

Urban Land Use and Survey of Different Part of Patna

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INTRODUCTION

Patna, the capital of Bihar state, is a city with an ancient past. It got opportunity to originate and grow in an area which has remained theatre of historical events and cultural change. Virtually this region gave rise to several religions thinkers, philosophers and others right from pre-historic days and focal points of all events concern this urban centre. As such this urban centre contains history and tradition right from pre-historic period.

The characteristic features of the distributional pattern of the commercial land use in this metropolis shows that the most accessible land has been developed for this use. In the older parts of the urban centre the main road passing through the region encouraged the commercial function. The thickest concentration of traditional commercial items may be seen in the old settled areas of Patna City where nearly sixty to seventy percent land is developed to this land use.

Keeping in view of the different aspects and structure of the business activities such as land value, location, nature of business centre and their establishments etc, the entire business area in the township may be classified in following main categories

- i. Principal Business Desmet,
- ii. Other Retail shops,
- iii. Semi Permanent shops - vegetable, tea, puja, bookstalls, things of daily use etc.
- iv. Periodical markets.

Most of the central function all localised in the main business area or central business area. The central business area represents the wholesale and retail heart of the urban centre. In this portion individually and collectively, retail stores do a greater volume of business per unit same time retail occupancies is characterized by different types of shops including clothing houses, general stores, furniture stores, hardware shops, shoe, jewelry shops, grain and similar selling shopping goods.³

Besides, these or secondary importance are numerous drug stores, restaurants, and other stores selling different goods. These areas also form economic heart where its highly specialised central functions are located. This area is the focus of commercial, social and civic life. It is the chief focus of pedestrian and automobile traffic. This place also reveals highest land value, high density land use and the greatest concentration of people during day hours.

These commercial areas also have functional institutions comprising site of commercial banks, insurance company and other money lending agencies. Central administrative function of commercial as well as public nature and exchange of goods which incorporate wholesale and retail sale.

Land Devoted to religious function:

The urban centre of Patna does not have large area involved in religious function but old settled areas Patna has a some areas involved the Gurudwara, the birth place of Guru Govind Singh. There is Guru bag also in eastern Patna. Very near Gai Ghat there is a complex of Sikh temple. Near Gulzarbag railway station there is Agamkuan of historical and religious importance.

This complex has also a temple where large number of people specially women visit for worship. In the eastern Patna itself there is famous temple of Patan Devi. There is a complex of Jain temple at Begampur where health facilities are provided to the people. Kachi Dargah and Patthar Ki Masjid are located in central Patna. Western Patna has Mahavir Mandir near Patna Jn, Birla Mandir near Sabzibag, etc. Recently a complex related to Buddhist has been developed near Patna Junction being occupied by the old Jail complex. Southern Patna has also a complex of Panch Mandir and Sain temple.

Land under Public uses :

A considerable proportion of land in urban centre is under parks, educational institutions ranging from primary level to higher learning, Administrative units ranging from Police Station development block to the capital of the province, transportation, health care centres of different levels and other public uses. Actually, human communities cannot function without these land use ? Public building include place of worship, entertainment, administration and services as well as main government

offices and post offices. A large number of people use the facility and the use is essentially public in nature.

The urban centre of Patna being the capital of Bihar have considerable areas involved in educational institutions, administration, recreation, medical and cultural as well as the area occupied by roads, railway, airport etc. Patna Agglomeration area has engaged 4.82% area under administrative, educational, medical, religion and graveyards and cremation grounds. Recreational facilities consisting of clubs, cinemas, Parks and play ground has engaged 1.56% area. Transportation facilities have involved 7.77% area of Patna Agglomeration Area.

Public utility services area generally scattered throughout the length and breadth of the urban centre as it fulfils the needs of almost all urban dwellers. Still, a few public utility services are concentrated at certain places like administrative officer, institutions of higher education's, medical facility, transport etc. have concentrated growth while schools, colleges, research centres, recreational centres stadium etc. Are scattered throughout the urban area.

