



Urban Development and Housing Department
Government of Bihar

City Development Plan (2010-30) **PATNA**



CDP Prepared By:



Intercontinental Consultants & Technocrats Pvt. Ltd.



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संदेश

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

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

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

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


(प्रेम कुमार)



संदेश



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

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

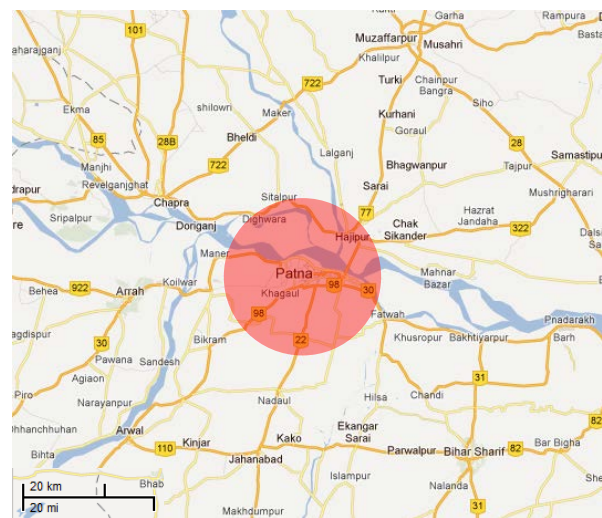
यह नगर विकास योजना, ब्रिटिश सरकार के अन्तर्राष्ट्रीय विकास विभाग (DFID) द्वारा वित्त पोषित संवर्धन कार्यक्रम के तहत बनाई गई है। पटना नगर निगम इस सहयोग के लिए DFID का आभारी है।

(उपमहापौर)
पटना नगर निगम

(महापौर)
पटना नगर निगम

Overview

Patna is the capital of Bihar and the largest urban area. The town is located in Patna district that comprises six sub divisions. The Patna Municipal Corporation area covers 99.45 sq km and is divided into 72 wards. Patna is located on the banks of the River Ganga. Patna is a metropolis and has a designated regional development area that covers 234.70 sq km and includes outgrowths within Patna district – the Patna Urban Agglomeration (Danapur, Khagaul and Phulwarisharif) – Saran district and Vaishali district. Patna city is well connected by road, rail and air. NH 19, NH 83 and NH 98 passes through the municipal corporation limits.



Patna is an important commercial centre. Due to its central position at the junction of the three rivers, it has the additional advantage of transport of goods by river. The most important commodities manufactured in the PMC are electronic goods, food grains are imported and vegetables are exported. The municipal corporation area comprises of large business quarters namely, Marufganj, Masurganj, Mirchiyaganj, Maharajaganj, etc. The commercial establishments within the city are mainly lined along the arterial and major roads and there is extensive mixed land use of commercial and residential use throughout the city.

The competitive advantage of Patna lies in its being the state capital and its central location. It is the centre for all higher order services in the state – education, health – and the political centre. The town is well connected by rail, road and air with the region and the rest of the country. Patna’s location on the banks of the River Ganga ensures that there is abundant water and fertile soil in the region.

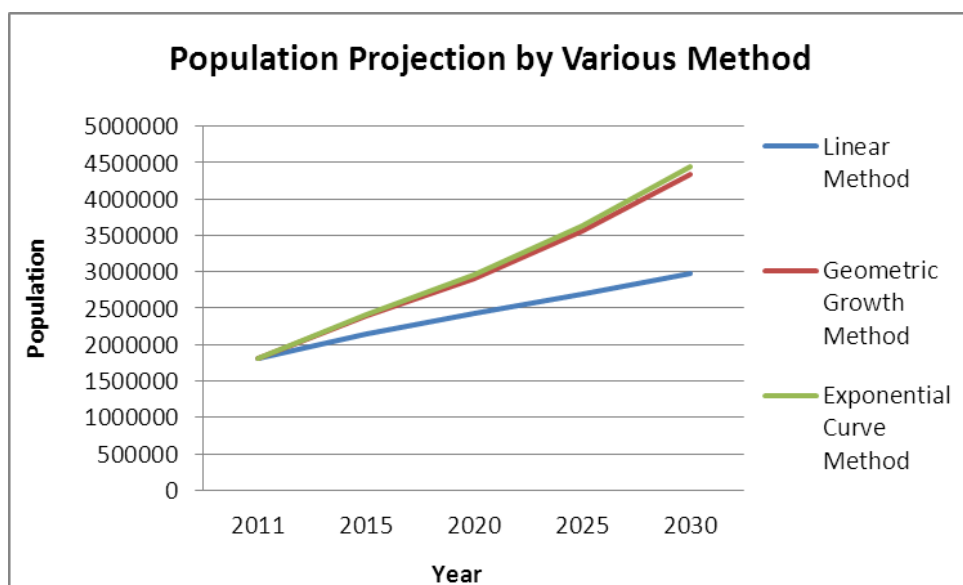


CITY VISION

The vision for Patna was derived on the basis of the status assessment of the city, stakeholder consultations and focused group discussions. Participatory consultations during the visioning process concluded that there is need to revive growth and improve the overall quality of life of its citizens. The identified Vision is as follows: ***“To develop Patna as a vibrant national centre for growth with a focus on economic development, river front development, transport, heritage and tourism; a town that provides quality infrastructure services and facilities, good governance, planned development and clean environment.”*** The identified vision forms the basis of sector-specific strategies adopted in framing the action plan.

