



CAUSES AND CONSEQUENCES OF RAPID POPULATION GROWTH IN GHAZIABAD CITY (INDIA) IN POST-INDEPENDENCE PERIOD

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ABSTRACT:

This study seeks to analyze the trends of population growth, its causes and consequences in Ghaziabad city, which is located closely to our national capital. In recent decades, Ghaziabad city has emerged as one of the fastest growing cities of the world due to unprecedented growth in the population and subsequent rapid pace of urbanization. The study especially focuses on last four decades (1971-2011) when population growth was more rapid. Besides natural growth, migration influx has contributed significantly the population growth in this period. Factors affecting migration to the city come under broad realms of social, economic, political and demographic conditions, but population deflection due to overcrowding in Delhi, employment generated by industrial development and geographical location are more relevant in the case of Ghaziabad. The phenomenal population growth leads to uncontrolled urbanization, which often leads to some serious social, economic and environmental problems. This study, therefore also attempts to analyze the perspective impacts of population growth on urban life and sustainability of Ghaziabad city. This study, first tries to understand the trends of population growth, then analyzes its driving factors and eventually attempts to find out its consequences. Despite the substantial governmental efforts due to the proximity of Delhi, the city is facing inaccessible challenges, which include mainly pollution, inadequate infrastructure, mushrooming growth of slum areas and unauthorised colonies, overcrowding, traffic congestion, lack of socio-economic development, non compatible land use and social misdemeanors. The findings of the study may be helpful in designing the urban plans of the city.

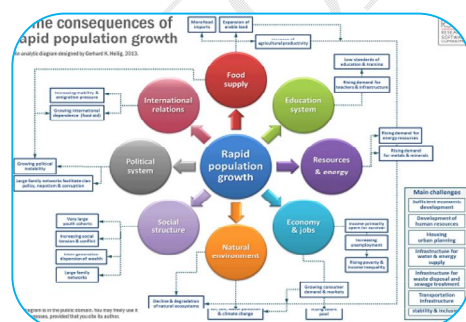
KEYWORDS: Birth Rate, Death Rate, Environmental Pollution, Migration, Population growth, Urbanisation, Urban problems.

INTRODUCTION

One of the most spectacular features of the late twentieth century in our ever changing world is the fastest changing city landscape. Most of the cities of the world especially cities in developing nations have experienced high and very high population growth

in this period. The population growth rate was particularly high in suburban areas and in the cities located near the metropolitan areas. Similarly, Ghaziabad city has experienced phenomenal population growth in post-independence period. In the early twentieth century, it was a very small town having population

hardly to about eleven thousand and a marginal growth was recorded during the first three decades. The population growth of the city is largely associated with incidents of Delhi, which is the centre of the political activities. Ghaziabad has almost similar trend of population growth as in Delhi. The population of the city



started growing after 1921 and a rapid population was recorded during 1921-31 period. Despite this growth, the city was small in the size with less than 38 thousand population in entire pre-independence period.

The population of Ghaziabad grew exponentially in post-independence period when rapid pace of industrialization took place. After 1961 Census, Ghaziabad city has experienced more rapid population growth, which may be termed as explosive growth. More than forty times increase in the population of Ghaziabad is recorded in sixty years (1951-2011). This high population growth was the result of the huge influx of population from rural areas and small towns in search of employment and livelihood. The extensive population growth has substantially changed the city landscape and increased its complexity. Ghaziabad, which was a small town at the time of independence, is now a metropolitan region of India. According to the City Mayors Foundation, an international research think tank Ghaziabad with 5.2 percent average annual growth occupies the second rank in the list of the fastest growing cities of the world.

Initially the morphological growth of the city was in concentric form because population growth took place in and around the city centre. With the industrial development in post-independence period, the city had a large area under rural-urban fringe, which has intermingled with Delhi and other towns because urban development occurred rapidly. The Trans-Hindon area, which was mostly rural or under the fringe, has now changed into a high value land. The rapid urban growth has transformed the rural and agricultural land into urban area, which has not only damaged the natural environment but also deteriorated the physical infrastructure, and natural amenities of the city. The further urban growth of Ghaziabad city may hamper its sustainability and quality of urban life. Therefore, it requires a careful planning of the city including different aspects of the urban life.

