. blocks and their share in PPA is given in **Annexure 2**.

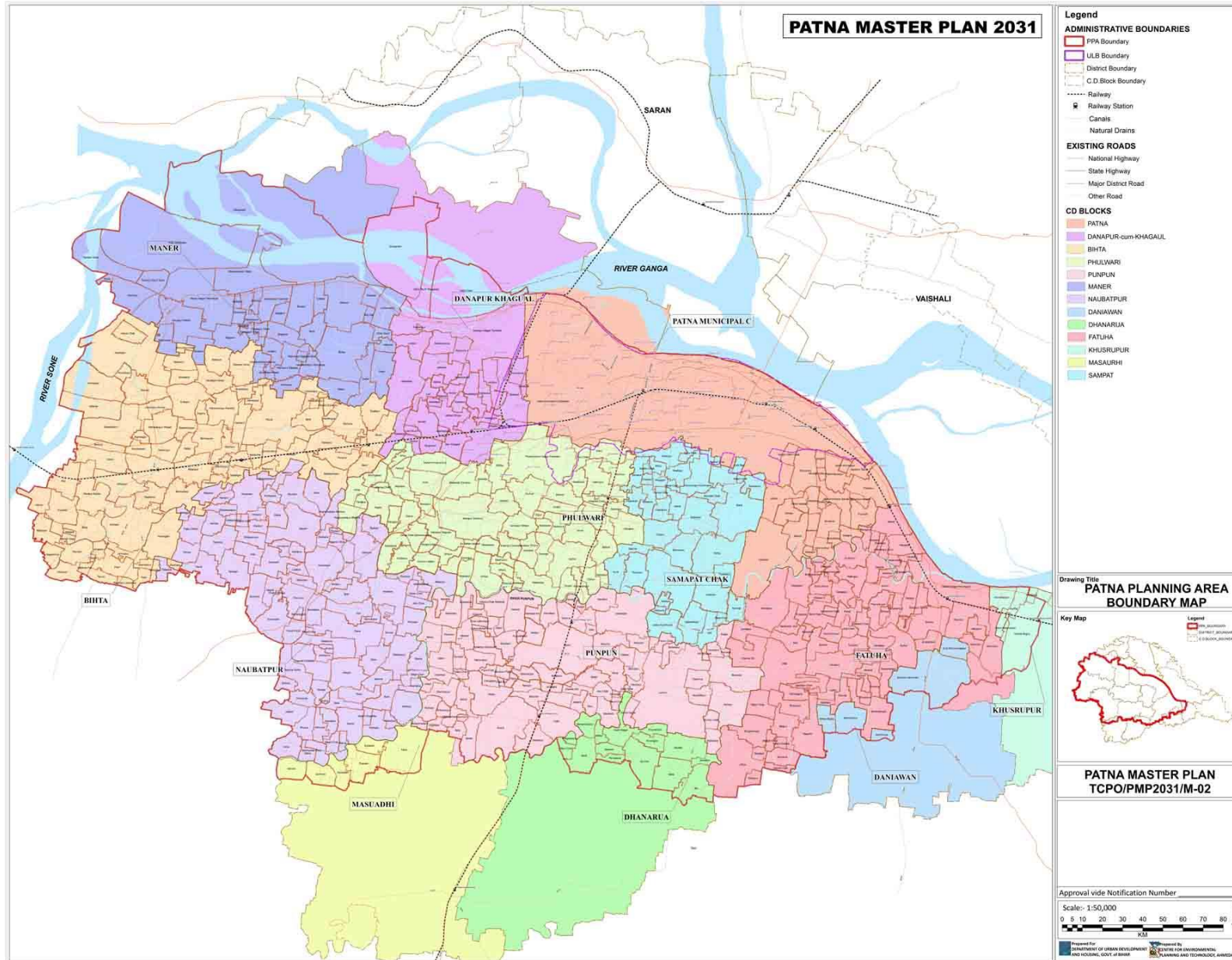
Table 8: Constituents of Patna Planning Area

<b>Constitution of Patna Planning Area (Annexure 1)</b>							
Sl.No	C. D. Blocks	No. of Rural Revenue Villages	Area (sq.km)	No. of Urban Administrative Units	Area sq.km	Total Planning Unit*	Total Area sq.km
1	Bihta	80	157.17	0	0	80	157.17
2	Danapur-cum-Khagaul	34	66.38	2	19.45	36	85.83
3	Danaura	15	24.14	0	0	15	24.14
4	Daniyawan	5	14.65	0	0	5	14.65
5	Fatuha	77	114.84	1	6.75	78	121.59
6	Khusrupur	2	3.24	0	0	2	3.24
7	Maner	41	135.44	1	9.81	42	145.25
8	Masaurhi	6	14.04	0	0	6	14.04
9	Naubatpur	93	138.82	0	0	93	138.82
10	Patna Rural	31	43.67	1	96.8	32	140.47
11	Phulwari	68	101.45	1	9.6	69	111.05
12	Punpun	85	145.47	0	0	85	145.47
13	Sampat	38	65.33	0	0	38	65.33
	<b>Sub - Total</b>	<b>575</b>	<b>1024.63</b>	<b>6</b>	<b>142.41</b>	<b>581</b>	<b>1,167.04</b>
	<b>Total Units</b>	<b>581</b>					
	<b>Total Planning Area</b>	<b>1,167.04</b>					
* Note: Each Revenue villages /ULB has been taken as one Planning Unit.							

Detailed list of Planning Units falling under the jurisdiction of Patna Planning Area (PPA) has been shown in **Annexure -1**.



Map 8: Map showing Patna Planning Area



### 3 PATNA PLANNING AREA PROFILE

#### Chapter Contents

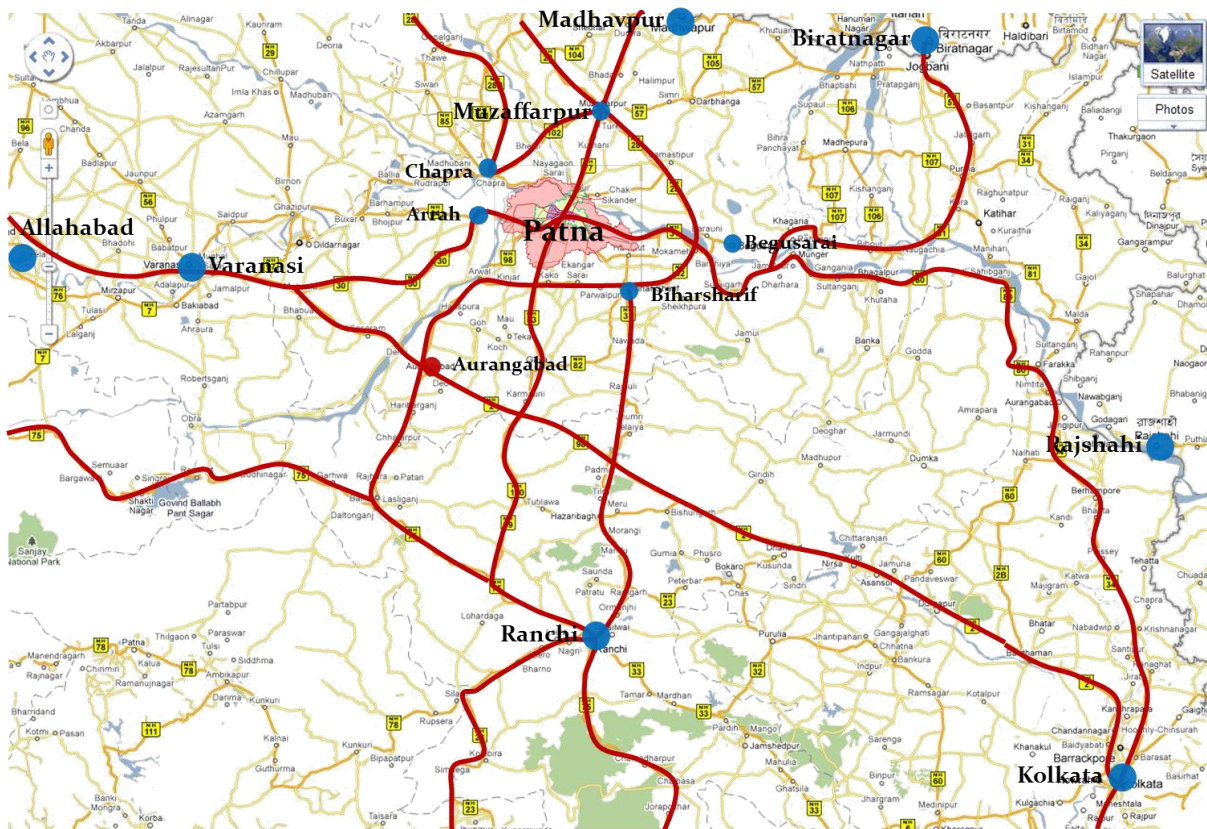
- ❖ *Regional Connectivity*
- ❖ *Physical features*
- ❖ *Demographic and Socio-Economic Profile*
- ❖ *Urbanisation*
- ❖ *Land Cover*

### 3.1 Regional Connectivity

Patna, being a major transport node in the National Highway Grid, has well-developed regional transportation network and linkages.

**Roads:** The Planning Area is served by several major roads, Highways and State Highways, including National Highways - 19, 30, 31 and 83. NH-19 that links Uttar Pradesh and NH-31 is important as it acts as a gateway to the states in northeast India. NH- 83 and 30 are entirely within the state and forms the regional connectivity of the area. National Highway 30 that links at Gaya to the nation’s prime developing multilane highway system - The Golden Quadrilateral. The city airport has direct linkage by air to Delhi, Kolkata, Ranchi, and Kathmandu.

Figure 2: Map showing Regional Connectivity of Patna



**Railways:** Patna is a major railway hub; railway lines running across the district from north to south are Patna Gaya Branch line, Fatuha-Islampur Light Railway, Bakhtiyarpur-Rajgir Branch line and the new Patna –Sonepur railway line connecting to north Bihar and part of Uttar Pradesh. As a major railway hub, it has six major stations: Patna Junction, Rajendranagar Terminal, Gulzarbagh Station, Danapur Station, Patna Sahib Station and Patliputra Railway Station. Patna Junction is the principal railway station, which is located in the town and links all the key cities of India such as Delhi, Mumbai, Kolkata, Guwahati, Varanasi, Amritsar, Bangalore, Lucknow, and Chennai through the network of express and super fast trains. The recent construction of India’s longest Digha-Sonepur

road-cum-rail bridge on the banks of the River Ganges increased the connectivity of northern Bihar to the city. The main line of the East Central Railway passes through the entire length of the district running parallel to the Ganga.

**Airways:** Patna has excellent air connection to many important Indian cities like, Delhi, Mumbai, and Kolkata. Several Airlines serve this airport with regular flights. Patna Airport is known as Jaiprakash Narayan International Airport named after "Lok Nayak" Jayaprakash Narayan. It is the smallest international airport in the country.

### 3.2 Physical Features

#### Climate

The region has a subtropical climate, which is largely homogenous. It is of moderate type characterized by quite hot summers to moderately cold winters. It varies from 43°C to 30°C during the summers and 21.4°C to 5°C during the winters. The summer begins in April and peaks in June/July with the temperature soaring up to 43°C. The rains last through August & September continue into early October and receives medium to heavy rainfall in the monsoon. Relative humidity goes up to 100% during summers<sup>1</sup>.

#### Topography and Geomorphology

The region is a part of the Indo-Gangetic alluvium, one of the three main physiographic divisions of India, which separates Extra-Peninsular regions on the north from the peninsular region on the south. The level plain is known to be the outcome of a granular filling of a great depression with alluvial sediments since Middle Pleistocene times. The region forms a part of the flood plains of the Ganga and has a monotonously flat relief. The area under study is underlain by alluvial sediments of quaternary age. The quaternary sediments deposited unconformable on the Archaean basement.

#### Soil and vegetation

The farming conditions in the study region are mainly dependent on soil, topography, and irrigation systems prevalent in the area. The region has mainly four types of soils ranging from moderately well drained to poorly drained, acidic to slightly alkaline and medium to heavy textured. From the farming point of view only four types of soils may be recognized as light to heavy in texture namely Heavy clay (Kewal), Loam (Domat), Very Light soil (Balsundri) and Alkaline (Rehara) respectively<sup>2</sup>.

#### Vulnerabilities

Environmental vulnerability expresses the multidimensionality of disasters by focusing attention on the totality of relationships in a given social situation, which constitute a condition that, in combination with environmental forces, produces a disaster. The delineated region comes under vulnerabilities like flood and seismicity. Patna lies in Zone IV of the earthquake zones, which is a

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<sup>1</sup> City Development Plan, Patna

<sup>2</sup> "Ground Water Information Booklet", Patna district, Bihar state



high-risk zone. Therefore, the development controls in the area requires earthquake resistant buildings.

Patna also falls in the risk zone for floods. A series of bund/embankments have been constructed along River Punpun to control the floodwaters. During the monsoons, the spillover from River Ganga and Punpun tends to flood Patna and cause spread of disease. Therefore there is need to channelize the river and to devise and implement a proper disaster mitigation plan. Apart from being flood prone, Patna is also at risk due to cyclones as it lies in the wind high damage risk zone<sup>3</sup>.

### **Rivers**

Flanked by three large rivers – the Ganga, Sone and Punpun and situated at the confluence of the Ganga and its three tributaries (the Sone, Ghaghra and Gandak), Patna, the capital of Bihar enjoys the unique advantage of being one of the richest banks of surface water in the country.

### **Waterways:**

The city has a fixed terminal on National Waterway No.1., this route of navigable water runs from Haldia on the Bay of Bengal, across the extremity of Jharkhand province, across the centre of Bihar and then to Allahabad in Uttar Pradesh. The inland waterways system along River Ganga links it to Kolkata.

The Ganges is navigable throughout the year and there is considerable boat traffic for transporting cargo. The smaller rivers, e.g., Punpun and Dardha become navigable only during the rains when they are used for transporting agricultural produce to the grain market at Fatuha.

### **Mineral deposits**

Bihar has lost its mineral rich endowments (iron ore and coal particularly) in the south with mineral resources after the formation of the new state of Jharkhand.

## **3.3 Demographics and Socio-Economic Profile**

The analysis for different socio-economic parameters has been done at CD block level. The total area (urban-rural) of PPA is 1,167.04sq.km, which is approximately 1.15% of the total area of Bihar state. There are 13 CD blocks coming under PPA comprising 575 villages out of which 51 villages (8.8%) are uninhabited, a major reason being coming under the influence zone of floods.

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<sup>3</sup>City Development Plan, Patna

Table 9: Village Details of PPA

Name	District	CD blocks	Area (sq.km)	Rural Units (Patna)		
				Total villages	Inhabited	Un-inhabited
PPA	1 (Partial)	13 (Partial)	1167.04	575	524	51

Source: Census of India, 2001

### Population distribution

Patna Planning Area (PPA) has total population of 28.74 lakh as per 2001 census which rose to 36.6 lakhs in 2011. Patna Urban Agglomeration, which includes 1 Municipal Corporation (Patna), 3 Municipal Council (Phulwarisharif, Danapur, Khagaul) and 4 census towns, contributes 56.2% of the total population in PPA in 2011.

Table 10: Population distribution in PPA (2001-2011)

Region	Type	District	Status	Components	No of HH 2011	Population 2001	Population 2011	
PMC	U	Patna	Town	(a) Patna (M Corp.+OG)	294631	1427709	1684297	
Part of urban agglomeration	U	Patna		(b) Phulwarisharif (Nagar Parishad)	13404	53451	81740	
	U	Patna		(c) Danapur Nizamat (Nagar Parishad)	28932	131176	182429	
	U	Patna		(d) Danapur Cantoment (CB)	4590	28234	28723	
	U	Patna		(e) Khagaul (Nagar Parishad)	7951	48306	44364	
	U	Patna		(f) Patiliputra Housing Colony (CT)	761	4500	3531	
					(g) Saidpura (CT)	1330	4600	7392
	U	Patna		(h) Nohsa (CT)	2597	-	16680	
	U	Patna		(i) Kurthaur (CT)	1664	-	9880	
	<b>A - PUA</b>				<b>Patna UA</b>	<b>354196</b>	<b>1697976</b>	<b>2059036</b>
Maner (NP)	U	Patna	Nagar Panchayat	-	6125	30082	40068	
Naubatpur (NP)	U	Patna	Nagar Panchayat	-	4363	-	25011	
Fatuha (NP)	U	Patna	Nagar Panchayat	-	8225	38672	50961	
<b>PPA Urban</b>					<b>372909</b>	<b>1766730</b>	<b>2175076</b>	
PPA Rural	R	Patna	Village	575	831164	1107846	1485328	
<b>PPA Total</b>					<b>1204073</b>	<b>2874576</b>	<b>3660404</b>	

Source: : Census 2001, 2011

The population of Patna Urban Agglomeration in 2001 was 1.69 million, which has grown to 2.05 million in 2011 at an annual compound growth rate of 2.1% per annum. However, the Patna Urban Agglomeration has grown at an annual compound growth rate of 3.11% per annum during 1951-2011. During 1991-2001, Patna Urban Agglomeration had a growth rate of 4% per annum, which is one of the fastest in India. The share and shift method is carried out for the projection of population.

The PPA has an area of 1167.04sq.km with a population of 2.87 million as per Census 2001. Out of the total population of PPA, almost 29.9% occupies the total population of PRDA while extended area occupies 9% of total population. Comparative Growth Parameters such as Growth rate, Density, Population Distribution, Share of SC, ST Population, Working Population, Primary and Non primary workers population has been analysed at State level, District level in Patna Planning Area.

### 3.4 Growth Rate

As per Census 2001, the decadal growth rate of Patna Planning Area (PPA) is 43.17% for urban area, which is higher than the overall growth rate of PPA having 38.92%. The growth rate is higher in urban areas due to the increase in urbanization and development. The percentage share of growth rate of PPA to Patna District is also higher with 88.63% for urban area. Refer **Annexure 3** for District level and **Annexure 4** for CD Block Level details in PPA.

### 3.5 Population Density

The population density of PPA in 2001 is 2,475 persons per sq.kms, which is higher than the Bihar state average of 880 persons per sq. km, an important reason being the presence of Patna city core area in the study region, which is the highest urbanized city of Bihar state offering employment and business opportunities. Refer **Annexure 3** for details at District level and **Annexure 4** for details at CD Block Level, in the Patna Planning Area.

### 3.6 Sex Ratio

The sex ratio of the PPA is 893, which is lower than the average of Bihar state (921) as well as the respective districts coming under the study region. Refer **Annexure 3** and **Annexure 4** for District level and CD Block Level details in PPA.

### 3.7 Schedule Caste and Schedule Tribes Population

Out of the total population of PPA, nearly 12% belong to Scheduled Caste category while only 0.1% of population belongs to Schedule Tribe category. Refer **Annexure 5** for District level and **Annexure 6** for CD Block Level details in PPA.

### 3.8 Literacy Rate

Development is a dynamic process and it requires educated, skilled, and competent people. Literacy plays important role in providing skilled work force as well as literate consumer demands more for better lifestyle. Literacy rate refers to the number of literate population to the total.

The literacy rate of PPA is 58.4% which is higher than the district rate of 51.9%, while the literacy rate of PPA-Rural Area is 43% which is lower than the district literacy rate. Refer **Annexure 7** for and **Annexure 8** for CD Block Level and District level details.

### 3.9 Work Force and Occupation Structure

The following sections analyze these differences in terms of workforce participation, worker population by type, and sub-region wise contribution to NSDP.

#### Workforce Participation

The total population of PPA is 28.75 lakhs (Census 2001), out of which the total worker population is 7.93 lakhs which means nearly 28% of the total population comprises worker population. The workforce participation rate found in the PPA-Rural area is around 32.1% whereas that of PPA-Urban area is 25.2%. Of this worker population, about 85% are the main workers whereas the remaining 15% are the marginal workers. In the PPA region, of the total main workers, about 37% are engaged in primary sector and related activities whereas the remaining 63% are engaged in secondary and tertiary sector (non-primary sector). Refer details in **Annexure 10** for CD Block Level and **Annexure 11** for State level, **Annexure 12** for District level.

Occupational structure refers to the aggregate distribution of occupations according to skill level and economic function. It is adopted based on various factors like structure of economy (the relative weight of different industries), technology and administrative responsibility, labor market, etc. Refer **Annexure 9** for CD Block Level details.

### 3.10 Urbanization

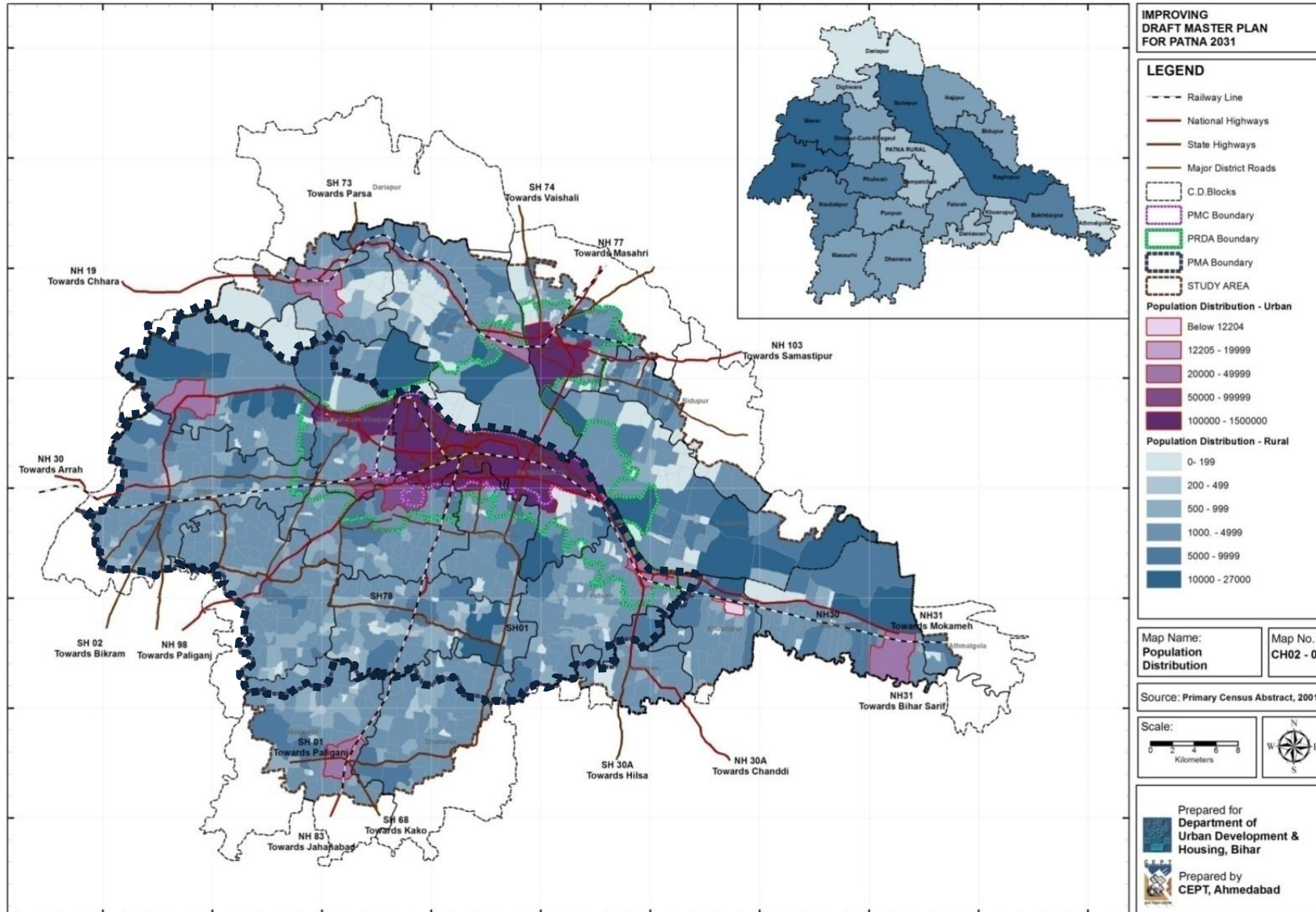
Urbanization refers to a process in which an increasing proportion of an entire population lives in a city and the suburbs of city. The following section deals with the urban dynamics of the whole PPA as well as urban development and its potential in terms of settlements with urban character.

**Table 11 : Growth of Urban Population – PPA (1991 - 2001)**

Name of Town	Status of Town (Class)	2001 Area (in SQKM)	1991 Population (in Lakhs)	2001 Population (in Lakhs)	Density of Population (PPHa.) 2001	Growth Rate of Population 1991-2001
Patna Municipal Corporation	I	99.45	9.17	13.66	137.40	48.97
Patliputra Housing Colony (outgrowth of PMC)	OG	0.64	0.04	0.05	70.31	2.18
Digha-Mainpura (Out Growth of PMC)	OG	6.99	0.35	0.53	77.20	55.20
Sabazpura (Outgrowth of PMC)	OG	0.39	0.01	0.02	44.65	48.22
Khalilpura (Outgrowth of PMC)	OG	0.80	0.03	0.05	60.53	73.43
Badalpura (Outgrowth of PMC)	OG	0.67	0.01	0.01	10.86	24.49
Phulwarisharif Nagar Parishad	II	6.48	0.35	0.53	82.49	52.18
Danapur Nagar Parishad	I	11.63	0.85	1.31	112.79	55.03
Danapur Cantonment Area	III	3.42	0.23	0.28	82.56	20.19
Khagaul Nagar Parishad	II	3.66	0.40	0.48	131.98	19.41
Saidpura (Outgrowth of Khagaul)	OG	1.66	0.02	0.05	27.72	181.86
Maner Nagar Parishad	III	12	0.2	0.3	25.06	23.58
Fatuha (NP)	III	4.9	0.3	0.4	78.92	26.10
<b>Total for PPA</b>		<b>152.69</b>	<b>12</b>	<b>18</b>	<b>118</b>	<b>47.02</b>

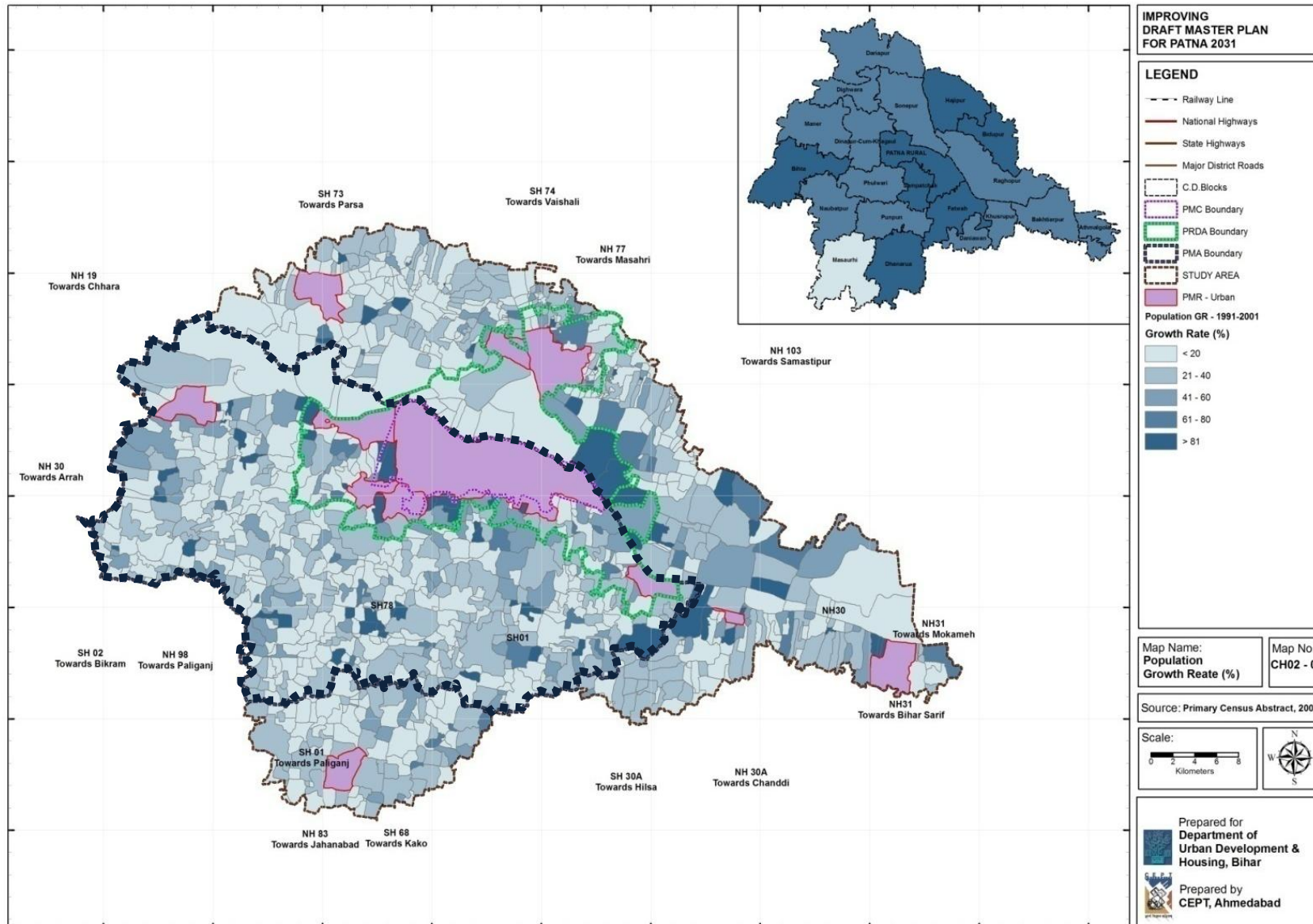
*Source: Primary Census Abstract, Census 2001, Directorate of Census, India*

Map 9 : Population Distribution – PPA

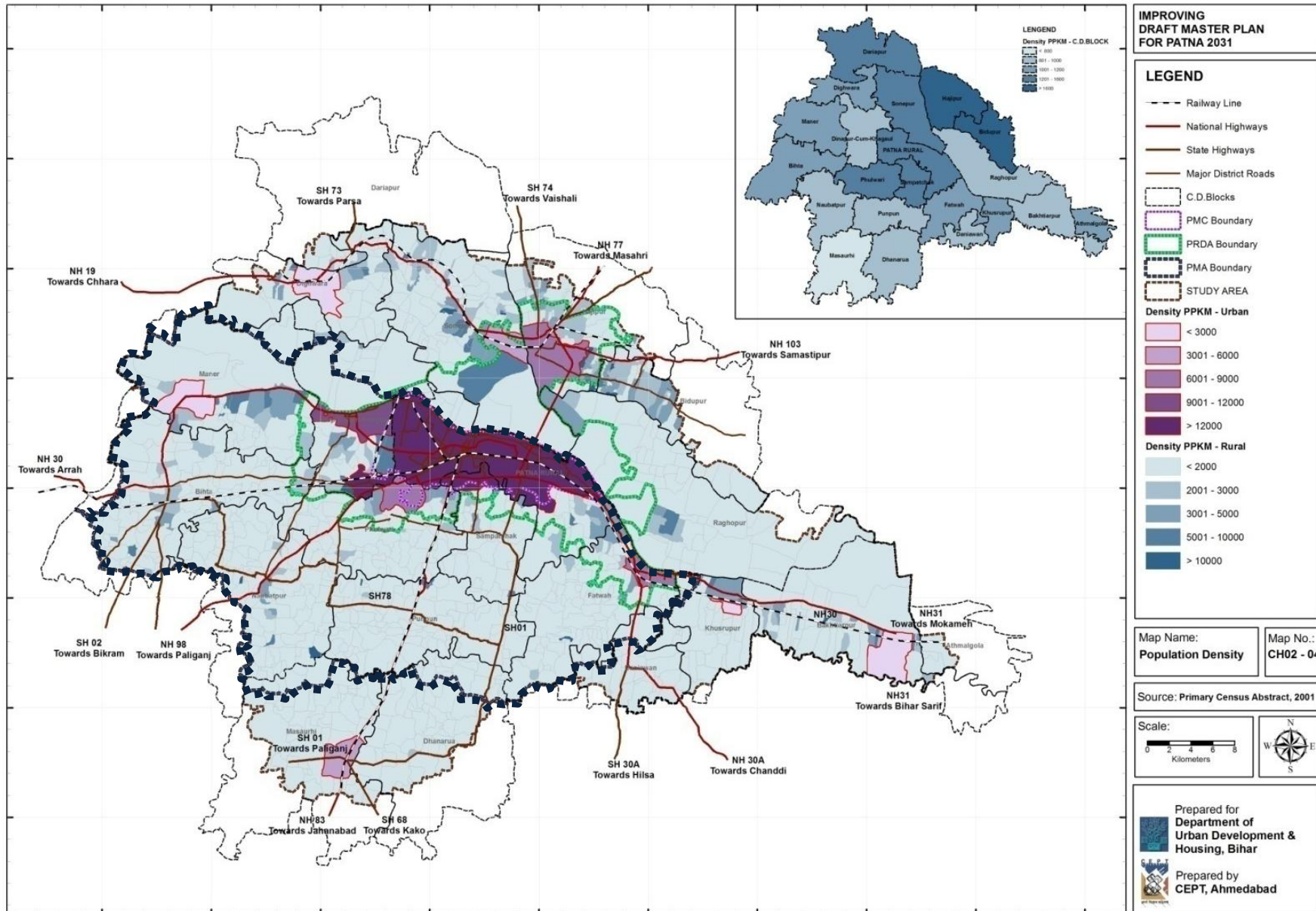




Map 10: Population Growth Rate - PPA

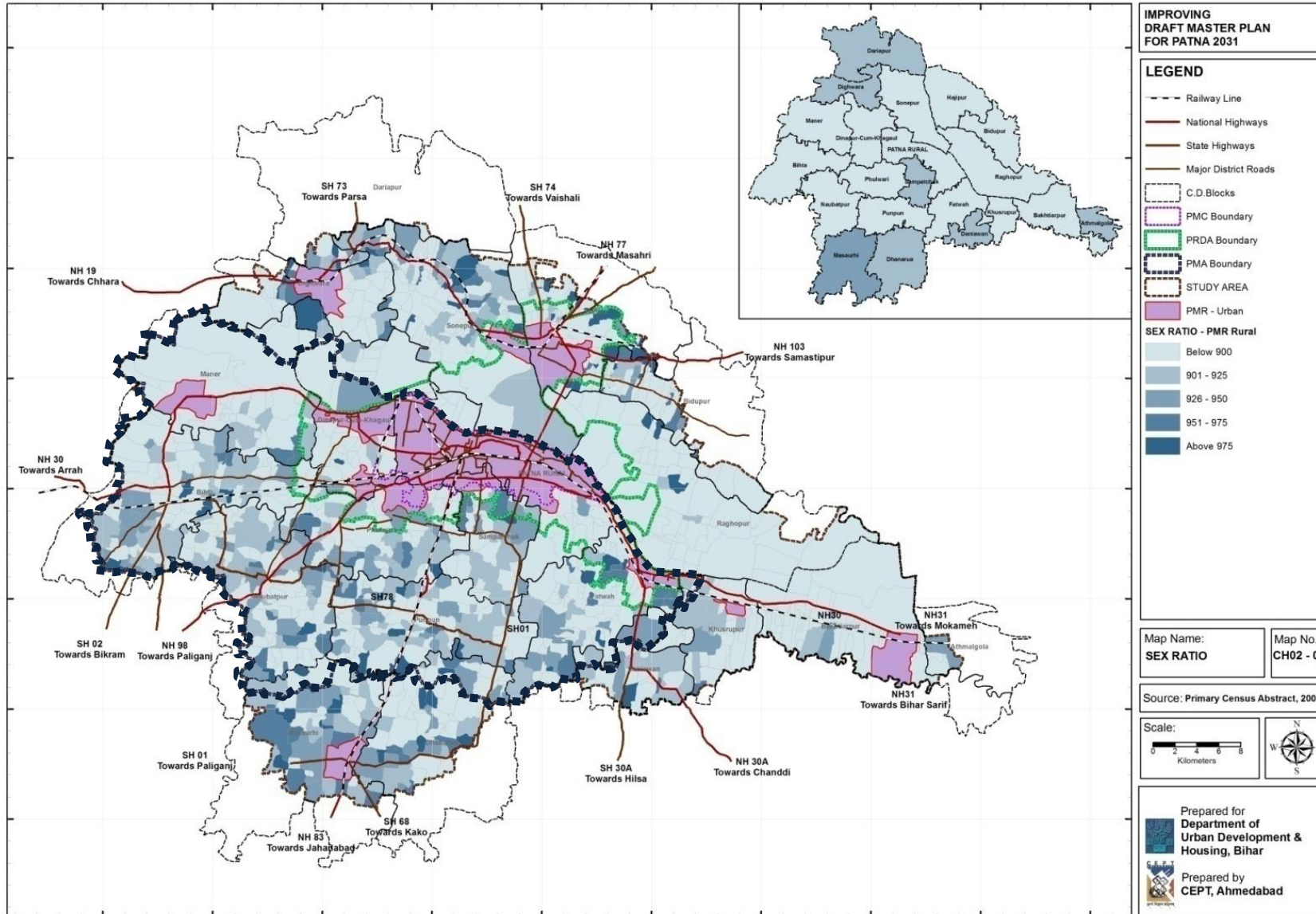


Map 11: Population Density - PPA

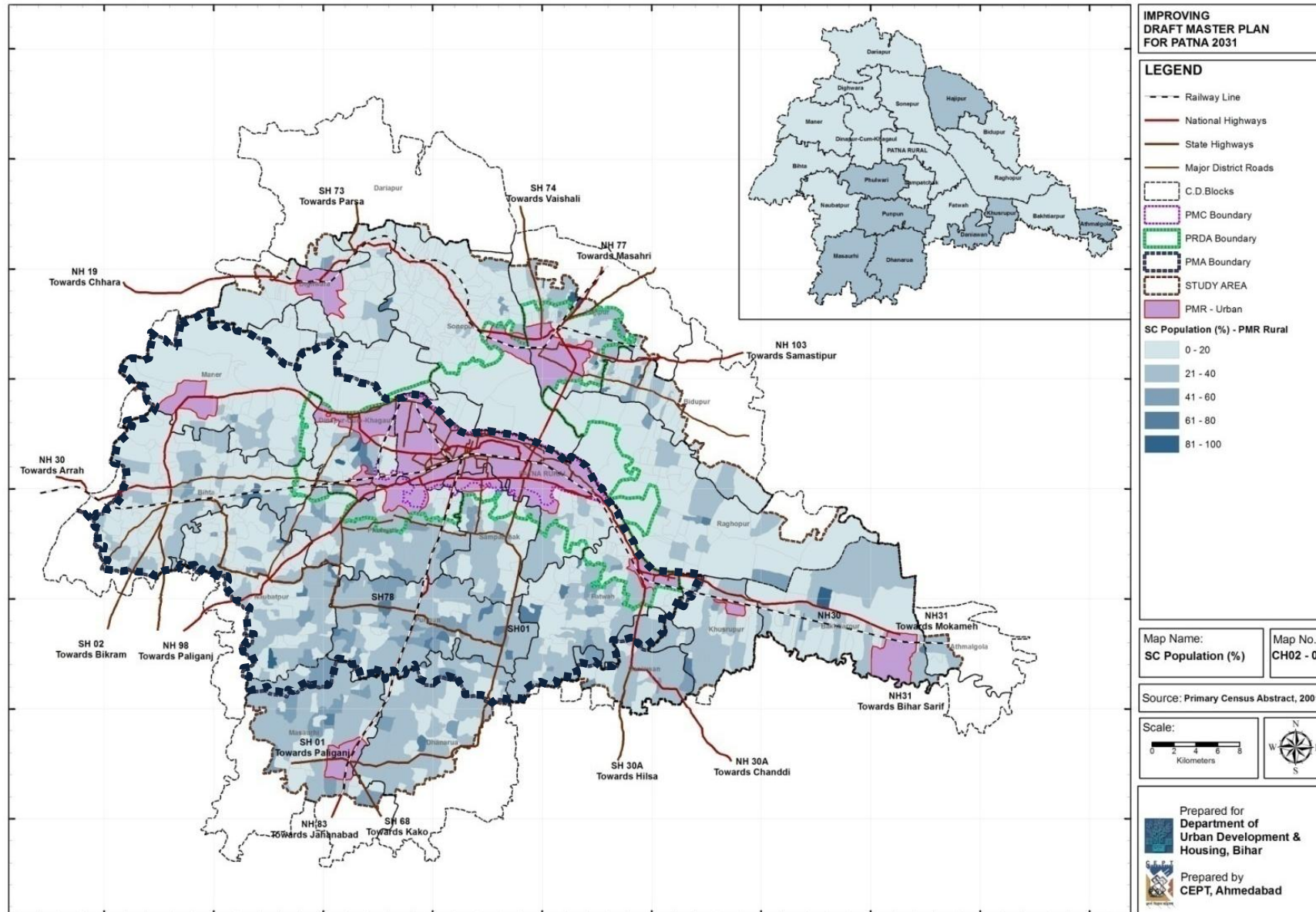




Map 12: Sex Ratio – PPA

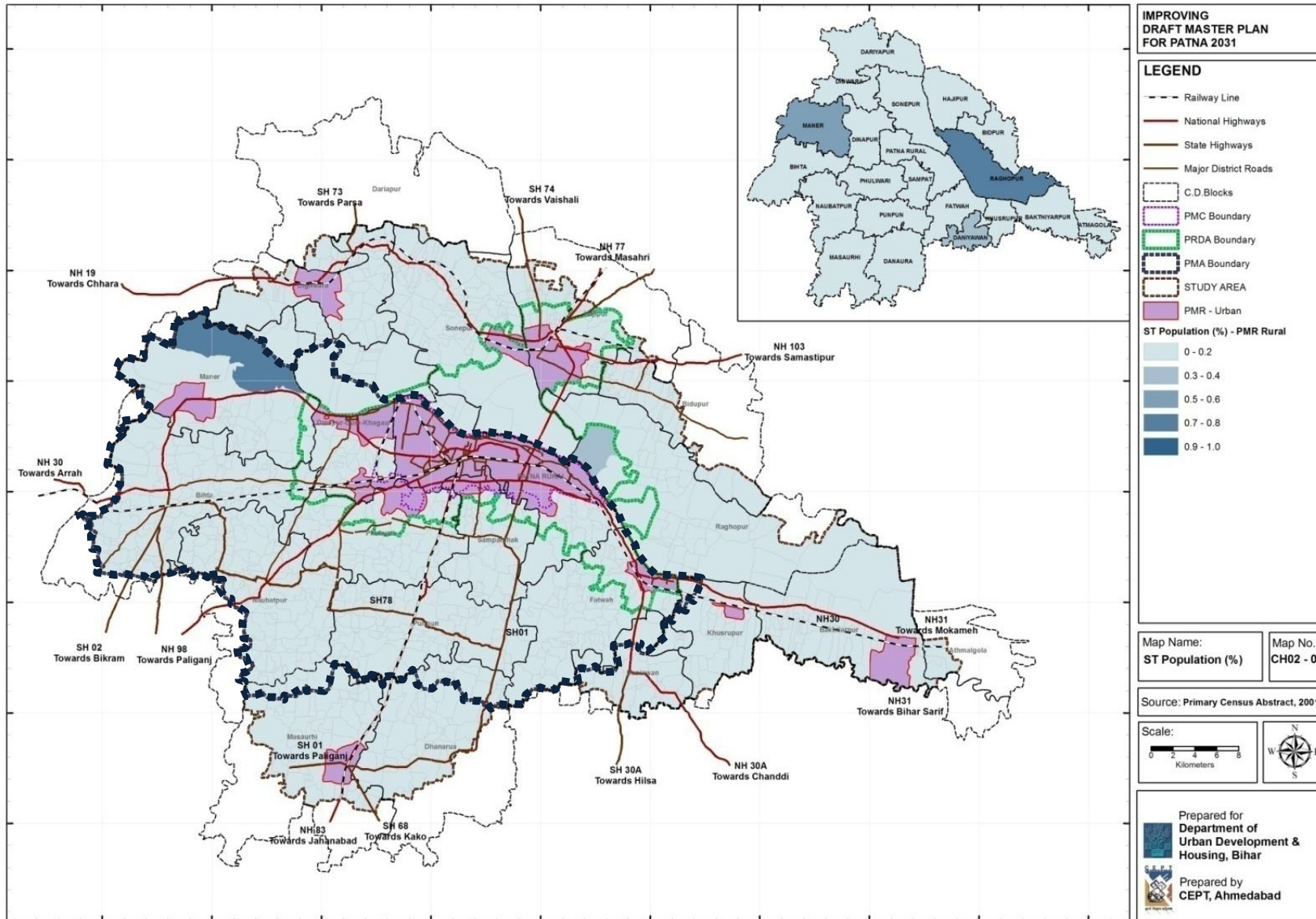


Map 13: Distribution of SC Population - PPA

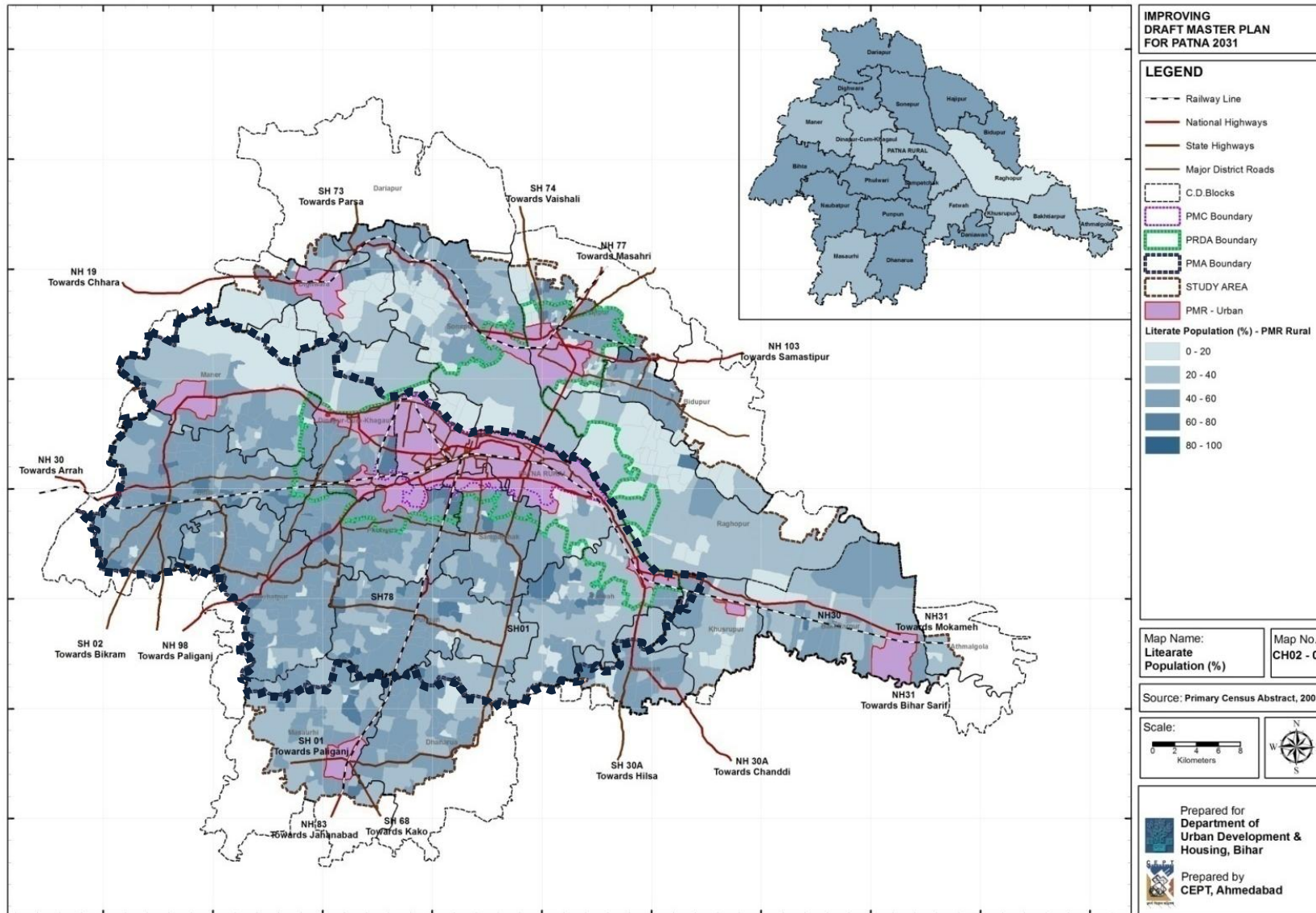




Map 14: Distribution of ST Population - PPA

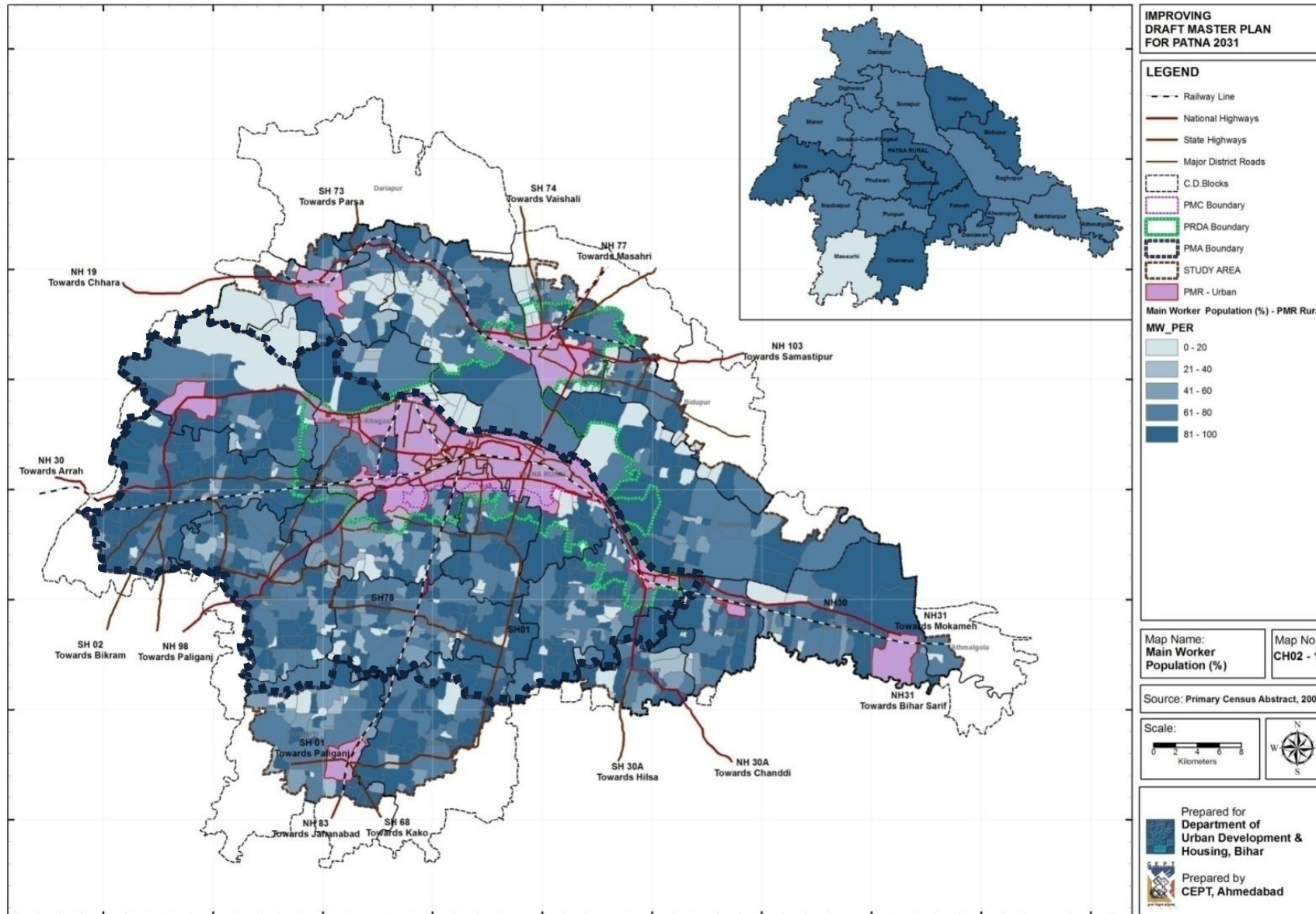


Map 15: Distribution of Literate Population - PPA

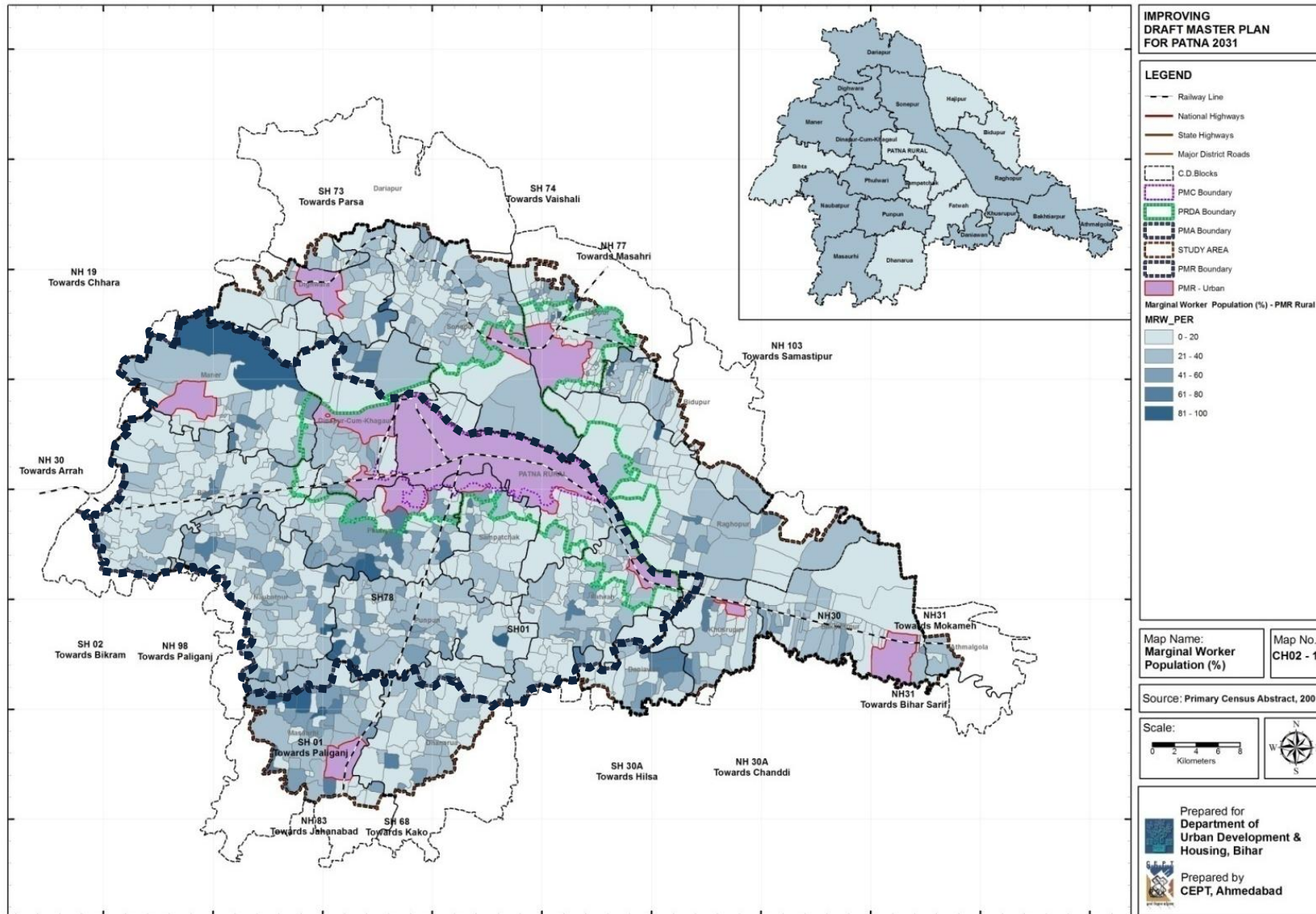




Map 16: Distribution of Main Workers - PPA

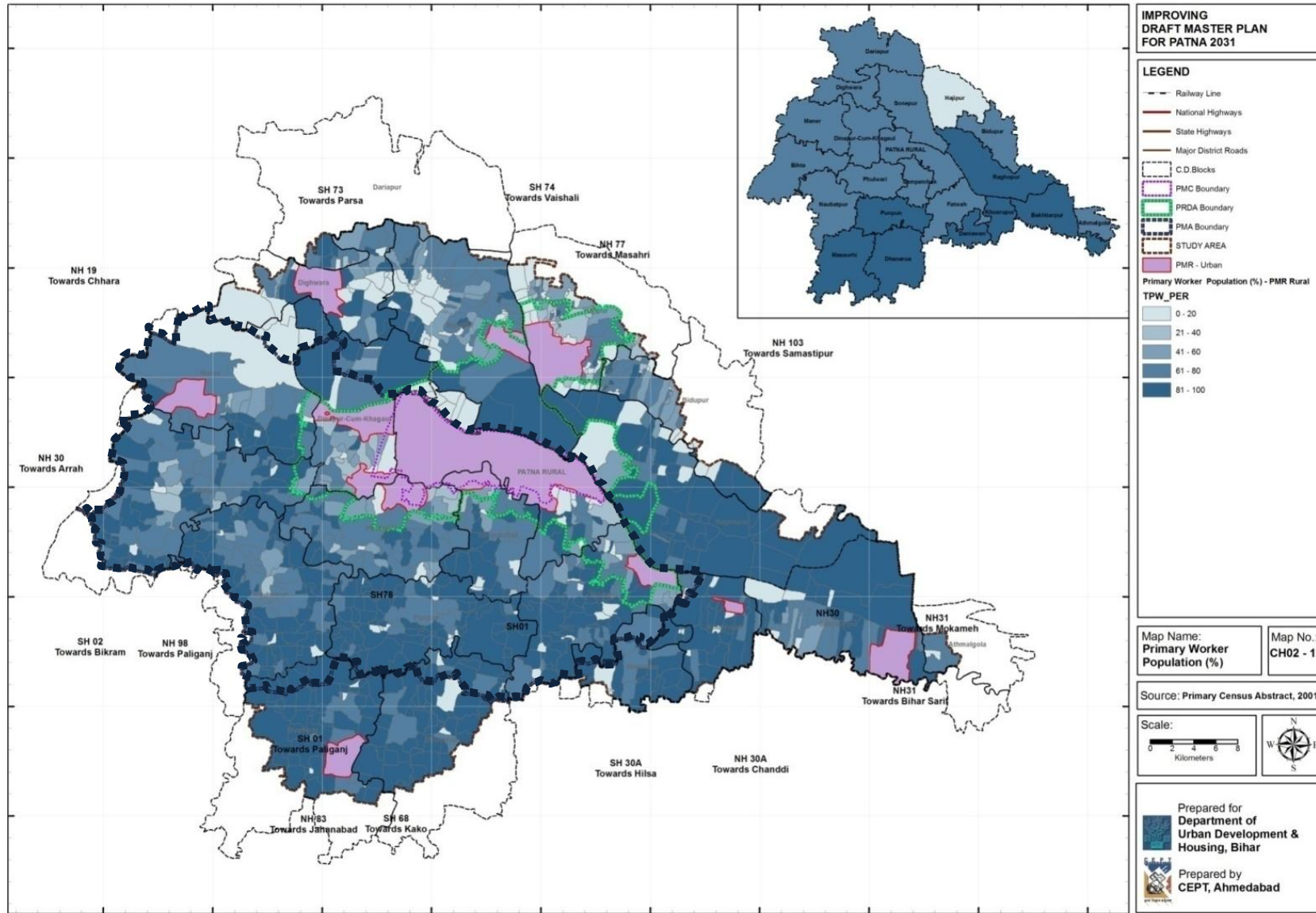


Map 17: Distribution of Marginal Workers - PPA

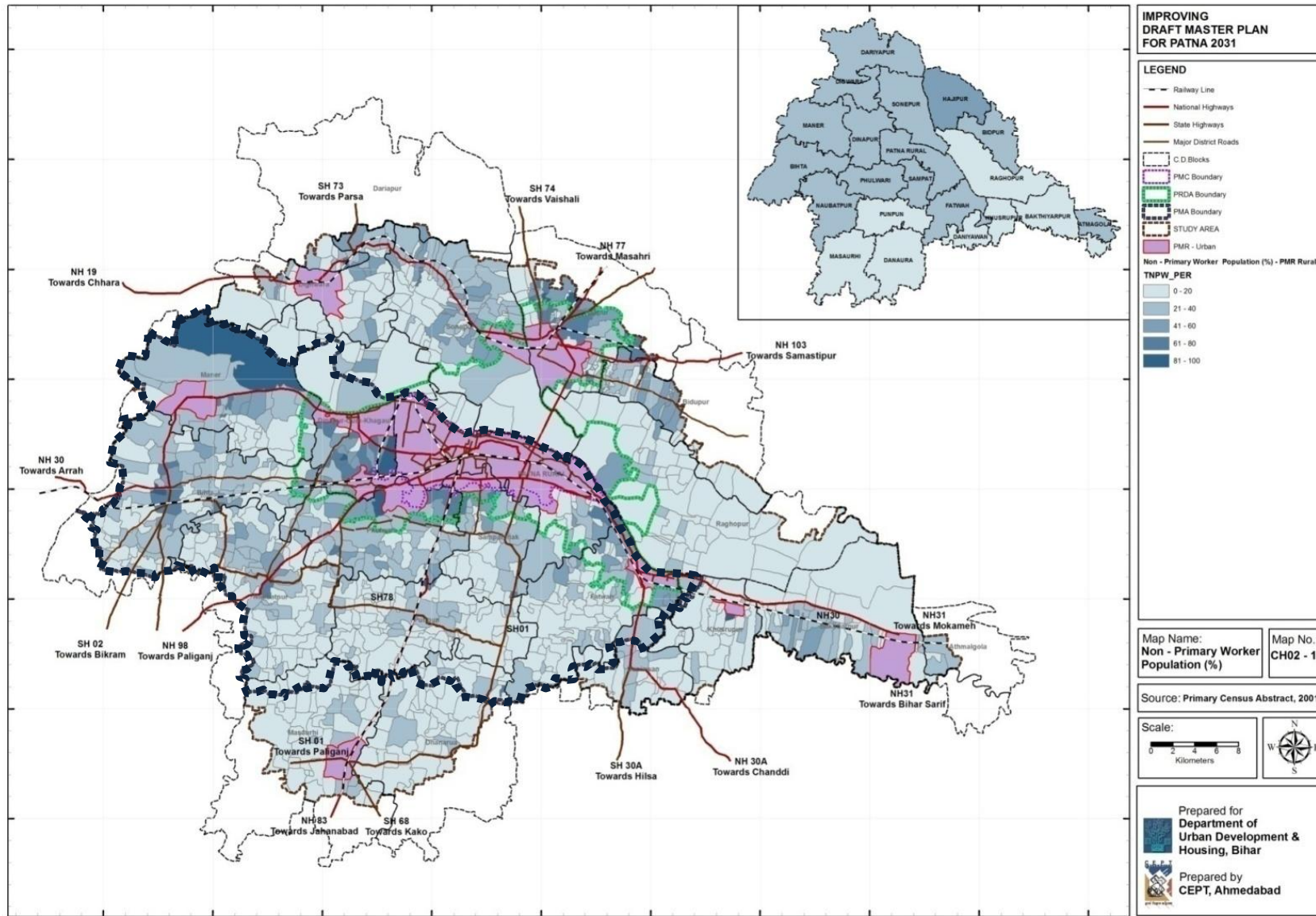




Map 18: Distribution of Primary Workers - PPA



Map 19: Distribution of Non Primary Workers - PPA



### 3.11 Existing Land Cover – Project Study Area including PPA

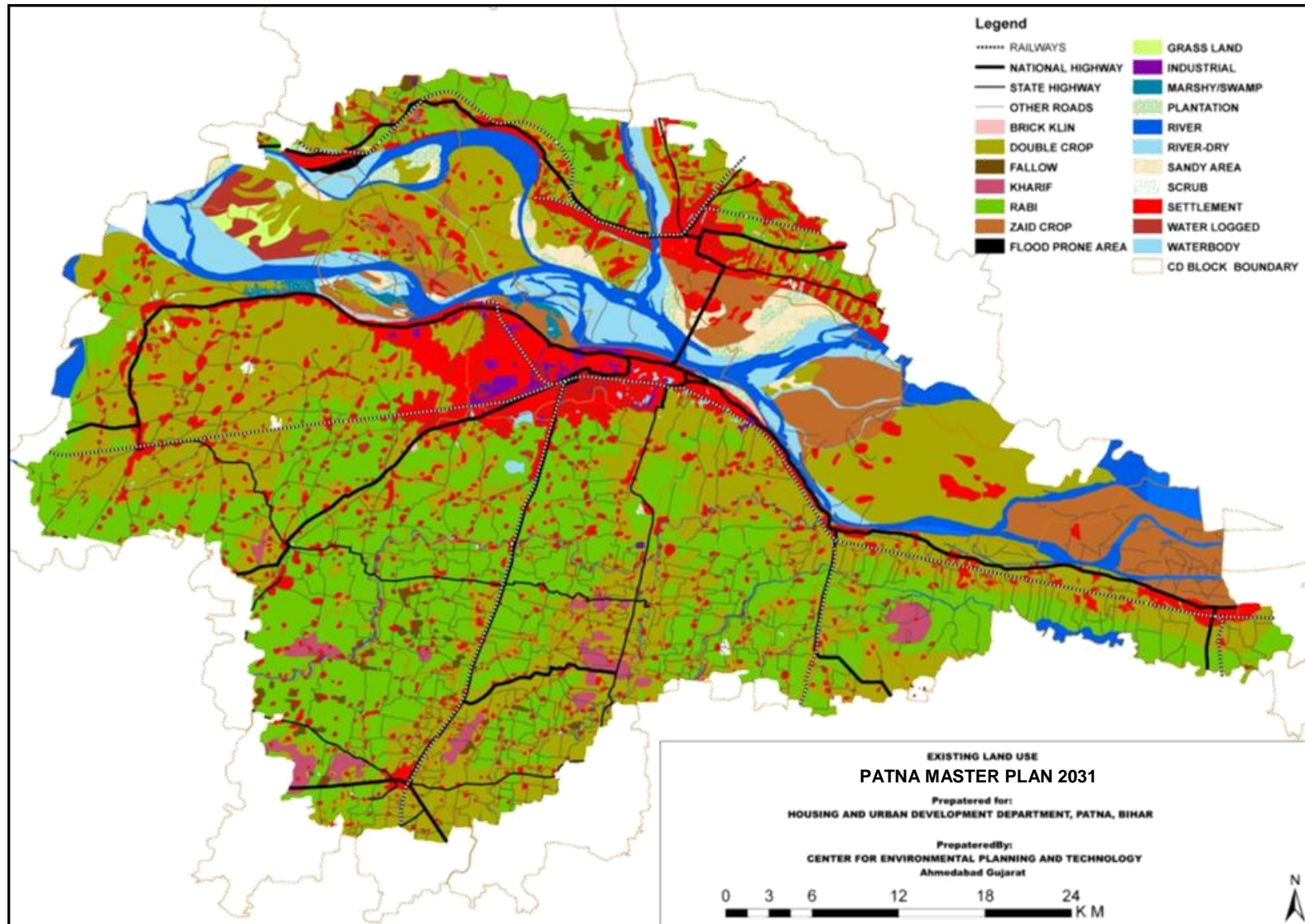
Information on the spatial spread and dynamics of the land use/land cover is the basic prerequisite for planning and implementing various developmental activities. Land use essentially refers to the purpose for which land and its resources are employed: for example, farming, mining, or other developmental activities. Land cover describes the physical state of the land surface: as in cropland, mountains, or forests. The term land cover originally referred to the kind and state of vegetation (such as forest or grass cover), but it has broadened in subsequent usage to include anthropogenic structures such as buildings or pavement and other aspects of the natural environment, such as soil type, biodiversity, and surface and groundwater.

**Table 12 : Existing Land Use Classification in Project Study Area including PPA**

Sr.no	Land Cover Classes	Percentage
1	Double Crop	40%
2	Fallow Land	0.50%
3	Industrial	0.37%
4	Kharif	2.24%
5	Marshy / Swampy	0.25%
6	Plantation	1%
7	Rabi	30.32%
8	River	10%
9	Settlement	12%
10	Water Body	0.22%
11	Zaid Crop	3%
12	Brick Kiln	0.1%
<b>Total</b>		<b>100%</b>
Source: LANDSAT image 2005, Toposheet (Survey of India), Census of India		



Map 20: Existing Land Cover – Project Area including PPA





## 4 CHAPTER: DEVELOPMENT VISION & PLANNING NORMS ADOPTED

### Chapter Contents

- ❖ *Vision Statement and Objectives*
- ❖ *Guiding Principles*
- ❖ *Planning Norms and Standards Adopted*

#### 4.1 Vision Statement and Objectives

Economic growth is the key word for the development of the Patna Planning Area. Simultaneously, ecological sustainability is also considered as a major design criteria. 'Development' inherently implies good education, health, and provision of adequate and good infrastructure and civic amenities to the residents of the region.

Based on the studies of the existing conditions and considering the growth opportunities and potential of the site, the following vision statement was arrived at:

**“To develop Patna Planning Area as a modern economic region with locally competitive infrastructure and social amenities to address future requirements in harmony with its ecological resources”**

The Vision of this Master Plan and broad objectives are translated into the following specific development strategies:

- Creation of a compact city to achieve sustainable development.
- Transit Oriented Development (TOD) along the major corridors, which will emphasize movement through public transport. The Centers will be well-linked to the core city.
- Integration of the peripheral areas with the core and intermediate areas, so that the entire PPA acts as one entity (through TOD). Creation of Growth Centres (GC) and Satellite Town - Proposing multi-nuclei centers will help reduce pressure on the core area. Thus, each Center will act as a self-contained zone which will include an employment hub. This Center will also provide economic opportunity and higher order social facilities to the surrounding areas.
- Proposing Master Plan with the objectives of protecting rural livelihoods and catering to the needs of the population by providing agricultural zones.
- Provision of adequate infrastructure to influence overall development in the region.

#### 4.2 Guiding Principles

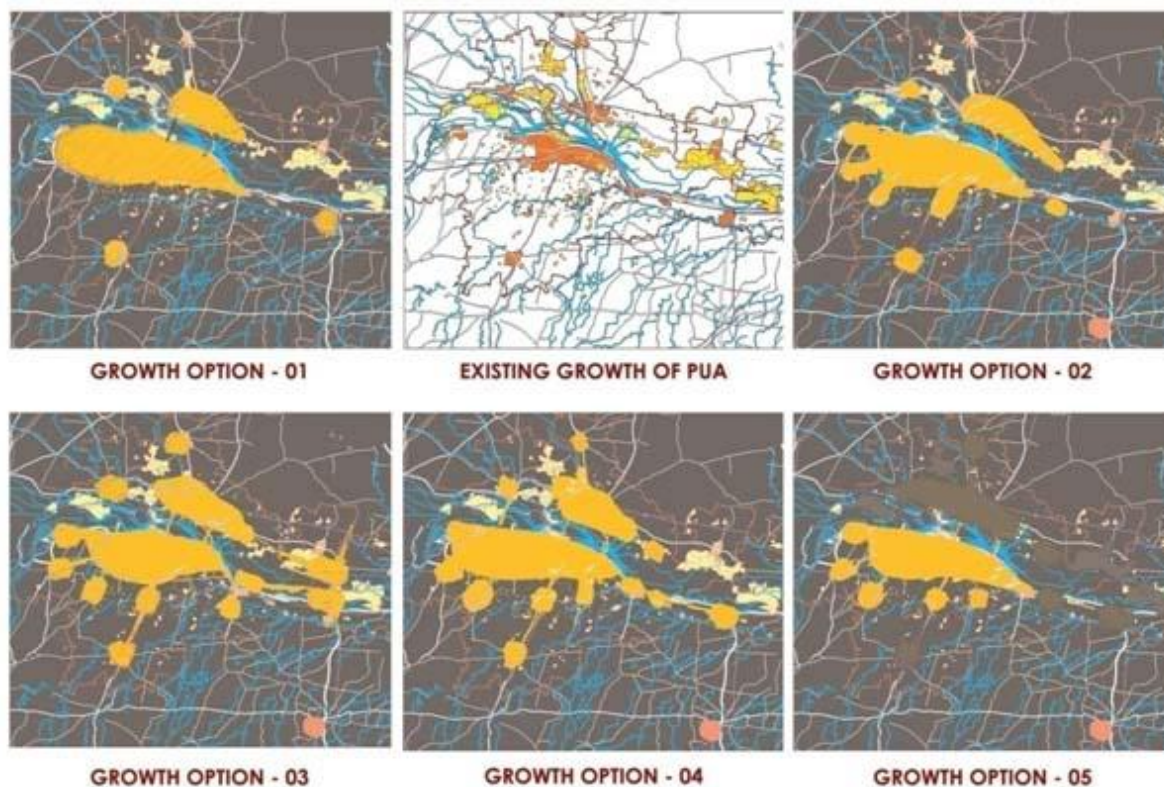
The Guiding Principles for Master Plan preparation for the region are derived from planning theory and practice across the world and it includes

- Multiple Nuclei concept,
- Rural Urban Continuum,
- Transit Oriented Development,
- Urban Growth Boundary,
- Peri-urban development,
- Provision of Social Amenities, and
- Environmentally Suitable Development.

#### 4.2.1 Multiple Nuclei Concept

The projected population figures indicate that the urban population in PPA by 2031 will be around 60.25 lakhs. A Planning area encompasses of persons and activities intensely "interrelated and integrated with reference to daily requirements" by virtue of their diversity or differences (Hawley, 1950, 257). A Planning area performs significant coordinating functions through specialization, usually requiring sufficient population and infrastructure size. Creating multiple nuclei centres/ sub centres will help to take the overload from the center or core nuclei.

Figure 3: Growth Options



These nodes/ nuclei centres are identified as physical demarcation/ accumulation of cluster of activities. They are not the absolute population accumulation in a particular area but the service population with different size/scale of the nodes. Urban nodes such as Commercial, Transportation, Industrial nodes etc. are proposed in the Master Plan. Fig. 3 shows the conceptual diagrams of possible physical growth of PPA, among which *Growth Option - 5* has been adopted for preparation of Master Plan upto period 2031.

#### 4.2.2 Urban Rural Continuum

Rural Urban Continuum is essentially the gradual change observed in terms of intensity of development from core city areas towards the peripheral area. The nature of settlement structure helps to understand the rural – urban dichotomy or continuity. Settlement structures refer to the distribution of settlements according to their population size. With the flow of new migrants into the

city, the core city areas are no longer able to absorb growth and the city begins to expand physically, first through the development of vacant land within the city itself and later by slow encroachment on land in areas lying outside city limits. Sometimes, the new migrants, particularly from the poorer sections, stay in villages around the city and commute to the city for work. Therefore, the rural – urban fringe is an area of rapid change in land utilization and population characteristics. This transformation of fringe villages to urban areas takes place due to their close proximity to the city.

The first stage of transformation is evident in agricultural land use change. The initial impact of the city growth is seen on agricultural land-use in a village, in terms of high commercialization of agriculture activities. In this stage, there are three major factors, which trigger development, viz.: (i) growth of urban population and consequent demand for products such as milk and vegetables, (ii) improved transport facilities, particularly construction or improvement of roads and introduction of bus services, and (iii) cumulative increase in people’s awareness and direct contact with the city over a period.

In the second stage, there is a change in occupational structure as the village population responds to the employment opportunities in the city. As time passes, the range of private enterprises widens to include almost every type of enterprise. Public transport is the means of commutation to the city. Houses are improved and better furnished, while basic amenities such as water supply, sewage disposal, and drainage do not show any improvement.

In the third stage, urban land use growth observed. This change is because of increasing interaction of the rural populace with the city. The few plots of land belonging to farmers in the village are purchased by real estate agents and developed into residential colonies or industrial sites. Land values in the village tend to increase rapidly. Simultaneously, new immigrants from rural areas who come to the city in search of employment settle in the fringe villages, finding city areas expensive. Sometimes they settle in squatters or slums near factories, on the roadside, near drains. Farming as an occupation sees a progressive decline, and the way of life in the village is increasingly urbanized.

The urban village stage is that in which transformation of the fringe village is reached when all the land that was under agricultural use is taken up for urban uses. There is no agricultural land around the village and farming is not possible. All around the old village site, there are a number of urban residential localities.

#### **4.2.3 Transit Oriented Development (TOD)**

Transit Oriented Development is compact, mixed use development within easy walking distance of a transit corridor. Its pedestrian-oriented design encourages residents and workers to reduce use of personalized vehicles and use mass transit more often. These settlements are usually moderate to high density compatible with the existing scale of development, and may be new construction or redevelopment. Mixed uses include residential, commercial space and office space, or a combination of the same. The success of TOD depends on a variety of characteristics. TOD is development designed to create connections between communities and transit the system in a way that encourages its use through walking and cycling instead of creating dependence on automobiles. A well designed TOD displays the following physical characteristics:

- Mixed land use
- Compact, higher residential densities than typical development
- A transit stop or station that is a center of activity
- Easily accessible via all modes of transportation
- Pedestrian and bicycle friendly
- Provides adequate amenities and open spaces for the linear city, extremely efficient with respect to community

TOD's success depends on the benefits it brings to a particular community. Each community has different goals and objectives for transportation and land use planning, whether promoting reinvestment in older towns or reducing traffic congestion in rapidly growing suburbs.

#### 4.2.4 Urban Growth Boundary

This circumscribes an entire urbanized area/ rural area which has future potential to grow, is used by local governments as a guide to zoning and land use decisions. It is also called as urban service boundary. It is an officially adopted and mapped line beyond which the local or regional government does not support development for a specified period of time. Growth is supported inside the boundary with utilities and development-friendly policies. Growth is discouraged outside the boundary.

Generally in Planning region, growth occurs in areas where there is already urban and suburban development. The purpose of providing urban services is to synchronize existing urban growth with the provision of infrastructure needed to accommodate future growth. The two most "fundamental purposes (1) to promote compact and contiguous development patterns that can be effectively served by public services and (2) to preserve open space, agricultural land, and environmentally sensitive areas that are not currently suitable for urban development. Thus the urban growth boundary in the Master Plan has been defined phase wise in this boundary.

Urban growth boundary should:

1. Accommodate long-range urban population growth requirements consistent with state and local goals and policies.
2. Fulfill local needs for housing, employment opportunities, and livability;
3. Provide public facilities and services in an orderly manner;
4. Maximize efficiency for land uses in or at the fringe of existing urban areas;
5. Consider all environmental, energy, economic, and social consequences;
6. Preserve farm, forest, and other resource lands; and
7. Ensure compatibility of proposed urban uses with nearby rural settlements.



#### 4.2.5 Peri-Urban development

UNDP\* (1996) defines Peri urban as an activity that produces, processes and markets food and other products, on land and water in urban and peri-urban areas, applying intensive production methods and reusing natural resources and urban wastes to yield a diversity of crops and livestock. Peri urban in addition can also involve animal husbandry, aquaculture, agro-forestry and horticulture.

The Von Thunen Model (1826) of agricultural land use exhibits relationships between markets, production, and distance. For this purpose, the agricultural landscape is looked upon in context to the city center. The model signifies its economic imperatives in terms of relative costs for transporting different agricultural commodities to the central market. The most productive activities will thus compete for the closest land to the market and activities not productive enough will locate further away. There are rings of agricultural activity surrounding the city. Dairying and intensive farming occur in the ring closest to the city; since vegetables, fruit, milk and other dairy products must get to the market quickly, they would be produced close to the city. Similarly, other, less perishable agricultural commodities are produced in subsequent rings.

Providing for agricultural zones in the Master Plan with the objectives of protecting rural livelihoods and catering to the needs of the population therefore assumes importance.

#### 4.2.6 Provision of Social Amenities

Social amenities at village level are proposed according to URDPFI\*\* guidelines for 2021 and 2031 year respectively. Higher level of amenities for education, health and finance are proposed identified spatially at CD block level and proposed at village level.

#### 4.2.7 Environmentally Suitable Development

The proposed Master Plan for the PPA ensures development in harmony with the environment. Proper zoning for segregation of residential, commercial and industrial areas with buffer zones between these land uses has been provided.

Existing major corridors and proposed corridor need to have a green buffer so as to protect the residential area from air and noise pollution.

Clustering of industries has been given priority based on the type of waste generation. Decentralized and specialized treatment plants need to be installed in these local clusters, thereby reducing the cost of infrastructure development.

\*UNDP - United Nations Development Programme

\*\*URDPFI - Urban and Regional Development Plans Formulation & Implementation

### 4.3 Planning Norms and Standards Adopted

One of the important objectives of Master Plan preparation is to develop various civic facilities to support the future population. The provision of the amenities shall be adequate in terms of number and area of amenities. In the proposed plan, these amenities may be provided at appropriate corresponding levels ranging from Community to CBD Level, depending on the nature of the particular amenity. The number and area of each type of amenity depends on the level at which the amenity is being provided, and the size of population it is envisaged to support.

**Table 13: Provision of Physical Infrastructure – Manual of Water Supply**

SL. No.	Aspect	Small(< 50,000)	Medium (>50,000)	Large and Metro (>10 lakh)
<b>a</b>	<b>Domestic</b>			
i)	Absolute Min.	70 lpcd	70-100 upper limit above 100,000	135 lpcd it can be reduced upto 70 lpcd
ii)	Desirable	100 lpcd	135-150 lpcd	150-200lpcd upper limits for metro cities income areas the standards to lpcd
<b>b</b>	<b>Non-Domestic</b>			
i)	Institutional	Institutions	Litres per head per day	
		Hospital(including laundry)		
		a. No. of beds exceeding 100	450(per bed)	
		b. No of beds not exceeding 100	340(per bed)	
		Hotels	180(per bed)	
		Hostels	135	
		Nurses homes & medical quarters	135	
		Boarding schools/colleges	135	
		Restaurants	70 (per seat)	
		Airports & seaports	70	
		Junction stations & intermediate stations where mail or express stoppage (both railway and bus stations) is provided	70	
		Terminal stations	45	
		Intermediate stations (excluding mail and express stops)	45(could be reduced to 25 where bathing facilities are not provided)	
		Day schools/colleges	45	
Offices	45			
Factories	45 (could be reduced to 30 where no			

			bathing rooms are required to be provided)	
		Cinemas, concert halls and theatres	15	
ii)	Industrial	Industry	Unit of Production	Water Requirement in Kilolitres per unit
		Automobile	Vehicle	40
		Distillery	Kilolitre (proof alcohol)	122-170
		Fertilizers	Tonne	80-200
		Leather	100 kg(tanned)	4
		Paper	Tonne	200-400
		Spl. Quality paper	Tonne	400-1,000
		Straw Board	Tonne	75-100
		Petroleum Refinery	Tonne(crude)	1-2
		Steel	Tonne	200-250
		Sugar	Tonne (cane crushed)	1-2
		Textile	100 kg (goods)	8-14
iii)	Firefighting			1% of total demand
iv)	Public purpose	10-15 lpcd	20-25 lpcd	30-35 lpcd

Table 14: Provision of Social Infrastructure – URDPFI Guidelines

Amenity	Population	No. of Facilities
CBD Level	12 lakhs - 15 Lakhs	4
Zone Level	4 lakhs - 5 Lakhs	11
Node Level	1 lakhs – 1.5 lakhs	39
Sector Level	40,000 - 50,000	108
Neighborhood Level	10,000 – 12,000	443
Community Level	5,000 - 6,000	887

#### 4.3.1 Community Level Facilities

The community level facilities may be provided as per the URDPFI Guidelines including the area required for Nursery School and Primary School of 10,000 sq.m (1 Hectare), the community hall of 660 sq.m with few other facilities such as Milk Booth, ATM, Facilities shop and Convenience Shopping.

**Table 15: Provision of Social Infrastructure-Housing Cluster (URDPFI Guidelines)**

Population Threshold	No. of Facilities	Nature of Utility and Social facility	Land Area / Facility (sq.m)
Community Level 5,000 – 6,000	<b>887</b>	Nursery School + Primary School	10,000
		Community Hall	660
		Milk Booth	25
		ATM	10
		Facilities shop (280 sq.m/3,500 pop)	440
		Convenience shopping ( 160 sq.m/1,000 )	880
		Open Spaces ( @ 1.5 sq.m / capita )	8,250
		Sub Total (Amenities)	10,660
		Sub Total (Commercial)	1,355
		Sub Total (Open Space)	8,250
		<b>Total @ community Level</b>	<b>20,265</b>

#### 4.3.2 Neighbourhood Level Facilities

The Neighborhood level facilities may be provided as per the URDPFI Guidelines including the senior secondary school of 16,000 sq.m (1.6 Hectares), Community Hall with Library and Gymnasium of 4,000 sq.m. There are few other facilities have to be provided such as religious buildings of 200 sq.m, Retail cum Commercial of 3,300 sq.m with 300 sq.m per 1,000 population, Electric Sub stations of 350 sq.m with 415 V, dispensary of 1,200 sq.m, Bank with ATMs of 2 No's (1,000 sq.m) and Open Spaces of 16,500 sq.m.

**Table 16: Provision of Social Infrastructure – Neighborhood Level (URDPFI Guidelines)**

Population Threshold	No. of Facilities	Nature of Utility And Social Facility	Land Area / Facility (sq.m)
Neighborhood Level 10,000-12,000	<b>443</b>	Sr. Secondary School	16,000
		Community Hall, Library and Gymnasium	4,000
		Religious building	200
		Retail Commercial (300sq.m/1,000)	3,300
		Electric Sub-Station (415V)	350
		Dispensary	1,200
		Bank with ATM (2no's)	1,000
		Open Spaces (@ 1.5 sq.m /capita )	16,500
		<b>Sub Total (Amenities)</b>	<b>21,750</b>
		<b>Sub Total (Commercial)</b>	<b>4,300</b>
		<b>Sub Total (Open Space)</b>	<b>16,500</b>
<b>Total @ Neighborhood Level</b>	<b>42,550</b>		

### 4.3.3 Sector Level Facilities

The Sector level facilities may be provided as per the URDPFI Guidelines including one Health Centre of 3,000 sq.m (0.3 Hectares) area with nursery, child welfare and maternity centre. There are few other facilities that to be provided at sector level, such as Sub-Post office of 150 sq.m, School for Handicapped of 5,000 sq.m, and Police Post of 1600 sq.m, Religious buildings of 750 sq.m, Communication Centre of 1500 sq.m with STD, ISD, Data transmission and ISDN, Retail cum Commercial of 22,500 sq.m with 500 sq.m per 1000 population and Open Spaces of 45,000 sq.m with at 1 sq.m per capita.

**Table 17: Provision of Social Infrastructure – Sector Level (URDPFI Guidelines)**

Population Threshold	No. of Facilities	Nature of Utility and Social facility	Land Area / Facility (sq.m)
Sector Level 40,000-50,000	<b>108</b>	Sub Post-Office	150
		School for Handicapped	5,000
		Health Centre-Nursery, Child Welfare, Maternity Centre	3,000
		Police Post	1,600
		Religious building	750
		Communication Centre (with STD, ISD, Data transmission, ISDN )	1,500
		Retail Commercial ( 500sq.m/1000)	22,500
		Open Spaces ( @ 1 sq.m / capita )	45,000
		Sub Total (Amenities)	10,500
		Sub Total (Commercial)	24,000
		Sub Total (Open Space)	45,000
		Total @ Sector Level	79,500

### 4.3.4 Node Level Facilities

The Node level facilities may be provided as per the URDPFI Guidelines are including Electric Sub Station of 3,500 Sq.m (0.35 Hectares) area with 11 KV, Integrated school without hostels of 35,000 sq.m, LPG Godown of 600 sq.m, Petrol Pump of 2,000 sq.m and Bus Terminal (2,500 sq.m).

The other facilities required are College of 40,000 sq.m, Community Centre with PHC, Library and Hall of 2,500 sq.m, Polyclinic with 20 beds of 3,000 sq.m, Intermediate Hospital with Category B – 100 Beds of 10,000 sq.m., Meditation and Spiritual Centre of 5,000 sq.m, Music, Dance and Drama Centre of 1000 sq.m and Recreational Club of 10,000 sq.m.