Demography

The population growth has been uneven in the period 1951-2011. The growth registered an increasing trend in the period 1961 to 1981 - from 28.52% to 64.14%. It reduced to 18.14% during 1981 to 1991 rising again between 1991 to 2001 to 48.97% and dropping again during 2001 to 2011 to 32.53%. For purposes of the CDP, the population has been projected using three different methods (Linear Method, Geometric Growth Method and Exponential Curve Method). The Exponential Method was adopted for population projection on account of its best fit. The projected population for 2030 is 4443678.



Sector Assessments & Growth Strategies

A) Water Supply

Ground water is the main source in Patna. The Bihar Rajya Jal Parishad is responsible for capital works and the Patna Jal Parishad responsible for O&M. The public water supply system comprises 98 tube wells (11 non-functional) that pump water directly to the distribution mains. The only form of treatment is by online electro-chlorinators. The distribution system includes 23 overhead reservoirs of which only the one's at Agam Kuan, Guljarbagh Press, Guru Govind Singh Hospital and High Court (all maintained by PHED) are functional. Patna also has 30,000 public stand posts and approximately 23,000 public hand pumps. The tube wells operate for 15 hours a day and about 65% of them are less than 5 years old. The ground water level is at 2-8m and piped water supply covers 60% of households. The gross water supply in the city is around 186 MLD with about 91 lpcd as per 2011 population. The projected water demand in 2030 is 688.8 MLD. **A DPR for water supply has already been prepared and therefore not included in this CDP.**

B) Sewerage and Sanitation

The sewerage system in Patna was established in 1936. The city has four sewage treatment plants located at Saidpur (45 MLD), Beur (35 MLD), Pahari (25 MLD) and Karmali Chak (16 MLD) although the quantum of sewage reaching the plants is lower than installed capacity. As per Census 2001, 62.51% of the households had water closet latrines, 20.37% had pit latrines. Open defecation was practiced by 9.01% of households. It is estimated that the town has a sewer length of 27.4 km. The municipal corporation area has only 21 public toilets. The estimated sewage generation in the town in 2011 is 224.6 MLD and this is expected to increase to 551 MLD by 2030. The sewerage system is inadequate for a town of Patna's size leading to spillage and collection in low lying areas and water bodies that make the living environment unhygienic.

Strategies: The CDP suggests the following:

- Development of a sewerage system with all associated features
- Development of public conveniences

Sewerage Projects	Total (in Rs. Crore)	2011 - 2015	2016 - 2020	2021 - 2030
Renovation of 4 STP	20.00	20.00	-	-
Construction of 2 new STP	15.00	7.50	-	7.50
New Sewer System	720.00	360.00	216.00	144.00
IEC measures for sanitation practice	0.40	0.40	-	-
Community toilets (5% HH does not have toilet facilities and 1 toilet will cover 50 families) 2011 popu- 1,811,000, HH size-6.2 =292097, 5% of HH= 14605 do not have toilets	29.21	29.21	-	-
Public Convenience	4.00	2.00	2.00	-
Sub Total	788.61	419.11	218.00	151.50

C) Drainage

Patna town is located on a level strip of land on the south bank of the River Ganga that slopes to the south and east. The topography is saucer shaped. The railway line divides the area with the land to the south of the railway line being flood prone.

Strategies: The key strategies in the CDP are:

- To develop a drainage system based on a Drainage Master Plan
- To construct new drains and missing links, align, develop and maintain existing drains

The rising waters of the Ganga, Punpun and Sone all impact the town. Patna has about 460km of pucca drains, 340 km of kutchra drains and 1200km of underground drains. The storm water drainage of the town has been divided into four zones – Eastern, Southern, Central and Western. The Eastern Zone is primarily the Old City area and does not have a well-defined drainage system. The zone is characterised by narrow streets and lanes that hinder laying of drainage conduits. The Southern Zone has limited drainage only at Jogipur in Kankarbagh serving Lohianagar Housing Colony. The drainage system here is inadequate. The slope was obstructed on account of the construction of the Bye-Pass. The Central Zone is prone to flooding and has three major outfall nallahs – Bakerganj Nallah; Agam Kuan Nallah and the underground drain upto Krishna Ghat. The Western Zone has some areas that are prone to water logging on account of the slope and has several pumping stations. The overall system of drainage is not very efficient with intermixing of storm water and sewerage; drains are clogged with garbage and silt thus their carrying capacity is reduced; the drainage pumping plants are not working to designed capacity and the unplanned growth of the town is creating further pressure on the infrastructure.

