

“POPULATION DYNAMICS OF DELHI NCR(METRO) DURING 2012-2019”

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1.1 INTRODUCTION

The evolution of NCR and its metropolitan region is characterised by a significant trend in the growth of urban development, with a rising number of urban residents of more than 10 million people. The demographic development is strongly characterised by the nation with respect to the NCR Delhi. The capital moved from Kolkata to Delhi in 1911. Table-8 shows the change rate between 2003 and 2019 in the various LULC classes. Different land use and cover kinds are prevalent, however some classes are increasing while classes are decreasing. The build up of this region is very dense yet low-density built-up land decreases. High changes in the overall vegetated land show natural deforestation and deterioration. From 2003 through 2019, agriculture is reducing lands and scrubs. Land change for total agriculture 0.21% Lastly, 0.083% less greenery. Total increases of 29.95 percent of the 11-year period of high built-up land and its associated Delhi land-change.

1.2 NCR OF DELHI: METRO-POPULATION DYNAMICS:

The evolution of NCR and its metropolitan region is characterised by a significant trend in the growth of urban development, with a rising number of urban residents of more than 10 million people. The demographic development is strongly characterised by the nation with respect to the NCR Delhi. The capital moved from Kolkata to Delhi in 1911. The population of the town was subsequently grown from 413851 in 1911 to 1744072 in 1951.

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| Table: 1.1 | | | | | | |
|--|-------------------|------------------------|---------------------------|------------------------|----------------------|-----------------------------|
| Population, Area and Density of NCR Delhi (2012-2019) | | | | | | |
| Year | Population | Growth Rate (%) | Population (Urban) | Growth Rate (%) | Area (Sq. Km) | Density (per Sq. Km) |
| 2012 | 405819 | - | 214115 | - | - | - |
| 2013 | 413851 | 1.98 | 237944 | 11.13 | 43.25 | 5501 |
| 2014 | 488452 | 18.03 | 304420 | 27.94 | 168.09 | 1811 |
| 2015 | 636246 | 30.26 | 447442 | 46.98 | 169.44 | 2640 |
| 2016 | 917939 | 44.27 | 695686 | 55.48 | 174.31 | 3991 |

| | | | | | | |
|------|----------|-------|---------|--------|--------|------|
| 2017 | 1744072 | 90.00 | 1437134 | 106.58 | 201.36 | 7137 |
| 2018 | 26586122 | 52.44 | 2359408 | 64.17 | 326.55 | 7225 |
| 2019 | 4065698 | 52.93 | 3647023 | 54.57 | 446.26 | 8172 |

Delhi had 214115 urban residents in 1901. In 1912, the capital came to the walled city named New, which was 46 square kilometres south from Calcutta to be purchased. In 1951, owing to forced migration after division, the urban population more than quadrupled to 1.43 million, compared to 0.70 million in 1941. In 1956, the Delhi Union territory was named a continuous landmass spanning 1483 km² (UT). It was, however, renamed the Delhi National Capital Territory from 1992 (NCRD). According to the Regional Plan 2021, the build up area in NCR Delhi has grown by more than 47 percent of the total area in NCR Delhi from 580,14 sq. km (1986) to 701,62 sq. km (1999). The above chart also shows that NCR Delhi was experiencing significant urbanisation. As we can see from the above table.

During the same time of density, from 5501 people per sq km to 14521 people per sq km. The urban area rose from a tiny 43.25 sq km in the year 1901 to a mere 888.74 sq km in the year 2001. In all the directions of Rhine, Dwarka and Narela as well as trans-Yamuna region, the urban spatial area and population growth have competed. NCR Delhi has a total surface area for 2019 of 147,300 hectares.