The other public facilities required are Police Station of 15,000 sq.m, Post with Telegraph of 3,500 sq.m, Overhead Reservoirs of 10,000 sq.m. The required luxurious facilities are Cineplex of 15,000



sq.m, Retail cum Commercial with 500sq.m per 1000 persons of 62,500 sq.m and Open Spaces at 1 sq.m per capita of 45,000 sq.m.

**Table 18: Provision of Social Infrastructure – Node Level (URDPFI Guidelines)**

Population Threshold	No. of Facilities	Nature of Utility and Social facility	Land Area / Facility(sq.m)
Node Level 100,000- 150,000	39	Electric Sub-Station (11 KV)	3,500
		Integrated school without hostel	35,000
		LPG Go-down	600
		Petrol Pump	2,000
		Bus Terminal	2,500
		College	40,000
		Community Centre (with PHC, Library, Hall )	2,500
		Polyclinic (20 bed )	3,000
		Intermediate Hospital (Category-B: 100 beds)	10,000
		Meditation and Spiritual centre	5,000
		Music, Dance and Drama Centre	1,000
		Recreational Club	10,000
		Police Station	15,000
		Post and Telegraph	3,500
		Over head reservoirs	10,000
		Cineplex	15,000
		Retail Commercial ( 500sq.m/1000)	62,500
		Open Spaces ( @ 1 sq.m / capita )	45,000
		Sub Total (Amenities)	143,600
Sub Total (Commercial)	77,500		
Sub Total (Open Space)	45,000		
Total (Node Level)	266,100		

#### 4.3.5 Zone Level Facilities

The Zone level facilities may be provided as per the URDPFI Guidelines including the Electric Sub Station with captive power of 8,000 Sq.m (0.8 Hectares) area, fire station of 16000 Sq.m, Intermediate Hospital with 200 Beds of 37,000, Bus Terminal of 15,000 sq.m and Electric receiving Substation with 220 per 660 KV of 20,000.

The requirement of other facilities include Hotel with convention facilities of 40,000 sq.m, Water treatment plant of 10,000 sq.m, Electric substation with 11KV of 3500 sq.m and Telephone exchange of 2,500 sq.km. The social facilities are Retail cum Commercial with 880 sq.m per 1,000 persons of 396,000 sq.m, Super market of 6,000 sq.m and Open Spaces at one sq.m per capita of 450,000 sq.m.

**Table 19: Provision of Social Infrastructure – Zone level (URDPFI Guidelines)**

Population Threshold	No. of Facilities	Nature of Utility and Social facility	Land Area / Facility (sq.m)
Zone Level 400,000- 500,000	11	33 KV Electric sub-station + Captive Power	8,000
		Fire Station	16,000
		Intermediate Hospital (Category-A : 200 beds)	37,000
		Bus Terminal	15,000
		Electric receiving sub-station ( 220 / 660 KV )	20,000
		Hotel with Convention Facilities	40,000
		Water treatment plant	10,000
		Electric Sub-Station (11KV)	3,500
		Telephone Exchange	2,500
		Retail Commercial (880sq.m/1000)	396,000
		Super Market	6,000
		Open Space ( @ 1 Sqm / capita )	450,000
		Sub Total (Amenities)	112,000
		Sub Total (Commercial)	442,000
		Sub Total (Open Space)	450,000
<b>Total @ Node Level</b>	<b>1,004,000</b>		

#### 4.3.6 CBD Level Facilities

The CBD level facilities may be provided as per the URDPFI Guidelines including one Museum with Art Gallery of 5,000 Sq.m (0.5 Hectares) area, one Hotel with Convention facilities of 40,000 Sq.m. There are few other facilities have to be provided, such as Institutions like Polytechnic College, Engineering College, Medical College, University Campus area, Socio-Cultural Centre, Library and International School with Hostel.

There are few other facilities for common amenities have to be provided, such as Regional Hospital, Health Resort , Hotel with convention facilities, Transport Nagar, Telephone exchange, Police Station with accommodation, Head Post Office, Bus Terminal with Depot, Electric receiving Substation, Fire Station, Central Sewage treatment Plant with zonal treatment plant, Crematorium & Burial Ground and Water reservoirs and distribution systems. There are few other facilities also to be provided, Such as Communication centre (with STD, IDD, Data Transmission, ISDN), Retail, Commercial, Zonal Shopping centre and Open Spaces.

Table 20: Provision of Social Infrastructure – CBD level (URDPFI Guidelines)

Population Threshold	No. of Facilities	Nature of Utility and Social Facility	Land Area / Facility (sq.m)
CBD Level 1,200,000 – 1,500,000	4	Museum & Art Gallery	5,000
		Hotel with Convention facilities	40,000
		Regional Hospital	60,000
		Polytechnic College	40,000
		Engineering College	600,000
		Medical College	150,000
		University Campus Area	600,000
		Health Resort	30,000
		Socio-Cultural Centre	150,000
		Library	5,000
		International school with hostel	40,000
		Transport Nagar	50,000
		Telephone Exchange	10,000
		Police Station with accommodation	10,000
		Head Post Office	10,000
		Bus Terminal with Depot	30,000
		Electric Receiving Substation (220/660KV)	50,000
		Fire Station	10,000
		Central STP + zonal treatment plants	700,000
		Crematorium & Burial Ground	45,000
		Water reservoirs and distribution systems	30,000
		Communication centre(with STD, IDD, Data Transmission, ISDN)	10,000
		Retail Commercial / Zonal Shopping centre (880sq,m/1000)	1,100,000
		Open Space (@ 1sq.m/cap) (Golf course, Exhibition, Trade fairs)	1,250,000
Sub Total (Amenities)	2,625,000		
Sub Total (Commercial)	1,150,000		
Sub Total (Open Space)	1,250,000		
Total @ CBD Level	5,025,000		

## 5 CHAPTER: PLANNING PROPOSALS

### Chapter Contents

- ❖ *Projections*
- ❖ *Proposed Land Use Distribution*
- ❖ *Proposed Road Network*
- ❖ *Physical Infrastructure*
- ❖ *Social Infrastructure & Amenities*
- ❖ *Housing Need*

To prepare the Master plan for Patna for next 20 years, it is essential to estimate the future population, employment projection and their area requirements. Population projection, Proposed Land use along with Proposed Road Network and estimated physical and social infrastructures for projected population for the year 2031 are the parts of this chapter.

### 5.1 Population Projection

Since development activities and consequent population growth in the PPA influenced by external factors like migration, job opportunities, availability of infrastructures etc., the area cannot be considered as an individual entity while projecting the population.

Population projection for the PPA carried out based on share and shift analysis, which gives a more precise estimate of the expected future population. This method has especially high relevance for estimating the population of the PPA, since the study of comparative share of smaller spatial units to its succeeding larger spatial unit, the pattern of change in such shares gives the estimated figure of greater accuracy, and helps avoid discrepancies. The following steps are followed for this method of population projection:

Population of 1981, 1991 and 2001 has been drawn from the relevant Census reports for India, Bihar and Patna District. The population figures for 2011 for India and Bihar is drawn from Census 2011: Provisional Report. The estimated population of India for 2021 and 2031 has been put based on the estimates worked out by Census in 2006, and updating it in accordance with the 2011 provisional figures.

- Identification of the share of Bihar population to the India population for the years 1981, 1991, 2001 & 2011.
- Estimating the share of Bihar population to India population for 2021 & 2031.
- Identifying the population share of Patna District with the State for 1981, 1991 and 2001.
- Analyzing the change in the share over the years, and the changing pattern of urban population of each district with respect to the State urban population.
- Estimating the total population and urban population of Patna district for the year 2011, 2021 and 2031.
- Calculating the change in the population share of PPA in the Patna district.

The share of the PPA population to the district population (total population and urban population) is estimated for the years 2011, 2021 & 2031 on the basis of the change in population share calculated above, leading to the population estimation for the PPA for these years.

**Note:** During the study, final data for Census 2011 was not available. Therefore, the study and projections were done according to the Census 2001. However, the projected figures have been matched and verified with the final population totals from Census 2011 and it showed very negligible differences.

Table 21: Population Projection

India	Category	Total Pop. 1991	Total Pop. 2001	Projected pop. 2011	Projected pop. 2021	Projected pop. 2031
	Rural	628691676	741660293	833463448	910724000	970561339
	Urban	217611012	285354954	377106125	455769018	593749695
	Share to Total (%)	25.71	27.78	31.15	33.52	36.71
	increase	2.38	2.07	3.37	2.37	3.18
	% increase	10.21	8.06	12.12	7.61	9.50
	Decadal Growth Rate (%)	36.51	31.13	32.15	20.86	30.27
	Total	846302688	1027015247	1210569573	1359612233	1506324685
	Decadal Growth Rate (%)	23.86	21.35	17.87	12.31	10.79
Bihar State (excl. Jharkhand)	Category	Total Pop. 1991	Total Pop. 2001	Projected pop. 2011	Projected pop. 2021	Projected pop. 2031
	Rural	58025043	74316709	92341436	109712559	126884300
	Share to India Rural (%)	9.23	10.02	11.08	12.05	13.07
	% increase in share	2.25	8.57	10.57	8.73	8.52
	Decadal Growth Rate (%)	22.71	28.08	24.25	18.81	15.65
	Urban	6505581	8681800	11758016	14529635	19341972
	Share to India Urban (%)	2.99	3.04	3.12	3.19	3.26
	% increase in share	-5.04	1.77	2.48	2.24	2.19
	Decadal Growth Rate (%)	29.63	33.45	35.43	23.57	33.12
	Share to Total (%)	10.08	10.46	11.29	11.69	13.23
	Total	64530624	82998509	104099452	124242195	146226271
	Share to India Total (%)	7.63	8.08	8.60	9.14	9.71
	increase	-0.03	0.46	0.52	0.54	0.57
	% increase in share	-0.39	5.99	6.41	6.27	6.23
	Decadal Growth Rate (%)	23.38	28.62	25.42	19.35	17.69



Patna District	Category	Total Pop. 1991	Total Pop. 2001	Projected pop. 2011	Projected pop. 2021	Projected pop. 2031
	Rural	2241510	2757060	3323875	3352143	3123481
	Share to Bihar Rural (%)	3.86	3.71	3.60	3.06	2.46
	% increase in share		-3.96	-2.97	-3.30	-3.39
	Decadal Growth Rate (%)		23.00	20.56	0.85	-6.82
	Urban	1370098	1961532	2514590	3590134	5036759
	Share to Bihar Urban (%)	21.06	22.59	23.51	24.71	26.04
	increase	-1.27	1.53	0.91	1.20	1.33
	% increase in share	-5.69	7.28	4.04	5.12	5.39
	Decadal Growth Rate (%)	22.25	43.17	28.20	42.77	40.29
	Share to Total (%)	37.94	41.57	43.07	51.71	61.72
	% increase in share		9.58	3.61	20.07	19.35
	Total	3611608	4718592	5838465	6942277	8160240
	Share to Bihar Total (%)	5.60	5.69	5.61	5.59	5.58
	% increase in share		1.58	-1.35	-0.37	-0.13
	Decadal Growth Rate (%)		30.65	23.73	18.91	17.54
Patna Planning Area (PPA)	Category	Total Pop. 1991	Total Pop. 2001	Projected pop. 2011	Projected pop. 2021	Projected pop. 2031
	Rural	859603	1107846	1667522	1445845	1148103
	Share to Patna District Rural (%)	38.35	40.18	50.17	43.13	36.76
	% increase in share		4.78	24.85	-14.03	-14.78
	Decadal Growth Rate (%)		28.88	50.52	-13.29	-20.59
	Share to Total (%)	41.84	38.54	43.78	29.91	19.05
	Urban	1195111	1766730	2141124	3387483	4877129
	Share to Patna District	87.23	90.07	92.02	94.36	96.83

	Urban (%)					
	% increase in share		3.26	2.17	2.53	2.62
	Decadal Growth Rate (%)	20.27	47.83	21.19	58.21	43.97
	Share to Total (%)	58.16	61.46	56.22	70.09	80.95
	Total	2054714	2874576	3808646	4833328	6025232
	Share to Patna District Total (%)	56.89	60.92	65	70	74
	% increase in share		7.08	7.08	6.73	6.05
	Decadal Growth Rate (%)		39.90	32.49	26.90	24.66

Population of Patna Planning Area is estimated to be 60,25,232 of which urban population estimated as 48,77,129 for the year 2031, Share of urban population of PPA stands at 96.83% of urban population for the district.

According to Census 2011, the population of Patna Planning Area (PPA) is 36,60,404 of which 21,75,076 are urban population and 14,85,328 are persons living in rural areas. The projected population in this Master Plan for the year 2011 is estimated as 38,08,646 hence exceeds the actual population in the same year by a mere 4%. Therefore it will have no serious influence over any infrastructure or facility; proposed according to the projected population of 2011, 2021 and 2031.

## 5.2 Employment projection

Employment generation is one of the major objectives of the Master Plan for Patna. An understanding of the likely future growth of the local economy serves as the basis for employment projection and identification of probable locations of employment centers for the Master Plan. Corresponding improvements to the transport network and other infrastructure services to meet future requirements are proposed on this basis.

**Table 22: Projected Employment**

Components	2001	2031
Population	2874576	6025232
Urban Population	1766730	4877120
Work Force Participation Rate( WFPR)	25	33
Total Worker (33% of urban population)	441683	1609450
<b>Distribution of Workers</b>		
Primary Sector (%)	10	5
Secondary Sector (%)	5	20
Tertiary Sector (%)	85	75
Total Population of Secondary workers	22084	321890
Total Population of Tertiary' workers	375430	1207087

The total projected population for 2031 in PPA is 60.25 lakhs, out of which the estimated urban population is around 48.77 lakhs. The Work Force Participation Rate (WFPR) of 25% is observed based on the situation analysis for Patna Planning Area in 2001 and 33% is assumed in 2031. The total worker in 2031 is estimated to be ~16.09 lakhs considering the 33% of the urban population. The distribution of urban workers assumed for Secondary sector with 20% and Tertiary sector of 75%. The total population proposed for secondary workers is 3.21 lakhs, and Tertiary workers are 16.09 lakhs in 2031.

To promote industrial based economy 60% of secondary workers is accommodated in Industrial land use, while and rest 40% to be accommodated in Commercial/Institutional and Mixed land use. For secondary workers, area per person required is 50 sq.m, therefore total area required for industrial land use is 966 hectares.

**Table 23: Area statements against Projected Employment**

<b>Area Statement for Industrial land Use</b>	<b>2001</b>	<b>2031</b>
Total Population of Secondary workers	22084	321890
Nos. of Secondary workers to be accommodated in Industrial Zone (60% of total secondary workers), 40% in Commercial and Mixed Land Use		193134
Area required @ 50sq.m per secondary worker (in Ha)		966
<b>Area Statement for Commercial and Mixed Land Use</b>	<b>2001</b>	<b>2031</b>
Total Population of Tertiary workers	375430	1207087
Area required @ 15sq.m per secondary worker (in Ha)		1811
Nos. of Secondary workers to be accommodated in Commercial and Mixed Land Use (40% of total secondary worker)		128756
Area required @ 30sq.m per secondary worker (in Ha)		386
Total area Statement for Commercial and Mixed Land Use		2197

For tertiary workers, area per person required is 15 sq. m. The total area requirement for tertiary workers is 1811 hectares. Area required for commercial and mixed land use is calculated by taking into account of total area of tertiary workers and 40% of secondary workers. The total area estimated for Commercial and mixed land use is 2197 hectares. Out of total area proposed 50% will be functioning at lower level – neighbourhood and community level. While the other 50% shall be accommodated at higher threshold level – CBD, Zone and Sector level. Hence around 1099 hectares is specifically designated in proposed Land use zone.

### 5.3 Proposed Land Use Distribution and Land Requirements

The total planning area includes Patna Urban Agglomerations and Urban Centres viz. Maner Nagar Panchayat and Fatuha Nagar Panchayat of Patna district and its influence areas. Area other than settlements and developmental activities, such as open land (waste land, open / vacant land), brick kiln, wet lands (used for recreational development), Tree covers can be foreseen based on development potential, feasibility, suitability, and consultation with stakeholders.

Table 24: Land use comparison with URDPFI Guidelines

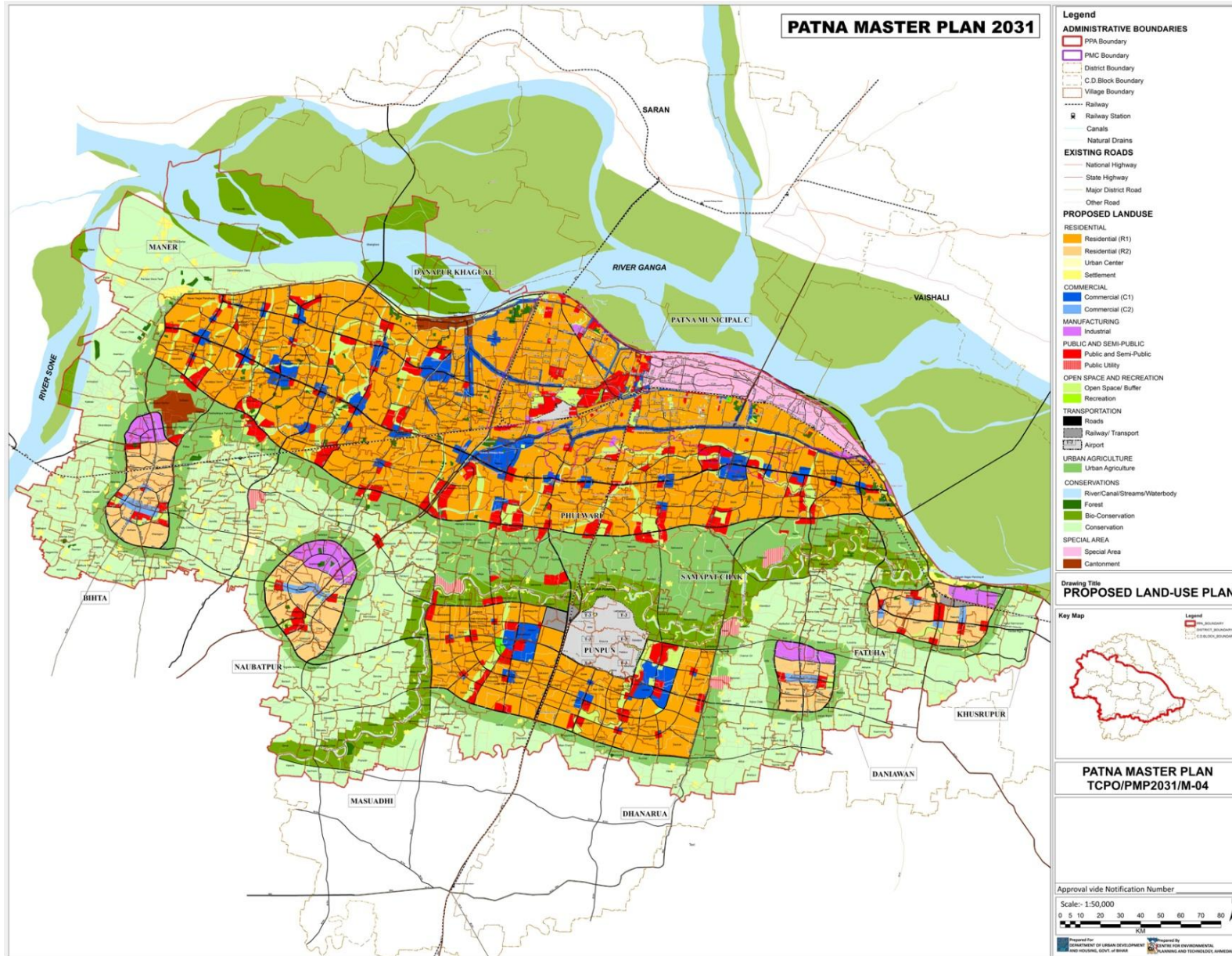
Sl. No.	Land use Categories	Standard taken according to URDPFI Guidelines (%)	Proposed land use for the project area (%)
1	Residential	42	55.04
2	Commercial	5	6.09
3	Manufacturing	8	2.35
4	Public and Semi-Public Space and Utility	14	7.74
5	Open Space Zone/ Recreation	15	7.86
6	Transportation & Communications	16	12.73
	<b>Total</b>	<b>100</b>	

The PPA has total area of 1167.04Sq. Km, out of this around 49.89% is non-developable area (water bodies, nallas) and rest of the 50.11% is available for development. Around 584.85 sq.kms of area is available for development and urban agriculture area proposed around 134.06 sq. Kms.

Table 25: Land use distribution in PPA

PPA	Land Use Categories	Area in sq.km	Share
Urbanisable	Residential	321.89	55.04%
	Commercial	35.59	6.09%
	Public/Semi-Public	45.28	7.74%
	Public utility	4.11	0.70%
	Industrial	13.77	2.35%
	Transportation	74.47	12.73%
	Open Space/Buffer	45.99	7.86%
	Restricted Areas (Special Area, Cantonment, Village Settlements, Urban Centre)	43.75	7.48%
	<b>SUB TOTAL</b>	<b>584.85</b>	<b>100%</b>
Non-Urbanisable	Waterbodies (Streams, Canal, River)	56.22	8.87%
	Green cover (Forest, Bio Conservation, Urban Agriculture)	525.97	91.13%
	<b>SUB TOTAL</b>	<b>582.19</b>	<b>100%</b>
<b>GRAND TOTAL</b>		<b>1167.04</b>	

Map 21: Proposed Land Use, PPA





## 5.4 Land Use Classification

The Land Use classifications are dealt in this chapter of Master Plan. Permissible and restricted uses of development activities in these zones are indicated in the *Table 4* of Bihar Building Byelaws, 2014.

Planning area has been categorized as contiguous planning core area and planning growth nodes. Contiguous core areas are the area lying south of River Ganga and the satellite township near to the proposed airport site on the south of River PunPun, as shown in the map. Growth nodes are the four townships proposed at Bihta, Naubatpur and Fatuha, separated from the Planning core by Urban Agriculture Zone in between.

Proposed Land Uses have been classified into the following zones -

### 5.4.1 Residential Zone

Residential Zone is further sub-classified into R1 & R2.

- 1) Residential Zone- 1 (R1):  
Residential Zone falling within the proposed contiguous core area.
- 2) Residential Zone- 2 (R2):  
Residential Zone falling within the proposed non-contiguous growth nodes.

### 5.4.2 Commercial Zone

Commercial Zone is further sub-classified into C1 & C2.

- 1) Commercial Zone- 1 (C1):  
Commercial Zone falling within the proposed contiguous core area.
- 2) Commercial Zone- 2 (C2):  
Commercial Zone falling within the proposed non-contiguous growth nodes.

#### Note:

Commercial areas have been shown as Commercial strips and Hubs in the Proposed Land Use Plan. Commercial Strips are primarily those areas which have developed historically as commercial area and thus earmarked as commercial strips in the Master Plan. Land Use classification related table and **Annexure 19** details out the Commercial strips falling in Patna Planning Area.

Commercial Hubs in PPA are proposed at the junctions of 80m/60m/45m/30.5m wide roads. These are shown in the proposed Land-use map of Patna Master Plan.

**Central Business District (CBD)** Area (as mentioned in the previous Master Plan): Area bounded by New Dakbungalow road in north, Fraser road in east, Station road in south and Patna-Gaya road (Budh-Marg) in the west. In case of plot abutting road of 80m and above, permissible FAR shall be 3 as provided earlier. However, considering the commercial activities in these areas CBD area may be extended in Zonal Development Plans.

### 5.4.3 Industrial Zone

Industrial Areas are earmarked as Industrial Use Zone. Existing industries with lawful permissions in non conforming use zones shall continue without any future expansion unless otherwise specified by the Industries Department or Competent Authority. However, in the case of proposal for expansion of industrial area, it may be considered if located suitably in other use zones with prior clearance from Industries Department.

Classification of industries/ permissibility of industries in different use zones/ use premises/ Household industries/ Non-Industrial Activity Zone/ existing planned Industrial Zone, Redevelopment of unplanned Industrial Area may be detailed.

Annexure 14 states about status of Industrial development in Bihar as compared to other states.

### 5.4.4 Public, Semi-public amenities and utilities Zone

Areas earmarked as Public, Semi-public Amenities and Utilities Zone in the proposed Land Use Plan, and the sites specifically earmarked for any such public/semi-public use.

### 5.4.5 Open Space Zone

#### 1) Open Space Recreational:

Areas earmarked as Open Space Recreational in the proposed Land Use Plan, and the sites specifically earmarked as Parks, Playgrounds, and Exhibition Grounds.

#### 2) Open Space Buffer:

Areas specifically earmarked as Open Space Buffer around the Water Bodies containing various types of existing water bodies.

### 5.4.6 Special Area

The old city /inner city is specifically earmarked in the Land Use Plan as Special Area based on existing built character, where redevelopment or urban renewal projects shall be implemented. Government lands with low- rise old buildings in prime locations are to be identified for such projects.

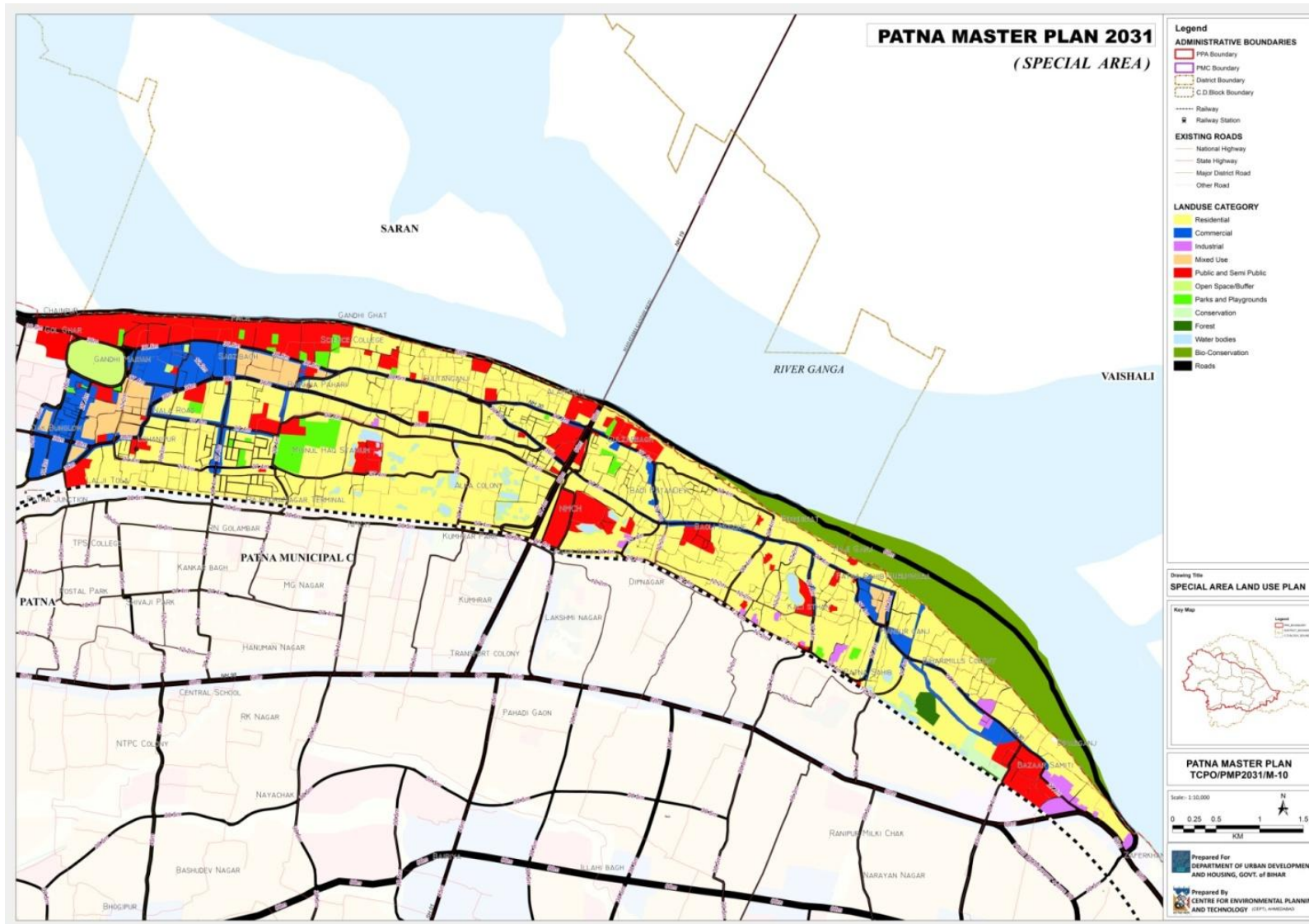
Area under this zone shall be developed in conformity with the previous Master Plan. The area has been identified as Zone-1 for Zonal Development Plan. Proposals for road widening in this area shall in no case be less than those mentioned in previous master plan. The Existing Land Use Map of the Special Area is given in Map 22.

Government Development/ Redevelopment projects duly approved through competent authority shall be treated as conforming uses in any area.

### 5.4.7 Urban Centres Zone (UC)

The remaining urban centers other than the proposed Contiguous Planning Core Area and Planning Growth Nodes, along with their surrounding areas as earmarked in the proposed Land Use Plan. The whole identified centres/areas have been classified as Urban Centres Zone, with no further classification of different use zones earmarked in the Master Plan.

Map 22: Existing Land Use - Special Area



#### 5.4.8 Village Settlements Zone (VS)

All the Village Settlements other than the proposed Contiguous Planning Core Area and Planning Growth Nodes, as earmarked in the Revenue Records (Khasra Maps) shall be considered as Village Settlements Zone. For all these settlements, an additional 100 M wide belt outside the settlement shall also be considered within this zone to cater the natural expansion of settlements. Permissible FAR is 1 in this zone.

**Note:** Though the area around the rural settlements (earmarked as VS Zone) is presented to be Conservation Zone in the proposed Land Use Plan, a 100 M wide belt outside these rural settlements shall be considered as RVS Zone to cater the natural expansion of the settlements, and the same shall not be considered as Conservation Zone.

#### 5.4.9 Urban Agriculture Zone

Areas earmarked as Urban Agriculture Zone, around the identified 'Contiguous Planning Core Area' and 'Planning Growth Nodes' in the proposed Land Use Plan. Permissible FAR is 0.75 in this zone.

#### 5.4.10 Conservation Zone

Areas beyond the Urban Agriculture zone and that spreads almost all over the remaining regional area, but excluding the Urban Centres Zone and Village Settlements Zone, as earmarked in the proposed Land Use Plan. Permissible FAR is 0.50 in this zone.

#### 5.4.11 Water Bodies Zone

Water Bodies Zone indicates all existing water bodies, i.e. Rivers, Streams, Lakes, Tanks, as indicated in the topographical sheets published by the Survey of India, the State Irrigation Department or Revenue Department or other competent authorities. The boundary of the water bodies relate to the Full Tank Level as indicated in relevant maps, covering both perennial and non-perennial parts when such distinction exists.

#### 5.4.12 Special Reservations Zone

Areas earmarked as Special Reservations Zone in the proposed Land Use Plan, and/or the sites specifically earmarked as special reservations, with any of the following categories.

- Heritage Buildings and Areas
- Bio Conservation Zone
- Natural Heritage
- Defense / Military Lands
- Others (Any Other Special Reservations)

##### 5.4.12.1 Heritage Buildings and Areas

Patna Sahib Gurudwara, Patna museum, Agamkuan, Golghar, Darbhanga House, Khuda-Baksh library, Patan Devi, Kumhrar, Chhoti Pahadi and Maner Dargah etc. are some heritage buildings under PPA. Regulations for heritage buildings and areas are given in Bihar Building Byelaws, 2014

#### 5.4.12.2 Bio Conservation Zone

Lagoons of Ganga River and area along Punpun River are earmarked as Bio conservation zone. These zones shall be used for enhancing aesthetic value of river and can be addressed for river front development and public recreational activities.

#### 5.4.12.3 Natural Heritage

River Ganga in the North, River Punpun at the Centre and River Son in the west are some important natural heritage of PPA. Parks like Kumhrar, Harding Park, Gandhi maidan, Sanjay Gandhi Biological Zoo are some other important natural heritages of PPA.

#### 5.4.12.4 Defence / Cantonment Area

Area such Danapur Cantonment Area and Bihta Cantonment Area under military control may be regulated through land-use plans prepared by competent Defense Authority.

### 5.4.13 Transportation and Communication Zone

All the roads as earmarked in the proposed Land Use Plan, and the sites specifically earmarked for related facilities as classified below-

- Parking
- Railways and Railway Stations (including mono rail, metro rail and their stations)
- Airports
- Logistics Hubs (Bus Depots and Truck Terminals)
- Tele-Communication

## 5.5 Proposed Transportation Network

This section deals with the status of traffic and transportation in the study area. A study of the regional road, rail and air network is undertaken. The following section focus on existing situation and transportation of the study area. Patna Planning Area (PPA) is well connected with other major cities of India by the following:

- Roadways
- Railways
- Airways
- Waterways

### 5.5.1 Existing Road Network

PPA is directly connected to hinterland by National Highways NH-30, NH-31, NH-83 and NH-98. It is connected to NH-2, which is a part of the Golden Quadrilateral. The NH-2, originally the Grand Trunk Road, connects it to Delhi on the northwest and Kolkata on the southeast. The State highways, bypass roads and other regional road connect it to its hinterland. The National Highway 30 (NH-30) connects it to its hinterland from the west and NH-31 from the east. The NH-77 through 4-lane Ganga Bridge viz Mahatma Gandhi Setu and newly constructed Digha-Sonepur rail-road bridge are the major connectors to the northern Bihar. Projects of NHDP/Ring Road are also under consideration of the Government.



The most important factor determining the form of road network system is the presence of river Ganga in the north and low lying area of River Pun Pun in the south; this linear type of urbanization coupled with limited number of river crossing has given rise to dominant east-west orientation of arterial roads. However, the city does not possess significant hierarchy of roads. The whole road network system is deficient in terms of road geometric and traffic management aspects.

Ashok Raj Path and including its extended part as Danapur road and NH-30 constitutes the longest road in Patna serving as major arterial roads. Sudarshan path is also another major arterial road, which is running through east-west direction in the city. Patna old by-pass road was the first major corridor to strengthen east-west movement. Bailey road, traversing in east-west direction in the western zone, it is much wider compared to other roads except the bypass road. Ganga Path, a planned expressway connecting Digha and Deedarganj will also ensure a smooth flow of traffic between east to west Patna, and ease the traffic congestion at Ashok Rajpath.

The City has been facilitated with major East-West corridor passes through city along with New Patna By-pass road to reduce congestion. The Ganga Bridge approach has been connected to new Patna by-pass by grade separated corridor.

**Table 26: Existing Width of Roads**

No.	Name of the road	Max. /Min Width(in M)	Avg. Width (in M)	Metalled Width (in M)	Pavement width	
					Left (M)	Right (M)
1	Rajendra Path	26.21 / 10.97	16.76	16.62	1.60	.40
2.	Barj Kishore Path	23.54/ 17.06	20.11	8.94	1.01	-
3	Mazharul Haque Path	32.16/ 22.66	27.0	15.24	0.69	0.46
4	Bhattacharya Road	8.76/ 7.47	8.08	5.18	-	-
5	Bhikhna Pahari Road	18.29/ 7.01	8.79	6.10	-	-
6	Salimpur Ahara Raod	6.70/ 3.35	5.48	5.48	-	-
7	Bakarganh Gola Road	5.48/ 3.66	4.47	4.47	-	-
8	Dariapur Savji Bagh Rd	7.62/ 5.48	6.50	6.50	-	-
9.	Dariapur Gola Road	7.32/ 3.05	5.48	3.35	-	-
10.	Dargah Road	11.28/ 6.25	8.69	3.89	-	-
11.	Kun-Kun Singh Lane	7.62/ 5.48	5.18	3.51	-	-
12	Ramna Rd.	7.01/ 5.79	6.60	3.20	-	-
13	Khajanchi Rd.	8.84/ 6.70	7.72	2.94	-	-
14	Sanichara Asthan Rd.	6.70/ 4.87	6.10	4.27	-	-
15	Makhania Kuan Road	7.32/ 4.88	6.30	3.15		
16	Govind Mitra Rd.	8.53/ 7.62	8.12	3.45	-	-
17.	Bihari Sao Lane	3.51/ 2.59	3.00	2.23	5.92	2.44
18.	Saidpur Rd.	16.76/ 4.88	11.74	4.42	-	-
19.	R.K Mission Rd.	26.77/ 14.63	20.04	8.96	5.92	2.44
20.	Bari Path	21.95/ 10.97	14.33	7.11	5.54	5.48

No.	Name of the road	Max. /Min Width(in M)	Avg. Width (in M)	Metalled Width (in M)	Pavement width	
					Left (M)	Right (M)
21.	Ashok Rajpath (Golghar to Engg. College turning)	25.00/ 13.81	21.23	12.73	4.57	4.27
22.	Ashok Rajpath (Engg. College turning to Ganga Bridge Fly Over.)	13.56/ 7.62	10.00	6.34	-	-
23	Prithvi Rajpath	15.09/ 7.16	10.92	10.00	-	-
24	Budha Marg	21.95/ 7.94	14.8	9.83	-	-
25	Shershah Path (Nunmuhia to Ganga Bridge Fly-Over)	10.67/ 3.66	8.05	4.36	-	-
26	English Ganj Rd (Chiraian Tal)	10.00/ 5.33	7.33	14.93	-	-
27	Old Bye-Pass	35.3/ 20.42	24.74	14.93	-	-
28	Patna Punpun Rd	11.43/ 6.01	7.92	3.80	-	-
29	D.V.C. Raod	4.57/ 4.34	4.27	3.05	-	-
30	Khagaul Road	34.44/ 15.24	19.12	5.79	-	-
31	Chitra Gupta Nagar Rd.	19.20/ 11.58	11.27	4.27	-	-
32	Bhut Nath Asram Rd.	13.41/ 5.18	6.70	3.05	-	-
33	Agam Kuan to Pump House Rd.	18.29/ 11.88	13.71	4.87	-	-
34	Shershah Path (Ganga Bridge Fly-Over to Pachim Darwaja0	14.02/ 6.40	10.00	5.03	-	-
35	Ashok Rajpath (Ganga Bridge Fly-over to Malsalami)	10.20/ 7.62	8.53	4.27	-	-
36	Sudarshan Path	10.97/ 4.27	7.32	4.57	-	-
37	Ajat Shatru Path	12.19/ 9.75	10.36	5.44	-	-
38	Guru Gobind Singh path	19.51/ 9.14	14.12	7.14	-	-
39	Nawab Bahadur Rd.	14.93/ 12.19	13.41	9.14	-	-
40	Sadargali Road	4.44/ 2.44	3.65	2.29	-	-
41	Maroofganj Road	7.62/ 3.05	5.03	2.44	-	-
42	Patna Danapur Rd. (Golghar to Digha P.S.)	39.47/ 11.58	20.73	7.21	-	-
43	Boring Road	22.86/ 15.24	19.63	14.02	-	-
44	Boring Canal Road	18.29/ 15.54	17.37	6.60	-	-
45	Ali Imam Path	34.44/ 27.58	31.09	21.66	-	-
46	Bailey Road-from Saguna more to Patna Canal	87.17/ 87.17	87.17	-	-	-
47	Bailey Road-from Patna Canal to Dhanaut & Rukunpura Boundary (upto 168 M from canal)	66.45/ 66.45	66.45	-	-	-
48	Bailey Road-from Rukunpura	51.82/ 51.82	51.82	-	-	-

No.	Name of the road	Max. /Min Width(in M)	Avg. Width (in M)	Metalled Width (in M)	Pavement width	
					Left (M)	Right (M)
	Boundary to Rukunpura 27.43 M Master Plan Road (in a distance of 91.44M)					
49	Bailey Road-from Rukunpura Master Plan Road to Ashiana More	45.72/ 45.72	45.72	-	-	-
50	Bailey Road-from Ashiana More to J.P Round About	30.48/ 30.48	30.48	-	-	-

**Note:** Proposals for widening of existing roads in previous Master Plan as mentioned in report of DCPL para 11.9.2 and Tables RW-1, RW-2 have been annexed in Annexure 20 and Annexure 21. In case of difference in proposals of road width, higher width shall be taken into consideration.

#### 5.5.1.1 Vehicular growth

It is observed that growth of personalized vehicle such as two-wheelers and car is very steep due to lack of proper public transport system, non-availability of mass transit system and relatively easy access to loans. The trend in passenger vehicles ownership highlights a gradual shift from slow modes to private fast modes. Particularly the growth of two-wheelers and car has been much higher than the growth of population as well as vehicles. The dominance of low capacity modes like bicycle and cycle-rickshaws operating in the city are causing distortion in modal mix and resulting in unsafe and uneconomical travel condition.

**Table 27: Vehicular growth in Patna (1996-2001)**

Transport Mode/ Year	1996	1998	2000	2001
Bus	2410	2668	2730	2938
Mini bus	897	1045	1055	1077
Truck	11541	13373	14426	14733
Other goods vehicle	1275	1606	2065	2296
Taxi	2341	2468	2854	2945
Auto rickshaw	11782	13979	14466	15540
Tractor	5403	6419	6862	7235
Trailer	4691	5595	5968	6213
Car	20818	25548	28670	31290
Jeep	1051	2203	11777	12116
Two wheeler	156982	180892	189440	197291
Others	715	495	475	490
<b>Total</b>	<b>219906</b>	<b>256291</b>	<b>280788</b>	<b>294164</b>

Source: Draft Master Plan for Patna-2021, DCPL Consultants, Kolkata

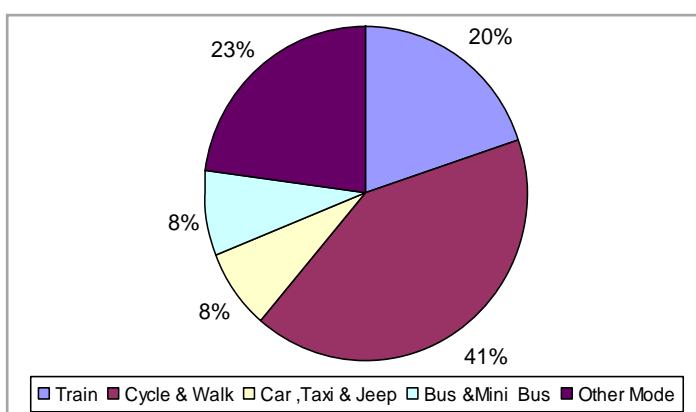
Table 27 represents motor vehicle population in Patna for selected years from 1996 to 2001, from 1996 to 2001, bus population has increased 22%, truck population grew by 28%, car (including jeep

and taxi) population experienced highest growth at over 90%, two wheeler population faced relatively modest growth of around 26% and total vehicle population increased by 34%. Besides motor vehicles, there are around 125000 bicycle and 35000 registered rickshaws in the city.

### 5.5.1.2 Modal split

In Patna Urban Agglomeration Area, passenger share of public transit system mainly Bus & Mini bus is less than other transit mode. Passenger share in Car & Taxi is very negligible. It seems that a major percentage of travelers of Patna prefer walking to reach their destination.

Figure 4: Modal split



Source: Draft Master Plan for Patna-2021, DCPL Consultants, Kolkata

### 5.5.1.3 Traffic characteristics

Table 28 shows peak hour traffic volume of 30 major intersections. There are two peak hours of two hours duration each in a time span of 12 hours every day. It has been considered morning peak hour from 9 AM to 11AM and evening peak hour is between 5 PM to 7 PM.

Table 28: Peak hour Traffic Volume with capacity of road

Road Name	Max PCU/hr	PCU/12 hour	Right of way	Carriage way	Capacity (PCU)
Fraser Road	2867	34404	22.2	14.4	3291
New Duck Bungalow Road	1169	14032	18	12.3	2811
Fraser Road S	2435	29222	25.45	13.95	3189
Bailly Road Bound	3274	39292	19	12.3	2811
Old Bye Pass	2161	25926	27.98	24.38	5573
Karbigaia Road	1548	18578	26.5	12.8	2926
Chiria Bridge	1285	15421	13.3	7.3	1669
Exhibition Road	4646	55750	25.9	13.2	3017
Bhattacharya Road UP	3082	36985	14.5	11.1	2537
Chiraiatan Pool Bound	2987	35839	10.24	8	1829
Dakbungalow Road	2187	26245	11.2	8.5	1943
Bhattacharya Road (UP) at pirmohani chawk	1899	22782	13.5	11	2514
Rajendrapath Uma Cinema	3613	43353	24.55	13.35	3051
PMCH Bound	977	6319	11.9	9.9	2263

Ashok Raj Path E	3117	37402	19.8	11	2514
Makhania Road	462	5547	4.3	4.3	983
Govind Mitra Road	994	11923	7.3	4	914
Exhibition Road (DN) at Gandhi Maidan	2919	35032	23.9	16.2	3703
South West Gandhi Maidan	2555	30655	72.8	44	10057
Khajanchi Road UP	587	7039	6.6	3	686
Bari Path N	2421	29051	9.4	6.9	1577
Bari Path S	1679	20146	12.8	6.3	1440
Arya Kumar Road	2152	25826	4	4	914
Thakur Bari Road	1890	22681	10.1	6	1371
Churi Market	1486	17833	15.5	13.5	3086
Rajendra Path N	2022	24258	16.5	13	2971
Nala Road	2359	28308	9.6	9.6	2194
Rajendra Path S	2121	25446	21.6	13.6	3109
Gandhi Maidan East	3603	43236	50.4	44	10057
Bakar Ganj Road	1858	22295	11.4	9	2057
Subhash Park Road E	3451	41409	12.6	6.8	1554
Boring Canal Road N	1929	23148	15.4	11.1	2537
Boring Road E	1702	20419	10	7	1600
Boring Canal Road S	1012	12140	7	4.5	1029
Boring Road W	1563	18756	18.5	10.7	2446
Pataliputra Road	1226	14715	9.2	6.7	1531
Ashiana Nagar Road	953	11434	10.3	3.8	869
BMP Bound Road	456	5468	10	3.5	800
IGMIS Bound	502	3488	16	11	2514
Raiding Road	663	7957	23.4	11.8	2697
Sahadeo Path	506	6077	10.6	5.3	1211
Buddh Marg N	1949	23391	22	12	2743
Adalat Gunj Road	1125	13495	11.25	6.25	1429
Mithapur Sabji Mandi Road	492	5899	12.3	6.8	1554
Mithapur PG Line	1553	18635	8.6	6.6	1509
Khagol Road	1464	17564	13	10	2286
Patna Station Bound	627	7519	11	9	2057
Karbigaia Main Road E	1690	20274	14.7	7.7	1760
Karbigaia Main Road W	1922	23062	15	9.5	2171
New Sadak	826	9909	14.2	6.2	1417
Mal Salami Road	460	5519	14.5	6.5	1486
GT Road	1423	17076	26.3	10.5	2400
Bari Path E	1335	16017	12.5	6.8	1554
Thakur Bari Road	1933	23194	9.8	6	1371
Jai Deo Path	922	11063	14.4	6	1371
Ganga Ghat Bound	1827	21924	4.5	3	686
Sanicharl Mandir Bound	1720	20636	7.4	3.4	777
Gaighat Bound	839	10066	8	5	1143
Patna City Chawk Bound	972	11666	7	5	1143
Hospital Road	944	11325	7	4	914

Source: Traffic volume survey-2006, DCPL Consultants, Kolkata



From the traffic volume survey of 30 major intersections in Patna urban agglomeration area, it has been observed that maximum traffic volume is 55750 PCU per day and minimum traffic volume is 3488. Utilization of roads right of way is very minimum due to encroachment over roads by hawkers and shopkeepers and on street parking resulting jammed conditions. From the traffic volume survey it was found that 14% of roads are in C & D level of service, it means traffic flow is stable with acceptable travel time delay. 35% of road is in good condition with free flow relatively.

### 5.5.2 Proposed Hierarchy of Roads

The proposed Master plan for Patna exhibits a definitive hierarchy in its structure. The proposed road network would increase connectivity within the region, simultaneously helping alleviate traffic problems. The proposed road network is in grid iron pattern with hierarchy in structure which is shown in Map 23.

The whole concept is to integrate the existing road of PMC with proposed road in PPA. The whole road network in PMC is reworked and hierarchies of roads are proposed by retaining proposals of Master Plan 1981. The proposed hierarchies of roads proposed in PMC are 12.2m, 18.3m, 27.4m, 30.5m and 36m wide. Refer Annexure 15 for the different sections of roads.

Hierarchy of roads proposed in Patna Planning Area -

#### 1. Central spine – 80m wide road

This road is the 1st order in hierarchy in the urban area. The central spine proposed in southern contiguous urban area runs along east west direction. This spine is well connected to major roads, NH 98, NH 83, NH 30, and NH 19. Canal is proposed in the center of the spine along the road to drain the ground water.

#### 2. Pocket outer road - 60 meter wide

This road is the 2nd order in hierarchy in the urban area. This ring road is along the growth pockets. The outer ring road of southern contiguous urban area is well connected to various urban nodes by public transport route. Few of these roads will have canal running along, depending upon the design of the drainage line. Canal will help to drainage the surface water to the river.

#### 3. Pocket major road - 45 meter wide

The 45 m wide proposed road is 3rd order in hierarchy in the urban area. Each of the urban nodes are well connected by 45 m wide road. The sectoral road forming a grid varying between 2.5 X 2.5 km approximately. Few of these roads are proposed with canal running along, depending upon the design of the drainage line. Canal will help to drainage the surface water to the river.

#### 4. Pocket minor road - 30.5 meter wide

The 30.5 m wide proposed road is 4th order in hierarchy in the urban area. The sectoral road forming a grid varying between 1.5 X 1.5 km.

Map 23: Proposed Road Network, PPA

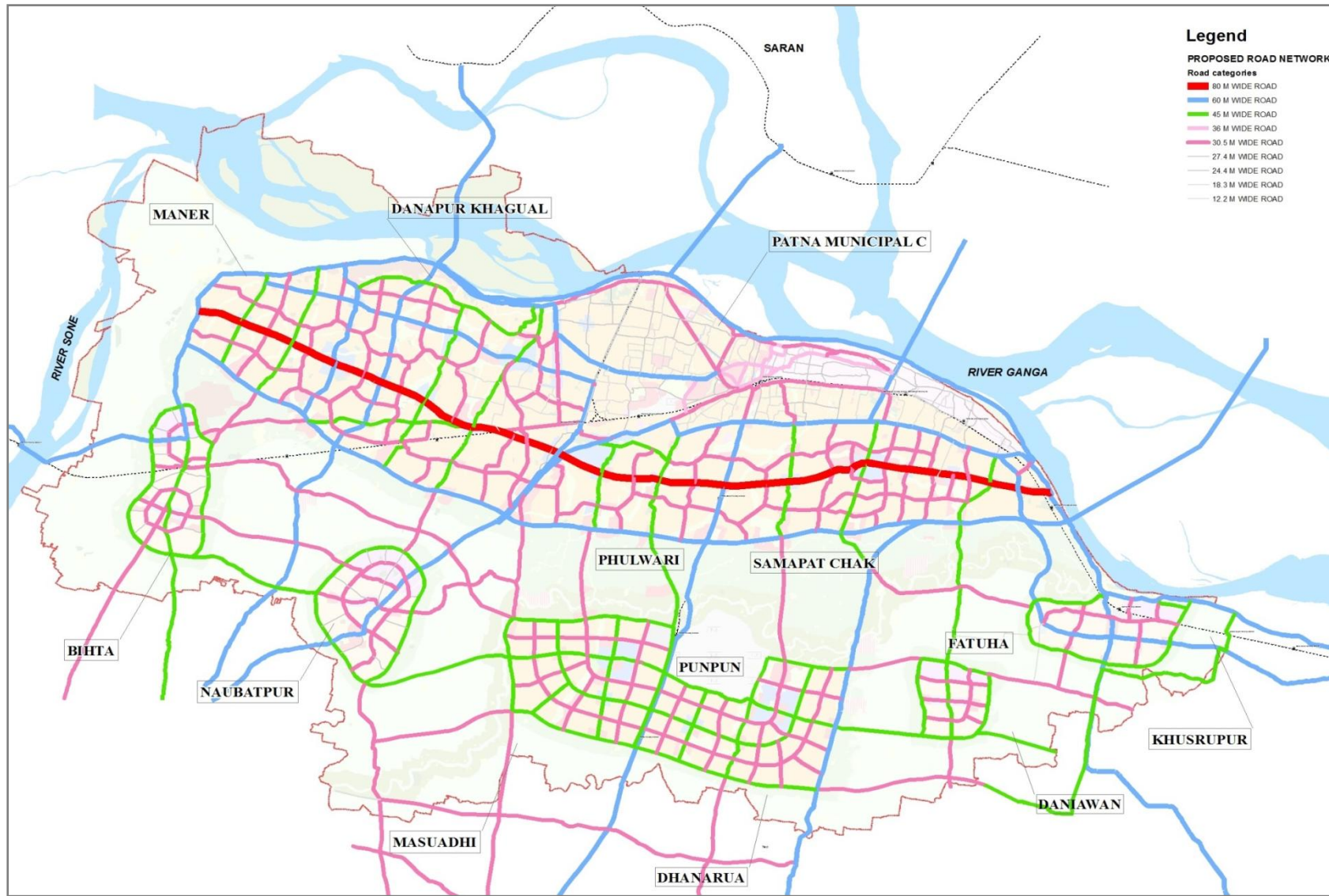


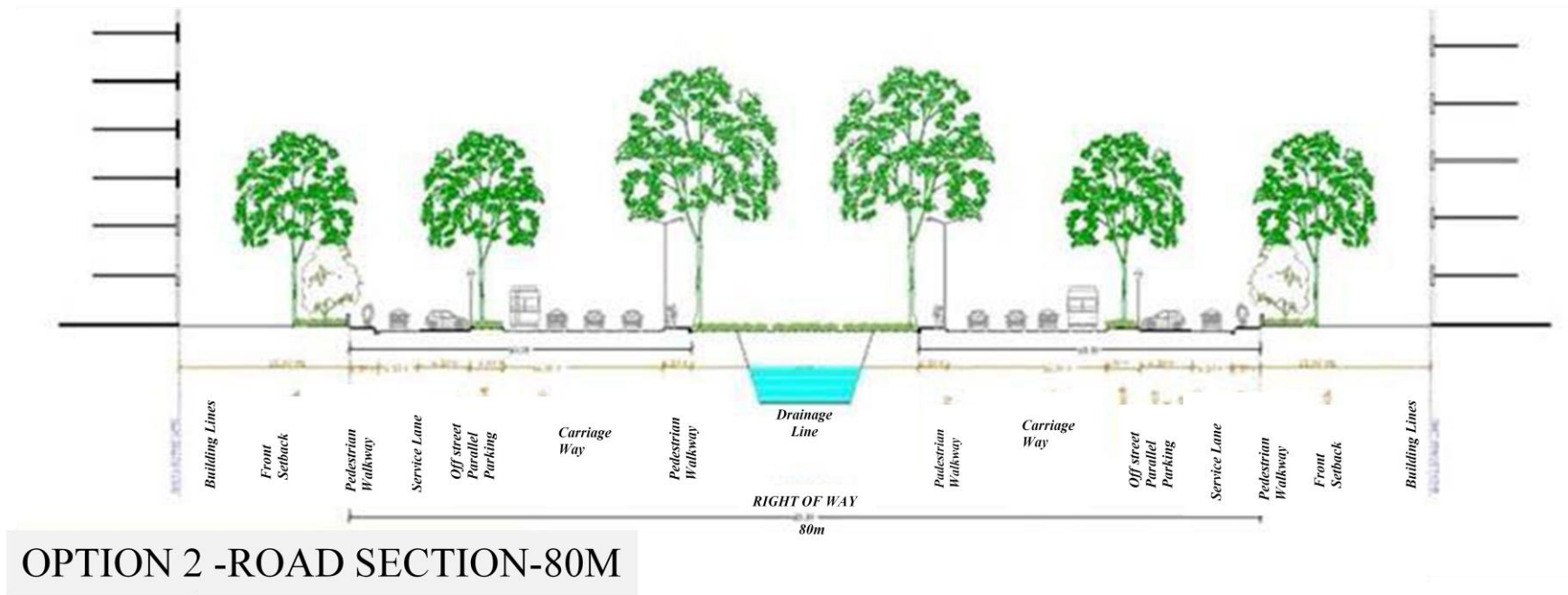
Figure 5: Central Spine (80m wide) Road section - Option 1



OPTION 1 -ROAD SECTION-80M

PROPOSED SECTION for 80m WIDE ROAD WITH BRTS

Figure 6: Central Spine (80m wide) Road Section - Option 2



**PROPOSED SECTION for 80m WIDE ROAD WITH BRTS**

**Central Spine (80 M wide) - Locations**

via Nagwa, Reva, Shivala, Khedarpura, Nohsa, Khagual(near AIIMS), Nathupur,Sadallichak, bhogipur, Bairiya, Illahi bagh, Narayan Nagar, Dhaulpura, Mirchak Kothiya, Simli Murarpur. Chimo Chak, Sabalpur.

Figure 7: Pocket Outer-Road (60 m wide) Road Section - Option 2

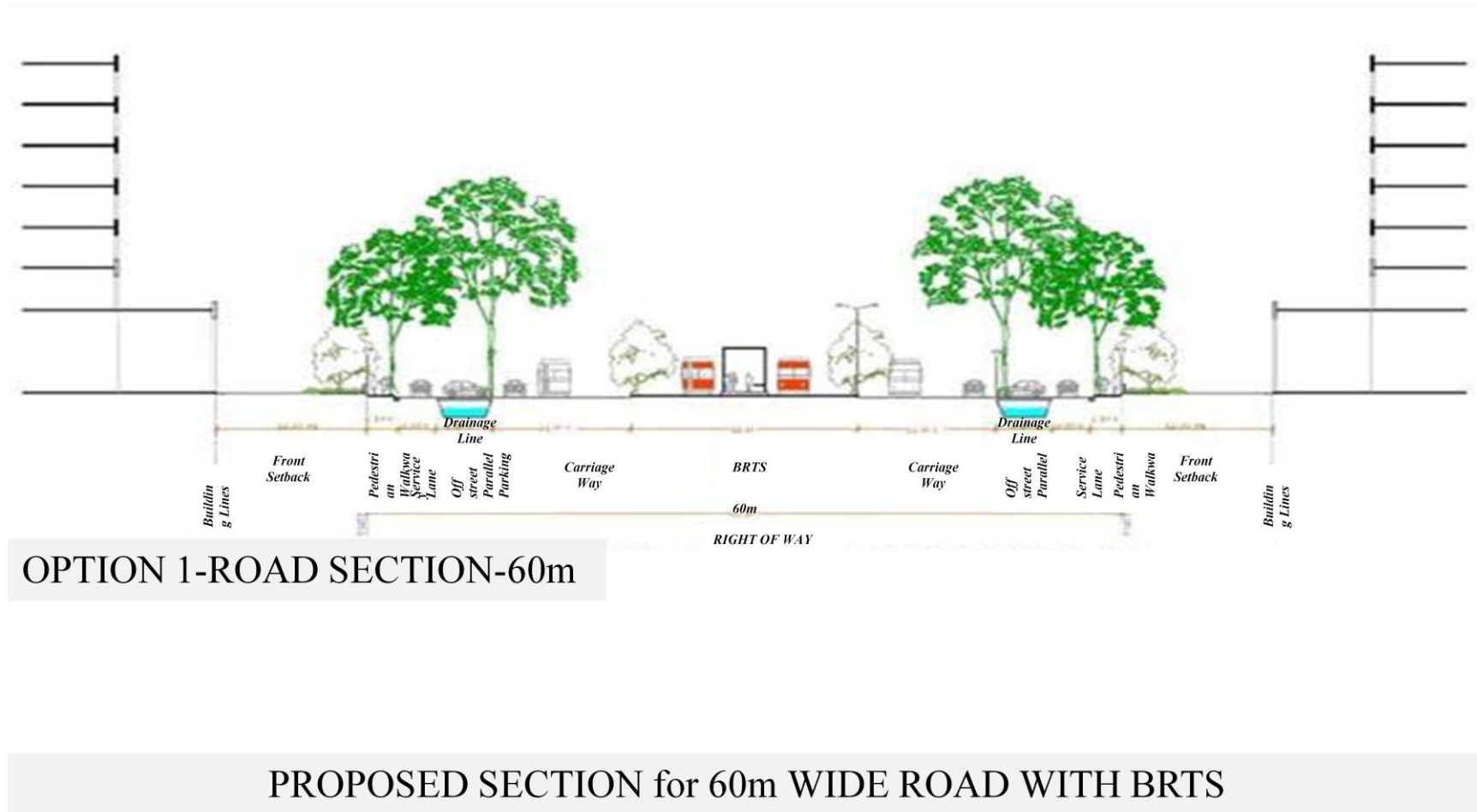
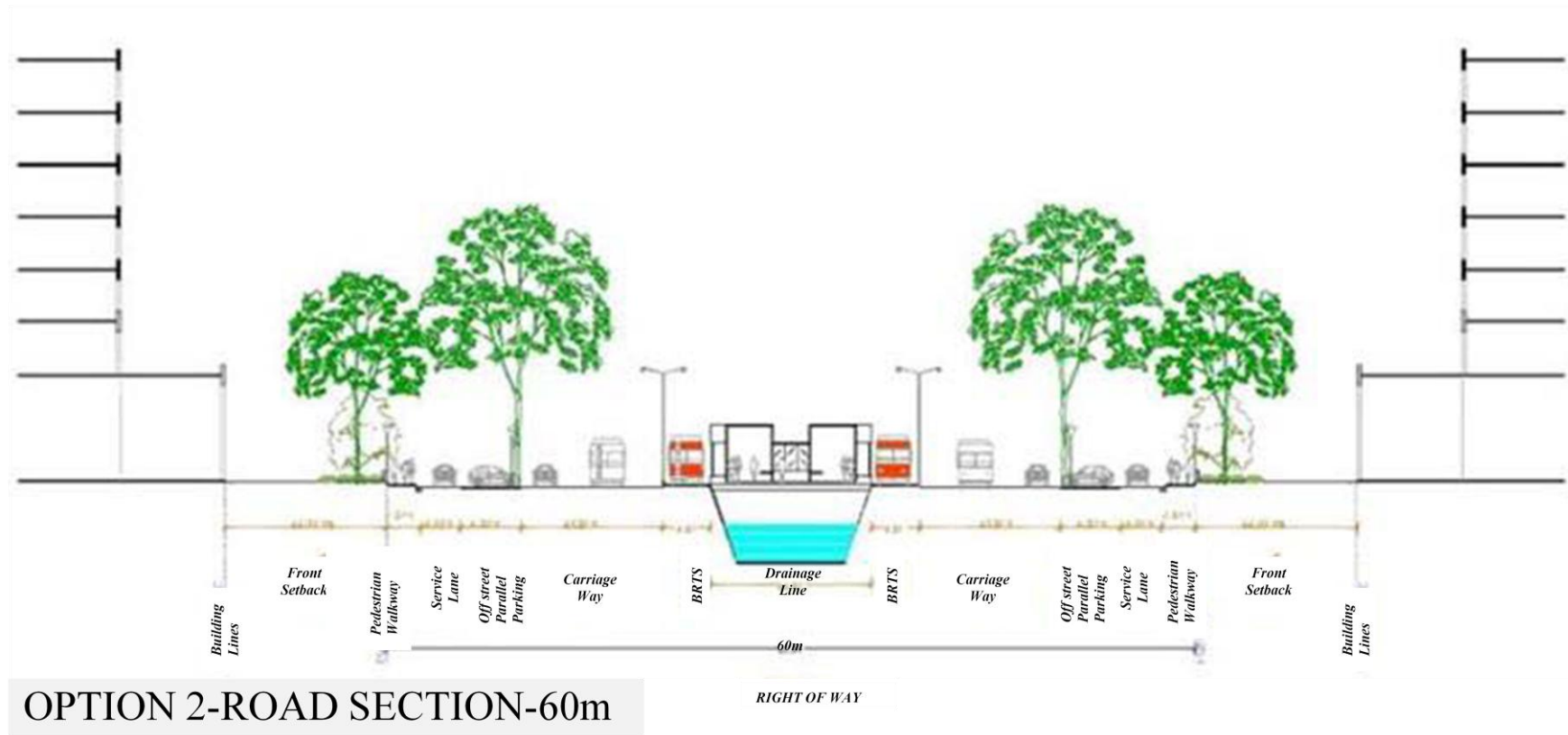




Figure 8: Pocket Outer-Road (60 m wide) Road Section - Option 2



OPTION 2-ROAD SECTION-60m

PROPOSED SECTION for 60m WIDE ROAD WITH BRTS

**Pocket Outer-Road (60 m wide) - Locations:**

1. ***Diara Govindpur of Fatuha, to Dariapur of Naubatpur*** Block via Bankaghat, bazaar samiti, Transport nagar, NH-98, Anishabad, Badi Khagaul.
2. ***Korji of Phulwari Block to Mehdava of Maner*** Block. via khagaul bus stop, Charakya Puri, RPS, Mathiapur, chak Daud, Darweshpur Diara
3. ***Hasanchak of Bihta to Bankaghat of Patna Municipal*** via Makhdumpur, Muradpur, Nadiawan , Simra, Gopalpur, Khanpur, Punadih.
4. ***Bankaghat of PMC to Katesar of Bihta*** Block via ganga ghat, Lodipur, Maner Church, Maner Dargah, Rambad, Hasanchak, Anandpur, Bihta Chowk.
5. ***Khaspur of Khagaul-Danapur*** Block to Nauhi of Naubatpur via Milkipur, Painal, Sirichandpur, Tiskhora,
6. ***Gauraiya Bus-stop of Danapur-Khagaul*** Block to Sadisopur of Bihta block via Pandepur Tihari, Chintamanipur Maula,
7. ***Khaspur of Maner to Pant Bhawan of PMC*** via Danapur Bus stand Khagaul Bus stand, Ram Jaipal nagar, Rukanpura, khajpura, Raza bazaar, Shashtri Nagar Rajbansi Nagar.
8. ***Sipara of PMC to Taregna of Masaudhi*** via Indrapuri Sipara, Aitwarpur, Badadham, Parsa Railway station, Zahidpur, Rasilchak, Manora, Punpun Railway station, Bakarpur, Pothahi, Akauna.
9. ***Taregna of Masaudhi to Mirchi of PMC*** via Deodaha Deokali, Musnapar, Beldari Chak, Sapahua, Mundi Chak, Koli, Gaurichak, Jujharpur, Fatehpur.
10. ***Transport Colony of PMC, to Gaighat of PMC*** via Agamkuan.
11. ***Rasulpur Kurta of Fatuha to Hasanpur of Daniawan.*** Via Sonaru, Janarjanpur, Kolhar, Sarbahanpur, Sirampur, Badikewal

Figure 9: Pocket Major Road (45 meter wide) - Road Section



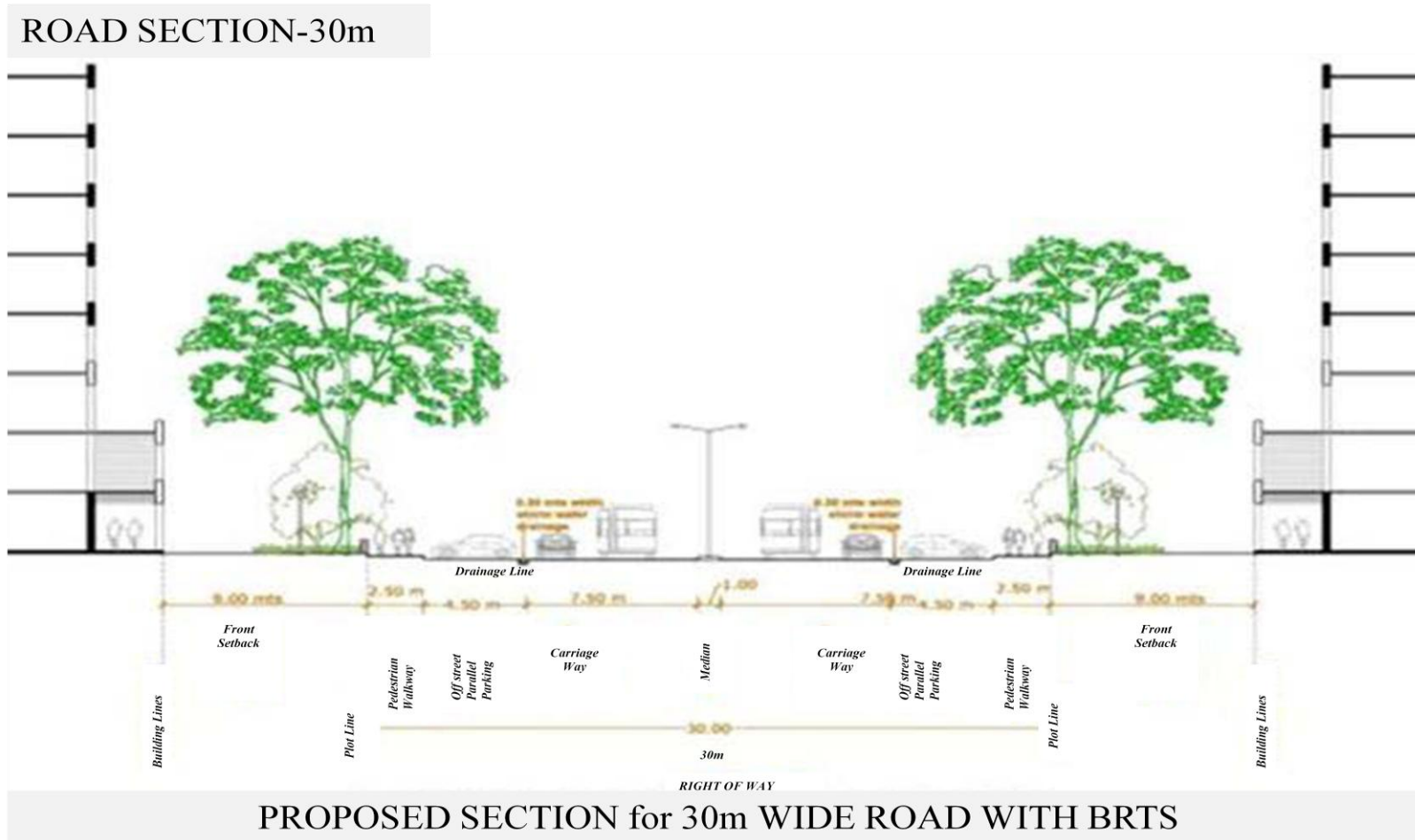
ROAD SECTION-45m

PROPOSED SECTION for 45m WIDE ROAD WITH BRTS

### Pocket Major Road (45 meter wide) - Locations

1. **Maner to Bihta**- 3 vertical segments
2. **Maner to Danapur-Khagaul** – 1 horizontal segment
3. **Danapur-Khagaul to Phulwari** -1 Vertical segment
4. **Bihta to Naubatpur**- 1 horizontal segment
5. **Naubatpur**- 1 internal ring road segment
6. **Naubatpur to Punpun**- 1 horizontal segment
7. **Punpun** - internal 4 horizontal and 2 vertical segments
8. **Punpun to Fatuha**- 1 horizontal segment
9. **Fatuha**- 2 internal ring road segments
10. **PMC to Fatuha**- 1 vertical segment
11. **PMC to Sampatchak**- 2 vertical segments

Figure 10: Pocket Minor Road (30 meter wide) Road Section



**Pocket Minor Road (30 meter wide) segments**

**Internal ring roads and connecting arterial Roads in all CD blocks forming grid 1.5 km x 1.5 km**



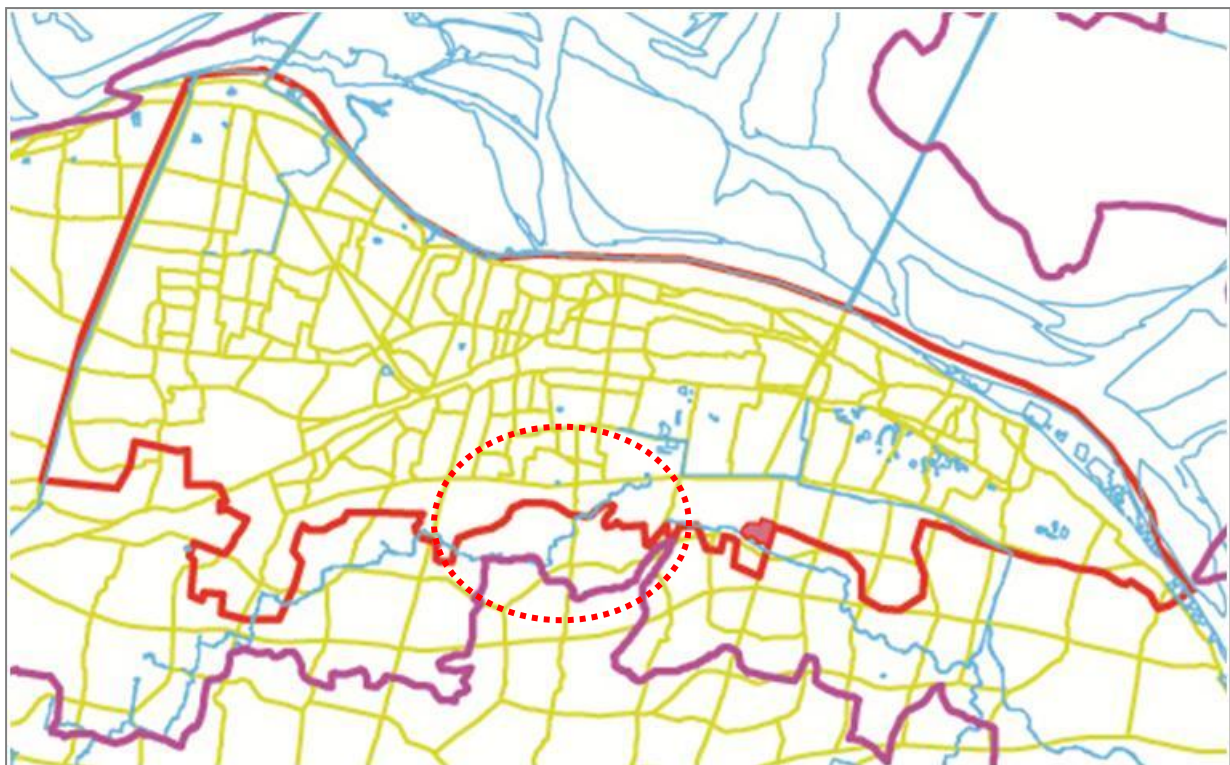
Some of the roads where road widening can be done are Ashok Rajpath, Bari Path, Rajendra Path, Dakbanglow Road, Station Road, Boring Road, Bailey Road, Ashiana Road, Karbigahia Road, Old Bye-Pass Road, Bhattacharya Road, Guru Gobind Singh Path, Raiding Road. Sahadeo Path, Karbighaia Main Road E, Fraser Road, New Duck Bunglow Road Etc.

### 5.5.3 Public Transport route

The proposed Patna Master Plan has well-mannered network of Public Transport routes. The roads which are passing through the outer ring road of southern contiguous urban area (60 m) and the central spine (80 m) will have dedicated public transport route( fast transit) (e.g. BRTS, Metro). The public transport route (SH02, NH98) passes through the proposed urban nodes.

The initial phase of fast transit mode of transportation in Patna Planning Area is Patna Metro and currently is under process. The Proposed Patna Metro Routes in Patna municipal Corporation Area will later on connect to rest part of PPA.

Map 24: Proposed Bus Station



The proposed bus station is located in Pahari village in Patna city. Total area of Bus Stand is 25.02 Acre.

Map 25: Public Transport Route, PPA

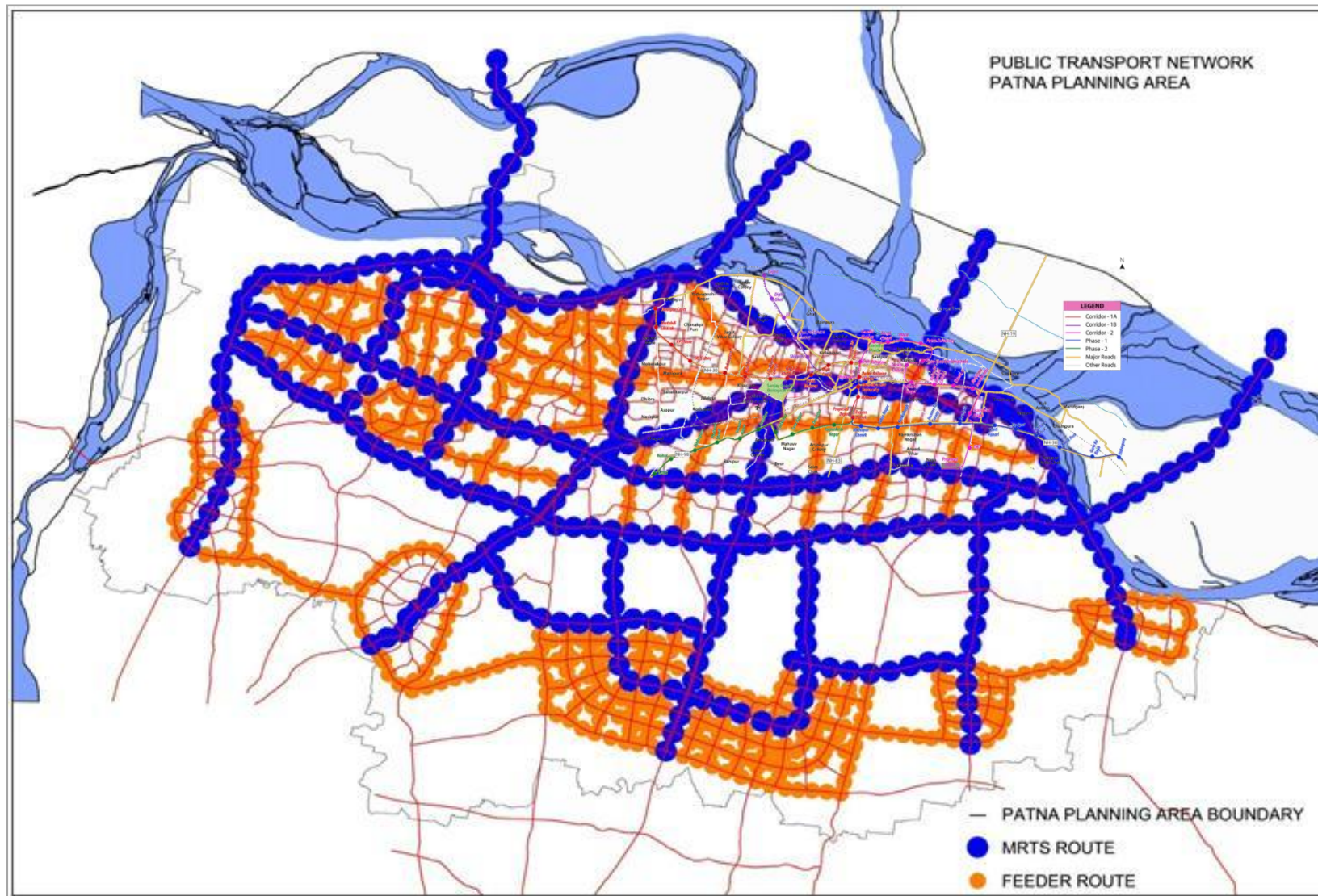
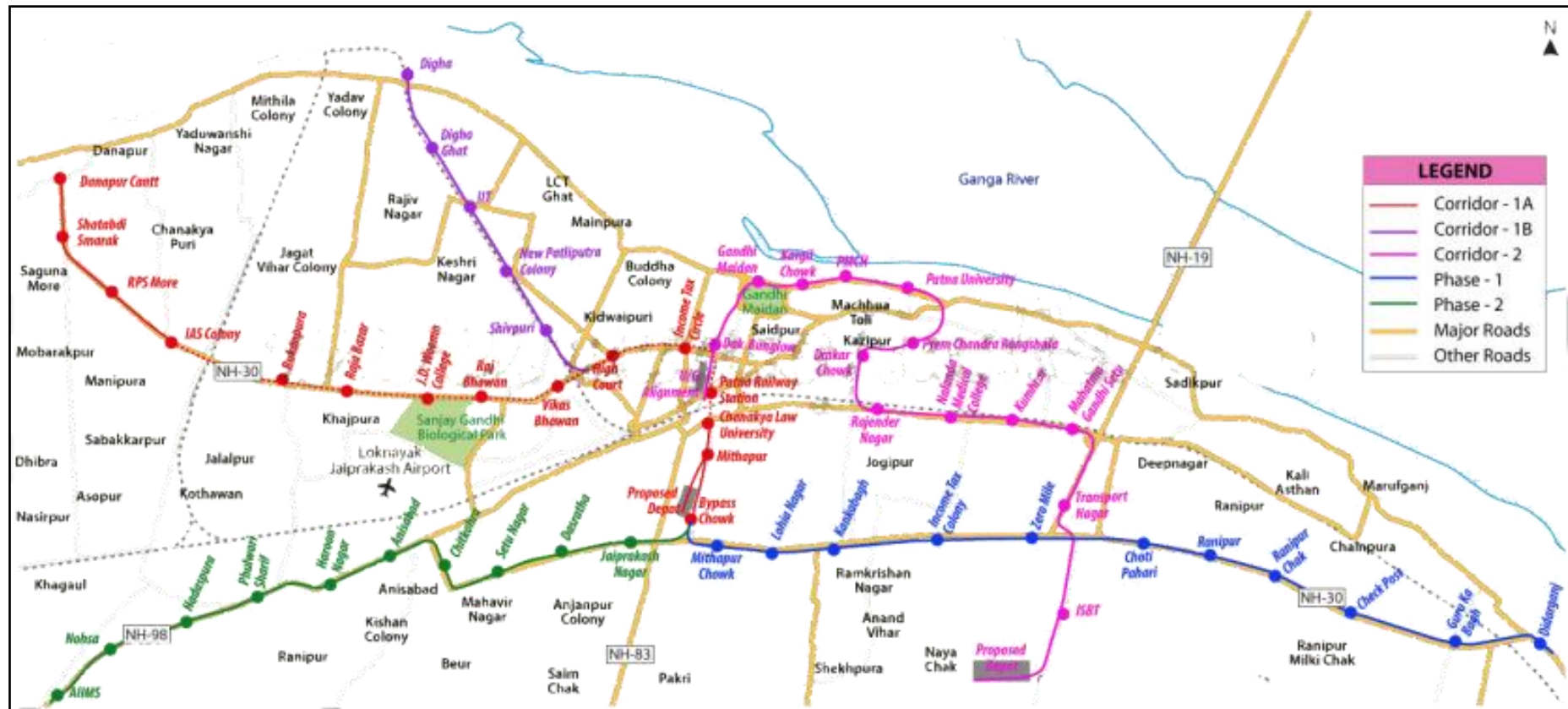


Figure 11: Tentative Metro Routes under consideration by RITES





### 5.5.4 Rail Network

According to information available<sup>4</sup>, the Howrah-Delhi railway line, aligned through the city on the southern bank of Ganga, has 5 major railway station serving Patna urban area viz Patna sahib, Gulzar Bagh, Patna junction and Phulwari Sharif and Danapur. The railway line towards south connects the PUA and PPA to Gaya. The railway infrastructure on the northern bank is growing fast as the head quarter of Eastern Central Railway is located at Hajipur. At present, Hajipur is connected by railways from Muzaffarpur, Samastipur and Darbhanga. In addition to this it has been now connected to Patna through Digha-Sonepur rail–road bridge.

The railway line traverses through the entire Patna city length in the east-west direction. Therefore, the railway tracks serve both as a major movement corridor and as a barrier to north south connectivity of Patna city. To mitigate the linkage problem of northern part and southern part of the city across lines, road over bridges have been constructed on the north-south links. The BMU system of local trains connects the PUA brings the floating population from destination link areas in the west, Mokamah in the east as well as Jehanabad and Gaya in the south.

Major railway stations along main line with in PUA are as follows:

- Patna Junction
- Rajendra Nagar Terminus
- Patna Saheb
- Danapur
- Patliputra Railway Station

Minor railway stations along main line within PUA are as follows

- Gulzarbag
- Deedargang Halt
- Sachiwalya Half
- Phulwarisharif

There are 4 stations along Patna-Digha with in PUA area

- Digha
- Rajeev Nagar
- Secretariat
- R. Block

The new Patliputra Railway Station has started functioning along Patna-Hajipur rail link. In the proposed Master Plan existing rail network connecting Danapur railway station- Patliputra railway station- FCI godown – Patna railway station is proposed as 45m wide road.

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<sup>4</sup>Report submitted by DCPL Consultants

### 5.5.5 Air network

#### Air Network:

Primarily behaving as a domestic airport, Patna is directly connected with New Delhi, Kolkata, Bombay, Lucknow, Varanasi, & Ranchi. Like Bangalore, Hyderabad, Ahmedabad etc Patna is also a customs airport having customs and immigration facilities for limited International operations by national carriers and for foreign tourist and cargo charter flights.

**Table 29: Air Traffic Movement**

Period	Movement		
	No of aircraft movements	No of passengers	Cargo in tones
2000-2001	NA	176916	NA
2001-2002	NA	156490	NA
2002-2003	NA	162800	NA
2003-2004	4166	159683	1035
2004-2005	3844	208114	1184
2005-2006	-	218824	1419

Source: Draft Master Plan for Patna-2021, DCPL Consultants, Kolkata and AAI, Patna Airport

Traffic movement at Patna airport: The aircraft, passenger and cargo movement at the airport with their past trends are shown as above. Aircraft movement includes domestic aircraft -360 per month (180 arrival and 180 departure) and international-none. Schedule flights are total 7 per day with mostly national carriers operating and no international carriers.

Passenger Traffic: Mostly businesspersons and government officials had so far used the airport. Tourists are seasonal, mostly during the winter months that also had been greatly affected by the Gaya airport and the trends are declining. The trend in passenger inflow so far through the airport is as shown below.

**Table 30: Airport Traffic Volume**

Year	International	Domestic	Total
2000-2001	9029	167887	176916
2001-02	2545	153945	156490
2002-03	1804	160996	162800
2003-04	0	159683	159683
2004-05	0	208114	208114
2005-06	0	218824	218824

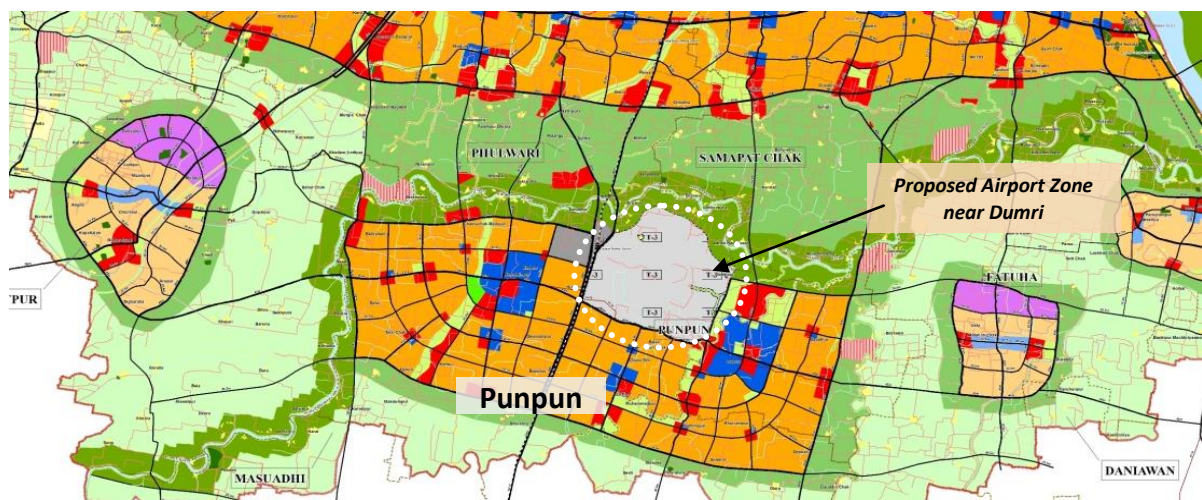
Source: Draft Master Plan for Patna-2021, DCPL Consultants and AAI, Patna Airport

Present Patna Airport runway is falling short in length as directed in guidelines of international standards for Airport. For new prospects, new airport site is proposed at Dumri, Punpun with



enough space to accommodate runway length of international standards. The new airport proposed is well connected by NH 83 and it is adjacent to Punpun River at Dumri in Punpun block. The total area proposed for airport is 14.11 sq.km. The zone may be used for airport and related activities and it shall be developed without affecting the existing settlements as much as possible. Villages coming under Airport Zones are (Nima, Ekauna, Sisrochak, milki, Manora, Sripalpur, Lakhanpur, Sabalpur, Paikauli, Ghordaur, Rasulpur and Bias). The proposed location for airport is shown in Map 26.