OBJECTIVES

Considering different aspects of population growth and its consequences, the present study has the following objectives:

1. To trace out the trend of population growth in Ghaziabad city in the post-independence period.
2. To study the factors affecting the population growth in Ghaziabad city in the post-independence period.
3. To examine the consequences of population growth in Ghaziabad city.

METHODOLOGY

This study, which attempts to find out causes and consequences of population growth in Ghaziabad city is based on the secondary data collected from different sources. The basic data of population for reference and analysis have been taken from the census 2001 and census 2011. The population studies are complex and interdisciplinary in nature and require knowledge beyond disciplinary boundaries. So, books and journals of different disciplines have also been consulted. The information and data, collected from different sources have been analysed and computed to find the results.

STUDY AREA

It is claimed that various places located in the district boundaries of Ghaziabad are associated with ancient history but no authentic history is available in this regard. Most of these historical descriptions are based on traditions and beliefs. But it is quite certain that this land has witnessed the several wars and political turmoil in medieval and British period. The modern Ghaziabad was founded in 1740 by Ghazi-ud-din, a minister of Mughal emperor and it was named after him as Ghaziuddinnagar. The Mughals had built this city within four stately gates. An arched shaped inn, which was built by Mughals in this city, became very famous. The name of the city was changed as Ghaziabad during the development of the railway. In the post-independence period, Ghaziabad was the sub division of Meerut District till 14 November 1976, when it was formed as a new district. Ghaziabad city, which is the headquarter of the Ghaziabad district is located at the western end of Uttar Pradesh and shares its

boundary with National Capital Territory of Delhi that is why it is called the Gateway of Uttar Pradesh in common parlance. Ghaziabad city lies on 28° 40' North of latitude and 77° 26' East of longitude. It is surrounded by some small towns such as Muradnagar on the north, Loni on the north-west, Dasna and Masuri on the east. It is bounded by Noida and Greater Noida on the southern side and by Delhi on the western side. All these cities and towns are an example of seamless urbanisation. The area of the city sprawls to an extent of 220 square kilometres of terrain, which has changed largely over the time.

Physiographically, Ghaziabad city is a part of upper Ganga Yamuna Doab, which is more fertile and productive alluvial plain. The slope of the city is gentle from north to south whereas the elevation is around 214 meters above mean sea level. The Hindon River is the only river, which flows north to south through the city in and divides it into east and west parts. The western part or Trans-Hindon area constitutes only one third of the city in terms of population and area. The Himalayan range on the north and Thar Desert on the west in the state of Rajasthan have comprehensive influence on the climate of the city. The inland position of the city and prevalence of continental air make the climate extreme, which is characterised by intense heat in summer and severe cold in winter. Despite this unfavourable climatic condition, the population of the city has grown more rapidly and it was 16.49 lakh in 2011 ranking twenty first in India and third in Uttar Pradesh.

TRENDS OF POPULATION GROWTH

As states above, Ghaziabad was a very small town in the terms of population at the beginning of the twentieth century and it has experienced phenomenal population growth in post independence period due to spectacular industrial development and close proximity to our national capital. In the pre-independence period the remarkable growth is recorded during the decades of 1921-31 and 1941-51. The decadal population growth was 52.56 percent during 1921-31, which was much higher than 9.19 percent of the previous decade. The decade of 1941-51 has also witnessed the higher population growth in Ghaziabad. This growth may be attributed to the incidents happened in Delhi and in our country. India got independence after partition of its territory on August 15, 1947. A large number of people from Pakistan moved to India and mostly they settled in and around Delhi. People from different parts of the country, especially neighbouring areas, also started moving towards Delhi in anticipation of better opportunities.

