

## Complexity in Physical and Spatial Changes of Indian Cities through Rapid Urbanization

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### Abstract

India's urbanization started to accelerate after independence as the country adopted a mixed economy which led to the development of the private sector. India is undergoing rapid urbanization. According to the 1901 census, India's urban economy was 11.4%. That number has risen to 28.53 - according to the 2001 Census, over 30% according to the 2011 Census, at 31.16%. By 2021, about a third of India's total population lived in cities. This trend shows that urbanization has increased by nearly 4% over the last decade. This meant that people left the countryside to find work and earn a living in the city. According to a 2007 United Nations World Population Report study, by 2030, 40.76% of the country's population is expected to live in urban areas. According to the World Bank, India will lead the world's urban population growth by 2050, along with China, Indonesia, Nigeria, and the United States. The rapid increase in the urban population in India has caused many problems such as an increase in slums and declining living standards in urban areas and has also caused environmental destruction.

Presently, Indian cities are home to an estimated 377 million people or 31.16% of the country's total population. While traditionally this urbanization was oriented towards the large cities, the growth rates in these cities have declines since 1991 and faster growth is now observed in the adjoining districts. The poor quality or complete lack of urban services is leading to a rapid deterioration of quality of living within Indian cities. The additional emerging challenges for the Indian cities are their increasing vulnerabilities to climate change and the lack of institutional capacities to manages urban areas.

This paper deals in the problems facing by the cities in India by unchecked rapid urbanization. It will be the causes of many complexities in the cities which can not be easy to make the solutions.

## **Introduction**

Cities have evolved since the dawn of human civilization, with specific boundaries defining each city. However, cities in many parts of the world are facing problems of overgrowth, giving rise to one of the infamous problems: urban sprawl. In general, urban sprawl is characterized by the unplanned and uncontrolled growth of urban centers towards the periphery. This puts pressure on near-border development and mainly contributes to negative impacts as well. Urban sprawl is closely related to urban development. According to Grasshopper et al. Urban growth, along with urbanization, is one of the processes of urban development whose impact is far-reaching because the characteristics of its occurrence are so common. Urban growth involves spatial and demographic processes within a given economy and society, whereas urbanization is a spatial and social process that has occurred in the communal dimension of the city. Urban development can therefore be viewed as complex physical and spatial changes that affect other aspects such as society, economy, demographics, politics, and the environment. As reported by Barnes et al. Regardless of how urban development, urban growth, and urbanization are defined and valued, urban sprawl is a response to often disruptive economic, social, political, and physical forces. . These forces include the fragmentation of local governments, patterns of infrastructure investment, and how cities subsidize infrastructure. Many experts associated with urban sprawl recognize that different aspects need to be studied in different situations to control or prevent its negative effects.

Urbanization is the process by which a large proportion of the working population migrates from farmers to non-rural populations, thereby increasing the urban population. It is also the process of transforming a primitive and closed agricultural civilization into a modern urban civilization centered on modern industry and services, characterized by modern urban infrastructure and public service facilities. Urbanization is the process that rural residents undergo in developing an urban lifestyle, expanding urban settlement areas, and creating an urban environment.

## **Objectives of research**

- Get to know India's urbanization
- Study the problems and challenges of urbanization in India

## **Research Methodology**

Research is a descriptive method. Secondary data were collected from various sources such as Books, Textbooks, magazines, articles, and websites.

## Causes of urbanization

There are many reasons for the growth of cities. They are:

### \* Industrialization:

Industrialization is one of the main causes of urbanization. Expanded employment opportunities. Rural people migrated to cities in search of better employment opportunities.

### \* Social factors:

Many social factors such as city attractiveness, better living standards, better educational institutions, and status requirements also lead people to move to cities.

### \* Employment opportunities:

In the rural sector, people mainly depend on agriculture for their livelihood. However, Indian agriculture is dependent on monsoons. In drought conditions and natural disasters, the rural population has to move to cities.

### \* Modernization:

Urban areas are characterized by advanced technology, better infrastructure, communications, medical facilities, and more. People are moving to cities because they feel comfortable living there.

### \* Transformation of local cities:

It is interesting aspect that not only is the number of cities increasing, but rural communities are embracing the urban culture and rural communities are not maintaining their own rural culture. Rural people follow the material culture of urban people.

### \* Educational extension:

The literacy rate of the rural population is increasing. They have become more modern.