**Map 26: Map showing Proposed Airport at Dumri , Punpun**



#### **Alternative location of Airport in Bihta:**

Patna Metropolitan Planning Committee in its meeting held on the date 24.10.2016 has recommended the development of Civil Enclave in Bihta Airforce Airport as an alternative location for Airport in Patna and the same is made as a part of this Master Plan.

#### **5.5.6 Waterways**

Patna has an additional advantage of perennial river link of Ganga on its entire northern flanks. It can be used as alternative to surface transport. Patna can be linked to at least 21 class-I cities stretching over thousands of kilometre length in northern India, if inland waterways are developed. A navigable channel has been dredged from Patna to downstream up to Kolkata.

Patna is at the nodal point of a potential waterways system. It is located at the confluence of river Ganga and Gandak, a few kilometres upstream the river Ghagra and son meet the river Ganga. With the opening of Ganga Bridge and proper navigation the trans-river goods movement has reduced considerably. However, some traditional mainly country boats, still carry goods through the Ghats. The use of country boats for goods movement will reduce further after the construction of railway bridge over river Ganges although the transportation cost by the waterways is possible much lower. Hence there is a tremendous potential for development of comprehended inland waterways.

## 5.6 Proposed Physical Infrastructure

The present section deals with proposed utilities and infrastructure requirements including water supply, sewerage system, storm water drainage and solid waste management for the Master Plan area.

### 5.6.1 Water Supply

The existing water supply system of Patna town is based on ground water sources. According to data available, at present, Patna urban area has 85 deep tube wells apart from individual tube wells (privately owned) in the outskirts of the city as well as some affluent people have sunk tube well in water scarcity area to meet their own water demand.

The water supply for Patna City has been through decentralized system with single or group of tube well having definite command area. The existing distribution system is very old and suffers from heavy leakage and much incrustation reducing its carrying capacity and giving rise to severe water pollution.

The water distribution network has been framed and executed by grouping a number of tube wells as and when required on piece meal basis. As a result, in some areas water supply is in excess and in some areas water supply is very much inadequate. This is due to unequal distribution of water. For assuring equal distribution of water in all the areas, it is essential to analyze the pipeline networks zone wise and to follow optimal network by route rationalization. It may be mentioned here that there is every possibility of development of negative pressure during non-supply hours and this may cause help in entry of polluted and/or contaminated water through leaky joints in waterlines. Further, PMC area has been divided into 25 water districts, having individual water source. The distribution lines are interconnected, so that water can be diverted from one place to the other.

### 5.6.2 Water supply source

The Patna town divided into two parts by Delhi-Howrah railway line. The part of the town north of the Delhi-Howrah railway line supplied with surface water from river Ganga, where as part of town south of railway line supplied by ground water from Tube wells. (Source: December 2011, Bid Document, Design, Build, Operate, Manage, and Maintain Water Supply System in Patna). As Patna has excellent ground water resources, a large number of private tube wells exist for domestic as well as non-domestic use. The private tube wells are to supplement or an alternative to the public water supply. The city region ground water table exploited due to misuse of the surface. Due to high investment cost, the surface water resources such as river Ganga in north and Sone in south are under utilized for the drinking purpose.

The water can be diverted from one place to another, because the distribution lines are interconnected. The distribution system includes 23 Over Head Storage Reservoirs, although most of them are currently not in use. The system is old and inadequately maintained, with the result that estimated water losses are very high.

Though the Patna city is situated on the right bank of river Ganges, the ground water source has been found more suitable as compared to surface water for the purpose of water supply to the city

owing to the reason that it does not require any rigorous treatment with operation & maintenance excepting chlorination for the purpose of disinfection. Thus, ground water supply is cheaper in cost.

### 5.6.3 Issues

The main problem with the existing system is non-uniform supply in different area and contamination due to various leakages.

- The Unaccounted for water (UFW) loss is above 40% due to poor and old supply network.
- Problem of arsenic content in water in surrounding areas of second layer geological strata.
- The pipes are in the centre of the road due to road widening and facing heavy traffic, resulting in loss of carrying capacity, contamination of water, problem in repair and maintenance.
- In many colonies the drinking water and sewerage pipelines are interceding each other, with sewer line on top of water line increasing the possibility of contamination.
- Multi-lateral institutional arrangement for management of water supply system.
- Highly Subsidized water supply
- High Operation and Maintenance cost.

### 5.6.4 Water demand estimation

Water demand for any area depends on the land use pattern of the area and type of living standards of the population residing in the area. Future water demand for the project area is estimated based on the projected population of the area. The population of the PPA area is 2,874,576 as per 2001. The projected population in the PPA area for the year 2031 has been estimated at 6,025,232 of which the urban population is 4,877,129 while the rural population is 1,148,103.

Water demand has been estimated separately for both urban and rural areas with phase wise increment in per capita per day (lpcd) supply for the Master Plan area. Water demand as per CPHEEO norms a per capita supply rate of 135 lpcd has been considered for working out the water demand for domestic and commercial uses. Additional 15% of this demand is to be added to account for UFW.

Water Supply Norms: It is assumed that there shall be continuous improvement in living standards of the population residing in the project area after 2011 and so there be an increase in water demand. The URDPFI Guidelines suggest for planning a large city a domestic standard of 135 lpcd as the minimum and 150-200 lpcd as the desirable norm. In addition, a non-domestic demand of 30-35 lpcd is prescribed.

The water demand assumption is based on the following considerations:

- Present water source and service levels
- CPHEEO norms for Planning areas
- Source augmentation potential in the region, and
- The need for realistic targets.

The standards considered for 2011 the domestic demand is 110 lpcd for urban. In addition with the non-domestic demand (excluding industrial demand) around 25 lpcd is assumed. The standards considered for 2021 the domestic demand is 70 lpcd for rural areas and 135 lpcd for urban areas. In addition with the non-domestic demand (excluding industrial demand), around 80 lpcd for rural areas and 180 lpcd for urban areas are assumed.

For 2031 the domestic demand is assumed to be 90 lpcd for rural areas and 150 lpcd for urban areas. In addition with the non-domestic demand (excluding industrial demand), it is assumed around 15 lpcd for rural areas and 50 lpcd for urban areas. The water demand for industries is calculated based on industrial area proposed for 2031.

The demand estimation for industry is made by adopting CPHEEO's general norm of 45 cum/ha for industrial areas. Over and above the net demand for industrial areas, 20% additional demand is taken into account for ancillary industries. The net industrial area water demand projected for 2031 is 97.2 MLD including demand for ancillary industries.

The total water demands for the Patna Planning area for 2021 is 961 MLD and for 2031 is 1413 MLD, which covers the following sections below. The projected total water demand of domestic and non-domestic activities is 36 MLD for 2021 and 55 MLD for 2031. The projected water demand for Public and Semi-Public Use is based on the 5% of the domestic activities with 36 MLD for 2021 and 55 MLD for 2031. The projected water demand for industrial area is 65 MLD for 2021 and 66 MLD for 2031, which is based on the proposed industrial area and water demand calculations. The proposed water demand for Firefighting is 8MLD for 2021 and 12MLD for 2031. The proposed water losses is 835 MLD for 2021 and 184 MLD for 2031 considering 15% of the water demand

The Table below shows the estimation of water demand for domestic, non-domestic, and Industrial sectors based on the foregoing norms.

Table 31: Water Demand Calculation – Patna Planning Area (PPA)

Water Demand Calculation – Patna Planning Area (PPA)								
Water supply per activity		2011	2021	2031	2011	2021	2031	
		LPCD			MLD			
Urban	Domestic	235523640.0	457310205.0	731569350.0	236	457	732	
	Non-domestic	53528100.0	152436735.0	243856450.0	54	152	244	
	Total	289051740.0	609746940.0	975425800.0	289	610	975	
Rural	Domestic	83376100.0	101209150.0	103329270.0	83	101	103	
	Non-domestic	16675220.0	14458450.0	17221545.0	17	14	17	
	Total	100051320.0	115667600.0	120550815.0	100	116	121	
Total Water Demand for Domestic and Non-domestic Activities (Excluding Industrial Activities) - D-ND Activities		389103060.0	725414540.0	1095976615.0	389	725	1096	
<b>Water Demand Calculation for Public and Semi - public (5% to D- Activites or 35 lpcd)</b>		19455153.0	36270727.0	54798830.8	19	36	55	
<b>Water Demand Calculation for Industries</b>								
Proposed Industrial Area	sq.km	12.1	12.1	12.18				
	Ha	1210	1210	1218				
Water Demand Calculation	Assumed 1 ha = 45CuM	54450	54450	54810				
	1 CuM = 1000	54450000	54450000	54810000	54	54	55	
	20% for Ancillary Industries	10890000	10890000	10962000	11	11	11	
<b>Total Water Demand for Industrial Area</b>		65340000	65340000	65772000	65	65	66	
<b>Sub -total - 1</b>		473898213.0	827025267.0	1216547445.8	474	827	1217	
<b>Fire Fighting (1% of Total Demand)</b>		4738982.13	8270252.67	12165474.46	5	8	12	
<b>Sub -total - 2</b>		478637195.1	835295519.7	1228712920.2	479	835	1229	
<b>Water Losses (Assumed 15% water demand)</b>		71795579.27	125294328	184306938	72	125	184	
<b>Total Water Demand for Master Plan Area</b>		<b>LPCD</b>	<b>550432774.4</b>	<b>960589847.6</b>	<b>1413019858.2</b>	<b>550</b>	<b>961</b>	<b>1413</b>
		<b>MLD</b>	<b>550</b>	<b>961</b>	<b>1413</b>			



### 5.6.5 Storage

The storage requirements have been calculated as per the water demand in the project area for the year 2031. The normal one-day storage is proposed for the water supply scheme. Also for firefighting requirement which is a provision and not a supply made on a day-to-day basis, therefore, provision for this quantity is kept in mind while planning the system. Thus, total storage capacity is the total water demand for one day, including the fire fighting and other demands.

**Table 32: Provision of Water Storage Facilities**

Provision of Water Storage Facilities	Water Demand (in MLD)	Water Sotage Capacity (in MLD)	No. of Water Storage facilities
Total Water Demand for Master Plan Area (MLD)	1413		
ESR - Elevated Service Reservoir Capacity (MLD)	1.5	471	314
GLSR - Ground Level Service Reservoir Capacity (MLD)	3	942	314
Water supply for Development Plan is inclusive of the losses i.e. 15%.			
For storage of water supply in ESR & GSR additional 1% of the total demand for fighting supply is calculated.			

### 5.6.6 Alternative water harvesting system

The term “Water harvesting” can be explained as collection/storage of rainwater and other activities aimed at harvesting surface and groundwater, prevention of losses through evaporation/seepage and all other hydrological studies/ engineering interventions, aimed at conservation and efficient utilization of limited water endowment of physiographic unit such as watershed.

- Need for rain water harvesting
- Short spells of high intensity/ heavy runoff/ low ground water recharging.
- Acute shortage of drinking water.
- Importance to tapping of rainwater by harvesting it for recharging or direct use.
- Components of Rain Water Harvesting
- Catchment: surface (paved/ unpaved) contributing water to a system by directly receiving rainfall; eg. Terrace, courtyard, lawn or open ground.
- Conduits: pipelines or drains (PVC/ Asbestos/ GI etc) carrying rainwater from catchment to harvesting system.
- Filters: tank with different layers of sand/ pebbles for filtering water before reaching tank.
- Storage Facility: Commonly used storage containers (RCC/ Masonry/ plastic etc) maintenance measures (cleaning/ disinfection etc) required for ensuring quality of water.
- Recharge Facility: rainwater charged directly to aquifers through bore well, dug wells, recharge trenches and recharge pits.

### 5.6.7 Recycle

Water recycling has the main benefit of preserving water supplies. Appropriate measures to be adopted to maximize savings and optimal and economical use of water resources. Some of the measures are briefly mentioned below-

- Water saving fixtures
- Reduction in landscape water demand by using efficient system and using native species plantation
- Waste water management

### 5.6.8 Sewerage and Sanitation

The objective of a public waste water collection and disposal system is to ensure that sewage or excreta and sullage discharged from communities is properly collected, transported, treated to the required degree and finally disposed off without causing any health or environmental problems.

Patna is a linear city and is about 30km in length from east to west and 5-7km wide from north to south. The city is situated between the river Ganga in north, river Punpun in South and Sone in the west. The general level Urban Area except old city is lower than the floodlevel. The general slope of the city is north to south and from west to east. The main east west road (Ashok Raj Path) running almost parallel to river Ganga forms ridge in the north.

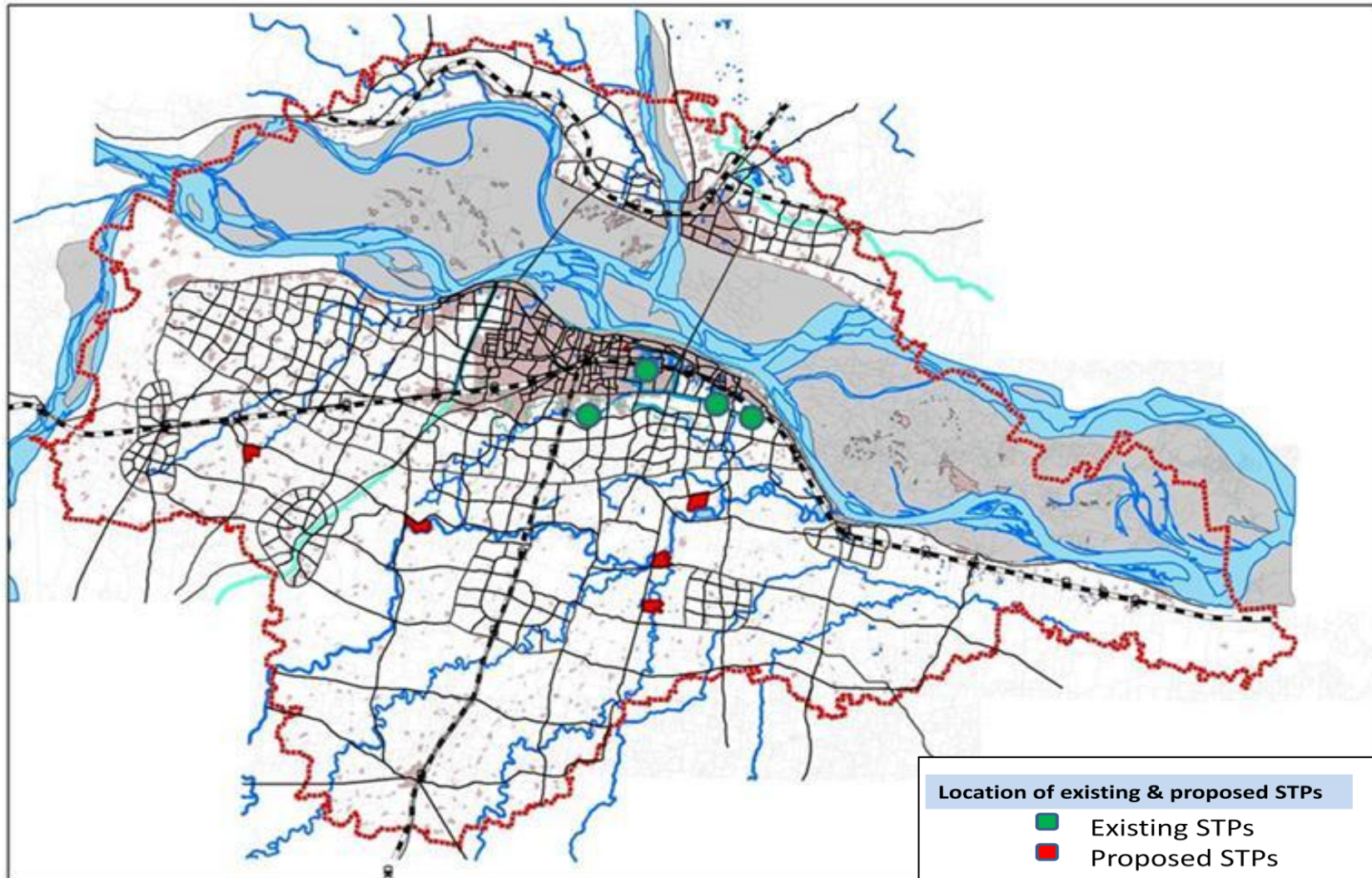
In PUA, Patna MC Area and some part of Phulwari & Danapur NP are covered by underground sewerage system. The Sewerage System in Patna City was established in 1936. There are 3 sewage treatment plant located at Saidpur & Beur in South & South West and Pahari in North of the City.

**Table 33: Location and capacities of STPs**

S. No.	Name	Capacity (MLD)
1	Saidpur	45
2	Beur	35
3	Pahari	25
4	Karmalichak	8
<b>Total</b>		<b>113</b>

The total water requirement for the Planning Area for is 1439 MLD for 2031. The sewerage flows have been calculated assuming that the total sewerage flow is generally 80% of the total water demand with 5% of this as infiltration. The total sewage generated in the PPA in the year 2031 is 1151 MLD.

Map 27: Location of existing & proposed STPs



While planning for the proposed sewerage system, consideration is given to the natural drainage pattern. The sewerage system is planned in such a way that there will be minimum pumping involved in collection and conveyance of sewage.

For treatment purposes, apart from conventional methods, STPs can be based on SAFF (Submerged Aerated Fixed Film) technology, Activated Sludge Process (ASP), Extended Aeration with ASP, UASB process (Up-flow Anaerobic Sludge Blanket) etc.

### 5.6.9 DEWATS – Decentralised Wastewater Management

DEWATS application is based on low cost of operation and maintenance. It is applied in smaller areas ideally for less than 1000 people where a conventional sewage system can prove less efficient and expensive. It is a convenient treatment for domestic and institutional waste. DEWATS to be used in rural areas of project area.

Total sewage generated in rural areas of project area is around 261. The salient features of a DEWATS include:

- Fulfillment of National Standard of WWTP Effluent
- 90% contaminant removal
- Able to treat wastewater up to 1000 m<sup>3</sup>/day
- Tolerant to inflow and loading fluctuation
- Low maintenance and long interval of de-sludging
- Low operation cost
- Efficient
- DEWATS Modules and Technology
- Bio-Digester (to treat high organics concentration wastewater, energy source to produce biogas for lighting and cooking)
- Septic Tank (system with two simple compartments, sludge stabilizing)
- Anaerobic Baffle Reactor (wastewater flows through activated sludge and contaminants are removed by contact with microorganism, BOD/COD removal to 90%, integrated sedimentation to avoid solid particles get into baffles)
- Anaerobic Filter (wastewater flows to layer of filter media and reach 90% of contaminant removal, no space consuming due to underground construction)
- Horizontal Sand Filter (aerobic treatment for pre-treated wastewater, able to remove phosphate to 80%, reduce pathogen bacteria effectively)
- Aerobic Pond (advance treatment to reduce organic loading and increase oxygen supply, easy in construction).

Refer **Annexure 16** for different wastewater treatment technologies.

### 5.6.10 Storm Water Drainage

The purpose of providing storm water drains is to carry the rainfall (storm) runoff from the terraces, paved courtyards, footpaths, roads etc. in the developed area so that flooding does not occur.

Topographically, PPA is like a saucer having a mild slope from North to South. It is located covering the river Ganga in the North, Pun pun in the South and the river Son in the west. The railway line virtually divides the topographic conditions of the town. Area in the south of railway line is almost flat and rainwater often remains accumulated on a vast span of urban land for the major part of the year.

During monsoon, when the water level reaches high flood level in the river Ganges, flood water from the river Ganges enter into the city as well as back flow occurs from the river Ganges through the Pun pun river and floods the low lying areas of the southern part of the city of Patna. The general level of Patna excepting old Patna city is lower than the flood level. Of the river Ganges the old H.F.L. as recorded in 1984 and 1975 are 168.45 and 169.29 feet respectively. The general contour of the city is much below the H.F.L. of the River Ganges.

There is need for an integrated drainage plan for PPA. The estimation of runoff reaching the storm water drains is dependent on the intensity and duration of rainfall, characteristics of the drainage area and time required for such flow to reach the storm water drains. Storm water drains are not designed for the peak flow of rare occurrence of rainfall such as once in 20 years or more; but it is necessary to provide sufficient capacity to avoid frequent flooding.

The proposed storm water drainage system in PPA has to be linked with rain water harvesting and recharge activities. All across the PPA area, blockages and encroachments on natural watercourses need to be addressed; these have implications on the drainage system for the entire region. All areas with urban as well as rural character in the PPA need to be provided with underground drainage and storm water drainage, so that the practice of sullage and solid waste disposal into natural water courses and storm drains is not followed. Apart from provision of drains, maintenance of inlets from roads to drains, keeping natural watercourses clean and encroachment free is important measures that ensure efficiency of proposed drainage infrastructure.

#### 5.6.10.1 Existing storm water drainage

The existing storm water drainage system of Patna and its outgrowths have been divided into four distinct zones:

- **Eastern zone**
- **Western zone**
- **Southern zone**
- **Central zone**

#### **EASTERN ZONE:**

- It extends from north of new bypass road and east of Nalanda Medical College Hospital and Ganga Bridge and upto Didarganj.



- There is no well-defined drainage system in this area due to narrow streets. The area drainage in the northern part of this zone takes place through Agamkuan Nullah which is 18 kms in length; leads to Pahari pumping station and discharges in to River Ganga in North and Low lying area.

#### **WESTERN ZONE:**

- It extends from west of Fraser Road to Danapur-Khagaul Road
- Serpentine channel, the old bed of the River Sone was only out let in the western zone. Total length of 7 kms of storm water drainage, it accumulates water of Jakanpur area North of Patna Gaya Rail Line and South of Patna Phulwari road. This collects to the Mandiri Pumping Station and discharges in to River Ganga at Mandiri outfall
- Boring canal having length of 3.0 kms was excavated to intercept water of serpentine channel. It leads to Rajapur pumping station and discharges into River Ganga at Rajapur outfall.
- The 4.6 kms long SK Puri Drain covers area of Patel Nagar, Punaichak, AN college area, Anandpuri, New Patliputra colony near AN college, Nehru Nagar etc leads to Punaichak Pumping Station.
- Kurjee Drain having length of 6.9 kms covers area of veterinary college, SK nagar, Western Patel Nagar, CDA Colony, AG Colony, New Patliputra Colony, Kurjee and Rajiv Nagar. It flows into Kurjee Pumping Station and discharges into River Ganga at Kurjee outfall.
- Area south of Railway line upto Phulwari Sherif from Anishabad turning has no drainage system and remains water logged on roads and low lying area.
- Area near Patna Canal and Saguna turning has outgrowth of city with residential and institutional landuses. The Sadaquat Ashram, Brajkishore Memorial, Loyala School and other establishment has no drainage system causing storm water flowing from Kurjee to Polytechnic road.

#### **CENTRAL ZONE:**

- It extends from Patna Gaya road in west to Nalanda Medical College hospital road in east and Ganga Bridge approach road in North to Delhi- Howrah Railway Line in South.
- Bakarganj Channel having 15 kms of length covers area of from Phirmuhai to Ashok Rajpath and Lohanipur area, Rajender Nagar Railway Station, Karbhaghia area etc. The area is having Storm water drainage and Natural Drainage System. It discharges into Saidpur Pumping Plant
- The channel suffers water logging problems hence not functioning properly.
- Kadamkuan/ Agamkuan Nala (18 kms.) covers area of Junction of RK avenue to Station Road and from Kadamkaun to Premchand Round about near Aryakumar road covered by 48" diameter UGD (3-4ft deep). Area from Arya kumar road to Saidpur Road is covered by Brick

drain (72" to 90" OD). the storm water goes into Pahari Pumping Station and R.K. Avenue Lift Pumps to Saidpur Pumping Station and discharges into Punpun River. It also caters area on East of Rajendra Nagar Stadium, Patna University Hostels with Own Drainage System developed by PHED but pumping Station not Operational. This goes to Saidpur Pumping Station and discharges into Punpun River.

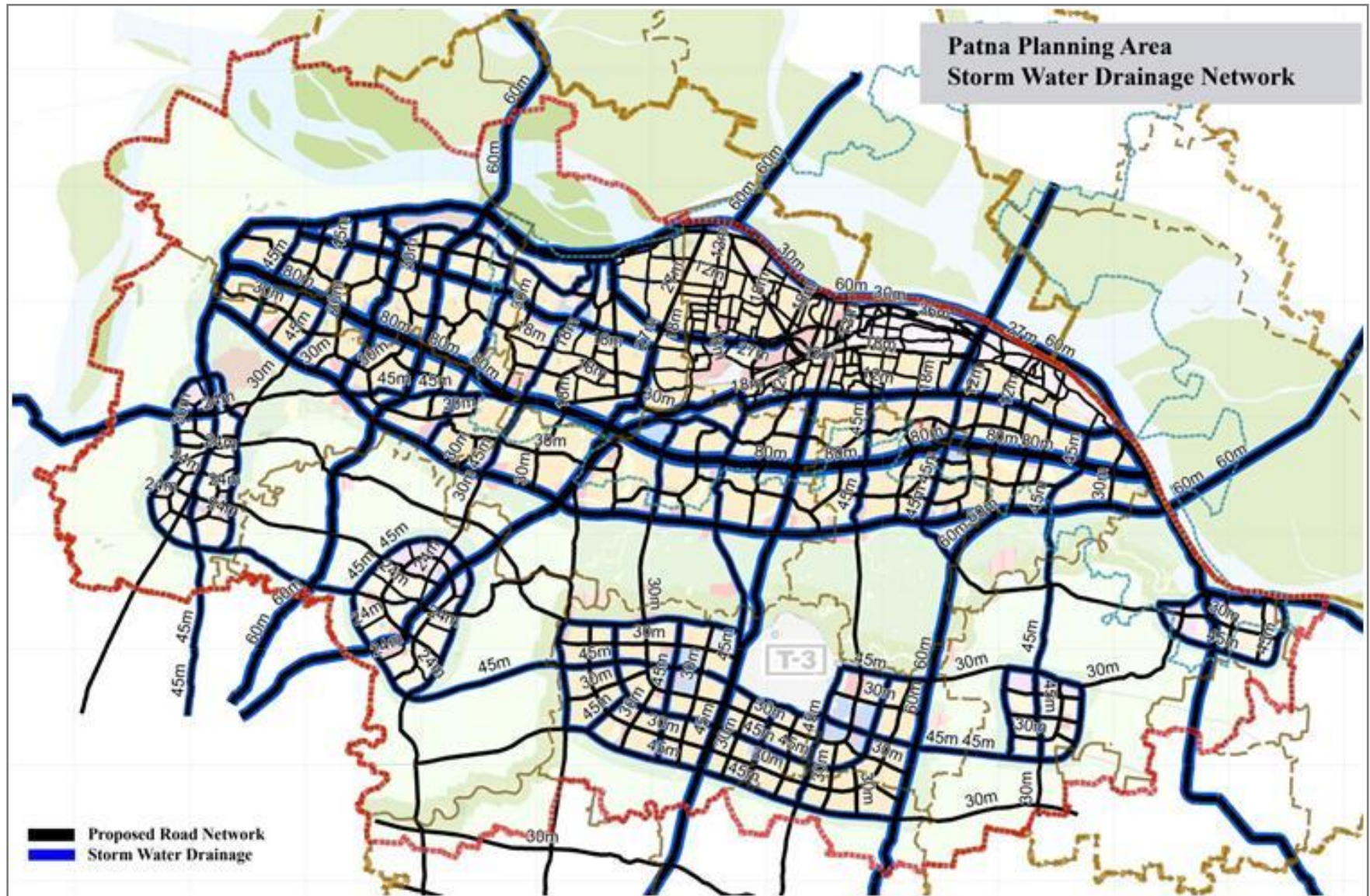
**SOUTHERN ZONE:**

- It is bounded by old by pass road in north, new by-pass road in south, Agamkaun road in east and Patna Gaya Railway line in the west
- Joginagar Drainage system caters area of Lohianagar housing colony is served by 670HP pumping station. It discharges into River Punpun.
- In the area west of Chiraiyatar and Karbigahia and unplanned development beyond housing board colony in Kankarbagh, Bahadurpur and Hanuman Nagar has no drainage system.

**5.6.10.2 Proposed Storm Water Drainage Network**

Proposed storm water drainage is proposed to synchronize with existing storm water drainage network. The storm water canal is proposed in the center of the spine of 80 m wide road, few of the 60 m & 45 wide roads will have canal running along the road depending upon the design of the drainage line. These would help to drainage the surface water to the river and help in reducing floodwater to some extent.

Map 28: Storm Water Network, Patna Planning Area



### 5.6.11 Irrigation

Several rivers in the PPA, gives it a very rich endowment of Water Resources. The ground water level is also quite within easy reach given substantial annual recharges because of heavy rainfall and large area remaining flooded for long periods. River Ganga in the North, River Son in the west and River Punpun in the Centre of Patna Planning Area shall serve irrigation for agricultural zones.

### 5.6.12 Solid Waste Management

There are 925 streets and lanes in Patna city and the city has been divided into 3 Anchals having total number of 37 wards. There are approximately 600 nos. of wheelbarrows, 122 nos of tractor-trailers and 29 nos. tippers available with Patna Municipal Corporation. With respect to landuse, Patna Municipal Corporation area may be considered as a mixed area and on an average the per capita solid waste generation of solid waste may be taken as 500grms.

In PMC area, house to house (HTH) collection system is not in practice. The pick-up station (PS) collection system of solid waste is also not practiced scientifically. The number of collection points /vats is not adequate to receive the quantum of solid waste generated daily. Moreover, solid waste finds its way into the roadside open drains and nullahs which causes blockage in flow of waste water. Thus, the roadside drains have become the receptacles of solid waste.

The solid waste dumped by individual households indiscriminately by the sides of streets and lanes is collected by the majdoors and transferred into the roadside vats/collection points. The solid waste from the vats is collected and transported to dumping sites by means of open trucks and tractor-trailers. There is no fired site of dumping. Land reclamation is done most unscientifically by dumping solid waste in low-lying areas from one place to the other. Presently solid waste is dumped on both sides of flanks in certain stretches of the bye-pass road.

In Patna, the present scenario of Municipal Solid Waste management as per DPR prepared under JNNURM is as below:

Patna is estimated to generate approximately 1000 tonnes of waste every day. The per capita waste generation rate is about 450 to 600 grams/person/day. The projected waste generation is estimated at 1150 tonnes per day by the year 2011.

1. Storage of Waste: 75% of the households and 80% of shops and establishments continue to throw the waste on the streets.
2. Segregation of recyclable waste is hardly practiced. 91% citizens do not segregate the waste at source.
3. Collection at Source: Door to door waste collection has been limited to some parts of the city
4. Secondary storage system - Most of the waste storage depots are open and unhygienic.

5. Transportation of only 60% of waste on a day-to-day basis is collected.
6. Treatment & Disposal: The situation of treatment and disposal of waste is extremely poor. Patna Municipal Corporation does not do any treatment or scientific disposal of waste. The entire waste, which is approximate 1000 MTs a day, is disposed in low-lying areas.

Solid waste management forms an obligatory function of Urban Local Bodies (ULBs) and hence, it calls for proper disposal of waste with appropriate strategy. At present there is no designated dumping site and garbage is dumped at all available places in the town leading to foul smell, unhygienic conditions and mosquito breeding.

The proposed solid waste landfill site is located in Ramachak village having an area of 80.5 acres of land which was acquired by state government for a solid waste-processing complex at Ramachak Bairiya. Refer Annexure 17 for the general guidelines followed for the solid waste landfill site.

**Table 34: Proposed Landfill site for Patna**

Sl. no	C.D Block	Village	Plot no	Area (acre)	Area (sq. km)	Waste disposed (MT/day)
1	Sampatchak	Ramachak – Bairiya	118	80.5	0.32	1000

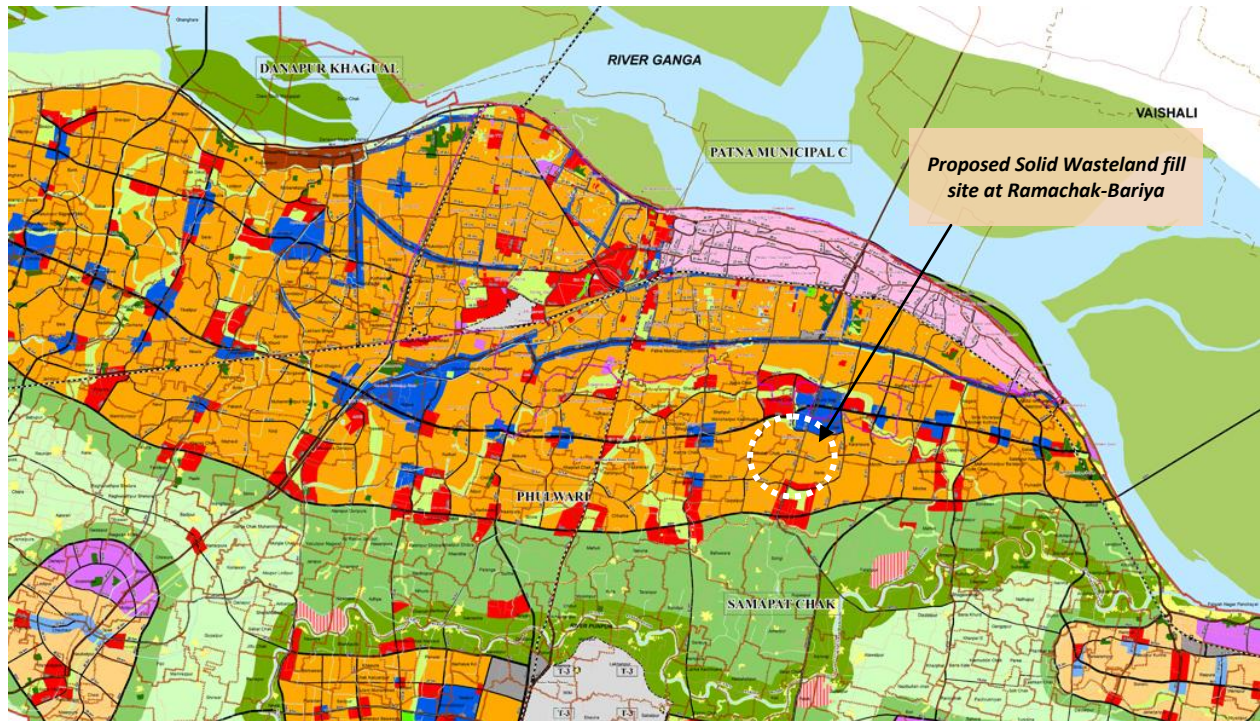
With the kind of development envisaged for the area of PUA, it is assumed that the per capita waste generated will increase for the projected population with the improvement in living standards. A study by NEERI states, their waste generation in Hyderabad is 570 grams per capita per day. Taking NEERI study as base, same standards of 600 grams & 800 grams per capita of solid waste generation have been applied for estimation of quantum of waste generation for the Master Plan area in 2021 & 2031 for urban area and 150 grams & 200 grams per capita for rural areas in 2021 & 2031 year respectively. Based on the assumptions, the solid waste generated in PPA is 2249 MT per day for 2021 and 4131 MT per day for 2031 respectively.

**Table 35: Estimation of solid waste generation for Patna Planning Area for 2021 & 2031**

Spatial Unit	Population			Projected Population			GM/DAY		MT/DAY	
	1881	1991	2001	2011	2021	2031	2021	2031	2021	2031
Urban	-	1195111	1766730	2141124	3387483	4877129	2032489800	3901703200	2032	3902
Rural	-	859603	1107846	1667522	1445845	1148103	216876750	229620600	217	230
Total	-	2054714	2874576	3808646	4833328	6025232	2249366550	4131323800	2249	4131



Map 29: Proposed Solid wasteland fill site



Solid waste management forms an obligatory function of Urban Local Bodies (ULBs) and hence, it calls for proper disposal of waste with appropriate strategy. Area for the waste disposal site for estimated waste generation is essential to earmarked in the master plan.

Table 36: Estimation of solid waste generation zone wise for Project area for 2021 & 2031

Parameter		Year	Total area required (in Ha)	Hect	Acre	(sq.kms)
Density tonnes/(cu.m)	0.8	2021	4.91	13.93	34.41	0.139
height required for Landfill	10	2031	9.02			
Density tonnes/(cu.m)	0.8	2021	3.27	9.28	22.94	0.093
height required for Landfill	15	2031	6.01			
Density tonnes/(cu.m)	0.5	2021	3.07	8.70	21.51	0.087
height required for Landfill	10	2031	5.64			
Density tonnes/(cu.m)	0.5	2021	2.05	5.80	14.34	0.058
height required for Landfill	15	2031	3.76			

The waste collected from sources can be segregated either at the source itself or can be segregated in the transfer station. There should be incentives given to the sweeper/ staff for collecting the waste from the source. They can collect the waste, segregate the waste like recyclable waste, and sell it.

All the waste collected through Primary Collection System, from the households, shops, and establishments has to be taken to the processing or disposal site either directly. Necessitating a large

fleet of vehicles and manpower or through cost effective systems which are designed to ensure that all the waste collected from the sources of waste generation is temporarily stored at a common place called "Waste Storage Depots" and then transported in bulk to the processing or disposal sites. The general Guidelines for selection of Landfill site is given in **Annexure 17**

In large cities where disposal sites are more than 10 km. away from the city boundary smaller vehicles are used for transportation of waste, it may prove economical to set up transfer stations to save transportation time and fuel provided such cities have a good performance record of vehicle maintenance and adequate facilities to maintain large size vehicles and containers. Large size 15 to 20 cu. m. containers to be kept at transfer stations to receive waste from small vehicles. A ramp facility may be provided to facilitate unloading of vehicles or dumper places containers, directly into large containers at transfer station.

The idea behind setting up this facility is to reduce the cost incurred in transporting the waste from site to dump site. Transfer stations are facilities at which municipal solid waste is dropped off by relatively small vehicles, loaded into larger containers or onto larger vehicles, and hauled to an off-site management facility for further processing or final disposal. A vegetated or landscaped buffer zone of at least 15 metres to be left around the perimeter of the active transfer area, in order to minimize any potential nuisance associated with noise, dust, or odors or any objections based on visual aesthetics.

The container/containers of at least twice the capacity may be placed at such locations to prevent over flow of bins and have freedom to lift the bin at the local body's convenience.

### 5.6.13 Hazardous Wastes

Hazardous wastes may be defined as wastes of industrial, institutional or consumer origin which, because of their physical, chemical or biological characteristics are potentially dangerous to human and the environment. In some cases although the active agents may be liquid or gaseous, they are classified as solid wastes because they are confined in solid containers. Typical examples are: solvents, paints and pesticides whose spent containers are frequently mixed with municipal wastes and become part of the urban waste stream. Certain hazardous wastes cause explosions in incinerators and fires at landfill sites. Others, such as pathological wastes from hospitals and radioactive wastes, require special handling at all time. Good management practice should ensure that hazardous wastes are stored, collected, transported and disposed off separately, preferably after suitable treatment to render them innocuous.

### 5.6.14 Power Supply

Power for Patna Urban Area is supplied from the following power stations:

- Papratu
- Kahalgaon
- Kanti
- Barh

Table 37: Electrical Sub Stations

Sl. No.	Location	Capacity	Sl. No.	Location	Capacity
1	Bankipur	33/11KVA	23	Maurya lok Subdiv.	33/11KVA
2	Kankerbagh	33/11KVA	24	(E.E.) Dak Bunglow Div.	33/11KVA
3	Rajendra Nagar	33/11KVA	25	Chowk Subdiv.	33/11KVA
4	5VA Banda Baghicha	33/11KVA	26	Katra Subdiv.	33/11KVA
5	Maurya Lok	4x5 MVA	27	Marufganj Subdiv.	33/11KVA
6	Kadam Kuna	2x5 MVA	28	(E.E.) Patna city	33/11KVA
7	Machua Toli	33/11KVA	29	Kankarbagh Subdiv.	33/11KVA
8	Karbigahiya	3x5 MVA	30	Karbigahia Subdiv	33/11KVA
9	Sechai Bhavan	33/11KVA	31	Bahadurpur Subdiv.	33/11KVA
10	Excise colour Velenary	33/11KVA	32	(E.E) Kankarbagh	33/11KVA
11	B.S.E.B. Colony	33/11KVA	33	Mina Bazar Subdiv.	33/11KVA
12	S.K.Puri sub Div.	33/11KVA	34	Karbigahia Subdiv	33/11KVA
13	Patliputra Sub Div.	33/11KVA	35	Bahadurpur Subdiv.	33/11KVA
14	Sadkat Ashram Sub Div.	33/11KVA	36	(E.E) Kankarbagh	33/11KVA
15	Patliputra subdiv.	33/11KVA	37	Mina Bazar Subdiv.	33/11KVA
16	Khagaul Sub. div.	33/11KVA	38	Gulzar bagh Subdivi.	33/11KVA
17	Danapur subdiv.	33/11KVA	39	Bankipurn Subdi.	33/11KVA
18	(E.E.)Danapur Div.	33/11KVA	40	University Subdiv.	33/11KVA
19	Garatanibagh Subdiv.	33/11KVA	41	(E.E.)Bankipur Div.	33/11KVA
20	Jak anpur Subdiv.	33/11KVA	42	Rajendra Nagar Subdiv.	33/11KVA
21	(E.E.) Gardanibagh Div.	33/11KVA	43	Machhuatali subdiv.	33/11KVA
22	Kadam Kunna Subdiv.	33/11KVA			

Source: PESU

## 5.7 Proposed Social Infrastructure & Amenities

Infrastructure is the basic physical and organizational structures needed for the operation of a society, or the services and facilities necessary for an economy to function. For the provisions of amenities, URDPFI guidelines are considered as the basis for estimation of gaps/additional requirements. For PPA, analysis of existing and required social amenities has been done at CD block level under following categories.

- Education
- Health
- Water supply
- Post offices

- Banking facilities
- Post and telecommunication
- Roads and Railways

Demand assessment is an important step to be done at CD block level so that the further amenities can be distributed at village level. Availability and adequacy of amenities at village level have been reviewed through Scalogram analysis - a spatial planning technique.

### 5.7.1 Scalogram Analysis

Scalogram is a technique to rank the village or settlements, based on the functional complexity of facilities and services in a settlement ranked according to the number of people living in the settlement. The main assessment criteria for each of the villages are availability and adequacy of the facilities and services. Hence, a detailed scalogram has been made for village level so that allocation of the infrastructure facilities at village level can be assessed and gaps are fulfilled. These parameters were judged based on statistics available from Primary Census Abstract and Village Directory, 2001 due to unavailability of provisional/published figures for year 2011.

The allocation of infrastructure facilities at village level for Patna district in the Patna Planning Area (PPA) has been provided.

The Scalogram Analysis is used to indicate the hierarchy of settlements in the PPA. The functional Matrix /Scalogram show the major settlements, the populations and their corresponding services/facilities existing in them. The facilities used in the scalogram analysis as can be seen in the matrix are under the following broad sectors:

- Education
- Health
- Water supply
- Banking
- Post and telecommunication
- Roads and railways

#### Steps followed:

In our project area 1001 villages were studied and out of 575 villages those falling under PPA , a total of 51 villages were un-inhabited. (Refer Table 9).

1. Facilities were given BINARY CODING:
  - a. 1 = Presence of facility
  - b. 0 = Absence of facility
2. Arranging population from higher to lower number

3. Arranging facilities from higher to lower order. For example frequency of some facilities i.e. hand pump, well and primary school is high, facilities such as colleges, hospitals etc have low frequency (present in few villages).

### **Ranking of settlements:**

Weightage = 100 / total number of primary school in project area.

More the number of facilities less is the weightage is observed. For example there are total 853 primary school, having 0.12 weightage while there are 15 colleges having 6.67 weightage.

Total weightage for all the facilities at village level is added to get the centrality index at village level.

Settlements have been scaled in order of their functional influence or centrality using the following criteria.

1. 1st order 46-70
2. 2nd order 45-21
3. 3rd order below 20

### **From the Scalogram analysis**

Naubatpur stands out 1st order settlement with total centrality index 53.73; this is because the village has 13 facilities out of 28.

### **Implications for future development:**

The empty/blank or yellow cells on the scalogram/functional matrix implies that in the district's future development, more facilities and services should be provided in villages which are least endowed to ensure a more balanced spatial development. This in future will influence the quality of life/ potential for attracting people and economic activities in the PPA. Refer Annexure 18 for detailed Scalogram Analysis for the study area.

## **5.7.2 Educational facilities**

### **5.7.2.1 Primary Schools**

Primary school is an institution in which children receive the first stage of compulsory education. Its availability and strength (in terms of number of children enrolled and dropouts) determines the literacy and economic structure of the society.

Adequacy of Primary Schools is assessed at CD Block level to understand the requirement for the projected population of 2031, respectively. As per URDPFI guidelines, one primary school is required for every 2500 population.

The available data shows that until 2001, there were total of 485 primary schools available in PPA. The data surplus/ deficit shows the number of schools required in 2031 as against the presence of number of school in that particular CD Block according to the population. For example: In Patna Rural CD Block



the required number of school in 2031 is 33 but the presence of school in 2001 is 14 nos. Therefore, the number of schools required is 19 based on projected population of 2031. In the first phase (2016-21), 7 no.s of primary school will be established and 6 no.s will be established in later phases in Patna Rural CD Block.

In addition, Danapur-cum-Khagaul; the number of schools is showing '0' in all the three phases. This is because the population of CD Block is declining and there are already total 37 nos. of school. It is enough to cater the population for the projected year 2031. Hence, no primary school facility is needed in the Block.

**Table 38: Primary Schools, Available and Required at CD Block Level**

CD Blocks (villages under PPA)	Population		Primary schools					
	2001	2031	Available 2001	Required 2031	Surplus / Deficit	Phase I	Phase II	Phase III
						2016 -21	2021 - 26	2026 -31
Maner	165385	240450	32	96	-64	24	20	20
Danapur-cum-Khagaul	67735	48201	37	19	18	0	0	0
Patna Rural	58600	81368	14	33	-19	7	6	6
Sampatchak	76154	116486	34	47	-13	5	4	4
Phulwari Sharif	137554	203807	55	82	-27	9	9	9
Bihta	174390	188208	75	75	0	0	0	0
Naubatpur	138741	153867	85	62	23	0	0	0
Masauhri	9828	7072	4	3	1	0	0	0
Dhanarua	21156	22198	15	9	6	0	0	0
Punpun	116394	133176	66	53	13	0	0	0
Fatuha	107602	124560	61	50	11	0	0	0
Daniawan	13933	30760	5	12	-7	3	2	2
Khusrupur	4853	9129	2	4	-2	1	1	0
<b>Total</b>			<b>485</b>	<b>544</b>		<b>49</b>	<b>42</b>	<b>41</b>

Source: Primary Census Abstract & Village directory, 2001

The total numbers of primary schools required in PPA additionally (cumulative) will 49, 42 and 41 in Phase I (2016 – 21), Phase II (2021 – 26) and Phase III (2026 - 31), respectively.

### 5.7.2.2 Middle schools

As per URDPFI guidelines, one Middle School is required for every 7500 population.

**Table 39: Middle schools, available and required at CD block level**

CD Blocks (villages under PPA)	Population		Middle schools					
	2001	2031	Available 2001	Required 2031	Surplus / Deficit	Phase I	Phase II	Phase III
						2016 - 21	2021 - 26	2026 - 31
Maner	165385	240450	12	32	-20	7	7	6
Danapur-cum-Khagaul	67735	48201	9	6	3	0	0	0
Patna Rural	58600	81368	5	11	-6	2	2	2
Sampatchak	76154	116486	10	16	-6	2	2	2
Phulwari Sharif	137554	203807	21	27	-6	2	2	2
Bihta	174390	188208	26	25	1	0	0	0
Naubatpur	138741	153867	30	21	9	0	0	0
Masauhri	9828	7072	3	1	2	0	0	0
Dhanarua	21156	22198	10	3	7	0	0	0
Punpun	116394	133176	20	18	2	0	0	0
Fatuha	107602	124560	11	17	-6	2	2	2
Daniawan	13933	30760	1	4	-3	1	1	1
Khusrupur	4853	9129	0	1	-1	1	0	0
<b>Total</b>			<b>158</b>	<b>181</b>		<b>17</b>	<b>16</b>	<b>15</b>
Source: Primary Census Abstract & Village directory, 2001								

It can be observed from the table that till 2001, total numbers of middle schools available were 158 while additional requirement is 181 making a deficit of schooling facility in CD blocks. Additionally (cumulative) it requires 17, 16 and 15 middle school facility in Phase I (2016 – 21), Phase II (2021 – 26) and Phase III (2026 - 31), keeping the projected figure into consideration.

### 5.7.2.3 Secondary schools

Generally, secondary schools refer to grade of education from Standards XIth-XIIth. As per URDPFI guidelines, one Secondary School is required for every 7500 population.

Until 2001, PPA had 63 secondary schools. The total numbers of secondary schools required additionally are 181 making a deficit of schooling facility in CD blocks. Additionally (cumulative) it requires 45, 38 and 36 secondary school facility in Phase I (2016 – 21), Phase II (2021 – 26) and Phase III (2026 - 31).

Table 40: Secondary schools, available and required at CD block level

CD Blocks (villages under PPA)	Population		Secondary schools					
	2001	2031	Available 2001	Required 2031	Surplus / Deficit	Phase I	Phase II	Phase III
						2016 - 21	2021 - 26	2026 - 31
Maner	165385	240450	4	32	-28	10	9	9
Danapur-cum-Khagaul	67735	48201	4	6	-2	1	1	0
Patna Rural	58600	81368	5	11	-6	2	2	2
Sampatchak	76154	116486	4	16	-12	4	4	4
Phulwari Sharif	137554	203807	6	27	-21	7	7	7
Bihta	174390	188208	13	25	-12	4	4	4
Naubatpur	138741	153867	8	21	-13	5	4	4
Masauhri	9828	7072	0	1	-1	1	0	0
Dhanarua	21156	22198	2	3	-1	1	0	0
Punpun	116394	133176	8	18	-10	4	3	3
Fatuha	107602	124560	9	17	-8	3	3	2
Daniawan	13933	30760	0	4	-4	2	1	1
Khusrupur	4853	9129	0	1	-1	1	0	0
<b>Total</b>			<b>63</b>	<b>181</b>		<b>45</b>	<b>38</b>	<b>36</b>

Source: Primary Census Abstract & Village directory, 2001

#### 5.7.2.4 Colleges

The term "college" is commonly reserved for institutions that offer degrees. According to URDPFI guidelines, one college is required for every 1,25,000 population.

Table 41: Colleges, available and required at CD block level

CD Blocks (villages under PPA)	Population		College					
	2001	2031	Available 2001	Required 2031	Surplus / Deficit	Phase I	Phase II	Phase III
						2016 - 21	2021 - 26	2026 - 31
Maner	165385	240450	0	2	-2	1	1	0
Danapur-cum-Khagaul	67735	48201	0	0	0	0	0	0
Patna Rural	58600	81368	1	1	0	0	0	0
Sampatchak	76154	116486	0	1	-1	1	0	0
Phulwari Sharif	137554	203807	0	2	-2	1	1	0
Bihta	174390	188208	4	2	2	0	0	0
Naubatpur	138741	153867	2	1	1	0	0	0
Masauhri	9828	7072	0	0	0	0	0	0

Dhanarua	21156	22198	0	0	0	0	0	0
Punpun	116394	133176	1	1	0	0	0	0
Fatuha	107602	124560	1	1	0	0	0	0
Daniawan	13933	30760	0	0	0	0	0	0
Khusrupur	4853	9129	0	0	0	0	0	0
<b>Total</b>			<b>9</b>	<b>11</b>		<b>3</b>	<b>2</b>	<b>0</b>
Source: Primary Census Abstract & Village directory, 2001								

### 5.7.3 Health facilities

This section focuses on the adequacy of educational facilities (PHSC, PHC, and Hospital) at CD Block level in the PPA, based on URDPFI guidelines for the projected population in the region.

#### 5.7.3.1 Primary Health centers

According to URDPFI guidelines, one Primary Health Centres is to be provided for a population range of 30000.

**Table 42: Primary Health Centres, available and required at CD block level**

CD Blocks (villages under PPA)	Population		Primary Health Centres					
	2001	2031	Available 2001	Required 2031	Surplus / Deficit	Phase I	Phase II	Phase III
						2016 - 21	2021 - 26	2026 - 31
Maner	165385	240450	2	8	-6	2	2	2
Danapur-cum-Khagaul	67735	48201	0	2	-2	1	1	0
Patna Rural	58600	81368	2	3	-1	1	0	0
Sampatchak	76154	116486	0	4	-4	2	1	1
Phulwari Sharif	137554	203807	2	7	-5	2	2	1
Bihta	174390	188208	3	6	-3	1	1	1
Naubatpur	138741	153867	7	5	2	0	0	0
Masauhri	9828	7072	0	0	0	0	0	0
Dhanarua	21156	22198	0	1	-1	1	0	0
Punpun	116394	133176	4	4	0	0	0	0
Fatuha	107602	124560	2	4	-2	1	1	0
Daniawan	13933	30760	0	1	-1	1	0	0
Khusrupur	4853	9129	0	0	0	0	0	0
<b>Total</b>			<b>22</b>	<b>45</b>		<b>12</b>	<b>8</b>	<b>5</b>
Source: Primary Census Abstract & Village directory, 2001								

During 2001, there were a total of 22 Primary Health centers in PPA. There is a requirement of a total number of 12, 8 and 5 Primary Health Sub-centers in Phase I (2016 – 21), Phase II (2021 – 26) and Phase III (2026 - 31) respectively.

### 5.7.3.2 Primary Health Sub-Centres

According to URDPFI guidelines, one Primary Health Sub-centre is to be provided for a population range of 30000.

During 2001, there were 68 Primary Health sub-centers in PPA. There is a requirement of additional 4 to fulfill deficit of Primary Health sub-centers in CD blocks.

**Table 43: Primary Health Sub-Centres, available and required at CD block level**

CD Blocks (villages under PPA)	Population		Primary Health Sub Centres					
	2001	2031	Available 2001	Required 2031	Surplus / Deficit	Phase I	Phase II	Phase III
						2016 - 21	2021 - 26	2026 - 31
Maner	165385	240450	9	8	1	0	0	0
Danapur-cum-Khagaul	67735	48201	3	2	1	0	0	0
Patna Rural	58600	81368	4	3	1	0	0	0
Sampatchak	76154	116486	9	4	5	0	0	0
Phulwari Sharif	137554	203807	6	7	-1	1	0	0
Bihta	174390	188208	17	6	11	0	0	0
Naubatpur	138741	153867	10	5	5	0	0	0
Masauhri	9828	7072	0	0	0	0	0	0
Dhanarua	21156	22198	0	1	-1	1	0	0
Punpun	116394	133176	7	4	3	0	0	0
Fatuha	107602	124560	3	4	-1	1	0	0
Daniawan	13933	30760	0	1	-1	1	0	0
Khusrupur	4853	9129	0	0	0	0	0	0
<b>Total</b>			<b>68</b>	<b>45</b>		<b>4</b>	<b>0</b>	<b>0</b>

Source: Primary Census Abstract & Village directory, 2001



### 5.7.3.3 Hospitals

According to URDPFI guidelines, one hospital is required to be provided for 125,000 populations.

**Table 44: Hospitals, available and required at CD block level**

CD Blocks (villages under PPA)	Population		Hospitals					
	2001	2031	Available 2001	Required 2031	Surplus / Deficit	Phase I	Phase II	Phase III
						2016 - 21	2021 - 26	2026 - 31
Maner	165385	240450	0	2	-2	1	1	0
Danapur-cum-Khagaul	67735	48201	2	0	2	0	0	0
Patna Rural	58600	81368	1	1	0	0	0	0
Sampatchak	76154	116486	0	1	-1	1	0	0
Phulwari Sharif	137554	203807	3	2	1	0	0	0
Bihta	174390	188208	4	2	2	0	0	0
Naubatpur	138741	153867	6	1	5	0	0	0
Masauhri	9828	7072	0	0	0	0	0	0
Dhanarua	21156	22198	1	0	1	0	0	0
Punpun	116394	133176	1	1	0	0	0	0
Fatuha	107602	124560	2	1	1	0	0	0
Daniawan	13933	30760	0	0	0	0	0	0
Khusrupur	4853	9129	0	0	0	0	0	0
<b>Total</b>			<b>20</b>	<b>11</b>		<b>2</b>	<b>1</b>	<b>0</b>

Source: Primary Census Abstract & Village directory, 2001

Until 2001, there is 20 hospital facility available at CD block level. Hence, keeping the growing population into consideration, a total of 2 and 1 hospitals required in order to serve the population projected for 2031.

### 5.7.4 Communication facilities

Amongst various means of communication, post office is an importance means, which is still prevalent and reaches interiors.

### 5.7.4.1 Post offices

According to URDPFI guidelines, one post office is required for 5000 population.

**Table 45: Post Offices, available and required at CD block level**

CD Blocks (villages under PPA)	Population		Post Offices					
	2001	2031	Available 2001	Required 2031	Surplus / Deficit	Phase I	Phase II	Phase III
						2016 - 21	2021 - 26	2026 - 31
Maner	165385	240450	15	48	-33	11	11	11
Danapur-cum-Khagaul	67735	48201	9	10	-1	1	0	0
Patna Rural	58600	81368	5	16	-11	4	4	3
Sampatchak	76154	116486	10	23	-13	5	4	4
Phulwari Sharif	137554	203807	14	41	-27	9	9	9
Bihta	174390	188208	18	38	-20	7	7	6
Naubatpur	138741	153867	15	31	-16	6	5	5
Masauhri	9828	7072	1	1	0	0	0	0
Dhanarua	21156	22198	6	4	2	0	0	0
Punpun	116394	133176	21	27	-6	2	2	2
Fatuha	107602	124560	8	25	-17	6	6	5
Daniawan	13933	30760	1	6	-5	2	2	1
Khusrupur	4853	9129	0	2	-2	1	1	0
<b>Total</b>			<b>123</b>	<b>272</b>		<b>54</b>	<b>51</b>	<b>46</b>

Source: Primary Census Abstract & Village directory, 2001

There were 123 post offices, which were serving the region until 2001. In order to serve the population till 2031, total numbers of post offices need to be increased which will be 54, 51 and 46 for Phase I (2016 – 21), Phase II (2021 – 26) and Phase III (2026 - 31) respectively.

### 5.7.5 Financial services

#### 5.7.5.1 Commercial banks

According to URDPFI guidelines, one commercial bank is to be provided for 25,000 populations. The total numbers of commercial banks available, till 2001, were 33 where as additionally required commercial banks are 10, 8 and 5 in the period (2016 – 21), (2021 – 26) and (2026 – 31) respectively.

Table 46: Commercial Banks, available and required at CD block level

CD Blocks (villages under PPA)	Population		Commercial Banks					
	2001	2031	Available 2001	Required 2031	Surplus / Deficit	Phase I	Phase II	Phase III
						2016 - 21	2021 - 26	2026 - 31
Maner	165385	240450	4	10	-6	2	2	2
Danapur-cum-Khagaul	67735	48201	2	2	0	0	0	0
Patna Rural	58600	81368	2	3	-1	1	0	0
Sampatchak	76154	116486	3	5	-2	1	1	0
Phulwari Sharif	137554	203807	5	8	-3	1	1	1
Bihta	174390	188208	5	8	-3	1	1	1
Naubatpur	138741	153867	4	6	-2	1	1	0
Masauhri	9828	7072	0	0	0	0	0	0
Dhanarua	21156	22198	3	1	2	0	0	0
Punpun	116394	133176	1	5	-4	2	1	1
Fatuha	107602	124560	3	5	-2	1	1	0
Daniawan	13933	30760	1	1	0	0	0	0
Khusrupur	4853	9129	0	0	0	0	0	0
<b>Total</b>			<b>33</b>	<b>54</b>		<b>10</b>	<b>8</b>	<b>5</b>

Source: Primary Census Abstract & Village directory, 2001

### 5.7.5.2 Agricultural credit societies

Financial services are of great importance as the region has a strong agricultural base. According to URDPFI guidelines, one commercial bank is to be provided for 5,000 populations. Total number of agricultural societies required for 237 to fulfil current deficit of facility. There are 83, 80 and 74 additional facility required in Phase I (2016 – 21), Phase II (2021 – 26) and Phase III (2026 - 31) respectively.

Table 47: Agricultural Credit Societies, available and required at CD block level

CD Blocks (villages under PPA)	Population		Agricultural Credit Societies					
	2001	2031	Available 2001	Required 2031	Surplus / Deficit	Phase I	Phase II	Phase III
						2016 - 21	2021 - 26	2026 - 31
Maner	165385	240450	6	48	-42	14	14	14
Danapur-cum-Khagaul	67735	48201	4	10	-6	2	2	2

Patna Rural	58600	81368	2	16	-14	5	5	4
Sampatchak	76154	116486	7	23	-16	6	5	5
Phulwari Sharif	137554	203807	6	41	-35	12	12	11
Bihta	174390	188208	3	38	-35	12	12	11
Naubatpur	138741	153867	4	31	-27	9	9	9
Masauhri	9828	7072	0	1	-1	1	0	0
Dhanarua	21156	22198	0	4	-4	2	1	1
Punpun	116394	133176	1	27	-26	9	9	8
Fatuha	107602	124560	2	25	-23	8	8	7
Daniawan	13933	30760	0	6	-6	2	2	2
Khusrupur	4853	9129	0	2	-2	1	1	0
<b>Total</b>			<b>35</b>	<b>272</b>		<b>83</b>	<b>80</b>	<b>74</b>
Source: Primary Census Abstract & Village directory, 2001								

## 5.8 Social Infrastructure

The required amenities are compensated at respective planning units such as community level, neighborhood level, Sector level, node level, zone level, and Central Business District level. Basic level (lower order) facilities are provided at community level whereas subsequent higher order amenities are provided at respective order of planning units.

**Table 48: Provision of social infrastructure – URDPFI Guidelines**

Amenity	Population	No. of facilities
CBD	10 lakhs - 12 Lakhs	4
Zone level	4 lakhs - 5 Lakhs	11
Node level	1 lakhs – 1.5 lakhs	39
Sector level	40,000 - 50,000	108
Neighborhood	10,000 – 12,000	443
Community Level	5,000 - 6,000	887

### 5.8.1 Community Level Facilities

The community level facilities are provided as per the URDPFI Guidelines are as follows, One Nursery School and Primary School of 10,000 Sq.m (1 Hectare) area with the overall requirement of 886.8 Hectares. One community hall of 660 Sq.m of area have to be provided at community level with the overall requirement of 58.53 Hectares. There are few other facilities have to be provided, such as Milk Booth, ATM, Facility Shop, Convenience Shopping, and Open Spaces.

The total land area provided at community level node is 1797 Hectare, which includes Amenities of 945.3 Hectares, Commercial of 120.2 Hectares and Open spaces of 731.6 Hectares. Both Public and

Private Provision share community Level Facilities with Public provision of 403.36 Hectares and Private provision of 1389.74 Hectares.

**Table 49: Provision of social infrastructure – Housing cluster (URDPFI Guidelines)**

Population Threshold	Nature of Utility and Social facility	Land Area / Facility (sq.m)	Total Land Required (Sq.M)	Gross Land Required (in Ha.)	Public Provision (Ha)	Private Provision (Ha)
		<b>No. of Facilities – 887</b>				
Community 5000 - 6000	Nursery School + Primary School	10000	8867506.93	886.8	177.35	709.40
	Community Hall	660	585255.46	58.5	58.53	
	Milk Booth	25	22168.77	2.2	1.66	0.55
	ATM	10	8867.51	0.9		0.89
	Facilities shop (280 sq.m/3500 pop)	440	390170.31	39.0		39.02
	Convenience shopping ( 160 sq.m/1000 )	880	780340.61	78.0	19.51	54.62
	Open Spaces ( @ 1.5 sq.m / capita )	8250	7315693.22	731.6	146.31	585.26
	<b>Sub Total (Amenities)</b>	<b>10,660</b>	<b>9452762.39</b>	<b>945.3</b>	<b>257.05</b>	<b>804.48</b>
	<b>Sub Total (Commercial)</b>	<b>1,355</b>	<b>1201547.19</b>	<b>120.2</b>		
	<b>Sub Total (Open Space)</b>	<b>8,250</b>	<b>7315693.22</b>	<b>731.6</b>	<b>146.31</b>	<b>585.26</b>
	<b>Total @ community Level</b>	<b>20265</b>	<b>17970002.80</b>	<b>1797.0</b>	<b>403.36</b>	<b>1389.74</b>

### 5.8.2 Neighborhood Level Facilities

The Neighborhood level facilities are provided as per the URDPFI Guidelines are as follows, One senior secondary school of 16,000 Sq.m (1.6 Hectares) area with the overall requirement of 709.4 Hectares. One community hall with Library and Gymnasium of 4000 Sq.m of area have to be provided at Neighborhood level with the overall requirement of 177.4 Hectares. There are few other facilities have to be provided, such as religious buildings, Retail, Commercial, Electric Sub stations dispensary, Bank with ATMs and Open Spaces.

The total land area provided at Neighborhood level node is 1886.6 hectare, which includes Amenities of 964.3 Hectares, Commercial of 190.7 Hectares and Open spaces of 731.6 Hectares. Both Public and



Private Provision share Neighborhood Level Facilities with Public provision of 924.44 Hectares and Private provision of 962.12 hectares.

**Table 50: Provision of social infrastructure – Neighborhood level (URDPFI Guidelines)**

Population Threshold	Nature of Utility and Social facility	Land Area / Facility (sq.m)	Total Land Required (Sq.m)	Gross Land Required (in Ha.)	Public Provision (Ha)	Private Provision (Ha)
		<b>No. of Facilities - 443</b>				
Neighbourhood 10000-12000	Sr. Secondary School	16000	7094005.55	709.4	354.70	354.70
	Community Hall, Library and Gymnasium	4000	1773501.39	177.4	88.68	88.68
	Religious building	200	88675.07	8.9		8.87
	Retail Commercial ( 300sq.m/1000)	3300	1463138.64	146.3	73.16	73.16
	Electric Sub-Station (415V)	350	155181.37	15.5	15.52	
	Dispensary	1200	532050.42	53.2	26.60	26.60
	Bank with ATM ( 2nos.)	1000	443375.35	44.3		44.34
	Open Spaces ( @ 1.5 sq.m / capita )	16500	7315693.22	731.6	365.78	365.78
	<b>Sub Total (Amenities)</b>	<b>21,750</b>	<b>9643413.79</b>	<b>964.3</b>	<b>558.65</b>	<b>596.34</b>
	<b>Sub Total (Commercial)</b>	<b>4,300</b>	<b>1906513.99</b>	<b>190.7</b>		
	<b>Sub Total (Open Space)</b>	<b>16,500</b>	<b>7315693.22</b>	<b>731.6</b>	<b>365.78</b>	<b>365.78</b>
	<b>Total @ Neighbourhood Level</b>	<b>42,550</b>	<b>18865621.00</b>	<b>1886.6</b>	<b>924.44</b>	<b>962.12</b>

### 5.8.3 Sector Level Facilities

The Sector level facilities are provided as per the URDPFI Guidelines are as follows, One Health Centre of 3000 Sq.m (0.3 Hectares) area with the overall requirement of 32.5 Hectares. There are few other facilities have to be provided, such as Sub-Post office, School for Handicapped, Police Post, religious buildings, Communication Centre, Retail, Commercial and Open Spaces.

The total land area provided at Sector level node is 861.6 hectare, which includes Amenities of 113.8 Hectares, Commercial of 260.1 Hectares and Open spaces of 487.7 Hectares. Both Public and Private Provision share Sector Level Facilities with Public provision of 459.26 Hectares and Private provision of 402.36 hectares.

**Table 51: Provision of social infrastructure – Sector level (URDPFI Guidelines)**

Population Threshold	Nature of Utility and Social facility	Land Area / Facility (sq.m)	Total Land Required (Sq.M)	Gross Land Required (in Ha.)	Public Provision (Ha)	Private Provision (Ha)
		<b>No. of Facilities - 108</b>				
SECTOR 40000- 50000	Sub Post-Office	150	16257.10	1.6	1.63	
	School for Handicapped	5000	541903.20	54.2	54.19	
	Health Centre (Nursery, Child Welfare, Maternity Centre)	3000	325141.92	32.5	16.26	16.26
	Police Post	1600	173409.02	17.3	17.34	
	Religious building	750	81285.48	8.1	4.06	4.06
	Communication Centre ( with STD, ISD, Data transmission, ISDN )	1500	162570.96	16.3		16.26
	Retail Commercial ( 500sq.m/1000)	22500	2438564.41	243.9	121.93	121.93
	Open Spaces ( @ 1 sq.m / capita )	45000	4877128.81	487.7	243.86	243.86
	<b>Sub Total (Amenities)</b>	<b>10500</b>	<b>1137996.72</b>	<b>113.8</b>	<b>215.41</b>	<b>158.51</b>
	<b>Sub Total (Commercial)</b>	<b>24000</b>	<b>2601135.37</b>	<b>260.1</b>		
	<b>Sub Total (Open Space)</b>	<b>45000</b>	<b>4877128.813</b>	<b>487.7</b>	<b>243.86</b>	<b>243.86</b>
	<b>Total @ Sector Level</b>	<b>79500</b>	<b>8616260.90</b>	<b>861.6</b>	<b>459.26</b>	<b>402.36</b>

#### 5.8.4 Node Level Facilities

The Node level facilities are provided as per the URDPFI Guidelines are as follows, One Electric Sub Station of 3500 Sq.m (0.35 Hectares) area with the overall requirement of 13.7 Hectares. There are few other facilities have to be provided, such as Integrated school without hostels, LPG Godown, Petrol Pump, Bus Terminal, College, Community Centre with PHC, Library and Hall, Polyclinic, Intermediate Hospital, Meditation and Spiritual Centre, Music, Dance and Drama Centre, Recreational Club, Police Station, Post and Telegraph, Overhead Reservoirs, Cineplex, Retail, Commercial and Open Spaces.

The total land area provided at Node level is 1038.2 hectare, which includes Amenities of 560.3 Hectares, Commercial of 302.4 Hectares and Open spaces of 175.6 Hectares. Both Public and Private Provision share Node Level Facilities with Public provision of 467.23 Hectares and Private provision of 333.01 hectares.

**Table 52: Provision of social infrastructure – Node level (URDPFI Guidelines)**

Population Threshold	Nature of Utility and Social facility	Land Area / Facility (sq.m)	Total Land Required (Sq.M)	Gross Land Required (in Ha.)	Public Provision (Ha)	Private Provision (Ha)
		<b>No. of Facilities - 39</b>				
NODE 100000- 150000	Electric Sub-Station (11KV)	3500	136559.61	13.7	13.66	
	Integrated school without hostel	35000	1365596.07	136.6	68.28	68.28
	LPG Godown	600	23410.22	2.3		2.34
	Petrol Pump	2000	78034.06	7.8		7.80
	Bus Terminal	2500	97542.58	9.8	9.75	
	College	40000	1560681.22	156.1	156.07	
	Community Centre(with PHC, Library, Hall )	2500	97542.58	9.8	4.88	4.88
	Polyclinic (20 beded )	3000	117051.09	11.7	5.85	5.85
	Intermediate Hospital (Category-B : 100 beds)	10000	390170.31	39.0	19.51	19.51
	Meditation and Spiritual centre	5000	195085.15	19.5		19.51

Music, Dance and Drama Centre	1000	39017.03	3.9		3.90
Recreational Club	10000	390170.31	39.0		39.02
Police Station	15000	585255.46	58.5	58.53	
Post and Telegraph	3500	136559.61	13.7	13.66	
Over head reservoirs	10000	390170.31	39.0	39.02	
Cineplex	15000	585255.4576	58.52554576		58.53
Retail Commercial ( 500sq.m/1000)	62500	2438564.41	243.9	121.93	121.93
Open Spaces ( @ 1 sq.m / capita )	45000	1755766.37	175.6	43.89	131.68
<b>Sub Total (Amenities)</b>	<b>143600</b>	<b>5602845.58</b>	<b>560.3</b>	<b>423.33</b>	<b>201.33</b>
<b>Sub Total (Commercial)</b>	<b>77500</b>	<b>3023819.86</b>	<b>302.4</b>		
<b>Sub Total (Open Space)</b>	<b>45000</b>	<b>1755766.373</b>	<b>175.6</b>	<b>43.89</b>	<b>131.68</b>
<b>Total @ Node Level</b>	<b>266100</b>	<b>10382431.82</b>	<b>1038.2</b>	<b>467.23</b>	<b>333.01</b>

### 5.8.5 Zone Level Facilities

The Zone level facilities are provided as per the URDPFI Guidelines are as follows, One Electric Sub Station with captive power of 8000 Sq.m (0.8 Hectares) area with the overall requirement of 8.67 Hectares. One fire station of 16000 Sq.m of area has to be provided at zone level with the overall requirement of 17.34 Hectares. There are few other facilities have to be provided, such as Intermediate Hospital, Bus Terminal, Electric receiving Substation, Hotel with convention facilities, Water treatment plant, Electric substation, Telephone exchange, Retail, Commercial, Super market and Open Spaces.

The total land area provided at zone level is 1088.1 hectare, which includes Amenities of 121.4 Hectares, Commercial of 479 Hectares and Open spaces of 487.71 Hectares. Both Public and Private Provision share zone Level Facilities with Public provision of 802.02 Hectares and Private provision of 286.12 hectares.

Table 53: Provision of social infrastructure – Zone level (URDPFI Guidelines)

Population Threshold	Nature of Utility and Social facility	Land Area / Facility (sq.m)	Total Land Required (Sq.M)	Gross Land Required (in Ha.)	Public Provision (Ha)	Private Provision (Ha)
		<b>No. of Facilities - 11</b>				
ZONE 400000- 500000	33 KV Electric sub-station + Captive Power	8000	86705	8.7	8.67	
	Fire Station	16000	173409	17.3	17.34	
	Intermediate Hospital (Category-A : 200 beds)	37000	401008	40.1	40.10	
	Bus Terminal	15000	162571	16.3	16.26	
	Electric receiving sub-station ( 220 / 660 KV )	20000	216761	21.7		21.68
	Hotel with Convention Facilities	40000	433523	43.4		43.35
	Water treatment plant	10000	108381	10.8	10.84	
	Electric Sub-Station (11KV)	3500	37933	3.8	3.79	
	Telephone Exchange	2500	27095	2.7	2.71	
	Retail Commercial (880sq.m/1000)	396000	4291873	429.2	214.59	214.59
	Super Market	6000	65028	6.5		6.50
	Open Space ( @ 1 Sqm / capita )	450000	4877129	487.7	487.71	
	<b>Sub Total (Amenities)</b>	<b>112000</b>	<b>1213863</b>	<b>121.4</b>	<b>314.30</b>	<b>286.12</b>
	<b>Sub Total (Commercial)</b>	<b>442000</b>	<b>4790424</b>	<b>479.0</b>		
	<b>Sub Total (Open Space)</b>	<b>450000</b>	<b>4877129</b>	<b>487.7</b>	<b>487.71</b>	<b>0.00</b>
<b>Total @ Zone Level</b>	<b>1004000</b>	<b>10881416</b>	<b>1088.1</b>	<b>802.02</b>	<b>286.12</b>	

### 5.8.6 CBD Level Facilities

The CBD level facilities are provided as per the URDPFI Guidelines are as follows, One Museum with Art Gallery of 5000 Sq.m (0.5 Hectares) area with the overall requirement of 2 Hectares. One Hotel with Convention facilities of 40,000 Sq.m of area has to be provided at CBD level with the overall requirement of 15.6 Hectares. There are few other facilities for amenities have to be provided, such



as for Institutional like Polytechnic College, Engineering College, Medical College, University Campus area, Socio-Cultural Centre, Library and International School with Hostel.

There are few other facilities for common amenities have to be provided, such as Regional Hospital , Health Resort , Hotel with convention facilities, Transport Nagar, Telephone exchange, Police Station with accommodation, Head Post Office, Bus Terminal with Depot, Electric receiving Substation, Fire Station, Central Sewage treatment Plant with zonal treatment plant, Crematorium & Burial Ground and Water reservoirs and distribution systems. There are few other facilities also to be provided, Such as Communication centre (with STD, IDD, Data Transmission, ISDN), Retail, Commercial, Zonal Shopping centre and Open Spaces.

The total land area provided at CBD level is 1960.6 hectare, which includes Amenities of 1024.19 Hectares, Commercial of 448.7 Hectares and Open spaces of 487.7 Hectares. Both Public and Private Provision share zone Level Facilities with Public provision of 1600.58 Hectares and Private provision of 360.03 Hectares.

**Table 54: Provision of social infrastructure – CBD level (URDPFI Guidelines)**

Population Threshold	Nature of Utility and Social facility	Land Area / Facility (sq.m)	Total Land Required (Sq.M)	Gross Land Required (in Ha.)	Public Provision (Ha)	Private Provision (Ha)
		<b>No. of Facilities - 4</b>				
CBD 1200000 - 1500000	Museum & Art Gallery	5000	19508.52	2.0	0.49	1.46
	Hotel with Convention facilities	40000	156068.12	15.6		15.61
	Regional Hospital	60000	234102.18	23.4	23.41	
	Polytechnic College	40000	156068.12	15.6	15.61	
	Engineering College	600000	2341021.83	234.1	234.10	
	Medical College	150000	585255.46	58.5	58.53	
	University Campus Area	600000	2341021.83	234.1	234.10	
	Health Resort	30000	117051.09	11.7		11.71
	Socio-Cultural Centre	150000	585255.46	58.5	58.53	
	Library	5000	19508.52	2.0	1.95	
	International school with hostel	40000	156068.12	15.6	6.24	9.36
	Transport Nagar	50000	195085.15	19.5	19.51	
Telephone	10000	39017.03	3.9	3.90		

Exchange					
Police Station with accommodation	10000	39017.03	3.9	3.90	
Head Post Office	10000	39017.03	3.9	3.90	
Bus Terminal with Depot	30000	117051.09	11.7	11.71	
Electric Receiving Substation (220/660KV)	50000	195085.15	19.5	19.51	
Fire Station	10000	39017.03	3.9	3.90	
Central Sewage treatment plant + zonal treatment plants	700000	2731192.14	273.1	273.12	
Crematorium & Burial Ground	45000	175576.64	17.6	17.56	
Water reservoirs and distribution systems	30000	117051.09	11.7	11.71	
Communication centre(with STD, IDD, Data Transmission, ISDN)	10000	39017.03	3.9	3.90	
Retail Commercial / Zonal Shopping centre (880sq,m/1000)	1100000	4291873.36	429.2	107.30	321.89
Open Space (@ 1sqm/ cap) (Golf course, Exhibition, Trade fairs)	1250000	4877128.81	487.7	487.71	
<b>Sub Total (Amenities)</b>	<b>2625000</b>	<b>10241970.51</b>	<b>1024.19</b>	<b>1112.86</b>	<b>360.03</b>
<b>Sub Total (Commercial)</b>	<b>1150000</b>	<b>4486958.508</b>	<b>448.7</b>		
<b>Sub Total (Open Space)</b>	<b>1250000</b>	<b>4877128.813</b>	<b>487.7</b>	<b>487.71</b>	<b>0.00</b>
<b>Total @ CBD Level</b>	<b>5025000</b>	<b>19606057.83</b>	<b>1960.6</b>	<b>1600.58</b>	<b>360.03</b>

## 5.9 Housing need

As per Census 2011, Patna has 9,75,578 households in the district. There are 9,39,887 census houses under the category of residence and residence-cum other uses, in which those 9.75 lakh households are residing. Therefore in 2011 there are 35,691 housing shortages in the district of Patna. PPA consists 63 percent of the total households in the district. Assuming sixty percent of housing shortages occur in PPA, approximately 21,414 houses are needed in Patna Planning Area in 2011.

Based on the projected population of 60 lakh by 2031, the estimated additional housing required in PPA can be projected based on following -

• <b>Present Population in 2011</b>	<b>: 3650524</b>
• <b>Projected population in 2031</b>	<b>: 6025232</b>
• <b>Additional Population to be accommodated</b>	<b>: 2374708</b>
• <b>Additional households (assuming average HH size of 5)</b>	<b>: 474941</b>
• <b>Present housing shortage</b>	<b>: 21414</b>
• <b>Dilapidated and Kutcha houses to be upgraded (assumed)</b>	<b>: 20000</b>
• <b>Total Housing need</b>	<b>: 516355</b>

Therefore an estimated total of 5.2 lakh dwelling units are required in PPA till 2031. As per 2011 Census, the average household size in PPA is 5.8. For 2031, a household size of 5 has been adopted to work out the housing requirement.

By looking at the existing areas with congested nature of housing in the city, it has been felt that there is very little scope for upgradation/ redevelopment in old areas. The required demand will be mostly met by providing housing in new areas. The whole PPA has been divided into 15 zones. Zonal Plans for each zone will be prepared in order to ensure that housing need is accommodated in the new areas.

### 5.9.1 Housing Strategy

The proposed housing strategy incorporates specific approaches for development of new housing areas, up gradation of slums, squatter settlements, restructuring old areas and intensification of housing in villages. Looking at the current distribution of housing types of the district, the future requirement of shelter provision will be dominated by one and two room dwelling units. It is proposed to involve private sector, public agencies and co-operative societies etc. for provision of housing stock and for delivery of serviced land.

The overall responsibility for provision of land and facilitation of adequate housing to meet the projected demand lies with the Bihar State Housing Board in collaboration with other agencies. Planning norms, land use zoning, density, FAR, and building controls will be decided for housing, both in new areas to be opened up and for redevelopment of existing areas. In the context of housing strategy, it is essential to optimise utilization of land and space with a view to increasing net residential density.

### 5.9.1.1 New housing areas

There would be a need for the development of housing to the extent of at least 25,000 DUs per annum in different categories. Developers will be encouraged to take up Area Development Schemes in new areas for delivery of serviced land.

The EWS & LIG houses after construction by a private group shall be handed over to the nodal agency/agencies and these should be allotted to eligible beneficiaries. The new housing should cater to the special needs of elderly, handicapped and single occupants.

### 5.9.1.2 Restructuring and up-gradation of the existing areas

The old city area of Patna has poor structural condition of buildings, sub-optimal utilization of land, congestion, poor urban form, inadequate infrastructure services, lack of community facilities, etc. The housing stock in both planned and unplanned areas can be enhanced through various approaches as given below.

#### A. Planned Areas

Housing colonies in general are organized and planned housing area. Bihar State Housing Board has constructed most of the major colonies. The flats built by BSHB, particularly those, which have become aged, may be redeveloped with permission and subject to the condition that the structural safety of other flats is not impinged. Already developed group housing inclusive of public (BSHB and others), co-operative housing may be redeveloped on the basis of prescribed norms and regulations by formulating co-operative societies or self-managing communities. The funds for redevelopment should be contributed by the residents.

A list of Major Housing Colonies in Patna is given in the Table 53 below:

**Table 55: Major housing colonies in Patna**

Bihar Govt	Central Govt	Private
Rajvanshi Nagar	P & T Colony	Ashiana Nagar
Shastri Nagar	Revenue Colony	Krishi Nagar
Gardanibag	R.B.I. Colony	Police Colony
Sri Krishna Puri		B.M. Colony
Patliputra Colony		A.G. Colony
Kankarbag Colony		Rajeev Nagar
Bahadurpur Colony		Budha Colony
RajendraNagar Colony		Sri Krishna Nagar (I.A.S. Colony)
Hanuman Nagar		Anandpuri
Chajubag		M.L.A. Flats Colony
C.D.A. Colony		

Source: DCPL Report, 2007

**B. Old City Areas (Special Area)**

The old city area has been earmarked as Special Area, for which urban renewal schemes will be taken up. The basic objective of Special Area Redevelopment Schemes in traditional areas is to bring about in situ improvements which help in improving architectural character of the area, i.e., design and layout, as well as revitalizing trade and commerce in the area.

**C. Slums and Squatter settlements**

Redevelopment of existing Slums and Squatter settlements will be done through -

**1. In-situ Up-gradation**

This Development option includes projects improving the quality of dwelling spaces occupied by slum dwellers with provision of basic services and infrastructure services.

**2. In-situ Redevelopment**

The existing slum areas will be redeveloped by providing proper access, dwelling unit open spaces and other basic services to the slum dwellers on land which the slum exists. It includes provision of housing to accommodate the displaced beneficiaries throughout the tenure of building new housing blocks. The carpet area of dwelling unit has been proposed as 25sqm.

**3. Rehabilitation/Relocation of Slum**

Existing slums will be relocated to an alternative site with provision of dwelling space, basic civic and infrastructural services. However, resettlement should be taken as the last option and would be resorted only in those cases where conditions pose a danger to health and cannot be improved, or where the lands are required for a public purpose.

**5.9.2 New Housing for Urban Poor**

New housing should be in the form of one or two room units, which would be developed through public and private agencies and through Cooperative societies. As this category constitutes bulk of the housing stock that has to be catered at an affordable price to the lowest income bracket as housing for Economically Weaker Sections (EWS), this is often done by cross-subsidization.

For this purpose, adequate land would be earmarked for EWS housing. This may be done through implementation of Area Development Schemes in new areas. Certain percentages of land may be deducted from each plot owners for delivery of infrastructure and amenities. Authority will keep such reserved lands which would be handed over to a designated agency for promoting housing for low income and weaker sections.

The developers of group housing shall ensure that minimum 10% of FAR or 25% of the dwelling units, whichever is more, are constructed for EWS and lower income category. The proposed density, with dwelling unit (DU) sizes for Slum/EWS housing (25-35sq.m) = 450 DUs/Ha.

The pattern of EWS housing shall be such as to ensure optimal utilization of land in a sustainable manner. For that purpose, multi- storied housing will be the preferred option. Apart from mandatory provision for EWS housing in all group housing projects/ schemes, the primary responsibility for creating adequate stock of housing for urban poor shall be borne by public agencies.

### 5.9.3 Night Shelters

The provision of night shelters is envisaged to cater to the shelter less, which are proposed to be provided near the Railway Terminals, Bus Terminals, Wholesale / Retail markets, Freight Complexes etc. as per requirements, and should be identified keeping in view major work centres. Special provisions may be made for the homeless, women and children including the disabled, orphans and old. In addition, multi-purpose use of the existing facility buildings may be allowed for night shelter purpose. Provision should also be made for converting existing buildings, wherever available, with suitable modifications into night shelters.

### 5.9.4 Rental Housing

In towns and cities wherever Government land is available, accommodation may be provided to the Government employees and also to the employees working in private/industrial/service sector. This would increase the housing stock and regulate the real estate market. The Rental Housing Scheme may be taken through State Housing Board with local planning authorities providing the lands for such purposes.

### 5.9.5 Incremental housing

Congestion of dwelling units is one of the critical factors resulting in housing shortages. The policy shall thus focus on incremental housing which will allow for pacing of construction as per the convenience of the owner and also allow additions and extensions to existing dwelling units.

## 5.10 Mixed use regulations

Mixed land use in the simplest terms can be described as the usage of land for more than one purpose including residential, commercial, institutional and industrial which can be co-located in an integrated way. Main features of Mixed Use areas are those where employment, shopping and residential land uses are integrated in a compact urban form, at higher development intensities and are pedestrian-oriented and highly accessible by public transit.

Mixed use allows access to commercial activities in the proximity of the residences and reduces the need for commuting across zones in the city. Unregulated use of commercial spaces turn into problems like mixed type of traffic resulting in traffic congestion, spiralling of activities on the road causing congestion, environmental pollution and high density development leading to degraded quality of life. It needs to be regulated in order to manage and mitigate the associated adverse impacts.