Table 1
Decadal Population Growth in Ghaziabad City: 1901-2011

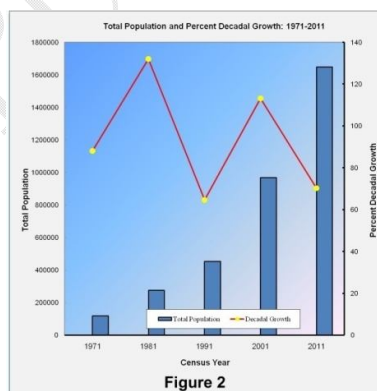
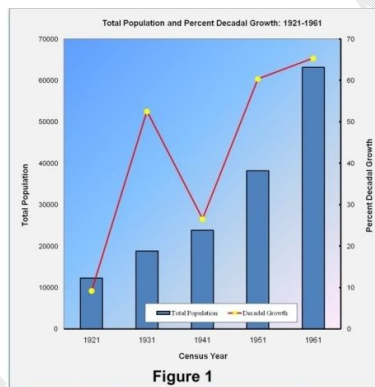
Census Year	Town Population	Absolute Growth	Decadal Growth Rate
1901	11,275	0	0.00
1911	11,304	29	0.26
1921	12,343	1,039	9.19
1931	18,831	6,488	52.56
1941	23,834	5,003	26.57
1951	38,217	14,383	60.35
1961	63,190	24,973	65.35
1971	118,836	55,646	88.06
1981	275,815	156,979	132.10
1991	454,156	178,341	64.66
2001	968,256	514,100	113.20
2011	1,648,643	680,387	70.27

Source: Census of India 2001 and Census of India 2011.

The population growth rate was still high in the decade of 1951-61. The total population of the city increased from 38217 in 1951 to 63190 in 1961 that shows more than 65 percent increase in 10 years. This period is characterized by very high birth rate and declining mortality rate. Increased

migration was another cause of population growth in this period. The decade ending in 1971 has marked importance in industrial growth in Ghaziabad city as well as in district. This decade also witnessed the remarkable increase in the employment, which attracted a large number of in-migrants. The decadal population growth was recorded as 88 percent. This trend of migration continued in the next decade, which recorded the highest population growth in Ghaziabad city so far. As a result of rapid decline in mortality without concomitant decline in birth rate, population increased rapidly in this decade. It increased more than doubled from 1.19 lakh in 1971 to 2.76 lakh in 1981.

Despite the decline in the population growth rate in Ghaziabad during 1981-1991, there has been an absolute increase in the population, it has increased by 4.54 lakh against 2.76 lakh in the last decade. During 1991-2001, the city again experienced rapid population growth and in absolute terms, it increased from 4.54 lakh in 1991 to 9.68 lakh in 2001. The decadal growth of the population during 1991-2001 was very high at 113.20 percent but it decreased to 70.2 percent during the decade 2001-2011. The city has crossed the figure of one million population and has been included in the category of million cities of India with 21st rank in 2011. However, the decadal population growth rate has declined significantly in last decade, but it is still very high in comparison to Delhi and other NCR towns. It is also estimated that population of Ghaziabad city will grow with rapid pace in future. Thus, the city has not yet moved towards population stabilization.



CAUSES OF POPULATION GROWTH

Population growth (or decline) simply refers to increase or decrease in the number of people of a region over a period. It is calculated by subtracting total deaths from total births and adding total net migration for a time period. The population growth is expressed either in terms of absolute numbers or in terms of percentage. Birth rate, death rate and migration are three basic variables of demographic change. These variables are influenced by many factors such as social, economic, geographical condition, political and demographic. The population growth of any region is the combined result of all

these factors. In the case of Ghaziabad city, as mentioned above its industrial development and its proximity to Delhi seem to be the most responsible factors for unprecedented population growth.

HIGH BIRTH RATE

Birth rate is expressed as a number of live births per year for one thousand population. It is an important indicator of population growth. There are many factors affecting the birth rate in India and in Uttar Pradesh such as celibacy, early marriage, poverty, infant mortality rate, family custom, culture, lack of awareness, lack of social security and religious beliefs. However, a segment of our society is conservative, but most of the urban population has adopted the different measures of family welfare. As a result, the birth rate decreased significantly from about 33 in 1951 to about 20 in 2012-13. This high birth rate is major reason of population growth in Ghaziabad city.

LOW DEATH RATE

Death rate is expressed as a number of deaths per year for one thousand population. It indicates the health status of an area. Low death rate signifies the better state of health. Steep decline in death rate with relatively high birth rate causes population explosion because the natural growth of population is the outcome of the difference between birth rate and death rate during a year when births exceed deaths. Death rate in Ghaziabad was around 11.8 in 1951 and it has declined significantly to 6.5 in 2012-13. Like other cities of NCR, widespread reduction of epidemics, better health services, health awareness and social reforms are main reasons of low and declining death rate in Ghaziabad.

