

Social Development- Social Inclusion, Demographics, Social Sector Initiatives

Chapter 2

Short Answers

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This chapter contains:

- **Demographics of India**
- **National Population Policy**
- **Fertility Rate in India: Reasons for Decline**
- **Population Change - Factors, Implications, Measures**
- **Infant Mortality & Replacement Rate in Fertility Rate**

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1. Demographics of India

Demographics refer to statistical data relating to the population in a region. This covers various factors like population growth rate, the percentage of different age groups within the population, the literacy rates, the sex ratio, urban-rural population ratios, etc. A decent knowledge of this information will help in understanding the problems faced by the country.

Total population	Around 1.38 billion Around 1.22 billion (as per census 2011)
World rank in population	2
Percentage of the world population	17.71%
Population density	464 per sq. km
Growth rate	0.99%
Median age: Total	Total: 28.1 years Male: 27.5 years Female: 28.9 years
Infant mortality rate	26.6 deaths per 1000 live births
Under – 5 mortality rate	32.9 deaths per 1000 live births
Life expectancy at birth	Total: 70.42 years Male: 69.2 years Female: 71.8 years
Rural population	Around 65%
Urban population	Around 35%

1.1 The population of India by state (UTs not included)

Given below is the population of various Indian states as per the Census 2011:

	Most populated	Population		Least populated	Population
1	Uttar Pradesh	199,812,341	1	Sikkim	610,577
2	Maharashtra	112,374,333	2	Mizoram	1,097,206
3	Bihar	104,099,452	3	Arunachal Pradesh	1,383,727
4	West Bengal	91,276,115	4	Goa	1,458,545
5	Madhya Pradesh	72,626,809	5	Nagaland	1,980,602

1.2 Population density (persons per sq. km) by state (UTs not included)

	Highest	Density		Least	Density
1	Bihar	1106	1	Arunachal Pradesh	17
2	West Bengal	1028	2	Mizoram	52
3	Kerala	859	3	Sikkim	86
4	Uttar Pradesh	828	4	Nagaland	119
5	Haryana	573	5	Manipur	122

1.3 Literacy Rates in India

The data and figures given below are based on Census 2011:

Total Literacy Rate: 74.04%

Male Literacy Rate: 82.14%

Female Literacy Rate: 65.46%

	Highest	Rate (%)		Least	Rate (%)
1	Kerala	93.91	1	Bihar	63.82
2	Lakshadweep	92.28	2	Telangana	66.5
3	Mizoram	91.58	3	Arunachal Pradesh	66.95
4	Tripura	87.75	4	Rajasthan	67.06

5	Goa	87.4	5	Andhra Pradesh	67.4
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1.4 Fertility Rate in India (Number of children born per woman)

Total fertility rate: 2.2

The table given below depicts the figures announced by NITI Aayog for the fertility rate in India (as of 2013):

	Top Three	Rate		Bottom Three	Rate
1	Andaman & Nicobar Islands	0.7	1	Bihar	3.4
2	Tripura	1.3	2	Uttar Pradesh	3.1
3	Goa	1.4	3	Madhya Pradesh	2.9

1.5 Sex Ratio in India (not including UT's)

The figures given below are based on NITI Aayog's data for 2013-2015:

Total sex ration in India: 900

(900 females per 1000 males)

	Top Three	Sex Ratio		Bottom Three	Sex Ratio
1	Kerala	967	1	Haryana	831
2	Chhatisgarh	961	2	Uttrakhand	844
3	West Bengal	951	3	Gujarat	854
4	Odisha	950	4	Rajasthan	861
5	Karnataka	939	5	Delhi	869

1.6 Impact of Migration on Urban Demography: Towards Tackling Urban Migration Phenomenon

The 21st century is seeing a phenomenon of rapid urban expansion and internal migration in the developing countries. According to UN, internal migration continues to be one of the major components of urban growth and socioeconomic transformation, and a central mechanism for population redistribution. These processes lead to demographic, social, economic and environmental consequences in both urban and rural areas.