### 5.10.1 Regulation of commercial areas

To maintain the residential character, maximum 40% of existing built-up area can only be used for commercial activities. Parking, exterior open space and setbacks around such buildings will be regulated as per commercial use specified in building bye laws.

Mixed land use shall be permitted on plots abutting roads of width 40 feet and above, along with minimum plot size and maximum permissible commercial area as mentioned in the following table. FAR and setback shall be applicable as per primary land-use of the plot.

The following table depicts the permissible percentages of commercial spaces in residential areas.

**Table 56: Permissible commercial space in residential areas**

SI No.	Road Width	Minimum plot size	Commercial area as a percentage of Total Built up area
1	12m	500 sqm	20%
2	18m	1000 sqm	30%
3	30m & above	1500 sqm	40%

### 5.11 Redevelopment Strategy

A redevelopment strategy for accommodating more population may be taken upon on priority in identified areas, which may be implemented through conditional incentives in FSI, Land Pooling, Transfer of Developmental Rights (TDR), Accommodation Reservation, Flexible concept of Mixed Land Use and others provisions as laid down in Act and Rule and guidelines issued from time to time.

## 6 CHAPTER: LEGAL FRAMEWORK, IMPLEMENTATION MECHANISM, AREA DEVELOPMENT SCHEME, MONITORING AND REVIEW

### Chapter Contents

- ❖ *Legal Framework*
- ❖ *Implementation Mechanism*
- ❖ *Area Development Scheme*
- ❖ *Zonal Development Plans*
- ❖ *Phases of Development*
- ❖ *Metropolitan Area*
- ❖ *Institutional Setup*
- ❖ *Plan Review and Monitoring*

## 6.1 Legal Framework

To make provision for promotion of planned growth and development of urban areas and such rural areas having potential of urbanization and regulation there of including land use in these areas of State of Bihar, Bihar Urban Planning and Development (BUPD) Act was enacted in the year-2012. For implementations of this Act, Bihar Urban Planning and Development (BUPD) Rule was notified in the year-2014. Followings are some important provision provided in these Act and Rule to initiate and implement the proposals of the development plan.

In BUPD Act, the term 'Development plan' has been defined as - "Development plan" means a plan for the development or redevelopment or improvement of an area within the jurisdiction of a Planning Authority and includes a Regional Development Plan, a Metropolitan Development Plan, a Master Plan, Town Development Plan, Zonal Development Plan, District development Plan, ar any other plan or scheme prepared under this Act by whatsoever name known.

### 6.1.1 Formation and Functions of Bihar Urban Planning & Development Board

Bihar Urban Planning & Development Board has been constituted vide notification संख्या -4(न0) विधि-05/2009(पार्ट-I)35, न0वि0 एवं आ0वि0, पटना, Dated -28/01/2014.

The Section-4 of the Act read with Rule-4 of BUPD Rule assigns Urban Planning & Development Board with its functions and powers. Subject to the provisions to the Act and Rules, the functions of the Board shall be to advise the Government in matters relating to planning and development and use of rural and urban land in the state, to guide, direct and assist the Metropolitan Planning Committee or any other Planning Authority/(ies) constituted under the Act and to perform such other functions as the Government may, from time to time assign to the Board.

In particular and without prejudice to the generality of the foregoing provision, the Board may and if required by Government, shall;

- a) to advise on the delineation of Planning Area(s) for purposes of planned development and direct the preparation of Development Plan by the planning authorities;
- b) direct the preparation of one or more Development Plan(s) by the Planning Authorities or Metropolitan Planning Committees undertake, assist and advise on the coordination of planning and implementation of physical development programmes;
- c) undertake, assist and encourage the collection, maintenance, and publication of statistics, bulletins and monographs and other such activities like seminars, training of personals, association with professional and research organisation etc. on regional and urban planning;
- d) direct the preparations of one or more regional development plan, regional transportation plans, town development plans.
- e) direct the preparations of one or more regional natural resources and environmental conservation Plans.

- f) perform any other functions which is incidental, supplemental or consequential to any of the functions aforesaid or which may be prescribed.

The Board may exercise all such powers may be necessary or expedient for the purpose of carrying out its functions under the Act.

### 6.1.2 Declaration of Planning Area/s

The Government may, for the purpose of securing planned development of regions or areas within the State, on advice of the Board, declare by notification, and in such other manner as may be prescribed, any such region or area or regions or areas, including a Metropolitan Area or area for development of new towns in the State to be a Planning Area under the Section Nine (9) of the Act.

Patna Planning Area was notified by UD&HD vide notification no. 337/338, dated 13/08/2014.

### 6.1.3 Declaration of Peripheral Area

The Government may declare, with reference to a Planning Area, its surrounding area, defined clearly and unambiguously, as its Peripheral area. The Peripheral Area as delineated by the Government shall be directly shown on a map in one of the methods defined in Rule 9(3) (Section 9 of the Act) of the BUPD Rule, 2014. Provided that extension to such area shall not exceed one km from any point at its boundary.

### 6.1.4 Constitution of Planning Authority

Any time after the declaration of a Planning Area under Section-9, the Government shall, by notification, constitute/ designate an authority for such area to be called the Planning Authority of that Planning Area and it shall be known by such name as the Government may determine under Section Eleven (11) of the Act.

Functions and Powers of the Planning Authorities -

- to undertake the preparation of Development Plans under the provisions of this Act for the planning area;
- to undertake the preparation of Area Development Schemes under the provisions of this Act, if so desired by the State Government;
- to carry out surveys in the planning area for the preparation of the Development Plan or Area Development Schemes
- to control the Development Activities in accordance with the Development Plan in the planning area;
- to levy and collect such scrutiny fees for scrutiny of documents submitted to the appropriate authority for permission for development as may be prescribed by regulations;
- to enter into contracts, agreements and arrangements with any person or organization as the planning authority may deem necessary for performing its function;
- to acquire, hold, manage and dispose of property, movable or immovable, as may deem necessary

- to execute works in connection with all physical infrastructure works such as supply of water, disposal of sewerage and drainage, power, gas supply etc. and provision of other services and amenities
- to levy and collect such fees for the execution of works referred to in above clause and for provision of other services and amenities as may be prescribed in the regulations;
- to exercise such other powers and perform such other functions as are supplemental, incidental or consequential to any of the foregoing powers and functions or as may be directed by the State Government.

Patna Metropolitan Area Authority (PMAA) has been constituted vide notification no - 392, dated 11/09/2014 which has been annexed as **Annexure 21**.

### 6.1.5 Preparation of Land Use Map

Under section 18 of the Act, Every Planning Authority, after its formation, shall in consultation with the offices of the Revenue Department within two (2) years or such reasonable time as Government may by an order determine, prepare a present Land Use Map and a Land Use Register in the form to be prescribed, indicating the present use of every piece of land in the Planning Area.

### 6.1.6 Preparation, Contents and Approval of the Development Plan

Under Section -21 and 22 of the Act and Rule 26-28; as soon as may be, after the declaration of a Planning Area, the Planning Authority shall, but not later than two years after such declaration or within such time as the Government may from time to time determine, prepare and submit to the Government through Board a plan (hereinafter called “Development Plan”) for the Planning Area or any of its parts with a time frame of twenty years or such extended period as may be specified by the Government.

Rule 30 (Section 24) states about power of Government to prepare Development Plan, Rule 31 (Section 25) states about modification of Development Plan by the Board, Rule 32 (Section 26) states about Public notice of the Development Plan, Rule 33 (Section 27) states about approval of development Plan by the Government and Rule 34 (Section 28) states about Public notice in the official Gazette and operation of Development Plan from the date of publication of the aforesaid notice in the official Gazette. Rule 36 states about variation to the approved Development Plan and Rule 37 about revision of approved Development Plan.

### 6.1.7 Control of Development Plan and Use of Land

After coming into operation of any Development Plan, for the purpose of implementation of Development Plan related provisions have been made in this Chapter-VI of Act as well as Chapter-VI of the Rule.

### 6.1.8 Preparation of Area Development Scheme (Chapter VI of the Act)

Under Section - 46 of this Act read with Rule - 54 of Bihar Urban Planning & Development (BUPD) Rules, 2014 or any other law for the time being in force, the Planning Authority may, not later than six months after the Development Plan/s has been approved by the Government, invite Area Development Scheme(s) the purpose of implementing the proposals contained in the Development Plan from eligible developers for the area or areas within its jurisdiction or any part thereof. Scope and Contents of Area Development Scheme has been detailed in Rule 56, Section 48 of the Act.

Rule 57 (Section-49) states about land owner to be permanent stakeholder in the Area Development Scheme. In an Area Development Scheme referred in Section 47, while reconstituting the plot(s), the developer shall ensure that every land owner shall get back at least 10 percent of his land area in the scheme, as may be shown in reconstitution and allotment statement in Form-H. Such lands cannot be transferred in any form or sold by the owners within a period of ten years from the date of such allotment.

Rule 58 (Section 50) states about approval of Area Development Scheme, Rule 59 (Section -51) states about power of Government to require the Planning Authority to make Area Development Scheme, Rule 61 (Section 53) states about appeal against matters determined by the Authority, Rule 65 (Section -57) states about power to vary Area Development Scheme and Rule 66 (Section - 58) states about the execution of works in the Area Development Scheme.

Chapter XXXIV, Section 279 – 285 of The Bihar Municipal Act, 2007 also deals with the Area Improvement Scheme.

## 6.2 Implementation of Area Development Scheme (ADS)

The Area Development Scheme is a broad - brush development vision for the city - a dynamic document which then is detailed gradually into consequent development Plans and Schemes. Area Development Scheme is also an approach to form the image of the city. This can act as a technique for relating development to achieve a specific urban form. The new areas opened up for development in the Master Plan are divided into smaller areas of about 100 to 200 hectares surrounded by the proposed grid-iron road network. Each such area may be demarcated as ADSs.

For example, location of a model of an Area Development Scheme for illustration is shown in Map 30. The area of the model ADS is bounded by proposed 30m and 60m wide Master Plan roads as shown in the Map 30. The total area of the Study Area is 99.7 hectares and it has a total of 417 land parcels. The area is presently vacant and land is utilized under agricultural activities.

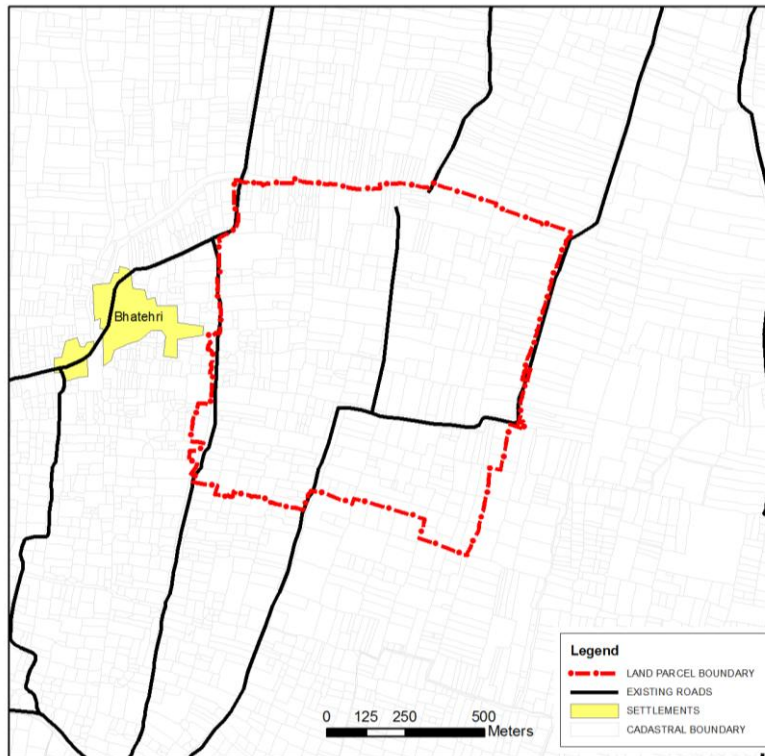
Steps followed in preparation of model of Area Development Scheme are illustrated through Maps - 31, 32, 33, 34, 35 and 36, Table 55, 56 and Figure 12 .



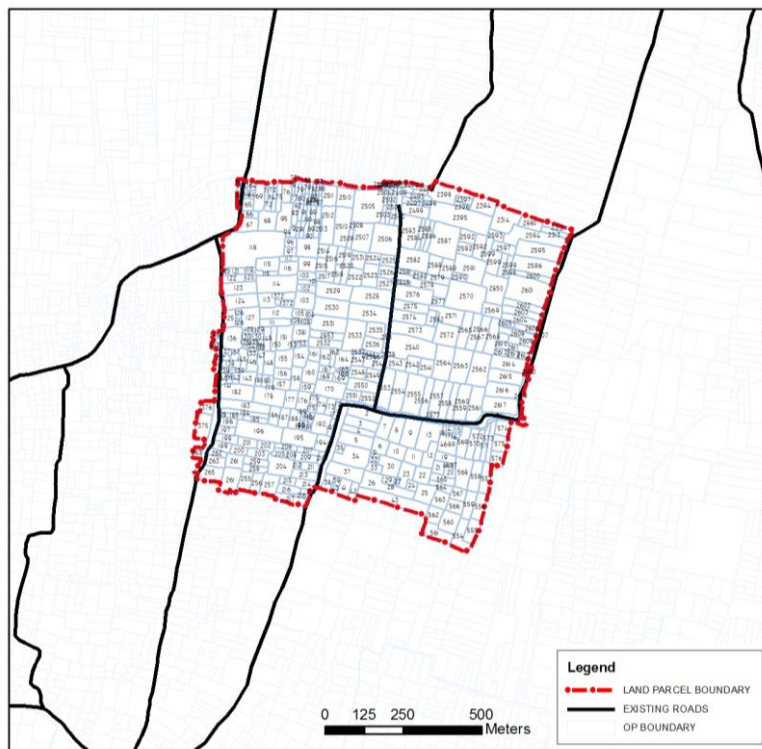
Map 30: Map showing location of Case study area (model ADS site)



**Step I:** Map 31: Base map of Model ADS Area (with land parcel boundary, existing roads, settlements and cadastral plots)



**Step II:** Map 32: Marking of original plots on base map with survey plot numbers



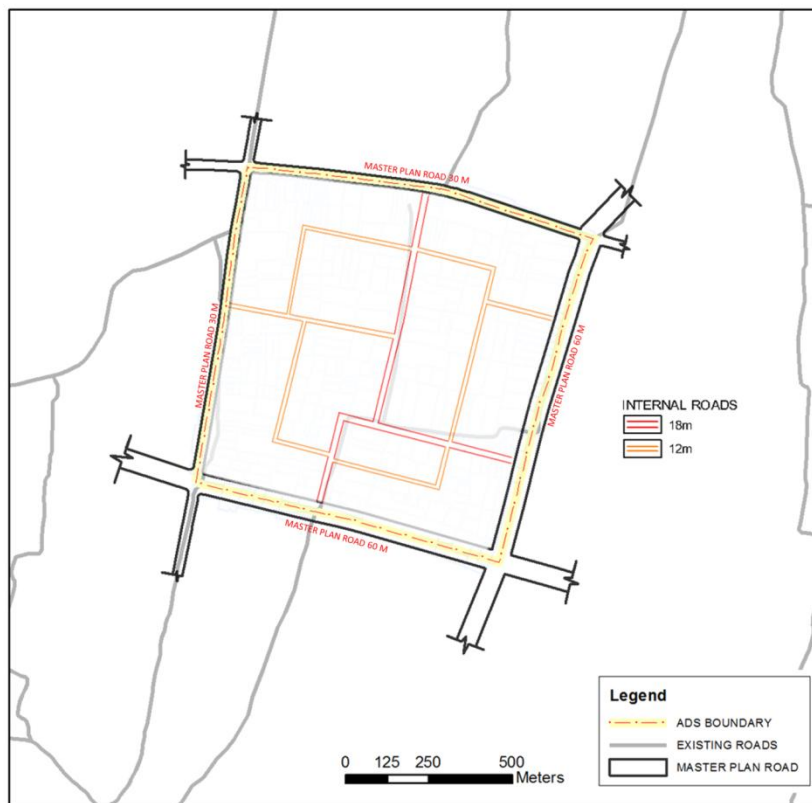
**Step III:**

**Table 57: Format for Ownership details, original plot sizes, deduction and final plot size**

Sl No.	Name of Owner	Tenure Status	Survey No. / (OP number)	Original Plot (OP) Area (sqm)	Deduction (30% from the OP)	Final Plot (FP) Area (sqm)
Village: Balua						
1	A	Patta/Rayati/Saledeed	13	5552.11	1665.63	3886.48
2	B	Patta/Rayati/Saledeed	36	7545.14	2263.54	5281.60
3	C	Patta/Rayati/Saledeed	4689	3412.45	1023.74	2388.72
4	D	Patta/Rayati/Saledeed	576	1997.31	599.19	1398.12
5	E	Patta/Rayati/Saledeed	574	2303.18	690.95	1612.23
6	F	Patta/Rayati/Saledeed	575	2350.78	705.23	1645.55
7	G	Patta/Rayati/Saledeed	554	3829.68	1148.90	2680.77
8	H	Patta/Rayati/Saledeed	558	3443.50	1033.05	2410.45
9	I	Patta/Rayati/Saledeed	559	2967.15	890.14	2077.01
10	J	Patta/Rayati/Saledeed	555	2973.50	892.05	2081.45

**Step IV:**

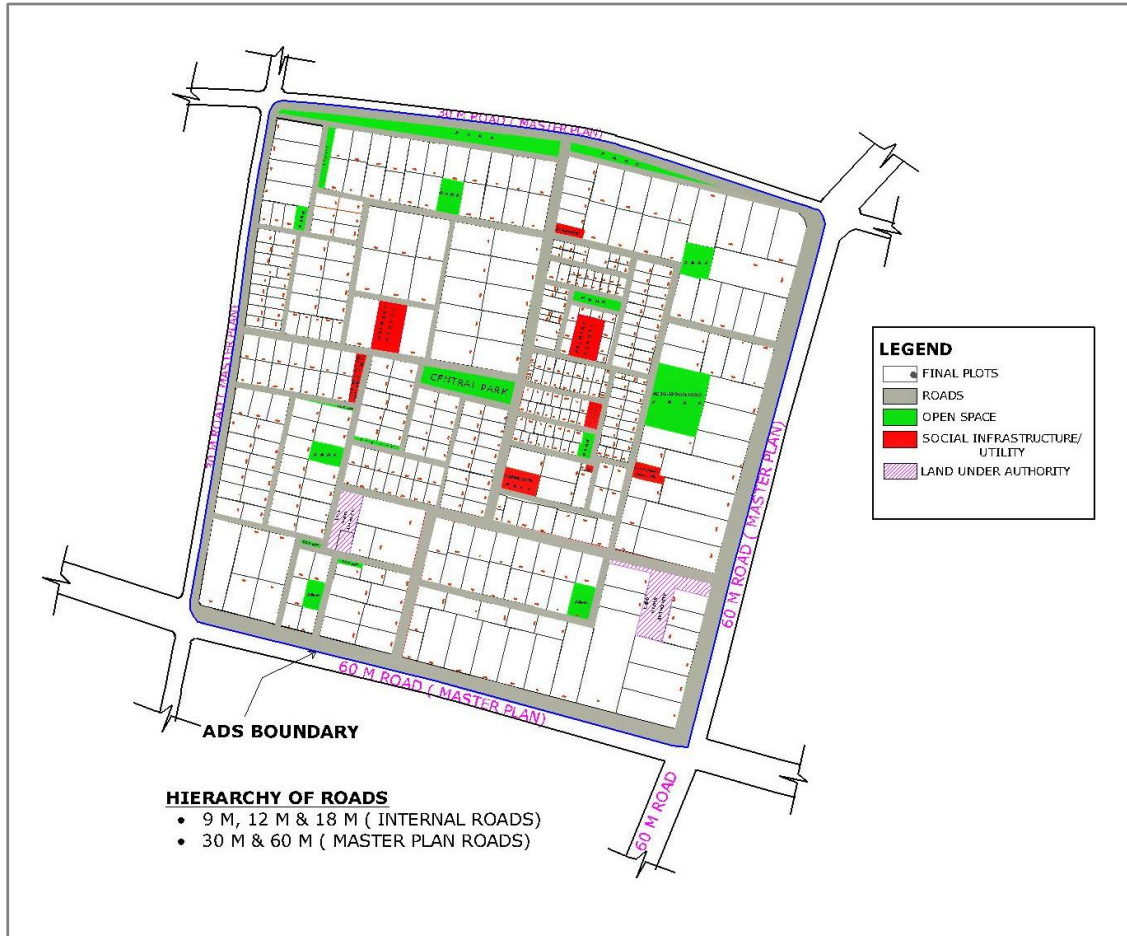
**Map 33: Laying of internal road network corresponding to existing roads**





Step V:

Figure 12: Reconstitution of Final Plots with amenities and infrastructure



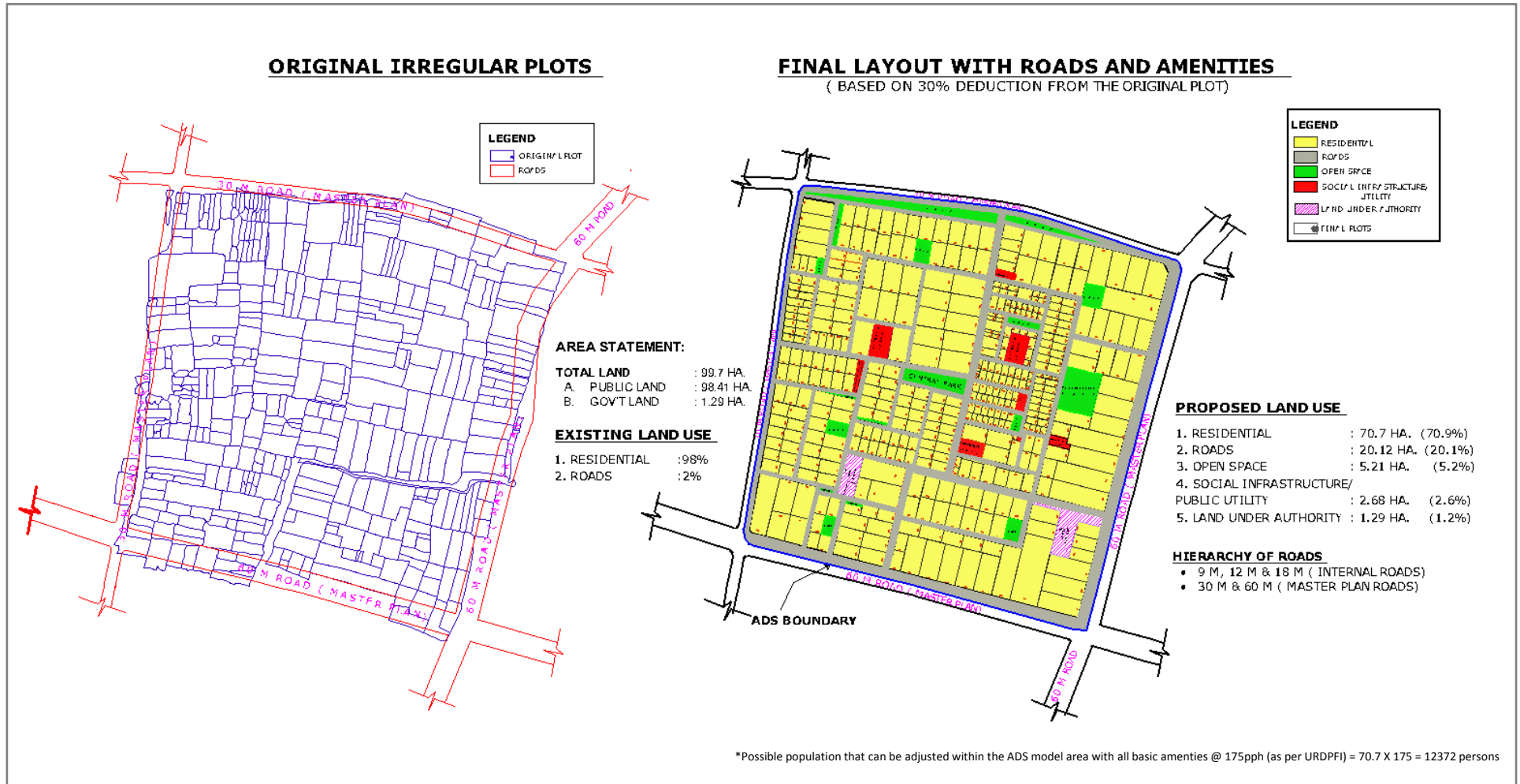
Step VI:

Table 58: Modal format of Redistribution and Valuation of plots

Sl no.	Name of Owner	Tenure	Original Plot				Final Plot						Contribution by the owner(+) Compensation by the Authority (-)	Increment	Contribution by the Planning Authority	Addition to (+) or deduction from (-) Contribution	Net demand from (+) or by (-) owner being the additions of columns 11,13,14
			Survey No./ OP No.	Area in sq.m	Value in rupees		FP No.	Area in sq.m	Value in rupees								
					Without reference to value of structures	Inclusive of structures			Undeveloped		Developed						
1	2	3	4	5	6(a)	6(b)	7	8	9(a)	9(b)	10(a)	10(b)	11	12	13	14	15
Village: Balua																	
1	A	Patta	13	5552.11	X	X <sub>1</sub>	13	3886.48	Y	Y	Y <sub>1</sub>	Y <sub>2</sub>	(±) (Y- X <sub>1</sub> )	Y <sub>1</sub> -Y	(Y <sub>1</sub> -Y)/2	(±) Z	(Y <sub>1</sub> -Y)/2(±) Z
2	B	Patta	36	7545.14	X	X <sub>1</sub>	36	5281.6	Y	Y	Y <sub>1</sub>	Y <sub>2</sub>	(±) (Y- X <sub>1</sub> )	Y <sub>1</sub> -Y	(Y <sub>1</sub> -Y)/2	(±) Z	(Y <sub>1</sub> -Y)/2(±) Z
3	C	Patta	4689	3412.45	X	X <sub>1</sub>	4689	2388.72	Y	Y	Y <sub>1</sub>	Y <sub>2</sub>	(±) (Y- X <sub>1</sub> )	Y <sub>1</sub> -Y	(Y <sub>1</sub> -Y)/2	(±) Z	(Y <sub>1</sub> -Y)/2(±) Z

Step VII:

Map 34: Layout of Original and Final plots under Area Development Scheme.





While preparing an Area Development Scheme following steps in the light of BUPD Act 2012 and BUPD Rule - 2014 may be taken up which are being followed in some other states also-

- Survey of the area
- Preparation of Base map
- Marking Original Plots (OP) on the Base Map
- Tabulating ownership details, Original plot sizes, Deduction and Final Plot size
- Laying out of internal road network
- Reconstitution of Final Plots with amenities and access roads
- Tabulating infrastructure and Betterment Charges
- Owners meeting and public hearing
- Finalization of the preliminary ADS and its approval
- Individual hearings to each landowner on the final ADS
- Finalization of the final ADS, its approval and implementation

### 6.2.1 Outcome of ADS

- **Rational Approach towards Planning and Implementation** - The process is democratic and participatory. The landowners are involved in the process of planning and have ample opportunity to present their views on the proposals and place on record their objections.
- **Win - Win Situation for Land Owners and Government** - The process creates a “win-win” proposition for both the landowners and the planning agencies as they both gain from the appreciation in the land values.
- **Self-Financing Mechanism** - The cost of infrastructure is in a sense paid for by the owners directly, and the planning agency and development authority is not required to make huge investments up-front.
- **Uniform and balanced distribution of Physical and Social Infrastructure** – The stipulated reservations for roads and amenities ensure that every area under Area Development Scheme gets equal distribution of physical and social infrastructure.
- **Increases the build ability of the Plots** – Final Plots given to land owners have better build ability than their original plots.
- **All Plots having Accessibility and Services** - Each Final Plot gets access through ADS. The neighbourhood facilities are placed while looking at adequacy and proximity.
- **Hierarchical Road Network and better linkages** - All ADS area will have hierarchy of master plan roads (Maximum 80m) and local level roads (Minimum 9m).
- **Preservation of Heritage and elements of Nature Beauty** – During the survey all existing structures and natural features are marked and left untouched.

### 6.2.2 Potentials

- **Infrastructure financing tool:** ADS can become a tool for creating valuable land assets which can be used in provision of key infrastructure in cities. The ADS tool offers an opportunity to consolidate public lands.
- **Innovative planning concepts:** The Master Plans prepared for cities are restricted to only land use zoning and the arterial road network structure. An ADS is an innovative way to create public amenities within areas incorporating both city wide macro level and very detailed micro level planning.
- **ADS as a tool to build accurate maps and land records for the city:** The lack of maps and the absence of databases hinder the process of planning and management functions of planning authorities, Land record departments, and line departments. While ADSs are prepared, very accurate cadastral maps and landownership details are developed. The spatial records are also linked with the databases. Hence, there is an opportunity created to build a fairly accurate GIS-based base map and land record system that can be used by both the planning and revenue departments.

All of the above issues can be addressed via a process of systematic reform. The urban planning system of Bihar is at a tender stage but it can give significant lessons for other states in India. A series of reforms in the form of amendments to the Act have already taken place, but a lot more needs to be done.

### 6.3 Zonal Development Plans (ZDP)

Development Zones are identified for implementation of Master Plan at Zone level. Zonal Plan shall be prepared in the framework of this Master Plan and provisions made in BUPD Act and Rule.

Patna Planning Area has been proposed to be tentatively divided into 15 zones (divisions). Boundaries of these zones are worked out with major roads, rivers etc. ZDPs will act as a link between the Master Plan and Local Area Plan. While preparing Zonal development Plan number of Zones and their boundaries may vary suitably.

Patna Urban Core is sub-divided into nine development zones. All the satellite towns proposed at Bihta(1), Naubatpur(1), Punpun(1), Fatuha(2) may be developed in separate zones.

The area and boundaries of the zones have been given in the Table 59.

Table 59: Zone wise area

Zone	Zone name	Constituent areas/ Boundaries	Area (sq.km)
1	Special Area	PMC Ward no. - 27 (part), 28 (part), 29, 30 (part), 31 (part), 32 (part), 33 (part), 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46 (part), 47, 48, 49, 50, 51, 52, 53, 54, 55, 56 (part), 57, 58, 59, 60, 61, 62 (part), 63, 64, 65, 66,67, 68, 69, 70. 71, 72	41.19
2	Patna urban	PMC Ward no. - 1, 2, 3, 4, 5, 6, 7, 8, 9, 20, 21, 22, 23, 24, 25, 26, 27 (part), 28 (part)	47.87
3	Danapur	To the north - Khaspur, Chhitnak, Daudpur, Shahpur, Danapur Ward No. 1, 2, 3, 4, 5, 6, Cantontment, Ward No. 24, 25, 26, 28, 29 & 30 ; To the south - Mustafapur, Asopur, Sikarpur, Karaitola, Balua; To the east - Danapur Ward No. - 31, 32,33,37, 40; To the west – Cantontment area	74.11
4	Gopalpur	To the north - Maulanipur, Nilkanthtola, Darweshpur, Vyapur, Bhuidhartola, Dosnagar, Sherpur, Bamantola; To the south - Purushottampur Panauthi;; To the east - Lachhmanpur, Milkitola, Bela, Ahiyapur; To the west - Mustafapur, Maula, Tilhari	60.59
5	Maner	To the north - Haldichpara, Mahavirtola, Ratantola, To the south - Daulatpur Simiri, Madhopur; To the east - Srinagar, Dayal Chak, Nagwan, Bahpura; To the west - Rambad, Rampur, Bhawanitola	98.44
6	Bihta	To the north - Gartola, Mustafapur, Musepur, Bhoj Chak, Kanhauli; To the south - Sihora, Tilajpur, HIRAMANPUR, Tarvan, Ramtari, Nathupur ; To the east - Srichandpur, Bechutola, Baghpur, Ghanshyampura, Gonawan; To the west - Kauriya, Pali, Daulatpur, Bedauli, Sikandarpur, Katesar, Amnabad	130.84
7	Naubatpur	To the north - Khaspur, Charra, Nagwan, , Naharpura, Muhammadpur, Yaqubaur, To the south - Panhara, Nsaopur, Bakua, Sona ; To the east - Murgiyen Chak, Janipur, Khaira, Mitan Chak, Kardaha, Salarpur; To the west - Kharauna, Misri Chak, Chainpura, Bichhedi, Sarasat, Kahari Chak, Adla	115.66

Zone	Zone name	Constituent areas/ Boundaries	Area (sq.km)
8	Makhdumpur	To the north - Newa, Sattar, Sarai, Nasir Chak; To the south - Mahangupur, Badipur, Chak Chiraura, Roghunathpur Bhilora, Raunia ; To the east - Navaratnatola, Muhammadpur, Korji, Chak Musa, Hanuman Chak; To the west - Karanpura, Tilu Chak, Babupur, Jaintipur, Chora Ropalpur	71.11
9	Patna central	PMC Ward No. 10, 11, 12, 13, 14, 15, 16, 17, 18	75.09
10	Sampat	To the north - Lower parts of Ward 30, 31, 32, 33 & 46; To the south - Gauri Chak, Albakshpur, Lanka Kachhuara, Gopalpur, Taranpur, Torwan; To the east – PMC Ward 56 (part), Bairiya, Gopalpur, Sondhi, Hander, Jajbar; To the west - Sikandarpur, Mahuli, Chhatna, Ebadullah	70.60
11	Mircha	To the north -PMC Ward 56 (Lower part), To the south - Kamar, Fatehpur, Moahpur, Mirzapur, Hiranandpur, Khaspur, Murajpur, Daulatpur, Bikrampur, Garah Chak, Samaspur; To the east - Jafer khantola, Fatehjangpur, Alampur To the west – Bairiya, Ilahibagh	65.22
12	Fatuha	To the north - Daulatpur, Bhagwanpur, Rukunpur, Muhammadpur, Itanpur, Khokhna, Nariana, Abdalpur, Rasulpur, Gorakh, Fatuha Bazaar, Maksodpurtola; To the south - Jamunapur, Bali, Faijali Chak, Machhriyawan; To the east - Khirodharpur, Adilpur, Hardaspur Bigha, Yusufpur, Parmin chak, Surungapar, Jafrabad, Gauri Pundah; To the west - Kamar, Jamalpur, Piyariya	93.43
13	Daniawan	To the north - Chandasi, Bakar Chak, Saidpur, Dariyapur, Chak Surat, Bankipur, Mal Bigha, ; To the south - Kismiria, Jamalpur, Daulatpur, Nanda Chak, Rasula, Bir; To the east - Bark Shiv Chak, Abdal Chak, Kismiria; To the west - Musnapur	68.13
14	Punpun-A	To the north - Punpun, Shripalpura, Lodhipur, Lakhanpara, Ramgan; To the south - Banwak, Sundarpur, Punai Chak, Panputa, Mai, Chak Zohra, To the east - Saphuan, Mustafapur, Balua Chak, Devkali, Oiyara;	77.22

Zone	Zone name	Constituent areas/ Boundaries	Area (sq.km)
		To the west - Pothihi	
15	Punpun-B	To the north - Jewa, Behrawan, Shakhbura, Sultanachak, Palmar, Salalpur; To the south - Muhammadpur, Chamar Chakiya, Karai, Supahuli, Bishambharpur, Chak Sadullah, Newar Chak, Dhanara, Kalman Chak; To the east - Basuhar, Sikandarpur, Ghopatpur, Dumari; To the west - Newa, Bhabhaul, Bhabhoul Chak	77.55
<b>Total</b>			<b>1167.04</b>

In absence of Zonal Plans, development shall be in accordance with the provisions of the Master Plan. No change in land use or urban activity shall be permitted in the proposed areas therein.

#### 6.4 Phases of development

The Patna Planning Area has been planned and designed after analyzing the requirements of water supply, drainage, sewerage, housing, urban/rural conservation, social infrastructure, transportation and other vital parameters. There may be many projects which may be implemented in phases as per requirement.

It is proposed to develop Patna Planning Area in three phases of development for easy monitoring and reviewing of implementation of proposals. The time frame for each phase shall be of five years.

In determining the phases of development, the Master Plan recognizes following:

- ❖ Development is best started where the most comprehensive range of existing facilities and infrastructure is already available, particularly where they are close to existing centers of population;
- ❖ Concentrating early development on Government owned land will minimize the cost and potential delays in land procurement;
- ❖ Each phase should be as self-sustained as possible and should provide a well balanced mix of uses so that it can function effectively and not require development within subsequent phases to complete it;
- ❖ The early development phase should be largely completed before subsequent phases are brought on stream.

Table 60: Phase wise development

Phase	Time Period	Areas to be developed (in sq.km)	Zones covered
I	2016 - 21	318.19	Zone - 1, 2, 3, 4 (part of), 5 (part of)
II	2021 - 26	237.50	Parts of Zone - 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14 and 15
III	2026 - 31	611.35	Parts of Zone - 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14 and 15
<b>Total</b>		<b>1167.04</b>	

Targets which are not achieved within the defined time-frame shall be carried forward in the next phase.

### 6.5 Peripheral Area

Authority may declare Peripheral Area of this Master Plan and impose such restrictions under Rule 9 (Section 9 of the Act) and Rule 14.

### 6.6 Patna Metropolitan Area

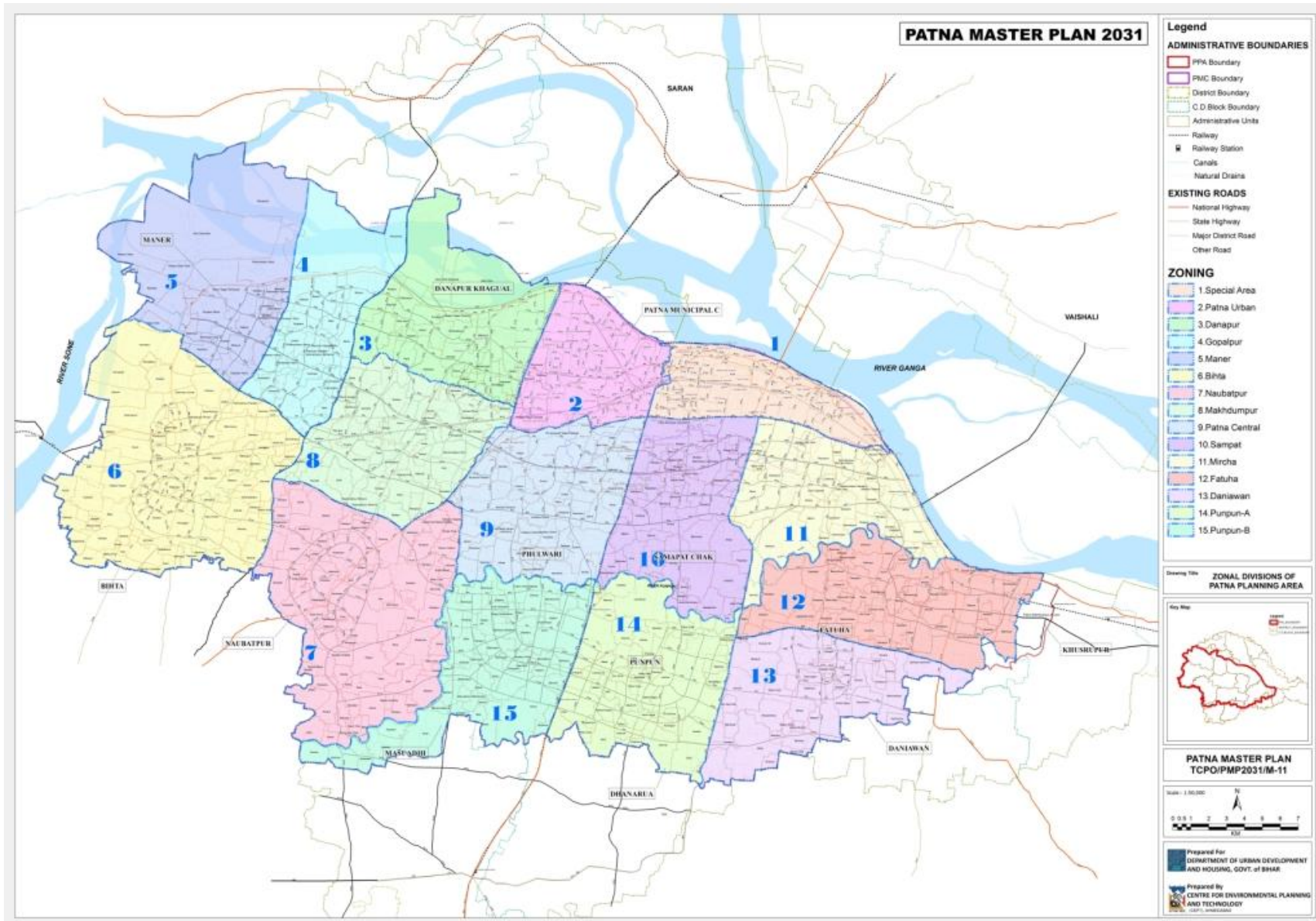
Patna Planning Area has been specified as Patna Metropolitan Area and accordingly Patna Metropolitan Planning Committee has been constituted vide notification no.617/618, dated - 15.9.16 of UD & HD.

### 6.7 Institutional Setup

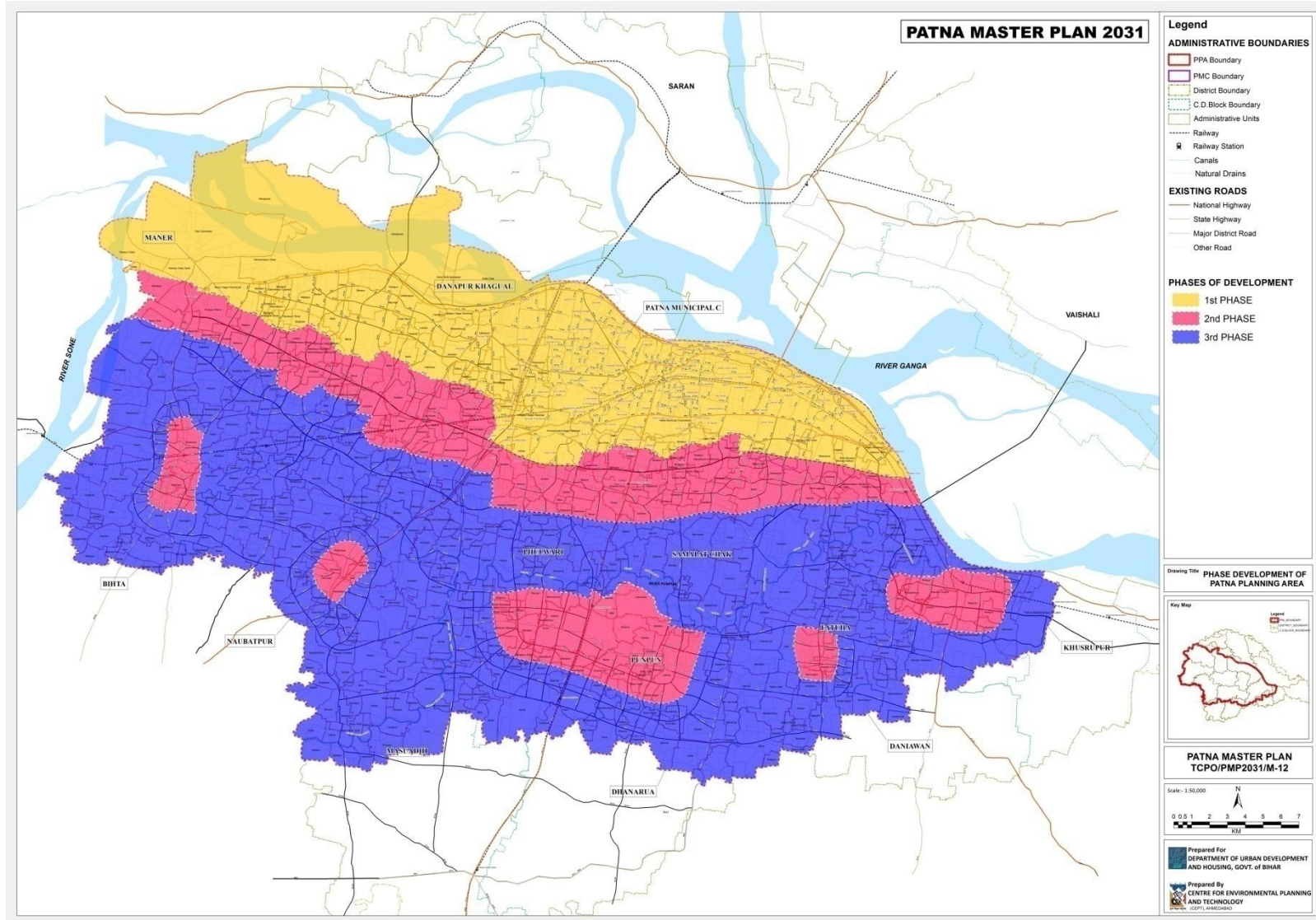
Institutions involved in planning and infrastructure development may be – Patna Metropolitan Planning Committee (PMPC) , Patna Capital Region Management Committee (PCRMC), Patna Metropolitan Area Authority (PMAA), Patna Municipal Corporation (PMC) and other local authorities lying within Patna Planning Area, Bihar Urban Infrastructure and Development Corporation (BUIDCO), Bihar State Housing Board (BSHB), Bihar Rajya Jal Parishad (BRJP), Bihar Industrial Area Development Authority (BIADA) and other related organisations/authorities/institutions as decided from time to time.



Map 35: Zonal divisions of PPA



Map 36: Zones and Phased Development of PPA



## 6.8 Plan Review and Monitoring

Plan Review and Monitoring is essential to evaluate the changes required to improve the quality of life in the city. Monitoring framework for targets of the master plan helps in judging the performance of various sectors, which need priority. Critical aspects and their targets need shorter monitoring period so that they can be constantly reviewed from time to time.

A dedicated Monitoring Unit with modern data processing facilities may be set up which would be responsible for collection and analysis of data and required changes to the notice of the Authority. A suitable mechanism by way of constituting High Level Committee(s) and Co-Ordination group(s) may also be proposed for periodic review and monitoring of the plan. Such committee or groups may be constituted to suggest on the related subjects such as Infrastructure, Environment and Conservation, Industries, traffic and Transportation, Housing, Heritage, Slum Improvement, Zonal plan, Land use and any other subject as required and decided from time to time.

Periodic review of the plan shall ensure mid-term correction and modifications in the Plan and its implementation procedures in the right direction according to the needs of the people.



- *ANNEXURES*



## Annexure 1: Notification of Patna Planning Area

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**Government of Bihar**  
**Urban Development & Housing Department**

**NOTIFICATION**

No. 338 Patna dt 13-8-14 UD&HD, In exercise of the powers conferred by section-9 of the Bihar Urban Planning and Development Act, 2012 read with Rule-9 of the Bihar Urban Planning and Development Rule, 2014, the Government of Bihar is hereby pleased to declare planning area for the proposed Patna Master Plan, 2031, in consultation with the Bihar Urban Planning and Development Board, which shall be known as "Patna Planning Area", boundaries of local areas of which are as per following -

North - In the Western end from Rampur, Haldichhapra of Maner Block through land situated in the river of the Ganges to Hardashpurbigha of Khusrupur Block in the Eastern end.

South - In the Western end from Natthupur, Mathurampur, Tarvan of Bihta Block through Chainpura, Mishrichak, Kharauna of Naubatpur Block, Chak Sadullah of Masaurhi Block, Kutubpur, Newarchak, Banwak, Sunderpur of Punpun Block, Chakjohara of Dhanarua Block, Nandachak of Fatuha Block to Daulatpur (Block-Fatuha) in the Eastern end.

East - In the Southern end from Daulatpur through Jamalpur of Fatuha Block, Kismiria of Daniawan Block to Hardaspurbigha of Khusrupur Block in the Northern end.

West - In the Southern end from Natthupur through Kauriya, Pali of Bihta Block to Haldichhapra of Maner Block in the Northern end.

Area of this Planning area is 1167.04 sq.km.

There are 13 CD Blocks and total 581 administrative units in this planning area which includes 6 Urban Administrative Units, Patna Municipal Corporation, Danapur Nagar Parishad, Khagaul Nagar Parishad, Phulwarisharif Nagar Parishad, Maner Nagar Panchayat and Fatuha Nagar Panchayat and remaining 575 are rural administrative units.

CD Block wise list of areas included in this planning area is appended as appendix-I, List of Administrative Units as Appendix-II, Map of the Planning area as Appendix-III.

Keeping in view the probability of modification and changes in the area of administrative units and planning area during preparation of this master plan, the Urban Development and Housing Department shall be the competent authority to modify and change the area upto five percent of the total area of this planning area.

**By the order of Governor,**

(Jai Singh)  
Joint Secretary

बिहार सरकार  
नगर विकास एवं आवास विभाग

अधिसूचना

पटना सं. 13-8-14

संख्या—337 न०वि० एवं आ०वि०, बिहार शहरी आयोजना तथा विकास अधिनियम, 2012 के धारा-9 सह पठित बिहार शहरी आयोजना तथा विकास नियमावली, 2014 के नियम-9 के द्वारा प्रदत्त शक्तियों का प्रयोग करते हुए बिहार सरकार, एतद् द्वारा बिहार शहरी आयोजना तथा विकास बोर्ड के परामर्श से, पटना महायोजना, 2031 के प्रयोजनार्थ निम्नलिखित आयोजना क्षेत्र घोषित करती है, जिसे "पटना आयोजना क्षेत्र" कहा जा सकेगा, जिसकी स्थानीय क्षेत्र की सीमाएँ निम्नवत् हैं : -

- उत्तर** - पश्चिमी छोर में मनेर प्रखण्ड के रामपुर, हल्दीछपरा से होकर गंगा नदी में अवस्थित भू-भाग से होते हुए पूर्वी छोर में खुशरूपुर प्रखण्ड के हरदासपुरबिगहा तक।
- दक्षिण**- पश्चिमी छोर में बिहटा प्रखण्ड के नत्थूपुर, मथुरामपुर, तरवन होकर नौबतपुर प्रखण्ड के चैनपुरा, मिश्रीचक, खरौना, मसौढ़ी प्रखण्ड के चक सदुल्लाह पुनपुन प्रखण्ड के कुतुबपुर, नेवारचक, बांक्क, सुन्दरपुर, धनरूआ प्रखण्ड के चकजोहरा, फतुहा प्रखण्ड के नन्दाचक होते हुए पूर्वी छोर में दौलतपुर (प्रखण्ड फतुहा) तक।
- पूरब** - दक्षिणी छोर में फतुहा प्रखण्ड के दौलतपुर से जमालपुर, दनियौवा प्रखण्ड के किसमिरिया होते हुए उत्तरी छोर में खुशरूपुर प्रखण्ड के हरदासपुरबिगहा तक।
- पश्चिम**- दक्षिणी छोर में बिहटा प्रखण्ड के नत्थूपुर से कौरिया, प्राली होते हुए उत्तरी छोर में मनेर प्रखण्ड के हल्दीछपरा तक।

इस आयोजना क्षेत्र का क्षेत्रफल 1167.04 वर्ग किमी० है।

इस आयोजना क्षेत्र में 13 CD Blocks एवं कुल 581 प्रशासनिक इकाईयों हैं, जिसमें पटना नगर निगम, दानापुर नगर परिषद, खगौल नगर परिषद, फुलवारीशरीफ नगर परिषद, मनेर नगर पंचायत एवं फतुहा नगर पंचायत सहित कुल छः शहरी प्रशासनिक इकाईयों तथा शेष 575 ग्रामीण प्रशासनिक इकाईयों हैं।

इस आयोजना क्षेत्र में शामिल क्षेत्रों की CD Block Wise सूची, अनुसूची-1, प्रशासनिक इकाईयों की सूची, अनुसूची-11 एवं आयोजना क्षेत्र का नक्शा अनुसूची-111 के रूप में संलग्न है।

इस महायोजना की तैयारी के दौरान प्रशासनिक इकाईयों एवं आयोजना क्षेत्र के क्षेत्रफल में उपांतरण एवं फेरबदल की संभावना को ध्यान में रखते हुए इस आयोजना क्षेत्र के कुल क्षेत्रफल में पाँच प्रतिशत तक उपांतरण एवं फेर बदल करने के लिए नगर विकास एवं आवास विभाग सक्षम प्राधिकार होगा।

बिहार राज्यपाल के आदेश से।

सरकार के सचिव।



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**PATNA PLANNING AREA  
(IMPROVING DRAFT MASTER PLAN FOR PATNA-2031)  
Map : Patna Planning Area**

अनुसूची-III



अनुसूची-1  
पटना आयोजना क्षेत्र के घटके

क्र०सं०	सी०डी० ब्लॉक	ग्रामीण प्रशासनिक इकाइयों की संख्या	क्षेत्रफल (वर्ग कि०मी०)	शहरी प्रशासनिक इकाइयों की संख्या	क्षेत्रफल (वर्ग कि०मी०)	सी०डी० ब्लॉक के कुल प्रशासनिक इकाइयों	क्षेत्रफल (वर्ग कि०मी०)
1	बिहटा	80	157.17	0	0.00	80	157.17
2	दानापुर-सह-खगौल	34	66.38	2	19.45	36	85.83
3	धनरूआ	15	24.14	0	0.00	15	24.14
4	दनियौवा	5	14.65	0	0.00	5	14.65
5	फतुहा	77	114.84	1	6.75	78	121.59
6	खुसरूपुर	2	3.24	0	0.00	2	3.24
7	मनेर	41	135.44	1	9.81	42	145.25
8	मसौड़ी	6	14.04	0	0.00	6	14.04
9	नौबतपुर	93	138.82	0	0.00	93	138.82
10	पटना ग्रामीण	31	43.67	1	96.80	32	140.47
11	फुलवारी	68	101.45	1	9.60	69	111.05
12	पुनपुन	85	145.47	0	0.00	85	145.47
13	सम्पत	38	65.33	0	0.00	38	65.33
	उप-कुल प्रशासनिक इकाइयों	575	1,024.63	6	142.41	581	1,167.04
	कुल प्रशासनिक इकाइयों			581			

## अनुसूची-I

## Constituents of Patna Planning Area

Sr. No.	C. D. Blocks	Number of Rural Administrative Units*	Area (Sq.Km.)	Number of Urban Administrative Units*	Area (Sq.Km.)	Total Administrative Units per C.D.Block*	Area (Sq.Km.)
1	BIHTA	80	157.17	0	0.00	80	157.17
2	DANAPUR-CUM-KHAGUAL	34	66.38	2	19.45	36	85.83
3	DANAURA	15	24.14	0	0.00	15	24.14
4	DANIYAWAN	5	14.65	0	0.00	5	14.65
5	FATUHA	77	114.84	1	6.75	78	121.59
6	KHUSRUPUR	2	3.24	0	0.00	2	3.24
7	MANER	41	135.44	1	9.81	42	145.25
8	MASURHI	6	14.04	0	0.00	6	14.04
9	NAUBATPUR	93	138.82	0	0.00	93	138.82
10	PATNA RURAL	31	43.67	1	96.80	32	140.47
11	PHULWARI	68	101.45	1	9.60	69	111.05
12	PUNPUN	85	145.47	0	0.00	85	145.47
13	SAMPATCHAK	38	65.33	0	0.00	38	65.33
	Sub - Total Administrative Units	575	1,024.63	6	142.41	581	1,167.04
	Total Administrative			581			



## अनुसूची-II

List of administrative units under the jurisdiction of Proposed Patna Planning area.

SR.NO..	C.D.BLOCK	ADMINISTRATIVE UNIT	AREA-SQ-KM
1	BIHTA	ANANDPUR	10.68
2	BIHTA	HASAN CHAK	1.38
3	BIHTA	AMINABAD	4.99
4	BIHTA	DAULATPUR SEMRI	2.03
5	BIHTA	MOHIUDDIN CHAK	0.39
6	BIHTA	MUNSEPUR	1.13
7	BIHTA	MUSTAFAPUR	1.02
8	BIHTA	MUSTAFAPUR	0.58
9	BIHTA	NARAINPUR	1.54
10	BIHTA	RAMPUR ISMAIL	2.69
11	BIHTA	ADLIPUR	0.40
12	BIHTA	BAGHPURA	0.82
13	BIHTA	BASAURHA	0.91
14	BIHTA	BEDAULI	1.19
15	BIHTA	BISAMBHARPUR	1.05
16	BIHTA	BISHUNPURA	2.38
17	BIHTA	DUMRI	2.93
18	BIHTA	JAINIPUR	1.89
19	BIHTA	KHEDARPURA	1.00

## अनुसूची-II

List of administrative units under the jurisdiction of Proposed Patna Planning area.

SR.NO..	C.D.BLOCK	ADMINISTRATIVE UNIT	AREA-SQ-KM
20	BIHTA	MADDHUPUR	0.47
21	BIHTA	MADHOPUR	0.78
22	BIHTA	MAHADEOPUR PHULARI	2.65
23	BIHTA	NEURI	1.57
24	BIHTA	PATSA	1.22
25	BIHTA	PURANIA	1.82
26	BIHTA	RAMNAGAR	0.47
27	BIHTA	SAMSARA	0.93
28	BIHTA	SIRICHANDPUR	0.91
29	BIHTA	SIRIRAMPUR	1.42
30	BIHTA	AMHARA	5.96
31	BIHTA	RAGHOPUR	1.85
32	BIHTA	DEALPUR DAULAT	4.41
33	BIHTA	DOGHRA	0.75
34	BIHTA	GOKHULPUR KURHAR	1.56
35	BIHTA	GORHANA	2.99
36	BIHTA	HIRMANPUR	0.84
37	BIHTA	IBRAHIMPUR	0.63
38	BIHTA	KANHAULI	1.60

## अनुसूची-II

List of administrative units under the jurisdiction of Proposed Patna Planning area.

SR.NO..	C.D.BLOCK	ADMINISTRATIVE UNIT	AREA-SQ-KM
39	BIHTA	KATESAR	3.30
40	BIHTA	KUTLUPUR	3.34
41	BIHTA	LOHMANPUR	1.36
42	BIHTA	NEURA	2.40
43	BIHTA	PAINAL	8.45
44	BIHTA	PALI	2.47
45	BIHTA	SADISOPUR	0.92
46	BIHTA	SIKANDARPUR	4.82
47	BIHTA	TIKAITPUR	2.07
48	BIHTA	TIL BIKRAMPUR	0.39
49	BIHTA	ALHANPUR	5.85
50	BIHTA	BELA	1.77
51	BIHTA	BIHTA	3.55
52	BIHTA	CHAURA GOPALPUR	0.51
53	BIHTA	BAZIDPUR	1.55
54	BIHTA	MAKHDUMPUR	3.02
55	BIHTA	PANREPUR	2.44
56	BIHTA	BANWARIPUR	3.03
57	BIHTA	BAHPURA	2.00



## अनुसूची-II

List of administrative units under the jurisdiction of Proposed Patna Planning area.

SR.NO..	C.D.BLOCK	ADMINISTRATIVE UNIT	AREA-SQ-KM
58	BIHTA	PARKHOTIMPUR PAINATHI	2.92
59	BIHTA	DEKAULI	2.98
60	BIHTA	AMAHRA	0.64
61	BIHTA	BILAP	2.61
62	BIHTA	CHAUKI	0.09
63	BIHTA	HIRAMANPUR	0.46
64	BIHTA	JAMNAPUR	1.25
65	BIHTA	KALIGANJ	0.19
66	BIHTA	KAMALPUR	0.43
67	BIHTA	KAURIA	2.19
68	BIHTA	KHARAGPUR	3.90
69	BIHTA	KUJAWAN	2.41
70	BIHTA	MATHURA PUR	0.39
71	BIHTA	MITHAPUR	1.53
72	BIHTA	MONJE CHAK	0.39
73	BIHTA	NAGARBIHTA	1.13
74	BIHTA	NATHUPUR	1.65
75	BIHTA	PAKRI	0.68
76	BIHTA	PARRI	2.40

## अनुसूची-II

List of administrative units under the jurisdiction of Proposed Patna Planning area.

SR.NO..	C.D.BLOCK	ADMINISTRATIVE UNIT	AREA-SQ-KM
77	BIHTA	RAGHOPUR JOLAHAWA	0.50
78	BIHTA	RAMBAD	0.41
79	BIHTA	RAMTARI	2.06
80	BIHTA	TARVAN	0.94
81	DANAPUR	JAMSAUT	2.76
82	DANAPUR	MAINPURA	1.27
83	DANAPUR	RUKUNPURA	1.21
84	DANAPUR	ADAMPUR	0.71
85	DANAPUR	BARI KHAGAUL	1.67
86	DANAPUR	DARIAPUR	1.62
87	DANAPUR	GORGAWAN	0.94
88	DANAPUR	HADASPURA	0.71
89	DANAPUR	KHEDARPURA	0.28
90	DANAPUR	KOTHIA	0.61
91	DANAPUR	USRI KHURD	0.44
92	DANAPUR	ASOPUR	0.74
93	DANAPUR	HATHIAKAN	5.09
94	DANAPUR	JALALPUR	1.94
95	DANAPUR	LAKHANI BHIGA	1.97

## अनुसूची-II

List of administrative units under the jurisdiction of Proposed Patna Planning area.

SR.NO..	C.D.BLOCK	ADMINISTRATIVE UNIT	AREA-SQ-KM
96	DANAPUR	USRI	1.02
97	DANAPUR	SIDDIKPUR	0.36
98	DANAPUR	SANDALPUR	0.35
99	DANAPUR	NASIRPUR	0.27
100	DANAPUR	DHIBRA	0.52
101	DANAPUR	BABAKKARPUR	0.62
102	DANAPUR	MUSTAFAPUR	0.00
103	DANAPUR	KOTHAWAN	1.00
104	DANAPUR	MUSTAFAPUR	1.72
105	DANAPUR	SANRARI	2.49
106	DANAPUR	DHANAUT	3.77
107	DANAPUR	FARIDANPUR	0.08
108	DANAPUR	DANAPUR CANTONMENT	0.00
109	DANAPUR	LODIPUR	2.04
110	DANAPUR	MOBARAKPURA	1.68
111	DANAPUR	FARIDANPUR	0.01
112	DANAPUR	DANAPUR	13.55
113	DANAPUR	KHAGAUL	5.90
114	DANAPUR	DIARA TAUFIR MANGAPAL	2.44

## अनुसूची-II

List of administrative units under the jurisdiction of Proposed Patna Planning area.

SR.NO..	C.D.BLOCK	ADMINISTRATIVE UNIT	AREA-SQ-KM
115	DANAPUR	GHANGHARA	15.16
116	DANAPUR	DALIP CHAK	10.88
117	DANAURA	AURANGPUR	1.14
118	DANAURA	BHAGWANPUR	0.39
119	DANAURA	DEOKALI	3.00
120	DANAURA	JAMALPUR	0.67
121	DANAURA	KASHI NAGAR	2.14
122	DANAURA	KHURRAMPUR	0.80
123	DANAURA	MIAN CHAK	0.70
124	DANAURA	MOHAMMADPUR	1.22
125	DANAURA	SAFIPUR	0.63
126	DANAURA	SEOTI	2.45
127	DANAURA	SONMAI	3.49
128	DANAURA	PARANPURA	0.61
129	DANAURA	SISAUNA	0.89
130	DANAURA	OIARA	3.03
131	DANAURA	BIR	2.99
132	DANIYAWAN	DOST MUHAMMADPUR	1.53
133	DANIYAWAN	KANCHANPUR	2.40



## अनुसूची-II

List of administrative units under the jurisdiction of Proposed Patna Planning area.

SR.NO..	C.D.BLOCK	ADMINISTRATIVE UNIT	AREA-SQ-KM
134	DANIYAWAN	KASHMIRIYA	0.69
135	DANIYAWAN	BANKIPUR BAORIWAN	8.76
136	DANIYAWAN	AIMAN BIGHA	1.26
137	FATWAH	ABDALPUR	0.49
138	FATWAH	ALAWALPUR	5.45
139	FATWAH	BARIA KALA	1.78
140	FATWAH	BARIA KHURD	1.03
141	FATWAH	BHAGAWANPUR	0.52
142	FATWAH	BHIKUA	0.60
143	FATWAH	BIKRAMPUR	0.43
144	FATWAH	BIKRAMPUR AIMA	0.49
145	FATWAH	BIKRAMPURZABTI	0.36
146	FATWAH	DALANPUR	0.21
147	FATWAH	DAULATPUR	2.55
148	FATWAH	DUMRI	2.53
149	FATWAH	GANGAPUR	1.35
150	FATWAH	JETHULI	2.70
151	FATWAH	KHARPAR E	0.51
152	FATWAH	KHARPHAR	0.59



## अनुसूची-II

List of administrative units under the jurisdiction of Proposed Patna Planning area.

SR.NO..	C.D.BLOCK	ADMINISTRATIVE UNIT	AREA-SQ-KM
153	FATWAH	KHIZIRPUR	0.57
154	FATWAH	KIAMUDDIN CHAK	0.38
155	FATWAH	KUTUBPUR	0.57
156	FATWAH	MAUJIPUR	1.96
157	FATWAH	MUHAMMADPUR	0.57
158	FATWAH	MURAJPUR	0.60
159	FATWAH	NARIMA	1.43
160	FATWAH	NATHUPUR	1.69
161	FATWAH	PARSA	1.29
162	FATWAH	PARSARAMPUR	1.09
163	FATWAH	PITAMBAR PUR	1.58
164	FATWAH	RAIPURA	3.07
165	FATWAH	RUKUNPUR	0.51
166	FATWAH	SONARU	3.05
167	FATWAH	SULTANPUR	2.34
168	FATWAH	AKHARIA	0.77
169	FATWAH	AKHARIYA	0.73
170	FATWAH	DARIAPUR	3.41
171	FATWAH	DAULATPUR	1.39

## अनुसूची-II

List of administrative units under the jurisdiction of Proposed Patna Planning area.

SR.NO..	C.D.BLOCK	ADMINISTRATIVE UNIT	AREA-SQ-KM
172	FATWAH	JAMALPUR	1.77
173	FATWAH	JANARJANPUR	1.24
174	FATWAH	KOLHAR	3.18
175	FATWAH	LASHKARI CHAK	0.99
176	FATWAH	NIYAZIPUR	0.92
177	FATWAH	RAMJICHAK	0.40
178	FATWAH	SAHORA	1.73
179	FATWAH	SAIDANPUR	2.06
180	FATWAH	SARBAHANPUR	1.45
181	FATWAH	SIRAMPUR	0.59
182	FATWAH	SOTI CHAK	0.71
183	FATWAH	SUPAN CHAK	0.43
184	FATWAH	USFA	5.44
185	FATWAH	WARISPUR	0.95
186	FATWAH	BAZIDPUR	0.52
187	FATWAH	BENDAULI	1.49
188	FATWAH	BERGAWANPUR	2.65
189	FATWAH	BIBIPUR	1.94
190	FATWAH	MASARHI	3.73

## अनुसूची-II

List of administrative units under the jurisdiction of Proposed Patna Planning area.

SR.NO..	C.D.BLOCK	ADMINISTRATIVE UNIT	AREA-SQ-KM
191	FATWAH	NANDA CHAK	0.54
192	FATWAH	SATAULI BUZURG	0.38
193	FATWAH	SATAULI KHURD	0.52
194	FATWAH	ABDULLAH CHAK	1.20
195	FATWAH	BUZURG	1.07
196	FATWAH	KHANPURA	0.71
197	FATWAH	MANSINGPUR	1.12
198	FATWAH	MOHIUDDINPUR	3.40
199	FATWAH	NARWAN	0.65
200	FATWAH	RABIA CHAK	1.91
201	FATWAH	MOMINPUR	2.89
202	FATWAH	BALI	1.55
203	FATWAH	USFAN	1.10
204	FATWAH	SIRPATPUR	0.29
205	FATWAH	PACHRUKHIYAN	0.92
206	FATWAH	TURKDIHA	1.37
207	FATWAH	RANIPUR	1.41
208	FATWAH	SHAHPUR	0.64
209	FATWAH	JAITYA	6.90

## अनुसूची-II

List of administrative units under the jurisdiction of Proposed Patna Planning area.

SR.NO..	C.D.BLOCK	ADMINISTRATIVE UNIT	AREA-SQ-KM
210	FATWAH	CHAMAR DIR	2.93
211	FATWAH	NAZIBULLAH CHAK	1.31
212	FATWAH	DAULATPUR	0.30
213	FATWAH	RASULPUR KURTHA	0.94
214	FATWAH	FATWAH URBAN AREA	6.75
215	KHUSRUPUR	KURTHA	1.62
216	KHUSRUPUR	KHIRODHARPUR	1.62
217	MANER	AHIYAPUR MANER	4.40
218	MANER	BAG AGA	0.41
219	MANER	BALUA	7.53
220	MANER	CHAK DAUD	0.63
221	MANER	CHITTANAWAN	2.63
222	MANER	DARWESHARPUR DIARA	5.80
223	MANER	DHAKARPOS	0.58
224	MANER	KATAUTIA	0.76
225	MANER	KHASPUR	1.07
226	MANER	KITA CHAUHATTAR	23.87
227	MANER	LODIPUR	1.14
228	MANER	MADHORPUR	1.62



## अनुसूची-II

List of administrative units under the jurisdiction of Proposed Patna Planning area.

SR.NO..	C.D.BLOCK	ADMINISTRATIVE UNIT	AREA-SQ-KM
229	MANER	NAGWAN	2.33
230	MANER	PANDEPUR TILHARI	0.53
231	MANER	RAMPUR DIARA	4.66
232	MANER	RAMPUR DIARA TAUFIR	1.61
233	MANER	RAMBAD	2.84
234	MANER	SADIQPUR	0.64
235	MANER	SARNAGPUR TILHARI	0.58
236	MANER	SHERPUR	5.82
237	MANER	SINGHARA	1.73
238	MANER	WAJIDPUR	0.90
239	MANER	CHHITRAULI	1.24
240	MANER	CHINTANMANIPUR MAULA	1.41
241	MANER	GYASPUR	1.29
242	MANER	LODIPUR	1.27
243	MANER	MUSTAFAPUR MAULI	0.38
244	MANER	RASULUPUR BIJGOPAL MILKI	0.31
245	MANER	RASULUPUR BIJGOPAL	2.30
246	MANER	REWA	2.14
247	MANER	SARAI	2.52



## अनुसूची-II

List of administrative units under the jurisdiction of Proposed Patna Planning area.

SR.NO..	C.D.BLOCK	ADMINISTRATIVE UNIT	AREA-SQ-KM
248	MANER	SATTAR	2.41
249	MANER	BANK	1.82
250	MANER	PATILA	0.29
251	MANER	SADIQPUR	0.29
252	MANER	SIKANDARPUR	1.08
253	MANER	DARWESHPUR UPARWAR	2.36
254	MANER	SADIQPUR	0.09
255	MANER	HARSHANKARPUR NARHANNA	1.23
256	MANER	BEAPUR	3.29
257	MANER	MANER URBAN AREA	9.81
258	MANER	MANGARPAL	37.63
259	MASURHI	KARARIA	1.83
260	MASURHI	POAWAN	2.64
261	MASURHI	SARBADAHI	1.42
262	MASURHI	SUPAHULI	1.20
263	MASURHI	KARAI	5.23
264	MASURHI	GARIHARA	1.72
265	NAUBATPUR	ABGILLA	1.09
266	NAUBATPUR	ADLA	1.59

## अनुसूची-II

List of administrative units under the jurisdiction of Proposed Patna Planning area.

SR.NO..	C.D.BLOCK	ADMINISTRATIVE UNIT	AREA-SQ-KM
267	NAUBATPUR	AHUARA	1.41
268	NAUBATPUR	AJAWAN	4.44
269	NAUBATPUR	ALAWALPUR	1.09
270	NAUBATPUR	AMARPURA	0.64
271	NAUBATPUR	AROPUR	0.29
272	NAUBATPUR	BABUPUR	1.11
273	NAUBATPUR	BAHUARA	1.04
274	NAUBATPUR	BAJAN CHAK	0.78
275	NAUBATPUR	BAKUA	0.78
276	NAUBATPUR	BARA	1.81
277	NAUBATPUR	BARKHURDAR CHAK	1.03
278	NAUBATPUR	BARUNA	1.25
279	NAUBATPUR	BEDAULI	0.73
280	NAUBATPUR	BELA	1.20
281	NAUBATPUR	BHAGWANPUR	1.32
282	NAUBATPUR	BICHHEDI	2.38
283	NAUBATPUR	BIRPUR	1.45
284	NAUBATPUR	BISARPUR	1.30
285	NAUBATPUR	CHAK CHICHAUL	0.04

## अनुसूची-II

List of administrative units under the jurisdiction of Proposed Patna Planning area.

SR.NO..	C.D.BLOCK	ADMINISTRATIVE UNIT	AREA-SQ-KM
286	NAUBATPUR	CHARA	1.43
287	NAUBATPUR	CHECHAUL	2.27
288	NAUBATPUR	CHESI	4.70
289	NAUBATPUR	DANAGUNJ	0.53
290	NAUBATPUR	DARIAPUR	0.78
291	NAUBATPUR	DEORA	2.34
292	NAUBATPUR	DHOBIAKALAPUR	0.97
293	NAUBATPUR	DIHRA	1.93
294	NAUBATPUR	GADAIPUR	0.71
295	NAUBATPUR	GAHRA	0.74
296	NAUBATPUR	GHANSHAMPUR	0.56
297	NAUBATPUR	GONAWAN	3.06
298	NAUBATPUR	GORAILA	0.97
299	NAUBATPUR	HAIBATPUR	0.52
300	NAUBATPUR	IBRAHIMPUR	3.69
301	NAUBATPUR	JAITIPUR	2.25
302	NAUBATPUR	JAMALPURA	0.72
303	NAUBATPUR	JITTU CHAK	0.85
304	NAUBATPUR	KALAPUR	0.77

## अनुसूची-II

List of administrative units under the jurisdiction of Proposed Patna Planning area.

SR.NO..	C.D.BLOCK	ADMINISTRATIVE UNIT	AREA-SQ-KM
305	NAUBATPUR	KARANPURA	0.78
306	NAUBATPUR	KARDAHA	0.64
307	NAUBATPUR	KHAIRA	1.28
308	NAUBATPUR	KHAJURI	2.99
309	NAUBATPUR	KHARAUNA	1.08
310	NAUBATPUR	KHASPUR	0.58
311	NAUBATPUR	KHATUN CHAK	0.37
312	NAUBATPUR	KOPA KHURD	1.27
313	NAUBATPUR	KOPAKALAN	3.15
314	NAUBATPUR	KORAWAN	2.38
315	NAUBATPUR	KOTHIA	0.20
316	NAUBATPUR	LODIPUR	0.60
317	NAUBATPUR	MAHARAJGANJ	0.26
318	NAUBATPUR	MALAH KHANDHA	0.44
319	NAUBATPUR	MAMREZPUR	0.55
320	NAUBATPUR	MITAN CHAK	0.76
321	NAUBATPUR	MOTIPUR	0.81
322	NAUBATPUR	NAGWAN KHAS	0.63
323	NAUBATPUR	NAUBATPUR	1.53



## अनुसूची-II

List of administrative units under the jurisdiction of Proposed Patna Planning area.

SR.NO..	C.D.BLOCK	ADMINISTRATIVE UNIT	AREA-SQ-KM
324	NAUBATPUR	NAUHI	2.47
325	NAUBATPUR	NISARPURA	2.42
326	NAUBATPUR	NIZAMPUR	1.12
327	NAUBATPUR	PAINAPUR	1.86
328	NAUBATPUR	PALI	2.20
329	NAUBATPUR	PALTU CHHITNI	1.78
330	NAUBATPUR	PANHARA	1.98
331	NAUBATPUR	PARSOTIMPUR	0.24
332	NAUBATPUR	RAMPUR	0.60
333	NAUBATPUR	RAUNIAN	2.76
334	NAUBATPUR	SABAR CHAK	0.75
335	NAUBATPUR	SALARPUR	2.52
336	NAUBATPUR	SHEKHPURA	3.00
337	NAUBATPUR	SHIRWAR	1.38
338	NAUBATPUR	SIHORA	1.50
339	NAUBATPUR	SONA	1.96
340	NAUBATPUR	TARARI	1.59
341	NAUBATPUR	TARET	2.25
342	NAUBATPUR	TEGRAILA BARKA	2.56



## अनुसूची-II

List of administrative units under the jurisdiction of Proposed Patna Planning area.

SR.NO..	C.D.BLOCK	ADMINISTRATIVE UNIT	AREA-SQ-KM
343	NAUBATPUR	TEGRAILA CHOTTAKA	2.62
344	NAUBATPUR	TILAKPURA	0.89
345	NAUBATPUR	TISKHORA	2.43
346	NAUBATPUR	UDAIPURA	0.37
347	NAUBATPUR	KARAI	2.22
348	NAUBATPUR	TILHAWAN	0.42
349	NAUBATPUR	CHIRAURA	3.54
350	NAUBATPUR	BADIPUR	1.55
351	NAUBATPUR	GOPALPUR	3.87
352	NAUBATPUR	DARIAPUR	0.70
353	NAUBATPUR	SHARISHTABAD	0.63
354	NAUBATPUR	AKBARPUR	2.08
355	NAUBATPUR	SARASAT	2.89
356	NAUBATPUR	SARASAT	1.33
357	NAUBATPUR	RAGHUNATHPUR BHELURA	1.46
358	PATNA RURAL	ABDUL REHMANPUR	0.36
359	PATNA RURAL	CHHITMAN	0.98
360	PATNA RURAL	DHAULPURA	2.86
361	PATNA RURAL	FATEHPUR	9.56

## अनुसूची-II

List of administrative units under the jurisdiction of Proposed Patna Planning area.

SR.NO..	C.D.BLOCK	ADMINISTRATIVE UNIT	AREA-SQ-KM
362	PATNA RURAL	GAUHARPUR	1.02
363	PATNA RURAL	GYAN CHAK	0.39
364	PATNA RURAL	KHASPUR	0.93
365	PATNA RURAL	MAHULI	2.26
366	PATNA RURAL	MIRCHA	1.46
367	PATNA RURAL	MIRCHAK KOTHIYA	0.29
368	PATNA RURAL	MIRCHI	2.43
369	PATNA RURAL	MIRZAPUR	0.40
370	PATNA RURAL	MUHAMMADPUR BARATPUR	2.07
371	PATNA RURAL	NAGALA	0.50
372	PATNA RURAL	NAZIRPUR TAJPUR	1.01
373	PATNA RURAL	PUMADIH	1.84
374	PATNA RURAL	RANIPUR MILKI CHAK	0.78
375	PATNA RURAL	SABALPUR	3.55
376	PATNA RURAL	SADULLAHPUR	0.48
377	PATNA RURAL	SALEHPUR KASARA	0.47
378	PATNA RURAL	SIMLI MURARPUR	2.17
379	PATNA RURAL	SONAWAN	1.86
380	PATNA RURAL	MIRCHI BAGIWAN	4.93

## अनुसूची-II

List of administrative units under the jurisdiction of Proposed Patna Planning area.

SR.NO.	C.D.BLOCK	ADMINISTRATIVE UNIT	AREA-SQ-KM
381	PATNA RURAL	HIRANANDPUR	0.00
382	PATNA RURAL	HIRANANDPUR	1.08
383	PATNA RURAL	HIRANANDPUR	0.00
384	PATNA RURAL	HIRANANDPUR	0.00
385	PATNA RURAL	HIRANANDPUR	0.00
386	PATNA RURAL	HIRANANDPUR	0.00
387	PATNA RURAL	HIRANANDPUR	0.00
388	PATNA RURAL	HIRANANDPUR	0.00
389	PATNA RURAL	PATNA MUNICIPAL CORPORATION	96.80
390	PHULWARI	ALIPUR	0.24
391	PHULWARI	BEUR	2.83
392	PHULWARI	BITAURA	1.70
393	PHULWARI	CHHATNA	2.71
394	PHULWARI	CHILBILI	1.35
395	PHULWARI	HASANPURA	1.23
396	PHULWARI	KHAPRAIL CHAK	0.80
397	PHULWARI	KURKURI	3.12
398	PHULWARI	KUTHAUR	2.02
399	PHULWARI	NADIAWAN	0.63

## अनुसूची-II

List of administrative units under the jurisdiction of Proposed Patna Planning area.

SR.NO..	C.D.BLOCK	ADMINISTRATIVE UNIT	AREA-SQ-KM
400	PHULWARI	NASIRPURA	1.39
401	PHULWARI	NATHUPUR	3.08
402	PHULWARI	PAKRI	2.06
403	PHULWARI	PARSA	1.80
404	PHULWARI	RAHIMPUR	0.90
405	PHULWARI	SAIN CHAK	0.97
406	PHULWARI	SIMRA	2.51
407	PHULWARI	CHIHUT	1.21
408	PHULWARI	MAHULI	1.87
409	PHULWARI	MOHIUDDINPUR	1.08
410	PHULWARI	MOKIMPUR	0.67
411	PHULWARI	SUITHA	3.85
412	PHULWARI	TARWAN	1.32
413	PHULWARI	DHANUKI	0.50
414	PHULWARI	FATEHPUR Dhibra	1.39
415	PHULWARI	MADHOPUR	0.65
416	PHULWARI	MAHBANO	0.40
417	PHULWARI	NIHURA	0.78
418	PHULWARI	NOHSA	2.52



## अनुसूची-II

List of administrative units under the jurisdiction of Proposed Patna Planning area.

SR.NO..	C.D.BLOCK	ADMINISTRATIVE UNIT	AREA-SQ-KM
419	PHULWARI	NAWADA	1.18
420	PHULWARI	JANIPUR	1.04
421	PHULWARI	ANDA	0.74
422	PHULWARI	BHDHGAWAN	1.16
423	PHULWARI	FARIDPUR	0.46
424	PHULWARI	KHARAG CHAK	0.44
425	PHULWARI	KORIAWAN	1.63
426	PHULWARI	KORRA	1.42
427	PHULWARI	MAINPURA	0.72
428	PHULWARI	MAJHAULI	1.66
429	PHULWARI	MANGHPUR	0.83
430	PHULWARI	NAHARPURA	1.84
431	PHULWARI	PAKAULI	0.77
432	PHULWARI	PASHI	2.44
433	PHULWARI	HARNI CHAK	0.35
434	PHULWARI	HINDUNI	1.89
435	PHULWARI	ABUPUR LODIPUR	1.43
436	PHULWARI	ADHPA	2.87
437	PHULWARI	ALAMPUR GONPURA	7.28



## अनुसूची-II

List of administrative units under the jurisdiction of Proposed Patna Planning area.

SR.NO..	C.D.BLOCK	ADMINISTRATIVE UNIT	AREA-SQ-KM
438	PHULWARI	AZ RAKBE JANIPUR	0.32
439	PHULWARI	BHUSAULA DANAPUR	3.36
440	PHULWARI	GANJA CHAK MUHAMMADPUR	1.35
441	PHULWARI	HASANPURA	1.09
442	PHULWARI	KHARDIHA	1.54
443	PHULWARI	KORJI	2.23
444	PHULWARI	MUHAMMADPUR KORJI	2.50
445	PHULWARI	MURADPUR	0.91
446	PHULWARI	MURGIA CHAK	0.65
447	PHULWARI	NIZAMPUR	1.35
448	PHULWARI	PALANGA	1.85
449	PHULWARI	SAKRAICHA	2.84
450	PHULWARI	SIMRA	1.61
451	PHULWARI	SORAMPUR	1.20
452	PHULWARI	YAKUBPUR NAGWAN	2.33
453	PHULWARI	PHULWARI	1.04
454	PHULWARI	PHULWARI	5.15
455	PHULWARI	PHULWARI	0.23
456	PHULWARI	RAMPUR BHILORA	1.71

## अनुसूची-II

List of administrative units under the jurisdiction of Proposed Patna Planning area.

SR.NO..	C.D.BLOCK	ADMINISTRATIVE UNIT	AREA-SQ-KM
457	PHULWARI	ISMAILPUR DHIBRA	2.04
458	PHULWARI	ISMAILPUR DHIBRA	0.00
459	PUNPUN	ABDALPUR PIPLA	0.59
460	PUNPUN	ALAWALPUR	1.24
461	PUNPUN	BAISA	1.38
462	PUNPUN	BAKARPUR	1.59
463	PUNPUN	BARAWAN	4.00
464	PUNPUN	BAREPUR	1.22
465	PUNPUN	BARHAIYA KOL	0.67
466	PUNPUN	BASUHAR	2.18
467	PUNPUN	BEHRAWAN	2.30
468	PUNPUN	BELA	0.73
469	PUNPUN	CHAK KALIYANPUR	0.46
470	PUNPUN	CHAK RAFI	0.14
471	PUNPUN	CHAMU CHAK MAJHAULI	1.95
472	PUNPUN	CHANDE DIH	0.70
473	PUNPUN	CHHAPPAN	0.53
474	PUNPUN	DARIAPUR	0.93
475	PUNPUN	DAUD CHAK	0.41

## अनुसूची-II

List of administrative units under the jurisdiction of Proposed Patna Planning area.

SR.NO..	C.D.BLOCK	ADMINISTRATIVE UNIT	AREA-SQ-KM
476	PUNPUN	DHARAHRA	2.37
477	PUNPUN	DUMRI	8.64
478	PUNPUN	FAHIM CHAK	0.70
479	PUNPUN	GANJ	0.74
480	PUNPUN	GULAM MUHAMMAD	0.29
481	PUNPUN	JALALPUR	0.74
482	PUNPUN	JAUNPURI	0.20
483	PUNPUN	JOL BIGHA	0.67
484	PUNPUN	KALIANPUR BASIAWAN	1.73
485	PUNPUN	KANSARI	3.90
486	PUNPUN	KEORA	7.43
487	PUNPUN	KUTUBPUR	0.62
488	PUNPUN	LAHLADPUR	0.61
489	PUNPUN	LAKHNA	15.15
490	PUNPUN	MAHAMDA	1.05
491	PUNPUN	MAKHDUMPUR	0.76
492	PUNPUN	MAKSUDPUR	1.47
493	PUNPUN	MANORA	2.34
494	PUNPUN	MARANCHI	1.50

## अनुसूची-II

List of administrative units under the jurisdiction of Proposed Patna Planning area.

SR.NO..	C.D.BLOCK	ADMINISTRATIVE UNIT	AREA-SQ-KM
495	PUNPUN	MILKI	0.33
496	PUNPUN	MIR HAJI CHAK	0.73
497	PUNPUN	MOHANPUR	0.87
498	PUNPUN	MOHIUDINPUR	0.56
499	PUNPUN	MUHAMMADPUR	0.47
500	PUNPUN	MUNDI CHAK	0.24
501	PUNPUN	MUSTAFFAPUR	1.20
502	PUNPUN	NADPUR	1.32
503	PUNPUN	NAWADA	0.91
504	PUNPUN	NIMA	2.12
505	PUNPUN	NURI CHAK	0.82
506	PUNPUN	NURUDDINPUR	0.24
507	PUNPUN	PACHASA	0.17
508	PUNPUN	PAKARI	0.26
509	PUNPUN	PARTHU	3.53
510	PUNPUN	PIPRA	0.38
511	PUNPUN	PIPRA CHAK	0.44
512	PUNPUN	RAMPUR	0.85
513	PUNPUN	SAHEB NAGAR	0.85



## अनुसूची-II

List of administrative units under the jurisdiction of Proposed Patna Planning area.

SR.NO..	C.D.BLOCK	ADMINISTRATIVE UNIT	AREA-SQ-KM
514	PUNPUN	SAIDPUR	1.28
515	PUNPUN	SAPAHUA	1.22
516	PUNPUN	SHEKHPURA	1.37
517	PUNPUN	SIKANDARPUR	0.88
518	PUNPUN	SONBARSA	0.14
519	PUNPUN	ZAHIDPUR	0.40
520	PUNPUN	POTHI	3.74
521	PUNPUN	SIRPALPUR	1.64
522	PUNPUN	RASULPUR	0.67
523	PUNPUN	RASULPUR	0.67
524	PUNPUN	GHORDAUR	1.19
525	PUNPUN	SABALPUR	15.28
526	PUNPUN	PAIKAUI	1.03
527	PUNPUN	EKAUNA	4.32
528	PUNPUN	PALAKI	0.95
529	PUNPUN	BAZIDPUR	1.45
530	PUNPUN	KHAIRI	0.38
531	PUNPUN	PANWAR	2.99
532	PUNPUN	KHAPURA	0.94



## अनुसूची-II

List of administrative units under the jurisdiction of Proposed Patna Planning area.