Drainage Projects	Total (in Rs. Crore)	2011 - 2015	2016 - 2020	2021 - 2030
Preparation of Drainage Master Plan considering the city level slope	1.50	1.50	-	-
Construction of Primary drains	150.00	75.00	45.00	30.00
Construction of Secondary drains	204.00	102.00	61.20	40.80
Improvement/ repairing of existing primary and secondary drains	16.56	16.56	-	-
Improvement/ repairing of existing main drains	8.70	8.70	-	-
Construction of Main Drain	78.00	39.00	-	39.00
Removing the encroachment of drain in market area	1.00	1.00	-	-
Creation of sump house	2.00	1.00	1.00	-
Sub Total	461.76	244.76	107.20	109.80

D) Solid Waste Management

It is estimated that Patna generates about 680 tonnes of garbage per day. About 65% of the waste generated is collected while the rest is unattended. The town has no organized system for solid waste management – it had contracted a private operator for selected wards but the operations have been suspended.

City Development Plan for Patna: EXECUTIVE SUMMARY

The ULB has 386 hand carts and trolleys, 27 trucks, 7 dumpers and 121 tractors for managing this service. The vehicles make 2 trips per day to the dumping site that is located at Ramachak Bairia. It is estimated that the town will generate 1537 tonnes of garbage per day by 2030.

Strategies: The key strategies in the CDP are:

- Introduction of door to door collection including segregation at source
- Provision of community dustbins
- Procurement of equipment and vehicles
- Scientific disposal at sanitary landfill
- IEC campaigns to complement planned systems improvements

A DPR for solid waste management worth Rs. 36.95 crores has already been approved therefore projects have not been included in this CDP.

E) Roads, Traffic, and Transportation

In Patna, less than 10% of the area is under circulation against the norm of 15-20%. The NH 30, NH 31 and NH 2 pass through the town. Patna is located about 100km from the national East – West Expressway. The major corridors are the Ashok Rajpath, Patna-Danapur Road, Bailey Road, Harding Road and Kankarbagh Road. There is an international airport serving the region. The Patna Railway Station is the main station but it is not fully broad gauge. The National Waterway-1 skirts Patna. This is a 1354km stretch in the River Ganga from Allahabad to Haldia via Varanasi, Patna and Farakka. However this transport system has not been fully exploited. The city is deficient in terms of an efficient public transport leading to an estimated 4.7% increase in private vehicles in the period 1996-2001. Parking is largely disorganised and together with encroachment on account of vending, reduces the road width.

Strategies: The key strategies in the CDP are:

- Improving existing roads and intersections
- Creation of new traffic infrastructure including a truck terminal, bus stand, parking and new roads
- Use of non-conventional energy for street lights
- Development of integrated public transport system

Traffic and Transportation Projects	Total (in Rs. Crore)	2011 - 2015	2016 - 2020	2021 - 2030
Widening and strengthening of roads of main market area	12.50	6.25	6.25	-
Construction of parallel service road to the north of bypass with street lights, culverts and underground cabling.	150.00	75.00	75.00	-
Development of 4 lane road parallel to Ganga rive from eastern limit of PMC to Danapur with street light and landscaping.	280.00	140.00	140.00	-
Development of non-metalead road and improvement of internal roads of city	750.00	750.00	-	-

City Development Plan for Patna: EXECUTIVE SUMMARY

Modernization of existing bus stand and bus terminal	1.00	1.00	-	-
Development of truck terminus for wholesale/ agro-based goods	10.00	7.00	3.00	-
Construction of Mono rail	2000.00	1000.00	600.00	400.00
Development of a new bridge linking patna city area to bypass	15.00	15.00	-	-
Sub Total	3218.50	1994.25	824.25	400.00

F) Street Lighting

The city has 3600 street light poles and it is estimated that about 120km of city roads do not have streetlights. The city also has 23 high mast poles. While the average spacing between light poles on a two lane road should be 30m, in Patna it is 155m.

Street Lighting Projects	Total (in Rs. Crore)	2011 - 2015	2016 - 2020	2021 - 2030
Installing Street Light poles with underground cable network (including PCC poles, line, fixing, fitting etc.)@ 30 m distance	169.20	84.60	50.76	33.84
Implanting 20 High mast Poles with Lights (40 m. high)	1.20	1.20	-	-
Sub Total	170.40	85.80	50.76	33.84

G) Social Infrastructure

An assessment of social infrastructure in Patna was done. It is estimated that there are about 362 primary schools, 241 senior secondary schools and 14 colleges. The first university in Bihar, Patna University was established in 1917 and is the seventh oldest university in South Asia. The Patna Medical College was established in 1925. In recent years, several institutions of higher education have been established like the Central University, the IIT, NIFT, BITS, Chandragupta Maurya Management Institute and the Indira Gandhi Institute of Medical Sciences. Patna is the preferred destination for educational facilities in the state. Patna has 35 government hospitals and dispensaries as well as a large number of private hospitals and clinics. Patna is the preferred destination for specialized medical care. The city has 42 parks and playgrounds and 10 community halls. The city also has a stadium – the Moin-ul-Haq stadium – and the Patna Golf Club. Other social infrastructure facilities include three electric crematoria, dhobi ghats and four fire stations.

