

Patna: The Urban Landscape and Land-use

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Introduction:

Patna is an ancient town having political, economic, educational, religious, and cultural value. It is located on the right bank of river Ganga south of Hajipur. As Mahatama Gandhi Setu connects it with Hajipur, it can be called twin city. This longest bridge of Asia also gives direct access to the people of North Bihar in Patna.

Rapid growth of Patna after the construction of Mahatama Gandhi Setu has attracted the author to study the landscape and land-use of Patna. A larger number of houses and colonies cropped up in different localities of Patna in which considerable number of working population and students from all over Bihar and neighbouring states take rest. In this way, it acts as a dormitory town. On the outskirts of Patna like Didarganj in the east, Danapur and Maner in the west, areas beyond the 3rd Bypass Road in the south and Hajipur & Jadhua in the north, rental houses or price of residential land is comparatively cheaper than Patna main town. Therefore, migrating people used to settle down in these areas.

Location of Patna is also ideal as it is situated at a point which is surrounded by rivers like Ganga, Sone and Punpun making it almost a water-fort or jaldurg. There are many factors that attract the author to study about the correlation between the landscape and land-use in Patna.

Objective of the study:

The objective of the study, therefore, is to observe and analyse a wide range of features of Patna in order to abstract and derive the operation of this system. The system can be thoroughly analysed to know the inter-related processes. The main objectives of the study may be enumerated as follows:-

- i. Patna, its site and situation
- ii. Growth of Patna and its morphology
- iii. Transport network of Patna
- iv. Urban land-use of Patna

Patna, the capital of Bihar, is one of the ancient cities of India. It has witnessed many vicissitudes in its historical past and after a long struggle and evolution has formed the present shape. During historical periods, it was known as Kusumpura, Pushpapura and Pataliputra and Greeks called it as Palimbrotha. It was also known as Shree Nagara during the reign of Pala dynasty. In medieval periods, it was named as Patna after the goddess Patan Devi and village Patan near Danapur. This modern city's real foundation was laid by Bambina, Bindusara in ancient times and during medieval period by Shershah Suri.

The Urban Landscape of Patna:

The city of Patna has a good locational advantage, as it is located in the heart of the Ganga plain in Bihar. It is bounded by the river Ganga in the north, Flood plain of the river Punpun in the South, Flood plain of the Son in the west and the confluence of the river Punpun with Ganga near Fatuha in the east. This city is located between the latitudes 25°35' N to 25° 38' N and longitudes 85°05' E to 85°16' E having an area of 3,202 km² with a population of 58.35 lakh people (2011 census) which is 5.61% of the total population of Bihar, residing in its fold. It has been divided into 47 municipal wards and 10 other wards (Fig. 1). It is situated on the levee of the river Ganga having a linear shape. It stretches east- west about 12 miles long and has a very small width of one mile to three miles only. Patna is well connected with other parts of the region by different means of transportation.

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The main broad gauge railway line on Eastern Railway (Howrah-New Delhi) runs parallel to the Ganga along the southern margin of the city (Fig.-1). Patna- Gaya line connects it also with the Grand- Chord line of the Eastern Railway and also by South-eastern Railway to the industrially rich region of the Chotanagpur plateau.