SR.NO..	C.D.BLOCK	ADMINISTRATIVE UNIT	AREA-SQ-KM
533	PUNPUN	BARAH	1.87
534	PUNPUN	DEKULI	1.30
535	PUNPUN	SHAHBAZPUR	1.68
536	PUNPUN	TULSHI CHAK	0.39
537	PUNPUN	UFRAUL	0.55
538	PUNPUN	BHABHAUI	0.93
539	PUNPUN	DEHRI	1.65
540	PUNPUN	PURAINAN	0.71
541	PUNPUN	NEWA	1.69
542	PUNPUN	LAKHANPUR	0.00
543	PUNPUN	LAKHANPUR	5.93
544	SAMPAT	DARIAPUR	1.32
545	SAMPAT	NAYA CHAK	0.51
546	SAMPAT	LANKA KACHHUARA	2.51
547	SAMPAT	BHELARA	1.25
548	SAMPAT	BHOGIPUR	0.61
549	SAMPAT	CHAINPURA	1.17
550	SAMPAT	CHAKPAUL	0.36
551	SAMPAT	CHIPRA	2.61

## अनुसूची-II

List of administrative units under the jurisdiction of Proposed Patna Planning area.

SR.NO..	C.D.BLOCK	ADMINISTRATIVE UNIT	AREA-SQ-KM
552	SAMPAT	FAZALABAD	1.26
553	SAMPAT	KAMTA CHAK	0.39
554	SAMPAT	KANTA CHAK	0.33
555	SAMPAT	NEHPURA	0.28
556	SAMPAT	UDAINI	1.32
557	SAMPAT	GAURI CHAK	0.40
558	SAMPAT	KAMRAJI	1.41
559	SAMPAT	KARANPURA	1.49
560	SAMPAT	RUPASPUR	1.18
561	SAMPAT	SITJAIN CHAK	0.18
562	SAMPAT	ABDULLAH CHAK	1.13
563	SAMPAT	ALABAKSHPUR	2.44
564	SAMPAT	BAHUWARA	2.79
565	SAMPAT	BARIA	7.16
566	SAMPAT	BARUNA	0.97
567	SAMPAT	GOPALPUR	3.44
568	SAMPAT	ILAHIBAG	0.48
569	SAMPAT	JUHARPUR	3.13
570	SAMPAT	KOLI	1.50

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## अनुसूची-II

List of administrative units under the jurisdiction of Proposed Patna Planning area.

SR.NO..	C.D.BLOCK	ADMINISTRATIVE UNIT	AREA-SQ-KM
571	SAMPAT	KURA	1.86
572	SAMPAT	MANOHARPUR KACHHUARA	2.85
573	SAMPAT	PIPRA	0.58
574	SAMPAT	RAMAN CHAK	0.20
575	SAMPAT	SAIDANI CHAK	0.27
576	SAMPAT	SHAIHPUR	1.50
577	SAMPAT	SHEIKPUR	2.18
578	SAMPAT	SOHGI	4.99
579	SAMPAT	TARANPUR	2.40
580	SAMPAT	SARAIYA	0.52
581	SAMPAT	KANDAP	6.36

**Annexure 2: CD Blocks and their share in PPA**

District	SI No.	CD blocks	Project area
Patna	1	Maner	Partial
	2	Danapur-cum-Khagaul	Full
	3	Patna rural	Full
	4	Sampatchak	Full
	5	Phulwari	Full
	6	Bihta	Partial
	7	Naubatpur	Partial
	8	Masaurhi	Partial
	9	Dhanuara	Partial
	10	Punpun	Full
	11	Fatuha	Partial
	12	Daniawan	Partial
	13	Khusrupur	Partial

Source: Prepared by CRDC-CEPT

**(Refer para 2.4 of the report)****Annexure 3: Total Population, Growth, Density, and sex ratio 2001 at District level**

Names	Population 2001			Population 1991			Decadal Growth Rate	Density 2001	Sex Ratio 2001
	Total	Urban	Rural	Total	Urban	Rural			
Bihar state	82998509	8681800	74316709	67530624	6711785	60818839	28.6	880	933
Patna district	3427029	1883842	1543187	3618211	1376701	2241510	30.7	2017	865
PPA	2874576	1766730	1107846	2054714	1195111	859603	47.83	2510	874

Source: Census of India, 2001

**(Refer para 3.4, 3.5, 3.6 of the report)**

## Annexure 4: Total Population, Growth, Density, and sex ratio 2001, CD Block Level, PPA

District	CD blocks	Area(in Sq.km)		Total pop. 1991		Total Pop.2001		Decadal Growth Rate		Pop. Density		Sex Ratio	
		U	R	U	R	U	R	U	R	U	R	U	R
PATNA	Maner	12	147.4	24343	122742	30082	166567	23.6	35.7	2507	1130	878	866
	Danapur-cum-Khagaul	20.4	102.8	148560	103229	212316	113141	42.9	9.6	10408	1101	872	864
	Patna Rural	108.3	49.5	956417	51741	1432209	66409	49.7	28.3	13224	1342	833	842
	Sampatchak	0	65.3	0	54687	0	76154	0	39.3	0	1166	0	910
	Phulwari Sharif	6.5	100	35123	100357	53451	137554	52.2	37.1	8223	1376	889	897
	Bihta	0	156.4	0	144019	0	174390	0	21.1	0	1115	0	896
	Naubatpur	0	137.6	0	113590	0	138741	0	22.1	0	1008	0	899
	Masauhri	9.4	107.5	33049	74287	45248	86869	36.9	16.9	4814	808	894	927
	Dhanarua	0	109.4	0	82809	0	100695	0	21.6	0	920	0	907
	Punpun	0	128.8	0	94315	0	116394	0	23.4	0	904	0	899
	Fatuha	4.9	120.2	30668	91712	38672	114120	26.1	24.4	7892	949	865	890
	Daniawan	0	59.3	0	39145	0	52950	0	35.3	0	893	0	910
	Khusrupur	4.2	54.8	10258	47686	12204	65050	19	36.4	2906	1187	891	881
<b>PPA</b>	<b>165.7</b>	<b>1339</b>	<b>1238418</b>	<b>11120319</b>	<b>1824182</b>	<b>1409034</b>	<b>19</b>	<b>27.0</b>	<b>7139</b>	<b>1069</b>	<b>874</b>	<b>891</b>	

Source: Census of India, 2001

(Refer para 3.4, 3.5, 3.6 of the report)

## Annexure 5: District wise Schedule Tribe- Schedule Caste population in PPA

Names	Total Population	SC	% SC	ST	% ST
Bihar state	82998509	13,048,608	15.7	758,351	0.9
Patna district	3427029	729,988	15.5	9,236	0.2
PPA	2846342	342317	12	2822	0.1

Source: Census of India, 2001

(Refer para 3.6 of the report)



## Annexure 6: CD Block wise Schedule Tribe- Schedule Caste population in PPA

District	Name of CD blocks under PPA	Total Pop.2001	SC	% SC	ST	% ST
Patna	Maner	195,467	30,935	15.8%	1,928	0.56
	Danapur-cum-Khagaul	251,817	19,736	7.8%	39	0.43
	Patna Rural	1,490,809	13,561	0.9%	27	0.35
	Sampatchak	76,810	22,985	29.9%	47	0.04
	Phulwari	191,005	48,981	25.6%	160	0.11
	Bihta	179,676	45,030	25.1%	165	0.06
	Naubatpur	145,513	42,068	28.9%	284	0.13
	Masauhri	9,828	5,381	54.8%	-	0.04
	Dhanarua	21,156	8,232	38.9%	7	0.01
	Punpun	118,134	58,893	49.9%	-	0.00
	Fatuha	147,341	38,653	26.2%	164	0.10
	Daniawan	13,933	6,183	44.4%	1	0.20
	Khusrupur	4,853	1,679	34.6%	-	0.01
<b>Total PPA</b>		<b>2846342</b>	<b>342317</b>	<b>12</b>	<b>2822</b>	<b>0.1</b>

Source: Census of India,2001

(Refer para 3.7 of the report)

## Annexure 7: District wise Literacy rate and Female literacy, PPA

Names	Total Population 2001	Literacy Rate (%)
Bihar state	82998509	33.7
Patna district	3427029	63
PPA	<b>2846342</b>	58.4

Source: Census of India, 2001

(Refer para 3.8 of the report)

## Annexure 8: CD Block wise Literacy rate and Female literacy, PPA

District	Name of CD blocks under PPA	Total Population	Literacy Rate (%)
Patna	Maner	195,467	38.5%
	Danapur-cum-Khagaul	251,817	56.3%
	Patna Rural	1,490,809	69.0%
	Sampatchak	76,810	46.3%
	Phulwari	191,005	52.8%
	Bihta	179,676	47.8%
	Naubatpur	145,513	44.1%

District	Name of CD blocks under PPA	Total Population	Literacy Rate (%)
	Masauhri	9,828	37.3%
	Dhanarua	21,156	37.5%
	Punpun	118,134	42.7%
	Fatuha	147,341	41.3%
	Daniawan	13,933	32.7%
	Khusrupur	4,853	41.0%
<b>Total PPA</b>		<b>2846342</b>	<b>58.4</b>

Source: Census of India,2001

(Refer para 3.8 of the report)

#### Annexure 9: Occupational Structure, CD block level

District	Name of CD blocks under PPA	Total po.2001	Workforce 2001	% Main workers	% marginal workers
Patna	Maner	195,467	60,076	75%	25%
	Danapur-cum-khagaul	251,817	64,069	85%	15%
	Patna rural	1,490,809	381,114	93%	7%
	Sampatchak	76,810	23,338	82%	18%
	Phulwari	191,005	53,013	73%	27%
	Bihta	179,676	54,172	83%	17%
	Naubatpur	145,513	47,150	74%	26%
	Masaurhi	9,828	3,968	69%	31%
	Dhanarua	21,156	7,776	85%	15%
	Punpun	118,134	44,334	75%	25%
	Fatuha	147,341	47,339	81%	19%
	Daniawan	13,933	5,828	78%	22%
	Khusrupur	4,853	1,347	80%	20%
	<b>Total PPA</b>	<b>2846342</b>	<b>793,524</b>	<b>85%</b>	<b>15%</b>

(Refer para 3.9 of the report)

## Annexure 10: Employment structure, CD block wise

District	Name of CD blocks under PPA	Total Pop. 2001	Workforce 2001	% WFPR	% Primary	% Non-Primary
Patna	Maner	195,467	60,076	30.7	65%	35%
	Danapur-cum-Khagaul	251,817	64,069	25.4	27%	73%
	Patna Rural	1,490,809	381,114	25.6	8%	92%
	Sampatchak	76,810	23,338	30.4	76%	24%
	Phulwari	191,005	53,013	27.8	50%	50%
	Bihta	179,676	54,172	30.1	71%	29%
	Naubatpur	145,513	47,150	32.4	78%	22%
	Masauhri	9,828	3,968	40.4	94%	6%
	Dhanarua	21,156	7,776	36.8	87%	13%
	Punpun	118,134	44,334	37.5	86%	14%
	Fatuha	147,341	47,339	32.1	65%	35%
	Daniawan	13,933	5,828	41.8	83%	17%
	Khusrupur	4,853	1,347	27.8	71%	29%
<b>Total PPA</b>		<b>2846342</b>	<b>793,524</b>	<b>27.9</b>	<b>37%</b>	<b>63%</b>

(Refer para 3.9 of the report)

Annexure 11: Main workers, Marginal workers, Non-workers and those marginal workers, non-workers seeking/available for work classified by age and sex

Name	Total/ Rural/ Urban	Age group	Main workers						Marginal workers						Non-workers					
			Population			Main workers			Total			Seeking/available for work			Total			Seeking/available for work		
			Persons	Males	Females	Persons	Males	Females	Persons	Males	Females	Persons	Males	Females	Persons	Males	Females	Persons	Males	Females
			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
BIHAR	Total	Total	82998509	43243795	39754714	21052875	17511018	3541857	6921731	2971985	3949746	1473509	1117512	355997	55023903	22760792	32263111	2194397	1374551	819846
			100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
BIHAR	Total	0-4	11183897	5727185	5456712	33602	26198	7404	9977	4897	5080	1209	876	333	11140318	5696090	5444228	2087	1244	843
			13.47	13.24	13.73	0.16	0.15	0.21	0.14	0.16	0.13	0.08	0.08	0.09	20.25	25.03	16.87	0.10	0.09	0.10
BIHAR	Total	5-14	23868079	12675464	11192615	539760	405049	134711	577740	305794	271946	61083	44508	16575	22750579	11964621	10785958	235184	151091	84093
			28.76	29.31	28.15	2.56	2.31	3.80	8.35	10.29	6.89	4.15	3.98	4.66	41.35	52.57	33.43	10.72	10.99	10.26
BIHAR	Total	15-59	42445259	21919141	20526118	18417164	15260620	3156544	5846658	2409980	3436678	1366755	1038757	327998	18181437	4248541	13932896	1922483	1207617	714866
			51.14	50.69	51.63	87.48	87.15	89.12	84.47	81.09	87.01	92.76	92.95	92.14	33.04	18.67	43.19	87.61	87.86	87.20
BIHAR	Total	60 +	5501274	2922005	2579269	2062349	1819151	243198	487356	251314	236042	44462	33371	11091	2951569	851540	2100029	34643	14599	20044
			6.63	6.76	6.49	9.80	10.39	6.87	7.04	8.46	5.98	3.02	2.99	3.12	5.36	3.74	6.51	1.58	1.06	2.44
BIHAR	Rural	Total	74316709	38594996	35721713	19112829	15760425	3352404	6639740	2784397	3855343	1375700	1034029	341671	48564140	20050174	28513966	1625910	1008020	617890
			100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
BIHAR	Rural	0-4	10246564	5241522	5005042	30898	23966	6932	9616	4651	4965	1121	812	309	10206050	5212905	4993145	1645	967	678
			13.79	13.58	14.01	0.16	0.15	0.21	0.14	0.17	0.13	0.08	0.08	0.09	21.02	26.00	17.51	0.10	0.10	0.11
BIHAR	Rural	5-14	21542192	11442566	10099626	507585	379924	127661	559737	294537	265200	58361	42478	15883	20474870	10768105	9706765	197621	127190	70431
			28.99	29.65	28.27	2.66	2.41	3.81	8.43	10.58	6.88	4.24	4.11	4.65	42.16	53.71	34.04	12.15	12.62	11.40
BIHAR	Rural	15-59	37562029	19270589	18291440	16664369	13676787	2987582	5603252	2247930	3355322	1274634	959732	314902	15294408	3345872	11948536	1398402	868675	529727
			50.54	49.93	51.21	87.19	86.78	89.12	84.39	80.73	87.03	92.65	92.81	92.17	31.49	16.69	41.90	86.01	86.18	85.73
BIHAR	Rural	60 +	4965924	2640319	2325605	1909977	1679748	230229	467135	237279	229856	41584	31007	10577	2588812	723292	1865520	28242	11188	17054
			6.68	6.84	6.51	9.99	10.66	6.87	7.04	8.52	5.96	3.02	3.00	3.10	5.33	3.61	6.54	1.74	1.11	2.76
BIHAR	Urban	Total	8681800	4648799	4033001	1940046	1750593	189453	281991	187588	94403	97809	83483	14326	6459763	2710618	3749145	568487	366531	201956
			100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
BIHAR	Urban	0-4	937333	485663	451670	2704	2232	472	361	246	115	88	64	24	934268	483185	451083	442	277	165
			10.80	10.45	11.20	0.14	0.13	0.25	0.13	0.13	0.12	0.09	0.08	0.17	14.46	17.83	12.03	0.08	0.08	0.08
BIHAR	Urban	5-14	2325887	1232898	1092989	32175	25125	7050	18003	11257	6746	2722	2030	692	2275709	1196516	1079193	37563	23901	13662

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Name	Total/ Rural/ Urban	Age group	Main workers						Marginal workers						Non-workers					
			Population			Main workers			Total			Seeking/available for work			Total			Seeking/available for work		
			Persons	Males	Females	Persons	Males	Females	Persons	Males	Females	Persons	Males	Females	Persons	Males	Females	Persons	Males	Females
			2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
			<b>26.79</b>	<b>26.52</b>	<b>27.10</b>	<b>1.66</b>	<b>1.44</b>	<b>3.72</b>	<b>6.38</b>	<b>6.00</b>	<b>7.15</b>	<b>2.78</b>	<b>2.43</b>	<b>4.83</b>	<b>35.23</b>	<b>44.14</b>	<b>28.79</b>	<b>6.61</b>	<b>6.52</b>	<b>6.76</b>
BIHAR	Urban	15-59	4883230	2648552	2234678	1752795	1583833	168962	243406	162050	81356	92121	79025	13096	2887029	902669	1984360	524081	338942	185139
			<b>56.25</b>	<b>56.97</b>	<b>55.41</b>	<b>90.35</b>	<b>90.47</b>	<b>89.18</b>	<b>86.32</b>	<b>86.39</b>	<b>86.18</b>	<b>94.18</b>	<b>94.66</b>	<b>91.41</b>	<b>44.69</b>	<b>33.30</b>	<b>52.93</b>	<b>92.19</b>	<b>92.47</b>	<b>91.67</b>
BIHAR	Urban	60 +	535350	281686	253664	152372	139403	12969	20221	14035	6186	2878	2364	514	362757	128248	234509	6401	3411	2990
			<b>6.17</b>	<b>6.06</b>	<b>6.29</b>	<b>7.85</b>	<b>7.96</b>	<b>6.85</b>	<b>7.17</b>	<b>7.48</b>	<b>6.55</b>	<b>2.94</b>	<b>2.83</b>	<b>3.59</b>	<b>5.62</b>	<b>4.73</b>	<b>6.25</b>	<b>1.13</b>	<b>0.93</b>	<b>1.48</b>
Patna	Total	Total	4718592	2519942	2198650	1161984	996560	165424	263663	135950	127713	71554	55775	15779	3292945	1387432	1905513	231904	148252	83652
			<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>
Patna	Total	0-4	536437	277170	259267	1353	1073	280	371	202	169	45	32	13	534713	275895	258818	111	68	43
			<b>11.37</b>	<b>11.00</b>	<b>11.79</b>	<b>0.12</b>	<b>0.11</b>	<b>0.17</b>	<b>0.14</b>	<b>0.15</b>	<b>0.13</b>	<b>0.06</b>	<b>0.06</b>	<b>0.08</b>	<b>16.24</b>	<b>19.89</b>	<b>13.58</b>	<b>0.05</b>	<b>0.05</b>	<b>0.05</b>
Patna	Total	5-14	1269888	678192	591696	21931	16709	5222	17884	10331	7553	2100	1540	560	1230073	651152	578921	14724	9325	5399
			<b>26.91</b>	<b>26.91</b>	<b>26.91</b>	<b>1.89</b>	<b>1.68</b>	<b>3.16</b>	<b>6.78</b>	<b>7.60</b>	<b>5.91</b>	<b>2.93</b>	<b>2.76</b>	<b>3.55</b>	<b>37.35</b>	<b>46.93</b>	<b>30.38</b>	<b>6.35</b>	<b>6.29</b>	<b>6.45</b>
Patna	Total	15-59	2598155	1393296	1204859	1035362	886745	148617	226048	114122	111926	67304	52534	14770	1336745	392429	944316	214291	137459	76832
			<b>55.06</b>	<b>55.29</b>	<b>54.80</b>	<b>89.10</b>	<b>88.98</b>	<b>89.84</b>	<b>85.73</b>	<b>83.94</b>	<b>87.64</b>	<b>94.06</b>	<b>94.19</b>	<b>93.61</b>	<b>40.59</b>	<b>28.28</b>	<b>49.56</b>	<b>92.41</b>	<b>92.72</b>	<b>91.85</b>
Patna	Total	60 +	314112	171284	142828	103338	92033	11305	19360	11295	8065	2105	1669	436	191414	67956	123458	2778	1400	1378
			<b>6.66</b>	<b>6.80</b>	<b>6.50</b>	<b>8.89</b>	<b>9.24</b>	<b>6.83</b>	<b>7.34</b>	<b>8.31</b>	<b>6.31</b>	<b>2.94</b>	<b>2.99</b>	<b>2.76</b>	<b>5.81</b>	<b>4.90</b>	<b>6.48</b>	<b>1.20</b>	<b>0.94</b>	<b>1.65</b>
		58.43																		
Patna	Rural	Total	2757060	1456408	1300652	707355	585539	121816	222451	105686	116765	55492	41664	13828	1827254	765183	1062071	79658	49964	29694
			<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>
Patna	Rural	0-4	353876	181320	172556	971	759	212	331	172	159	35	24	11	352574	180389	172185	44	29	15
			<b>12.84</b>	<b>12.45</b>	<b>13.27</b>	<b>0.14</b>	<b>0.13</b>	<b>0.17</b>	<b>0.15</b>	<b>0.16</b>	<b>0.14</b>	<b>0.06</b>	<b>0.06</b>	<b>0.08</b>	<b>19.30</b>	<b>23.57</b>	<b>16.21</b>	<b>0.06</b>	<b>0.06</b>	<b>0.05</b>
Patna	Rural	5-14	779294	417667	361627	14979	11148	3831	15492	8672	6820	1766	1277	489	748823	397847	350976	7267	4626	2641
			<b>28.27</b>	<b>28.68</b>	<b>27.80</b>	<b>2.12</b>	<b>1.90</b>	<b>3.14</b>	<b>6.96</b>	<b>8.21</b>	<b>5.84</b>	<b>3.18</b>	<b>3.06</b>	<b>3.54</b>	<b>40.98</b>	<b>51.99</b>	<b>33.05</b>	<b>9.12</b>	<b>9.26</b>	<b>8.89</b>
Patna	Rural	15-59	1431374	751355	680019	618677	509569	109108	189928	87542	102386	51964	39023	12941	622769	154244	468525	71104	44793	26311
			<b>51.92</b>	<b>51.59</b>	<b>52.28</b>	<b>87.46</b>	<b>87.03</b>	<b>89.57</b>	<b>85.38</b>	<b>82.83</b>	<b>87.69</b>	<b>93.64</b>	<b>93.66</b>	<b>93.59</b>	<b>34.08</b>	<b>20.16</b>	<b>44.11</b>	<b>89.26</b>	<b>89.65</b>	<b>88.61</b>
Patna	Rural	60 +	192516	106066	86450	72728	64063	8665	16700	9300	7400	1727	1340	387	103088	32703	70385	1243	516	727
			<b>6.98</b>	<b>7.28</b>	<b>6.65</b>	<b>10.28</b>	<b>10.94</b>	<b>7.11</b>	<b>7.51</b>	<b>8.80</b>	<b>6.34</b>	<b>3.11</b>	<b>3.22</b>	<b>2.80</b>	<b>5.64</b>	<b>4.27</b>	<b>6.63</b>	<b>1.56</b>	<b>1.03</b>	<b>2.45</b>
Patna	Urban	Total	1961532	1063534	897998	454629	411021	43608	41212	30264	10948	16062	14111	1951	1465691	622249	843442	152246	98288	53958
			<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>
Patna	Urban	0-4	182561	95850	86711	382	314	68	40	30	10	10	8	2	182139	95506	86633	67	39	28
			<b>9.31</b>	<b>9.01</b>	<b>9.66</b>	<b>0.08</b>	<b>0.08</b>	<b>0.16</b>	<b>0.10</b>	<b>0.10</b>	<b>0.09</b>	<b>0.06</b>	<b>0.06</b>	<b>0.10</b>	<b>12.43</b>	<b>15.35</b>	<b>10.27</b>	<b>0.04</b>	<b>0.04</b>	<b>0.05</b>
Patna	Urban	5-14	490594	260525	230069	6952	5561	1391	2392	1659	733	334	263	71	481250	253305	227945	7457	4699	2758
			<b>25.01</b>	<b>24.50</b>	<b>25.62</b>	<b>1.53</b>	<b>1.35</b>	<b>3.19</b>	<b>5.80</b>	<b>5.48</b>	<b>6.70</b>	<b>2.08</b>	<b>1.86</b>	<b>3.64</b>	<b>32.83</b>	<b>40.71</b>	<b>27.03</b>	<b>4.90</b>	<b>4.78</b>	<b>5.11</b>
Patna	Urban	15-59	1166781	641941	524840	416685	377176	39509	36120	26580	9540	15340	13511	1829	713976	238185	475791	143187	92666	50521
			<b>59.48</b>	<b>60.36</b>	<b>58.45</b>	<b>91.65</b>	<b>91.77</b>	<b>90.60</b>	<b>87.64</b>	<b>87.83</b>	<b>87.14</b>	<b>95.50</b>	<b>95.75</b>	<b>93.75</b>	<b>48.71</b>	<b>38.28</b>	<b>56.41</b>	<b>94.05</b>	<b>94.28</b>	<b>93.63</b>
Patna	Urban	60 +	121596	65218	56378	30610	27970	2640	2660	1995	665	378	329	49	88326	35253	53073	1535	884	651
			<b>6.20</b>	<b>6.13</b>	<b>6.28</b>	<b>6.73</b>	<b>6.81</b>	<b>6.05</b>	<b>6.45</b>	<b>6.59</b>	<b>6.07</b>	<b>2.35</b>	<b>2.33</b>	<b>2.51</b>	<b>6.03</b>	<b>5.67</b>	<b>6.29</b>	<b>1.01</b>	<b>0.90</b>	<b>1.21</b>



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Name	Total/ Rural/ Urban	Age group	Main workers						Marginal workers						Non-workers					
			Population			Main workers			Total			Seeking/available for work			Total			Seeking/available for work		
			Persons	Males	Females	Persons	Males	Females	Persons	Males	Females	Persons	Males	Females	Persons	Males	Females	Persons	Males	Females
			2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Danapur Nizamat (M)	Urban	Total	131176	69419	61757	28740	25960	2780	3719	2679	1040	1640	1332	308	98717	40780	57937	8432	5275	3157
			<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>
Danapur Nizamat (M)	Urban	0-4	13957	7304	6653	24	17	7	3	2	1	1	1	0	13930	7285	6645	0	0	0
			<b>10.64</b>	<b>10.52</b>	<b>10.77</b>	<b>0.08</b>	<b>0.07</b>	<b>0.25</b>	<b>0.08</b>	<b>0.07</b>	<b>0.10</b>	<b>0.06</b>	<b>0.08</b>	<b>0.00</b>	<b>14.11</b>	<b>17.86</b>	<b>11.47</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>
Danapur Nizamat (M)	Urban	5-14	36800	19180	17620	498	407	91	252	179	73	54	34	20	36050	18594	17456	555	344	211
			<b>28.05</b>	<b>27.63</b>	<b>28.53</b>	<b>1.73</b>	<b>1.57</b>	<b>3.27</b>	<b>6.78</b>	<b>6.68</b>	<b>7.02</b>	<b>3.29</b>	<b>2.55</b>	<b>6.49</b>	<b>36.52</b>	<b>45.60</b>	<b>30.13</b>	<b>6.58</b>	<b>6.52</b>	<b>6.68</b>
Danapur Nizamat (M)	Urban	15-59	72648	38808	33840	26031	23552	2479	3204	2308	896	1529	1250	279	43413	12948	30465	7737	4851	2886
			<b>55.38</b>	<b>55.90</b>	<b>54.80</b>	<b>90.57</b>	<b>90.72</b>	<b>89.17</b>	<b>86.15</b>	<b>86.15</b>	<b>86.15</b>	<b>93.23</b>	<b>93.84</b>	<b>90.58</b>	<b>43.98</b>	<b>31.75</b>	<b>52.58</b>	<b>91.76</b>	<b>91.96</b>	<b>91.42</b>
Danapur Nizamat (M)	Urban	60 +	7771	4127	3644	2187	1984	203	260	190	70	56	47	9	5324	1953	3371	140	80	60
			<b>5.92</b>	<b>5.95</b>	<b>5.90</b>	<b>7.61</b>	<b>7.64</b>	<b>7.30</b>	<b>6.99</b>	<b>7.09</b>	<b>6.73</b>	<b>3.41</b>	<b>3.53</b>	<b>2.92</b>	<b>5.39</b>	<b>4.79</b>	<b>5.82</b>	<b>1.66</b>	<b>1.52</b>	<b>1.90</b>
Patna Corp.) (M)	Urban	Total	1366444	746344	620100	323405	292434	30971	23230	17822	5408	9184	8225	959	1019809	436088	583721	112052	72785	39267
			<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>
Patna Corp.) (M)	Urban	0-4	119729	63102	56627	260	213	47	28	20	8	5	3	2	119441	62869	56572	48	30	18
			<b>8.76</b>	<b>8.45</b>	<b>9.13</b>	<b>0.08</b>	<b>0.07</b>	<b>0.15</b>	<b>0.12</b>	<b>0.11</b>	<b>0.15</b>	<b>0.05</b>	<b>0.04</b>	<b>0.21</b>	<b>11.71</b>	<b>14.42</b>	<b>9.69</b>	<b>0.04</b>	<b>0.04</b>	<b>0.05</b>
Patna Corp.) (M)	Urban	5-14	327483	174421	153062	5103	4091	1012	1340	968	372	183	147	36	321040	169362	151678	5185	3261	1924
			<b>23.97</b>	<b>23.37</b>	<b>24.68</b>	<b>1.58</b>	<b>1.40</b>	<b>3.27</b>	<b>5.77</b>	<b>5.43</b>	<b>6.88</b>	<b>1.99</b>	<b>1.79</b>	<b>3.75</b>	<b>31.48</b>	<b>38.84</b>	<b>25.98</b>	<b>4.63</b>	<b>4.48</b>	<b>4.90</b>
Patna Corp.) (M)	Urban	15-59	833438	462553	370885	297367	269249	28118	20427	15700	4727	8800	7895	905	515644	177604	338040	105729	68879	36850
			<b>60.99</b>	<b>61.98</b>	<b>59.81</b>	<b>91.95</b>	<b>92.07</b>	<b>90.79</b>	<b>87.93</b>	<b>88.09</b>	<b>87.41</b>	<b>95.82</b>	<b>95.99</b>	<b>94.37</b>	<b>50.56</b>	<b>40.73</b>	<b>57.91</b>	<b>94.36</b>	<b>94.63</b>	<b>93.84</b>
Patna Corp.) (M)	Urban	60 +	85794	46268	39526	20675	18881	1794	1435	1134	301	196	180	16	63684	26253	37431	1090	615	475
			<b>6.28</b>	<b>6.20</b>	<b>6.37</b>	<b>6.39</b>	<b>6.46</b>	<b>5.79</b>	<b>6.18</b>	<b>6.36</b>	<b>5.57</b>	<b>2.13</b>	<b>2.19</b>	<b>1.67</b>	<b>6.24</b>	<b>6.02</b>	<b>6.41</b>	<b>0.97</b>	<b>0.84</b>	<b>1.21</b>
Patna UA	Urban	Total	1497620	815763	681857	352145	318394	33751	26949	20501	6448	10824	9557	1267	1118526	476868	641658	120484	78060	42424
			<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>
Patna UA	Urban	0-4	133686	70406	63280	284	230	54	31	22	9	6	4	2	133371	70154	63217	48	30	18
			<b>8.93</b>	<b>8.63</b>	<b>9.28</b>	<b>0.08</b>	<b>0.07</b>	<b>0.16</b>	<b>0.12</b>	<b>0.11</b>	<b>0.14</b>	<b>0.06</b>	<b>0.04</b>	<b>0.16</b>	<b>11.92</b>	<b>14.71</b>	<b>9.85</b>	<b>0.04</b>	<b>0.04</b>	<b>0.04</b>
Patna UA	Urban	5-14	364283	193601	170682	5601	4498	1103	1592	1147	445	237	181	56	357090	187956	169134	5740	3605	2135
			<b>24.32</b>	<b>23.73</b>	<b>25.03</b>	<b>1.59</b>	<b>1.41</b>	<b>3.27</b>	<b>5.91</b>	<b>5.59</b>	<b>6.90</b>	<b>2.19</b>	<b>1.89</b>	<b>4.42</b>	<b>31.93</b>	<b>39.41</b>	<b>26.36</b>	<b>4.76</b>	<b>4.62</b>	<b>5.03</b>
Patna UA	Urban	15-59	906086	501361	404725	323398	292801	30597	23631	18008	5623	10329	9145	1184	559057	190552	368505	113466	73730	39736
			<b>60.50</b>	<b>61.46</b>	<b>59.36</b>	<b>91.84</b>	<b>91.96</b>	<b>90.66</b>	<b>87.69</b>	<b>87.84</b>	<b>87.21</b>	<b>95.43</b>	<b>95.69</b>	<b>93.45</b>	<b>49.98</b>	<b>39.96</b>	<b>57.43</b>	<b>94.18</b>	<b>94.45</b>	<b>93.66</b>
Patna UA	Urban	60 +	93565	50395	43170	22862	20865	1997	1695	1324	371	252	227	25	69008	28206	40802	1230	695	535

Name	Total/	Age	Main workers						Marginal workers						Non-workers					
	Rural/	group	Population			Main workers			Total			Seeking/available for work			Total			Seeking/available for work		
	Urban		Persons	Males	Females	Persons	Males	Females	Persons	Males	Females	Persons	Males	Females	Persons	Males	Females	Persons	Males	Females
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
			6.25	6.18	6.33	6.49	6.55	5.92	6.29	6.46	5.75	2.33	2.38	1.97	6.17	5.91	6.36	1.02	0.89	1.26

(Refer para 3.9 of the report)

Annexure 12: Main workers, marginal workers, non-workers and those marginal workers, non-workers seeking/ available for work classified by educational level and sex

Total/	Area	Educational level	Population	Main workers	Marginal workers	Non-workers
Rural/	Name				Total	Seeking/available for work
Urban			Persons	Persons	Persons	Persons
District - Patna 28	Total	Total	4718592	1161984	263663	71554
District - Patna 28	Total	Illiterate	48.0035358	2265091	415756	159948
District - Patna 28	Total	Literate	51.9964642	2453501	746228	103715
District - Patna 28	Total	Literate but below matric/secondary		1306387	265586	51705
District - Patna 28	Total	Matric/secondary but below graduate		487981	156873	18387
District - Patna 28	Total	Technical diploma or certificate not equal to degree		16178	8828	1132
District - Patna 28	Total	Graduate and above other than technical degree		304093	159186	10266
District - Patna 28	Total	Technical degree or diploma equal to degree or post-graduate degree		44371	25824	1254
District - Patna 28	Rural	Total	2757060	707355	222451	55492
District - Patna 28	Rural	Illiterate	58.6870797	1618038	325046	143184
District - Patna 28	Rural	Literate	41.3129203	1139022	382309	79267
District - Patna 28	Rural	Literate but below matric/secondary		703008	165430	41232
District - Patna 28	Rural	Matric/secondary but below graduate		146226	64980	12109
District - Patna 28	Rural	Technical diploma or certificate not equal to degree		8791	4948	951
District - Patna 28	Rural	Graduate and above other than technical degree		66757	41939	5582
District - Patna 28	Rural	Technical degree or diploma equal to degree or post-graduate degree		8231	5125	745
District - Patna 28	Urban	Total	1961532	454629	41212	16062
District - Patna 28	Urban	Illiterate	32.9871243	647053	90710	16764
District - Patna 28	Urban	Literate	67.0128757	1314479	363919	24448
District - Patna 28	Urban	Literate but below matric/secondary		603379	100156	10473
District - Patna 28	Urban	Matric/secondary but below graduate		341755	91893	6278
District - Patna 28	Urban	Technical diploma or certificate not equal to degree		7387	3880	181
District - Patna 28	Urban	Graduate and above other than technical degree		237336	117247	4684
District - Patna 28	Urban	Technical degree or diploma equal to degree or post-graduate degree		36140	20699	509
Urban	Danapur Nizamat (M)	Total	131176	28740	3719	1640
Urban	Danapur Nizamat (M)	Illiterate	57648	8772	1931	798
Urban	Danapur Nizamat (M)	Literate	73528	19968	1788	842
Urban	Danapur Nizamat (M)	Literate but below matric/secondary		40835	7564	891
Urban	Danapur Nizamat (M)	Matric/secondary but below graduate		12302	3460	279
Urban	Danapur Nizamat (M)	Technical diploma or certificate not equal to degree		451	232	23
Urban	Danapur Nizamat (M)	Graduate and above other than technical degree		8074	4221	224
Urban	Danapur Nizamat (M)	Technical degree or diploma equal to degree or post-graduate degree		1168	644	30
Urban	Patna (M Corp.)	Total	1366444	323405	23230	9184

Urban	Patna (M Corp.)	Illiterate		404763	57024	7803	2483	339936	11497
Urban	Patna (M Corp.)	Literate		961681	266381	15427	6701	679873	100555
Urban	Patna (M Corp.)	Literate but below matric/secondary		416479	67653	6178	2429	342648	17287
Urban	Patna (M Corp.)	Matric/secondary but below graduate		263339	67454	4280	1905	191605	40279
Urban	Patna (M Corp.)	Technical diploma or certificate not equal to degree		5492	2882	104	53	2506	681
Urban	Patna (M Corp.)	Graduate and above other than technical degree		195978	95199	3456	1730	97323	33036
Urban	Patna (M Corp.)	Technical degree or diploma equal to degree or post-graduate degree		30785	17492	382	182	12911	4673

(Refer para 3.8 of the report)

Annexure 13: Main workers, Marginal workers, Non-workers and those marginal workers, non-workers seeking/available for work classified by age group

Name	Total/	Age	Population		Marginal workers		Non-workers		
			Persons	Persons	Total	Seeking/available for work	Total	Seeking/available for work	
Rural/	Urban		1	2	5	8	11	14	17
BIHAR	Total	Total	82998509	21052875	6921731	1473509	55023903	2194397	
			<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	
BIHAR	Total	0-4	11183897	33602	9977	1209	11140318	2087	
			<b>13.47</b>	<b>0.16</b>	<b>0.14</b>	<b>0.08</b>	<b>20.25</b>	<b>0.10</b>	
BIHAR	Total	5-14	23868079	539760	577740	61083	22750579	235184	
			<b>28.76</b>	<b>2.56</b>	<b>8.35</b>	<b>4.15</b>	<b>41.35</b>	<b>10.72</b>	
BIHAR	Total	15-59	42445259	18417164	5846658	1366755	18181437	1922483	
			<b>51.14</b>	<b>87.48</b>	<b>84.47</b>	<b>92.76</b>	<b>33.04</b>	<b>87.61</b>	
BIHAR	Total	60 +	5501274	2062349	487356	44462	2951569	34643	
			<b>6.63</b>	<b>9.80</b>	<b>7.04</b>	<b>3.02</b>	<b>5.36</b>	<b>1.58</b>	
BIHAR	Rural	Total	74316709	19112829	6639740	1375700	48564140	1625910	
			<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	
BIHAR	Rural	0-4	10246564	30898	9616	1121	10206050	1645	
			<b>13.79</b>	<b>0.16</b>	<b>0.14</b>	<b>0.08</b>	<b>21.02</b>	<b>0.10</b>	
BIHAR	Rural	5-14	21542192	507585	559737	58361	20474870	197621	
			<b>28.99</b>	<b>2.66</b>	<b>8.43</b>	<b>4.24</b>	<b>42.16</b>	<b>12.15</b>	
BIHAR	Rural	15-59	37562029	16664369	5603252	1274634	15294408	1398402	
			<b>50.54</b>	<b>87.19</b>	<b>84.39</b>	<b>92.65</b>	<b>31.49</b>	<b>86.01</b>	
BIHAR	Rural	60 +	4965924	1909977	467135	41584	2588812	28242	
			<b>6.68</b>	<b>9.99</b>	<b>7.04</b>	<b>3.02</b>	<b>5.33</b>	<b>1.74</b>	
BIHAR	Urban	Total	8681800	1940046	281991	97809	6459763	568487	
			<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	
BIHAR	Urban	0-4	937333	2704	361	88	934268	442	
			<b>10.80</b>	<b>0.14</b>	<b>0.13</b>	<b>0.09</b>	<b>14.46</b>	<b>0.08</b>	
BIHAR	Urban	5-14	2325887	32175	18003	2722	2275709	37563	
			<b>26.79</b>	<b>1.66</b>	<b>6.38</b>	<b>2.78</b>	<b>35.23</b>	<b>6.61</b>	
BIHAR	Urban	15-59	4883230	1752795	243406	92121	2887029	524081	
			<b>56.25</b>	<b>90.35</b>	<b>86.32</b>	<b>94.18</b>	<b>44.69</b>	<b>92.19</b>	
BIHAR	Urban	60 +	535350	152372	20221	2878	362757	6401	
			<b>6.17</b>	<b>7.85</b>	<b>7.17</b>	<b>2.94</b>	<b>5.62</b>	<b>1.13</b>	
Patna	Total	Total	4718592	1161984	263663	71554	3292945	231904	
			<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	

Name	Total/	Age	Population	Marginal workers			Non-workers	
				Main workers	Total	Seeking/available for work	Total	Seeking/available for work
Patna	Total	0-4	536437	1353	371	45	534713	111
			<b>11.37</b>	<b>0.12</b>	<b>0.14</b>	<b>0.06</b>	<b>16.24</b>	<b>0.05</b>
Patna	Total	5-14	1269888	21931	17884	2100	1230073	14724
			<b>26.91</b>	<b>1.89</b>	<b>6.78</b>	<b>2.93</b>	<b>37.35</b>	<b>6.35</b>
Patna	Total	15-59	2598155	1035362	226048	67304	1336745	214291
			<b>55.06</b>	<b>89.10</b>	<b>85.73</b>	<b>94.06</b>	<b>40.59</b>	<b>92.41</b>
Patna	Total	60 +	314112	103338	19360	2105	191414	2778
			<b>6.66</b>	<b>8.89</b>	<b>7.34</b>	<b>2.94</b>	<b>5.81</b>	<b>1.20</b>
		58.43						
Patna	Rural	Total	2757060	707355	222451	55492	1827254	79658
			<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>
Patna	Rural	0-4	353876	971	331	35	352574	44
			<b>12.84</b>	<b>0.14</b>	<b>0.15</b>	<b>0.06</b>	<b>19.30</b>	<b>0.06</b>
Patna	Rural	5-14	779294	14979	15492	1766	748823	7267
			<b>28.27</b>	<b>2.12</b>	<b>6.96</b>	<b>3.18</b>	<b>40.98</b>	<b>9.12</b>
Patna	Rural	15-59	1431374	618677	189928	51964	622769	71104
			<b>51.92</b>	<b>87.46</b>	<b>85.38</b>	<b>93.64</b>	<b>34.08</b>	<b>89.26</b>
Patna	Rural	60 +	192516	72728	16700	1727	103088	1243
			<b>6.98</b>	<b>10.28</b>	<b>7.51</b>	<b>3.11</b>	<b>5.64</b>	<b>1.56</b>
Patna	Urban	Total	1961532	454629	41212	16062	1465691	152246
			<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>
Patna	Urban	0-4	182561	382	40	10	182139	67
			<b>9.31</b>	<b>0.08</b>	<b>0.10</b>	<b>0.06</b>	<b>12.43</b>	<b>0.04</b>
Patna	Urban	5-14	490594	6952	2392	334	481250	7457
			<b>25.01</b>	<b>1.53</b>	<b>5.80</b>	<b>2.08</b>	<b>32.83</b>	<b>4.90</b>
Patna	Urban	15-59	1166781	416685	36120	15340	713976	143187
			<b>59.48</b>	<b>91.65</b>	<b>87.64</b>	<b>95.50</b>	<b>48.71</b>	<b>94.05</b>
Patna	Urban	60 +	121596	30610	2660	378	88326	1535
			<b>6.20</b>	<b>6.73</b>	<b>6.45</b>	<b>2.35</b>	<b>6.03</b>	<b>1.01</b>
Danapur Nizamat (M)	Urban	Total	131176	28740	3719	1640	98717	8432
			<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>
Danapur Nizamat (M)	Urban	0-4	13957	24	3	1	13930	0
			<b>10.64</b>	<b>0.08</b>	<b>0.08</b>	<b>0.06</b>	<b>14.11</b>	<b>0.00</b>
Danapur Nizamat (M)	Urban	5-14	36800	498	252	54	36050	555
			<b>28.05</b>	<b>1.73</b>	<b>6.78</b>	<b>3.29</b>	<b>36.52</b>	<b>6.58</b>
Danapur Nizamat (M)	Urban	15-59	72648	26031	3204	1529	43413	7737
			<b>55.38</b>	<b>90.57</b>	<b>86.15</b>	<b>93.23</b>	<b>43.98</b>	<b>91.76</b>
Danapur Nizamat (M)	Urban	60 +	7771	2187	260	56	5324	140
			<b>5.92</b>	<b>7.61</b>	<b>6.99</b>	<b>3.41</b>	<b>5.39</b>	<b>1.66</b>
Patna (M Corp.)	Urban	Total	1366444	323405	23230	9184	1019809	112052
			<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>
Patna (M Corp.)	Urban	0-4	119729	260	28	5	119441	48
			<b>8.76</b>	<b>0.08</b>	<b>0.12</b>	<b>0.05</b>	<b>11.71</b>	<b>0.04</b>
Patna (M Corp.)	Urban	5-14	327483	5103	1340	183	321040	5185
			<b>23.97</b>	<b>1.58</b>	<b>5.77</b>	<b>1.99</b>	<b>31.48</b>	<b>4.63</b>
Patna (M Corp.)	Urban	15-59	833438	297367	20427	8800	515644	105729

Name	Total/	Age	Population	Main workers	Marginal workers		Non-workers	
					Total	Seeking/available for work	Total	Seeking/available for work
			<b>60.99</b>	<b>91.95</b>	<b>87.93</b>	<b>95.82</b>	<b>50.56</b>	<b>94.36</b>
Patna (M Corp.)	Urban	60 +	85794	20675	1435	196	63684	1090
			<b>6.28</b>	<b>6.39</b>	<b>6.18</b>	<b>2.13</b>	<b>6.24</b>	<b>0.97</b>
Patna UA	Urban	Total	1497620	352145	26949	10824	1118526	120484
			<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>
Patna UA	Urban	0-4	133686	284	31	6	133371	48
			<b>8.93</b>	<b>0.08</b>	<b>0.12</b>	<b>0.06</b>	<b>11.92</b>	<b>0.04</b>
Patna UA	Urban	5-14	364283	5601	1592	237	357090	5740
			<b>24.32</b>	<b>1.59</b>	<b>5.91</b>	<b>2.19</b>	<b>31.93</b>	<b>4.76</b>
Patna UA	Urban	15-59	906086	323398	23631	10329	559057	113466
			<b>60.50</b>	<b>91.84</b>	<b>87.69</b>	<b>95.43</b>	<b>49.98</b>	<b>94.18</b>
Patna UA	Urban	60 +	93565	22862	1695	252	69008	1230
			<b>6.25</b>	<b>6.49</b>	<b>6.29</b>	<b>2.33</b>	<b>6.17</b>	<b>1.02</b>



## Annexure 14: Statewise details of IEMs implemented

FROM AUGUST 1991 TO MAY 2011			
BASED ON PART B OF IEM FORM FILED BY ENTREPRENEURS			
State/UT	No. of IEMs	Investment (Rs.Crore)	Employment (Numbers)
Andaman & Nicobar Islands	1	0	165
Andhra Pradesh	936	23298	185290
Arunachal Pradesh	4	9	474
Assam	124	1630	12083
Bihar	14	168	2660
Chandigarh	4	258	1165
Chhattisgarh	81	3126	14749
Dadra & Nagar Haveli	113	1812	11350
Daman & Diu	109	2426	7790
Delhi	51	646	4880
Goa	117	890	14526
Gujarat	1581	86653	227482
Haryana	458	17422	74893
Himachal Pradesh	91	1870	13720
Jammu & Kashmir	23	2117	30035
Jharkhand	68	2061	10765
Karnataka	260	12438	46204
Kerala	81	1019	11764
Lakshadweep	0	0	0
Madhya Pradesh	389	22513	91247
Maharashtra	1588	38593	261612
Manipur	1	13	385
Meghalaya	26	73	2083
Mizoram	0	0	0
Nagaland	0	0	0
Orissa	82	1985	13127
Pondicherry	54	359	5711
Punjab	324	6879	77543
Rajasthan	446	15198	96103
Sikkim	22	15	4173
Tamil Nadu	569	15316	93279
Tripura	6	253	507
Uttar Pradesh	619	25911	97682
Uttaranchal	355	4838	92933
West Bengal	728	31973	134164
<b>Total</b>	<b>9325</b>	<b>321762</b>	<b>1640544</b>

Industrial Entrepreneurs' Memorandum (IEM): This form can be used by entrepreneurs for submission to the Central Government for industrial assistance.

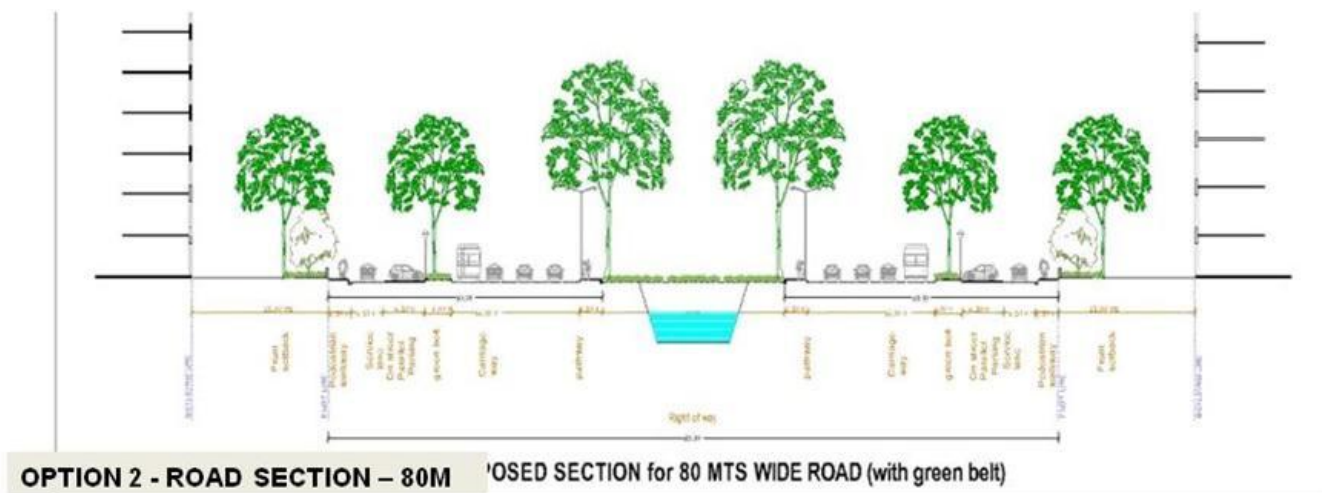
(Refer para of the report)

**Annexure 15: Road Sections**  
*(Refer para 5.5.2 of the report)*

**Central Spine Road – 80 m**



All proposed contiguous urban area are well connected by providing dedicated corridor for public transportation system ( for eg. BRTS).



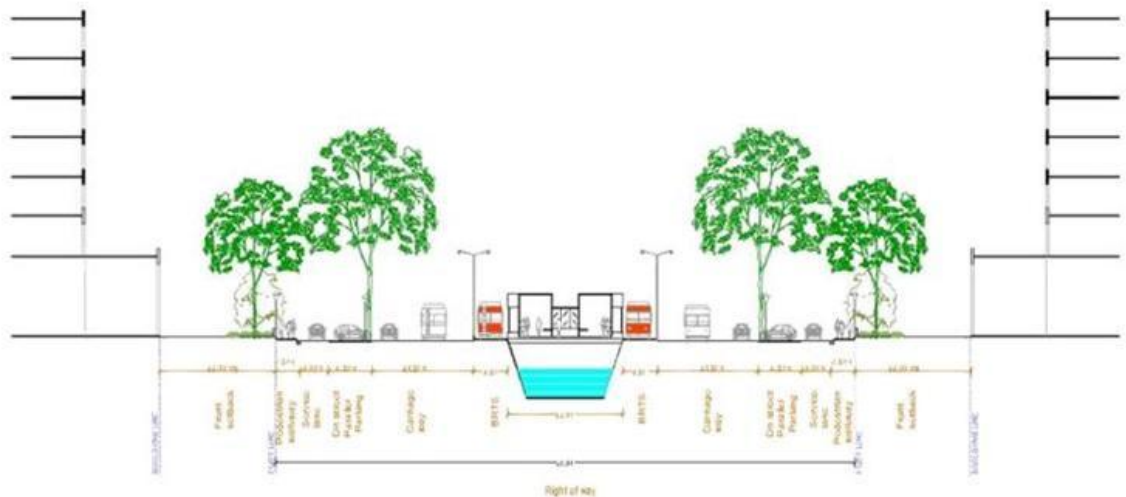
**Regional Road and Growth Pocket Road– 60 m –**



**OPTION 1 - ROAD SECTION – 60M**

**PROPOSED SECTION for 60 MTS WIDE ROAD WITH BRTS(NH)**

Proposed Peripheral Radial Road provides regional connectivity to urban contiguous area and urban nodes. It can be act as another bypass road for Patna.

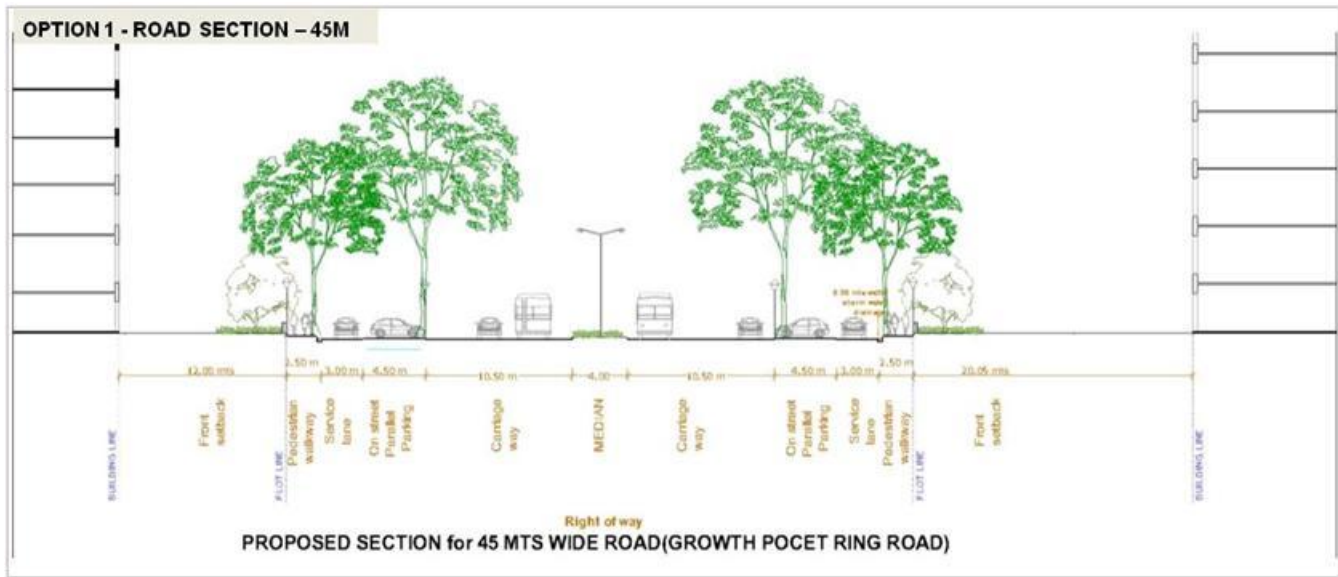


**PROPOSED SECTION for 60 MTS WIDE ROAD WITH BRTS**

**OPTION 2 - ROAD SECTION – 60M**

Peripheral radial road with / without dedicated corridor for public transport

**Sub-divisional roads 45 m -**



Above section shows sub-divisional road without dedicated corridor for public transport in continuous urban area and rest of PMR All the NHs, SHs and the proposed regional roads acts as link road for the rest of PPA.

**Minor roads**



Annexure 16: Salient features of different wastewater treatment technologies

SI No	Features	Intermittent Decanted Extended Aeration	Densadeg & Biofiltration Technology	Rotating Biological Contractor System	UASB	EASB	Fluidized Aerobic Bioreactor	Extended Aeration	Activated Sludge Process	Trickling Filters	SBR	Cyclic Activated Sludge Technology	Anaerobic Waste Stabilization Pond	Aerobic Waste Stabilization Pond	Facultative Aerated Lagoon
1	Suitability of Technology in Indian conditions.	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
2	Whether Primary treatment is required?	No	Yes	Yes	No	Yes	No	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes
3	Ability to take shock	Yes	Yes	Yes	No	No	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes



	loading														
4	Proven Performance (if any Sewage Treatment Plant is constructed based on the Technology)	No	Yes	No	No	No	Pilot Plant of 250 Cum per day is set up by Therm ax at Pune..	Yes	Yes	Yes	Small Scale Plants are few in numbers and are effectively operational	Large Scale Plants are very few in numbers in India One each and are effectively operational	Yes	Yes	Yes
			10MLD - 2 Nos STP for Delhi Jal Board - By Degre mont.												
5	Ability to meet disposal norms	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes

6	Land Require ment in Acres (10 MLD)	NA	1	4.5	2.25	2	1.05	6	5	5	3	3	5	10	10
7	Capital Cost of Treatm ent (Rs. Lakhs per MLD)	N.A	60	35	28	22	40	45	50	30	50	75	15	15	15
8	Power require ment for 10 MLD (KWH/ day )	N.A	2500	3500	1200	1200	3000	4500	2520	1800	2000	1300	100	100	3000
9	Type of Process	Aerobic	Aerobic	Aerobic	Anaerobic	Anaerobic	Aerobic	Aerobic	Aerobic	Aerobic	Aerobic	Aerobic			

**Annexure 17: Technical note on solid waste landfill site****(Refer para 5.6.12 of the report)**

Municipal solid waste is disposed on landfill with an objective of maintaining health and hygienic condition in the city. Landfill site is designed, constructed with the objective of minimum impact to the environment. Selection of a landfill site is dependent on locational criteria mentioned below.

The landfill site shall be large enough to last for 20-25 years and preferably within 5 km from present city limits.

The site shall be at least 500 mt. away from habitation clusters, forest areas, monuments, National Parks, Wetlands and places of important cultural, historical or religious interest.

No landfill should be constructed within 200 mt of any lake or pond.

No landfill should be constructed within 100mt. of a navigable river.

No landfill should be constructed within 200mt. of the right of way of any state or national highway.

A site should be at least 500mt. away from a notified habitated area. A buffer zone of 500mt. around a landfill boundary should be declared as a No development zone after the landfill location is finalized. No landfill site should be constructed within critical habitat areas.

A landfill should not be constructed in areas where water table is less than 2 mt. below ground surface.

No landfill should be constructed within 500 mt. of any water supply.

Topographical and geographical features (contour, slope, soil type) of the site should be carefully analyzed in order to prevent soil contamination and disturbance of drainage pattern.

Transportation and linkages will be clearly defined for waste movement from the city. The influence of increased heavy vehicle traffic due to land filling should be taken care in order to avoid nuisance.

For HMR area required for landfill site is calculated as mentioned below. Number of options is worked out based on certain assumptions. It may subject to vary depending on the existing situation prevailing on the site. Assumptions are carried out after referring Manual on Municipal Solid Waste Management, CPHEEO, and Ministry of Urban Development.

Annexure 18: Scalogram Analysis - Study Area  
(Refer para 5.7.1 of the report)

Sr.No	District	C.D. Block	Village	Population	Hand pump	Well	Primary School	Tube well	Middle School	Post office	Primaty Health Subcentre	Agricultural Credit Societies	Secondary School	Commercial Bank	Bus Facilities	Community Health Workers	Primary Health Centre	Health Centre	Tap	Railways services	College	Senior Secondary School	Homeopathic Dispensary	Ayurvedic Dispensary	Child Welfare Centre	Telegraph office	Co operative Bank	Maternity Home	Homeopathic Hospital	Nursing Home	Ayurvedic Hospital	Total number of facilities	Total Centrality Index	Hierarchy of settlements	
1	Patna	Maner	Kita Chauhattar	26017	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	3.27	3rd order
2	vaishali	Hajipur	Sherpur	24116	1	1	1	0	0	1	0	0	1	1	0	0	1	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	9	22.37	2nd order
3	Patna	Punpun	Sabalpur	23499	1	1	1	0	1	1	1	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	5.96	3rd order
4	Patna	Bihta	Raghopur	18817	1	1	1	1	1	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	3.42	3rd order
5	Patna	Dinapur-Cum-Khagaul	Panapur	18696	1	1	1	0	1	1	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7	5.19	3rd order
6	Patna	Maner	Darweshpur Uparwar	16357	1	1	1	1	1	1	1	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9	4.81	3rd order
7	vaishali	Hajipur	Dighi Kalan	16191	1	1	1	1	1	1	1	1	1	0	1	0	0	0	1	0	1	1	0	0	0	1	0	0	0	0	0	0	14	33.47	2nd order
8	Patna	Naubatpur	Birpur	15365	1	1	1	0	1	1	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	5.17	3rd order
9	Saran	Sonepur	Sabalpur	14250	1	1	1	0	0	1	0	0	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7	6.22	3rd order
10	Patna	Punpun	Lakhna	14142	1	1	1	0	1	1	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	7	11.50	3rd order
11	vaishali	Raghopur	Paharpur	13719	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7	2.30	3rd order
12	Patna	Khusrupur	Baikatpur	12818	1	1	1	0	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	2.52	3rd order
13	vaishali	Raghopur	Rustampur	12215	1	0	1	1	1	1	1	1	0	1	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0	0	10	17.79	3rd order	
14	vaishali	Raghopur	Juramanpur Karari	11828	1	1	1	1	1	1	0	1	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9	6.03	3rd order
15	Patna	Bakhtiarpur	Ramnagar Diara(Part in Athmalgola)*	11683	1	1	1	0	1	1	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7	3.22	3rd order
16	vaishali	Raghopur	Terahrasia	11587	1	1	1	1	1	0	1	0	0	1	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9	8.32	3rd order
17	Patna	Daniawan	Shahpur	11571	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7	2.30	3rd order
18	Patna	Patna Rural (a) Patna Rural (b)	Fatehpur	10060	1	1	1	0	1	1	1	1	1	1	0	0	1	0	0	0	1	1	0	1	0	0	0	0	0	0	0	0	13	31.22	2nd order
19	Patna	Khusrupur	Shahabad	9941	1	1	1	0	1	1	0	1	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	6.35	3rd order

Sr.No	District	C.D. Block	Village	Population	Hand pump	Well	Primary School	Tube well	Middle School	Post office	Primary Health Subcentre	Agricultural Credit Societies	Secondary School	Commercial Bank	Bus Facilities	Community Health Workers	Primary Health Centre	Health Centre	Tap	Railways services	College	Senior Secondary School	Homeopathic Dispensary	Ayurvedic Dispensary	Child Welfare Centre	Telegraph office	Co operative Bank	Maternity Home	Homeopathic Hospital	Nursing Home	Ayurvedic Hospital	Total number of facilities	Total Centrality Index	Hierarchy of settlements	
20	vaishali	Raghopur	Rampur Shamchand	9801	1	0	1	1	1	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7	3.32	3rd order
21	Patna	Sampatk hak	Bairia	9771	1	1	1	1	1	1	1	1	1	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11	8.65	3rd order
22	Patna	Phulwari	Alampur Gonpura	9611	1	1	1	1	1	1	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	3.81	3rd order
23	Patna	Phulwari	Nohsa	9509	1	1	1	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	6	11.95	3rd order
24	Patna	Bihta	Bihta	9029	1	0	1	0	1	1	0	0	1	1	1	0	0	0	1	0	1	1	0	0	0	1	1	1	0	0	0	13	53.73	1st order	
25	vaishali	Bidupur	Daudnagar Motaluke Damaipatti	8921	1	1	1	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	1.98	3rd order
26	vaishali	Raghopur	Jethuli	8767	1	1	1	1	0	1	0	1	0	0	1	0	0	0	1	1	0	0	1	0	0	0	1	0	1	0	0	0	12	43.11	2nd order
27	vaishali	Raghopur	Fatehpur Shahbaz	8697	1	1	1	1	1	1	0	0	1	1	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10	9.04	3rd order
28	Patna	Dinapur-Cum-Khagaul	Jamsaut	8696	1	1	1	0	1	1	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7	3.22	3rd order
29	vaishali	Bidupur	Biddupur	8613	1	1	1	0	1	1	1	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	8	6.33	3rd order
30	Patna	Bakhtiarpur	Rupas Mahagi	8529	1	1	1	0	1	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7	3.10	3rd order
31	Patna	Daniawan	Bankipur Machhariawan	8219	1	1	1	0	0	1	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	4.20	3rd order
32	Saran	Dighwara	Sitalpur	8167	1	1	1	0	1	1	0	1	0	1	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	9	9.88	3rd order
33	Patna	Bakhtiarpur	Kala Diara	8072	1	1	1	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	1.98	3rd order
34	Patna	Athmalgola	Sabnima	8036	0	1	1	0	1	1	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	5.28	3rd order
35	Patna	Bakhtiarpur	Ghoswari	8023	1	1	1	0	1	1	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	4.34	3rd order
36	Patna	Patna Rural (a) Patna Rural (b)	Panapur Taufir	7809	1	1	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	1.44	3rd order
37	Patna	Khusrupur	Hardas Bigha	7641	1	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0.68	3rd order
38	Patna	Bihta	Painal	7560	1	1	1	0	1	1	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7	5.19	3rd order



Sr.No	District	C.D. Block	Village	Population	Hand pump	Well	Primary School	Tube well	Middle School	Post office	Primary Health Subcentre	Agricultural Credit Societies	Secondary School	Commercial Bank	Bus Facilities	Community Health Workers	Primary Health Centre	Health Centre	Tap	Railways services	College	Senior Secondary School	Homeopathic Dispensary	Ayurvedic Dispensary	Child Welfare Centre	Telegraph office	Co operative Bank	Maternity Home	Homeopathic Hospital	Nursing Home	Ayurvedic Hospital	Total number of facilities	Total Centrality Index	Hierarchy of settlements	
39	Patna	Fatuha	Dumri	7553	1	1	1	0	1	1	0	1	1	1	0	1	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	12	34.93	2nd order
40	Patna	Dhanarua	Barni	7511	1	1	1	0	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	7	12.10	3rd order
41	Patna	Masaurhi	Pakri	7400	1	1	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	1.09	3rd order	
42	vaishali	Hajipur	Halalpur Madarpur	7257	1	1	1	0	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	2.10	3rd order	
43	Patna	Naubatpur	Khaspur	7224	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.32	3rd order		
44	Patna	Punpun	Mohanpur	7129	1	0	1	1	1	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	3.57	3rd order	
45	Patna	Bihta	Anandpur	7023	1	1	1	1	1	1	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	10	16.00	3rd order	
46	Saran	Sonepur	Kharika	6979	1	1	1	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	1.98	3rd order	
47	Patna	Punpun	Keora	6705	1	1	1	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	1.13	3rd order	
48	Patna	Phulwari	Bhusaula Danapur	6653	1	1	1	1	1	1	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	4.46	3rd order	
49	Patna	Dinapur-Cum-Khagaul	Hathiakan	6530	1	1	1	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	6	11.74	3rd order	
50	Patna	Daniawan	Kanchanpur	6528	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.32	3rd order	
51	Patna	Masaurhi	Saidabad	6526	1	1	1	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	1.97	3rd order	
52	Patna	Dinapur-Cum-Khagaul	Ganghara	6418	1	1	1	0	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	2.25	3rd order	
53	vaishali	Bidupur	Khilwat	6412	1	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.67	3rd order		
54	Patna	Khusrupur	Ismailpur	6330	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.32	3rd order	
55	Patna	Bakhtiarpur	Alipur Bihta	6310	1	1	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	1.29	3rd order	
56	Patna	Patna Rural (a) Patna Rural (b)	Punadih	6268	1	1	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	1.09	3rd order	
57	Saran	Sonepur	Dumari Buzurg	6266	1	1	1	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	1.13	3rd order	
58	vaishali	Raghopur	Raghopur	6232	1	1	1	1	1	1	0	1	0	0	1	0	0	0	1	0	0	0	1	1	0	0	0	0	0	1	0	12	40.59	2nd order	
59	Saran	Sonepur	Jaitiya	6190	1	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0.77	3rd order	
60	Patna	Maner	Sadiqpur	6115	1	1	1	1	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7	2.42	3rd order	
61	Saran	Sonepur	Nazarmira	6096	1	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0.68	3rd order	

Sr.No	District	C.D. Block	Village	Population	Hand pump	Well	Primary School	Tube well	Middle School	Post office	Primary Health Subcentre	Agricultural Credit Societies	Secondary School	Commercial Bank	Bus Facilities	Community Health Workers	Primary Health Centre	Health Centre	Tap	Railways services	College	Senior Secondary School	Homeopathic Dispensary	Ayurvedic Dispensary	Child Welfare Centre	Telegraph office	Co operative Bank	Maternity Home	Homeopathic Hospital	Nursing Home	Ayurvedic Hospital	Total number of facilities	Total Centrality Index	Hierarchy of settlements	
62	Saran	Dighwara	Basti Jalal	6032	1	1	1	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	1.13	3rd order
63	Patna	Bakhtiarpur	Champapur	6024	1	1	1	0	1	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	3.87	3rd order
64	vaishali	Raghopur	Juramanpur Barari	6008	1	1	1	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	1.97	3rd order	
65	Patna	Phulwari	Kurthaur	5964	0	1		1	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	3.81	3rd order	
66	Patna	Bihta	Madhopur	5946	1	1	1	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	5.03	3rd order	
67	Patna	Punpun	ALawalpur	5930	1	1	1	0	1	1	1	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9	6.29	3rd order	
68	Patna	Fatuha	Saidpur	5922	1	1	1	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	5	4.65	3rd order	
69	vaishali	Raghopur	Chandpur Idark	5902	1	1	1	0	0	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	5	4.00	3rd order	
70	Patna	Bakhtiarpur	Dedur	5868	1	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	1.17	3rd order	
71	Patna	Sampatk hak	Sohgi	5752	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0.64	3rd order	
72	Patna	Naubatp ur	Chesi	5741	1	1	1	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	1.13	3rd order	
73	Patna	Khusrupu r	Rasulpur	5699	1	1	1	0	1	1	0	1	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	5.53	3rd order	
74	Patna	Bihta	Sanda	5630	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	1.45	3rd order	
75	Saran	Sonepur	Naya Ganw	5563	1	1	1	0	0	1	0	0	1	1	1	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0	9	19.67	3rd order	
76	Patna	Naubatp ur	Haibatpur	5546	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.32	3rd order	
77	Patna	Bihta	Neura	5499	1	1	1	0	0	1	0	1	1	1	0	0	1	1	0	1	0	0	1	0	0	0	0	1	0	0	0	12	32.65	2nd order	
78	vaishali	Hajipur	Sadullahpur Satan	5448	1	1	1	0	1	1	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7	3.49	3rd order	
79	Saran	Sonepur	Kasmar	5440	1	1	1	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	1.53	3rd order	
80	Patna	Masaurhi	Bhadaura	5414	1	1	1	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	1.98	3rd order	
81	Patna	Naubatp ur	Naubatpur	5378	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	1	0	0	1	1	1	1	0	0	0	20	66.41	1st order	
82	vaishali	Bidupur	Rahimapur	5305	1	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0.77	3rd order	
83	Saran	Sonepur	Shikarpur	5287	1	1	1	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	1.13	3rd order	
84	Patna	Bihta	Amahra	5286	1	1	1	0	1	1	1	0	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	12	14.55	3rd order	
85	Saran	Dighwara	Barua	5282	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.32	3rd order	
86	Patna	Bihta	Katesar	5273	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7	2.30	3rd order	
87	vaishali	Raghopur	Jahangirpur Pirthi	5232	1	0	1	1	1	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	4.24	3rd order	

Sr.No	District	C.D. Block	Village	Population	Hand pump	Well	Primary School	Tube well	Middle School	Post office	Primary Health Subcentre	Agricultural Credit Societies	Secondary School	Commercial Bank	Bus Facilities	Community Health Workers	Primary Health Centre	Health Centre	Tap	Railways services	College	Senior Secondary School	Homeopathic Dispensary	Ayurvedic Dispensary	Child Welfare Centre	Telegraph office	Co operative Bank	Maternity Home	Homeopathic Hospital	Nursing Home	Ayurvedic Hospital	Total number of facilities	Total Centrality Index	Hierarchy of settlements
88	Patna	Punpun	Lakhanpur	5212	1	1	1	0	0	1	1	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	7	6.94	3rd order
89	vaishali	Bidupur	Mayil	5073	1	1	1	0	1	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	6	7.07	3rd order
90	Patna	Phulwari	Mahuli	5063	1	1	1	1	0	0	1	0	1	0	0	1	0	1	0	0	0	0	1	0	0	0	0	0	1	0	0	10	29.20	2nd order
91	Patna	Maner	Chhitnawan	5062	1	1	1	0	1	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	4.51	3rd order
92	vaishali	Raghopur	Malikpur	4998	1	0	1	1	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	3.61	3rd order
93	Patna	Dhanarua	Kosut	4916	1	1	1	0	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	2.10	3rd order
94	Patna	Bihta	Daulatpur semri	4882	1	1	1	1	1	1	0	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	8	5.80	3rd order
95	Patna	Naubatpur	Ajawan	4860	1	1	1	1	1	1	0	0	1	1	0	0	0	1	0	0	1	1	0	0	0	0	0	0	1	0	1	13	60.00	1st order
96	Patna	Bihta	Dealpur Daulat	4835	1	1	1	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	2.72	3rd order
97	vaishali	Hajipur	Ghauspur Ijra	4748	1	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0.77	3rd order
98	Saran	Dariapur	Mujauna	4742	1	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0.68	3rd order
99	vaishali	Hajipur	Bishunpur Basant urf Suhai	4736	1	1	1	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	1.74	3rd order
100	Saran	Sonepur	Parmanandpur	4712	1	1	1	1	0	1	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	7	6.29	3rd order
101	Patna	Naubatpur	Gopalpur	4700	1	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0.77	3rd order
102	Saran	Dighwara	Manupur	4648	1	1	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	1.01	3rd order
103	vaishali	Raghopur	Bahrampur	4606	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0.64	3rd order
104	Patna	Dhanarua	Nadwan	4598	1	1	1	0	1	1	0	0	1	1	1	0	0	0	0	1	0	0	0	0	0	0	0	0	1	0	1	11	49.32	1st order
105	vaishali	Raghopur	Chaunkia	4584	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.32	3rd order
106	Patna	Sampatc hak	Gopalpur	4575	1	1	1	1	1	1	0	1	0	1	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	10	12.99	3rd order
107	Patna	Maner	Rampur Diara Taufir	4567	1	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0.77	3rd order
108	Patna	Bihta	Nathupur	4521	1	1	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	1.61	3rd order
109	Patna	Dhanarua	Deodaha	4431	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	1.45	3rd order
110	Patna	Naubatpur	Nisarpura	4431	1	1	1	1	1	1	0	0	1	1	1	0	0	0	0	0	1	0	1	1	1	0	0	1	0	1	0	15	65.77	1st order
111	Patna	Bakhtiarpur	Hedaiatpur	4334	1	1	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	1.29	3rd order
112	Patna	Patna	Mirchi	4326	1	1	1	1	0	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7	3.06	3rd order

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		Rural (a) Patna Rural (b)																																	
113	Saran	Sonepur	Bharanpura	4288	1	1	1	1	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	1.94	3rd order
114	Patna	Fatuha	Usfa	4277	1	1	1	0	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	2.25	3rd order
115	Patna	Naubatpur	Ibrahimpur	4267	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	1.00	3rd order	
116	Patna	Maner	Balua	4263	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	1.45	3rd order	
117	Patna	Bakhtiarpur	Bariarpur	4263	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.32	3rd order	
118	Patna	Bihta	Aminabad	4259	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0.64	3rd order	
119	Patna	Fatuha	Gauri Punda	4221	1	1	1	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	1.13	3rd order	
120	Patna	Bihta	Bishunpura	4212	1	1	1	1	1	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7	2.97	3rd order	
121	Patna	Bihta	Kharagpur	4127	1	1	1	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	7	21.73	2nd order	
122	Patna	Sampatkhak	Kandap	4120	1	1	1	1	1	1	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9	4.66	3rd order	
123	Patna	Phulwari	Yakubpur Nagwan	4109	1	1	1	1	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7	4.43	3rd order	
124	Patna	Dhanarua	Patharhat	4089	1	1	1	0	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7	2.95	3rd order	
125	vaishali	Bidupur	Rajasan	4085	1	1	1	0	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	2.52	3rd order	
126	vaishali	Bidupur	Saidpur Ganesh	4081	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.32	3rd order	
127	Patna	Dinapur-Cum-Khagaul	Bari Khagaul	4067	0	1	1	0	1	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	4	3.81	3rd order	
128	vaishali	Hajipur	Bishunpur Basant urf Suhai	4060	1	1	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	1.29	3rd order	
129	Patna	Dinapur-Cum-Khagaul	Habaspur	4050	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	1.00	3rd order	
130	vaishali	Hajipur	Kashipur Chak Bibi	4049	1	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0.68	3rd order	
131	vaishali	Raghopur	Chak Singar Barari	3960	1	1	1	1	1	0	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	5.04	3rd order	
132	Patna	Dinapur-Cum-	Hetanpur	3957	1	1	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	4	3.26	3rd order	

Sr.No	District	C.D. Block	Village	Population	Hand pump	Well	Primary School	Tube well	Middle School	Post office	Primary Health Subcentre	Agricultural Credit Societies	Secondary School	Commercial Bank	Bus Facilities	Community Health Workers	Primary Health Centre	Health Centre	Tap	Railways services	College	Senior Secondary School	Homeopathic Dispensary	Ayurvedic Dispensary	Child Welfare Centre	Telegraph office	Co operative Bank	Maternity Home	Homeopathic Hospital	Nursing Home	Ayurvedic Hospital	Total number of facilities	Total Centrality Index	Hierarchy of settlements	
		Khagaul																																	
133	Patna	Punpun	Kansari	3902	1	1	1	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	2.59	3rd order
134	Saran	Sonepur	Chaturpur	3868	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.32	3rd order	
135	vaishali	Bidupur	Bishunpur Said Ali	3846	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.32	3rd order	
136	Saran	Sonepur	Badurahi	3808	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0.64	3rd order	
137	vaishali	Bidupur	Amer	3789	1	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0.68	3rd order	
138	vaishali	Bidupur	Ramdauli	3778	1	1	1	0	1	0	0	1	0	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	7	9.71	3rd order	
139	vaishali	Raghopur	Sirirampur	3769	1	1	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	1.49	3rd order	
140	Patna	Dinapur-Cum-Khagaul	Dhanaut	3712	1	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0.77	3rd order	
141	Patna	Daniawan	Daniawan	3701	1	1	1	0	1	1	0	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9	6.65	3rd order	
142	Patna	Phulwari	Simra	3651	1	1	1	1	1	0	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	5.04	3rd order	
143	Patna	Naubatpur	Karai	3647	1	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	1.17	3rd order	
144	Patna	Punpun	Pothi	3640	1	1	1	0	1	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	6	7.97	3rd order	
145	Patna	Phulwari	Kurkuri	3616	1	1	1	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	1.97	3rd order	
146	Patna	Daniawan	Sikandarpur	3612	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.32	3rd order	
147	Patna	Punpun	Saidpur	3607	1	1	1	1	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	2.73	3rd order	
148	Patna	Dhanarua	Moriawan	3588	1	1	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	1.61	3rd order	
149	Saran	Sonepur	Dudhaila	3549	1	1	1	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	1.53	3rd order	
150	Patna	Daniawan	Salarpur	3544	1	1	1	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	1.74	3rd order	
151	Patna	Phulwari	Chhatna	3525	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	1.00	3rd order	
152	Patna	Bihta	Gokhulpur Kurhar	3522	1	1	1	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	2.68	3rd order	
153	vaishali	Hajipur	Sajnupur Mathihan	3522	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.32	3rd order	
154	vaishali	Hajipur	Bishunpur Bala Dhariurf Balwa	3521	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.32	3rd order	
155	vaishali	Raghopur	sukwarpur	3521	1	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0.68	3rd order	
156	Patna	Khusrupur	Mohsinpur	3482	1	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0.68	3rd order	



Sr.No	District	C.D. Block	Village	Population	Hand pump	Well	Primary School	Tube well	Middle School	Post office	Primary Health Subcentre	Agricultural Credit Societies	Secondary School	Commercial Bank	Bus Facilities	Community Health Workers	Primary Health Centre	Health Centre	Tap	Railways services	College	Senior Secondary School	Homeopathic Dispensary	Ayurvedic Dispensary	Child Welfare Centre	Telegraph office	Co operative Bank	Maternity Home	Homeopathic Hospital	Nursing Home	Ayurvedic Hospital	Total number of facilities	Total Centrality Index	Hierarchy of settlements	
157	Patna	Bihta	Pakri	3472	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.32	3rd order	
158	Patna	Punpun	Manora	3438	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	4	4.67	3rd order	
159	Patna	Maner	Rampur Diara	3437	1	1	1	0	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	2.25	3rd order	
160	vaishali	Hajipur	Yusufpur Dighikhurd	3433	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.32	3rd order	
161	Patna	Dhanarua	Sonmai	3412	1	1	1	1	1	1	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	3.96	3rd order	
162	Patna	Dinapur-Cum-Khagaul	Rukanpura	3386	1	1	1	0	0	0	0	1	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	7	22.29	2nd order	
163	Patna	Bakhtiarpur	Gayaspur Mahazi	3380	1	1	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	2.54	3rd order	
164	Patna	Fatuha	Jamalpur	3348	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.32	3rd order	
165	Patna	Bihta	Sadisopur	3345	1	1	1	1	1	1	1	0	1	1	0	1	1	1	1	1	1	0	1	0	0	0	0	0	0	0	0	16	34.22	2nd order	
166	vaishali	Hajipur	Daulatpur Deoria urf Daulatpur	3341	1	1	1	1	1	1	1	0	0	0	1	0	1	1	1	0	1	0	1	1	0	0	0	0	0	0	0	0	14	36.27	2nd order
167	Patna	Bakhtiarpur	Karanauti	3330	1	1	1	0	1	0	1	1	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	8	8.24	3rd order	
168	Patna	Bihta	Bahpura	3329	1	1	1	1	1	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	7	4.68	3rd order	
169	Patna	Punpun	Zahidpur	3329	1	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0.68	3rd order	
170	Saran	Dariapur	Sakraicha	3311	1	1	1	0	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	2.10	3rd order	
171	Patna	Daniawan	Hasanpur	3287	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.32	3rd order	
172	Saran	Dighwara	Kuraia	3286	1	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	1.17	3rd order	
173	Patna	Fatuha	Masarhi	3266	1	1	1	0	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	2.25	3rd order	
174	vaishali	Hajipur	Saim Chak	3265	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.32	3rd order	
175	Patna	Punpun	Barawan	3242	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.32	3rd order	
176	Patna	Maner	Nagwan	3241	1	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	1.17	3rd order	
177	Patna	Naubatpur	Nauhi	3239	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0.64	3rd order	
178	Patna	Naubatpur	Chiraura	3220	1	1	1	1	1	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	3.42	3rd order	
179	Patna	Phulwari	Suitha	3209	1	1	1	1	1	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7	4.31	3rd order	
180	Patna	Dinapur-Cum-Khagaul	Madhopur	3198	1	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0.77	3rd order	

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181	Saran	Sonepur	Gobind Chak	3184	1	1	1	1	1	1	1	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9	4.81	3rd order
182	Patna	Khusrur	Khirodharpur	3180	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.32	3rd order
183	Patna	Bakhtiarpur	Mogalpura	3176	1	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0.68	3rd order
184	Patna	Masaurhi	Nisiawan	3155	1	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0.68	3rd order
185	Patna	Bakhtiarpur	Doman	3153	1	1	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	1.71	3rd order
186	Patna	Bihta	Parkhotimpu r Painathi	3147	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7	2.30	3rd order
187	Patna	Bihta	Parri	3139	1	1	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	2.36	3rd order
188	Patna	Punpun	Panwar	3128	1	1	1	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	1.13	3rd order
189	Patna	Bakhtiarpur	Mulrajpur	3123	1	1	1	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	6	11.74	3rd order
190	Saran	Sonepur	Gopalpur	3111	1	1	1	1	1	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	3.42	3rd order
191	Patna	Fatuha	Daulatpur	3108	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.32	3rd order
192	Patna	Phulwari	Janipur	3069	1	1	1	0	1	0	1	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	8	21.63	2nd order
193	Patna	Maner	Sarasat	3053	1	1	1	1	1	1	1	0	0	1	0	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	10	15.00	3rd order
194	Patna	Fatuha	Rasulpur Kurtha	3030	1	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	1.17	3rd order
195	Patna	Phulwari	Muhammad pur Korji	3018	1	1	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	1.09	3rd order
196	Saran	Sonepur	Chausia	3012	1	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	1.17	3rd order
197	Saran	Dighwara	Salimpur	3007	1	1	1	0	1	1	0	1	1	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	9	8.96	3rd order
198	Patna	Athmalgo la	Chanda	2996	0	1	1	0	1	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	3.89	3rd order
199	Patna	Dhanarua	Oiara	2995	1	1	1	1	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7	2.84	3rd order
200	Saran	Dighwara	Tilok Chak	2990	1	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0.68	3rd order
201	Patna	Masaurhi	Sanrari	2979	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0.22	3rd order	
202	Patna	Bihta	Kanhaul	2960	1	1	1	1	1	0	1	0	0	0	1	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	9	17.70	3rd order
203	Patna	Fatuha	Mominpur	2958	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.32	3rd order
204	Saran	Sonepur	Baijalpur Kesho	2948	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.32	3rd order
205	vaishali	Hajipur	Kuari Bazurg	2945	1	1	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	1.29	3rd order	
206	Patna	Punpun	Makhdumpu r	2945	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.32	3rd order	
207	Patna	Naubatp	Tegharaila	2943	1	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0.68	3rd order	

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		ur	Chhotka																																
208	Patna	Sampatc hak	Bahuwara	2931	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	1.00	3rd order
209	Patna	Bihta	Dumri	2916	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.32	3rd order	
210	Patna	Phulwari	Sain	2908	1	1	1	0	1	1	0	0	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	7	9.39	3rd order	
211	Patna	Bihta	Pali	2907	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0.64	3rd order		
212	Patna	Dinapur-Cum-Khagaul	Patlapur	2902	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0.64	3rd order		
213	Patna	Sampatc hak	Lanka Kachhuara	2861	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	3.27	3rd order		
214	Patna	Dinapur-Cum-Khagaul	Kasim chak	2853	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.32	3rd order		
215	Saran	Dighwara	Malkha Chak	2851	1	1	1	0	1	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	6	3.99	3rd order		
216	Patna	Patna Rural (a) Patna Rural (b)	Simli Murarpur	2833	1	1	1	0	0	1	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	6	4.83	3rd order		
217	Patna	Bihta	Dekuli	2830	1	1	1	1	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	3.53	3rd order		
218	Saran	Sonepur	Sultanpur	2825	0	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	4	10.67	3rd order		
219	Patna	Punpun	Shahjahanpur	2823	1	1	1	0	1	1	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	4.61	3rd order		
220	Patna	Daniawan	Singriawan	2817	1	1	1	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	2.68	3rd order		
221	Patna	Phulwari	Pakauli	2806	1	1	1	0	1	0	1	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7	4.04	3rd order		
222	Patna	Patna Rural (a) Patna Rural (b)	Sonawan	2790	1	1	1	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	2.83	3rd order		
223	Patna	Dhanarua	Sattar	2780	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.32	3rd order		
224	Saran	Dighwara	Kanakpur	2779	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.32	3rd order		
225	Saran	Sonepur	Jahangirpur	2778	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.32	3rd order		
226	Patna	Daniawan	Singriawan	2765	1	1	0	0	0	1	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	3.86	3rd order		
227	Patna	Dhanarua	Baurihi	2755	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	1.00	3rd order		
228	vaishali	Raghopur	Bhawani	2751	1	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.54	3rd order			