Strategies: The key strategies in the CDP are:

- Provision of health and educational facilities in line with UDPFI norms in phases

City Development Plan for Patna: EXECUTIVE SUMMARY

Social Infrastructure Projects	Total (in Rs. Crore)	2011 - 2015	2016 - 2020	2021 - 2030
Six community centre/ Baraat ghar	4.56	2.28	1.37	0.91
Cultural Centre/Recreational club	20.00	10.00	5.00	5.00
Development of Public Library (area 500sqm)	2.84	2.84	-	-
Development of two new police stations for tourist police	12.00	6.00	6.00	-
Awareness Campaign for Fire Hazards	0.26	0.13	0.08	0.05
IEC for health awareness	0.80	0.40	0.24	0.16
Incineration Centre	0.80	0.40	0.24	0.16
General Hospital	80.00	40.00	24.00	16.00
Intermediate hospital (Category A)	80.00	40.00	24.00	16.00
Intermediate hospital (Category B)	50.00	25.00	15.00	10.00
Poly Clinic	8.00	4.00	2.40	1.60
Nursing home, Child welfare and Maternity centre (25 – 30 Beds)	12.00	6.00	3.60	2.40
Dispensary	12.00	6.00	3.60	2.40
Primary School (Class I to V) (Area= 0.40 ha)	20.00	10.00	6.00	4.00
Senior Secondary(Class VI to XII) (1000 students) (Area= 1.60 ha)	20.00	10.00	6.00	4.00
4 Polytechnic for women	40.00	20.00	12.00	8.00
3 Colleges (1000 to 1500 students)	45.00	22.50	13.50	9.00
4 Technical Centre	32.00	16.00	9.60	6.40
2 Special high school (for disadvantaged sections)	20.00	10.00	6.00	4.00
Sub Total	460.26	231.55	138.63	90.08

H) Slums and Urban Poor

The SPUR survey in December 2010 recorded presence of 108 slums with 16277 households. Slums have poor infrastructure with hand pumps and public stand posts being the main water supply sources; very few households have toilets and there is a lack of public toilets. **A DPR for housing for urban poor has been approved in the earlier CDP for the town.**

I) Local Economy

As per Census 2001, the workforce participation rate in Patna is 25.37%. About 91% of workers are engaged in services like trade, commerce and industry. Patna is an important

Strategies: The key strategies in the CDP are:

- Improvement in the business approval processes
- Provision of improved infrastructure in the long run to strengthen economic development

commercial centre and manufactures commodities like electronic goods. There are several large business quarters like Marufganj, Masurganj, Mirchiyaganj and Maharajganj. The corporation area also has a large number of wholesale markets for vegetables and agricultural goods but these have witnessed an organic growth. Patna has a number of industries and brick kilns along the Bye-Pass road. The first Software Technology Park of Bihar has been developed in Patna. The majority of small

City Development Plan for Patna: EXECUTIVE SUMMARY

and household industrial units are located in the Old City. In Pataliputra there is an Industrial Estate of the BIADA covering 104.14 acres and having 139 units. Major industrial development is taking place in Ward 69 towards the Bye-Pass. It is estimated that Patna has about 28955 vendors catering to daily needs of residents spread across the city. This informal sector encroaches on the roads and pavements and adds to traffic related difficulties being faced in the city.

Economic Development Projects	Total (in Rs. Crore)	2011 - 2015	2016 - 2020	2021 - 2030
Development of Vending zones	15.00	15.00	-	-
Construction of vegetable markets	1.20	1.20	-	-
Construction of Weekly Haat	0.40	0.40	-	-
Sub Total	16.60	16.60	-	-

J) Environment

Patna is located in the high risk earthquake zone. However, development controls are not enforced increasing the risk potential. Patna also falls in the flood risk zone and the problem is aggravated in the rainy season. In addition to the natural environmental hazards, the overall poor level of services has an adverse impact on the city environment. Interventions proposed in the CDP will contribute to city environment together with the improvement in services.

Strategies: The key strategies in the CDP are:

- Tree plantation along the roads; development of incidental parks and spaces
- Overall improvement in services

Environment Projects	Total (in Rs. Crore)	2011 - 2015	2016 - 2020	2021 - 2030
Tree Plantation along river bed	0.10	0.05	0.05	-
River front development	250.00	125.00	75.00	50.00
Construction of Public promenades	15.00	7.50	4.50	3.00
Construction of Botanical Garden	5.00	2.50	1.50	1.00
Construction of Mela Ground	2.00	1.00	0.60	0.40
Construction of parking lot	0.12	0.06	0.06	-
Development of water sport activities	10.00	5.00	5.00	-
Sub Total	282.22	141.11	86.71	54.40

K) Heritage and Tourism

Patna has several sites of heritage and tourist interest in and around the city. The city has six archaeological sites. According to INTACH, there are 185

Strategies: The key strategies in the CDP are:

- Inventory of all tourist and heritage sites
- Improvement of tourist infrastructure

heritage sites in the Patna Urban Agglomeration area. Some of the important sites include Agam Kuan, Durakhi Devi Temple, Choti Patandevi, Begu Hajjams mosque, Kamaldah Jain Temple, Golghar, Kumhrar, Buland Bagh etc. The CDP recommends a detailed survey of heritage sites in Patna. Patna

City Development Plan for Patna: EXECUTIVE SUMMARY

has a rich historic past and has been the seat of governance for successive dynasties in ancient times. The city is also at the core of the tourist circuits in the state – Buddhist, Tirthankar and Nirvana circuits.

