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Impact of Social Infrastructure: Urban Education & Health Study Area of Lucknow

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Abstract - *Understanding human settlement patterns is the focus of urban planning, an interdisciplinary field. Planning is a highly specialized and small discipline that draws on design (for example, architecture), policy (for example, public administration), and social science (e.g., geography). With urban planning interests spanning several disciplines, we suspect a shifting topic hierarchy over time. Among these are, but are not limited to, shifting perspectives on infrastructure policy, architecture, social conditions, environmental conditions, economic activity, and governance, all of which are important aspects of urban systems. Not all of these receive equal attention over time, as certain concerns or interests are more visible at different times than others. These interests, according to the public, are driven by changing policies or politics, as well as the flow of information from sources such as the news media.*

Key Words: Lucknow, Social Infrastructure, Health System, Education Facility. Urban Linkages.

1. INTRODUCTION

Lucknow is the capital of the Indian state of Uttar Pradesh, as well as the district headquarters of the Lucknow district and a politically well-known constituency in India [1]. There are 609 slums in the city, with 148117 households. There are 502 notified slums and 107 unnotified slums out of the total of 502 slums. Slums house around 27% of the city's population. 77% of the slum population belongs to the OBC and SC socioeconomic categories, while 69% live below the poverty level (BPL) [2].

2. PHYSICAL CHARACTERISTICS OF LUCKNOW

The physical characteristics of Lucknow city are described as follows.

2.1 Location

Lucknow is located on the banks of the Gomti River, a tributary of the Ganges River that runs through the central city. The city's coordinates are 26°30' and 27°10'North Latitude and 80°30' and 81°13'East Longitude.