## Problems and Challenges of Urbanization in India

Because in our country, no urbanization is planned due to uncontrolled migration. Due to unplanned urbanization, India faces too many problems such as unemployment, power problems, pollution, social problems, and inadequate sanitation. The rapid growth of India's urban population is causing many problems, such as increasing slums and declining living standards in urban areas, as well as environmental destruction. The following issues should be emphasized.

### • Overfill:

Overcrowding is when too many people live in too small a space. Overpopulation is the result of overpopulation in urban areas. Of course, a city with a large population in a small space can be expected to become overcrowded. This is well demonstrated in almost every major city in India.

- Housing:

Providing housing for the growing urban population will be the biggest challenge for governments. Rising housing costs relative to urban middle-class incomes have prevented the majority of low-income residents from living in overcrowded housing, many of which lack adequate ventilation, lighting, water supply, and sewerage. is in short supply. In Delhi, for example, current estimates put a shortage of 500,000 homes in the next few decades. The United Nations Center for Human Settlements (UNCHS) has introduced the concept of 'housing poverty'. It "comprises individuals and households who lack safe and healthy housing with basic infrastructures such as adequate provision for the distancing of water, sanitation, drainage, and household waste."

- Hygiene:

Poor sanitation is another distressing feature of urban areas, especially urban slums, and unlicensed colonies. Many disorganized colonies and slums have non-existent drainage systems, and when they do exist, they are in poor condition and partially clogged with sewage. These unsanitary conditions lead to many hygiene diseases such as diarrhea and malaria. Unsafe waste disposal is one of the major problems in urban areas and waste management continues to be a major issue.

- Squatter settlements:

In practice, no clear distinction can be made between slums and squatter settlements, but shantytowns are relatively stable and are located in the older interior of cities than relatively transient shantytowns. . A fringe zone, where the urban area merges with the rural hinterland. Squatter settlements usually contain makeshift dwellings built without official permits (that is, unauthorized land).

- Environmental Concerns Vulnerability to risks posed by increasing levels of man-made and natural disasters. According to UNDP, 70% of India's population is vulnerable to floods and 60% to earthquakes. Risk is higher in urban areas due to dense and overcrowded areas. Urban areas are becoming heat islands, groundwater is not being recharged, and the water crisis continues. The essential water extraction is an advantage here.

- Poverty:

Today, about one-third of the city's population lives below the poverty line. In the city, there is a

big difference between the haves and the have-nots. The most demanding of urban challenges is undoubtedly that of poverty. The challenges of reducing exploitation, reducing misery, and creating more humane conditions for urban poverty.

- transportation:

High-income earners buy more private cars and use less public transport. The presence of such a large number of vehicles in urban areas further increases congestion and reduces the efficiency of public transport. Public transportation is also low and people are using their cars. Public transport is not wheelchair accessible. Added to this is the lack of infrastructure and inadequate maintenance of the existing public transport infrastructure.

- water:

It is one of nature's most important factors for sustaining life since the dawn of urban.

But as cities grew in size and number, water supply lagged behind demand.

- Garbage Disposer:

As the number and size of Indian cities grow, the problem of waste disposal is becoming alarming. The vast amount of waste that our cities produce poses serious health problems. Most cities do not have adequate waste disposal facilities and existing landfills are pushed to their limits. These waste products are breeding grounds for diseases and myriad toxins that leach into the surroundings.

- Urban Crime:

A modern city is a meeting place for people from different fields who have no affinity for each other. Like other problems, the problem of crime is increasing with increasing urbanization. The increasing trend of urban crime tends to disturb the peace and tranquility of cities, making them unsafe, especially for women.

## **Conclusion**

Urbanization is a complex and multifaceted process, encompassing urban and rural economic growth and development, rural-to-urban population migration, social transformation, cultural change, rural-urban land conversion, and settlements. Spatial restructuring and change in governance and administration of the cities. Industrialization, modernization, globalization, marketization, and administrative/institutional forces are the main drivers of the urbanization process.

Governments should pass laws that plan and provide environmentally sound cities and smart growth techniques, considering that people should not reside in unsafe and polluted areas. The objective here is to build sustainable cities that embrace improved environmental conditions and safe habitats for all urban populations. Governments should also encourage sustainable use of urban resources and support an economy based on the sustainable environments such as investment in green infrastructure, sustainable industries, recycling and environmental campaigns, pollution management, renewable energy, green public transportation, and water recycling and reclamation.

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