Heritage and Tourism Projects	Total (in Rs. Crore)	2011 - 2015	2016 - 2020	2021 - 2030
Development of town park (Area .5 Ha)	20.00	10.00	6.00	4.00
Development of green belts along major roads and along revived major drains	60.00	30.00	30.00	-
Landscaping and flood protection along Ganga river front	15.00	15.00	-	-
Mediation park (2 ac)	30.00	15.00	9.00	6.00
Millennium park	100.00	50.00	50.00	-
Beautification of various tourism attraction sites.	15.00	7.50	4.50	3.00
Development of tourist information centres at all important places of Patna.	0.26	0.13	0.08	0.05
Sub Total	240.26	127.63	99.58	13.05

L) Governance and Institutional Set Up

Institutional Setup Projects	Total (in Rs. Crore)	2011 - 2015	2016 - 2020	2021 - 2030
E-Governance System for Municipal Services	32.00	32.00	-	-
Implementation of Double Entry Accrual Based Accounting	0.50	0.50	-	-
Training and Institutional Strengthening	5.00	2.50	2.50	-
Implementation of Asset Management System (GIS Mapping of water, sewerage & drainage network)	4.97	4.97	-	-
Sub Total	42.47	39.97	2.50	-

Financial Position of the Local Body

Analysis of the financial position of the ULB shows that annual income is mainly dependent on government grants that accounted for 39.02% of total income in 2009-10. The annual income in the last five years has been

Highlights of Financial Position

- Annual income is mainly dependent on grants from government
- Income from tax revenue is a small share of total income

City Development Plan for Patna: EXECUTIVE SUMMARY

irregular and was exceptionally low in 2006-07 and 2009-10 on account of low government grants. Government grants have increased from Rs. 1220 lakhs in 2006-07 to Rs. 3149 lakhs in 2009-10. Collections from holding tax have varied from Rs. 613 lakhs in 2005-06 to Rs. 492 lakhs in 2008-09 and it is estimated to be Rs. 591 lakhs in 2010-11. Establishment expenditure accounted for 51.77% of total revenue expenditure in 2009-10 and programme expenditure 40.28% in the same period. Revenue Expenditure has been higher than Capital Expenditure in the last five years. O&M expenditure accounts for a very small share of total expenditure.

Revenue Income and Capital Income

	Item	Year (Amount on Rs. Crore)					
		2005-06	2006-07	2007-08	2008-09	2009-10	2010-11 (Estimated)
A	Own Sources- Taxes	21.22	15.53	16.17	17.00	20.83	25.50
1	Collection from holding tax	6.13	4.46	4.61	4.92	0.00	5.91
2	Others	15.10	11.07	11.56	12.07	20.83	19.59
B	Own Sources- Non-Taxes	1.05	0.74	1.08	5.86	3.35	8.79
C	Assigned Revenues	2.31	3.68	22.29	9.16	4.03	6.93
D	Revenue Grants (Include. Salary and Matching grants)	51.89	12.21	8.13	57.05	31.49	45.60
E	Other Income	0.35	0.62	0.61	1.27	0.04	0.68
	<i>Total Revenue Receipts</i>	<i>76.83</i>	<i>32.78</i>	<i>48.28</i>	<i>90.34</i>	<i>59.75</i>	<i>87.50</i>
	<i>Capital Receipts</i>	<i>4.20</i>	<i>33.27</i>	<i>38.92</i>	<i>64.63</i>	<i>21.00</i>	<i>44.96</i>
	Total Receipts	81.03	66.05	87.20	154.97	80.75	132.46