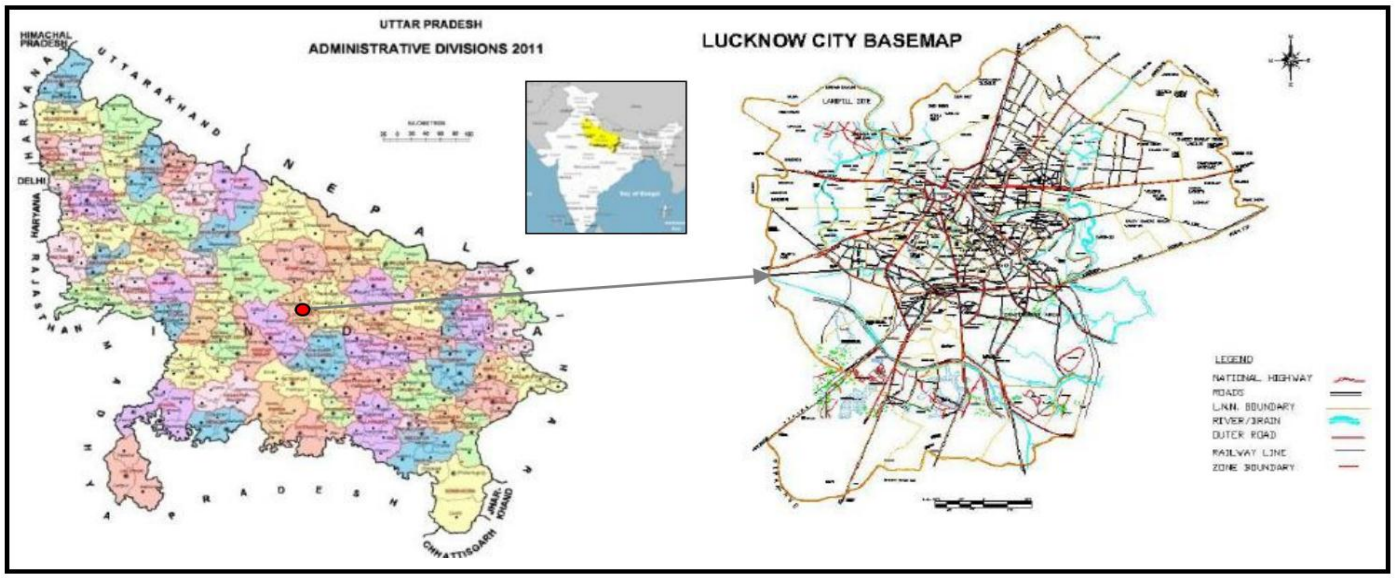

Fig-1: Location of Lucknow city in Uttar Pradesh State

2.2 Topography

Lucknow is located in the Gangetic plains on a reasonably compact area of gently sloping ground. The largest geological formation is the Alluvium soils. The climate in the area is Composite Tropical. The elevation of the city is 123.45 metres above sea level. The Gomti River and its tributaries drain the city. The city is located in Seismic Zone-III 1, which is classified as a moderate damage risk zone [3].

Fig-2: (a) River Gomti at Shaheed Smarak, Lucknow (b) Kudia Ghat on River Gomti, Lucknow

2.3 Climate

Lucknow has an intense tropical climate, with chilly and dry winters from December to mid-February and hot, dry summers from April to mid-June. The rainy season lasts from mid-June to mid-September, with an average rainfall of 1000 mm, caused primarily by the south-west monsoon winds. During the intense winter, the highest temperature is approximately 25 degrees Celsius, while the lowest temperature is from 3 to 4 degrees Celsius. From late December to late January, fog is extremely prevalent. Summers may be fairly hot, with temperatures reaching 40 to 45 degrees Celsius [4].

2.4 Regional Setting & Connectivity

The Lucknow district is surrounded on the eastern side by District Barabanki, on the western side by district Unnao, on the southern side by Raebareli and on the northern side by Sitapur and Hardoi districts. Lucknow is well connected to the other parts of state and country through air, rail and road. Four National Highways pass through the city, the National Highway (NH) 24 linking Lucknow to Delhi, NH 25 to Shivpuri, Jhansi (Madhya Pradesh Border), NH 56 linking to Varanasi and NH 28 to Mokama (Bihar) connecting different regions within and outside the state are passing through the city. In terms of rail connectivity, Lucknow Railway station is a major junction having two railway terminals where one belongs to Northern Railway division and another belongs to North Eastern Railway division connecting all the major cities of the state and the country such as New Delhi, Mumbai, Kolkata, Hyderabad, Bengaluru, Chennai, Ahmadabad, Jaipur Pune etc. A part from the main railway stations, the city has thirteen railway stations at different parts of the city which are well connected to the sub urban areas of the city [5]. The Chaudary Charan Singh International Airport is situated at Amausi, 10 km from Lucknow Railway Station. It is the second busiest airport in North India after the Indira Gandhi International Airport, Delhi. Lucknow is directly connected by air with Sharjah, Dubai, Muscat, Riyadh and major cities in country such as Delhi, Mumbai, Dehradun, Hyderabad, Chennai, Bengaluru, Kolkata, Ahmedabad, Bhubaneswar, Bhopal, Patna etc. Along with Lucknow the airport serves as primary aviation hub for Kanpur city.