For the convenience of analysis the public land uses have been classified in the following way:

- i. Administrative land use:** Patna metropolis being the state capital Bihar and having other different government and private administrative service has considerable areas under administrative function. This function has engaged nearly 211 hectares land of Patna urban Agglomeration. The main administrative area is situated in western Patna where secretariat, High Court, Police line etc. are located. Besides these main administrative areas then an district headquarter at Antaghat, Block office in the north eastern portion of Gandhi Maidan, Sub-divisional headquarter at Danapur, Gulzarbagh, Police Stations at Pirbahore, Sultanganj, Gardanibagh, Alamganj, Gulzarbagh, City Chowk, Malsalami etc. Their offices and quarter complex, all are situated within the Police Station area.
- ii. Institutional land use:** Patna agglomeration has several educational complexes having national significance. These educational complexes include Patna University, Chanakya University, Mazharul Haque university, A.N. College, College of Commerce, T.P.S. College, Arbind Mahila College, Sansk College, J.D. Women's College, Patna Women's College; Oriental College, B.S. Collegiate having offices, spaces for teaching and allied activities, and staff quarter. Some of the inter colleges and high schools also have large space consisting of school building, staffs quarter, hostels, playground etc. These schools of considerable

importance include St. Mickle, St. Xavier, Loyola, Natoredom, Bankipur High School, Litera fallen Mt. Karmel, Patna Collegiate, Ram Mohan Roy, Govt. High School, Gardanibagh School, P.N. Anglo School, Patna Central School, Central School, etc. These schools have campus of reasonal size and some of these schools also have several facilities like staff quarter, playground, good library etc. Besides these institutions all wards have a good number of govt. and private schools for children. These educational institutions have been playing important role in providing educational facilities to the urbanites of Patna urban Agglomeration as well as others.

TABLE NO. 01

Average Household size within Patna Urban Agglomeration

Urban Centre	No. Of Household	Population in lakh	Household Size
Patna Municipal Corporation	220,022	13.66	6.2
Patliputra Housing Colony	862	0.05	5.2
Digha - Mainpura	8,742	0.53	6.2
Sabazpura	250	0.02	7.0
Khalilpura	639	0.05	7.5
Badealpura	103	0.01	7.1
Phulwarisharif	7,725	0.53	6.9
Danapur Nagar Palika Parishad	18,809	1.31	7.0
Danapur Coantonment Area	4,174	0.28	6.8
Khagaul Nagar Palika Parishad	7,521	0.48	6.4
Saidpura	771	0.05	6.0
Total	269,619	16.98	6.3

Source: Bihar govt. Urban Development Annual Report 2011.

Recreational land use:

The land used for the recreation purpose includes parks, playground, cinema, club, theatre hall, stadium etc. In the urban landscape which represents the maximum humanization of the are natural landscape, some sorts of open space are needed for recreation of the urban community. Virtually recreation is necessary for the persons injected to work and different types of recreation is suited to persons of different attitudes.

Urban Agglomeration of Patna has engaged 1.56% land in different means of recreation like parks, playground, meeting places, literary, hotel and restaurants etc.

Parks: The urban Agglomeration of Patna has adequate parks in terms of the population size. Important parks include Veer Kuwnwar Singh Park pen... (Harding's Park) west of G.P.O, Pir Sahid Park north west of Gandhi Maidan, Buddha Park etc.

Playgrounds: Patna Urban Agglomeration has several playgrounds. Moinul Haque Stadium has the facility of cricket, food ball, Basket ball and the facilities of other games also. Jagjiwan Ram Stadium of Khagaul also provides the facility games. Kankarbagh Stadium has been developed for indoor and outdoor games. In addition of these playground there are playground around by educational institutions like Patna College, Science College, Engineering College, Central School, Danapur, etc. Even Gandhi Maidan provides opportunity to children to remain involved in some games.

Meeting Place: There are halls for conducting large meeting. Sri Krishna memorial hall provides good opportunity for conducting meetings. St. Stephen's hall also provides space for such meetings. Large open space of Gandhi Maidan provides space for meeting of Political parties, Social organisation and others. All important educational institutions also have gallery for conducting meeting of smaller size. Similarly all main hotels of Patna do provide space for conducting meeting.

Libraries:

There are some libraries in this urban agglomeration which provide opportunity to persons interested in studying looks, journals, papers and other valuable literature. These libraries include Sinha library, A.N. Sinha Library, Khuda Bakhsh Oriental Public Library, British Council Library etc. Apart from

these libraries then an institution based library like Patna University, Central Library, Patna College Library, Science College Library, B.N. College Library, L.N. Mishra Institute Library, Sachivalaya Library, and A.N. College Library etc.