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			Prasad urf Madho																																
229	Patna	Khusrupur	Chaunra	2730	1	1	1	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	1.98	3rd order
230	Saran	Sonepur	Kaleanpur	2726	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.32	3rd order	
231	Patna	Bakhtiarpur	Shahpur	2720	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0.64	3rd order	
232	Saran	Dighwara	Ami	2710	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.65	3rd order	
233	Patna	Punpun	Mohiuddinpur	2709	1	1	1	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	1.13	3rd order	
234	Patna	Dinapur-Cum-Khagaul	Kothawan	2693	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.32	3rd order	
235	Patna	Punpun	Parthu	2687	1	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0.77	3rd order	
236	Patna	Phulwari	Pasihi	2679	1	1	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	1.61	3rd order	
237	Patna	Bihta	Kujawan	2673	1	1	1	1	0	1	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7	4.16	3rd order	
238	Patna	Bihta	Kauria	2661	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	1.00	3rd order	
239	vaishali	Raghopur	Nagargawan	2651	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.32	3rd order	
240	Patna	Phulwari	Majhauri	2649	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.32	3rd order	
241	Saran	Sonepur	Gangajal	2626	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	1.00	3rd order	
242	Patna	Bihta	Alhanpura	2622	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0.22	3rd order	
243	Patna	Fatuha	Sarwan	2617	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0.22	3rd order	
244	Saran	Dighwara	Rampur Ami	2613	1	1	1	0	1	0	1	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	7	7.33	3rd order	
245	Patna	Dinapur-Cum-Khagaul	Usri	2613	1	1	1	1	0	0	0	1	0	1	1	0	0	1	0	0	0	0	0	0	0	0	1	0	0	0	0	9	17.98	3rd order	
246	Patna	Masaurhi	Chapaur	2605	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0.22	3rd order	
247	Saran	Sonepur	Murthan	2605	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0.64	3rd order	
248	Patna	Daniawan	Taraura	2599	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.32	3rd order	
249	Patna	Naubatpur	Kopakalan	2598	1	1	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	1.09	3rd order	
250	Patna	Dhanarua	Niman	2598	1	1	1	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	1.80	3rd order	
251	Patna	Maner	Darweshpur Diara	2594	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.32	3rd order	
252	Saran	Sonepur	Shekh Duman	2588	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.32	3rd order	

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253	Patna	Dhanarua	Bir	2585	1	1	1	0	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	2.25	3rd order
254	Saran	Sonepur	Sobhepur	2585	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.32	3rd order
255	Patna	Punpun	Ekauna	2570	1	1	1	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	1.80	3rd order
256	Patna	Fatuha	Raipura	2554	1	1	1	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	1.80	3rd order
257	Patna	Dhanarua	Bhakhri	2545	1	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0.68	3rd order
258	vaishali	Hajipur	Asdharpur	2540	1	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0.68	3rd order
259	Patna	Punpun	Dumri	2540	1	1	1	0	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	2.10	3rd order
260	Patna	Sampatc hak	Jujharpur	2535	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0.64	3rd order
261	Patna	Sampatc hak	Dariapur	2509	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.32	3rd order
262	Patna	Bakhtiarpur	Gangapur Narauli	2506	1	1	1	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	1.97	3rd order
263	vaishali	Hajipur	Gadai Sarae	2500	1	1	1	0	0	1	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	3.13	3rd order
264	Patna	Sampatc hak	Manoharpur Kachhuara	2497	1	1	1	1	0	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	4.03	3rd order
265	Patna	Phulwari	Hinduni	2492	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.32	3rd order
266	Patna	Fatuha	Sonaru	2481	1	1	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	1.44	3rd order
267	Patna	Bihta	Tikaitpur	2472	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.32	3rd order
268	vaishali	Bidupur	Kanchanpur	2459	1	1	1	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	1.53	3rd order
269	Patna	Phulwari	Adhpa	2458	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	6	17.67	3rd order
270	Saran	Dighwara	Akilpur	2454	1	1	1	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	1.98	3rd order
271	Saran	Sonepur	Chitarsenpur	2443	1	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0.68	3rd order
272	Patna	Daniawan	Pir Barhauna	2441	1	1	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	1.01	3rd order
273	Patna	Sampatc hak	Chainpura	2419	1	1	1	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	2.12	3rd order
274	Patna	Patna Rural (a) Patna Rural (b)	Mirzapur	2404	1	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0.68	3rd order
275	Patna	Sampatc hak	Shahpur	2404	1	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0.77	3rd order
276	Patna	Naubatpur	Khajuri	2402	1	1	1	1	1	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7	4.39	3rd order
277	Patna	Masaurhi	Dighwa Mahadeopur	2401	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.32	3rd order



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278	Patna	Dhanarua	Lawaich	2400	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.32	3rd order	
279	Patna	Naubatpur	Gonawan	2397	1	1	1	1	1	0	1	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	7.65	3rd order
280	Saran	Sonepur	Nawada	2388	1	1	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	1.49	3rd order	
281	Patna	Bihta	Rampur Ismail	2380	1	1	1	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	5	3.87	3rd order	
282	Patna	Phulwari	Nathupur	2371	1	1	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	1.29	3rd order	
283	Patna	Fatuha	Bali	2370	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.32	3rd order	
284	Patna	Sampatc hak	Saidanpur	2362	1	1	1	0	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	2.25	3rd order	
285	Patna	Daniawan	Nimi	2357	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.32	3rd order	
286	Patna	Phulwari	Bitaura	2352	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.52	3rd order	
287	Patna	Phulwari	Hasanpura	2352	1	1	1	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	1.13	3rd order	
288	Patna	Fatuha	Pitambarpur	2351	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.32	3rd order	
289	Patna	Masaurhi	Kharant	2347	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.32	3rd order	
290	Saran	Dighwara	Yusufpur	2346	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.32	3rd order	
291	Patna	Bakhtiarpur	Ranisarai	2339	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.32	3rd order	
292	Patna	Sampatc hak	Chipra	2331	1	1	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	1.09	3rd order		
293	Patna	Masaurhi	Bhalua	2330	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0.22	3rd order		
294	Patna	Bihta	Sirirampur	2313	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0.22	3rd order		
295	Patna	Masaurhi	Ghorahuwan	2299	1	1	1	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	1.62	3rd order		
296	Patna	Dhanarua	Shafipur	2295	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	4	11.43	3rd order		
297	Patna	Naubatpur	Tegharaila Barka	2289	1	1	1	1	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	6	5.72	3rd order		
298	Patna	Bakhtiarpur	Rukunpura	2286	1	1	1	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	2.07	3rd order		
299	Patna	Dhanarua	Dhanruwa	2269	1	1	1	0	1	1	0	0	0	1	1	0	1	1	0	0	0	0	1	1	1	0	1	0	0	0	13	45.68	1st order		
300	Saran	Sonepur	Lodipur	2268	1	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0.77	3rd order		
301	Patna	Sampatc hak	Alabakhshpur	2265	1	1	1	1	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7	2.91	3rd order		
302	vaishali	Bidupur	Bhairipur	2265	1	1	1	0	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	2.10	3rd order		
303	vaishali	Hajipur	Akilabad	2264	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.32	3rd order		
304	vaishali	Hajipur	Karanpur	2264	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.32	3rd order		
305	Patna	Khusrupu	Katauna	2263	1	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0.77	3rd order		

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		r																																		
306	Patna	Dinapur-Cum-Khagaul	Dariapur	2260	1	1	1	1	1	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7	4.07	3rd order
307	Patna	Khusrupur	Netar	2254	1	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0.77	3rd order	
308	Saran	Dighwara	Bodha Chhapra	2242	1	1	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	1.09	3rd order	
309	Patna	Naubatpur	Chak Chichaul	2239	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0.64	3rd order		
310	Patna	Khusrupur	Shekhpura	2235	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0.64	3rd order		
311	Patna	Sampatkhak	Kura	2218	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0.64	3rd order		
312	Patna	Maner	Rewa	2216	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.32	3rd order		
313	Patna	Punpun	Behrawan	2205	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.32	3rd order		
314	vaishali	Hajipur	Phulhara Banu	2200	1	1	1	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	1.65	3rd order		
315	vaishali	Bidupur	Nawada Khurd	2187	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0.20	3rd order			
316	Patna	Daniawan	Top	2186	1	1	1	0	1	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7	3.10	3rd order		
317	Patna	Masaurhi	Lahsuna	2183	1	1	1	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	1.13	3rd order		
318	Patna	Naubatpur	Adla	2178	1	1	1	1	1	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7	2.97	3rd order			
319	Patna	Phulwari	Korji	2178	1	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0.68	3rd order			
320	Patna	Naubatpur	Paltu Chhitni	2170	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0.64	3rd order			
321	Saran	Dighwara	Jaitipur	2165	1	1	1	0	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	5	3.71	3rd order			
322	Patna	Patna Rural (a) Patna Rural (b)	Gyan Chak	2163	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.32	3rd order			
323	Patna	Fatuha	Daulatpur	2161	1	1	1	0	1	1	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	7	4.84	3rd order			
324	vaishali	Bidupur	Bishunpur KishunDas Majlishpur	2159	1	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0.68	3rd order				

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325	Patna	Sampatc hak	Gauri Chak	2137	1	1	1	1	0	0	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7	6.29	3rd order
326	Patna	Dhanarua	Atarpura	2127	1	1	1	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	2.86	3rd order
327	Patna	Fatuha	Kolhar	2112	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.32	3rd order
328	Patna	Sampatc hak	Taranpur	2111	1	1	1	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	1.85	3rd order
329	Patna	Fatuha	Maujipur	2090	1	1	1	1	0	0	0	0	1	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	0	8	21.32	2nd order	
330	Patna	Bihta	Bela	2083	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	1.00	3rd order	
331	Saran	Sonepur	Mahmud Chak	2079	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0.20	3rd order	
332	Patna	Phulwari	Palanga	2073	1	1	1	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	2.12	3rd order
333	Patna	Masaurhi	Koriawan	2072	1	1	1	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	1.97	3rd order
334	Patna	Bakhtiarpur	Chak Daulat	2070	1	1	1	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	5	6.89	3rd order	
335	Patna	Maner	Singhara	2070	1	1	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	1.29	3rd order	
336	Patna	Masaurhi	Karai	2065	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	1.00	3rd order	
337	Saran	Sonepur	Mohammad pur	2059	1	1	1	0	1	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	2.77	3rd order	
338	Patna	Punpun	Chamuchak Majhali	2058	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0.22	3rd order	
339	Patna	Sampatc hak	Karanpura	2055	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0.64	3rd order	
340	Saran	Dighwara	Dudhia	2046	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.32	3rd order	
341	Patna	Punpun	Basuhar	2038	1	1	1	1	1	1	0	1	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	10	10.44	3rd order	
342	Patna	Bakhtiarpur	Karauta	2033	1	1	1	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	5	6.06	3rd order	
343	Patna	Masaurhi	Jagpura	2028	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.32	3rd order	
344	Saran	Dighwara	Nizama Chak	2028	1	1	1	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	1.65	3rd order	
345	Patna	Naubatpur	Badipur	2026	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	1.00	3rd order	
346	Patna	Punpun	Nuruddinpur	2019	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.32	3rd order	
347	Patna	Bihta	Rambad	2015	1	1	1	0	1	1	1	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	5.32	3rd order	
348	Patna	Dinapur-Cum-Khagaul	Lakhni Bigha	1996	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.32	3rd order	
349	vaishali	Raghopur	JafrabadTok-araziBeshiNa	1991	1	0	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0.99	3rd order	

Sr.No	District	C.D. Block	Village	Population	Hand pump	Well	Primary School	Tube well	Middle School	Post office	Primary Health Subcentre	Agricultural Credit Societies	Secondary School	Commercial Bank	Bus Facilities	Community Health Workers	Primary Health Centre	Health Centre	Tap	Railways services	College	Senior Secondary School	Homeopathic Dispensary	Ayurvedic Dispensary	Child Welfare Centre	Telegraph office	Co operative Bank	Maternity Home	Homeopathic Hospital	Nursing Home	Ayurvedic Hospital	Total number of facilities	Total Centrality Index	Hierarchy of settlements	
			oBarar																																
350	Patna	Bihta	Lachhmanpur	1980	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	1.00	3rd order
351	Patna	Fatuha	Mohiuddinpur	1969	1	1	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	2.36	3rd order
352	Patna	Punpun	Sirpalpur	1968	1	1	1	0	1	1	0	0	1	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	8	16.06	3rd order
353	Patna	Bihta	GOrhna	1965	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.32	3rd order	
354	Patna	Bihta	Bishambharpur	1961	1	1	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	1.49	3rd order
355	Patna	Fatuha	Jaitiya	1961	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0.64	3rd order	
356	Patna	Naubatpur	Raunian	1957	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0.64	3rd order	
357	Saran	Dariapur	Akbarpur II	1955	1	1	1	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	5	6.71	3rd order	
358	Patna	Fatuha	Bhargawan	1949	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.32	3rd order	
359	Patna	Phulwari	Nasirpura	1947	1	1	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	1.09	3rd order	
360	vaishali	Bidupur	Gokhulpur	1943	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0.22	3rd order	
361	Patna	Dinapur-Cum-Khagaul	Gorgawan	1941	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0.22	3rd order	
362	Patna	Phulwari	Budhgawan	1930	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0.64	3rd order	
363	Patna	Phulwari	Rahimpur	1930	1	1	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	1.09	3rd order	
364	Patna	Dhanarua	Nadpura	1917	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.32	3rd order	
365	Patna	Fatuha	Parsa	1915	1	1	1	1	1	1	0	0	1	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	10	11.54	3rd order	
366	Patna	Masaurhi	Charma	1913	1	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0.77	3rd order	
367	Patna	Dinapur-Cum-Khagaul	Harshamchak	1913	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.32	3rd order	
368	Patna	Naubatpur	Taret	1905	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	1.00	3rd order	
369	Patna	Naubatpur	Tiskhora	1904	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	8	35.54	2nd order	
370	Patna	Dhanarua	Keorha	1898	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.32	3rd order	
371	Saran	Sonepur	Chhitar Chak	1893	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0.64	3rd order	
372	Saran	Sonepur	Gheghata	1890	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0.64	3rd order	
373	Patna	Bakhtiarpur	Lachhumanpur	1888	1	1	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	2.54	3rd order	
374	Patna	Bihta	Munsepur	1880	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	1.45	3rd order	

Sr.No	District	C.D. Block	Village	Population	Hand pump	Well	Primary School	Tube well	Middle School	Post office	Primary Health Subcentre	Agricultural Credit Societies	Secondary School	Commercial Bank	Bus Facilities	Community Health Workers	Primary Health Centre	Health Centre	Tap	Railways services	College	Senior Secondary School	Homeopathic Dispensary	Ayurvedic Dispensary	Child Welfare Centre	Telegraph office	Co operative Bank	Maternity Home	Homeopathic Hospital	Nursing Home	Ayurvedic Hospital	Total number of facilities	Total Centrality Index	Hierarchy of settlements	
375	Patna	Masaurhi	Dahibhatta	1878	1	1	1	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	1.62	3rd order
376	Patna	Patna Rural (a) Patna Rural (b)	Sabalpur	1878	1	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	1.17	3rd order
377	Patna	Bihta	Ramtari	1875	1	1	1	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	3.39	3rd order
378	Patna	Masaurhi	Chhotki Masaurhi	1874	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0.22	3rd order	
379	vaishali	Hajipur	Sultanpur	1874	1	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0.77	3rd order	
380	vaishali	Hajipur	Nawada Kalan	1870	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.32	3rd order	
381	Patna	Masaurhi	Basaur	1868	1	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	1.17	3rd order	
382	Patna	Bihta	Banwaripur	1860	1	1	1	1	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	8	22.66	2nd order	
383	Patna	Dinapur-Cum-Khagaul	Mobarakpur	1856	0	0	1	1	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	5	18.68	3rd order	
384	Patna	Bihta	Dilawarpur	1849	1	1	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	2.36	3rd order	
385	Patna	Patna Rural (a) Patna Rural (b)	Mahuli	1842	1	1	1	1	1	0	0	1	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0	1	0	0	0	9	25.40	2nd order	
386	Patna	Dinapur-Cum-Khagaul	Khedarpura	1839	1	1	1	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	1.85	3rd order	
387	vaishali	Hajipur	Rampur Nausahan	1838	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0.22	3rd order	
388	Patna	Bihta	Mustafapur	1836	1	1	1	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	1.80	3rd order	
389	Patna	Masaurhi	Bhakhra	1834	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.32	3rd order	
390	Saran	Sonepur	Chhapra	1834	1	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	1.59	3rd order	
391	Patna	Daniawan	Masudpur	1831	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.32	3rd order	
392	vaishali	Raghopur	Jagdishpur Idrakarai Barari	1828	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0.22	3rd order	
393	Patna	Patna Rural (a) Patna	Gauharpur	1823	1	1	1	1	1	0	1	0	0	0	0	1	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	9	14.15	3rd order	



Sr.No	District	C.D. Block	Village	Population	Hand pump	Well	Primary School	Tube well	Middle School	Post office	Primary Health Subcentre	Agricultural Credit Societies	Secondary School	Commercial Bank	Bus Facilities	Community Health Workers	Primary Health Centre	Health Centre	Tap	Railways services	College	Senior Secondary School	Homeopathic Dispensary	Ayurvedic Dispensary	Child Welfare Centre	Telegraph office	Co operative Bank	Maternity Home	Homeopathic Hospital	Nursing Home	Ayurvedic Hospital	Total number of facilities	Total Centrality Index	Hierarchy of settlements	
		Rural (b)																																	
394	Saran	Dariapur	Akbarpur I	1821	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0.20	3rd order
395	Saran	Sonepur	Rahimpur	1820	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	4	4.89	3rd order	
396	Patna	Naubatpur	Nondiha	1811	1	1	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	1.49	3rd order	
397	Patna	Naubatpur	Motipur	1806	1	1	1	1	1	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	7	5.35	3rd order	
398	Patna	Bihta	Neuri	1803	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.32	3rd order	
399	Patna	Bihta	Kutulpur	1800	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0.64	3rd order	
400	Patna	Bihta	Bilap	1791	1	1	1	1	1	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7	5.26	3rd order	
401	Patna	Khusrupur	Kohawan	1786	1	1	1	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	1.13	3rd order	
402	vaishali	Raghopur	Saifpur	1770	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.32	3rd order		
403	Patna	Maner	Chintamanipur Maula	1767	1	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0.68	3rd order		
404	Patna	Sampatkhak	Fazlabad	1765	1	1	1	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	1.85	3rd order		
405	Patna	Patna Rural (a) Patna Rural (b)	Mircha	1763	1	1	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	1.09	3rd order	
406	Patna	Naubatpur	Pali	1762	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	1.00	3rd order	
407	Saran	Dighwara	Bishunpur	1759	1	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	1.17	3rd order	
408	Saran	Sonepur	Makra	1757	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.32	3rd order		
409	vaishali	Hajipur	Jethui Nizamat	1751	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0.42	3rd order		
410	vaishali	Hajipur	Chandaleh	1737	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.32	3rd order		
411	Patna	Naubatpur	sona	1733	1	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0.68	3rd order		
412	Patna	Bihta	Purainia	1731	1	1	1	1	1	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	7	5.35	3rd order		
413	Patna	Fatuha	Janarjanpur	1726	1	1	1	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	4	3.18	3rd order		
414	Patna	Bakhtiarpur	Simri	1721	1	1	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	1.29	3rd order		
415	vaishali	Raghopur	Ashpatpur Singhia urf Latiahi	1719	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0.64	3rd order		

Sr.No	District	C.D. Block	Village	Population	Hand pump	Well	Primary School	Tube well	Middle School	Post office	Primary Health Subcentre	Agricultural Credit Societies	Secondary School	Commercial Bank	Bus Facilities	Community Health Workers	Primary Health Centre	Health Centre	Tap	Railways services	College	Senior Secondary School	Homeopathic Dispensary	Ayurvedic Dispensary	Child Welfare Centre	Telegraph office	Co operative Bank	Maternity Home	Homeopathic Hospital	Nursing Home	Ayurvedic Hospital	Total number of facilities	Total Centrality Index	Hierarchy of settlements
416	Patna	Bihta	Panrepur	1715	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.32	3rd order
417	Patna	Dhanarua	Rarha	1704	1	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0.77	3rd order
418	Patna	Dhanarua	Kashinagar	1700	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	1.45	3rd order
419	vaishali	Raghopur	Ibrahimabad	1691	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0.22	3rd order	
420	Patna	Sampatk hak	Ilahi Bag	1691	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0.64	3rd order	
421	Patna	Phulwari	Sorampur	1689	1	1	1	0	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	4.07	3rd order	
422	Patna	Dinapur-Cum-Khagaul	Maksudpur	1683	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.32	3rd order	
423	Patna	Khusrupur	Kurtha	1673	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.32	3rd order	
424	Patna	Phulwari	Fatehpur Dhibra	1670	1	1	1	1	1	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	7	4.31	3rd order	
425	Patna	Punpun	Pakri	1669	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0.20	3rd order	
426	Patna	Naubatpur	Alawalpur	1663	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.32	3rd order	
427	Patna	Khusrupur	Malpur	1663	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.32	3rd order	
428	Patna	Dinapur-Cum-Khagaul	Hadaspura	1660	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0.22	3rd order	
429	Patna	Khusrupur	Sukar Beg Chak	1658	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.32	3rd order	
430	Patna	Punpun	Lahladpur	1652	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0.64	3rd order	
431	vaishali	Bidupur	Kamalpur Singhia	1646	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.32	3rd order	
432	Patna	Bakhtiarpur	Samsara	1644	1	1	1	1	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	6	8.22	3rd order	
433	Saran	Sonepur	Raipur Hasanpur	1619	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.32	3rd order	
434	vaishali	Hajipur	Kuari Khurd	1617	1	1	1	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	1.80	3rd order	
435	Patna	Dhanarua	Chistipur	1609	1	1	1	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	2.86	3rd order	
436	Patna	Punpun	Maranchi	1607	1	1	1	1	1	1	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	8	7.25	3rd order	
437	Patna	Phulwari	Salarpur	1607	0	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.58	3rd order	
438	vaishali	Bidupur	Chandpur Chak	1590	1	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0.68	3rd order		

Sr.No	District	C.D. Block	Village	Population	Hand pump	Well	Primary School	Tube well	Middle School	Post office	Primary Health Subcentre	Agricultural Credit Societies	Secondary School	Commercial Bank	Bus Facilities	Community Health Workers	Primary Health Centre	Health Centre	Tap	Railways services	College	Senior Secondary School	Homeopathic Dispensary	Ayurvedic Dispensary	Child Welfare Centre	Telegraph office	Co operative Bank	Maternity Home	Homeopathic Hospital	Nursing Home	Ayurvedic Hospital	Total number of facilities	Total Centrality Index	Hierarchy of settlements	
			Makrand																																
439	vaishali	Raghopur	Hajpurwa	1583	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0.64	3rd order
440	Patna	Naubatpur	Amarpura	1570	1	1	1	1	1	1	0	0	1	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9	8.37	3rd order
441	Patna	Sampatkhak	Kamta Chak	1570	1	1	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	1.09	3rd order	
442	Patna	Naubatpur	Babupur	1563	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0.64	3rd order	
443	Patna	Maner	Mangarpal	1556	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	1.45	3rd order	
444	Patna	Masaurhi	Poawan	1555	1	1	1	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	1.13	3rd order	
445	Patna	Masaurhi	Sarbahapur	1550	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.10	3rd order	
446	Saran	Sonepur	Dariyapur	1547	1	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	1.17	3rd order	
447	Patna	Daniawan	Barki Kawai	1545	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.32	3rd order	
448	Patna	Sampatkhak	Shekhpura	1545	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.32	3rd order	
449	Patna	Bihta	Sirichandpur	1541	1	1	1	1	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	1.94	3rd order	
450	Patna	Fatuha	Bibipur	1538	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.32	3rd order	
451	Patna	Dhanarua	Jalalpur	1531	1	1	1	1	1	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7	3.51	3rd order	
452	Patna	Phulwari	Muradpur	1528	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0.64	3rd order	
453	Patna	Masaurhi	Nura	1528	1	1	1	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	2.83	3rd order	
454	Patna	Fatuha	Rukunpur	1528	1	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0.77	3rd order	
455	Patna	Naubatpur	Nagwan Khas	1527	1	1	1	1	1	1	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	4.88	3rd order	
456	Saran	Sonepur	Baqarpur	1523	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.32	3rd order	
457	Patna	Punpun	Sikandarpur	1514	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.32	3rd order	
458	Patna	Khusrupur	Lodipur	1513	1	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0.68	3rd order	
459	Patna	Naubatpur	Bisarpur	1505	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0.64	3rd order	
460	Patna	Dinapur-Cum-Khagaul	Shankarpur khas	1502	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0.64	3rd order	
461	Saran	Dighwara	Babhangawan	1501	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.32	3rd order	
462	Patna	Patna Rural (a)	Khaspur	1499	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.56	3rd order	

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		Patna Rural (b)																																	
463	Saran	Sonepur	Seoti	1497	1	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0.68	3rd order
464	Patna	Masaurhi	Nahwan	1494	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0.20	3rd order	
465	Patna	Dhanarua	Mirzapur	1484	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.32	3rd order	
466	Patna	Bakhtiarpur	Salimpur Milik	1483	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.10	3rd order	
467	Patna	Bihta	Khedarpura	1482	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.32	3rd order	
468	Patna	Naubatpur	Akbarpur	1481	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.32	3rd order	
469	Patna	Naubatpur	Sabar Chak	1480	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.32	3rd order	
470	Patna	Naubatpur	Deora	1479	1	1	1	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	6	13.12	3rd order	
471	Patna	Bihta	Jamnapur	1478	1	1	1	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	2.72	3rd order	
472	Saran	Sonepur	Kasturi Chak	1477	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0.64	3rd order	
473	Patna	Fatuha	Murajpur	1477	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.32	3rd order	
474	Patna	Phulwari	Ismailpur Dhibra	1475	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0.64	3rd order	
475	Patna	Naubatpur	Chechaul	1473	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	1.00	3rd order	
476	Patna	Phulwari	Korra	1473	1	1	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	1.09	3rd order	
477	vaishali	Hajipur	Adalpur	1470	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.32	3rd order	
478	Saran	Sonepur	Ismail Chak	1470	1	1	1	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	2.68	3rd order	
479	Saran	Dariapur	Hewantpur	1464	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.32	3rd order	
480	Patna	Fatuha	Abdullah Chak	1459	1	1	1	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	2.68	3rd order	
481	vaishali	Raghopur	Himatpur Diara	1459	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.32	3rd order	
482	Patna	Dhanarua	Bhargawan	1455	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	6	14.45	3rd order	
483	Patna	Masaurhi	Dhanauti	1455	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0.22	3rd order	
484	Patna	Naubatpur	Shirwar	1455	1	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0.68	3rd order	
485	Saran	Sonepur	Hasanpur	1453	1	1	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	4	3.55	3rd order	
486	Patna	Masaurhi	Garihara	1451	1	1	1	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	1.13	3rd order	
487	Patna	Masaurhi	Kararia	1449	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0.22	3rd order	
488	Saran	Dighwara	Una Chak	1446	1	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0.77	3rd order	

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489	Patna	Phulwari	Tarwan	1443	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.32	3rd order
490	Patna	Punpun	Dariapur	1428	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.32	3rd order
491	Patna	Sampatc hak	Udaini	1422	1	1	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	1.49	3rd order	
492	Patna	Patna Rural (a) Patna Rural (b)	Hiranandpur	1421	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.32	3rd order	
493	Patna	Bihta	Baghpur	1420	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0.64	3rd order	
494	Patna	Naubatp ur	Bara	1420	0	1	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	1.58	3rd order	
495	Patna	Sampatc hak	Kamarji	1419	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0.64	3rd order	
496	Patna	Dhanarua	Aurangpur	1414	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	1.00	3rd order	
497	Patna	Naubatp ur	Jamalpura	1407	1	1	1	1	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	3.22	3rd order
498	Patna	Phulwari	Parsa	1407	1	1	1	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	1.13	3rd order
499	vaishali	Raghopur	Paroha	1402	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0.64	3rd order	
500	Patna	Naubatp ur	Dhobiakalap ur	1401	1	1	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	1.09	3rd order	
501	Patna	Sampatc hak	Bhelaura	1400	1	1	1	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	1.97	3rd order	
502	Patna	Khusrupu r	Erai Benipur	1399	1	1	1	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	1.74	3rd order	
503	Saran	Sonepur	Faqrabad	1399	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.32	3rd order	
504	Patna	Bihta	Doghra	1394	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0.64	3rd order	
505	Patna	Phulwari	Anda	1392	1	1	0	1	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	1.94	3rd order	
506	Patna	Athmalgo la	Fatehpur	1392	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.32	3rd order	
507	Saran	Dighwara	Batrauli	1380	1	1	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	4	3.55	3rd order	
508	Patna	Bihta	Raghopur Jalahwa	1377	1	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0.68	3rd order	
509	Patna	Naubatp ur	Kalapur	1370	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	1.00	3rd order	
510	vaishali	Hajipur	Kutubpur Dumri	1368	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.32	3rd order	
511	Patna	Punpun	Bhabhaul	1367	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0.64	3rd order	



Sr.No	District	C.D. Block	Village	Population	Hand pump	Well	Primary School	Tube well	Middle School	Post office	Primary Health Subcentre	Agricultural Credit Societies	Secondary School	Commercial Bank	Bus Facilities	Community Health Workers	Primary Health Centre	Health Centre	Tap	Railways services	College	Senior Secondary School	Homeopathic Dispensary	Ayurvedic Dispensary	Child Welfare Centre	Telegraph office	Co operative Bank	Maternity Home	Homeopathic Hospital	Nursing Home	Ayurvedic Hospital	Total number of facilities	Total Centrality Index	Hierarchy of settlements	
512	Patna	Daniawan	Dost Muhammadpur	1362	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.32	3rd order
513	Patna	Fatuha	Naraina	1362	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.32	3rd order
514	Saran	Sonepur	Parvezabad	1361	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.32	3rd order
515	Patna	Phulwari	Chihut	1360	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0.64	3rd order
516	Patna	Naubatpur	Sarbadahi	1357	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.32	3rd order	
517	Patna	Dhanarua	Muhammadpur	1349	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.32	3rd order	
518	Patna	Naubatpur	Korawan	1347	1	1	1	1	1	1	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	4.64	3rd order
519	Patna	Phulwari	Pakri	1340	1	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0.68	3rd order
520	Patna	Dhanarua	Deokali	1333	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	1.00	3rd order	
521	Patna	Bakhtiarpur	Majhauri	1330	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0.64	3rd order	
522	Patna	Fatuha	Niyazipur	1308	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	4	7.46	3rd order	
523	Patna	Maner	Katautia	1305	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0.64	3rd order	
524	Patna	Naubatpur	Lodipur	1301	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.32	3rd order	
525	Patna	Naubatpur	Kharauna	1300	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.32	3rd order	
526	Saran	Sonepur	Hasilpur	1295	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0.64	3rd order	
527	Patna	Dhanarua	Saguni	1292	1	1	1	0	1	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	2.77	3rd order	
528	Patna	Phulwari	Simra	1290	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0.64	3rd order	
529	Patna	Naubatpur	Chara	1286	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	5	7.78	3rd order	
530	Patna	Punpun	Kalianpur Basiawan	1282	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.32	3rd order	
531	Patna	Phulwari	Koriawan	1278	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.32	3rd order	
532	Patna	Fatuha	Mansinghpur	1278	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.32	3rd order	
533	Patna	Masaurhi	Baliari	1277	1	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0.68	3rd order	
534	Patna	Phulwari	Manhgupur	1274	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	1.00	3rd order	
535	Patna	Daniawan	Aiman Bigha	1257	1	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0.68	3rd order	
536	Patna	Fatuha	Muhammadpur	1256	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	1.00	3rd order	

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537	Saran	Dariapur	Ghurhu Kothia	1254	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.32	3rd order
538	Patna	Punpun	Nadpur	1252	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.32	3rd order
539	Patna	Dinapur-Cum-Khagaul	Sapahua	1251	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.32	3rd order
540	Patna	Punpun	Shekhpura	1250	1	1	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	1.44	3rd order
541	Patna	Fatuha	Ranipur	1246	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.32	3rd order	
542	Patna	Punpun	Jalalpur	1241	1	1	1	0	1	0	0	0	0	0	1	0	1	1	0	0	0	0	0	1	0	0	0	1	0	0	0	9	28.72	2nd order	
543	Patna	Phulwari	Khaprail Chak	1228	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	5	4.99	3rd order
544	Patna	Dinapur-Cum-Khagaul	Kothia	1226	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.32	3rd order
545	Patna	Fatuha	Raipur Balua	1222	1	1	1	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	1.80	3rd order
546	Patna	Punpun	Mahamda	1220	1	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0.68	3rd order
547	Saran	Sonepur	ChakDaria	1216	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.52	3rd order
548	Patna	Punpun	Saraia	1216	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.32	3rd order
549	Patna	Bakhtiarpur	Lakhipur	1214	0	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.67	3rd order
550	Patna	Fatuha	Bazidpur	1212	1	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0.77	3rd order
551	Patna	Masaurhi	Sukhathia	1211	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.32	3rd order
552	Patna	Fatuha	Khizirpur	1209	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0.20	3rd order
553	vaishali	Bidupur	Panapur Dharampur	1206	1	1	1	0	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	2.52	3rd order
554	Patna	Khusrupur	Phulwaria	1206	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.32	3rd order
555	Patna	Naubatpur	Dihra	1205	1	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0.68	3rd order
556	Patna	Dhanarua	Gauspur Dubhara	1205	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.32	3rd order
557	Saran	Dighwara	Kesarpur	1204	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.32	3rd order
558	Patna	Naubatpur	Aropur	1203	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0.64	3rd order
559	vaishali	Hajipur	Sherpur	1201	1	1	1	1	1	0	1	1	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	9	14.31	3rd order
560	Patna	Punpun	Pipra	1200	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0.64	3rd order
561	Saran	Sonepur	Saidpur	1198	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0.64	3rd order

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			Deochand																																
562	Patna	Phulwari	Hasanpura	1193	1	1	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	1.29	3rd order
563	Patna	Sampatc hak	Koli	1193	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0.64	3rd order	
564	Patna	Dhanarua	Chanaki	1190	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0.64	3rd order	
565	vaishali	Raghopur	Shakarpura	1187	1	1	1	0	1	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	2.50	3rd order	
566	Patna	Dhanarua	Shampur Dayal Deo Narayan Sing	1187	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.32	3rd order	
567	vaishali	Bidupur	Pakri	1186	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0.64	3rd order	
568	Patna	Phulwari	Faridpur	1184	1	1	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	2.36	3rd order	
569	Patna	Maner	Patila	1182	1	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0.77	3rd order	
570	Patna	Khusrupur	Tilhar	1182	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.32	3rd order	
571	Patna	Phulwari	Chilbili	1179	1	1	1	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	1.97	3rd order	
572	Patna	Dinapur-Cum-Khagaul	Dhibra	1179	1	1	1	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	5	3.87	3rd order	
573	Saran	Sonepur	Apsaid	1178	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0.64	3rd order	
574	vaishali	Hajipur	Mohabatpur	1178	1	1	1	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	4.03	3rd order	
575	Saran	Sonepur	Chhittu Pakar	1176	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.52	3rd order	
576	Patna	Fatuha	Dariapur	1175	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0.64	3rd order	
577	Patna	Punpun	Dharahra	1173	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.32	3rd order	
578	Patna	Naubatpur	Sihora	1172	1	1	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	6	10.18	3rd order	
579	vaishali	Hajipur	Bahadurpur	1170	1	1	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	1.29	3rd order	
580	Patna	Naubatpur	Painapur	1169	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.32	3rd order	
581	Patna	Dhanarua	Khardiha	1164	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0.64	3rd order	
582	Patna	Bihta	Narainpur	1161	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0.64	3rd order	
583	Patna	Punpun	Nima	1158	1	1	1	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	1.62	3rd order	
584	Saran	Sonepur	Damodarpur	1155	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0.20	3rd order	
585	Patna	Bakhtiarpur	Mirdaha Chak	1153	1	1	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	2.54	3rd order	
586	Saran	Dighwara	Ahiman Patti	1148	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.32	3rd order	
587	Patna	Bakhtiarpur	Lakhanpura	1147	1	1	1	0	1	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7	3.10	3rd order	

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		ur																																	
588	Saran	Sonepur	Salehpur Kasara	1147	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.32	3rd order
589	Patna	Bihta	Basaurha	1139	1	1	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	1.49	3rd order
590	Patna	Bihta	Bedauli	1137	1	1	1	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	1.80	3rd order
591	Patna	Phulwari	Abupur Lodipur	1136	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.32	3rd order	
592	Saran	Sonepur	Bariar Chak	1135	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.52	3rd order	
593	Patna	Punpun	Dehri	1135	1	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0.77	3rd order	
594	Patna	Masaurhi	Chanapur	1133	1	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.58	3rd order	
595	Patna	Khusrupur	Hemzapur	1133	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.32	3rd order	
596	Patna	Masaurhi	Hasanpura	1132	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0.64	3rd order	
597	Patna	Fatuha	Bikrampur	1130	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.32	3rd order	
598	Patna	Dinapur-Cum-Khagaul	Usri Khurd	1130	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.32	3rd order	
599	Patna	Bakhtiarpur	Hatia	1129	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.32	3rd order	
600	Patna	Bakhtiarpur	Rampur	1127	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0.64	3rd order	
601	Patna	Naubatpur	Rampur	1127	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0.64	3rd order	
602	Patna	Naubatpur	Gadaipur	1124	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.32	3rd order	
603	Patna	Masaurhi	Shahbazpur	1124	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.32	3rd order	
604	Patna	Dinapur-Cum-Khagaul	Mainpura	1122	1	1	1	0	0	1	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	6	6.04	3rd order	
605	Patna	Dinapur-Cum-Khagaul	Kedalpura	1120	1	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	1.17	3rd order	
606	Patna	Naubatpur	Ahuara	1118	1	1	1	0	1	0	1	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	7	7.33	3rd order	
607	Patna	Punpun	Barepur	1116	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.32	3rd order	
608	Patna	Maner	Wajidpur	1116	1	1	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	1.29	3rd order	
609	Patna	Punpun	Maksudpur	1112	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0.64	3rd order	

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610	Saran	Sonepur	Lahlad Chak	1108	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0.64	3rd order
611	Patna	Maner	Lodipur	1108	1	1	1	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	2.86	3rd order
612	Patna	Naubatpur	Raghunathpur Bhelura	1106	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0.64	3rd order	
613	Patna	Dhanarua	Sheodaha	1103	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.32	3rd order	
614	Patna	Punpun	Khapura	1097	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.32	3rd order	
615	Patna	Masaurhi	Akauna	1096	1	0	1	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	1.52	3rd order	
616	Patna	Phulwari	Rampur Bhilora	1094	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0.64	3rd order	
617	Saran	Dariapur	Mohan Kothia	1089	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0.20	3rd order	
618	Saran	Sonepur	Shaistapur	1089	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0.22	3rd order	
619	Patna	Naubatpur	Baruna	1078	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0.64	3rd order	
620	Patna	Naubatpur	Parsotimpur	1078	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.32	3rd order	
621	Saran	Sonepur	Babhanganwan	1077	1	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0.68	3rd order	
622	Patna	Fatuha	Nasirpur Balwa	1075	1	1	1	0	1	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	2.65	3rd order	
623	Patna	Fatuha	Baria Kalan	1068	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.32	3rd order	
624	Patna	Bihta	Bazidpur	1067	1	1	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	1.09	3rd order	
625	Patna	Maner	Pandepur Tilhari	1067	1	1	1	1	1	1	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	4.52	3rd order	
626	Patna	Fatuha	Khanpura	1065	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0.22	3rd order	
627	vaishali	Hajipur	Chak Mahmud Chisti	1063	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0.20	3rd order	
628	Patna	Dhanarua	Telhara	1061	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.32	3rd order	
629	Patna	Naubatpur	Panhara	1055	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0.20	3rd order	
630	Patna	Bihta	Adlipur	1054	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.32	3rd order	
631	Patna	Dhanarua	Sisauna	1054	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	1.00	3rd order	
632	Patna	Naubatpur	Mamrezpur	1052	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.32	3rd order	
633	vaishali	Hajipur	Mangurahi	1050	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0.20	3rd order	
634	Patna	Naubatpur	Bhagwanpur	1046	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.32	3rd order	

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		ur																																	
635	vaishali	Hajipur	Ismailpur	1045	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.32	3rd order
636	vaishali	Bidupur	Dilawarpur Hemti	1043	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.32	3rd order	
637	Patna	Bakhtiarpur	Goiaspur	1043	1	1	0	1	0	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	3.21	3rd order	
638	Patna	Fatuha	Nathupur	1043	1	1	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	1.61	3rd order	
639	Patna	Fatuha	Chamardih	1042	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.32	3rd order	
640	vaishali	Hajipur	Saidpur Parsuram urf Jagdispur	1042	1	1	1	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	1.65	3rd order	
641	Patna	Dhanarua	Bhagwanpur	1038	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0.64	3rd order	
642	Patna	Bakhtiarpur	Majhauri	1033	1	1	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	2.36	3rd order	
643	Patna	Daniawan	Madari Chak	1030	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.32	3rd order		
644	Saran	Dighwara	Parsotimpur	1029	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0.64	3rd order	
645	Saran	Dariapur	Manupur	1019	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.32	3rd order	
646	Patna	Daniawan	Masnapur	1014	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0.20	3rd order		
647	Patna	Naubatpur	Ghanshampur	1011	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0.64	3rd order		
648	vaishali	Raghopur	Karmupur	1011	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0.42	3rd order		
649	Saran	Sonepur	Ramsapur	1011	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.32	3rd order		
650	Saran	Sonepur	Kapur Chak	1007	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0.20	3rd order		
651	Patna	Punpun	Rampur	1002	1	1	1	1	1	0	0	1	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	8	7.44	3rd order		
652	Patna	Sampatthak	Abdullah Chak	997	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.32	3rd order		
653	vaishali	Raghopur	Juramanpur Taufir	993	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0.20	3rd order			
654	Patna	Sampatthak	Baruna	991	0	1	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	3	3.16	3rd order		
655	Patna	Dhanarua	Ashrafganj	989	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.32	3rd order		
656	Patna	Naubatpur	Tilakpura	986	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	5	9.73	3rd order		
657	Saran	Dariapur	Bhairipur	985	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.32	3rd order		
658	Patna	Naubatpur	Abgilla	974	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0.64	3rd order			



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		ur																																	
659	vaishali	Hajipur	Imadpur Sultan	974	1	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0.68	3rd order
660	vaishali	Raghopur	Birpur	973	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	1.00	3rd order	
661	vaishali	Raghopur	Jafrabad Dih	973	1	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0.77	3rd order	
662	Patna	Phulwari	Khardiha	968	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.32	3rd order	
663	Patna	Masaurhi	Gorhna	967	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.32	3rd order	
664	vaishali	Raghopur	Sorabpur urf Saraepur	967	1	1	1	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	3.39	3rd order	
665	Patna	Phulwari	Madhopur	960	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0.64	3rd order	
666	Patna	Naubatpur	Bela	958	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.32	3rd order	
667	Patna	Bihta	Patsa	958	1	1	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	1.49	3rd order	
668	Patna	Fatuha	Ainio	952	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.32	3rd order	
669	Saran	Dariapur	Mathchelwa	952	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.32	3rd order	
670	Saran	Dighwara	Baqarpur	951	1	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	1.17	3rd order	
671	Saran	Sonepur	Garibpatti	951	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0.20	3rd order	
672	vaishali	Raghopur	Haibatpur Karari	949	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0.64	3rd order	
673	vaishali	Hajipur	Chaknur	948	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0.20	3rd order	
674	Patna	Bakhtiarpur	Mirdaha Chak	947	1	1	1	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	1.65	3rd order	
675	Patna	Masaurhi	Chithaul	946	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.32	3rd order	
676	Patna	Maner	Gaiaspur	945	1	1	1	1	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	1.94	3rd order	
677	Patna	Sampatkahak	Mokimpur	944	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0.64	3rd order	
678	Patna	Daniawan	Danara	940	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.32	3rd order	
679	Patna	Fatuha	Bendauli	939	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0.22	3rd order	
680	Patna	Punpun	Chande Dih	939	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.10	3rd order	
681	vaishali	Hajipur	Bakarpur	933	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.32	3rd order	
682	vaishali	Hajipur	Shiurampur	931	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.32	3rd order	
683	Patna	Phulwari	Ganja Chak Muhammadpur	930	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.32	3rd order	
684	Patna	Punpun	Nuri Chak	929	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.32	3rd order	
685	Patna	Daniawa	Ghoranpura	926	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.32	3rd order	

Sr.No	District	C.D. Block	Village	Population	Hand pump	Well	Primary School	Tube well	Middle School	Post office	Primary Health Subcentre	Agricultural Credit Societies	Secondary School	Commercial Bank	Bus Facilities	Community Health Workers	Primary Health Centre	Health Centre	Tap	Railways services	College	Senior Secondary School	Homeopathic Dispensary	Ayurvedic Dispensary	Child Welfare Centre	Telegraph office	Co operative Bank	Maternity Home	Homeopathic Hospital	Nursing Home	Ayurvedic Hospital	Total number of facilities	Total Centrality Index	Hierarchy of settlements	
		n																																	
686	Patna	Naubatpur	Nizampur	924	1	1	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	1.49	3rd order
687	Patna	Bakhtiarpur	Chak Chhitu	921	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.52	3rd order	
688	Saran	Dariapur	Sumerpatti	921	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.32	3rd order	
689	Patna	Punpun	Barah	917	1	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0.77	3rd order	
690	Patna	Naubatpur	Kopa Khurd	917	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0.64	3rd order	
691	vaishali	Hajipur	Bazidpur Malahi	916	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0.20	3rd order	
692	vaishali	Bidupur	Ismail Chak	916	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	4	6.99	3rd order	
693	Patna	Maner	Semara	916	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.32	3rd order	
694	Patna	Naubatpur	Tarari	908	1	1	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	4	3.26	3rd order	
695	Patna	Fatuha	Abdalpur	907	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.32	3rd order	
696	Patna	Phulwari	Naharpura	906	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0.64	3rd order	
697	Patna	Masaurhi	Niyamatpur	905	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.32	3rd order	
698	Patna	Fatuha	Sirpatpur	905	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0.22	3rd order	
699	Patna	Naubatpur	Bichhedi	904	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0.64	3rd order	
700	Patna	Fatuha	Gangapur	899	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.32	3rd order	
701	Patna	Daniawan	Munrera	898	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.32	3rd order	
702	Patna	Punpun	Palaki	898	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.32	3rd order	
703	Patna	Punpun	Ghordaur	894	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.32	3rd order	
704	Patna	Khusrupur	Chotka Nawada	889	1	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	5	14.97	3rd order	
705	vaishali	Bidupur	Harbanspur	888	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0.22	3rd order	
706	Patna	Sampatkhak	Naya Chak	888	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0.64	3rd order	
707	Patna	Fatuha	Pachrukha	888	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.32	3rd order	
708	Patna	Maner	Khaspur	885	1	1	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	1.49	3rd order	
709	Patna	Khusrupur	Hasanpura	874	1	1	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	1.49	3rd order	
710	Patna	Naubatpur	Bedauli	873	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.32	3rd order	

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711	Patna	Daniawan	Faridpur	873	1	1	1	1	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7	2.84	3rd order
712	Patna	Punpun	Purainian	865	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.32	3rd order
713	Patna	Dinapur-Cum-Khagaul	Kafarpur	855	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.32	3rd order
714	Patna	Fatuha	Kharphar	853	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0.20	3rd order	
715	Patna	Fatuha	Satparsi	851	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.32	3rd order	
716	vaishali	Bidupur	Imadpur Kapur Urf Mohim Chak	847	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0.20	3rd order	
717	Patna	Punpun	Ganj	846	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0.64	3rd order	
718	Patna	Masaurhi	Thalpura	846	1	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0.68	3rd order	
719	vaishali	Hajipur	Purwa	843	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0.20	3rd order	
720	Patna	Fatuha	Sultanpur	842	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0.20	3rd order	
721	Patna	Punpun	Mustafapur	841	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.32	3rd order	
722	Patna	Punpun	Dekuli	839	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.32	3rd order	
723	Patna	Dhanarua	Kewali	839	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.32	3rd order	
724	Patna	Bihta	Sikandarpur	837	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0.64	3rd order	
725	Patna	Naubatpur	Jittu Chak	825	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.32	3rd order	
726	Patna	Khusrupur	Kasimpur	825	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.32	3rd order	
727	Saran	Sonepur	Murgia Chak	824	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0.22	3rd order	
728	Patna	Bihta	Hiramanpur	823	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.32	3rd order	
729	Saran	Sonepur	Rajapur	823	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0.64	3rd order	
730	Patna	Punpun	Abdalpur Pipra	821	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0.64	3rd order	
731	Patna	Fatuha	Turk Diha	820	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.32	3rd order	
732	Patna	Dinapur-Cum-Khagaul	Mustafapur	818	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.32	3rd order	
733	Patna	Khusrupur	Marwa	817	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.32	3rd order	
734	Patna	Punpun	Newa	816	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.32	3rd order	
735	vaishali	Hajipur	Kila Larui	811	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.32	3rd order	
736	Patna	Phulwari	Nihura	810	1	1	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	1.29	3rd order	

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737	Patna	Fatuha	Parsarampur	806	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.32	3rd order
738	Patna	Fatuha	Buzurg	803	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.32	3rd order
739	vaishali	Bidupur	Saidpur Hulas	802	1	0	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0.99	3rd order	
740	vaishali	Raghopur	Mohanpur	788	1	1	1	1	1	1	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	9	31.61	2nd order
741	Patna	Fatuha	Narwan	782	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.32	3rd order
742	Patna	Khusrupur	Mustafapur	778	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.32	3rd order
743	Patna	Fatuha	Bhikhua	759	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.32	3rd order
744	Saran	Dighwara	Pakaulia	759	1	1	1	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	1.13	3rd order	
745	vaishali	Hajipur	Phul Chak	758	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0.20	3rd order	
746	Patna	Dinapur-Cum-Khagaul	Adampur	756	1	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0.68	3rd order	
747	vaishali	Raghopur	Parsotimpur	754	1	1	1	1	0	0	0	0	1	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	7	10.47	3rd order	
748	vaishali	Bidupur	Dilawarpur Hemti	753	1	1	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	4	3.55	3rd order	
749	Patna	Dhanarua	Mustafapur	753	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.32	3rd order	
750	Patna	Punpun	Sahora	751	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.32	3rd order	
751	Patna	Naubatpur	Karanpura	744	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0.64	3rd order	
752	Patna	Phulwari	Nizampur	743	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0.64	3rd order	
753	Patna	Bihta	Makhdumpur	741	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	4	6.99	3rd order	
754	Patna	Daniawan	Nabi Chak	739	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.32	3rd order	
755	Patna	Masaurhi	Bilaunti	738	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.32	3rd order	
756	Patna	Naubatpur	Kardaha	735	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.32	3rd order	
757	Patna	Naubatpur	Bahuara	731	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.32	3rd order	
758	Patna	Bihta	Mustafapur	729	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0.64	3rd order	
759	Patna	Dhanarua	Jamalpur	725	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.32	3rd order	
760	vaishali	Hajipur	Panapur Gobrahi	724	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0.20	3rd order		
761	Patna	Masaurhi	Bhimpura	722	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.32	3rd order	
762	Patna	Dhanarua	Paranpura	722	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	1.45	3rd order		

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763	Patna	Masaurhi	Islampur	721	1	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0.68	3rd order
764	Patna	Bihta	Ramnagar	720	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.32	3rd order
765	Patna	Naubatpur	Dariapur	713	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.32	3rd order
766	Patna	Daniawan	Chhotki Kewai	710	0	1	1	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	6.39	3rd order
767	Patna	Phulwari	Mainpura	703	1	1	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	1.61	3rd order
768	Patna	Punpun	Kalianpur Basiawan	697	1	1	1	0	1	1	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7	4.92	3rd order
769	vaishali	Raghopur	Jamalpur Chak ShankerGanga Pra	694	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0.64	3rd order
770	Saran	Dighwara	Ramdas Chak	694	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0.20	3rd order
771	vaishali	Hajipur	Chak Sakra	693	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0.20	3rd order
772	Patna	Sampatkhak	Sitjain Chak	683	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0.64	3rd order
773	Patna	Patna Rural (a) Patna Rural (b)	Chhitman	680	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.32	3rd order
774	vaishali	Raghopur	Saidani Chak	678	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0.64	3rd order
775	Patna	Punpun	Baisa	677	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0.64	3rd order
776	vaishali	Hajipur	Chak Bigha Jani	675	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0.20	3rd order
777	Patna	Masaurhi	Jagdishpur	674	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0.20	3rd order
778	Saran	Sonepur	Rasulpur	672	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.32	3rd order
779	vaishali	Bidupur	Gobindpur	669	1	1	1	1	1	1	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	9	13.96	3rd order
780	Patna	Dinapur-Cum-Khagaul	Dalip chak	667	1	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0.77	3rd order
781	Patna	Naubatpur	Bakua	665	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.32	3rd order
782	Patna	Sampatkhak	Rupaspur	656	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.32	3rd order
783	Patna	Naubatpur	Danaganj	654	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	1.00	3rd order

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		ur																																	
784	Patna	Fatuha	Daulatpur	654	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00	3rd order
785	Patna	Punpun	Nawada	653	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.32	3rd order
786	Patna	Bihta	Kaliganj	650	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.52	3rd order
787	Patna	Bakhtiarpur	Molrajpur Diara	650	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.32	3rd order
788	Patna	Dhanarua	Anjni	640	1	1	1	0	1	0	1	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	7	11.53	3rd order
789	vaishali	Hajipur	Naurangabad	637	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.32	3rd order
790	Patna	Daniawan	Kashmiriya	636	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.32	3rd order
791	Patna	Naubatpur	Udaipura	635	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0.64	3rd order
792	Patna	Dinapur-Cum-Khagaul	Babakkarpur	633	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.32	3rd order
793	Saran	Sonepur	Barbatta	632	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.32	3rd order
794	Patna	Dhanarua	Daualatpur	632	1	1	1	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	2.86	3rd order
795	Patna	Fatuha	Said Alipur	632	1	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0.68	3rd order
796	Patna	Bihta	Tarvan	630	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.32	3rd order
797	Patna	Masaurhi	Sahebnagar	627	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.32	3rd order
798	Saran	Sonepur	Chak Daria Sultanpur	626	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.32	3rd order
799	Patna	Naubatpur	Goraila	626	1	1	1	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	3.39	3rd order
800	Patna	Masaurhi	Bhagwanpur	623	1	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0.68	3rd order
801	Patna	Bihta	Nagabihta	619	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0.64	3rd order
802	vaishali	Hajipur	Majirabad Suhai	618	1	1	1	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	2.72	3rd order
803	vaishali	Hajipur	Chak Ataullah	617	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0.20	3rd order	
804	Patna	Masaurhi	Gurpati Chak	616	1	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.58	3rd order
805	Patna	Bihta	Hiramanpur	616	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0.64	3rd order
806	Patna	Phulwari	Mahbano	615	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0.64	3rd order
807	vaishali	Hajipur	Chak Yeari	614	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.32	3rd order
808	Patna	Naubatpur	Khaira	614	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.32	3rd order



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809	Patna	Bakhtiarpur	Saidpur	609	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0.64	3rd order
810	Patna	Maner	Ahiapur Maner	608	1	1	1	1	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	1.94	3rd order
811	Patna	Maner	Bank	608	1	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	1.17	3rd order
812	Patna	Maner	Beapur	608	1	1	1	1	1	1	0	0	1	1	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	9	13.05	3rd order
813	Patna	Maner	Chhitrauli	608	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0.64	3rd order	
814	Patna	Maner	Dhakarpos	608	1	1	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	1.09	3rd order	
815	Patna	Maner	Harshankarpur Narhanna	608	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.32	3rd order	
816	Patna	Maner	Lodipur	608	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0.64	3rd order	
817	Patna	Bihta	Mithapur	608	1	1	1	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	2.86	3rd order	
818	Patna	Maner	Rasulpur Bijaigopal	608	1	1	1	0	1	1	0	0	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	6.50	3rd order	
819	Patna	Maner	Rasulpur Bijaigopal Milki	608	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00	3rd order	
820	Patna	Naubatpur	Gahra	607	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.32	3rd order	
821	Patna	Dhanarua	Raipura	602	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	1.45	3rd order	
822	Patna	Dinapur-Cum-Khagaul	Jafarpur	600	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.32	3rd order	
823	Patna	Sampatkhak	Chakpul	595	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.52	3rd order	
824	Patna	Dhanarua	Mianchak	594	1	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0.68	3rd order	
825	Patna	Fatuha	Soti Chak	585	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.32	3rd order	
826	Patna	Bakhtiarpur	Ghansurpur	580	1	1	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	1.61	3rd order	
827	Patna	Punpun	Tulsi Chak	579	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.32	3rd order	
828	Saran	Sonepur	Baijalpur Jamuni	575	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0.20	3rd order	
829	Patna	Phulwari	Mohiuddinpur	573	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.32	3rd order	
830	Patna	Naubatpur	Dariapur	570	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0.64	3rd order	
831	vaishali	Bidupur	Pakauli	561	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0.64	3rd order	

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832	Patna	Punpun	Mir Haji Chak	559	1	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0.77	3rd order
833	Patna	Masaurhi	Tarpura	558	1	1	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	1.29	3rd order
834	Patna	Dhanarua	Ziauddin Chak	556	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.32	3rd order	
835	Patna	Masaurhi	Chakia	552	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.32	3rd order	
836	Patna	Fatuha	Alawalpur	548	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.32	3rd order	
837	Patna	Bihta	Mohiuddin Chak	546	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0.64	3rd order	
838	vaishali	Hajipur	Larui Husainabad	543	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0.20	3rd order	
839	Saran	Sonepur	Pahleza	542	1	1	1	1	0	1	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	7	5.71	3rd order	
840	Patna	Masaurhi	Satauli Buzurg	540	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.32	3rd order	
841	Patna	Fatuha	Bariakhurd	539	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0.20	3rd order	
842	Patna	Naubatpur	Sharishtabad	532	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0.64	3rd order	
843	Patna	Fatuha	Najibullah Chak	529	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.32	3rd order	
844	vaishali	Hajipur	Madarpur	528	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0.20	3rd order	
845	Patna	Fatuha	Bhagwanpur	526	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.32	3rd order	
846	Patna	Dinapur-Cum-Khagaul	Jalalpur	526	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.32	3rd order	
847	Patna	Bihta	Chaura Gopalpur	523	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0.64	3rd order	
848	Saran	Dighwara	Milki	520	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0.20	3rd order	
849	Patna	Phulwari	Dhanuki	515	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.52	3rd order	
850	Patna	Phulwari	Nadiawan	515	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.32	3rd order	
851	Patna	Bihta	Maddhupur	513	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.32	3rd order	
852	Patna	Phulwari	Alipur	510	1	1	1	1	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	3.00	3rd order	
853	vaishali	Bidupur	Arazi Chak Kanchanpur	501	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.32	3rd order	
854	Saran	Sonepur	Mirzapur	501	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	5	7.78	3rd order	
855	Patna	Dinapur-Cum-Khagaul	Nasirpur	501	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.56	3rd order	

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856	vaishali	Hajipur	Chak Bhojurf Sahabuddin	498	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0.20	3rd order
857	Patna	Masaurhi	Mohiuddinpur	495	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.32	3rd order
858	vaishali	Hajipur	Chak Baladhari	494	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0.20	3rd order
859	Patna	Punpun	Khairi	491	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.32	3rd order
860	Patna	Khusrupur	Muhammadpur	491	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.32	3rd order
861	Patna	Khusrupur	Mustafapur	491	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.32	3rd order
862	Patna	Dhanarua	Larha	484	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.32	3rd order
863	Patna	Punpun	Jol Bigha	482	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0.20	3rd order
864	Patna	Naubatpur	Maharajganj	479	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0.64	3rd order
865	vaishali	Hajipur	Salhadi	468	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0.20	3rd order
866	Patna	Masaurhi	Hunrari	462	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.32	3rd order
867	vaishali	Raghopur	Parsotimpur	456	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0.22	3rd order
868	Patna	Maner	Sikandarpur	455	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0.20	3rd order
869	Patna	Bihta	Ibrahimpur	454	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.52	3rd order
870	Saran	Sonepur	Sabalpur	450	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0.64	3rd order
871	vaishali	Hajipur	Chak Aima	444	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0.20	3rd order
872	Patna	Punpun	Bela	443	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.32	3rd order
873	Patna	Naubatpur	Malahi Khandha	442	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.32	3rd order
874	vaishali	Hajipur	Jagdishpur	438	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.32	3rd order
875	Patna	Fatuha	Nanda Chak	436	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.10	3rd order
876	Patna	Bihta	Jaintipur	432	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.32	3rd order
877	Patna	Punpun	Fahim Chak	428	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0.64	3rd order
878	Patna	Masaurhi	Bairi Chak	427	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0.20	3rd order
879	Patna	Naubatpur	Barkhurdar Chak	421	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.32	3rd order
880	Patna	Punpun	Paikauli	418	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.32	3rd order
881	Patna	Fatuha	Lashkari Chak	417	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.32	3rd order
882	Patna	Maner	Madhopur	417	1	1	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	1.29	3rd order

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883	Patna	Khusrupur	Nuruddinpur	409	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.52	3rd order
884	Patna	Bihta	Til Bikrampur	409	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.52	3rd order
885	Patna	Fatuha	Kutubpur	408	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00	3rd order
886	Patna	Masaurhi	Muzaffarpur	404	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.32	3rd order
887	Patna	Naubatpur	Tilwan	399	1	1	1	1	1	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	1	0	0	0	0	0	0	8	15.89	3rd order
888	Patna	Sampatkhak	Sarangpur Tilhari	397	1	1	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	1.49	3rd order
889	Saran	Sonepur	Rasulpur	395	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0.20	3rd order
890	Patna	Punpun	Ufraul	395	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0.20	3rd order
891	Patna	Masaurhi	Kansra	389	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0.20	3rd order
892	Patna	Punpun	Mundi Chak	385	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.32	3rd order
893	Saran	Sonepur	Sighinpur	384	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.52	3rd order
894	Patna	Naubatpur	Mitan Chak	377	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.32	3rd order
895	Patna	Sampatkhak	Bhogipur	376	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0.64	3rd order
896	Patna	Fatuha	Dalanpur	374	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.32	3rd order
897	vaishali	Hajipur	Minapur Rae	374	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.56	3rd order
898	Patna	Masaurhi	Supahuli	369	1	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0.68	3rd order
899	vaishali	Bidupur	Mohanpur Ishar	367	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.32	3rd order
900	Patna	Bihta	Kamalpur	362	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0.64	3rd order
901	vaishali	Hajipur	Khalaf Bag	356	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0.20	3rd order
902	Saran	Sonepur	Mirzapur	355	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.32	3rd order
903	vaishali	Hajipur	Chak Faizullah	347	1	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	3	3.43	3rd order
904	vaishali	Hajipur	Wahidpur	347	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.52	3rd order
905	Patna	Masaurhi	Gandhu Garh	345	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.32	3rd order
906	Patna	Dhanarua	Thubha	339	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.32	3rd order
907	vaishali	Hajipur	Chak Said Kari	337	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0.20	3rd order
908	Patna	Bihta	Mahadeopur Phulari	337	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.32	3rd order
909	Patna	Fatuha	Akharia	335	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0.20	3rd order
910	Patna	Dhanarua	Khurrampur	335	1	1	1	1	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7	2.84	3rd order

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911	vaishali	Raghopur	Pirmohammadpur	330	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0.64	3rd order
912	Patna	Punpun	Khatka	318	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0.20	3rd order	
913	Patna	Dinapur-Cum-Khagaul	Shankarpatti	318	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.10	3rd order	
914	Saran	Sonepur	Baijalpur	309	1	1	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	2.04	3rd order	
915	Patna	Bihta	Mathura Pur	308	1	1	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	2.54	3rd order	
916	Patna	Masaurhi	Kazi Chak	303	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.32	3rd order	
917	Patna	Dhanarua	Sikoha	298	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0.20	3rd order	
918	Saran	Sonepur	Siktia	298	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0.20	3rd order	
919	vaishali	Hajipur	Moazampur	294	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0.20	3rd order	
920	vaishali	Hajipur	Mohanpur Ishar Chak Khusro	283	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0.20	3rd order	
921	Saran	Dariapur	Manoharpur	282	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0.20	3rd order	
922	Saran	Sonepur	Mahammada li Chak	280	1	1	1	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	1.13	3rd order	
923	Patna	Maner	Sherpur	279	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.32	3rd order	
924	Patna	Bihta	Monije Chak	278	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0.64	3rd order	
925	Patna	Fatuha	Ramji Chak	277	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0.20	3rd order	
926	Patna	Dhanarua	Manpur	271	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.32	3rd order	
927	Saran	Sonepur	Makhdumpur	270	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.32	3rd order	
928	Patna	Bakhtiarpur	Mohammadpur	261	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0.20	3rd order	
929	Patna	Dhanarua	Sair Chak	261	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0.20	3rd order	
930	Patna	Dinapur-Cum-Khagaul	Faridanpur	255	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0.20	3rd order	
931	Patna	Punpun	Barhaiya Kol	252	1	1	1	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	1.13	3rd order		
932	Patna	Dinapur-Cum-Khagaul	Bishunpur	252	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.32	3rd order	
933	vaishali	Hajipur	Chak Nayamat	247	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0.20	3rd order	
934	vaishali	Bidupur	Chak	237	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.32	3rd order	

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			Gangadhar																																
935	vaishali	Hajipur	Chak Chandaleh	230	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0.20	3rd order
936	Patna	Naubatpur	Shekhpura	229	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.56	3rd order	
937	Patna	Punpun	Muhammadpur	228	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0.20	3rd order	
938	Patna	Daniawan	Warisipur	223	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0.20	3rd order	
939	vaishali	Hajipur	Jethui Nizamat	214	1	1	1	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	7	11.98	3rd order	
940	Saran	Sonepur	Banwari Chak	213	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0.20	3rd order	
941	Patna	Masaurhi	Harbanspur	213	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0.20	3rd order	
942	vaishali	Bidupur	Arazi Kanchanpur	200	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.32	3rd order	
943	vaishali	Hajipur	Kuari Khurd	199	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0.20	3rd order	
944	vaishali	Hajipur	Rae Dih	194	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0.20	3rd order	
945	vaishali	Bidupur	Az Rakbe Chaklatif	191	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0.20	3rd order	
946	vaishali	Bidupur	Chak Mahbub	191	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	3	10.20	3rd order		
947	Patna	Dhanarua	Rasula	188	1	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0.68	3rd order	
948	vaishali	Hajipur	Jhirua Mal	186	1	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	2.24	3rd order	
949	vaishali	Raghopur	Haibatpur Barari	185	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.52	3rd order	
950	Patna	Bakhtiarpur	Salimpur Milik	183	1	1	1	0	1	1	0	1	0	1	0	0	0	0	0	1	0	0	0	0	1	1	0	0	0	0	0	10	27.84	2nd order	
951	vaishali	Hajipur	Musapur Suboch	179	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0.20	3rd order	
952	Patna	Punpun	Pipra Chak	175	1	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	1.17	3rd order	
953	Patna	Phulwari	Kharag Chak	174	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0.64	3rd order	
954	Patna	Fatuha	Jethuli	166	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.52	3rd order	
955	vaishali	Raghopur	Mirzapur Lachhu	165	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0.20	3rd order	
956	Patna	Fatuha	Satauli Khurd	154	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0.22	3rd order	
957	Patna	Fatuha	Sirampur	152	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0.22	3rd order	



Sr.No	District	C.D. Block	Village	Population	Hand pump	Well	Primary School	Tube well	Middle School	Post office	Primary Health Subcentre	Agricultural Credit Societies	Secondary School	Commercial Bank	Bus Facilities	Community Health Workers	Primary Health Centre	Health Centre	Tap	Railways services	College	Senior Secondary School	Homeopathic Dispensary	Ayurvedic Dispensary	Child Welfare Centre	Telegraph office	Co operative Bank	Maternity Home	Homeopathic Hospital	Nursing Home	Ayurvedic Hospital	Total number of facilities	Total Centrality Index	Hierarchy of settlements
958	vaishali	Hajipur	Bakarpur	150	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0.20	3rd order
959	vaishali	Bidupur	Chak Kashi	148	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.32	3rd order
960	vaishali	Bidupur	Saidpur Ganesh	142	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0.20	3rd order
961	Patna	Maner	Rambad	136	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.10	3rd order
962	vaishali	Raghopur	Saidpur Jhirua	136	1	1	0	1	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	5.42	3rd order
963	vaishali	Hajipur	Chak Hafiz Amanullah	134	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0.20	3rd order
964	Patna	Dhanarua	Gobindpur	133	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.32	3rd order
965	vaishali	Hajipur	Sharifabad	120	1	1	0	1	0	0	0	0	1	0	1	0	1	1	1	0	0	0	0	1	1	0	0	0	0	0	0	10	28.94	2nd order
966	vaishali	Hajipur	Arazi Chak Basdeo	114	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0.20	3rd order
967	vaishali	Hajipur	Minapur Rae	109	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.56	3rd order
968	Patna	Punpun	Jaunpuri	108	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0.20	3rd order
969	Patna	Punpun	Gulam Muhammad	107	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0.20	3rd order
970	Patna	Bakhtiarpur	Sherpur	103	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0.20	3rd order
971	vaishali	Hajipur	Jhirua Dih	99	1	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	2.24	3rd order
972	vaishali	Hajipur	Chak Akila	98	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0.20	3rd order
973	vaishali	Hajipur	Chandni Sadullahpur Satan	98	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.32	3rd order
974	vaishali	Hajipur	Chak Jalal	97	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0.20	3rd order
975	vaishali	Bidupur	Chak Dharampur	92	1	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	1.59	3rd order
976	vaishali	Raghopur	Saifabad	90	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.10	3rd order
977	vaishali	Bidupur	Panapur Dharampur	83	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.10	3rd order
978	vaishali	Bidupur	Chak Shama	82	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0.20	3rd order
979	Patna	Bihta		76	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.10	3rd order
980	vaishali	Raghopur	Mirampur Alakh Deori	70	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0.20	3rd order
981	vaishali	Hajipur	Saidpur Singhia	68	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0.20	3rd order
982	vaishali	Bidupur	Arazi	65	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0.22	3rd order

Sr.No	District	C.D. Block	Village	Population	Hand pump	Well	Primary School	Tube well	Middle School	Post office	Primary Health Subcentre	Agricultural Credit Societies	Secondary School	Commercial Bank	Bus Facilities	Community Health Workers	Primary Health Centre	Health Centre	Tap	Railways services	College	Senior Secondary School	Homeopathic Dispensary	Ayurvedic Dispensary	Child Welfare Centre	Telegraph office	Co operative Bank	Maternity Home	Homeopathic Hospital	Nursing Home	Ayurvedic Hospital	Total number of facilities	Total Centrality Index	Hierarchy of settlements	
			Bhairopur																																
983	vaishali	Bidupur	Panapur Dharampur	62	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0.20	3rd order
984	vaishali	Raghopur	Bishunpur Maniari	57	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0.20	3rd order	
985	vaishali	Bidupur	Zakipur Urf Dharampur Motaluke	55	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0.20	3rd order	
986	vaishali	Raghopur	Mokrapur	52	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	2	3.33	3rd order	
987	vaishali	Hajipur	Chak Sultani	51	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0.20	3rd order	
988	vaishali	Raghopur	Gorari	48	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0.20	3rd order	
990	Saran	Sonepur	Khemi Chak	41	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.10	3rd order	
991	Patna	Naubatpur	Bajan chak	37	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.32	3rd order	
992	vaishali	Hajipur	Bagh Asdullah Arazi AzRakbe	32	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0.20	3rd order	
993	vaishali	Bidupur	Panapur Dharampur	29	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0.20	3rd order	
994	vaishali	Bidupur	Arazi Dharampur	28	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0.20	3rd order	
995	vaishali	Raghopur	Gobardhanpur	28	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0.42	3rd order	
996	vaishali	Raghopur	Bahrampur	21	1	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.54	3rd order	
997	Patna	Dhanarua	Sandalpur	18	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.56	3rd order	
998	vaishali	Hajipur	Rampur Dumri	16	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0.20	3rd order	
999	vaishali	Hajipur	Imadpur Sultan	7	0	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.58	3rd order	
1000	vaishali	Raghopur	Chak Thakru	5	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0.42	3rd order	
1001	Saran	Sonepur	Abdul Hai	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00	3rd order	
Total no of settlements with service					968	955	853	316	281	222	118	103	89	72	49	45	35	34	31	23	15	14	14	11	11	10	10	9	7	6	4				
Weight					100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100			

Sr.No	District	C.D. Block	Village	Population	Hand pump	Well	Primary School	Tube well	Middle School	Post office	Primaty Health Subcentre	Agricultural Credit Societies	Secondary School	Commercial Bank	Bus Facilities	Community Health Workers	Primary Health Centre	Health Centre	Tap	Railways services	College	Senior Secondary School	Homeopathic Dispensary	Ayurvedic Dispensary	Child Welfare Centre	Telegraph office	Co operative Bank	Maternity Home	Homeopathic Hospital	Nursing Home	Ayurvedic Hospital	Total number of facilities	Total Centrality Index	Hierarchy of settlements
Centrality Index					0																													
					0.10	0.10	0.12	0.32	0.36	0.45	0.85	0.97	1.12	1.39	2.04	2.22	2.86	2.94	3.23	4.35	6.67	7.14	7.14	9.09	9.09	10.00	10.00	11.11	14.29	16.67	25.00			

## Annexure 19: Location of Commercial Strips

*(Refer para 5.4.2 of the report)*

SI No.	Proposed Road	Width of Road
1	Hathiakan Road	30.5 m
2	Danapur Digha Road	27.4m
3	Khagaul Road	30.5 m
4	Bailey Road	60 m
5	Ashiyana Digha Road	27.4m
6	Rajeev Nagar Road	27.4m
7	PNM Mall Road	18.3m
8	Alpana Market Road	18.3m
9	Gosain Tola Road	18.3m
10	Mainpura Road	30.5m
11	Boring Canal Road	27.4m / 30.5m
12	SK Nagar - Kidwai Puri	18.3m
13	NH-98 (Bypass)	60 m
14	Patna Khagaul Road	30.5m
15	Patna-Gaya Road (Budh Marg)	30.5m
16	Mithapur bus stand	60m
17	Chhoti Pahadi Road	60m

**Annexure 20: Existing Roads Proposed for widening (as per Previous Master Plan)****(Refer para 5.1.1 of the report)**

<b>Sl. No</b>	<b>Name of the Existing Road</b>	<b>Proposed Width (in M)</b>
1	Ashok RajPath from Gandhi Maidan to Engineering College Turning	27.43
2	Ashok Rajpath from Engineering College to Ganga Bridge fly over near Gaighat	27.43
3	Asok Rajpath from Ganga Bridge fly over to Malsalami	27.43
4	Bari Path (Gandhi Maidan to Mushallahpur Bhatti)	27.43
5	Sudarsan Path	27.43
6	Ajatsatru Path	18.29
7	Sher Shah Path	22.86
8	Patna Khagaul Road	27.43
9	Old Bye-Pass	27.43
10	Rajendra Path	27.43
11	Boring Road	27.43
12	Boring Canal Road	33.53
13	Patna Danapur Road	27.43
14	Mazharul Haque Path	27.43
15	Exhibition Road	27.43
16	Budha Marg with southward extension to Punpun.	27.43
17	Arya Kumar Road with southward extension to New Patna Bye-Pass and northward extension to Asok Raj Path.	27.43
18	Chiraian Tand Road with its southward extension to New Patna Bye-pass	18.29
19	Guru Gobind Singh Path	27.43`
20	Bihar Sao Lane	18.29
21	Salimpur Ahra Road	12.19
22	Chitra Gupta Nagar Road	18.00
23	Phithviraj Path as a section of proposed Pataliputra Path from-Peer Mohani Road to Das Company building.	27.43
24	Prithviraj Path from Das Company building to Devi Asthan west of Community Hall.	18.29
25	Saidpur Road-from P.R.D.A. store to Bari Path	12.19
26	Bailey Road (Pandit Nehru Path)	Refer BR-1
27	Danapur Khagaul Road	27.43
28	Bhattacharaya Road	27.43
29	Dak Bungalow Road (Kotwali to Exhibition Road)	27.43
30	Makhania Kuan Road	18.29
31	Khajanchi Road	18.29
32	Sinha Library Road ( South of Jeevan Beema Building)	12.19
33	Sinha Library Road ( North of Jeevan Beema Building)	18.29
34	Sabji Bagan Road	18.29
35	Road emerging out of Guru Govind Singh Path from South of Gurudwara	12.19
36	Nawal Kishore Road	12.19
37	Jamal Road	18.29
38	Road connecting Exhibition Road to Road passing through IMA Hall	18.29
39	Daldali Road	12.19
40	Road West of Gola Road via Saguna Gram and adjacent to Cantonment ( from Southern side) and meeting Danapur Khagaul Road	27.43

41	Pataliputra Path	27.43
42	Hunter Road	12.19
43	Govind Mitra Road	18.29
44	Road from Bhikahanapahari Chowk to Mussallahpur Bhatti	27.43
45	Phulwari Murgia Chak Road	18.29
46	Road connecting National Highway and Third Bye-Pass (South –West of Patna Canal)	27.43
47	Road Karbighaiya to New Bye pass(East side of Mithapur farm)	18.29
48	Road via Defence Colony to New Bye Pass	12.19
49	Road South of Chitkohra over bridge	27.43
50	Road East of Chitkohra District Centre	27.43
51	Link Road between Boring Road and Budha Colony Road (Near Shri Bandi Sankar Singh House)	18.29
52	Jakkanpur Road(from South Point of Yarpur Bridge to Bye-Pass	18.29

#### Annexure 21: Roads Proposed for widening along with new extensions/ alignments

*(Refer para 5.1.1 of the report)*

Sl.No	Name of the Existing Road	Proposed Width(in M)
1	Bye pass to Asok Raj Path from Ganga Bridge Flyover to Masalami along the southern bank of River Ganga	27.43
2	Road from Boring Canal Road to Danapur Khagaul Road near Saguna locality	27.43
3	Gola Road from Danapur Patna Road to Bailey Road.	27.43
4	Digha-Phulwari Cross Road (North to South)	27.43
5	North South Road from proposed road (from Boring Canal Road to Danapur Khagaul Road) to Bailey Road near Senior T.P.Singh's house.	27.43
6	Road from Bailey Road to Digha Industrial Estate along Patna-Digha Railway. line	27.43
7	Bhootnath Asram Road from New Patna Bye-pass to Asok Rajpath.	27.43
8	Deewan Muhalla Road from Asok Raj to junction of Sadar Gali and Asok Rah Path	18.29
9	East West Road from Kankarbagh Housing Colony to Approach Road to Ganga Bridge.	27.43
10	Third Bye pass from Deedar Ganj in the east to Danapur –Maner Road near Danapur village	60.96
11	Patna Masaurhi Road from New Patna Bye-pass to Third Bye-pass.	27.43
12	Bhattacharya Road to Prithiviraj Path	27.43
13	Pataliputra Path-Rajendra Nagar Community Hall to Kumhara Gumti	36.57
14	Road from Junction of Masaurhi Road and New Patna Bye-pass to proposed third Bye-pass from south of proposed Railway Line.	27.43
15	Road from junction of Masurhi Road to New Patna Bye-pass from north of proposed Railway Line.	27.43
16	Road from South of New Patna Bye-pass to north of proposed Railway line	27.43
17	South –North Road via Ramdhari Road meeting at Damrahi Ghat at proposed Ashok Raj Path which is along Ganga River Bank)	12.19
18	EAST –West Road namely Ghurdaur Road (North of S.K.Puri and South of Pataliputra)	18.29



19	Road via Sadargali and meeting with New Bye-Pass	
	i) South of Railway line	22.86
	ii) North of Railway line	18.29
	iii) Clover leaf crossing (as indicated in Previous Master Plan)	18.29
20	Southward Extension of Gosaitola Road	18.29
21	Southward Extension of Bibiganj Road upto Bailey Road	18.29
22	Wheeler Road extended towards West	27.43
23	Road covering Bakerganj nala	12.19
24	East West Road (North of IMA Hall)	18.29
25	In South Patna (East of Patna- Gaya Road). Three roads connecting new bye pass and road parallel to proposed railway station	18.29
26	Road upon Digha Railway Line	47.23

## PATNA MASTER PLAN, 2031

### DEVELOPMENT CONTROL REGULATIONS

1. Short title, Extent and commencement – These regulations may be called the Development Control Regulations for the Patna Master Plan 2031
2. These regulations shall apply to whole of Patna Metropolitan area
3. All the other points, mentioned in the Chapter I of the Building Bye Laws – 2014 will be considered part of Chapter - I of these regulations correspondingly.
4. Chapter - I (Administration), Chapter - IV (General Requirements), Chapter - V (Additional Requirements For Safety and Services), Chapter – VI (Integrated Township), Chapter – VII (Requirement of Special Occupancy), Chapter VIII (Development And Sub-Division Of Land), Chapter IX (Compounding, Penalties And Compliance), Chapter X (E-Governance And Service Delivery), Chapter XI (Savings/Repeals And Interpretation) of the Bihar Building Bye-Laws and the tables inside these chapters, Appendix – A (बिहार में भूकम्पीय खतरों से न्यूनीकरण के लिए, भवनों के निरूपण एवं निर्माण का परिपत्र, बिहार राज्य आपदा प्रबंधन प्राधिकरण द्वारा निर्गत), Annexure - I, Annexure – II and FORM-I (Application for Land Development), FORM-II (Building Plan Application Form), FORM-III (Certificate for Execution of Work as per Structural Safety Requirements), FORM-IV (Certificate for Structural Stability), FORM-V (Form for Supervision), FORMVI (Check List), FORM-VII A (For Empanelment of Technical Person (Architect, Engineer, Structural Engineer, Town Planner, Supervisor)), FORM-VII B (For Registration of Builder), FORM-VIII A (Form of Approval of Building Permit), FORM-VIII B (Form of Approval of Land Development Permit), FORM-IX (Form of Refusal of Building Permit/ Development Permit), FORM-X (Form of Notice for Commencement of Work (To be Furnished by the Plot Owner(S) and the Builder/ Developer)), FORM-XI (Periodic Progress Report), FORM-XII (Notice of Completion), FORM-XIII (Certificate for Occupancy), FORM-XIV (Maintenance of Register), FORM-XV (Indemnity Bond for Basement), FORM-XVI (Certificate of Undertaking for Hazard Safety Requirement) will be unchanged and considered part of these regulations correspondingly and gradually.
5. The Chapter III of the Building Bye-Laws 2014, is being substituted by the Land use classification and Permissible Uses of the Patna Master plan 2031, which is given here :-

## CHAPTER III LAND-USE CLASSIFICATION AND PERMISSIBLE USES

**27. Land use zones. - (1)** In the master plan, Patna Planning Area has been classified into Residential, Commercial, Industrial, Public/ Semi-public Amenities and Utilities, Open Space, Old city/ Inner city, Urban Centres, Village Settlements, Urban Agriculture, Conservation Zone, Water Bodies, Special Reservations and Transport and Communications zone. These zones are depicted distinctly by different colors and notations on the Master plan. Details of the Land Use Zones has been dealt in para 5.4 of the Report of this Master Plan.

Development of any plot or premises shall necessarily be in conformity with the use Zone in which it is situated or the specific use / occupancy assigned to it in the master plan as per Table 4.

**(2)** For all non-confirming land use, unless otherwise provided no expansion shall be permitted. At the time of redevelopment or subsequent development plan or scheme, stipulated zoning regulations shall be followed.

or

Except any lawful use of premises existing prior to the date of enforcement of these Regulations, or otherwise provided no structure or land hereinafter shall be used and erected, re-erected or altered unless its use is in conformity with these regulations.

**28. Different use of land. - (1)** Permission for different uses shall be accorded outright for principal use earmarked in the different zones described in column (2) of table No 4.