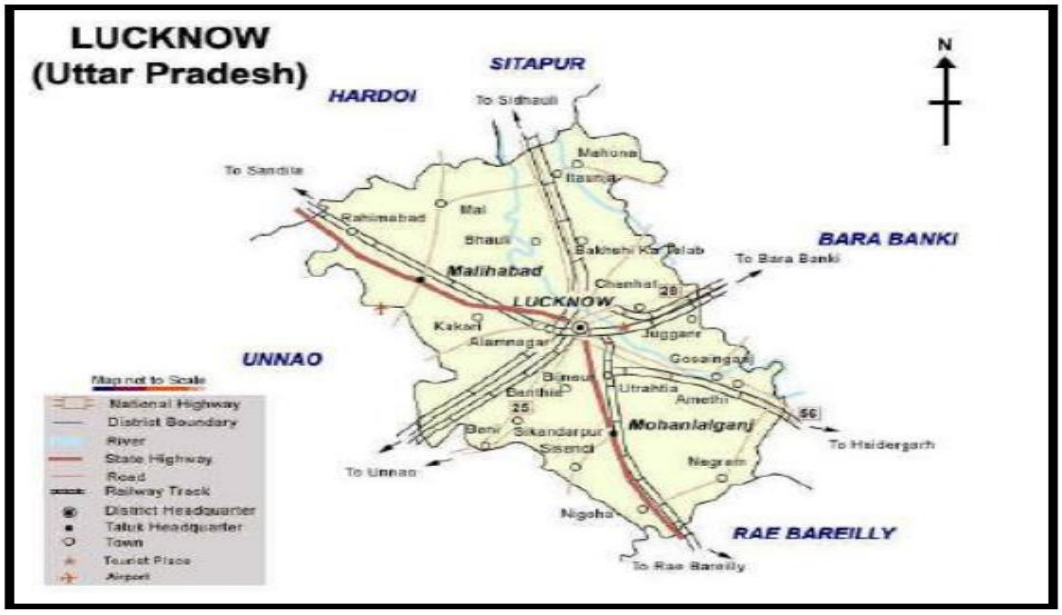

Fig-3: Connectivity of Lucknow with other states

2.5 City Population

The population of Lucknow city (Nagar Nigam) as per 2011 census is 28,15,601 out of which male and female are 14,70,133 and 13,45,468 respectively. Considering the population statistics from the last century, the city faced a decrease in population in the decade 1911-1921 and thereafter the decadal population increased successively. The decade 1981-1991 showed an increase in the decadal rate of 70.79 due to the reasons of expansion of city area limit. The decal population growth rate in 2001-11 is 28.81 percent (as shown in table 1). The population of children (0-6 yrs) as on 2011in Lucknow is 2,80,817 which constitutes about 9.97 percent of total population [6].

S.No.	Census Year	Population	Decadal Population Increase (In No.)	Decadal Population Growth Rate (%)
1.	1901	256239	---	---
2.	1911	252114	-4125	-1.61
3.	1921	240566	-11548	-4.58
4.	1931	251057	10491	4.36
5.	1941	361294	110237	43.91
6.	1951	459484	98190	27.18
7.	1961	615523	156039	33.96
8.	1971	774644	159121	25.85
9.	1981	947990	173346	22.38
10.	1991	1619116	671126	70.79
11.	2001	2185927	566811	35.01
12.	2011	2815601	629674	28.81

Table-1: Decadal growth trend of Lucknow city population

3. SOCIAL INFRASTRUCTURE: URBAN HEALTH & EDUCATION

Economic literature is rich with studies on the education and health sector in India identifying problem areas providing solutions estimating investment requirement investment requirements, making recommendations for policy and institutional changes [6].

3.1 Urban Education

3.1.1 Role of the Indian state in Primary Education

Governments at the national and state levels have been training, maybe more so in the last two decades, to connect the objective of universal primary education to their agendas. The federal government's recent all-India activities are mostly discussed. The 73rd and 74th constitutional amendments emphasized the role of local governments, both rural and urban, in the supply and regulation of education, as well as the development of cultural, educational, and aesthetic elements [7].

3.1.2 District Primary education Programme (DPEP)

The Indian government initiated an initiative in 1994 to achieve the aim of universal primary education. The programmed was undertaken with a completely new strategy of district-specific planning, decentralized management, and community engagement, empowerment, and capacity building at all levels. In 2001, the central government began the Sarva Shiksha Abhiyan. The 93rd Amendment to the Constitution of 2002 mandated free and compulsory education for all students aged 6 to 14. It is undoubtedly inferior in rural regions, but even in metropolitan areas, infrastructure falls well short of acceptable levels. The deterioration of school buildings is the most visible example of this. According to the Seventh All India School Education Survey 2002 (NCERT, 2002), around 84% of primary schools in metropolitan areas operated from a pucca building with enough class rooms for instruction and approximately 2% in open space. Economic variables play a less role in determining derivation in urban regions, but social classes are more important in rural places [8].