Impact of migration on urban demography: Migration brings tangible change in demographic characteristics of place of origin and place of destination. The absolute number of population, the density of population, age composition, and literacy rates are either favourably or adversely affected.

Migration changes the characteristics of the population in regions of out migration-the proportion of old, children and females increases due to out-migration in source region.

Migration leads to demographic changes with large young male population dominating the age-sex composition. Migration of skilled workers leads to a greater economic growth of the region. The population density of urban areas increases with increase in birth rates. Migration fills gaps in demand for and supply of labour and efficiently allocates skilled and unskilled labour. Migration leads to intermixing of people from different cultures which brings up a composite culture among the people.

UNESCO's 2019 Global Education Monitoring Report (GEM Report) shows that children left behind by migrating parents and seasonal migrants face fewer educational opportunities overall. According to the report, 80% of migrant children across seven Indian cities did not have access to education near worksites.

Large scale movement of people from rural to urban areas causes overcrowding in cities and puts heavy pressure on urban infrastructure. Improper urban planning coupled with large influx of poor migrants lead to development slums lacking basic infrastructural facilities such as safe drinking water, electricity, sewage, housing, security, hospital etc. It provides remittances to households in the areas of origin, increases consumer expenditure and investment in health, education and assets formation. When a migrant return to its place of origin, he/she brings knowledge, skills and innovation. It enhances knowledge and skills of migrants through exposure and interaction with the outside world.

Lack of affordable housing in Indian cities force migrants to live in slums. Many seasonal migrants are not even able to afford rents in slums force them to live at their workplaces (such as construction sites and hotel dining rooms), shop pavements, or in open areas in the city. Migration lead to mixing of people from one are to another. It impact urban services and change demography of place of origin and destination. It often put burden on urbanisation and hinder health of an urban centre. A proper management and plan is needed to make migration to urban centres fruitful.

2. National Population Policy

India has the second-largest population in the world. With a current population of about 1.3 billion, population growth control continues to be on every government's agenda. In this article, you can read all about the National Population Policy, 2000, as well as, about previous such policies and measures announced by the government in this direction.

National Population Policy, 2000

The National Population Policy (NPP), 2000 is the central government's second population policy. The NPP states its immediate objective as addressing the unmet needs for contraception, healthcare infrastructure, and health personnel, and providing integrated service delivery for basic reproductive and child healthcare.

The medium-term objective of the NPP 2000 was to reduce the Total Fertility Rate (TFR) to replacement levels by 2010. The TFR was to be 2.1 children per woman. The long-term objective is "to achieve a stable population by 2045, at a level consistent with the requirements of sustainable economic growth, social development, and environmental protection."

2.1 Important features of National Population Policy

- The NPP reinforces the vision of the government to encourage voluntary and informed choices and citizens' agreeability in order to achieve maximum benefits from reproductive health services.
- Making school education free and compulsory up to the age of 14 years and also reducing the dropout rates of both boys and girls.
- Decreasing the Infant Mortality Rate (IMR) to under 30 per 1000 live births in the country (to be achieved by 2010 as prescribed when the NPP was brought out).
- Reducing the Maternal Mortality Rate (MMR) to under 100 per 1 lakh live births (to be achieved by 2010 as prescribed when the NPP was brought out).
- Achieving universal immunization for all children against vaccine preventable diseases.
- Encouraging delayed marriage for girls (preferably before 18 years and above 20 years).
- Achieving 80 percent institutional deliveries and 100 percent deliveries by trained persons.
- Attaining 100% registration of pregnancies, births, deaths and marriages.
- Making available universal access to information/counseling, and services for fertility regulation and contraception with a huge range of choices.
- Containing the spread of AIDS, boosting better coordination between the management of reproductive tract infections (RTI) and sexually transmitted infections (STI) and the National AIDS Control Organisation (NACO).
- Preventing and controlling communicable diseases.
- Integrating Indian medicine systems (AYUSH) in reproductive and child health services.
- Vigorously furthering the small family norm.
- Bringing about a convergence of all related social programmes so that family planning and welfare becomes a people-centric programme.
- The NPP 2000 is different from the previous population regulation programmes in that here, for the first time, the population problem was seen in combination with child survival, maternal health, women empowerment and contraception issues.