Table 1.2:
District wise population in NCR of Delhi, 2012-2019

| Districts | Census Years | | | | | | Population Density/ Sq.km | |
|------------|--------------|-------|-------|---------|---------|---------|---------------------------|-------|
| | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 |
| North | 240973 | 6502 | 8298 | 1777968 | 2860869 | 3651261 | 6502 | 8298 |
| West | | | | | | | | |
| North | 611376 | 12405 | 14037 | 686654 | 781525 | 884318 | 12405 | 14037 |
| North east | 38155 | 31019 | 39311 | 1085250 | 1768061 | 2240749 | 31019 | 39311 |
| East | 135325 | 23606 | 27544 | 1023078 | 1463583 | 1707725 | 23606 | 27544 |
| New Delhi | 143846 | 4841 | 3614 | 168669 | 179112 | 133713 | 4841 | 3614 |
| Central | 672063 | 43092 | 38578 | 656533 | 646385 | 578671 | 43092 | 38578 |
| West | 250702 | | 20416 | 1433038 | 2128908 | 2531583 | | 20416 |
| South West | 251383 | 418 | 5458 | 1087573 | 175504 | 2292363 | 418 | 5458 |

| | | | | | | | | |
|-------|--------|--------|--------|---------|---------|---------|--------|-------|
| South | 314789 | 589956 | 986856 | 1051881 | 2267023 | 2733752 | 986856 | South |
|-------|--------|--------|--------|---------|---------|---------|--------|-------|

In the south-west district, the highest decadal growth was about 30%, and Dwarka's newly developed stability in 10 years is an important element contributing to a high rate of development. In and around Najafgarh, several new settlements also occurred, contributing to population increase. The city of Bijwasametc has been strongly inhabited, because of the migrants who work in the Gurgaon and Delhi industries. The districts of Northwest and North-East both showed significant development. In North West, which is both by population and by size the biggest district in Delhi? In the decade both north and east shaving districts are comparable to the ones offering cheap accommodation. The colons of slums on narelabhalswa, sabda, ghevde, etc have been picked. In the Eastern District, population growth is lower than in the North-East due primarily to the effects of Yamuna and other lengthy slum groups which collapsed in the Eastern District, while in the Northeast district a significant number are not yet in size.

There are very different populations in the nine districts. The lowest population is in the district of New Delhi, primarily adjacent to the NDMC region. It includes offices and official homes belonging to the Indian government and to business embassies in Connaught. The biggest population is in the District of North-West, which is also the largest area and has a huge region which was still relatively rural, but now has a significant urbanisation and a large number of people. The table above displays the nine districts in comparable terms.

Delhi has grown its population density from 9,340 per kilometre square metre in 2001 to 11,297 per kilometre square metre in 2011.

The difference in population density in the neighbourhood as indicated in figure 21. In the NCR of Delhi the population is high in 2011, with 39,311 people per kilometre of square kilometre. Where in 2001 there were 31019 people per sqkilometre. In the 2011 region the low densities of the population is north-west, new Delhi and south-west, with a density of less than 8298 people per kilometre. Where 2001 is less than 6502 people per square km. The population of the other district was 8299 to 27544 in 2011, while in 2001, 6503 to 23606 people were square kilometres.

The demographic development of NCR Delhi has been influenced by migration. More than half of all Delhi migrants from surrounding countries in north India were Haryana, Punjab, Rajasthan and Uttar Pradesh between 1991 and 2001. In the past decade, Delhi UA attracted quite many migrants from various countries. There were just 3,92 lakh migrants from Delhi. Thus, in 2001 the net migration were 1,6,000,000 compared to 1,3,000,000 in 1991. The major population inflow into Delhi came from of Uttar Pradesh, Bihar and Haryana, (8.16 Lakh), (3.82 Lakh) (1.5 lakh). Males were dominated by migrations from such countries.

The 2001 census showed intriguing findings in the migration to NCR Delhi. Neighboring states like Haryana, Uttar Pradesh and Rajasthan all combined are still the most migrant population to NCR Delhi. The three states made 51.98 percent of the total migrants, Uttar Pradesh (40.05%), Haryana (7.87%) and Rajasthan (4.06%).

| Table-1.3: | | | |
|---|------------------------------|----------------|----------------|
| Migrants classified by place of last residence | | | |
| Place of last Residence | Migrants to Delhi (%) | | |
| | 2012-15 | 2015-17 | 2017-19 |
| Uttar Pradesh | 50.09 | 48.5 | 40.05 |

| | | | |
|--|--------------|--------------|--------------|
| Haryana | 12.93 | 11.51 | 7.87 |
| Bihar | 5.77 | 10.69 | 19.09 |
| Uttaranchal | - | - | 5.11 |
| Rajasthan | 7.63 | 6.00 | 4.06 |
| Punjab | 6.40 | 5.28 | 2.16 |
| West Bengal | 2.70 | 2.72 | 3.88 |
| Madhya Pradesh | 3.07 | 2.67 | 1.82 |
| Others | 11.41 | 12.91 | 15.96 |
| Source: Migration Tables, Census of India, 2001 | | | |