**Table 4: Uses permitted/prohibited in different Land use zones**

Use Zone	Uses Permitted	Uses permissible if allowed by the Authority after special appeal	Uses Prohibited
1	2	3	4
<b>RESIDENTIAL ZONE- 1 (R-1), RESIDENTIAL ZONE- 2 (R-2) AND URBAN CENTRES ZONE (UC)</b>	All types of residential buildings (Residence plotted (detached, semi-detached and row), Hostels, boarding and lodging houses Night shelters, Integrated Township.	Burial grounds/ Cremation ground.	All uses not specifically permitted in column (3) and (4)
	Bakeries and confectioneries	Bus depots, railway passenger and freight station.	Bird Sanctuary
	Banks	Colleges on plots above 4000 sq.mts and abutting road of minimum 12.2 meters width.	Botanical garden

Use Zone	Uses Permitted	Uses permissible if allowed by the Authority after special appeal	Uses Prohibited
1	2	3	4
	Bus stands	Computer software units /IT Enabled Services	Conference centres, Convention/Exhibition Halls or Grounds on plots exceeding 10000 sq.mts, and abutting roads less than 24 mt wide
	Commercial offices	Consulates	Courts of law
	Community centres, clubs, auditoriums Neighborhood level social, cultural and recreational facilities with adequate parking provisions	Godowns /warehousing of non-perishables	District battalion offices, forensic science laboratory
	Convenience shopping	Hospitals and sanatoria not treating contagious diseases or mental patients provided the set back and coverage of plots is such as not to constitute nuisance to the residential areas.	Heavy, large and extensive industries, noxious, obnoxious and hazardous industries
	Customary home occupation/household units	Hotels on plots of above 2000 sq.mts and abutting road of minimum width of 12.2 meters.	Hospitals treating contagious and infectious diseases
	Dharamshalas	Market for Retail Goods	International conference centers
	Doctors' clinics and Dispensaries	Motor vehicle repairing workshops/garages	Outdoor and indoor games stadiums, shooting range
	Electrical distribution station	Municipal, state and central government offices	Obnoxious and hazardous industries
	Electronic printing press	Petrol filling stations on road of 12.2 mt width and above	Reformatory
	Exhibition and art gallery	Places of entertainment, cinema halls, restaurants and Cinema halls on plots above 2000 sq.mts and abutting road of minimum 18.3 meters width.	Sewage treatment plant/disposal work
	Fire stations	Places of worship	Sewage treatment plants and disposal sites

Use Zone	Uses Permitted	Uses permissible if allowed by the Authority after special appeal	Uses Prohibited
1	2	3	4
	Foreign missions	Poultry Farming and cattle ranch (Non-commercial) provided that a part of such building is not such that 50 ft. away from dwelling or property line.	Slaughter house
	Function halls on plots above 3000 sq.mts and abutting road of minimum 18 mt width	Radio broadcasting and television studios and sound recording and dubbing studios	Solid waste dumping yards
	Games facilities of local nature both indoor and outdoor	Restaurants/eating places	Storage godowns of perishables, hazardous and inflammable goods
	Group housing / Apartment Complexes	Retail shopping centres	Storage of LPG/gas cylinders
	Guest houses	Tourism related services	Water treatment plants, solid waste dumping grounds
	Gymnasium		Workshops for buses
	Health facilities with not more than 20 beds		
	Hostels & Boarding houses		
	Library		
	Neighbourhood recreational use including clubs and other such public recreational facilities with adequate parking facilities		
	Night shelters		
	Nursery, kinder garten		
	Other educational buildings other than professional colleges/institutions		
	Parks/tot-lots		
	Places of worship, Religious premises		
	Plant nursery and Green Houses		
	Police posts		

Use Zone	Uses Permitted	Uses permissible if allowed by the Authority after special appeal	Uses Prohibited
1	2	3	4
	Police stations Post offices Professional offices Public utilities & Services for households (salon, parlours, bakeries, sweet shops, dry cleaning, stationary, tailoring, internet kiosks etc.)House hold industry with not more than 10 employees except service and storage yards Public utilities and buildings except service and storage yards, electrical distribution depots and water pumping stations Research institutes Schools Service uses of a neighbourhood character Showroom for sale & distribution of LPG Social, welfare and cultural institution with adequate parking facilities		
<b>VILLAGE SETTLEMENTS ZONE (VS)</b>	<b>Uses Permitted within village area</b>	<b>Uses Permitted outside village area</b>	
	All types of residential buildings	Agro based industry which are non polluting	
	Clinics, dispensaries, primary health sub centers	All the uses that are permitted within villages	
	Community centers and social institutions	Cold storage unit and ware house related to agriculture activity not more than 0.20 hectare	



Use Zone	Uses Permitted	Uses permissible if allowed by the Authority after special appeal	Uses Prohibited
1	2	3	4
	Parks and playgrounds	Dwellings and ancillary building for the people engaged in the farm (rural settlement) subject to a maximum ground coverage of 20% with minimum land extent of one acre	
	Religious places		
	Retail shops, restaurants and banks, personal services establishments and repair service establishments		
	Schools		
	Stables for domestic animals subject to limit of 5 animals on each plot		
	Storage of crop, fodder, manure, agricultural implements and other similar needs		
	Traditional household industries		
<b>COMMERCIAL Zone- 1 (C-1), COMMERCIAL Zone- 2 (C-2):</b>	All uses permitted in R1, R2, Urban Centres Zones (as mentioned in Column 2)	Bus depots/terminals, railway passenger and freight station.	All activities which cause nuisance and are noxious and obnoxious in nature
	Auto part stores and show room for motor vehicles and machinery	Coal yards	Hazardous and extractive industrial units
	Banks, financial services.	Non polluting non-obnoxious light industries/ manufacturing units employing not more than 4 persons with or without power provided that goods manufactured are sold on the premises in retail and that does not create nuisance or hazard.	Hospitals/research laboratories treating contagious diseases
	Business and professional offices	Petrol Filling Station	Reformatory
	Cinema halls and multiplexes	Poultry and cattle FSImS provided that a part of such building is not such	Sewage treatment/ disposal sites

Use Zone	Uses Permitted	Uses permissible if allowed by the Authority after special appeal	Uses Prohibited
1	2	3	4
		that 50 ft. away from dwelling or property line.	
	Theaters, banquet halls, auditoriums	Timber yards	Storage of perishable and inflammable commodities
	Clinics and nursing homes	Truck depots/terminals	
	Clubs	Warehousing, storage godowns of perishable, inflammable goods, coal, wood, timber yards	slaughter houses
	Colleges	Non-polluting, non-obnoxious light industries	Confederation
	Commercial centers	Junk-yards	storage of perishable and inflammable commodities
	Commercial institutes, research and training institutes	Gas installation and gas works	
	Commercial services	Railway yards and stations, road freight stations	Quarrying of gravel, sand, clay and stone
	Computer software units /IT Enabled Services	Banks and financial services	Bird sanctuary
	Conference centers	Associated residential uses, residential, apartment, group housing	Sports training centers
	Convenience and neighborhood shopping centers, local shopping centers, weekly and formal markets, bakeries and confectionaries	Government and Semi-government offices	District battalion offices
	Corporate Houses	Water treatment plants	Forensic science laboratory and all other related activities which may cause nuisance
	Courts	Printing presses employing not more than 10 persons	
	Financial institution	Hospitals (20 bed max.) not treating contagious diseases and mental patients	All uses not specifically permitted in the column (2) and (3)
	Fire Station	Weigh bridges	
	Function halls	Colleges, polytechnics and higher technical institutes	

Use Zone	Uses Permitted	Uses permissible if allowed by the Authority after special appeal	Uses Prohibited
1	2	3	4
	Gas installation and gas works	Sports complex and stadiums. Zoological gardens, botanical gardens	Polluting Industries
	Godowns and warehousing	Transient visitor's homes	Large scale storage of hazardous and other inflammable materials except in areas, specifically earmarked for the purpose
	Guest houses	Convention centers	
	Health facilities with maximum 200 beds	Religious places	
	Hostels, boarding houses, social and welfare institutions, guest houses	Picnic Hut	
	Hotels	Service centres/garages/workshops	
	Integrated Township	Service Uses Shops	
	IT and IT enabled services		
	Junk yards		
	Marriage and community halls, night shelters		
	Meat/Fish Market		
	Multistoried parking complexes		
	Museum		
	Offices		
	Parking sites		
	Parks/open space		
	Perishable goods markets		
	Petrol Pumps		
	Places of Entertainment, recreation and museums with adequate parking facilities		
	Police stations/posts		
	Polytechnic and higher technical institutes		
	Post offices		
	Private offices, Institutional offices, Government and Semi Government offices		
	Public utilities		

Use Zone	Uses Permitted	Uses permissible if allowed by the Authority after special appeal	Uses Prohibited
1	2	3	4
	Public utility installation Repair garages Restaurants and hotels Retail shopping centers, Shopping Malls Sports and related facilities Stadium Stock exchange, Trade exchange Taxi stands, 3 wheeler/auto stands, rickshaw stands Telephone exchange Water treatment plant Weekly / informal markets Weekly market Weigh bridges Wholesale and storage buildings Wholesale trade/markets		
	<p><b>Note:</b> Development control for Commercial Hubs and Strips earmarked in the Landuse map of master plan shall be as per commercial land-use, under these regulations. Maximum depth of permissible commercial activities in Commercial Strips shall be 150 metres on both sides of the roads. The minimum width of roads should be 18 metre. The proposed main Commercial Strips and Hubs are depicted in Annexure 19 of the Master Plan report.</p>		
<b>INDUSTRIAL ZONE (I Zone)</b>	All kinds of industries which do not cause excessive injuries or obnoxious noise, vibration, smoke, gas, flames, odour, dust, effluent or other objectionable conditions and do not employ more than 100 workers. (Parking, loading and unloading requirements must be approved for all uses).	Heavy, extensive and other obnoxious, hazardous industries subject to the approval of the Bihar Pollution Control Board	All uses not specifically permitted in columns (2) and (3)
	Animal racing or riding stables	Industrial Research Institute	Hotels

Use Zone	Uses Permitted	Uses permissible if allowed by the Authority after special appeal	Uses Prohibited
1	2	3	4
	Bus depot/terminal and workshop, railway passenger and freight station.	Technical Institutions Educational	Residential dwellings other than those essential for operational and watch and ward staff
	Cold storage and ice factory	Health facilities incidental to main uses	Schools and colleges
	Computer software units /IT Enabled Services	Junkyards, sports/ stadiums/ playgrounds	Recreational spots or centers
	Dairy and Farming	Petrol Filling Station	Other non-industrial related activities
	Electric power plant	Sewage disposal works, electric power plants, service stations	Religious buildings
	Gas godowns, godowns & warehousing	Helipads	Irrigated and sewage farms
	Gas installations and gas works	Cemeteries	Major oil depot and LPG refilling plants
	Government/semi-government/private business offices	Govt.,Semi-govt., private business offices	Social buildings
	IT & ITES	Banks, financial institutions and other commercial offices	
	Loading and unloading spaces	Dairy and farming	
	Loading, unloading spaces	Gas installations and gas works	
	Obnoxious and hazardous industries except storage of perishable and inflammable goods	Workshops garages	
	Parking of vehicles		
	Parking, taxi stands, 3 wheeler/auto stands, rickshaw stands		
	Parks and playgrounds		
	Petrol filling station with garages and service stations		
	Public utilities		
	Religious buildings		

Use Zone	Uses Permitted	Uses permissible if allowed by the Authority after special appeal	Uses Prohibited
1	2	3	4
	Residential buildings for essential staff and for watch and ward		
	Residential buildings for essential staff and for watch and ward		
	Restaurants		
	Service stations & repair garages		
	SEZs notified by government of India		
	Sports/stadium/playgrounds		
	Storage and depot of non-perishable and non-inflammable commodities and incidental use		
	Warehousing, storage and depots of non-perishable and non-inflammable commodities		
	Wholesale business establishments		
	Workshops/garages		
<b>PUBLIC/SEMI PUBLIC AMENITIES ZONE</b>	Radio and television station, Radio transmitter and wireless stations	Bus and Truck terminals, helipads	Any other use other than the specific reservation
	Auditoriums	Defense quarters	Dairy and poultry farms, farmhouses
	Bank	Entertainment and recreational complexes	Heavy, extensive and other obnoxious and hazardous industries
	Burial grounds/ cemeteries/ cremation grounds	Hostels, transit accommodation	Junk yards
	Bus and railway passenger terminals	IT services	Processing and sale of FSI products and uses not specifically permitted herein
	Bus/truck terminals	Nursery and kindergarten, welfare center	Slaughter houses
	Cinema halls/Multiplexes	Open air theater, playground	Wholesale mandies



Use Zone	Uses Permitted	Uses permissible if allowed by the Authority after special appeal	Uses Prohibited
1	2	3	4
	Clubs	Parking areas, taxi stands, 3 wheeler/auto stands, rickshaw stands	Wholesale markets
	Colleges	Residential club, guest house	Workshops for servicing and repairs
	Community halls, marriage halls, dharamashala	Residential flats, residential plots for group housing and staff housing, Residential, apartment, group housing	
	Computer software units /IT Enabled Services on independent plots of more than 1000 sq.mt size		
	Conference halls		
	Cultural and religious buildings		
	Dharamshala		
	Exhibition centres		
	Fire stations/fire posts		
	Function halls		
	Government offices, central, state, local and semi-government, public undertaking offices		
	Guest house		
	Helipads		
	Hospitals, health centers, dispensaries, Clinics and laboratories		
	Hotels on plots		
	Integrated Township		
	L P Gas Godowns		
	Libraries		
	Local municipal facilities		
	Local state and central govt. offices uses for defense purpose		
	Monuments		
	Museum		
	Museums, art galleries, exhibition halls, auditoriums		
	Offices		
	Open air theatre		
	Petrol pumps		

Use Zone	Uses Permitted	Uses permissible if allowed by the Authority after special appeal	Uses Prohibited
1	2	3	4
	Police stations, police lines, jails		
	Polytechnics		
	Post offices, Telegraph offices, public – utilities and buildings		
	Public utilities and buildings		
	Railway stations/yards		
	Religious buildings/centers		
	Research and development centers		
	Residential plotted or group housing for staff / employees as incidental to the main use		
	Retail shopping centres		
	Schools		
	Service stations		
	Sewage disposal works		
	Social and cultural institutions		
	Social and welfare centers		
	Telecommunication centre		
	Telephone exchange		
	Universities and specialized educational institutions, colleges, schools, research and development centers		
	Uses incidental to govt. offices and for their use		
	Warehouses/storage godowns		
	Water supply installations		
	Water supply, drainage, storm water, solid waste disposal, electricity, communication system and related installations, parking lots, public utility buildings		

Use Zone	Uses Permitted	Uses permissible if allowed by the Authority after special appeal	Uses Prohibited
1	2	3	4
<b>OPEN SPACE ZONE; (Recreational, Buffer)</b>	Bird sanctuary	Incidental/ancillary residential use	All uses not specifically permitted in column (2) and (3)
	Botanical/ zoological garden, bird sanctuary	Special education areas	Animal racing or riding stables
	Botanical/zoological garden	Building and structure ancillary to use permitted in open spaces and parks such as stands for vehicles on hire, taxis and scooters	Any building or structure, which is not required for open air recreation, dwelling unit except for watch and ward, and uses not specifically permitted therein.
	Building and structures ancillary to use permitted in open spaces and parks	Camping sites	Public utilities and facilities such as police post, fire post, post and telegraph office, health center for players and staff
	Bus and railway passenger terminals	Commercial use of transit nature like cinemas, circus and other shows	
	Camping grounds	Commercial uses center	
	Children traffic parks	Community hall, library	
	Clubs	Entertainment and recreational complexes	
	Commercial use of transit nature like circus	Open air cinemas/ theatre	
	Film Studios	Open air theater, theme parks, amphitheaters	
	Green belts	Parking areas, Caravan parks	
	Holiday resorts	Public assembly halls	
	Local parks	Residential club, guest house	
	Open air cinemas/auditoria	Restaurants	
	Outdoor sports stadiums	Yoga and meditation centres	
	Picnic huts		
Playgrounds			
Public & institutional libraries			
Regional parks			

Use Zone	Uses Permitted	Uses permissible if allowed by the Authority after special appeal	Uses Prohibited
1	2	3	4
	Restaurants as part of sports, recreational outdoor facilities Shooting range, sports training center Specialised parks/maidans for multi-use Sports training centres Stadiums, picnic huts, holiday resorts Swimming pools		
	<p><b>Note:</b> No construction is permitted in the Open Space Buffer (buffer belt of minimum 9 meters from minor water course and 15 meters from major water canal except for fishing, boating, and picnics along the banks provided that only construction allowed is open to sky jetties for boating, platforms for fishing.</p>		
<b>PUBLIC UTILITY</b>	Cremation grounds and cemeteries/burial ground	Commercial use center	All uses not specifically permitted in column (2) and (3)
	Fire stations	Health center for public and staff or any other use incidental to public utilities and services	Any building or structure which is not required for uses related to public utilities and activities is not permitted therein.
	Post offices, Telegraph offices, public – utilities and buildings	Incidental/ancillary residential use	Dwelling units except for watch and ward
	Power plants/ electrical substation	Information/Payment kiosk	Heavy, extensive and other obnoxious, hazardous industries
	Radio and television station	Service industry	
	Radio transmitter and wireless stations, telecommunication centers, telephone exchange	Truck terminals, helipads	
	Service stations	Warehouse/storage godowns	
	Sewage disposal works		
	Water supply installations		

Use Zone	Uses Permitted	Uses permissible if allowed by the Authority after special appeal	Uses Prohibited
1	2	3	4
	Water Treatment Plant, Sewage Treatment Plant, Solid waste Treatment Plant solid waste dumping grounds		
<b>CONSERVATION ZONE</b>	Art academy, media centres, food courts, music pavilions	Apartment Buildings, corporate type housing adopting modern technology.	All uses not specifically permitted in column (2) and (3)
	Boating , Picnic huts, Camping sites Special Training camps	Educational, technical, research institutes of higher order	No development of any kind is permitted between the River/Canal/Stream and the embankment
	Existing residential or other uses.	Hospitals and health institutions	Plotted housing
	Existing village settlements	Residential use except those ancillary uses permitted in agricultural use zone subject to 2% ground coverage	Small industries or small institutions
	Resorts, sculpture complex, lagoons& lagoon resort, water sports.	Water Treatment Plant, Sewage Treatment Plant, Solid waste Treatment Plant solid waste dumping grounds	Use/activity not specifically related to Environmentally Sensitive Use Zone not permitted herein
	River side green areas		
	Agriculture		
	Agro based cottage industries without use of power		
	Brick tiles and pottery manufacture in temporary buildings only		
	Dwellings and ancillary buildings for the people engaged in the farm (rural settlement)		
Electric power plant			
Golf clubs and links			
Horticulture, floriculture , forestry			

Use Zone	Uses Permitted	Uses permissible if allowed by the Authority after special appeal	Uses Prohibited
1	2	3	4
	Milk chilling stations and pasteurization plants		
	Mining		
	Non polluting, agro-based and processing industries, Storage or Godowns for food grains		
	Parking areas, visitor facilities		
	Petrol and other fuel filling stations		
	Poultry and dairy farm		
	Public utilities		
	Quarrying / mining		
	River front developments		
	Scenic value areas. Theme parks, yoga parks, sports centres and community recreational areas, International convention centre		
	Sewage disposal works and public utility facilities		
	Storage and drying of fertilizer		
	Storage, processing and sale of Farm produce		
	Tourist and pilgrim related commercial activities, hotels and lodges		
	Transport and communication facilities		
Village settlement expansion			
<b>TRANSPORTATION ZONE</b>	All types of roads	Way side shops and restaurants	Use/activity not specifically related to transport and communication permitted herein.



Use Zone	Uses Permitted	Uses permissible if allowed by the Authority after special appeal	Uses Prohibited
1	2	3	4
	Railway stations and yards	Authorised/Planned Vending areas	All uses not specifically permitted in column (3) and (4)
	Airport	Incidental/ancillary residential use	
	Bus stops and Bus and Truck terminals	Emergency health care centre	
	Taxi stands, auto stands, rickshaw stands	Tourism related Activities	
	Ferry ghats	All ancillary (complimentary) uses for above categories (subject to decision of the Authority)	
	Parking areas		
	Multi level car parking		
	Filling stations		
	Transport offices, booking offices		
	Night shelter, boarding houses		
	Banks		
	Restaurants		
	Workshops and garages		
	Automobile spares and services, Godowns		
	Loading and unloading platforms (with/without cold storage facility), weigh bridges		
	Ware houses, Storage depots		
	Utility networks (drainage, sewage, power, tele-communications)		
<b>URBAN AGRICULTURE ZONE</b>	Afforestation		Agro serving, agro processing, agro business
	Agriculture and Horticulture	School Building	All uses not specifically permitted in column (2) and (3)

Use Zone	Uses Permitted	Uses permissible if allowed by the Authority after special appeal	Uses Prohibited
1	2	3	4
	All types of Residential Buildings	Building construction over plots covered under town planning scheme and conforming uses	District battalion offices, forensic science laboratory
	Bird sanctuary	Burial and cremation grounds	Heavy, large and extensive industries, noxious, obnoxious and hazardous industries
	Botanical/zoological garden	Cottage industries	Hospitals treating contagious diseases
	Building and structures ancillary to use permitted in open spaces and parks	Eco-tourism, camping sites, eco-parks, eco lodges	International conference centers
	Camping grounds	Electric sub station	Slaughter houses
	Children traffic parks	Godowns and ware houses	Warehousing, storage godowns of perishables, hazardous, inflammable goods, wholesale mandis, junk yards
	Commercial use of transit nature like circus	Hospital for infectious and contagious diseases, mental hospital after clearance from the Authority	Workshops for buses
	Dairy and poultry farming, milk chilling center	Houses incidental to this use	
	Dwelling for the people engaged in the farm (rural settlement)	Ice factory, cold storage	
	Farm houses and accessory buildings	Normal expansion of land uses only in the existing homestead land	
	Film Studios	Outdoor and indoor games stadiums, shooting range	
	Forest	Parks and other recreational uses	
	Holiday resorts	Planned Township Development	
	Local parks	Quarrying of gravel, sand, clay or stone	
	Open air cinemas/auditoria	Service industries accessory to obnoxious and hazardous industries	

Use Zone	Uses Permitted	Uses permissible if allowed by the Authority after special appeal	Uses Prohibited
1	2	3	4
	Outdoor sports stadiums	Sewage treatment plants and disposal sites	
	Picnic huts with built up area not exceeding 5%	Soil testing lab	
	Playgrounds	Solid waste management sites, Sewage disposal works	
	Public & institutional libraries	Special outdoor recreations	
	Regional parks	Water treatment plants, solid waste dumping grounds	
	Restaurants as part of sports, recreational outdoor facilities	Wayside shops and restaurants	
	Shooting range	Zoological garden, botanical garden, bird sanctuary	
	Specialised parks/maidans for multi-use		
	Sports training centres		
	Storage, processing and sale of farm produce		
	Swimming pools		
	Water bodies		

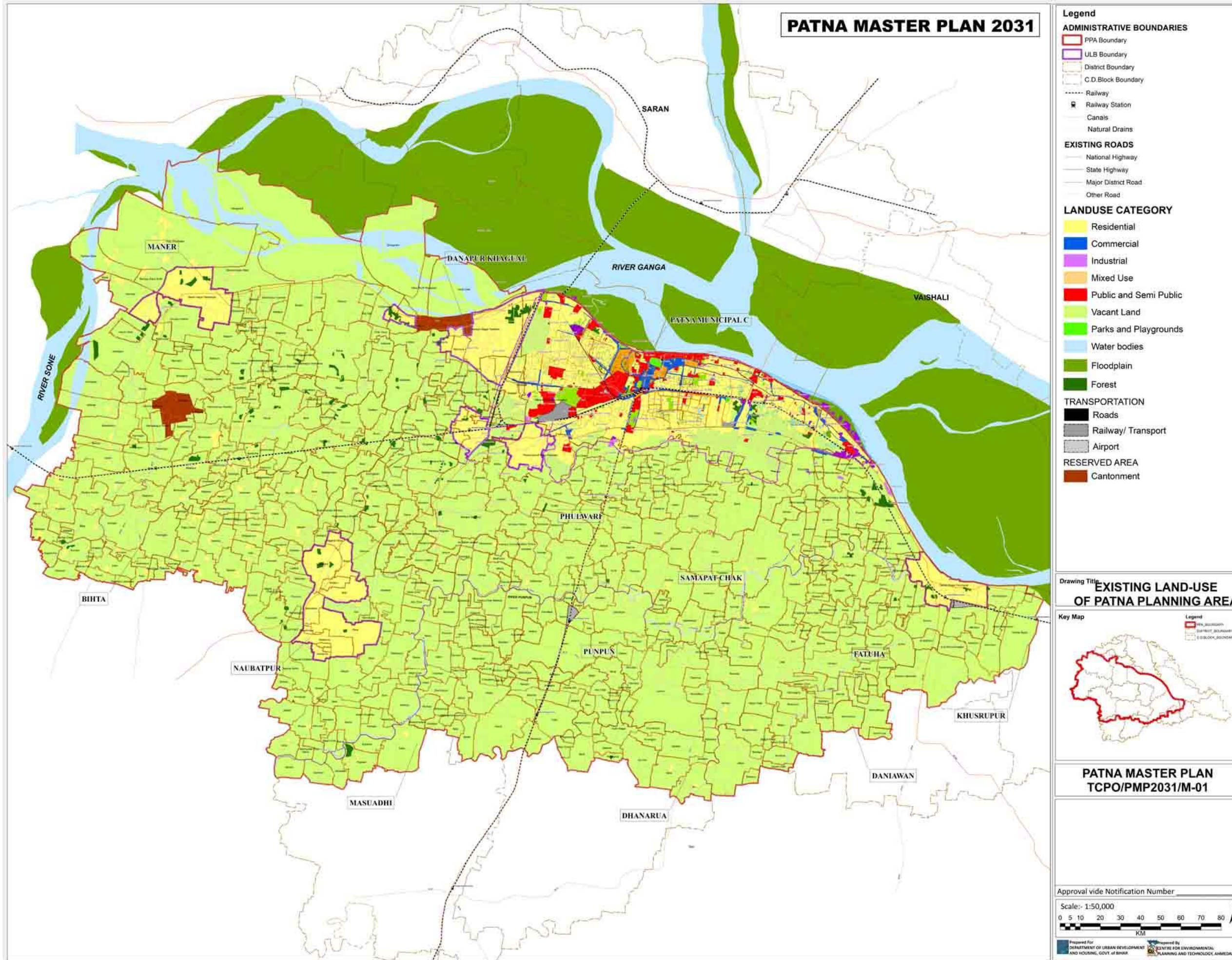
- (2) Permission for different uses described in column-3 of the Table shall be permitted on special consideration and approval of Authority and reasons for such consideration shall be recorded in writing.
- (3) The purposes specified in column (4) of the said Table shall not be permitted in the areas reserved for particular uses.
- (4) Residential buildings and others buildings may be permitted in the Urban Agriculture use zone if the following conditions are satisfied along with other conditions of these regulations:
- A. The land is not a leasehold land;
  - B. The coverage is not more than 20%;
  - C. The height is not more than 7.0 (seven) meters; and at least 60% of land is used for plantation/ agriculture;
- (5) Projects of planned township development may be allowed in Urban Agriculture Zone by the authority. Such permission shall be accorded by the Authority with the

approval of the Bihar Urban Planning and Development Board constituted under the Bihar Urban Planning and Development Act 2012.

- (6) Mixed land use may be permitted in a particular zone on approval by the Authority on plots abutting roads of widths 40 feet and above along with restriction on minimum size of plots as mentioned in para 5.10.1 of the report of Master Plan. However, the main use shall cover not less than 60% of the total floor area and the ancillary use shall not exceed 40% of the total floor area.
- (7) Appeals with respect to the above provisions shall lie with the tribunal.
- (8) In case of Government Sponsored projects, the State Government may relax the land use criteria mentioned in table 4.
- (9) Where the use of the buildings or premises is not specifically designated in the master plan it shall be in conformity with the zones in which they fall; provided that, any lawful use of premises, existing prior to the date of commencement of these regulations shall continue; provided further that, a non-conforming use shall not be extended or enlarged except otherwise provided.

- MAPS

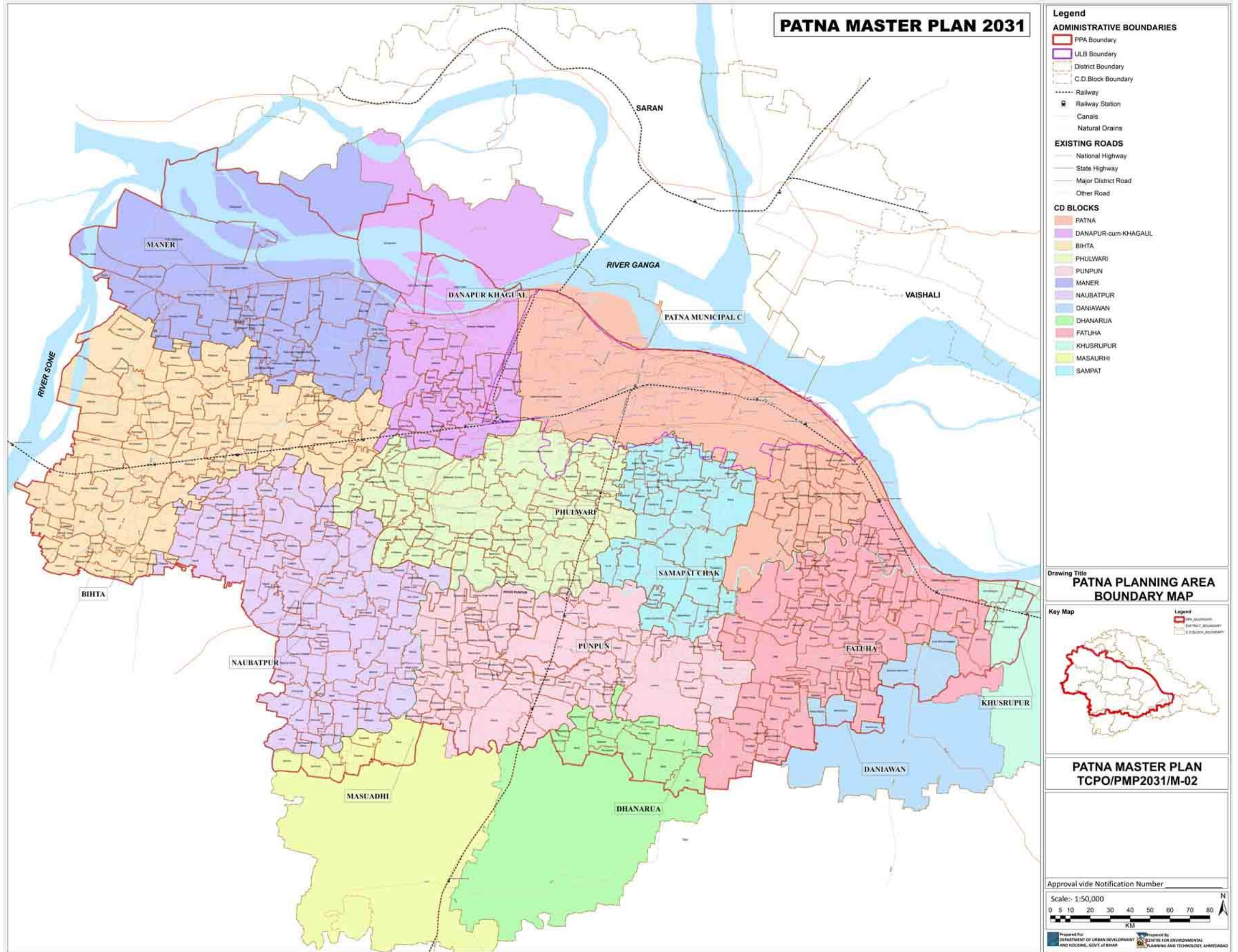




Map reference-  
TCPO/PMP2031/M-01

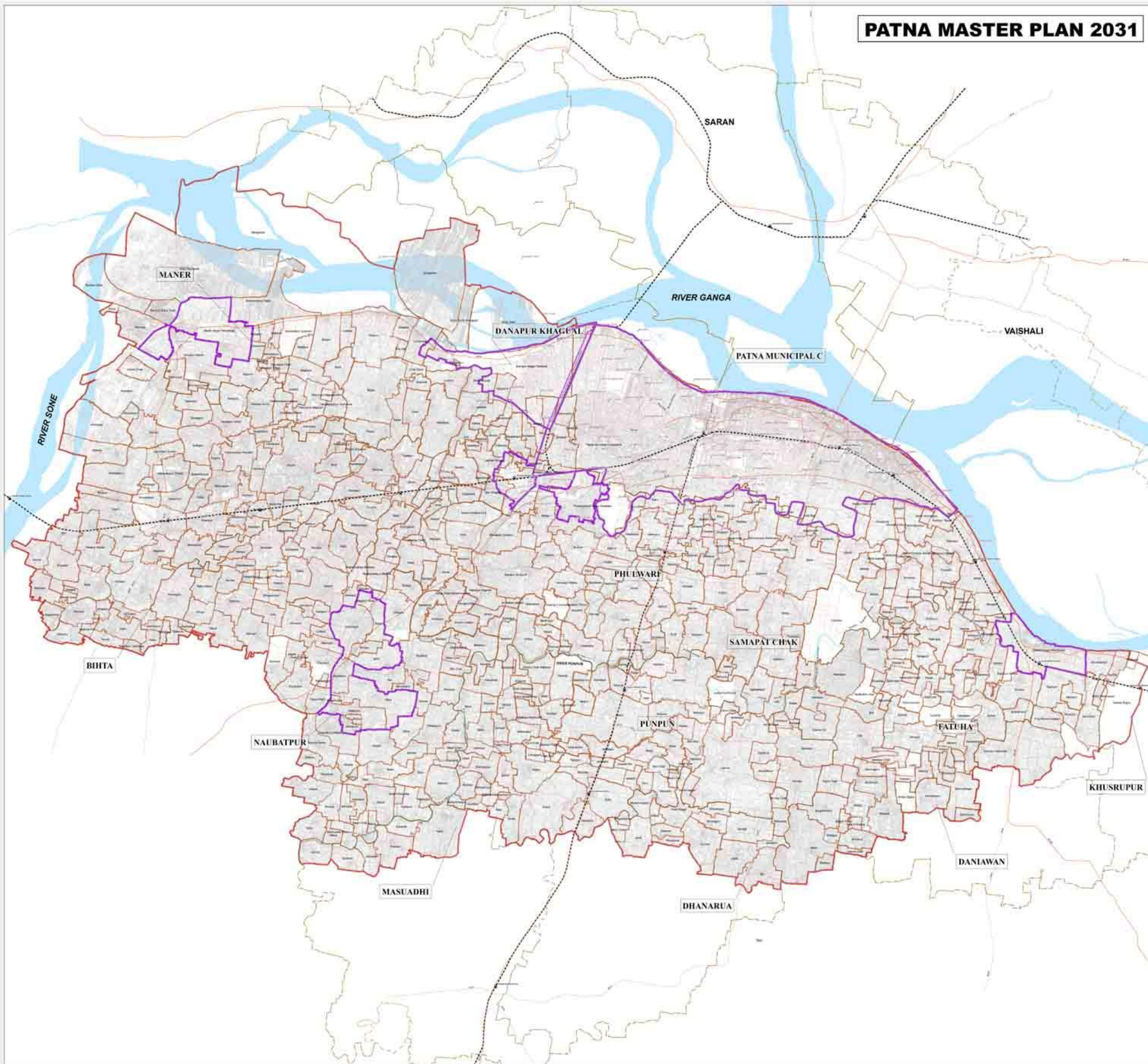


Map reference-  
TCPO/PMP2031/M-02





**PATNA MASTER PLAN 2031**



- Legend**
- ADMINISTRATIVE BOUNDARIES**
- PPA Boundary
  - ULB Boundary
  - District Boundary
  - C.D. Block Boundary
  - Village Boundary
- Railway
- Railway Station
  - Canals
  - Natural Drains
- EXISTING ROADS**
- National Highway
  - State Highway
  - Major District Road
  - Other Road
- CADASTRAL BOUNDARY

Map reference-  
TCPO/PMP2031/M-03

Drawing Title  
**CADASTRAL MAP OF PATNA PLANNING AREA**



**PATNA MASTER PLAN TCPO/PMP2031/M-03**

Approval vide Notification Number

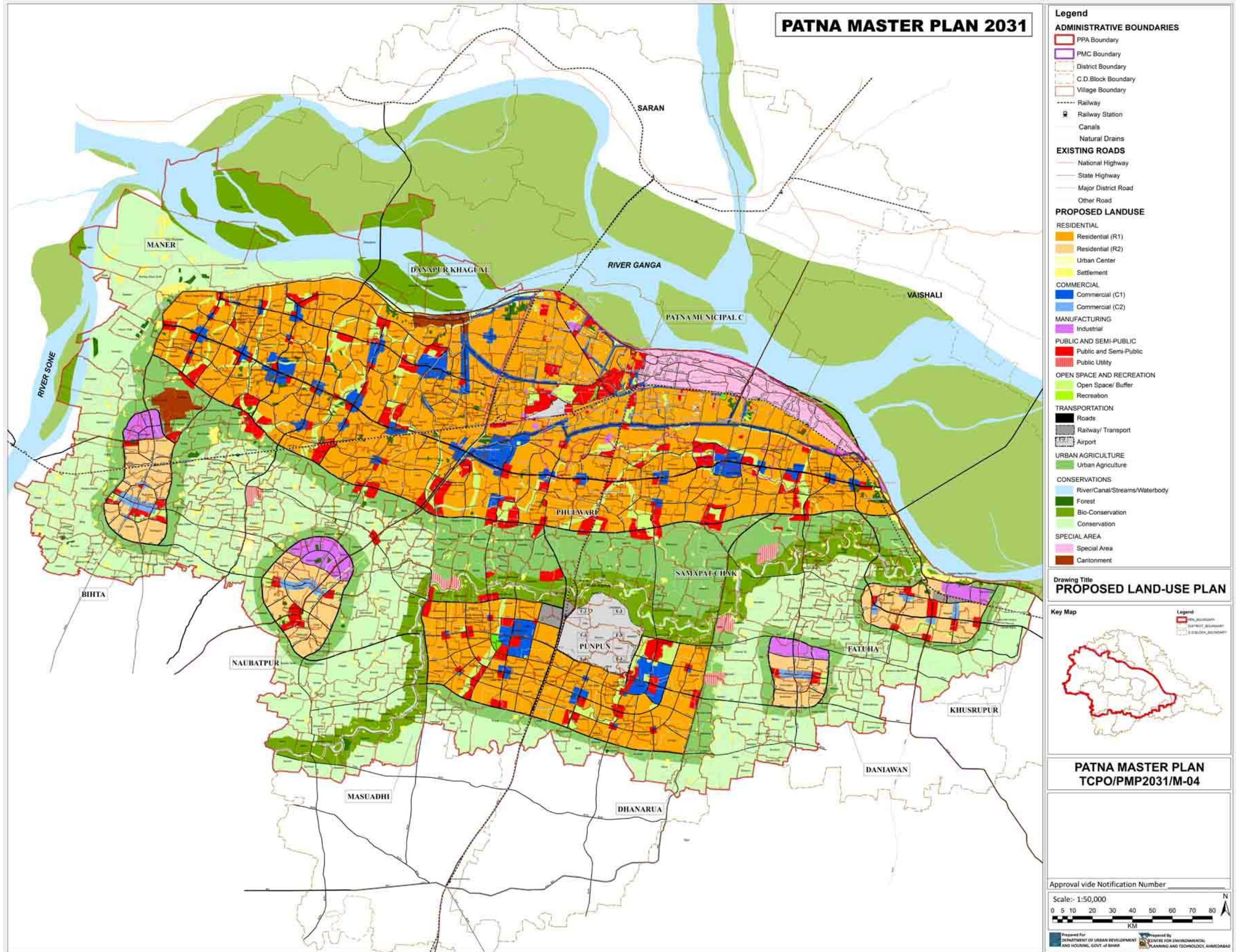
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Prepared For  
DEPARTMENT OF URBAN DEVELOPMENT AND HOUSING, GOVT. of BIHAR

Prepared By  
CENTRE FOR ENVIRONMENTAL PLANNING AND TECHNOLOGY, AHMEDABAD



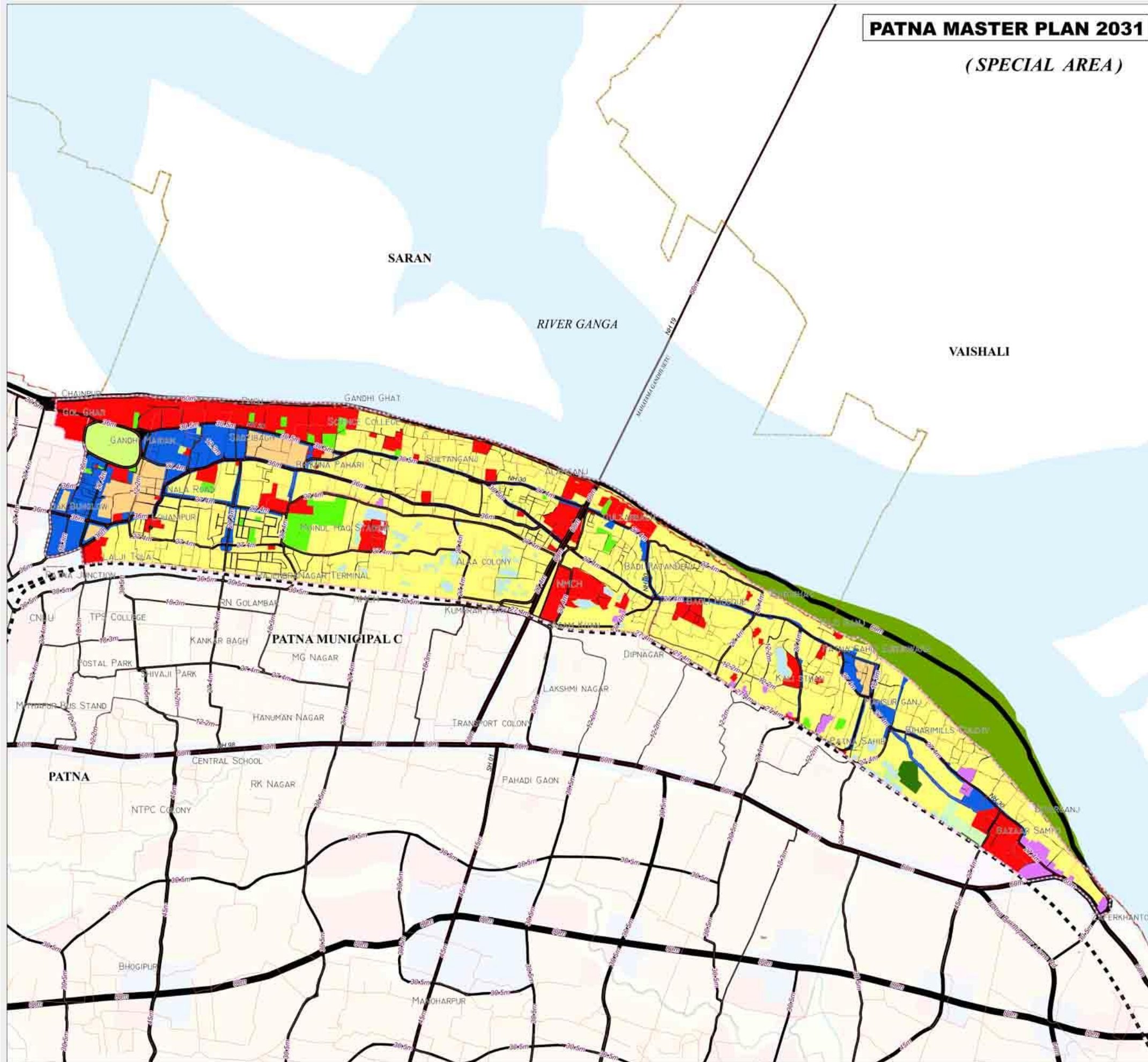
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**PATNA MASTER PLAN 2031**

*(SPECIAL AREA)*



**Legend**

**ADMINISTRATIVE BOUNDARIES**

- PPA Boundary
- ULB Boundary
- District Boundary
- C.D. Block Boundary
- Village Boundary
- Special Area Boundary

- Railway
- Railway Station
- Canals
- Natural Drains

**EXISTING ROADS**

- National Highway
- State Highway
- Major District Road
- Other Road

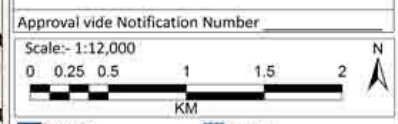
**LANDUSE CATEGORY**

- Residential
- Commercial
- Industrial
- Mixed Use
- Public and Semi Public
- Open Space/Buffer
- Parks and Playgrounds
- Conservation
- Forest
- Water bodies
- Bio-Conservation
- Roads

Drawing Title  
**SPECIAL AREA LAND-USE PLAN  
OF PATNA PLANNING AREA**



**PATNA MASTER PLAN  
TCPO/PMP2031/M-05**



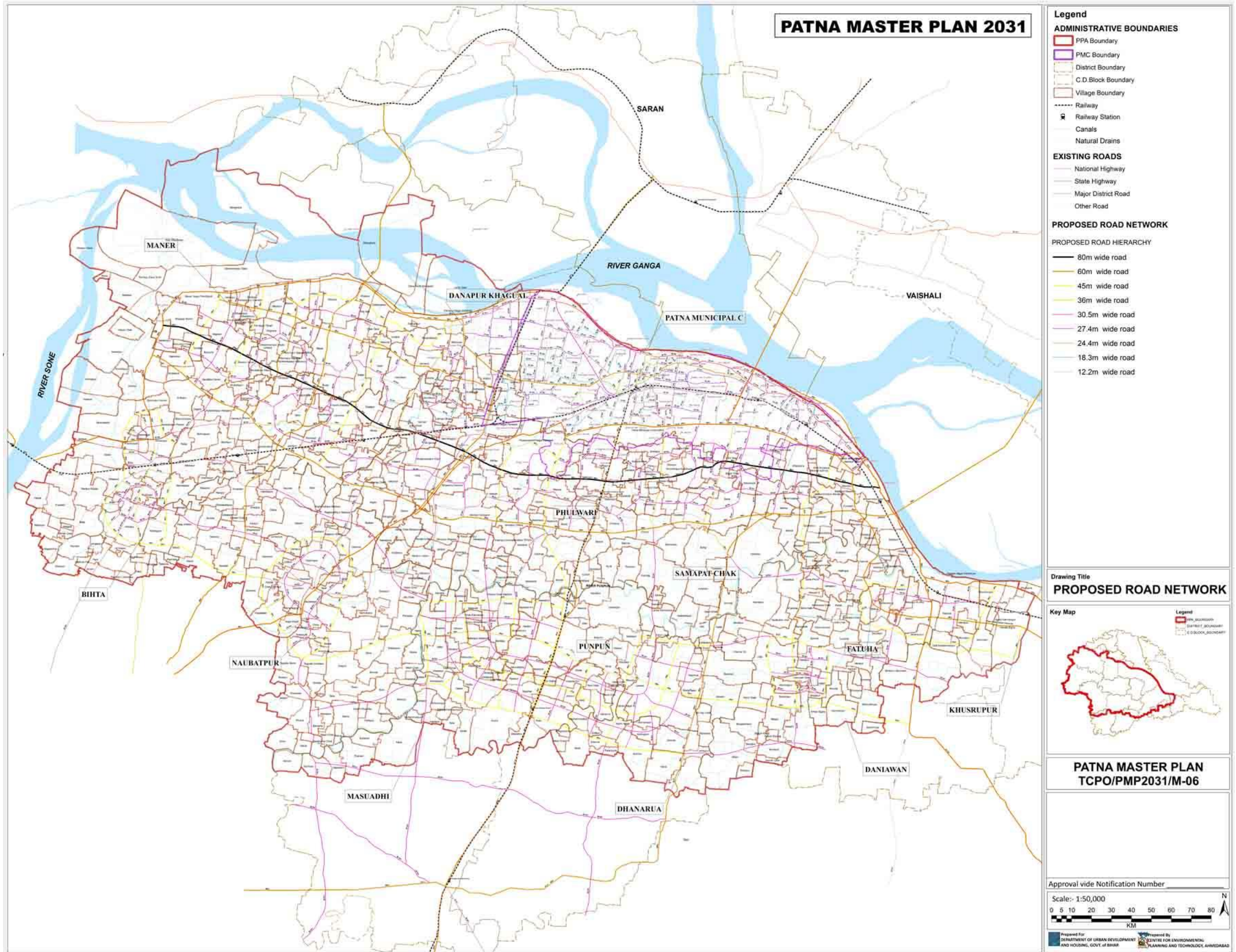
Prepared for  
DEPARTMENT OF URBAN DEVELOPMENT  
AND HOUSING, GOVT. OF BIHAR

Prepared by  
CENTRE FOR ENVIRONMENTAL  
PLANNING AND TECHNOLOGY, AHMEDABAD

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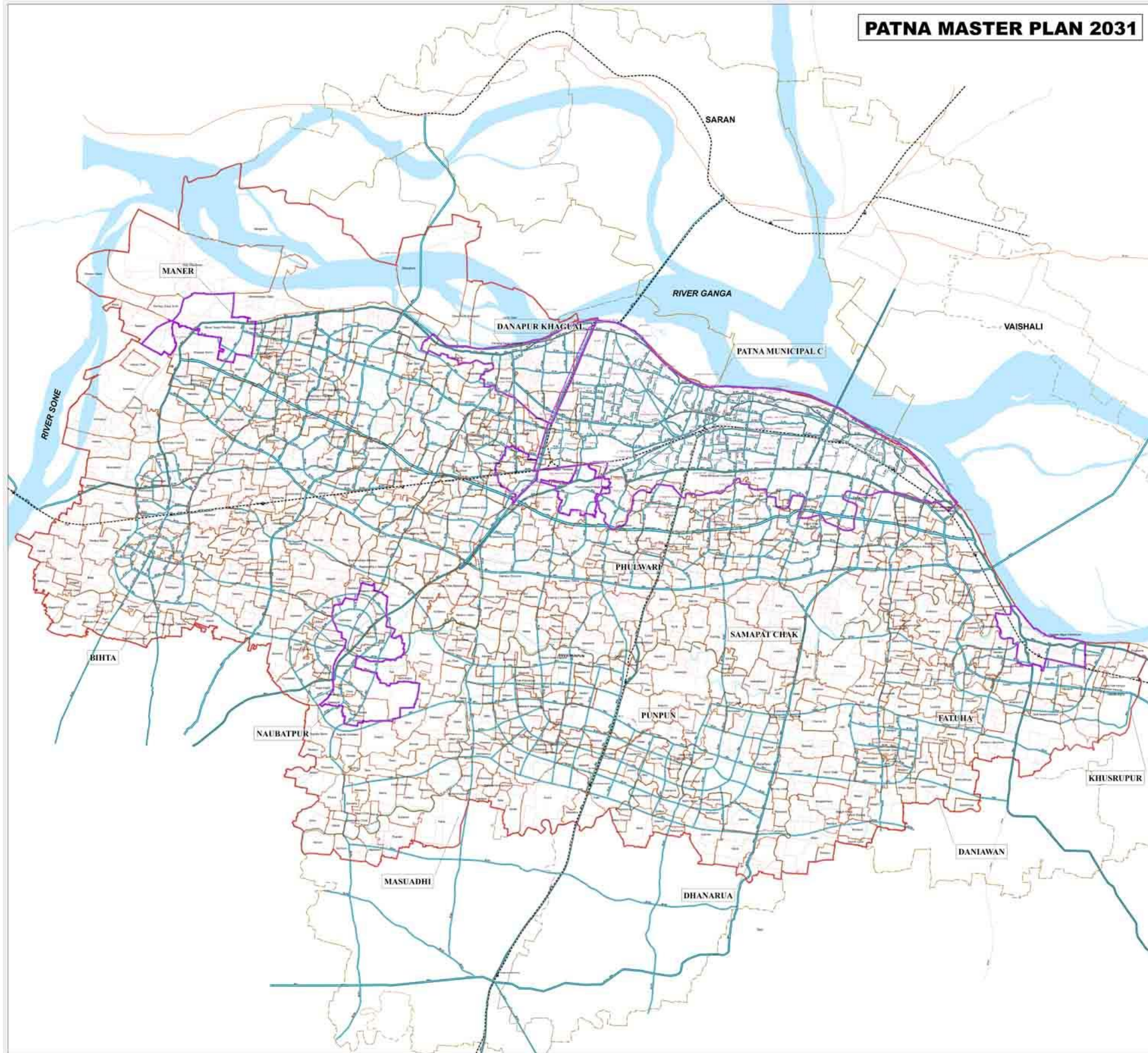


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**PATNA MASTER PLAN 2031**



**Legend**

**ADMINISTRATIVE BOUNDARIES**

- PPA Boundary
- ULB Boundary
- District Boundary
- C.D.Block Boundary
- Village Boundary

----- Railway  
 Railway Station  
 Canals  
 Natural Drains

**EXISTING ROADS**

- National Highway
- State Highway
- Major District Road
- Other Road

**PROPOSED DRAINAGE NETWORK**

**PROPOSED DRAIN HIRARCHY**

- Drain Beneath 80m wide road
- Drain Beneath 60m wide road
- Drain Beneath 45m wide road
- Drain Beneath 36m wide road
- Drain Beneath 30.5m wide road
- Drain Beneath 27.4m wide road
- Drain Beneath 24.4m wide road
- Drain Beneath 18.3m wide road
- Drain Beneath 12.2m wide road

Drawing Title **PROPOSED DRAINAGE NETWORK**



**PATNA MASTER PLAN**  
**TCPO/PMP2031/M-07**

Approval vide Notification Number

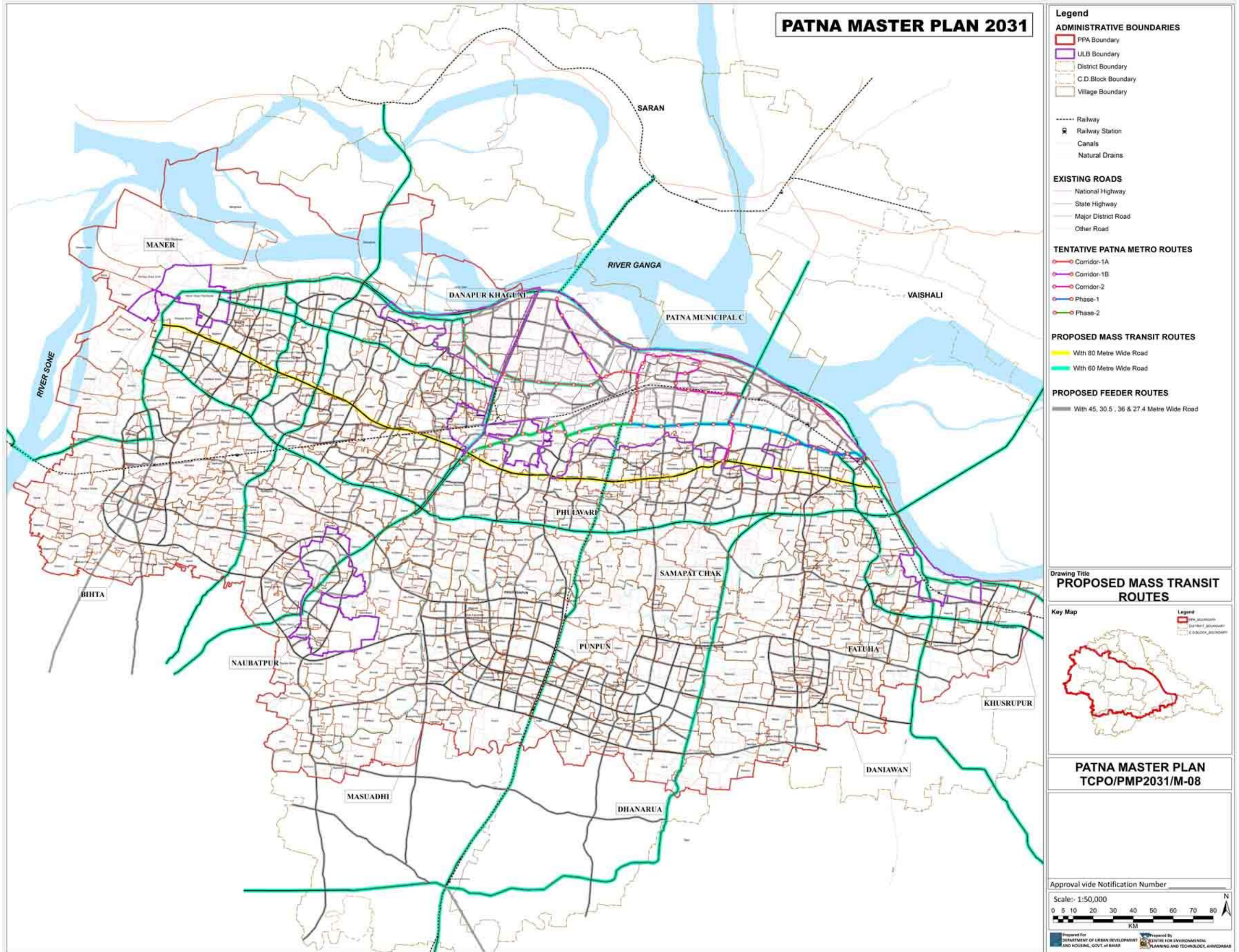
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Prepared For: DEPARTMENT OF URBAN DEVELOPMENT AND HOUSING, GOVT. OF BIHAR  
 Prepared By: CENTRE FOR ENVIRONMENTAL PLANNING AND TECHNOLOGY, AHMEDABAD

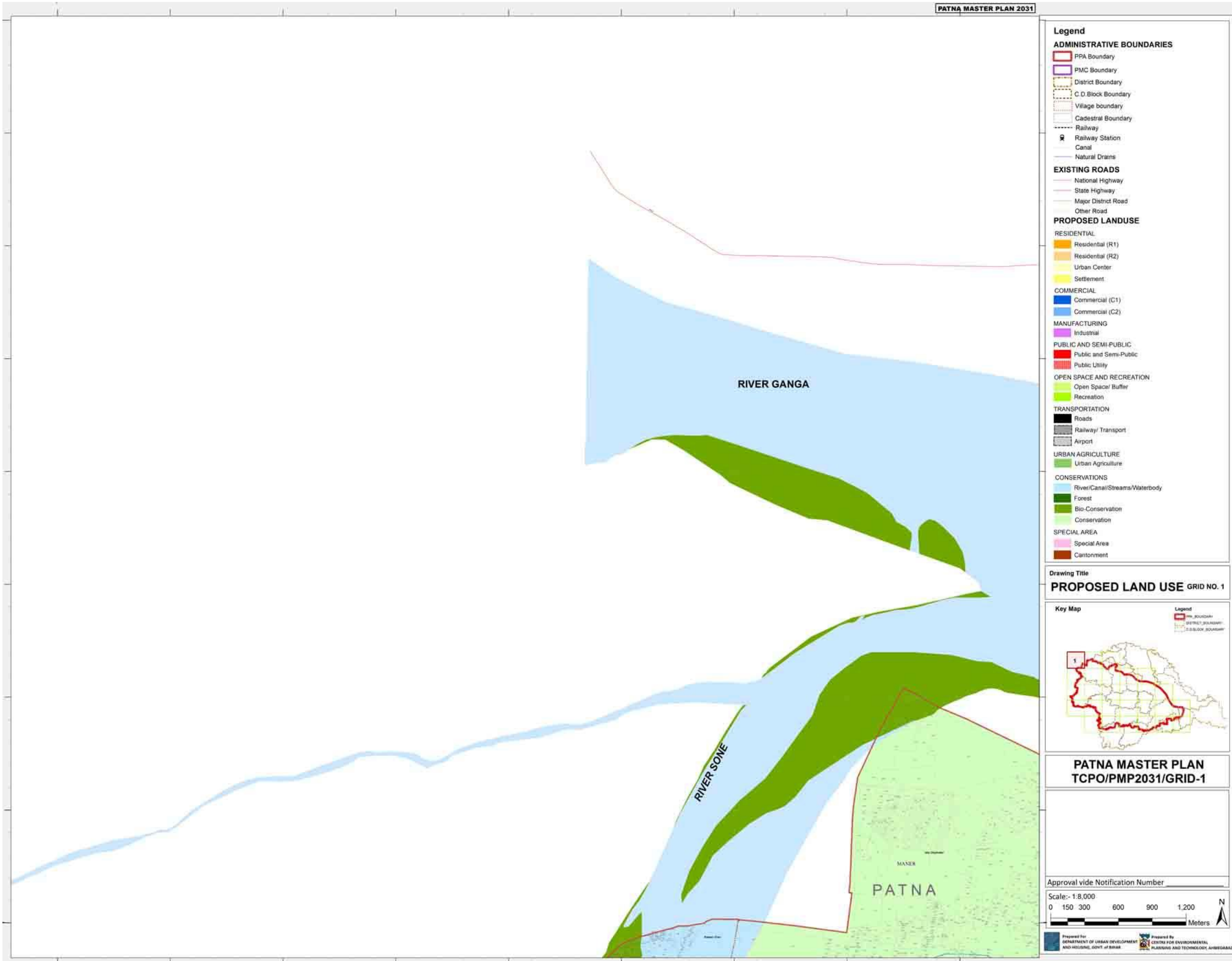
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Map reference-  
TCPO/PMP2031/M-08







**Legend**

**ADMINISTRATIVE BOUNDARIES**

- PPA Boundary
- PMC Boundary
- District Boundary
- C.D. Block Boundary
- Village boundary
- Cadastral Boundary
- Railway
- Railway Station
- Canal
- Natural Drains

**EXISTING ROADS**

- National Highway
- State Highway
- Major District Road
- Other Road

**PROPOSED LANDUSE**

**RESIDENTIAL**

- Residential (R1)
- Residential (R2)
- Urban Center
- Settlement

**COMMERCIAL**

- Commercial (C1)
- Commercial (C2)

**MANUFACTURING**

- Industrial

**PUBLIC AND SEMI-PUBLIC**

- Public and Semi-Public
- Public Utility

**OPEN SPACE AND RECREATION**

- Open Space/ Buffer
- Recreation

**TRANSPORTATION**

- Roads
- Railway/ Transport
- Airport

**URBAN AGRICULTURE**

- Urban Agriculture

**CONSERVATIONS**

- River/Canal/Streams/Waterbody
- Forest
- Bio-Conservation
- Conservation

**SPECIAL AREA**

- Special Area
- Cantonment

Drawing Title  
**PROPOSED LAND USE GRID NO. 1**



**PATNA MASTER PLAN  
TCPO/PMP2031/GRID-1**

Approval vide Notification Number \_\_\_\_\_

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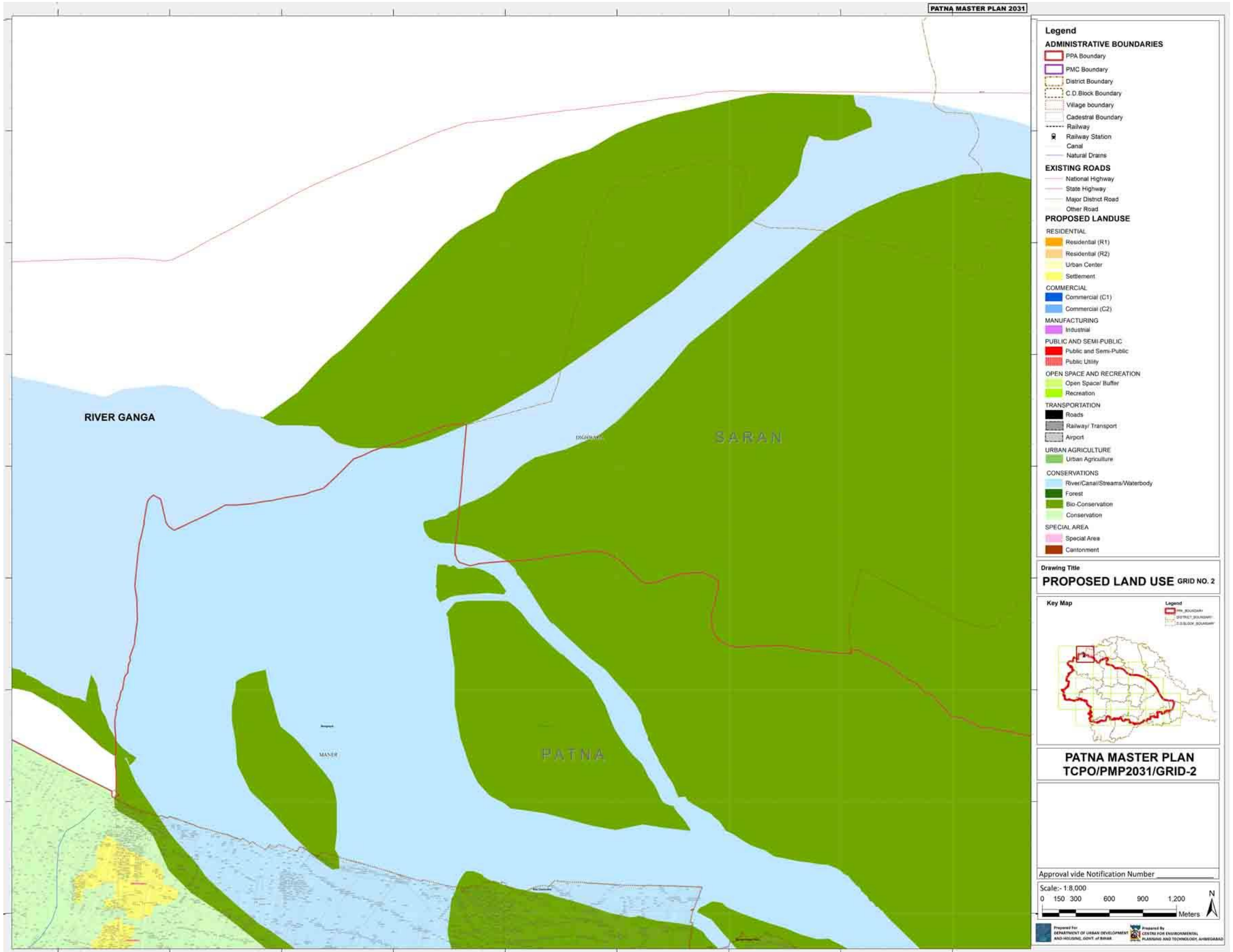
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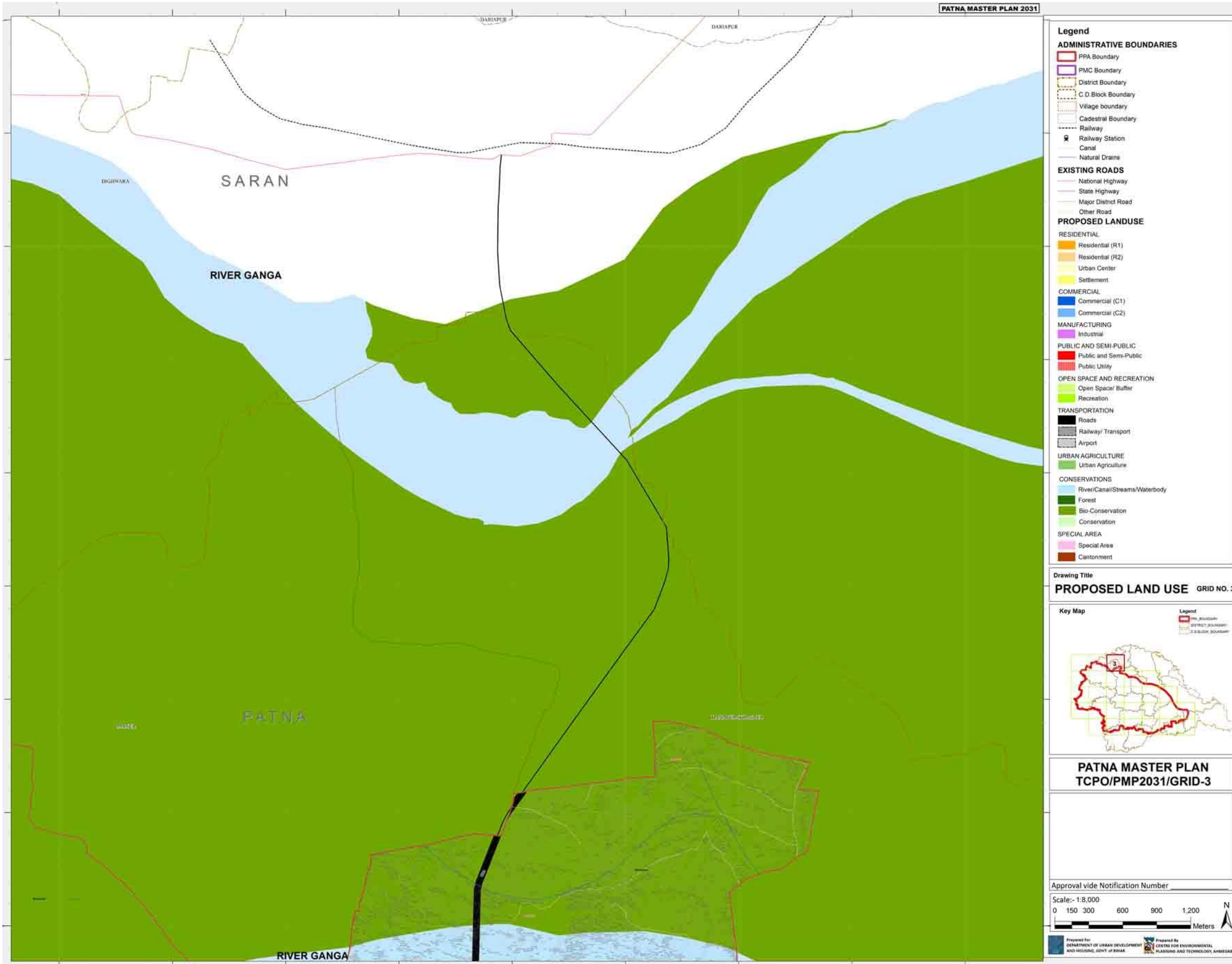
Prepared for: DEPARTMENT OF URBAN DEVELOPMENT AND HOUSING, GOVT. of BIHAR

Prepared by: CENTRE FOR ENVIRONMENTAL PLANNING AND TECHNOLOGY, AHMEDABAD

Map reference-  
**TCPO/PMP2031/M-09/  
GRID-1**

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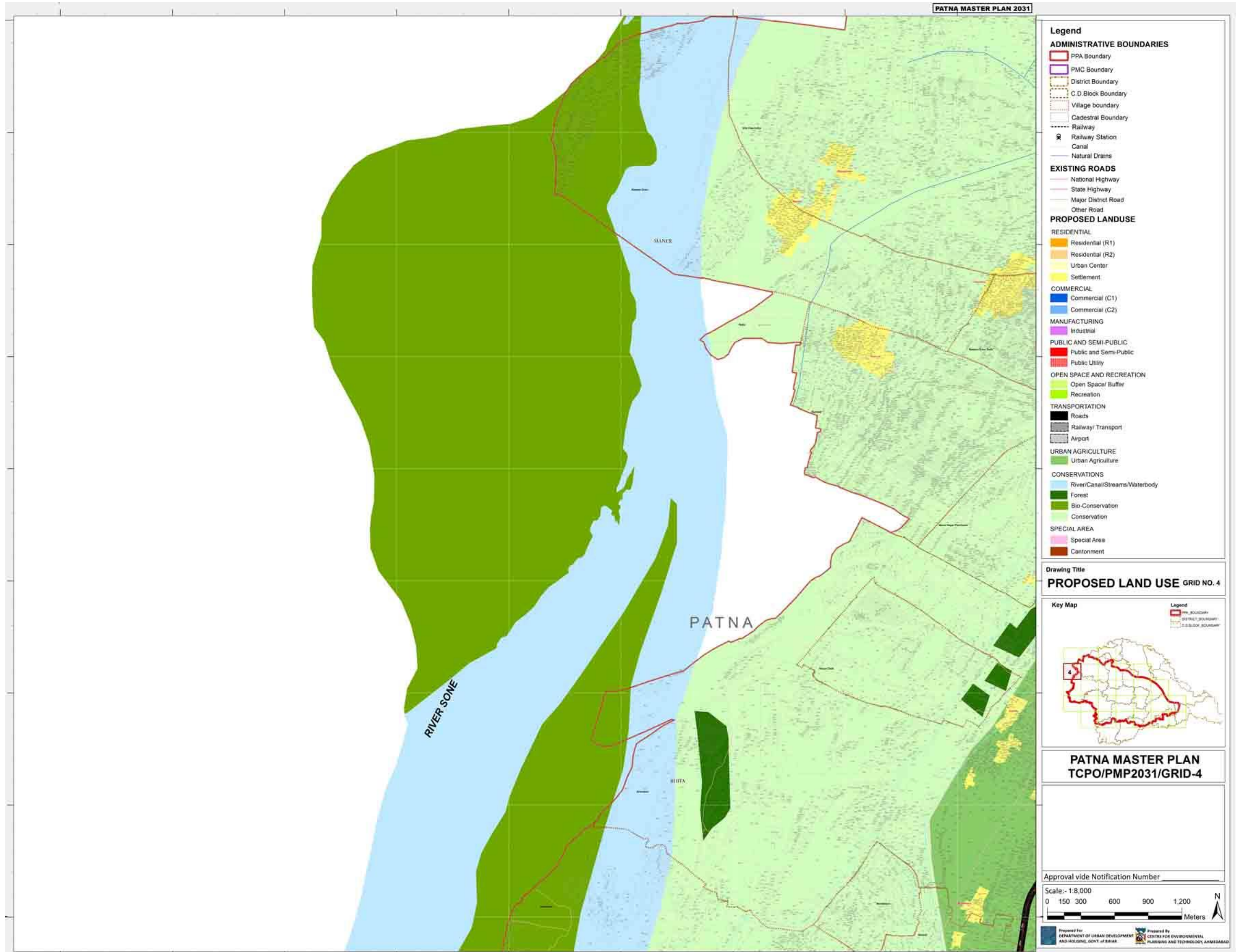




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Map reference-  
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GRID-4



**Legend**

**ADMINISTRATIVE BOUNDARIES**

- PPA Boundary
- PMC Boundary
- District Boundary
- C.D. Block Boundary
- Village boundary
- Cadestral Boundary
- Railway
- Railway Station
- Canal
- Natural Drains

**EXISTING ROADS**

- National Highway
- State Highway
- Major District Road
- Other Road

**PROPOSED LANDUSE**

**RESIDENTIAL**

- Residential (R1)
- Residential (R2)
- Urban Center
- Settlement

**COMMERCIAL**

- Commercial (C1)
- Commercial (C2)

**MANUFACTURING**

- Industrial

**PUBLIC AND SEMI-PUBLIC**

- Public and Semi-Public
- Public Utility

**OPEN SPACE AND RECREATION**

- Open Space/ Buffer
- Recreation

**TRANSPORTATION**

- Roads
- Railway/ Transport
- Airport

**URBAN AGRICULTURE**

- Urban Agriculture

**CONSERVATIONS**

- River/Canal/Streams/Waterbody
- Forest
- Bio-Conservator
- Conservation

**SPECIAL AREA**

- Special Area
- Cantonment

Drawing Title  
**PROPOSED LAND USE GRID NO. 4**



**PATNA MASTER PLAN  
TCPO/PMP2031/GRID-4**

Approval vide Notification Number

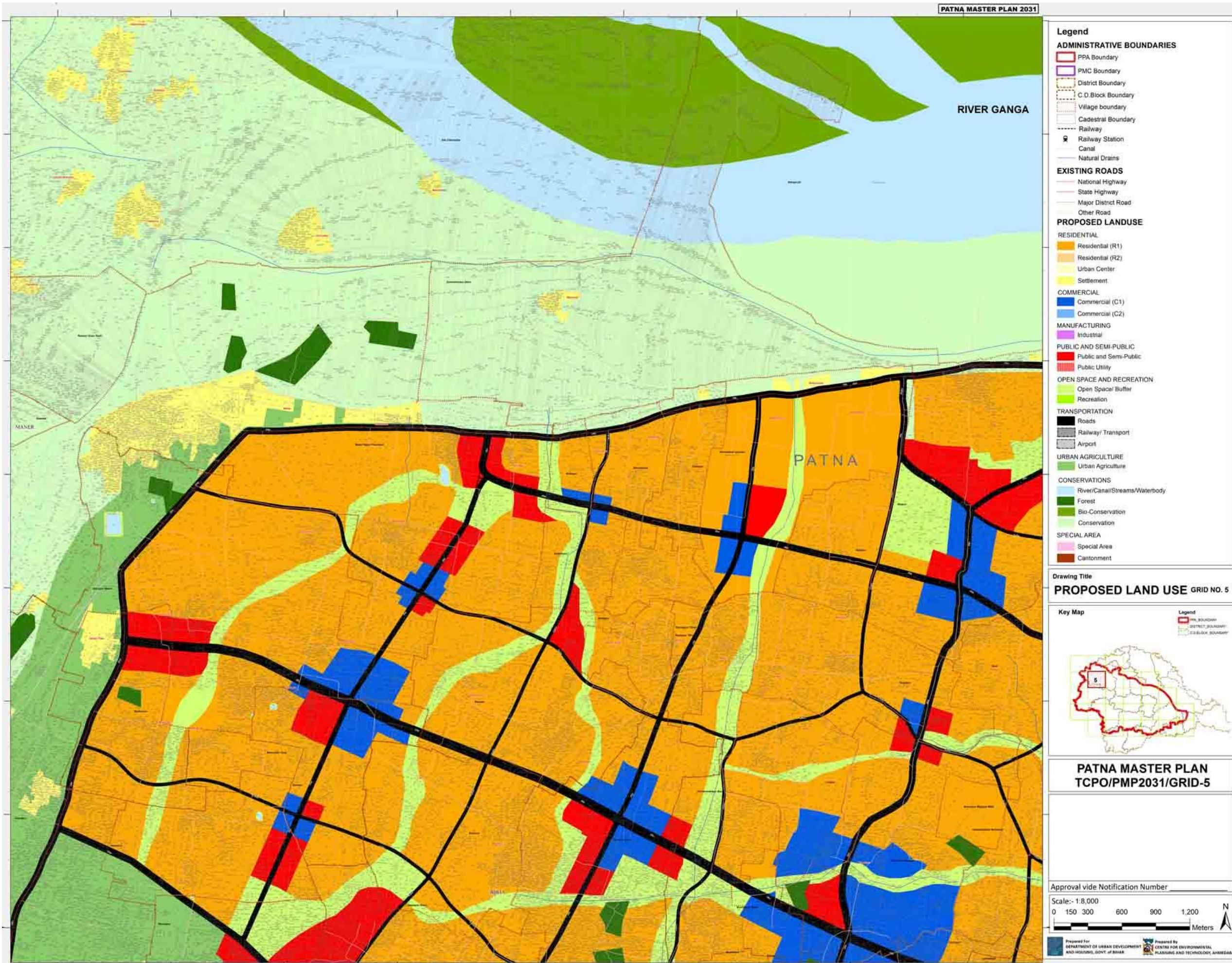
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Prepared by: CENTRE FOR ENVIRONMENTAL PLANNING AND TECHNOLOGY, AHMEDABAD

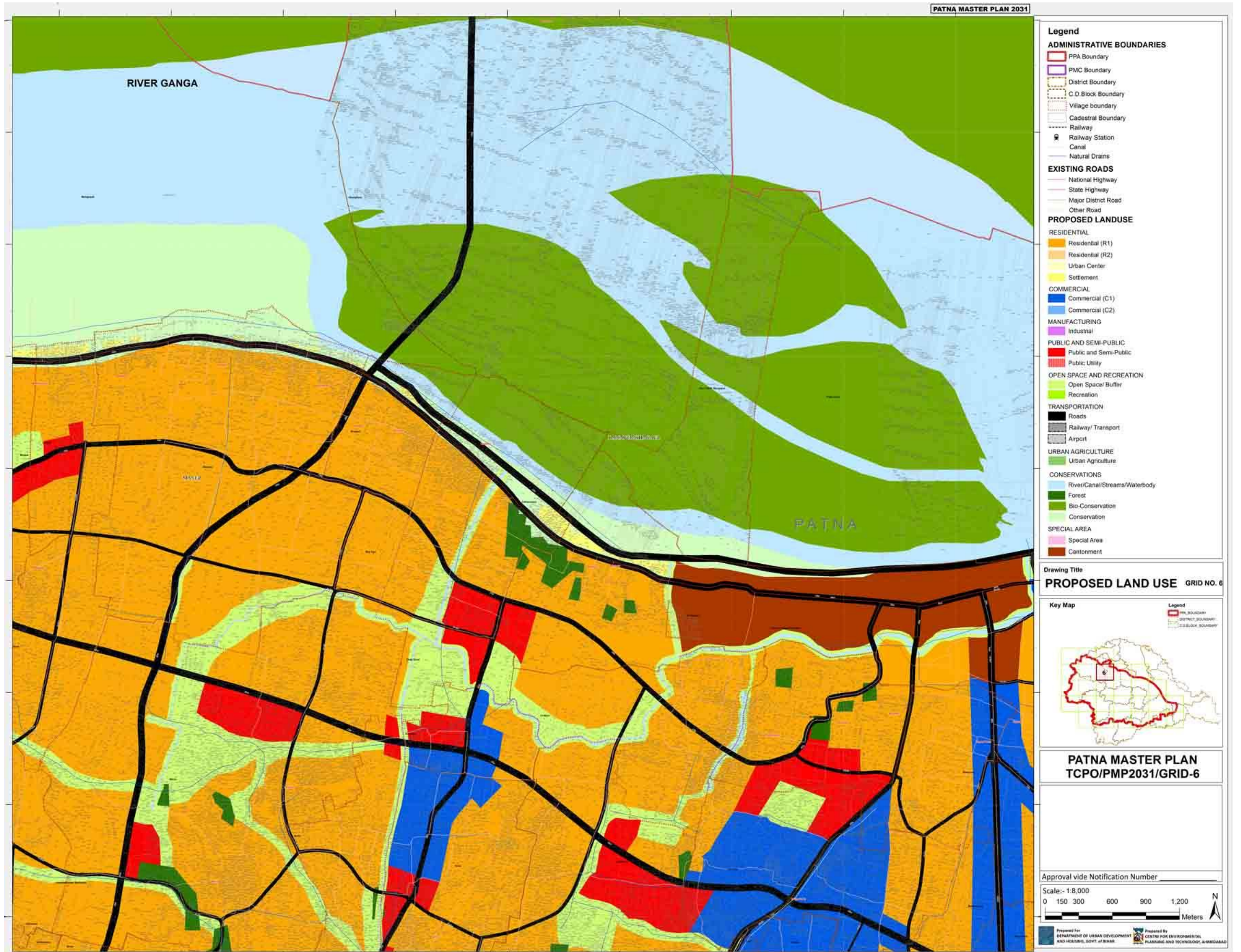




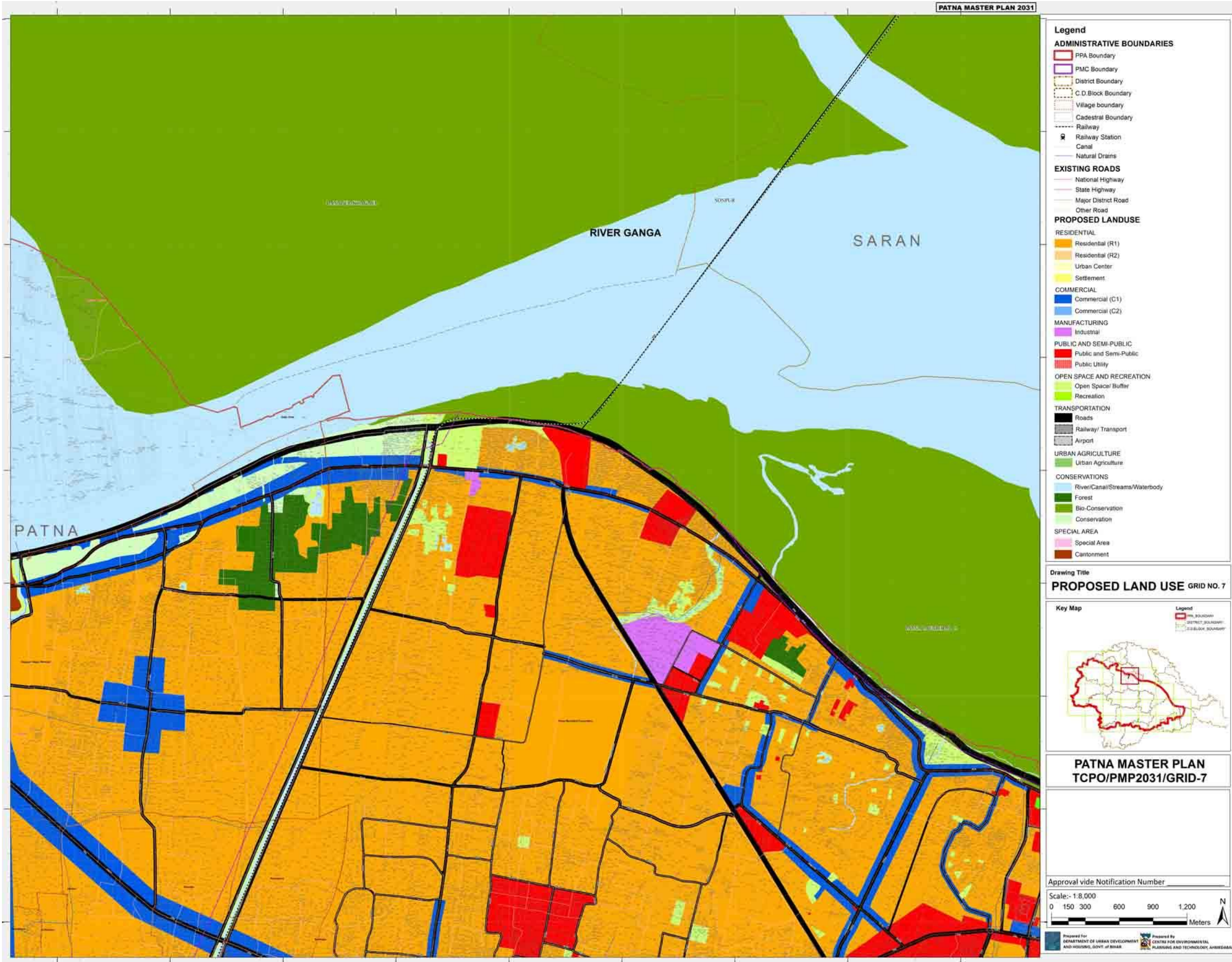
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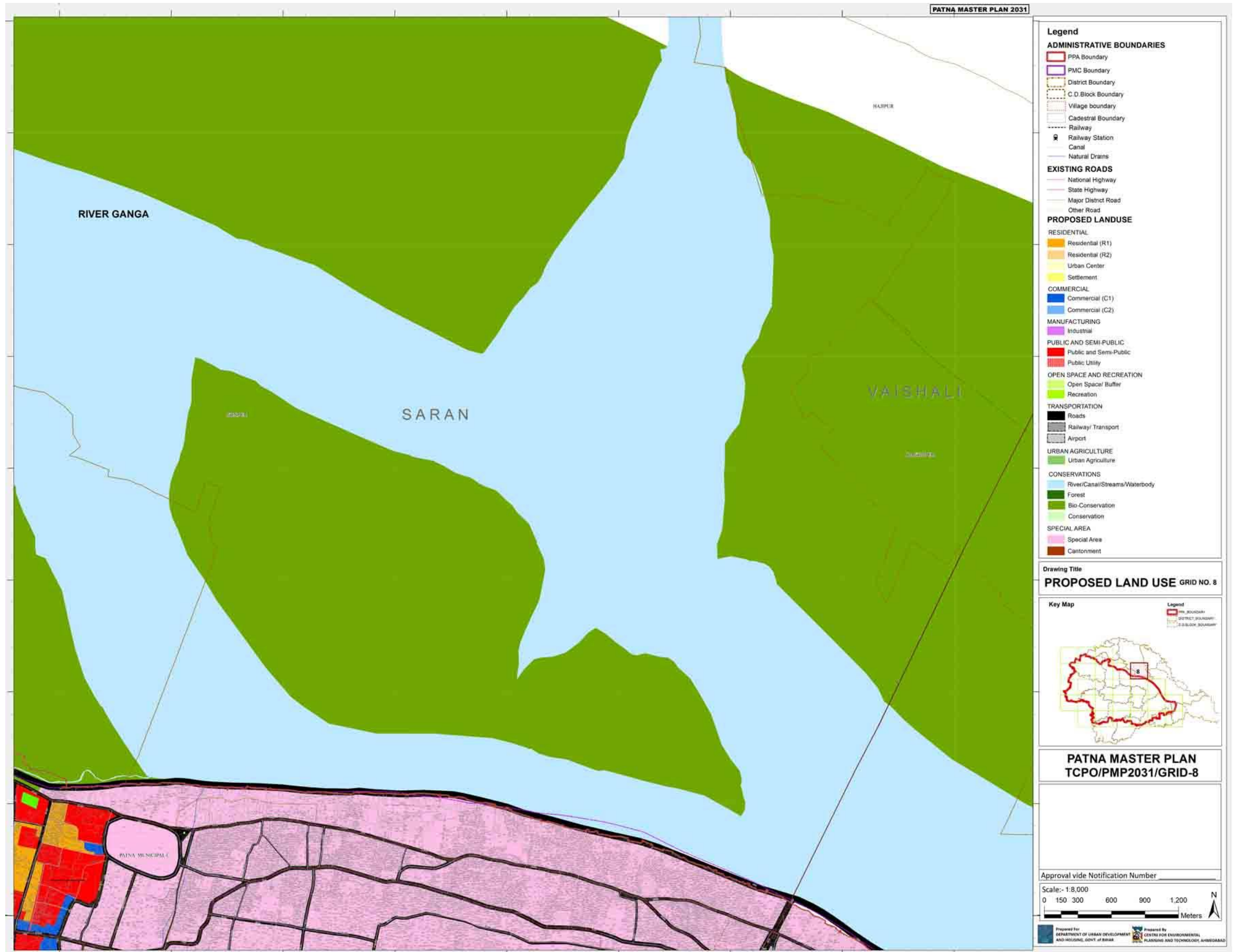