MIGRATION

Migration is a process that arises from various social, economic, political or demographic reasons in which people move from one place to another with intention of settling permanently or temporarily at a new place. It may be both internal, i.e. within the country and external, i.e. from one country to another. The net migration is the difference between the number of people coming to an area and the number of people leaving an area over a time. In the post independence period, the unprecedented increase in the population of Ghaziabad city is not only the result of natural growth; rather migration has contributed the most to this growth. However migration is volatile and often it is difficult to predict it because it largely depend on the socioeconomic conditions, affordable amenities, employment opportunities, environmental conditions, geographical conditions and demographic.

Ghaziabad has attracted a large number of people from different parts of the country for employment due to spectacular industrial growth. As per census 2011, there were 577369 workers in the city, which accounts more than 35 percent of total population. This figure may increase when all unregistered workers taken into account. The tremendous increase in the population in 1961-71 may be attributed to large-scale migration due to industrial development. In recent decades, the development of modern sectors of the economy has also attracted people to settle down here.

The respective authorities of Ghaziabad city have made significant efforts to generate the infrastructure of the city corresponding to population growth and industrial development. Resultantly, city has a large network of road and rail transport. With the construction of several flyovers and grade separators, new roads have also been constructed and existing roads have been widened considerably in the city. Recently, a metro rail system has been launched for a part of the city and it is expected that after the full development of the metro rail system for the entire city, transportation will be more accessible to Delhi and other cities. The better transportation system has not only led to the growth of Ghaziabad but also led to the population growth of the city. A large number of people working in Delhi and other cities of NCR live in Ghaziabad because of better transport connectivity.

The geographical location, i.e. proximity to Delhi is also an important factor, which has accelerated population growth of the city. The unprecedented population growth and rapid pace of urbanization have reduced the physical potential for further urbanization within the boundaries of Delhi. Consequently, many new establishments and residential complexes have been developed between Delhi and Ghaziabad. Due to price hike of land and housing in Delhi, a large number of people

have also moved towards Ghaziabad in search of affordable housing. All these development has transformed the social character of the city.

CONSEQUENCES OF POPULATION GROWTH

With rapid population growth, Ghaziabad city has expanded almost randomly in post independence period. The intensive urban growth of the city has led to serious urban and environmental problems like pollution, loss of agricultural land, growth of slum areas, unauthorized urban sprawl, traffic congestion, lack of basic necessities and social delinquency. Rapid changes in the demographic structure of the city are considered to be the root cause of various urban problems, which the city dwellers are facing.

ENVIRONMENTAL CONSEQUENCES

The growth of the Ghaziabad city is largely associated with the industrial development in post independence era. Most of these industrial units are highly polluting and emit harmful pollutants including particulate matter (PM2.5). Ghaziabad has not only emerged as industrial hub globally, but it has also climbed a lot in the list of the world's most polluted cities. In recent years, Ghaziabad has got a lot of media headlines for the worst air quality in the country. The ambient air quality of Ghaziabad city has become quite contaminated in the last few decades. In addition to industrial emissions, gaseous emissions from vehicles and domestic combustion have also made significant contribution in increasing air pollution in Ghaziabad city. However the contribution to air pollution from domestic sector has decreased considerably due to increase in numbers of LPG connection in the last few decades whereas the share of pollution from vehicles has increased rapidly. The concentrations of oxides of nitrogen, sulphur dioxide, carbon monoxide and particulate matter have increased considerably. Water contamination is another major threat to urban life of Ghaziabad city. The level of pollution in the Hindon River has crossed the hazardous level and its water is completely unsuitable even for animal consumption and irrigation. The groundwater has also become highly contaminated in residential areas along the Hindon River. The city generates huge quantity of different types of solid wastes such as industrial waste, municipal solid waste, construction and demolition debris and electronic waste. Some of these wastes are non-biodegradable, which causes damage to the environment.

LOSS OF NATURAL AMENITIES

Industrial development has accelerated the urban development of the city, consequently a large area, which was rural, was transformed into urban. The total area of the city was only about 4.29 square kilometres in 1951, while in 2011 it covers an area of about 220 square kilometres. Urban expansion of the city has hampered the ecological balance and groundwater replenishment by reducing the open area. New establishments including multi storied housing complexes have taken place in ecologically sensitive areas and floodplains. A number of authorised colonies and slums may be seen on the banks of the Hindon River. Wetlands have almost disappeared from the city's land.