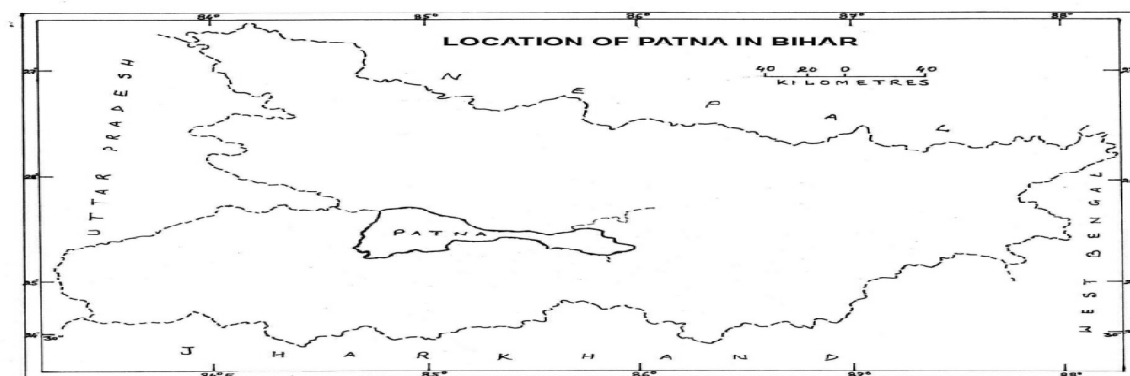
Fig.-1

Patna is located on the air-route of the Indian Airlines and Royal Nepal Airways. These two routes provide air services to Kathmandu, N. Delhi, Kolkata and Ranchi. At present, many private

airlines are also operating between Patna and other cities of India. These are Sahara Airlines, Air Deccan, Jet Airlines, and Kingfisher Airlines etc.

Site and Location:

The site and location is considered main controlling factors in the growth and development of the urban centres. The present structure of the city is the gift of its elongated levee land of the city. The river Ganga and its situation characterize the site of Patna. The natural levee has provided a



favourable base for the expansion of the city. The river Ganga and the abandoned courses of the river Son characterize the site of Patna. The higher land stretches west to east in the form of a levee for a considerable distance along the southern bank of the river Ganga. South of the elongated levee, the surface of the land has a general slope towards the south. As such, low-lying areas run almost parallel to the levee resulting in water logging.

The present site on which the city stands is formed of natural levee of the river Ganga and its tributaries through the ages. In the early phase of its evolution, the river Son was flowing through an area where the present capital area has developed. The westward shifting course of the Son provided newer land surfaces for future expansion of this urban centre to the west.

No doubt, the whole land is featureless and flat between the river Ganga and Punpun in the south with general slope from north to south. Some

parts of the southern edge are not habitable because of the water logging by frequent flooding of river Punpun and rainwater logging. The linear shape of Patna is mainly the outcome of the levee on which it is situated. Although the township has developed along the levee from Danapur to Maalsalami but only limited portion from Kurji Hospital in the west to Gulbighat in the east is lined with bricks and wooden poles, which protects the southern bank against erosion.

Although the stable southern bank of the river Ganga has influenced the growth of Patna by providing almost permanent site but it has also worked as hindrance in the past for the northward expansion of the city. The whole area south of the river Ganga bears imprint of the shifting courses of the river Son and Punpun. As the levee, upland along the southern bank of the Ganga restricts the flow of tributaries joining it from the south when river Ganga is inundated and the Punpun also get flooded, the

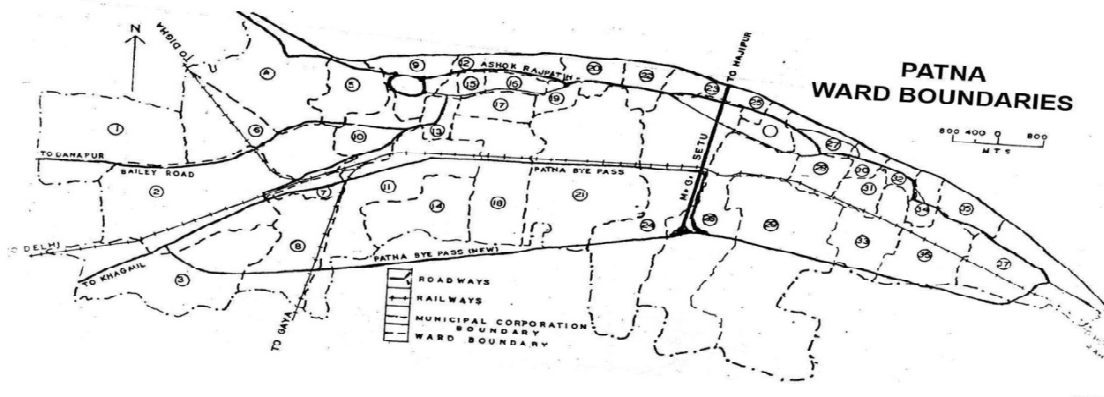


Fig.-1

high rising water of Ganga does allow the entry of water and the flow of Punpun is reversed.