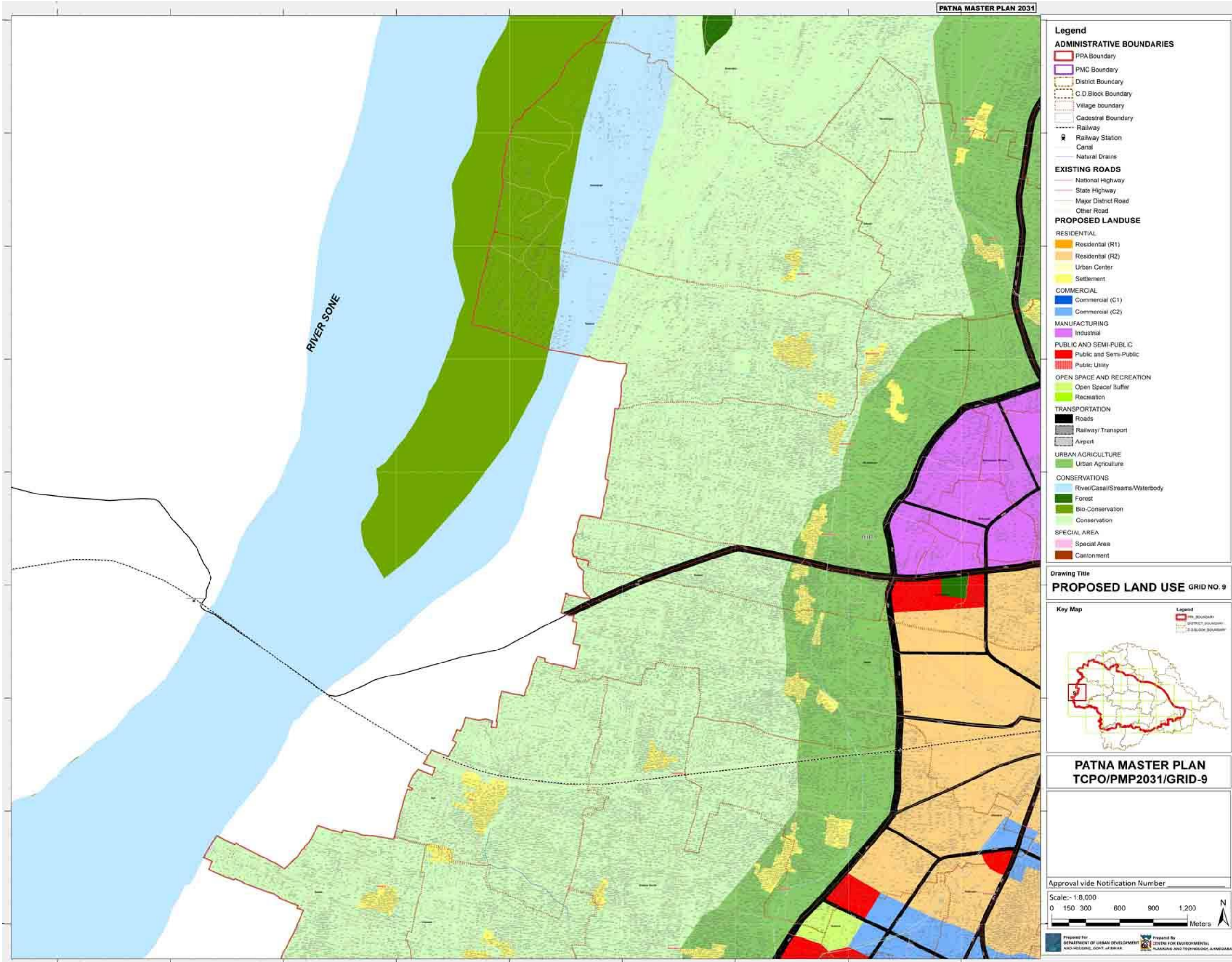
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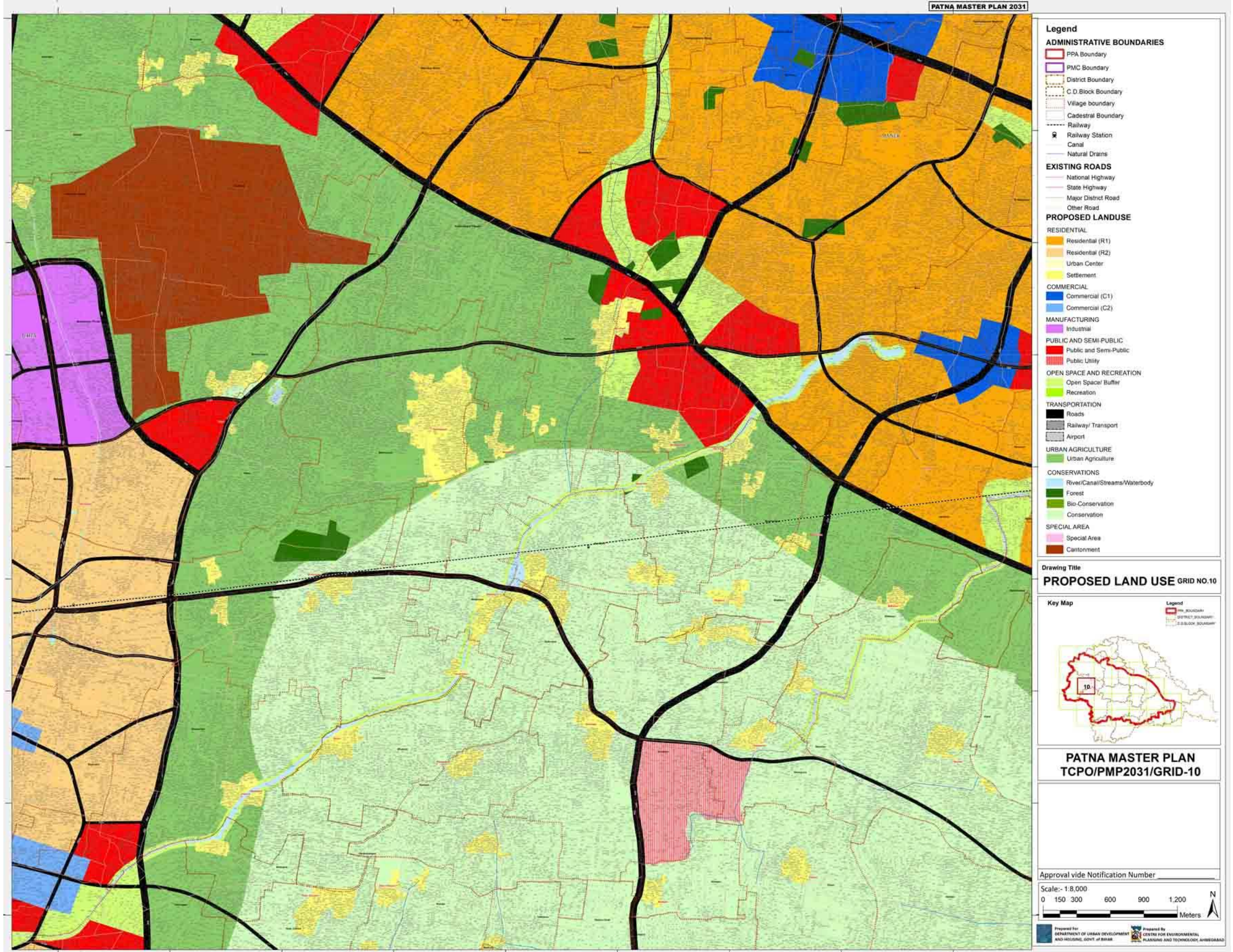




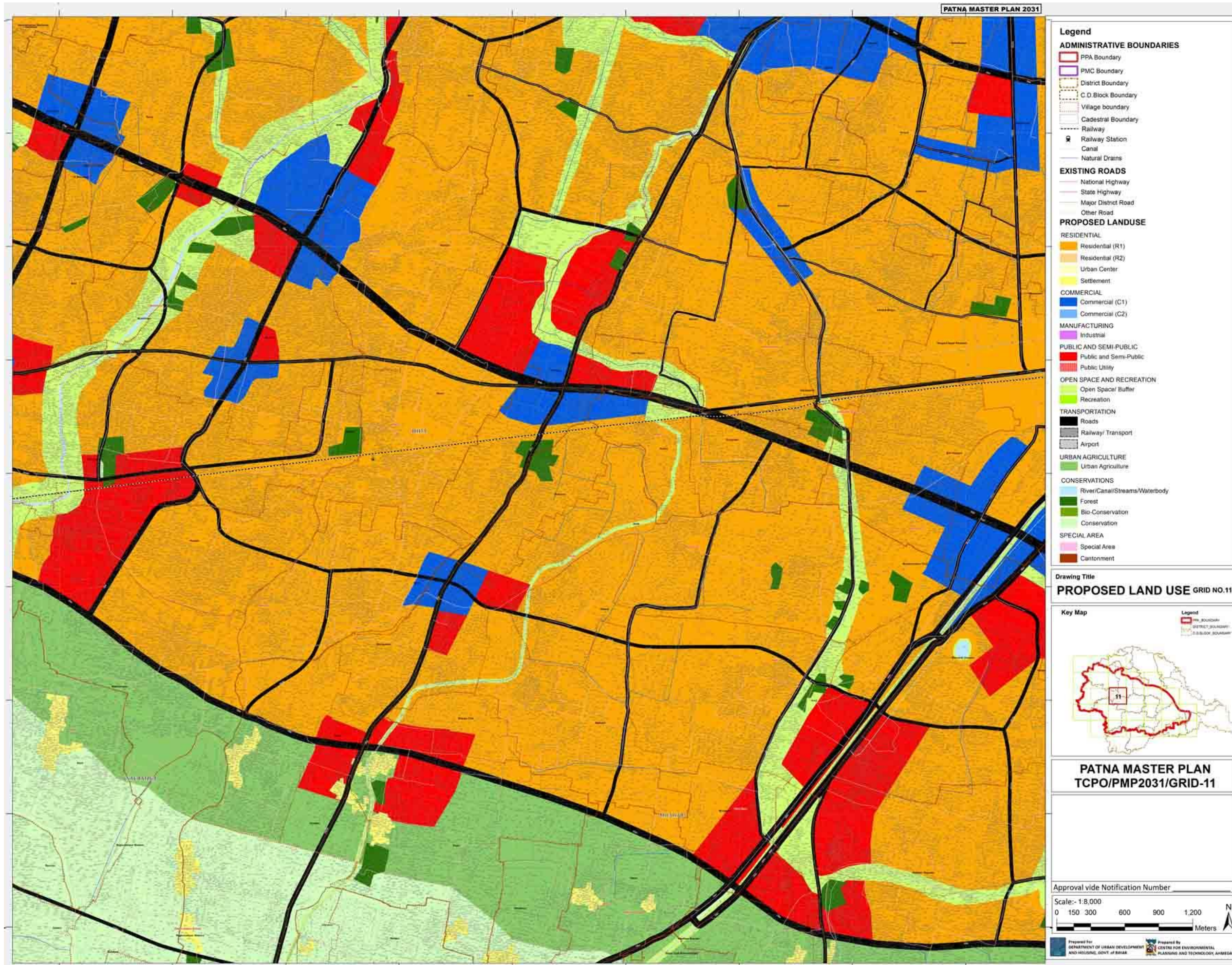
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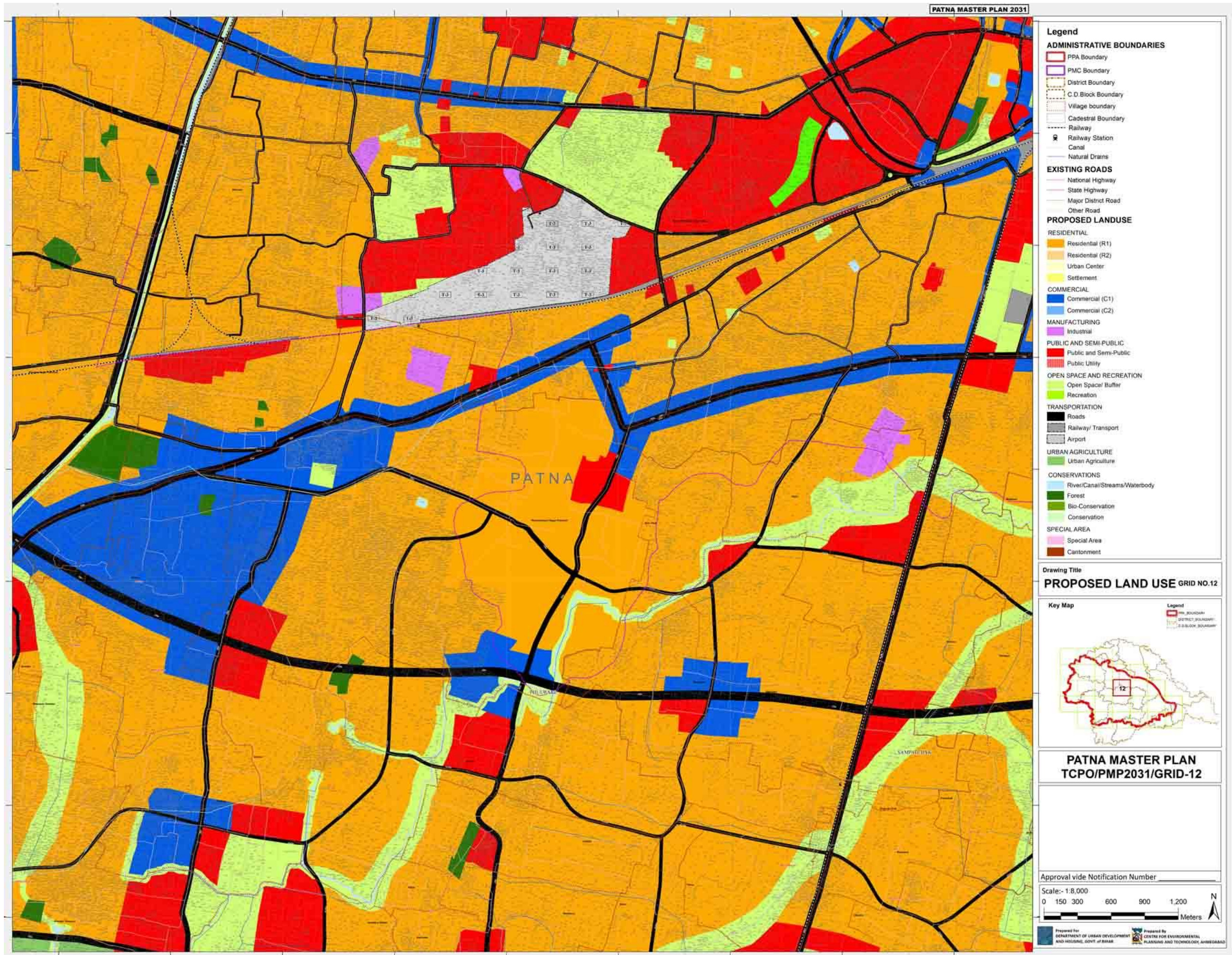




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Map reference-  
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GRID-12



**Legend**

**ADMINISTRATIVE BOUNDARIES**

- PPA Boundary
- PMC Boundary
- District Boundary
- C.D. Block Boundary
- Village boundary
- Cadastral Boundary
- Railway
- Railway Station
- Canal
- Natural Drains

**EXISTING ROADS**

- National Highway
- State Highway
- Major District Road
- Other Road

**PROPOSED LANDUSE**

**RESIDENTIAL**

- Residential (R1)
- Residential (R2)
- Urban Center
- Settlement

**COMMERCIAL**

- Commercial (C1)
- Commercial (C2)

**MANUFACTURING**

- Industrial

**PUBLIC AND SEMI-PUBLIC**

- Public and Semi-Public
- Public Utility

**OPEN SPACE AND RECREATION**

- Open Space/ Buffer
- Recreation

**TRANSPORTATION**

- Roads
- Railway/ Transport
- Airport

**URBAN AGRICULTURE**

- Urban Agriculture

**CONSERVATIONS**

- River/Canal/Streams/Waterbody
- Forest
- Bio-Conservation
- Conservation

**SPECIAL AREA**

- Special Area
- Cantonment

Drawing Title  
**PROPOSED LAND USE GRID NO.12**



**PATNA MASTER PLAN  
TCPO/PMP2031/GRID-12**

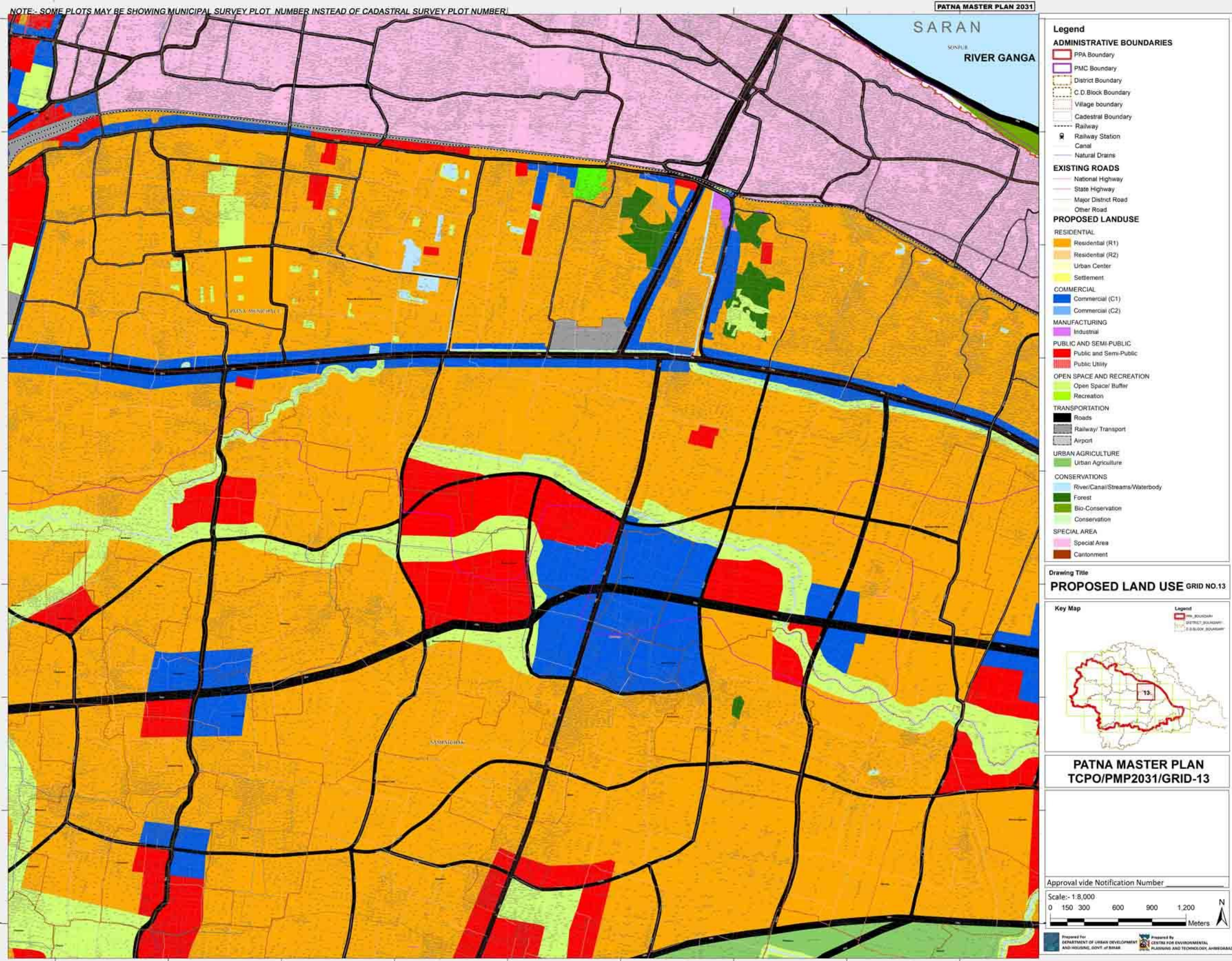
Approval vide Notification Number

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Prepared By: DEPARTMENT OF URBAN DEVELOPMENT AND HOUSING, GOVT. OF BIHAR. Prepared By: CENTRE FOR ENVIRONMENTAL PLANNING AND TECHNOLOGY, AHMEDABAD.

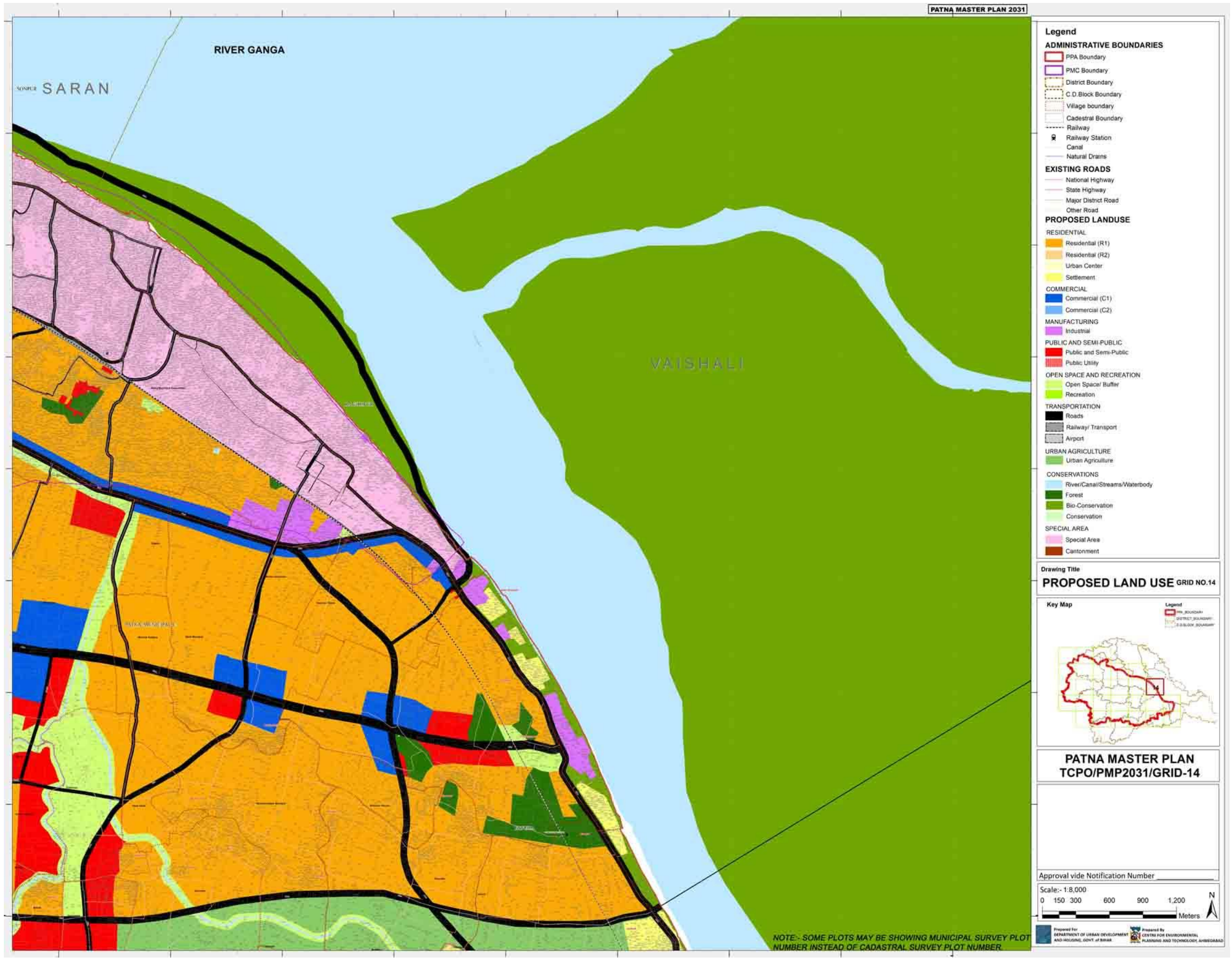




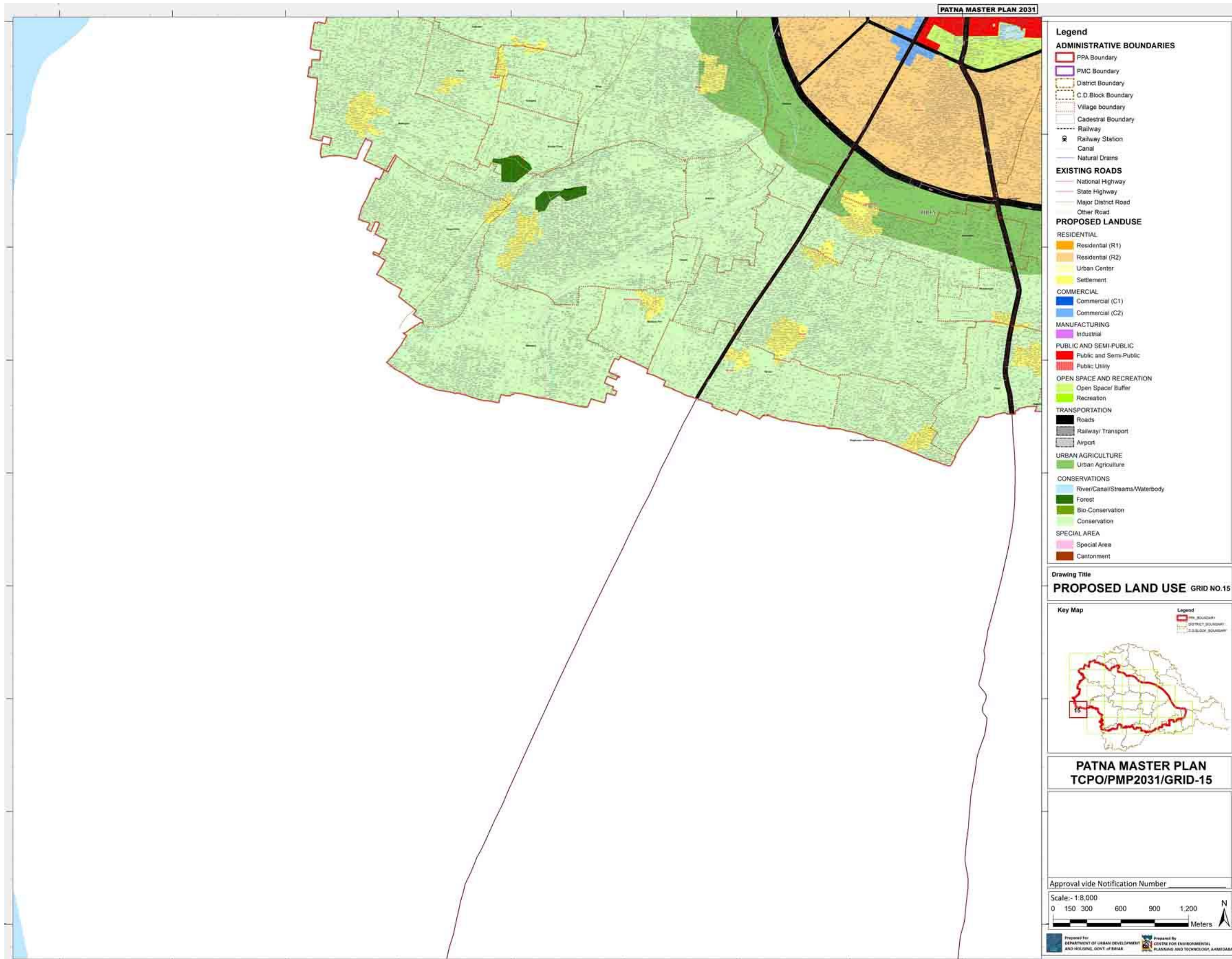
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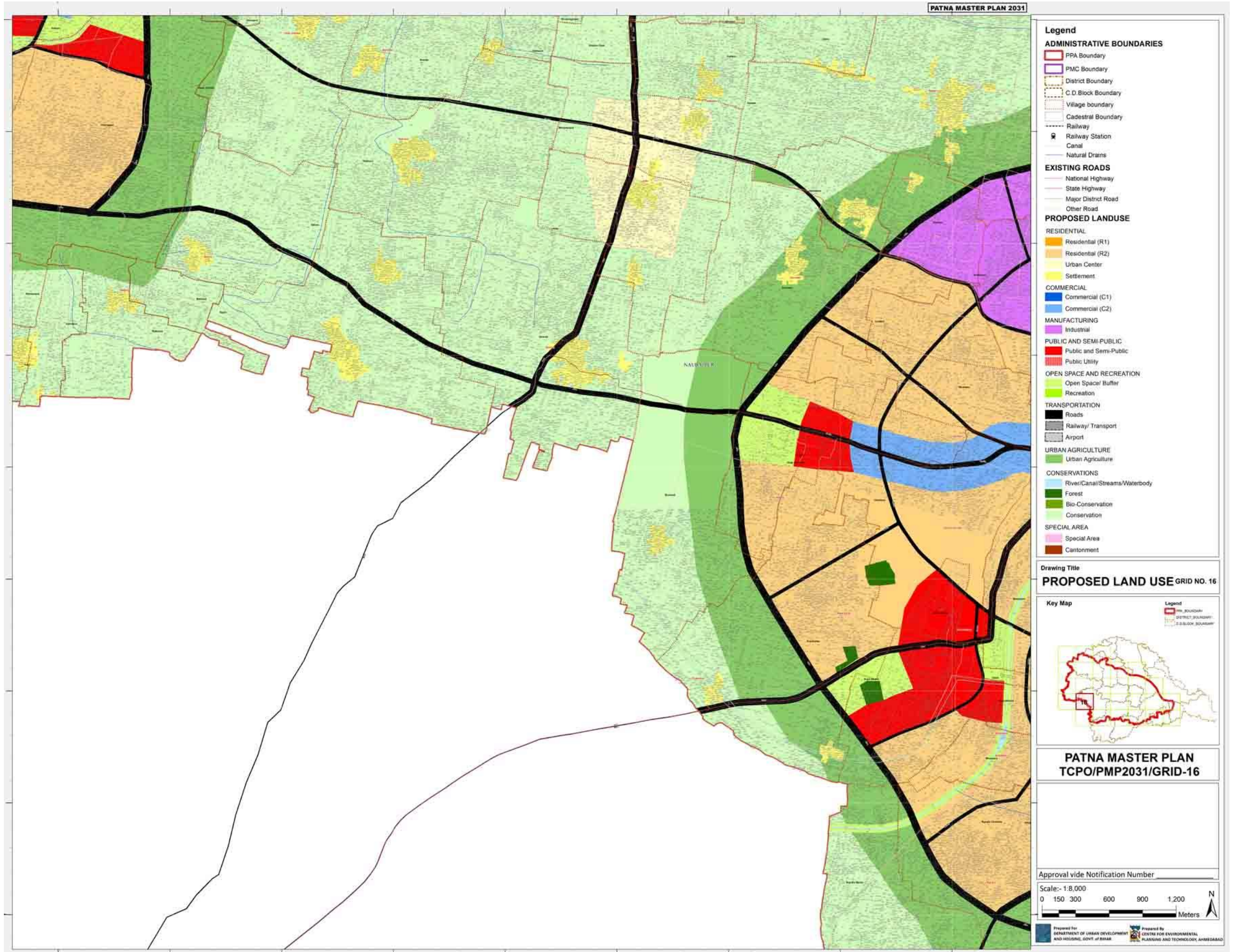




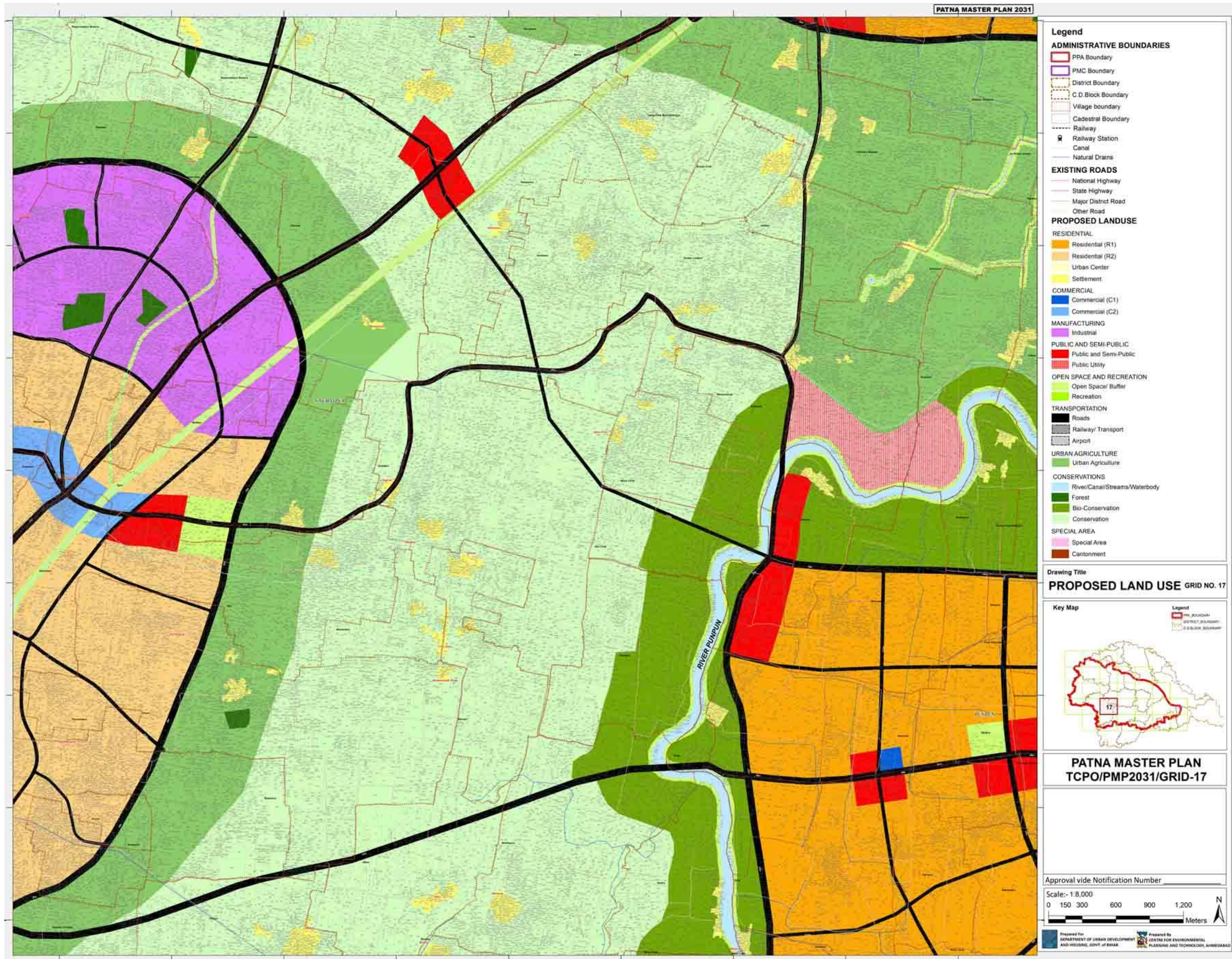
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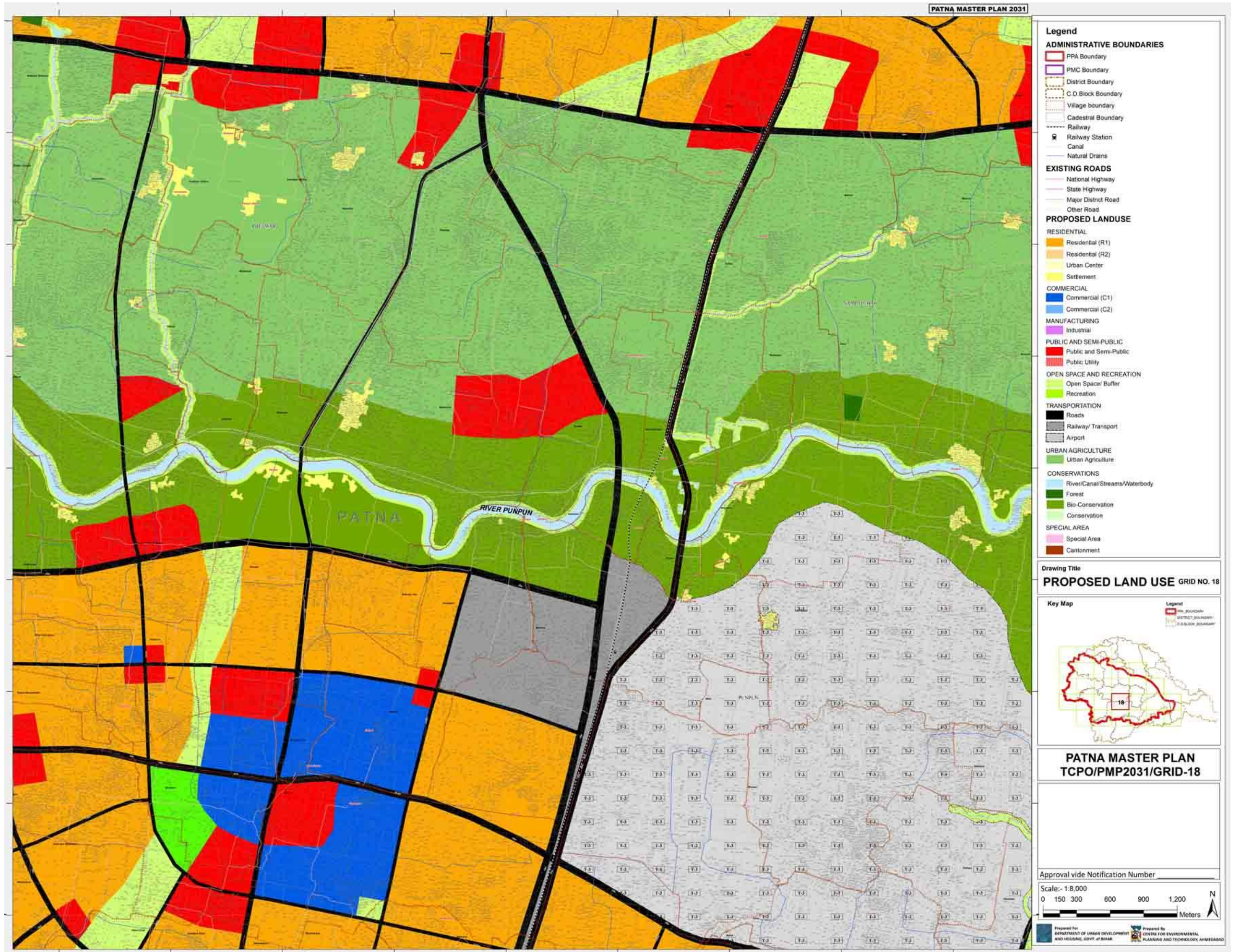




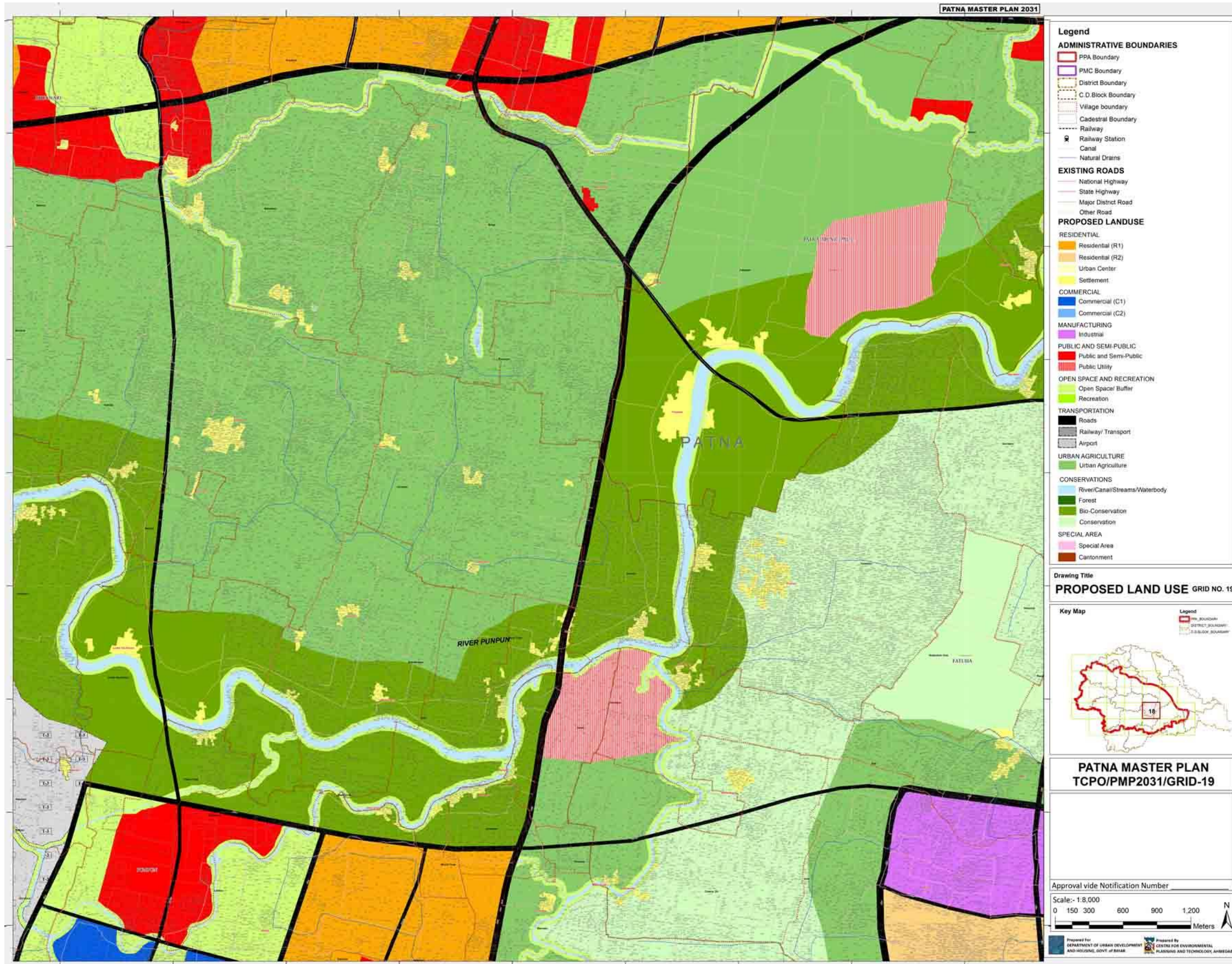
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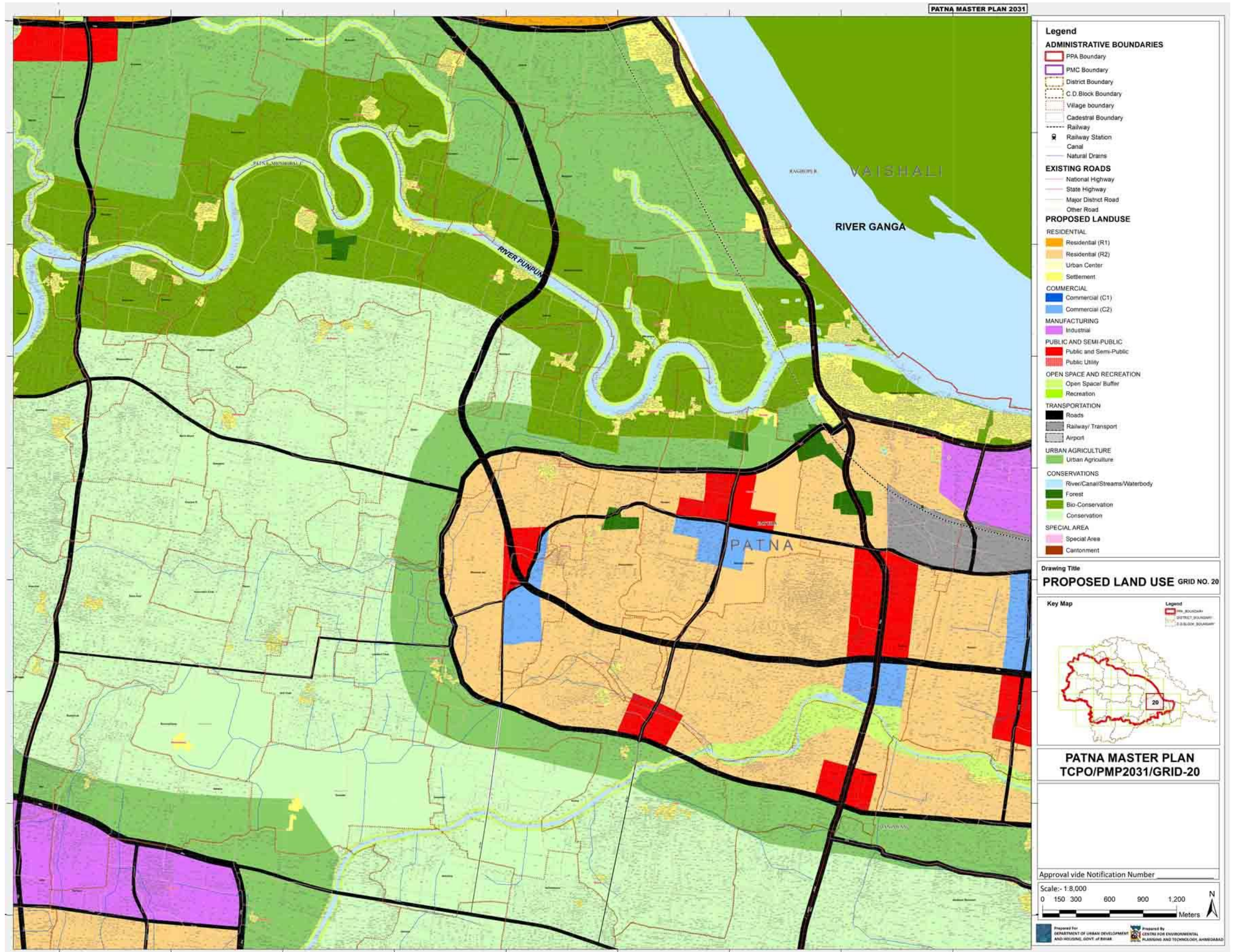




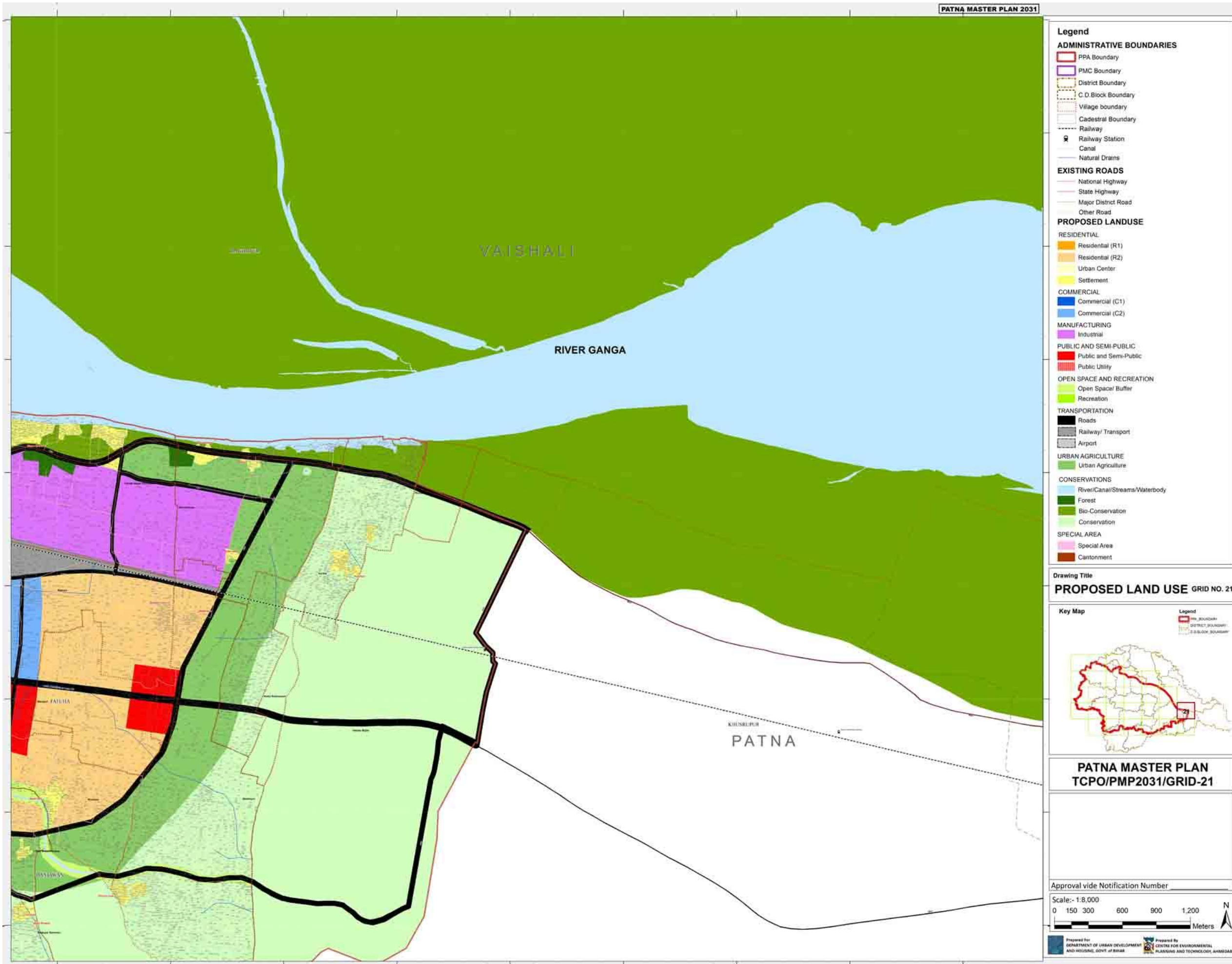
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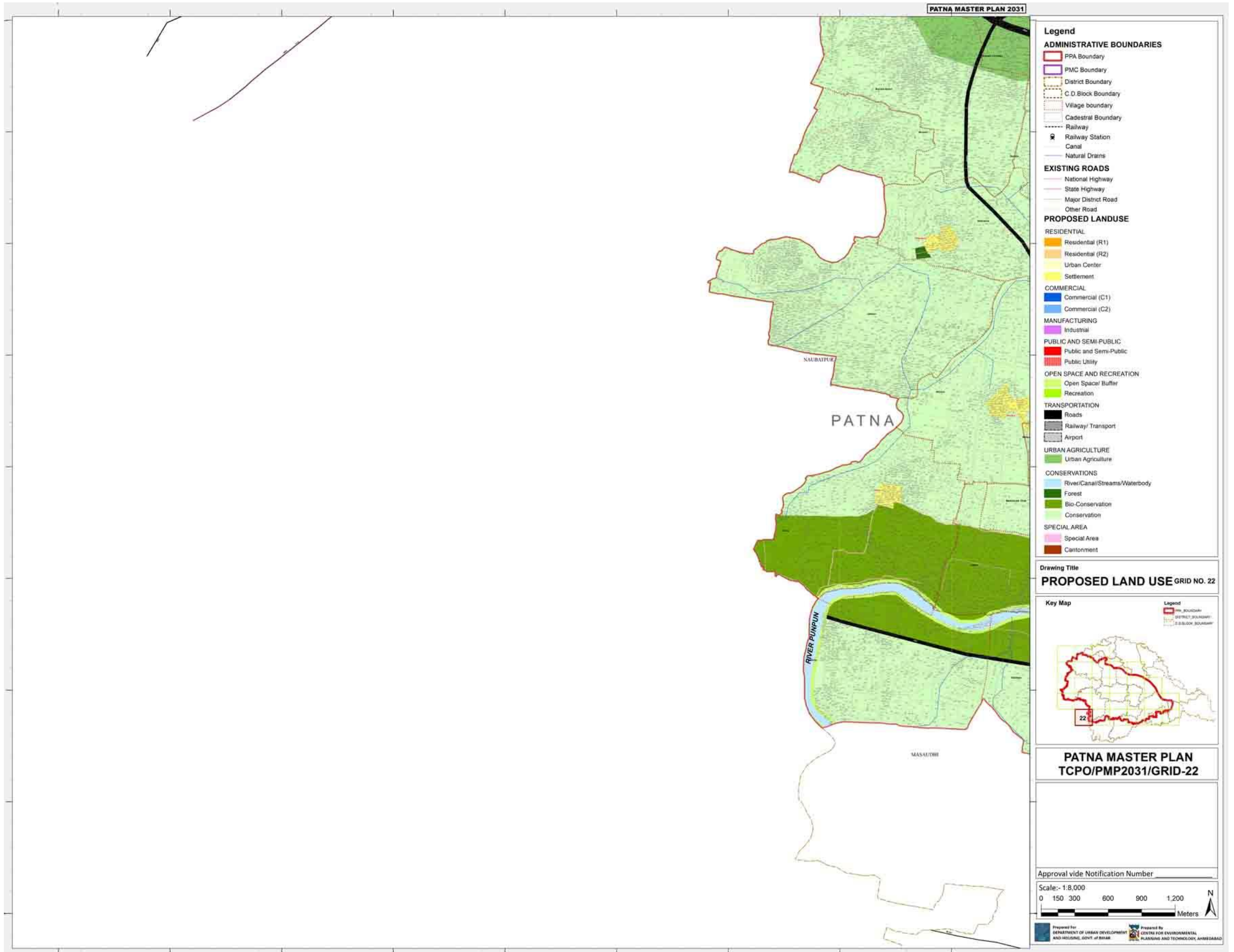




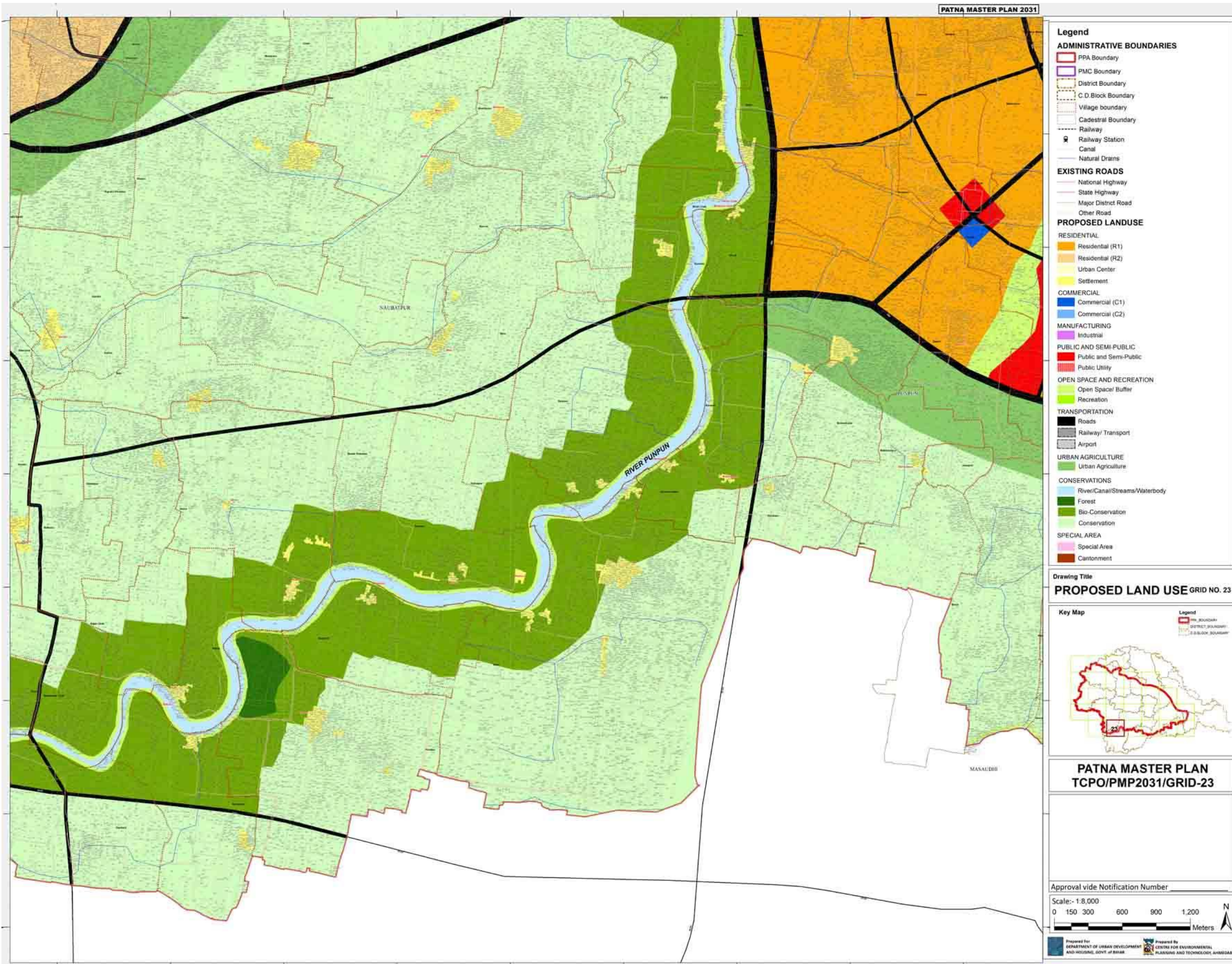


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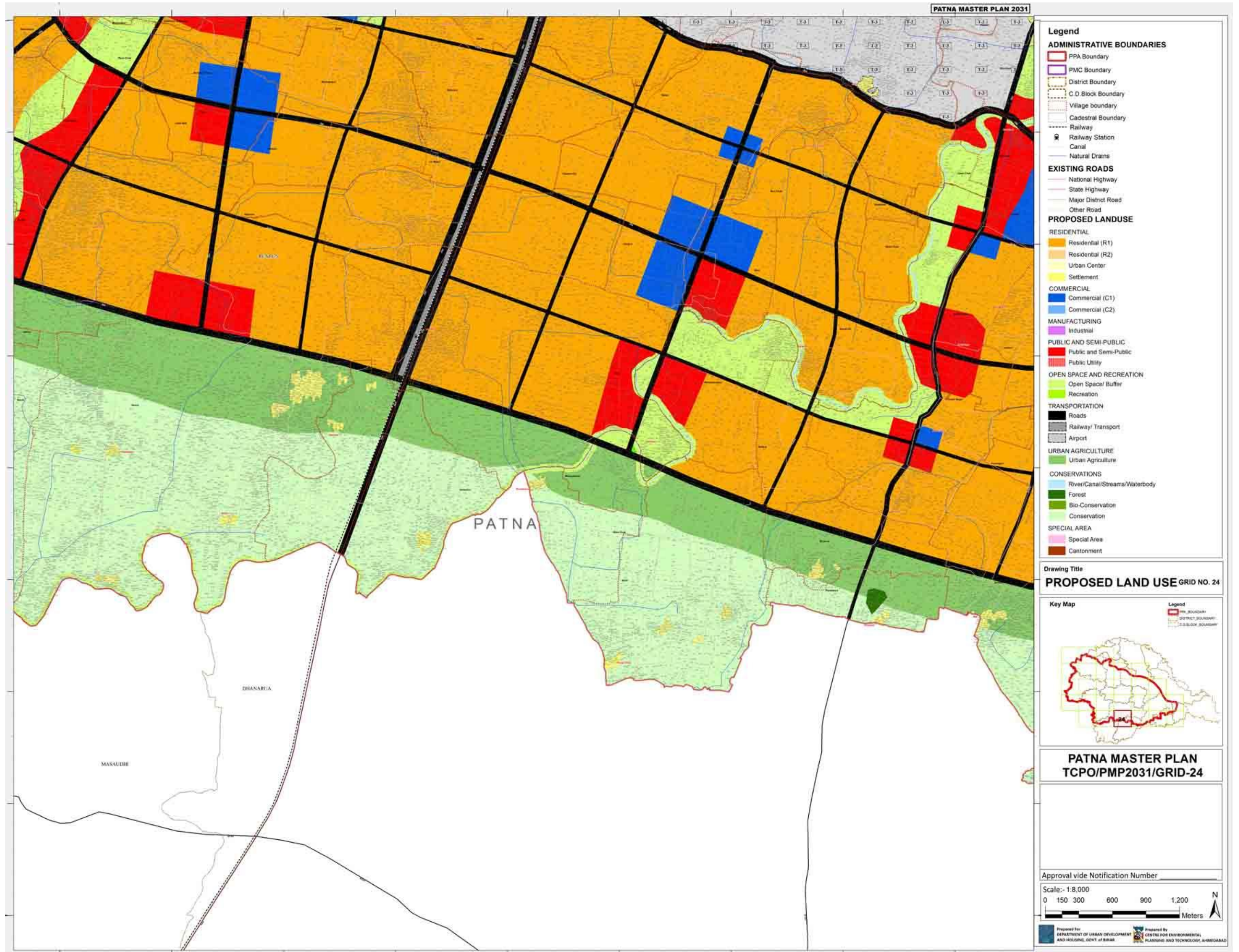




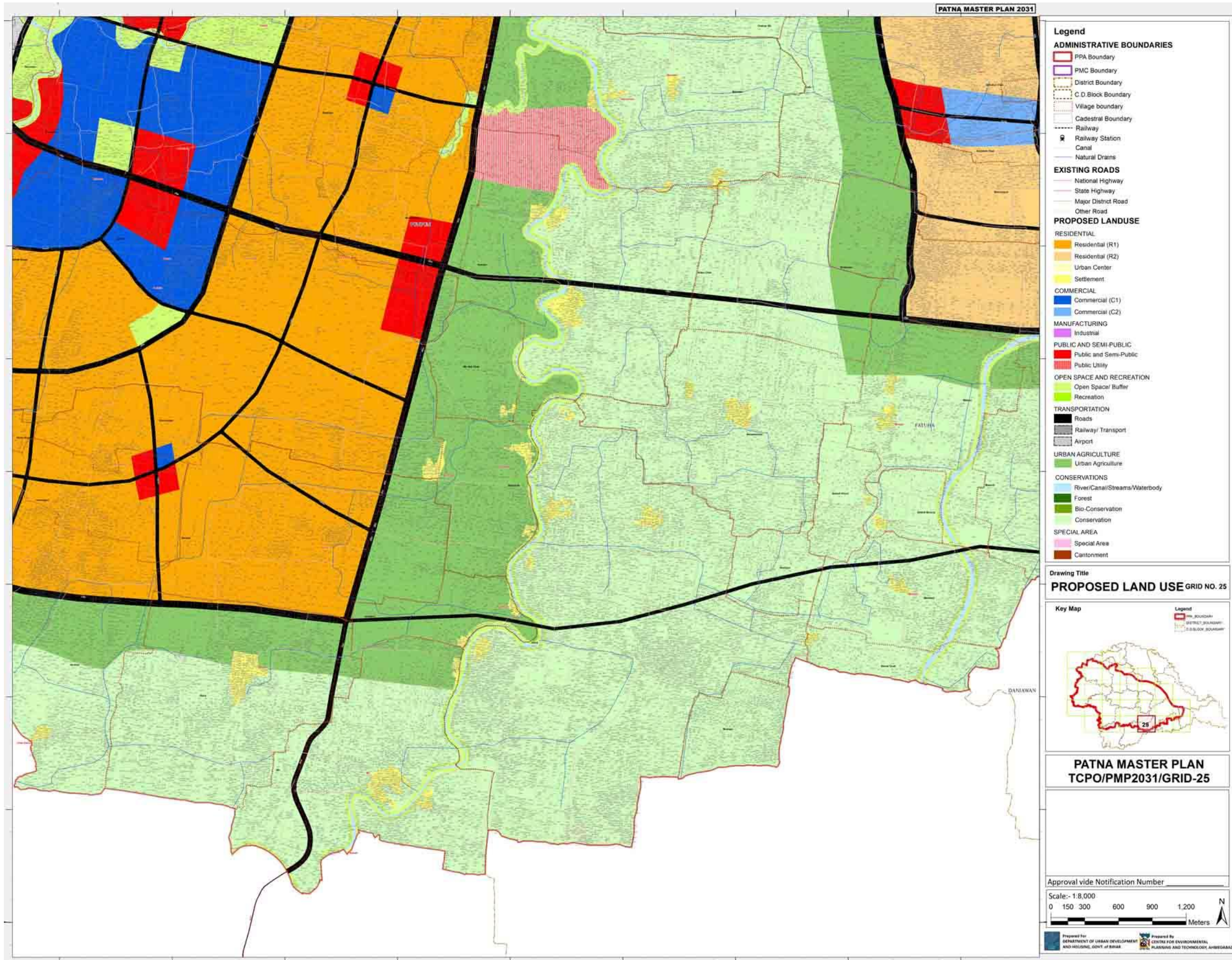
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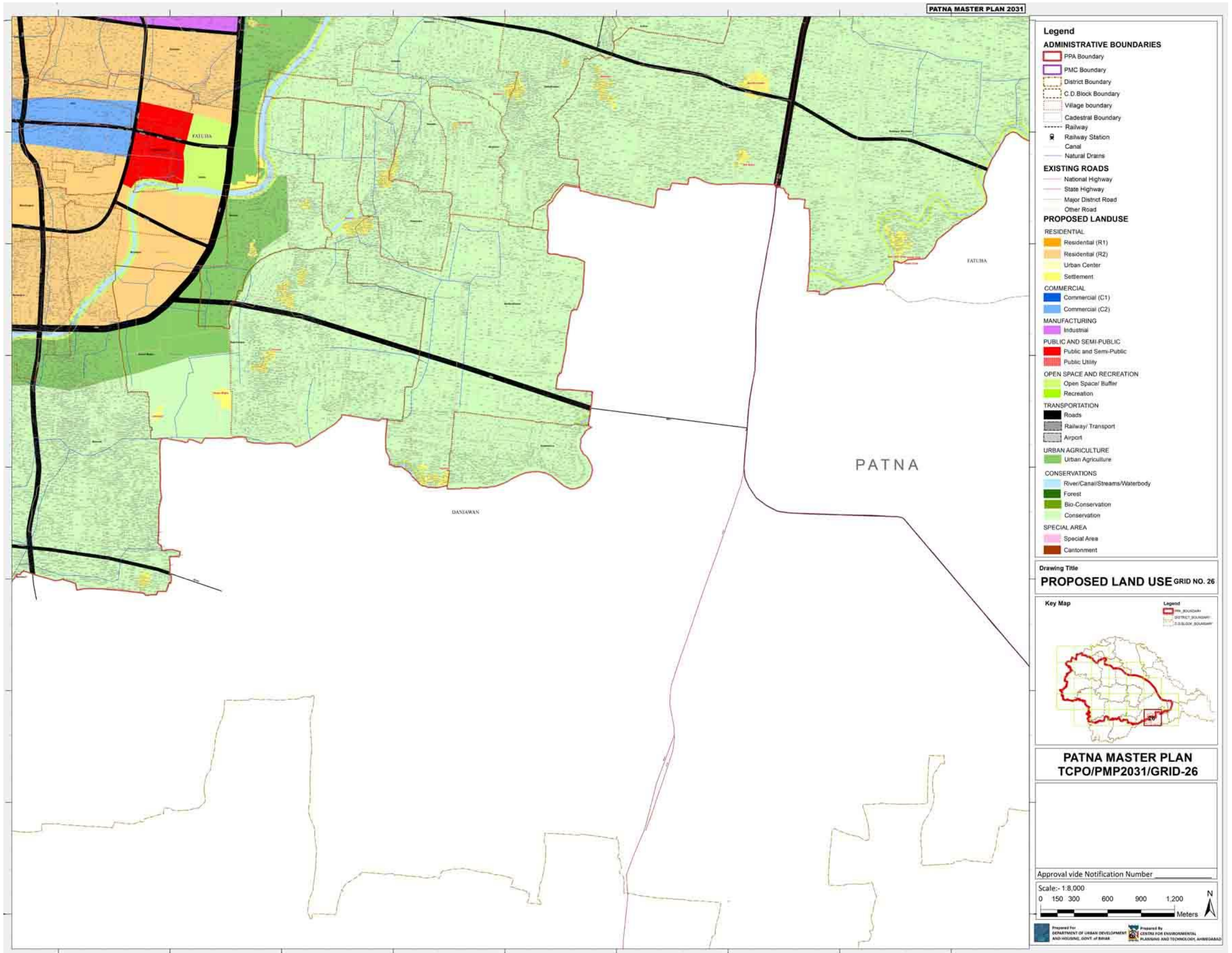




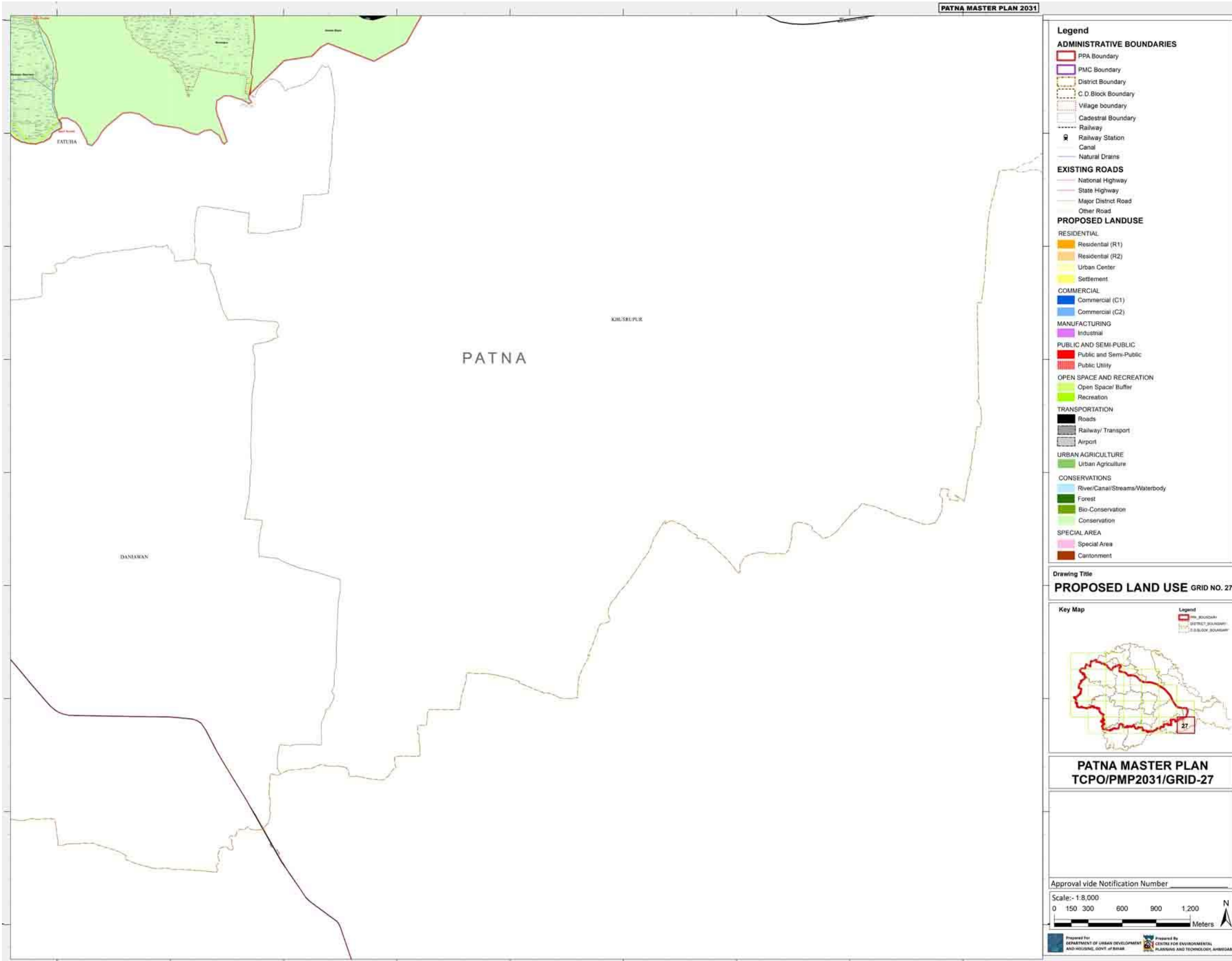
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Map reference-  
TCPO/PMP2031/M-09/  
GRID-27

**Legend**

**ADMINISTRATIVE BOUNDARIES**

- PPA Boundary
- PMC Boundary
- District Boundary
- C.D. Block Boundary
- Village boundary
- Cadastral Boundary
- Railway
- Railway Station
- Canal
- Natural Drains

**EXISTING ROADS**

- National Highway
- State Highway
- Major District Road
- Other Road

**PROPOSED LANDUSE**

**RESIDENTIAL**

- Residential (R1)
- Residential (R2)
- Urban Center
- Settlement

**COMMERCIAL**

- Commercial (C1)
- Commercial (C2)

**MANUFACTURING**

- Industrial

**PUBLIC AND SEMI-PUBLIC**

- Public and Semi-Public
- Public Utility

**OPEN SPACE AND RECREATION**

- Open Space/ Buffer
- Recreation

**TRANSPORTATION**

- Roads
- Railway/ Transport
- Airport

**URBAN AGRICULTURE**

- Urban Agriculture

**CONSERVATIONS**

- River/Canal/Streams/Waterbody
- Forest
- Bio-Conservation
- Conservation

**SPECIAL AREA**

- Special Area
- Cantonment

Drawing Title  
**PROPOSED LAND USE GRID NO. 27**



**PATNA MASTER PLAN  
TCPO/PMP2031/GRID-27**

Approval vide Notification Number

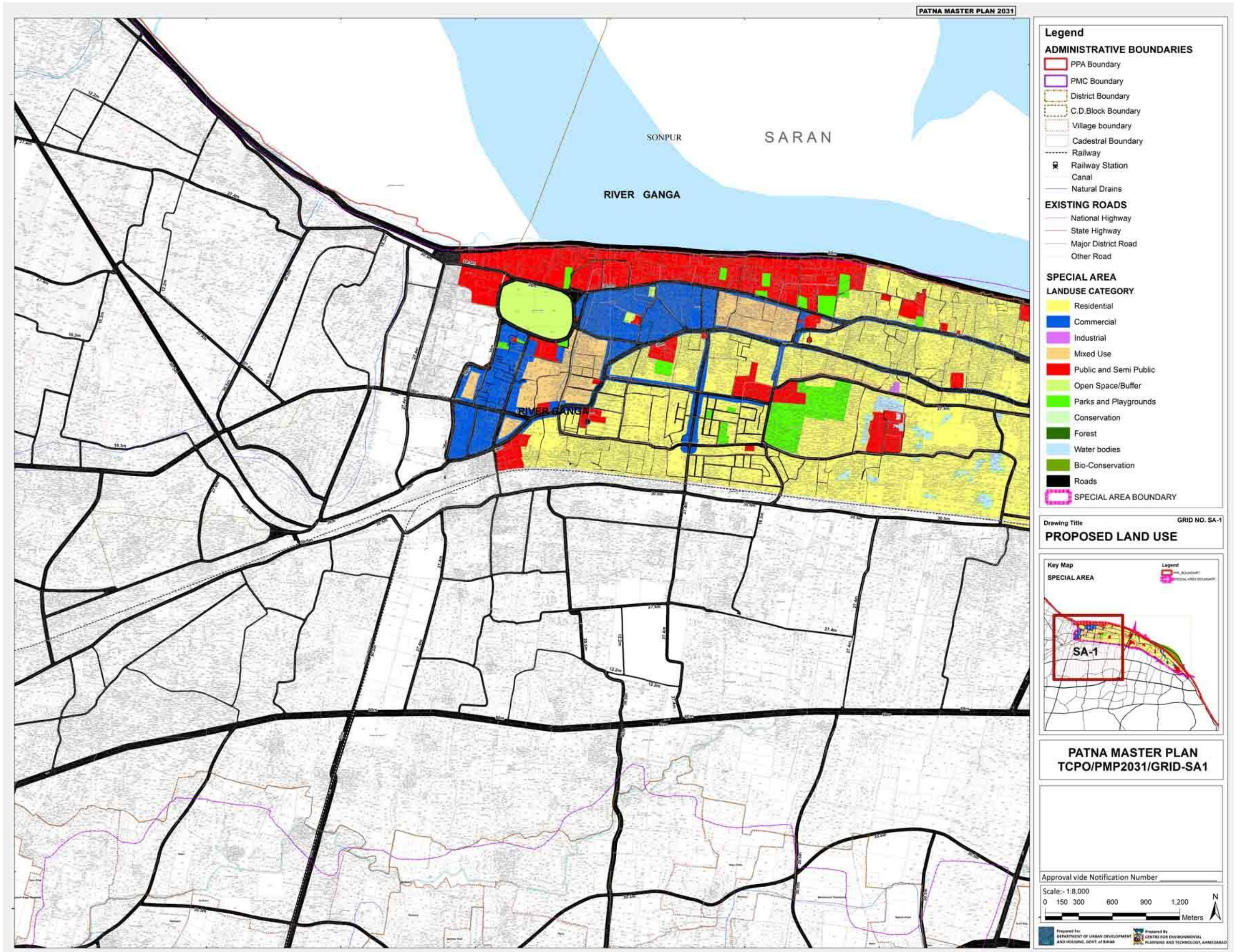
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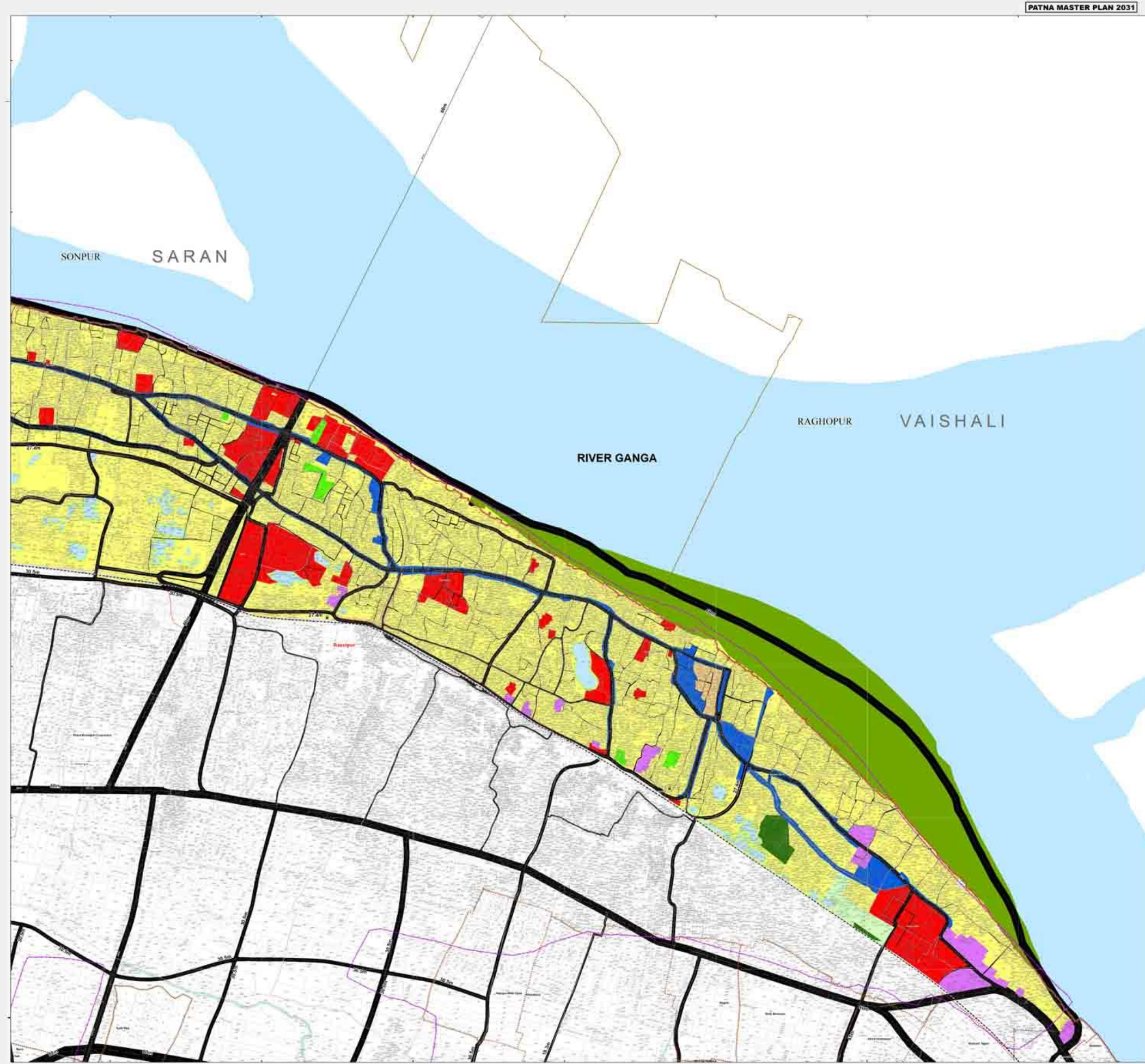




Map reference-  
TCPO/PMP2031/M-09/  
GRID-SA-1







**Legend**

**ADMINISTRATIVE BOUNDARIES**

- PPA Boundary
- PMC Boundary
- District Boundary
- C.D.Block Boundary
- Village boundary
- Cadestral Boundary
- Railway
- Railway Station
- Canal
- Natural Drains

**EXISTING ROADS**

- National Highway
- State Highway
- Major District Road
- Other Road

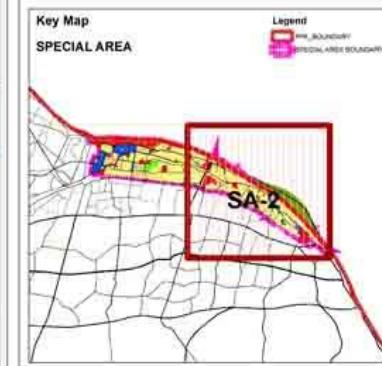
**SPECIAL AREA**

**LANDUSE CATEGORY**

- Residential
- Commercial
- Industrial
- Mixed Use
- Public and Semi Public
- Open Space/Buffer
- Parks and Playgrounds
- Conservation
- Forest
- Water bodies
- Bio-Conservation
- Roads
- SPECIAL AREA BOUNDARY

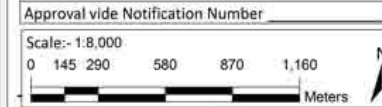
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**PROPOSED LAND USE**



**PATNA MASTER PLAN  
TCPO/PMP2031/GRID-SA2**

Approval vide Notification Number



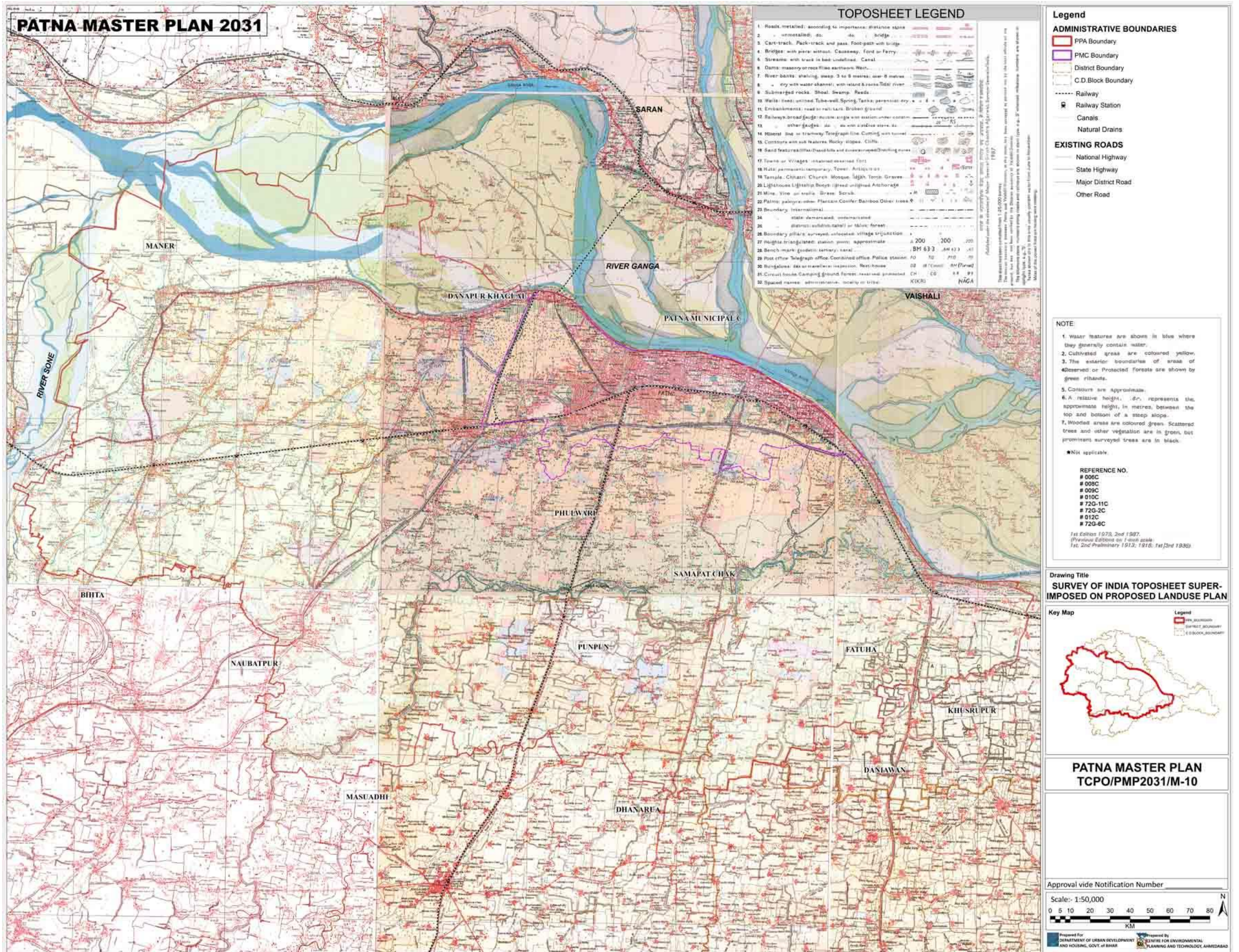
Prepared for DEPARTMENT OF URBAN DEVELOPMENT AND HOUSING, GOVT. OF BIHAR

Prepared by CENTRE FOR ENVIRONMENTAL PLANNING AND TECHNOLOGY, AHMEDABAD

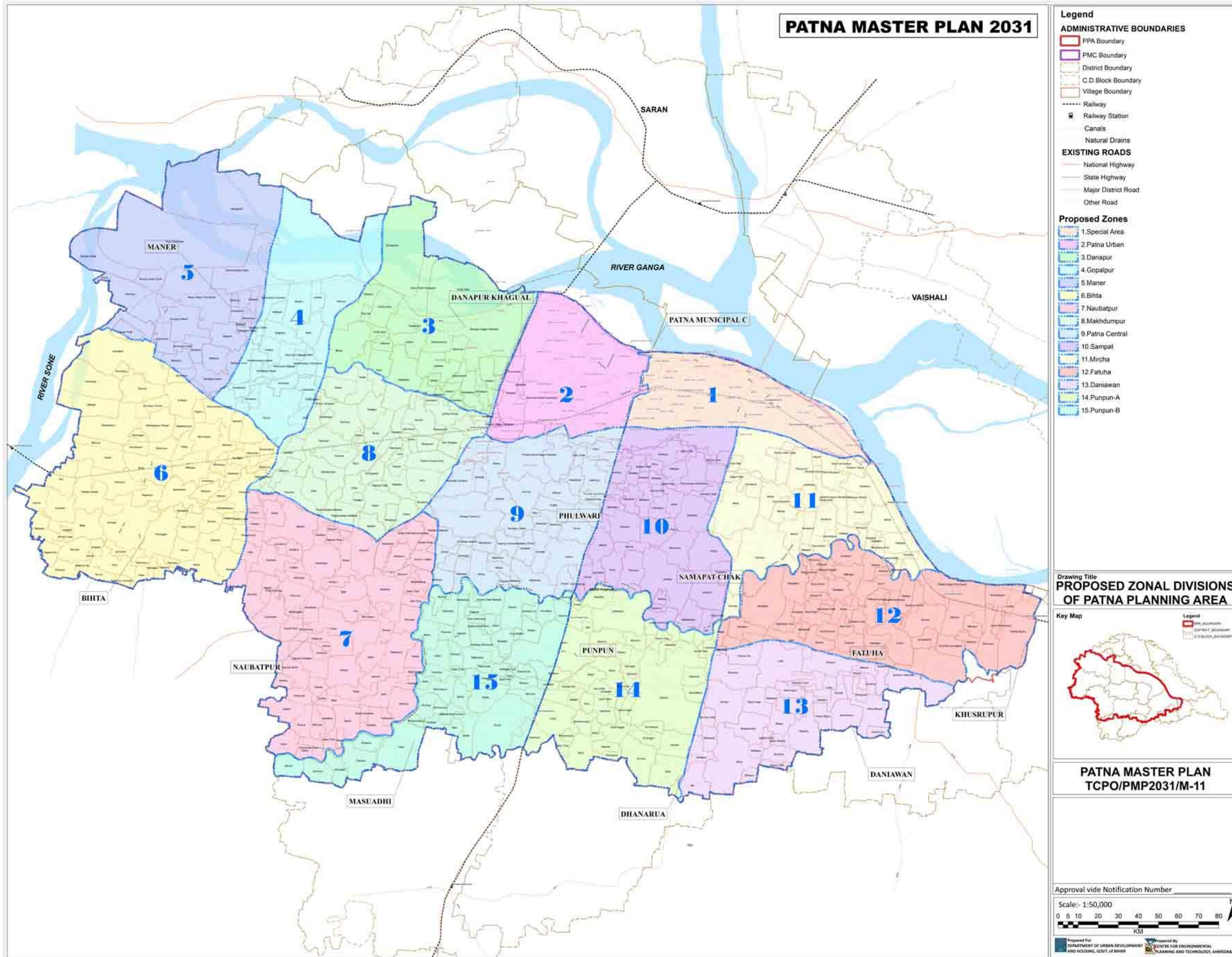
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Map reference-  
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Map reference-  
 TCPO/PMP2031/M-11



Map reference-  
TCPO/PMP2031/M-12