According to table-1.3, Uttar Pradesh and Uttaranchal migration decreased from 50.09% in 1971-81 to 40.05% in 1991-1991 excluding Uttaranchal. Similarly, there are declining trends in the states of Haryana and Rajasthan. However, in 1971-1981, migration from Bihar rose three times, i.e. 5.77% to 19.09% in 1991-10. As a result, migration from faraway countries has lately exhibited a rising tendency over the past 10 years.

Table 1.4:

Reasons for migration

| Reasons | % of Migrants | | |
|--|----------------------|----------------|----------------|
| | 2012-15 | 2015-17 | 2017-19 |
| Employment | 34.48 | 31.29 | 37.60 |
| Business | - | 4.07 | 0.5 |
| Education | 3.33 | 2.28 | 2.7 |
| Family moved | 39.43 | 41.45 | 36.8 |
| Marriage | 12.63 | 15.62 | 13.8 |
| Natural Calamities | - | 0.13 | - |
| Others | 10.14 | 5.16 | 6.3 |
| Moved after Birth | - | - | 2.4 |
| Source: Migration Tables, Census of India, 2001 | | | |

As seen in Table 1.4, the main reasons for migrating are still work, which represented 37.6 percent of all different reasons identified by migrants and followed by family relocation (36.8 percent) and marriage (13.8 percent). NCR Delhi thus remains the focal point where pull forces dominate, as people move to economic possibilities.

Table-1.5:

Variation in Migration of people to Delhi between 2012-19 Based on migrants by last residence (0-9 years)

| Migrated people | 2012 Census | 2015 Census | Variation (2015-19) |
|--|----------------|----------------|---------------------|
| Immigrants from other States | 2172760 | 1543959 | 40.7 |
| Immigrations from abroad | 49281 | 43533 | 13.2 |
| Total Immigrants | 2222041 | 1587492 | 40.0 |
| Out migrants | 457919 | 281946 | 62.4 |
| Net. Migrants (+/-) | 1764122 | 1305546 | 35.1 |
| Source: Migration Tables, Census of India, 2001 | | | |

Delhi has drawn significant numbers of migrants from various states during the past decade, as can be seen from the chart above. In the past decade Delhi had a total of 2.2 million immigrants, whereas Delhi had 4.57 Lakh migrants and foreign migrants were 49281 in that time. The figure of immigrants was 2.2 million. The net migration figure in 1991-2001 was thus 1.7 million, compared to 1.3 million in 1981-91. Therefore, in the same time, the number of out-migrants doubled.

1.3 IMPACT OF THE URBAN GROWTH IN AND AROUND THE DELHINCR:

Subsequently, enormous urban development in Delhi and throughout the area has significant impacts on the environment and the ecosystem.

Spreading development plans have a number of implications for local ecosystems (Luther 2005). A lot of people hold true to any wildland-urban interface development.

- Destroying habitat for animals.
- Introduction into natural regions of non-indigenous invasive plants and animals.
- Increased exposure of people and pets to illnesses like rabies and Lyme disease.
- Increased danger of oil and gas water contamination washing off pesticide surface sand, lawn fertiliser and other chemical substances.
- Increased floods and soil erosion potential as a result of impermeable areas like concrete or pavement.
- Decrease in groundwater and irrigation for wells due to the wealth of impermeable surfaces.
- Increased danger to wildfires' lives and property.

Urban expansion in many areas may also have a detrimental impact on social and economic circumstances.

- Increased community expenses for road maintenance, school bus routes, sewerage and other services when and in the form of homes.
 - Continuing rise in property taxes, which may push rural farmers to sell to developers, to satisfy the increasing demand for services.
 - Increased car demand; increased noise, transport, pollution; decreased cycling and walking possibilities.
 - Isolation of young, impoverished and old people who are unable to drive or lack access to their vehicles.
 - Increased public transport costs and difficulties.
 - Increased commuting time decreases time available for families and friends or for community membership.
 - Loss of farming, forestry and traditional activities on land.
 - Rural character reduction or feeling of place for the community.
- Increased regulations governing logging, noise or smells

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