Urban Land use of Patna

Right from the time of its origin the city of Patna has been a source of different service not only for its citizens but also for the people of its neighbouring area. That is why it has gained multifunctional character. Certainly, the functional specialization has been changing from time to time in trade & commerce, administration, education, health etc. Its haphazard, spontaneous and unplanned growth in greater part through a long period has resulted in the overlapping and intermixing of various land use. Although, the unplanned growth of the city has caused the development of mixed land use in most parts, except in the newly planned areas. However, dominance of various functions in various parts cannot be rooted out. In Western Patna, several new residential areas like Shri Krishnapuri, L.I.C. Colony etc. have cropped up in a planned way. Patna is also famous for educational functions. Several educational institutions providing general and technical education attract the people of most part of Bihar and neighbouring states. Most of the technical and medical educational institutions form a distinct zone in the middle of the city in north of Ashok Rajpath. The growth of western Patna is due to administrative functions. Patna is dominated by administrative functions because it is the capital city

of Bihar. The Raj Bhawan, Assembly Houses, Secretariat Buildings etc are engaged in administrative functions. However, Patna is not known for any big industry but there is a great potential for its development. A large number of cottage and small-scale industries have developed in the city. In fact, about 13% of the total working force is engaged in manufacturing sector, which shows its importance in the economy of the city. Regarding the recreational facilities of Patna,

Road Pattern of Patna

The road patterns and their designs are greatly influenced by the elongated flood free levee upland along the river Ganga. Other roads parallel to railway line and flood protected embankment have developed even in low-lying area in east-west direction. However, the analysis of existing road pattern explains the growth of parallel roads along the riverbanks. Here, these are three parallel roads traversing its length as if other unplanned city Patna too has narrow and zigzag roads and lanes especially in its central and eastern side. The bulk of the traffic is still commanded by the historical Ashok Rajpath, which runs parallel to Ganga on the highest part of the levee.

Though Ashok Rajpath handles most of the traffic flow of Patna still is neither straight nor uniform in width. It is happened due to encroachment. At many places, the width of the road is less than 20 feet particularly between

Mahendru and Malsalaami. Patna Bye pass road is another important road, which runs almost parallel, and to the railway line from Agamkuan to Patna Junction and then its one offshoot road again runs parallel to Patna-Gaya railway line while another one extended towards Danapur. Due to the construction of New Bye pass the heavy transport has been diverted through this road and the Danapur Bye pass is lessened with the heavy load of traffic. In spite of traffic diversion, it is not losing its importance because of its location between largest residential area of Kankarbagh and South Patna and railway line.

The New Bye pass has become the attraction of traffic as well as the businesspersons. Almost all heavy transport leading to North Bihar and South Bihar have to pass through this newly constructed Bye pass road.. Western Patna presents planned roads like the Bailey Road of 100 Feet to 200 Feet wide, King George Avenue, Serpentine Road, Boring road (East and West) etc. The Rajbhawan is the focus from where several roads radiate in different direction. In 2007, the Government of Bihar has decided to utilize the Ganga riverfront for decongesting the load of traffic from the roads of Patna. For this purpose the Government of Bihar has approved the construction of Loknayak Ganga Path also known as Ganga Path or Ganga Driveway which is a planned expressway across the river Ganges in Patna, Bihar, India. It is expected to be

completed by the end of 2022. It is being jointly constructed by Housing and Urban Development Corporation (HUDCO) and the Government of Bihar.

Public Utility Services

Like other urban centers, Patna has many specialized service facilities especially meant for the city and some service facilities for the others also. Important service facilities are health, education recreational, postal, sewage or sanitary, electricity, transport services etc. This urban centre is well known for its health services. Patna Medical College Hospital having several specialized doctors and treatment facilities serve the people of most parts of Bihar.