Hotels and Restaurants:

Patna urban agglomeration has give rise to a large number of hotels, restaurants, bars etc. in different areas but main concentration lies in near Patna Jun, Bus Stand and main commercial areas of Exhibition Road, Dak Bungalow Road, Frazer Road, Kadamkuan, Bailey Road, Boring Canal Road, Old Bye Pass Road and Ashok Raj Path have encouraged the development of restaurants. Patliputra, Kurji, Khajpura, Anisabad, Danapur, Khagaul, Karbigahia etc. Have also recorded remarkable development of restaurants and hotels during recent years because of the arrival of large number of visitors, business men, officers of different concerns and a large concentration students involved in coaching institute. Important hotels of this metropolis are Maurya Hotel, Chanakya Hotel, Patliputra Hotel, Satkar Hotel, Republic Hotel, India Hotel, Rajasthan Hotel, etc.

Clubs, Theatre hall, Cinema Halls etc. :

The urban centre of Patna has a few clubs, theatre halls and cinema halls where people get entertainment. Important clubs include Patna club and now Patna Club where people of high earning and social status have membership and these people get the advantage of entertainment. Most of members include emmer doctors, engineers, advocates, professionals etc. Sometimes these people also help the poor people or less resourceful by providing social services or medical facilities or other help in case of natural disaster.

Important theatre halls are Kalidas Rangalaya in the eastern side of Gandhi Maidan, Premchandra Chauraha located in Saipur area.

This urban agglomeration has a good number of cinema halls. Certainly the number is far inadequate in terms of population size. Moreover some cinema halls have get closed due more benefit in using the land in other uses like formation go down, developing market and other uses. Important cinema halls are located near eastern side of Gandhi Maidan like Elephiston, Mona, Veena, newly constructed Maul of Patliputra has developed the facility of four shows of cinema at a time.

Sometime privately operated theatres, amusement parks, sports night clubs, magic shows, video shows are also observed. These days T.V., Star g-TV etc. have gained much popularity, sometimes non-profitable football games, athletics games, extra-curricular school activities, friendly indoor games, parties and picnics are organised.

Transformational Land use :

Transport facilities necessary intra-urban and inter-urban links. At the same time it expedites the flow of different types of traffic in all portions of the urban centre. Almost all areas have some land devoted to this use. Altogether Patna urban Agglomeration has engaged 7.77% area because this agglomeration is traversed by several national highways, state highways, lanes and sub-lanes. Virtually all old and newly developed areas have some area under roads and sheets but areas traversed by main roads like Ashok Raj Path, Lower Road, Old By Pass Road, New Bye Pass Road, Boring Canal Road, Bailey Road, Patna-Gaya Road, Patna-Masaurhi Road, Danapur-Khagaul Road, Patna-Khagaul Road etc. have higher percentage of land under transportation use. Mithapur Bus stand, Bankipur Bus Stand, Pahari Transport Centre, etc. have also engaged some area. The development of third Bye Pass will further increase the percentage of transformational land use.

Industry:

The concentration of Industrial activities in Patna is low. Few industries existing include steel casting, cotton mills, ware housing, electronics, leather and shoes etc. CDP also annexed list of more than 250 industries (mostly SSI) in and around city. The state govt. is under process of drafting a new industrial policy which is expected to promote agro-products, food processing, medical plants, sugar, tea, jute and related industries in the region.

It is also mentioned that the Sonepur and Hajipur (satellite town) are likely to be industries Hubs with improved infrastructure and linkages to city and to other important town/cities in the state/ region.

Land use in Fringe Areas :

It is important to note that the study of land use of fringe areas becomes of prime importance for urban land use study because these areas are potential urban area. During the past several decades the development in urban settlement has been due to expansion of population into the unincorporated areas surrounding the city. Prior to revolution of automobile outward growth was slow but the development of hard surfaced roads, linkage with surrounding rural areas and faster means of communication fringe areas have recorded recontrolled and haphazard growth. There are conflicting demands between agricultural and non-agricultural uses and due to the rapid urban intrusion the latter over comes the farmer. In the fast changing fringe land use, adequate physical planning of the land is urgently needed to meet socio-economic necessities of the sprawling community.⁷ These areas have got converted into the intensive colonies varying from a huge scattered buildings to organised sub urban along the main transportation routes.