GROWTH OF SLUM

According to Census 2011, 23.03 percent of the total population of Ghaziabad city resides in slum areas. Slum residents are low-paid workers and make significant contributions to the unorganized and informal segment of the city's economy. They come from different parts of the country and build their own shelter on any available land from any available materials, because they cannot afford adequate housing in the city. The growth of slum population in the city is a manifestation of the inability of the authorities that they cannot accommodate the increasing number of migrants in the city.

URBAN PROBLEMS

With the phenomenal growth of the population, city is unable to increase the public amenities in such ratio. With the unprecedented increase in population, the city is unable to raise public facilities in such proportion. As a result, the city is confronting a number of urban problems, such as shortage of

housing, overcrowding, traffic congestion, inadequate water supply, unauthorized urban sprawl and issues related to law and order. To solve these problems, an integrated city development plan is required by incorporating all facets of the city.

CONCLUSION

In the post-independence period, the population growth of Ghaziabad city was more intense because of the large scale migration from different parts of the country in search of livelihood and employment. Population growth is influenced by a variety of factors, as is usually described in the population studies. But in the case of Ghaziabad city, industrial developments, its proximity to Delhi and transportation accessibility appear most effective factors, which have accelerated the population growth tremendously. The city of Ghaziabad has experienced massive urban transformation due to the rapid growth in population in the post-independence period. Despite the implementation of master plans, the urban expansion was haphazard in a major part of the city, which has created chaotic situation. Resultantly, new development has taken place in unsuitable areas or less suitable areas. With unprecedented population growth, rapid urbanization has created many problems including the situation of severe environmental pollution. Environment pollution in the city is so serious that it has started adversely affecting human health. Apart from environmental issues, the city has also facing the problems of infrastructure development, acute shortage of housing, traffic congestion etc. However, government authorities have attempted to improve the infrastructure of the city and provide basic needs to almost all the citizens, but these efforts are not been proven enough, and in the last few decades the condition of the city has been very poor. A comprehensive and integrated town planning is required to promote the progressive development of the city because haphazard urban expansion and rapid population growth have substantially threatened the city's sustainability.

REFERENCE:

1. Census of India 2001 (http://www.censusindia.gov.in/2011-common/census_data_2001.html)
2. Directorate of Census operations, Uttar Pradesh (2011), *Census of India 2011 Uttar Pradesh: District Handbook Ghaziabad: Village and Town Directory*, Series 10, Part XII-A, Lucknow: Directorate of Census operations, Ministry of Home Affairs, Government of India.
3. Directorate of Census operations, Uttar Pradesh (2011), *Census of India 2011 Uttar Pradesh: District Handbook Ghaziabad: Village and Town Wise Primary Census Abstract*, Series 10, Part XII-B, Lucknow: Directorate of Census operations, Ministry of Home Affairs, Government of India.
4. Ministry of Housing and Urban Affairs (Government of India) (2019), *Handbook of Urban Statistics 2019*, New Delhi: Ministry of Housing and Urban Affairs, Government of India.
5. National Capital Region Planning Board (2013), *Draft Revised Regional Plan 2021 National Capital Region*, New Delhi: National Capital Region Planning Board.
6. Regional Centre for Research and Training in Municipal Administration (1978), *Ghaziabad: A Study in Local Government*, Lucknow: Regional Centre for Research and Training in Municipal Administration, Institute of Public Administration, University of Lucknow
7. Registrar General and Census Commissioner, (n.d.), *Annual Health Survey 2012-13 Fact Sheet Uttar Pradesh*, New Delhi: Vital Statistics Division, Office of the Registrar General & Census Commissioner, India.
8. Sarikwal, R. C. (1978), *Sociology of A Growing Town*, Delhi: Ajanta Publications.
9. The Energy and Resources Institute (2016), *TERI Energy and Environment Data Directory and Yearbook, 2015/16*, New Delhi: The Energy and Resources Institute.
10. White, C. Langdon, George T. Renner and Henry J. Warman (1968), *Geography: Factors and Concepts*, New York: Meredith Corporation.



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