Regarding education Patna is one of the best educational centres of Eastern India. Patna University is one of the most reputed and universally acclaimed institutions of India. Besides it, many reputed Degree colleges for Science, Arts, and Commerce disciplines are located here. Technical institutes and all India fame coaching institutes of various services are also functioning here. In Bihar, Patna ranks first in recreational facilities but its position is very backward in all India level. Means of recreation have not been developed according to the requirement of the teeming population. Good parks, play grounds, theaters, cinema halls, clubs, water sports centres, indoor and outdoor stadiums, swimming pools etc. are not present in sufficient numbers. Most of them are concentrated in western

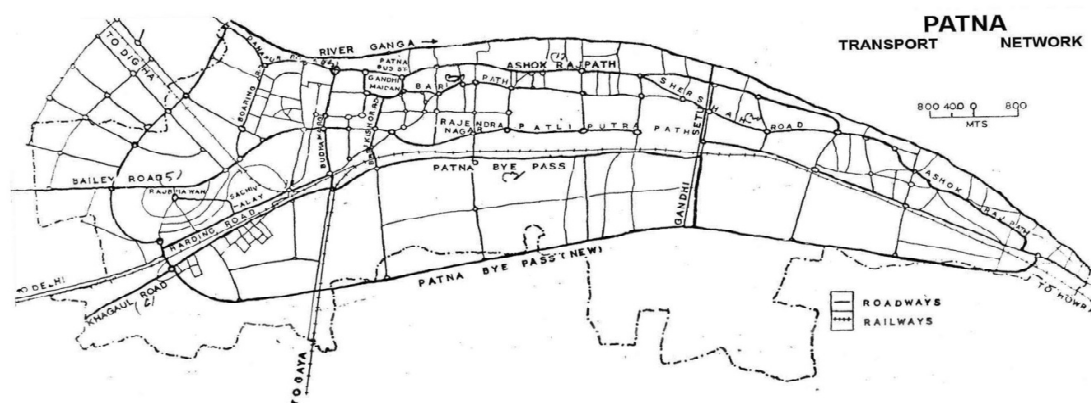


Fig. 2

Patna and are not meant for common people. They cater only to the affluent section of wealthy and so called powerful people.

Kali Das Rangalaya near Gandhi Maidan and Bhartiya Nritya Kala Mandir near Patna Radio Station are the only two theatres well known in Patna. Regarding transport facilities, Patna is very poor. Bus service is very poor and recently the city bus service is started to cater the people. In addition to bus service, petrol driven auto rickshaws locally called 'Tempo' and 'Hawa Hawai' handle Patna's real transportation. During recent years, tempos and matadors run from various localities to the city centres. Hand driven rickshaws, horse carts locally called Tamtam are also important and easily available anywhere in the city. Boat and steamer ferry services in river Ganga also help in the movement of the people and their goods though on small scale. Post & Telegraph facilities are in happy condition. Patna is divided in 36 Postal Zones. All these zones have door-to-door postal delivery system. Patna is comparatively in a better position regarding electricity supply. At most all localities of Patna are electrified and 99% people are enjoying this facility.

Conclusion:

In this study emphasis has been laid on the analysis of the host society where migrants get shelter. The capital city of Patna having attracted millions of migrants from different parts Bihar in particular and India as a whole, became ideal ground for such investigation. Certainly, the analysis concentrates on geographical approach with slight multi-disciplinary orientation. As revealed by the analysis of population growth data from 1951 the population growth rate has increased about two and a half times from 1981 and half times in the year 2001. No doubt, this rapid growth of population is partly responsible by natural growth rate but mostly by the rural-urban migration. As

such analysis of migrants coming from rural areas in large numbers have not only influenced the existing socio-economic conditions of Patna but also influenced the horizontal expansion, attainments and changes in occupational structure, educational attainments and social life of the people. The present study, therefore aims to analyze the geographical factors influencing migrants to shift from different rural areas to the city and the impact of rural-urban shift on the urban landscape of Patna.

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