Municipal Expenditure

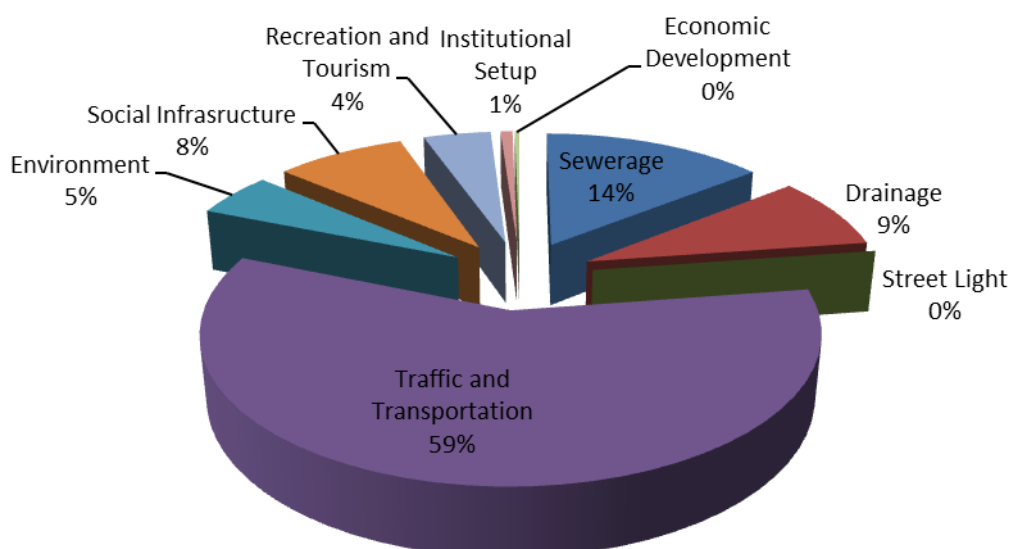
	Head	Year (Amount in Rs. Crores)					
		2005-06	2006-07	2007-08	2008-09	2009-10	2010-11 (Estimated)
(A)	Total Establishment Expenditure	31.24	33.21	38.09	55.41	41.94	51.11
(B)	O & M Expenditure	3.30	0.55	0.63	1.56	6.16	4.05
(C)	Programme Expenditure	1.92	4.22	4.89	4.62	32.63	19.56
(D)	Administration expenditure	0.23	0.31	0.37	0.40	0.23	0.33
(E)	Miscellaneous Expenditure	0.22	0.10	0.54	0.29	0.38	0.41
	Revenue Expenditure	36.91	38.38	44.51	62.28	81.36	75.46
	Capital Expenditure	49.43	23.13	28.74	93.61	0.09	34.49
	Total Expenditure	86.34	61.52	73.24	155.89	81.46	109.95

Capital Investment Plan (CIP)

The total funding over the life of the CDP period, i.e. up to year 2030, is estimated at Rs. 5510.66 crore. Sector-wise details of the investments have been defined for the entire period. In the previous sections, details of all identified projects and estimated costing have been shown. The CIP takes into account priority areas of intervention and funding ability and priorities of the ULB. The CIP accounts for funds that the ULB will be expected to contribute to meet all the interventions necessary for achievement of the City Vision.

The scheduling or phasing of the CIP is based on the analysis of fiscal resources for new investments and O&M, technical capacity for construction and the choice of specific improvements to be taken up over the CDP period.

Sectors	Total (in Rs. Crore)	2011 - 2015	2016 - 2020	2021 - 2030
Sewerage	788.61	419.11	218.00	151.50
Drainage	461.76	244.76	107.20	109.80
Traffic and Transportation	3218.50	1994.25	824.25	400.00
Environment	282.22	141.11	86.71	54.40
Social Infrastructure	460.24	231.54	138.62	90.08
Recreation and Tourism	240.26	127.63	99.58	13.05
Institutional Setup	42.47	39.97	2.50	-
Economic Development	16.60	16.60	-	-
Total	5510.66	3214.97	1476.86	818.83



Financial Operating Plan (FOP)

The Financial Operating Plan takes into account an analysis of the income and expenditure of the ULB on the basis of some assumptions. The key considerations of the FOP are

- Income by ULB's own tax sources by 50% per annum
- Income by ULB's own non-tax sources by 20% per annum
- Income from Revenue Grants (Include. Salary and Matching grants) increase by 5% per annum
- Income from other sources increase by 5% per annum
- Income from capital receipt increase by 5% per annum
- New Taxes proposed with the annual increase of 20% per annum
- Total Establishment Expenditure by 5% growth per annum
- Operation and maintenance expenditure increase by 5% per annum
- Programme expenditure increase by 5% per annum
- Administration expenditure increase by 5% per annum
- Miscellaneous Expenditure increase by 5% annually

The proposed income and expenditure of the ULB on the basis of the above assumptions in Phase I of the CDP is as follows:

Income Source	Actual Amount (in Rs. Lakhs)					Projected Income & Expenditure based on Average Growth Rate					
	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16
Total Receipts	81.03	66.05	87.20	154.97	80.75	132.46	157.26	187.44	225.37	273.34	334.29
Revenue Receipts	76.83	32.78	48.28	90.34	59.75	87.50	110.06	137.87	173.33	218.69	276.91
Capital Receipts	4.20	33.27	38.92	64.63	21.00	44.96	47.21	49.57	52.05	54.65	57.38
Revenue Expenditure	36.91	38.38	44.51	62.28	81.36	75.46	86.31	99.05	114.09	131.88	153.03
Surplus/Deficit							23.75	38.81	59.24	86.81	123.88

The key observations of the FOP are:

- The ULB is able to enhance its revenue from the current level of deficit of Rs. 13.04 crores in 2010-11 to Rs.123.88 crores in 2015-16
- Of the Rs. 5510.66 crore investment required for the CDP period, Rs. 3214.97 crores will be required in Phase I and the ULB will be able to generate a small part of it but will require support from other sources as well
- Innovative use of PPP especially in areas like solid waste management, transport, development parks will further reduce the financial burden on the ULB

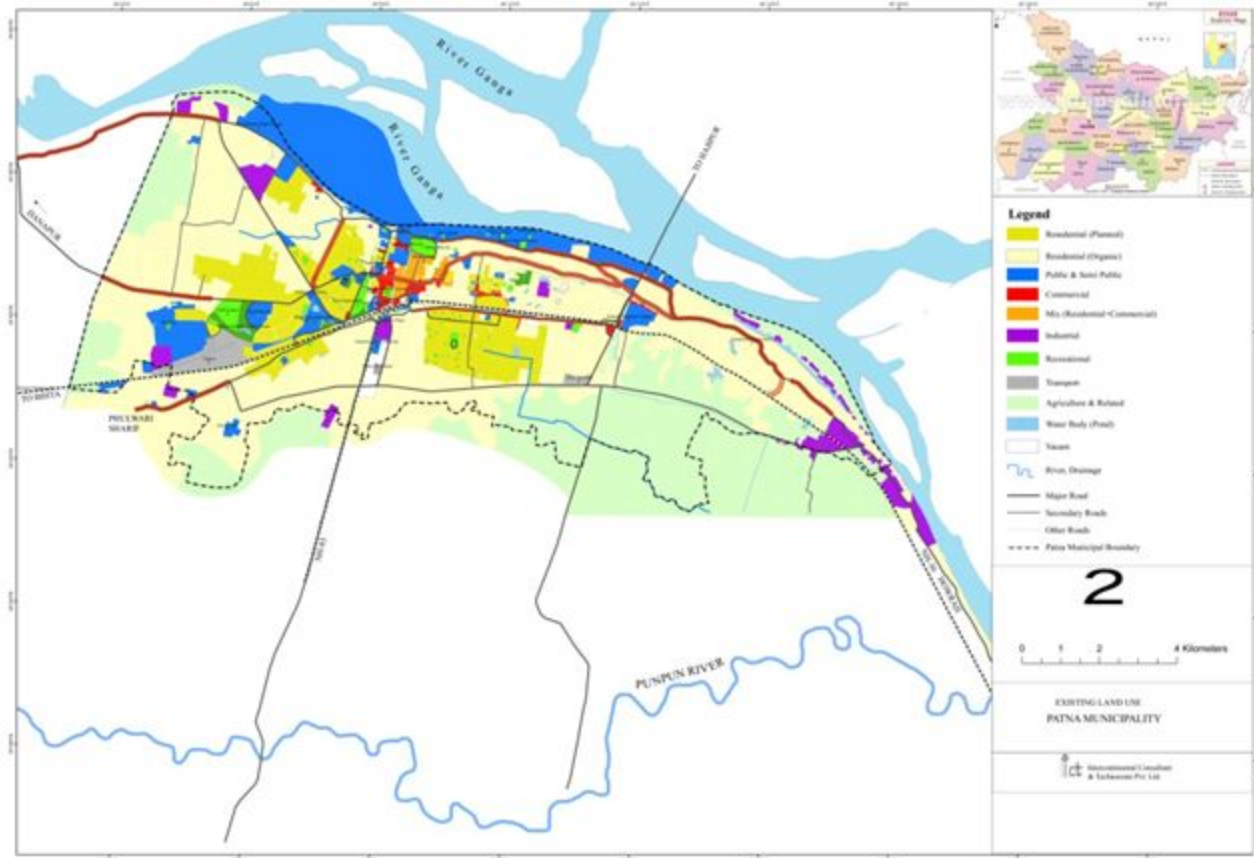
Overall Assessment

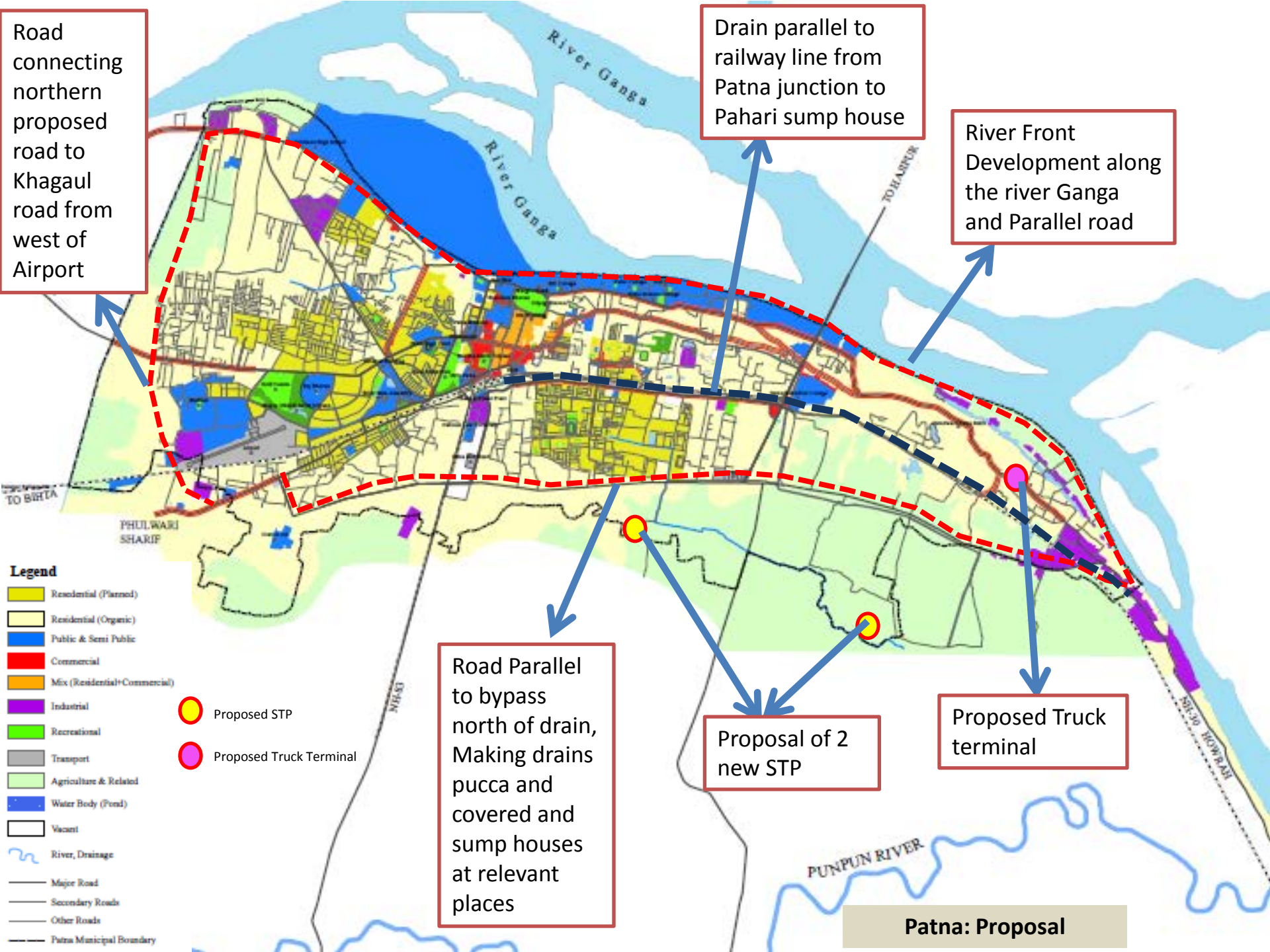
An overall assessment of the existing service delivery levels in the town was done on the basis of various indicators. Service levels are found to be alarming in many cases.

#	Parameter	Indicators	Rating
1.	Status of Infrastructure and Service Delivery Levels		
		a. Coverage of Water Supply	Good
		b. Per Capita Availability of Water	Good
		c. Continuity of Water Supply	Good
		d. Coverage of Individual Toilets	Good
		e. Door to Door Collection of Solid Waste	Alarming
		f. Collection Efficiency of Solid Waste	Average
2.	Financial Management		
		a. Operating Ratio	-----
		b. Growth in Revenue Income	Alarming
3.	Poverty Level		
		a. Population Below Poverty Line (BPL)	Below Average
4.	Organization Structure		
		a. Staffing pattern, availability of sufficient staff, competency level of existing staff for implementing proposed projects	Alarming