2.2 Evolution of India's Population Policies

Even before independence, attempts were made to come up with recommendations and solutions to India's burgeoning population problem. The efforts both pre- and post-independence are mentioned below.

- Radha Kamal Mukherjee Committee (1940): In 1940, the Indian National Congress appointed a Committee headed by a social scientist Radha Kamal Mukherjee to suggest solutions to arrest the population which has started increasing rapidly after 1921. The

committee recommended self-control, generating awareness of cheap and safe birth control measures, discouraging polygamy, among others, as measures to bring down the rate of population growth.

- Bhore Committee: The Health Survey and Development committee under Sir Joseph Bhore recommended ‘deliberate limitation of family’ as a measure to control the population growth. This committee was set up in 1943 and submitted its report in 1946.
- India became one of the first developing countries to come up with a state-sponsored family planning programme in the 1950s.
- A population policy committee was established in 1952. However, the policies framed in the early fifties were largely arbitrary and so no successful.
- In 1956, a Central Family Planning Board was set up and its focus was on sterilisation.
- In 1976, GOI announced the first National Population Policy. Some of the measures to check the population growth as part of this policy include:
 - Increased the minimum legal marriageable age for boys and girls to 21 and 18 respectively.
 - Providing monetary incentives for employing birth control.
 - Improving women’s literacy levels through formal and informal channels.
 - Population was made a criteria in deciding the quantum of central assistance to states.
 - Using the different forms of media to popularise family welfare programmes.
 - Introducing population education into the formal education system.
 - During the Emergency period (1975-77), coercive measures were used to reduce the population growth. There were mass forced sterilisations. This, however, backfired as it discredited the entire family planning programme of the government.
 - In 1977, after the Emergency ended, the new government discarded the use of force in family planning and the family planning programme was renamed as the family welfare programme.
 - The National Health Policy was adopted in 1983 which emphasised ‘securing the small family norm through voluntary efforts and moving towards the goal of population stabilization’.
 - A Committee on Population was appointed in 1991 which submitted its report in 1993 in which it recommended the formulation of a National Population Policy to take a ‘a long-term holistic view of development, population growth, and environmental protection’ and to ‘suggest policies and guidelines [for] formulation of programmes’ and ‘a monitoring mechanism with short- medium- and long-term perspectives and goals’.
 - Accordingly, an Expert Group headed by Dr. MS Swaminathan was set up to create the draft national population policy.
 - The National Population Policy finally came into force in 2000.

2.3 Way Forward

Population problem is not just an issue of lack of awareness or education. It is intrinsically linked to poverty, societal norms and cultural preferences like preference for the male child, larger families, etc. A mere focus on contraception and sterilization will not render the population control measures successful, and so will not the coercive and top-bottom approach help either. The focus must be on a basket of issues such as poverty alleviation, women empowerment, education & awareness, access to reproductive healthcare facilities, changing mindset and societal norms, etc. Also, adequate measures must be taken to take advantage of

the demographic dividend of the country so that population is not a burden but a resource in the rapid economic development of the country.

3. Fertility Rate in India: Reasons for Decline

Total Fertility rate (TFR) is an important factor in population growth. Read here to know about the declining fertility rate in India. The Total fertility rate (TFR) has declined from 2.2 (reported in 2015-16) to 2.0 at the all- India level, according to the latest National Family Health Survey of India OR NFHS- 5 (phase 2) released by Union Health Ministry.

1.6 in urban areas

2.1 in Rural area

2.0 all India

The NFHS-5 (National Family Health Survey) for 2019-2021 was conducted in around 6.1 lakh sample households from 707 districts of the country, covering 7,24,115 women and 1,01,839 men to provide disaggregated estimates up to the district level.