In the case of both male and female populations in secondary school attendance age, no more than 50% of them progress from the middle to secondary level of education. The problem is exacerbated when just 38.55% of rural girls progress from middle to secondary school. The transition rate is directly related to a group's economic well-being. The higher the economic standing, the faster children transfer from middle to secondary school. While the transition rate for the lowest quintile is 31.66, it is 13.08 for the highest quintile, implying that a household's economic well-being appears to have a significant influence in continuing studies to a higher level.

The transitional grade inequalities have severe implications for future equality levels. According to the World Bank Study (2002), impoverished parents not only appreciate the need of education for their children, but they are also ready to invest limited resources in their children's education. However, a complicated collection of circumstances work against them. The fear is that enrolment, attendance, completion, and learning outcomes are becoming larger difficulties. There is mounting evidence that private schools are proliferating throughout the country, and that children are being sent to private schools if their parents can afford them. Some parents choose to send their children to private schools even though they cannot afford it.

3.2 Health care structure

According to the UNDP's Human Development Report 2001, India ranks among the bottom forty countries in terms of general human development indicators. Of the many measures that contributed to India's poor performance, health indicators were among the lowest, which is not surprising given the country's high poverty levels and climate conducive to disease victimization. Life expectancy, malnutrition, the incidence of dangerous illnesses, and vaccination levels are all important markers of a country's health. These metrics differ significantly among states in India. There are significant distinctions between rural and urban locations. It has been discovered that the impoverished are more prone to sickness and death, and so have a shorter life expectancy. Nutritional inadequacies, as well as a lack of access to essential utilities such as safe drinking water, sanitation, health, and education services, can all contribute to illness and death. However, the gender gap in life expectancy remains below the international average (Indicus Analytics, 2004) [9].

3.2.1 Structure of Health care Delivery

Due to the obvious federal aspect of the Indian System, health care services are separated into two categories: state list and concurrent list. While certain items, such as public health, hospitals, and sanitation, are on the state list, others, such as population control and family welfare, medical education, food adulteration prevention, and quality control in medication

manufacturing, are on the concurrent list. The united Ministry of Health and Family Welfare is the primary authority in charge of implementing numerous programmes and plans in the fields of family welfare, illness prevention, and control. Municipalities and district administrations are responsible for infrastructure and services in metropolitan areas. The majority of higher education institutions in the nation are already operating in the private sector. However, the vast majority of them are private aided schools, which are equivalent to government institutions in terms of wages, rules, and processes. Other classifications suggest that the significance of private aided schools is progressively fading over time. Private and independent schools are becoming increasingly significant at all levels of education [2].

Private schools in elementary schools were mostly concentrated in metropolitan areas. In 1993-4, more than a third of all elementary schools in metropolitan areas were private. Because aided schools are rare at the elementary level, it is likely that the majority of these were private unassisted primary schools. However, around 5% were also present in rural regions. As we progress through the educational levels, the proportion of private schools in rural regions grows. Private schools, for example, make for the bulk of upper secondary schools in remote regions.

- The growth mate of private unaided schools is higher than the private aided and the public ones.
- The growth of private schools is predominant at the higher levels; however, private unaided schools have witnessed rapid growth at all levels.
- Private schools tend to be lesser in number in the rural areas. However, the share of private schools (aided & unaided) increases steeply with rising levels in rural areas as compared to the urban areas.

Lucknow is also an important research and development (R&D) and educational centre. In terms of the number of institutions, the city is among the top in India, with seven universities, one technical university, and a huge number of polytechnics, engineering colleges, and industrial training institutes. Some of the well-known educational institutions are the Sanjay Gandhi Post Graduate Institute of Medical Sciences, King George Medical College, Indian Institute of Management, Dr. Ram Manohar Lohiya National Law University, and Lucknow University [2,4].