5.	Leadership		
		a. Leadership quality, awareness and understanding regarding urban sector, proactive approach for implementing reform measures	Alarming
6.	Economic Development Potential		
		a. Potential for Development, linkages to the state capital and other cities, status of existing infrastructure	Good
7.	Environment Sustainability		
		a. Status of Environment, quality of water, air,	Alarming
8.	Participation		
		a. Level of Participation from Citizen/Citizen Forums/Welfare Association in municipal affairs	Below Average
9.	Compliance with Reforms		
		a. Status of reform implementation and preparedness for implementation	Below Average

Legend

Alarming  Average  Below Average  Good 





Road connecting northern proposed road to Khagaul road from west of Airport

Drain parallel to railway line from Patna junction to Pahari sump house

River Front Development along the river Ganga and Parallel road

Road Parallel to bypass north of drain, Making drains pucca and covered and sump houses at relevant places

Proposal of 2 new STP

Proposed Truck terminal

Patna: Proposal

- Legend**
- Residential (Planned)
 - Residential (Organic)
 - Public & Semi Public
 - Commercial
 - Mix (Residential+Commercial)
 - Industrial
 - Recreational
 - Transport
 - Agriculture & Related
 - Water Body (Pond)
 - Vacant
 - River, Drainage
 - Major Road
 - Secondary Roads
 - Other Roads
 - Patna Municipal Boundary

Proposed STP

Proposed Truck Terminal