There are 1,020 women per 1,000 men in India according to the recently released Fifth Edition (NFHS-5). Such a sex ratio has not been recorded in any of the previous four editions of the NFHS.

2.2 Total Fertility Rate (TFR)

Total fertility rate (TFR) is the average number of children born to a woman in her reproductive years (15-49 years). The total fertility rate (TFR) is an important factor in determining the population growth and demographic stability of a country.

2.3 Replacement Level Fertility

Replacement level fertility is the level of fertility at which a population exactly replaces itself from one generation to the next, i.e., the level of fertility needed to keep the population the same from generation to generation.

Why is the Replacement Level Fertility rate 2.1 and not 2?

The TFR of 2.1 ensures the replacement of the woman and her partner. Another 0.1 children per woman are included to counteract infant mortality.

2.4 UN projection of Human Population

United Nations (UN) projects that the global human population may increase from 7.8 billion in 2020 to 10.9 billion by 2100. A 40% population increase would have a strong impact on economies, food production, environment, and global climate. Based on these observations and the ongoing global decline in TFR, the United Nations through its medium projection model has predicted that TFR in all countries will converge to near replacement level (2.1) during the decades up to 2100.

Hence it is important to understand the causes of population growth for aspects of international and national planning for the future.

Key indicators for India in NFHS-5

The key factors or indicators for determining the fertility rates in India are listed below. These indicators were made use to compile the data in NFHS-5.

2.5 Population and Household Profile

Characteristics of Adults (age 15-49 years)

Marriage and Fertility

Infant and Child Mortality Rates (per 1,000 live births)

Current Use of Family Planning Methods (currently married women age 15–49 years)

Unmet Need for Family Planning (currently married women age 15–49 years)

Quality of Family Planning Services

Maternal and Child Health – Maternity Care (for last birth in the 5 years before the survey)

Delivery Care (for births in the 5 years before the survey)

Child Vaccinations and Vitamin A Supplementation

Treatment of Childhood Diseases (children under age 5 years)

Child Feeding Practices and Nutritional Status of Children

Nutritional Status of Adults (age 15-49 years)

Anemia among Children and Adults

Blood Sugar Level among Adults (age 15 years and above)

Hypertension among Adults (age 15 years and above)

Screening for Cancer among Adults (age 30-49 years)

Knowledge of HIV/AIDS among Adults (age 15-49 years)

Women's Empowerment (women age 15-49 years)

Gender-Based Violence (age 18-49 years)

Tobacco Use and Alcohol Consumption among Adults (age 15 years and above)

What does the Total fertility Rate in India indicate?

According to the United Nations's population division, countries experiencing below replacement facility (lower than 2.1 children per woman), indicates that a generation is not producing enough children to replace itself, eventually leading to a reduction in population.

Total Fertility Rate of 2.0 indicates the stability of the population in the long term for a country. it means two parents are being replaced by two children in the future.

India is still not expected to see a fall in population for another 30-40 years since more than 30% of the population are between ages 10-30 and are likely to have children over the next two decades.

Mortality rates: Infant and child mortality rates have improved since the previous round. The steepest fall has been recorded in the mortality rate of children under 5 – from 49.7 to 41.9 deaths per 1,000 live births.

Vaccination rates: Similarly, vaccination rates have improved since NFHS-4. The fraction of fully vaccinated children between the ages of 12 and 23 months has gone up from 62% to 76%, along with the rates of partial vaccination.

Childhood diseases: 'Childhood diseases' present a more mixed picture. While the prevalence of diarrhea in the two weeks preceding the survey dipped slightly in NFHS-5, the fraction of children receiving ORS and zinc for diarrhea has gone up substantially.