However apart from the National Milk Grid of the National Dairy Development Board, prominent R&D centres in the city include the Central Drug Research Institute (CDRI), Central Institute of Medical and Aromatic Plants (CIMAP), Industrial Toxicology Research Centre (ITRC), National Botanical Research Centre Institute (NBRI), National Handloom Development LNN (NHDC) Ltd., Pradeshik Cooperative Dairy Federation Ltd (PCDF), and Research Design and Standards Organization (RDSO). Since the city serves as both the state's capital and the district's administrative headquarters. Many hospitals and institutes, both public and private, are located in the city. The King George, Sanjay Gandhi Institute of Medical Sciences, Rani Laxmibai State Hospital, Ram Manohar Lohia Hospital, State Ayurvedic, and State Homeopathy hospitals are well-known state-run institutions in the city [3, 6].

4. ANALYSIS

The outcome of this work are as follows:-

4.1 Strength

- Lucknow has developed as a key site for the state's educational institutions. Lucknow is well-connected to most of India's main metropolitan cities, including Mumbai, Hyderabad, Bangalore, Delhi, Kolkata, and Chennai, as well as all significant cities and towns in Uttar Pradesh.
- Despite increased tourism, the city boasts a rich past and natural landscape. Lucknow's core city area has a strong traditional character that has the potential to be preserved and restored.
- To avoid traffic concerns, new development areas include broad roadways and well-defined intersections. The relevant authorities are actively striving to improve the city's public transportation.

4.2 Weakness

- Rapid urbanization, population growth, growing economy of the region has placed an enormous strain on the city's infrastructure.
- Green areas in the city are not increasing as compared to residential area.

- Haphazard development pattern and encroachments are seen in the new developed areas of the city.
- Highly congested roads in the core of the city.
- High volume capacity ratio in all the major roads.
- Lack of pedestrian facilities in all the roads.
- Lack of traffic sense among the public.

4.3 Opportunity

- Lucknow city has potential to be developed as key tourist destination.
- Due to continuous growth of the city the opportunity for more investment is increasing in Lucknow
- According to the Master Plan 2021, various parcels of land are available for new development and construction. Reliable and effective public transportation can help to reduce the number of individualised vehicles on the roads. The development of metro rail and local rail systems can help to tackle the public transportation issue.

4.4 Threat

- Due to fast pace of the city growth a lot of pressure being created on existing physical infrastructure and transportation system.
- The only city in the state to provide better education, health and employment opportunities to the people resulting in huge in migration and continuous growth of slums.
- If counter magnets will not develop in the near future the city will face overcrowding. High growth rate of personalize vehicles is threat for the city traffic system. Lack of off-street parking spaces can lead to more traffic congestion in the future.

5. CONCLUSION

The World Health Organization (WHO) summarizes why urban health matters in a rapidly urbanizing world, with its attendant opportunities and difficulties. While urbanization and its influence on health have been discussed periodically since the 1980s, worldwide momentum on advocacy, research, and programmes focusing explicitly on the health of the urban poor in Low- and Middle-Income Countries has just recently begun. There could be a variety of reasons for the lack of political support for an urban health agenda. These include a predominantly rural-oriented development agenda, little data explicitly disaggregated to assess the scale and severity of urban health concerns, and a paucity of evidence on how best to address these challenges aside from a limited shared understanding of the problem itself. India is no exception, and it is only recently that it has begun to catch up with global trends in recognizing the challenge of urban health and the need to prioritise it.

The study outlined the current state of educational infrastructure in secondary schools and health facilities in Lucknow. According to the findings, there is still a need to improve education infrastructure in terms of quantity and quality. According to the responders, several infrastructures are in poor shape. Students and instructors are involved in the monitoring and evaluation of school infrastructure. The school's administration has no well-defined financial budget planning for regular preventative and maintenance, and the survey found some furniture strewn about uncontrolled in school grounds.

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BIOGRAPHIES

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