Expansion of urban area and rapidly growing uses of fringe lands is also due to the deconcentration and decentralisation because people prefer to shift out from the existing urban area to the open land on its outskirts. It arises from the availability of cheap transport services to the urban centre. Expansion has taken place more toward west and south. Virtually westward expansion has taken place up to Sagna More and areas up to Hathia Kau Sarai are recording fast growth of settlements. In the south western portion Debra, Palaga, villages are becoming part of the urban centre. Similarly southward growth is taking place up to gaurichak.

Land use Planning:

It aims to suggest measure for optimum use of the urban land as far as practicable on economic and other grounds. At present most areas hence haphazard, spontaneous and unplanned growth resulting in overlapping and intermingling of various uses. As such land planning must start from the present position and should be based as a careful detailed survey and interpretation of that present position, what basic needs of mankind must be satisfied by a proper use of land. There are at least six basic needs of man which involve the use of land for their satisfaction.

They are as food, shelter, work, recreation, movement and security. Land of the metropolis must be used avoiding misuse of land. A land is said to be misused when it is utilised for the purpose other than it is fit for. Most of the urban areas have haphazard growth. After understanding the existing land uses of the metropolis it becomes essential to ascertain the existing misuses and to propose suitable uses for the same. For this detailed survey is needed concerning assessment of the proper use of land and misuse of land. It may be noted that residential house in large business area may be a misfit or in good residential areas a business area may be uneconomic land use. Similarly administration or industrial centres in the midst of a large business area may be avoided to protect from traffic hazards.

Residential areas should be developed in a planned way outside the densely populated urban area. The residential areas should also have proper approach road from the city and area meant to houses of different economic levels may be distinctly located. Old and dilapidated houses in old settled areas may be reconstructed considering the functional specialisation of the area.

Important commercial areas should be marked and future growth of other uses in that area may be discouraged. Large commercial complexes may be developed by motivating people of that area who have used the land in non-commercial function. Bazar Samiti, specialised fruit and vegetable markets and wholesale markets may be developed in the outer zone to minimise traffic congestion and to develop the area as per functional specialisation. At present commercial areas are located in densely populated part and create traffic problem and environment degradation.

Attempts are being made to solve traffic problem by developing third Bye Pass so that larger to vehicles having no business with Patna may move without entering the busy area of this metropolis. Certainly the problems of traffic inside the urban area may be solved by widening a few roads by removing encroachments. It may be noted that almost of roads are encroached by shopkeepers, vendors and others. Conditions of link road may be improved to avoid traffic congestion. Development of Ganga side road will solve many problems.

Efforts can be made to shift the administrative units like district and sub divisional headquarters from the congested areas to outer areas. This will also minimise the traffic problem as well as other problems like misuse of land in the commercial and education area. This place should be handed over to Patna Medical College where shortage of space has been highly realised for further development.

The urban agglomeration of Patna has been in a very haphazard and unbalanced growth and need a sound base 101 restructure, reconstruction and planning because the arrival of large number of migrants can not be stopped and may lead to chaos and socio-economic disorders and deprivations if it is not channelized and regulated in a proper direction. The old crowded and haphazardly grown areas, with associated business care, are characterised by narrow winding streets and lanes and one or two strayed dilapidated house need renovation and vertical dimension may be planned and used.

Considering the modern economic development, industrialisation, modernisation and consequential rapid urbanisation efforts can be made to use the urban land in a proper way. Satellite towns can be developed in a much better way so that rural-urban migrants to prefer the outer areas for housing and related activities. Means of transport can be developed in such a way that people living in outer' areas may reach the care areas within limited time. Urban amenities should be also developed in outer areas at par with the inner areas.

Lastly, it may be concluded that haphazard and unplanned growth of Patna urban agglomeration can be minimised by developing outer areas specially satellite towns. Needful changes in the land use pattern can be made by minimising the misuse of land in different areas and development of planned areas in the outer partition.

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