Child-feeding practices: Children’s feeding practices have largely improved – except for the percentage of children younger than 3 years who were breastfed within an hour of birth, which remains unchanged from NFHS-4. The largest improvement is in the percentage of children who were exclusively breastfed when under six months – from 55% in NFHS-4 to 64% in NFHS-5.

Nutritional Status: The NFHS-5 data shows that the percentage of children who are stunted (low height-for-age), wasted (low weight-for-height) and underweight (low weight-for-age) has gone down. There is a slight increase in the percentage of severely wasted and overweight children. The more alarming thing is the 8 percentage points rise in the fraction of children suffering from anemia – from 59% in NFHS-4 to 67% in NFHS-5.

While there has been some progress, India isn’t making as much progress as it should have towards SDG 2.2 – since the percentage of stunted, wasted, underweight, and anemic children in India is 36%, 19%, 32%, and 67%, respectively.

What are the reasons for the fertility rates decline?

Many factors like education (mean school years for females), economy (Gross Domestic Product), religious beliefs, contraceptive prevalence rate (CPR), the strength of family planning programs, etc influence the fertility rates of a country. These factors play an important role in the current decline in the fertility rate in India also, as listed below:

Higher level of education among females

Increased mobility

Late marriages

Financial independence

Better access to family planning methods/ high contraceptive prevalence rate

The declining infant mortality rate

The declining neonatal mortality rate

2.6 Future implications

The low Fertility Rates in India eventually will lead to a decline in population like in developed countries such as Japan, Germany, and Russia. Hence, the focus on limiting the family size can be reduced.

3. Population and Associated Issues

‘Population’ has different definitions in different subjects. In social science, ‘population’ is defined as the number of people living within a given political or geographical boundary.

India is the second most populated country with a population size of 1,400,457,794, as of 5th January 2022. According to the 2011 Census, the population density was 500 people/sq km area. The various issues of this huge population are discussed and made available in a PDF format on our website for UPSC 2022 candidates.

3.1 Population size and distribution

India contributes one-fifth of the world's total population. From 1975 till 2010 end, the country's population doubled. It is projected to cross China's population by 2024-27, making India the most populated country in the world.

As of 2020, the population growth rate was 1.1%. Talking about the demography, about 50% of India's total population is less than 25 years, and 65% is less than 35 years. So, it is majorly a country of young people with lots of prospects and employment needs.

The population of India is not uniformly distributed. The factors influencing this non-uniform distribution are landform, climate, soil, availability of freshwater, presence of natural resources like minerals, urbanisation, communication system, and industrialisation, etc.

3.2 Migration

A huge number of people in India keep migrating from one place to another due to economic and socio-political reasons. This migration can be permanent or temporary, intrastate or interstate. Due to political reasons, mass migration has been noticed from our neighbouring countries since the time of independence. However, environmental migration is a constant one. For better opportunities, too, many people shift from one place to another.

3.3 Health- an important feature of a population

There are several indicators that define a population's health. These are birth rate, life expectancy, infant mortality rate, fertility rate, maternal mortality rate, etc.

India's birth rate in 2022 is 17.163 births/1000 people. It is a 1.23% dip from last year's.

Average mortality rate is 37 infants/1000 births.

India's fertility rate is 2.2 live births per woman. Kerala has the lowest infant mortality rate, whereas UP ranks first.

Maternal mortality rate is 167 women/100000 women (2011-13 data).

Life expectancy has increased from 49.7 years to 67.9 years.

3.4 Other associated issues of India's population

Here are a few more important facts for your current affairs quizzes:

The present average literacy rate in India is 76.26%.

Kerala has the highest literacy rate of 94%

Bihar has the lowest with 61.80%.

The present sex ratio in India is 1020 females per 1000 males.

Overpopulation, Its Problems and Measures to Control

Overpopulation is a real menace. It leads to an unhealthy competition for natural resources, pollution, unemployment, low per capita income, low standard of living, food insecurity, and lack of education and health facilities.

