POPULATION GROWTH
B.A. (Geography)
Sem 2 Paper 1 Unit 3
Ms. Anupama Rebecca Anthony
Assistant Professor
Department of Geography
Isabella Thoburn College
Lucknow
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Restrictive Population Policy

Expansive Population Policy

"At least two. Better three. Four if you can afford it"

1970s

1980s & 90s
The Structure Of The Present Controls
The Content Of The Future

**POPULATION**
- numbers
- age
- sex
- distribution
- density
- fertility
- mortality
- growth

**SOCIETY**
- Social
- Political
- Economic

Provides the essential background to all other aspects of Human Geography
Do we need Population Geography or is Demography enough?

Demography - is the statistical study of human population. Provides a general perspective.

Population Geography - Works in tandem with Demography. It is concerned with spatial analysis of the statistical data provided by demography—location, density, and pattern. Provides the concepts and theories to understand and forecast the size, composition, and distribution of the human population.

Population Geography is required as it seeks answers to the problems faced by the variability of demographic features over space.

QUESTION: Why is the concept of Scale crucial to the studies of population?
How has the world population growth changed over time?

- The world population today that is 1,860-times the size of what it was 12 millennia ago when the world population was around 4 million.
- Almost all of this growth happened just very recently.
- Around 108 billion people have ever lived on our planet. This means that today’s population size makes up 6.5% of the total number of people ever born.

Source: https://ourworldindata.org/world-population-growth
World population in year

1930

2 billion

1400  1600  1800  2000

World population in year 1960

30 years later ➤ 3 billion

World population in year

1974

14 years later ➤ 4 billion


Free teaching material for a fact-based worldview

www.gapminder.org/teach
World population in year 1987: 5 billion

Population growth:
- 13 years later: 5 billion

World population in year 2011 reached 7 billion. This occurred 12 years after 2000.
What impression does this line give?
UN World Population Forecast

Billion people

RELATED QUESTIONS

- Why will the world population continue to grow fast?
  - More Adults

- How did babies per woman change historically?
  - It dropped

- How reliable is the world population forecast?
  - Very Reliable
How has the world population growth rate changed?

Is the global population growing exponentially? The answer is no.

https://ourworldindata.org/world-population-growth
Population Doubling Time

The fastest doubling of the world population happened between 1950 and 1987: a doubling from 2.5 to 5 billion people in just 37 years — the population doubled within a little more than one generation. This period was marked by a peak population growth of 2.1% in 1962.

https://ourworldindata.org/world-population-growth
The rates of population growth in less developed regions, although declining rapidly, will continue to be far above those in more developed regions for the foreseeable future.

The 49 least developed countries, according to UN data, experienced the greatest increases in population growth.

Population growth by world regions
Less Developed vs More Developed

- Relatively Stable Population Size since 1950s
- Rapidly increasing population size since 1950s
Region wise population growth

Source: https://ourworldindata.org/world-population-growth#future-population-by-region
Demographers employ a wide range of measures of population composition from individual counts, rates and cohorts.

- **Rates** simply record the frequency of occurrence of an event during a given time frame for a designated population.

- **Cohort** measures refer data to a population group unified by a specified common characteristic.
Crude birth rate = Number of live births during the year
----------------------------------------------- x 1000
Mid-year population

Factors Influencing CBR include:
* age and sex structure
* customs
* religious beliefs
* population policies.

Does there exist a relationship between Birth Rate and Development Levels?

From: https://ourworldindata.org/fertility-rate
Fertility Rates

A total fertility rate of 2.1 is necessary just to replace the present population.

Fertility first decreases with Development, then rises with Development.

What if TFR were to fall below 2?

Zero Population growth?