To control the problems of overpopulation, many measures are taken by the government from time to time. Some of these crucial measures are:

- Family planning and normalising adaptation
- Spread of education
- Employment generation
- Increasing the minimum age of marriage
- Women empowerment

3.5 Demographic Dividend

Demographic Dividend meaning – It is the potential for economic gains when the share of the working-age population (15 years – 64 years) is higher than the non-working age group.

Demographic dividend occurs when the proportion of working people in the total population is high because this indicates that more people have the potential to be productive and contribute to growth of the economy.

Due to the dividend between young and old, many argue that there is great potential for economic gains, which has been termed the “demographic gift”. In order for economic growth to occur the younger population must have access to quality education, adequate nutrition and health including access to sexual and reproductive health.

Demographic dividend takes place when a country undergoes a demographic transition from a rural agrarian economy with high fertility rates to an urban industrialized economy with low fertility and mortality rates. This article gives details on demographic dividend and opportunities that accompany it, in the Indian context.

What is a Demographic Dividend?

As per the United Nations Population Fund (UNFPA), the demographic dividend is the economic growth potential resulting out of changing population age structure with a large section of people in the working-age group of 15 years to 64 years as compared to the non-working age population of below 14 years and above 65 years.

Demographic Dividend – Causes

Change in population structure occur due to

Falling birth rate

Lower fertility rate

Increased longevity

Falling birth rate and lower fertility rate will contribute to a reduction in expenditure, increased longevity will lead to an increase in the size of the working-age population.

3.6 Demographic Dividend – Opportunities for India

India will have the youngest workforce in the world with a median age much lower than China and other Developed countries.

The other countries will have a higher proportion of the population which is not in the working-age group which will result in a shortage of manpower to the tune of 56 million.

Indian workforce can fill this gap in India and abroad and result in greater economic growth.

During the period of demographic dividend, the personal savings will grow, which means greater purchasing power, which can lead to the growth of the economy.

To know how demographic dividend and other factors impact the Indian Economy, visit the linked article.

Demographic Dividend – Challenges facing India

Skill development of the working-age population so that they can turn out to be productive for the country's economy. By 2031, the overall size of our vast working-age population would have declined in 11 of the 22 major States. While Kerala's population is already aging, in Bihar the working-age cohort is predicted to continue increasing till 2051. Check out the details on Demographics of India on the page link provided here.

Rate of employability among Indian graduates is on the lower side. As per UNDP report, India ranks very poorly in Human Development Index (HDI). You can go through the details of the Human Development Index 2020 on the linked page.

The mean years of schooling and expected years of schooling are very low in India. Go through the issues and challenges with the Indian education System on the linked page.

Also, read about Digital Education in India on the given link.

Unemployment rates are high in rural and urban India.

A huge percentage of the population is still dependent on agriculture in India, this segment is also known for underemployment and disguised unemployment.

A huge majority of the workforce is employed in the unorganized sector which is riddled with low wages and the absence of social security.

Fall in female labour force participation in India, as per reports from International Labour Organisation (ILO) and World Bank. Growing female literacy is not translating into relevant and marketable skills. Lack of flexible entry and exit policies for women into virtual classrooms, and into modules for open digital training, and vocational education limits access to contemporary vocations. Aspirants can check the following links for further details-

Gender Inequality and

Gender Pay Parity

Demographic Dividend – Measures to be taken by India to Reap the Benefits

Increase spending on health

Increase spending on education

Increase investments in Research and Development

Invest more in skill development

Demographic Dividend – Latest Updates

India's population is among the youngest in an aging world. By 2022, the median age in India will be 28 years; in comparison, it will be 37 in China and the United States, 45 in western Europe, and 49 in Japan.

At present, the working-age population in India is increasing because of rapidly declining birth rates, with our average annual population growth rates nearly half in the last decade, compared to what was seen in the 1970s. A key driver of this trend has been the steady decline in India's total fertility rate (TFR), which is the number of births per woman or children likely to be born

to a woman in her childbearing age. Interestingly, India has reached a TFR of 2.2, which is slightly lower than the global TFR value of 2.4.

Although the overall fertility rate has halved from 1990 till now, there is wide interstate variation, with states like Bihar, Madhya Pradesh and Uttar Pradesh having higher TFR, of up to 2.5, whereas states like Delhi, Maharashtra, Tamil Nadu have lower TFR, of 1.5.

Given their Varying TFRs, the demographic dividend window is available at different times in different states; this calls for tailored policies, not an All-India approach

Recently a Minister in the Government of India mentioned about the potential of India's demographic dividend to build an Atmanirbhar Bharat.

Bihar's poverty rate continues to be stubbornly high compared to the all-India figures. According to the 2018 global multidimensional poverty index, shockingly, more than half of Bihar's population is 'multi-dimensionally poor'. Bihar is one of India's youngest states, but for it to use its demographic advantage, it needs to get its basics right. Only a healthy and educated youth population can benefit from the much-touted demographic dividend.

Frequently Asked Questions related to Demographic Dividend

Which country is in Stage 4 of Demographic Transition?

Some of the countries that are in Stage 4 of the Demographic Transition are Australia, Argentina, Singapore, USA, South Korea, most of the European countries. Stage 4 of Demographic Transition is considered as an ideal situation for a country since it indicates a gradual population growth.

3.7 Five Stages of Demographic Transition

The 4 stages of Demographic Transition are Stage 1: In this stage the population is low but it is balanced due to high death rate and high birth rate.

Stage 2: In Stage 2, the population will start to rise because the death rate will start to fall due to improved medical care, sanitation, water supply, food security etc. The birth rates will keep rising in stage 2.

Also, learn more about water scarcity – Water Stress in India & the Prevention of Water Scarcity.

Stage 3: The gap between Birth and death will keep getting narrower. The reduction in gap is due to reduction in birth rate due to various reasons like increased employment, more importance to material possessions than large families, empowerment of women etc.

Stage 4: Population growth is slow but the population is high. Population growth is slow in stage 4 due to low birth rate and low death rate. There is a social desire to have smaller families.

Stage 5: In Stage 5, the population starts declining, nevertheless the population is still very high. The population starts ageing because it is dominated by older people. In this stage 5, the birth rate is lower than death rate.

3.8 Why is Demographic Dividend Important?

Demographic Dividend is very important. Historically demographic dividend has contributed upto 15% of the overall growth in advanced economies. Demographic Dividend helps in increasing the workforce, there will be rapid urbanisation and industrialisation. It leads to more investment in physical and human infrastructure. The productivity of the country's economy

increases due to increased labour force. Demographic Dividend will help in witnessing a massive shift towards middle-class society.

Who coined the term Demographic Dividend?

The term Demographic Dividend was coined by David Bloom. He emphasized the importance of demography to economic growth. David Bloom attributed a large portion of the economic growth of East Asia in 1965 to 1990 to the region's working-age population, which led to increase in productivity.

4. Population Change - Factors, Implications, Measures

The population change refers to change in the number of people during a specific time period. The world population has not been stable. It has increased manifold. Population changes constantly due to birth rate and death rate and relocation of people in search of better sources of income. Population change is a continuous global phenomenon. 30 years down the line, by 2050, the global population is expected to rise by 2 billion, from 7.7 billion to 9.7 billion. As per the recent UN report, by 2050, India is expected to add 273 million people.

Definitions

- The population is defined as the number of people in an area.
- Population density is the measurement of the number of people in a given square mile.

4.1 Population Change – Causes

Some of the reasons behind population change are given below

- Higher fertility rates
- Growing older population
- Migration

The population increase in the world is mainly due to the rapid increase in natural growth rate. The difference between the birth rate and the death rate of a country is called the natural growth rate.

How are Births and Deaths measured?

- Births are usually measured using the birth rate i.e. the number of live births per 1,000 people.
- Deaths are usually measured using the death rate i.e. the number of deaths per 1,000 people.