Population Explosion vs Population Implosion

source: www.gapminder.org
Crude Death Rates

Crude death rate (CDR)
Number of deaths during the year
--------------------------------------------------- x 1000
Mid-year population

Also known as Mortality Rate

source: https://ourworldindata.org
**Rate of natural increase** = CBR - CDR

- Tells only a part of the story of population change..
- Does not include increase or decrease as a result of migration (Immigration/Emigration) of people. Migration involves the long-distance movement from one residential location to another.
- When that relocation occurs across political boundaries, it affects the population structure of both the origin and destination jurisdictions.
Natural Increase: A spacio-temporal perspective

source: https://ourworldindata.org
Population growth rate, 2015

Annual rate of population change from 1950, including UN projections to 2100 based on its median scenario. This takes births, deaths and migration into account.
Indian Scenario (Census 2011)

Period of stationary population
Period of steady population growth
Period of rapid population growth
Period of High Growth with Signs of slowing down

Source: Provisional Population Totals India: Census 2011
# Population Growth in India

## Population and its growth, India: 1901-2011

<table>
<thead>
<tr>
<th>Census Years</th>
<th>Population</th>
<th>Decadal growth</th>
<th>Change in decadal growth</th>
<th>Average annual exponential growth rate (percent)</th>
<th>Progressive growth rate over 1901 (percent)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Absolute</td>
<td>Percent</td>
<td>Absolute</td>
<td>Percent</td>
</tr>
<tr>
<td>1901</td>
<td>23,83,96,327</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
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<tr>
<td>1911</td>
<td>25,20,93,390</td>
<td>1,36,97,063</td>
<td>5.75</td>
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<td>-</td>
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<tr>
<td>1921</td>
<td>25,13,21,213</td>
<td>-7,72,177</td>
<td>(0.31)</td>
<td>-1446,9240</td>
<td>-6.05</td>
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<td>1931</td>
<td>27,89,77,238</td>
<td>2,76,56,025</td>
<td>11.00</td>
<td>2842,8202</td>
<td>11.31</td>
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<td>1941</td>
<td>31,86,60,580</td>
<td>3,96,83,342</td>
<td>14.22</td>
<td>1202,7317</td>
<td>3.22</td>
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<tr>
<td>1951¹</td>
<td>36,10,88,090</td>
<td>4,24,27,510</td>
<td>13.31</td>
<td>2744,168</td>
<td>-0.91</td>
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<tr>
<td>1961¹</td>
<td>43,92,34,771</td>
<td>7,81,46,681</td>
<td>21.64</td>
<td>3571,9171</td>
<td>8.33</td>
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<td>1971</td>
<td>54,81,59,652</td>
<td>10,89,24,881</td>
<td>24.80⁶</td>
<td>3077,8200</td>
<td>3.16</td>
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<td>1981²</td>
<td>68,33,29,097</td>
<td>13,51,69,445</td>
<td>24.66⁵</td>
<td>2624,4564</td>
<td>-0.14</td>
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<td>1991³</td>
<td>84,64,21,039</td>
<td>16,30,91,942</td>
<td>23.87</td>
<td>2,79,22,497</td>
<td>17.12</td>
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<td>2001⁴</td>
<td>1,02,87,37,436</td>
<td>18,23,16,397</td>
<td>21.54</td>
<td>1,92,24,455</td>
<td>10.54</td>
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<td>2011⁵</td>
<td>1,21,01,93,422</td>
<td>18,14,45,986</td>
<td>17.64</td>
<td>-8,60,411</td>
<td>-0.47</td>
</tr>
</tbody>
</table>

*Source: Provisional Population Totals India: Census 2011*
Is India’s population growth coming to an end?
Spatial Pattern of Population Growth in India

Source: Provisional Population Totals India: Census 2011
Bjelland, Mark, Daniel Montello, Jerome Fellman, Arthur Getis and Judith Getis (2013). Human Geography: Landscapes of Human Activities


Census of India 2011: Provisional Population Totals


https://ourworldindata.org
www.gapminder.org/teach (Free teaching material downloaded)
THANK YOU