Migration – Difference between Immigration & Emigration

- Migration is one of the causes behind the change in the population of a country.
- Migration is the phenomenon where people move in (immigration) or people move out (emigration) of a country; place or locality.
- Countries like the United States of America and Australia have gained in-numbers by in-migration or immigration.
- The general trend of international migrations is from the less developed nations to the more developed nations in search of better employment opportunities.

- Within countries, a large number of people may move from the rural to urban areas in search of employment, education and health facilities.

4.2 Population Change – 4 Factors

There are 4 major factors affecting Population change.

1. Birth rate
2. Death Rate
3. Immigration
4. Emigration
5. Population Change – Formula

The population change is calculated by the formula given below.

$$\text{Population change} = (\text{Births} + \text{Immigration}) - (\text{Deaths} + \text{Emigration})$$

Population Growth – Implications

- Lack of sufficiently available resources to meet the needs of a growing population.
- Eradicating poverty and hunger becomes more difficult
- Providing better health and education facilities becomes more difficult.
- The rise in unemployment and underemployment.
- Excess strain on infrastructure – Due to rapid population rise, it is very difficult to provide adequate housing and transportation facilities.
- Increasing pollution, rise in traffic congestion leads to a reduction in productivity.
- Overexploitation of water and other natural resources resulting in no scope of replenishment which is a recipe for a natural disaster.
- Increasing air and water pollution, leading to an increase in diseases, which ultimately leads to a rise in expenditure on healthcare.

What is Total Fertility Rate (TFR)?

It is an indicator of the total number of children born or likely to be born to a woman in her lifetime. As per the National Family Health Survey (NFHS), the Total Fertility Rate (TFR) varies across various sections of society.

- The poorest section of society has a Total Fertility Rate (TFR) of 3.2 children per woman.
- The second poorest section of society has a Total Fertility Rate (TFR) of 2.5 children per woman.
- The wealthiest section has a Total Fertility Rate (TFR) of 1.5 children per woman.
- The results imply that population growth is concentrated in economically weaker sections of society.

4.3 Measures to control the Population Explosion

Control measures can be broadly classified into social and economic measures.

Social Measures

- Strictly follow the minimum age criteria of marriage.

- Raise the status of women, by providing them education, financial independence and equal job opportunities.
- Increase the social security schemes for people in old age, so that people will have a sense of security that they won't have to depend on others at old age, hence the compulsion to have many children.
- Focus on family planning measures.

Economic Measures

- Increase employment opportunities, and help in raising the standard of living. This will act as a deterrent for having a huge family. As per studies, it has been concluded that people at lower economic strata have larger families than people at higher economic strata.

5. Infant Mortality & Replacement Rate in Fertility Rate

Infant Mortality Rate or IMR is the number of deaths of children under 1 year of age per one thousand live births while replacement Rate is the total fertility rate at which women give birth to enough infants in order to maintain the population levels.

5.1 Infant Mortality Rate

According to data presented by the Census of India – “The infant mortality rate, which plays an important role in health planning, has shown a considerable decline from 129 per 1000 live births in 1971 to 110 in 1981 and from 80 in 1991 to 33 in 2017.”

- This rate for a region is calculated by dividing the number of deaths of children less than 1 year old by the number of live births in a year times 1000.
- The major causes of congenital infant mortality are sudden infant death syndrome, malformations, accidents, maternal complications during the pregnancy and unintentional injuries.
- Contributing causes are social and environmental obstacles that prevent the availability of basic medical resources. 99% of the deaths of infants take place in developing nations. Among these, 86% are caused due to premature births, infections, delivery complications, birth injuries and perinatal asphyxia.

5.2 Infant Mortality Rate in India

1. AS per Census 2011, the infant mortality rate, which plays an important role in health planning, has shown a considerable decline from 129 per 1000 live births in 1971 to 110 in 1981 and from 80 in 1991 to 44 in 2011. The child mortality rate has depicted a perceptible decline from 51.9 in 1971 to 41.2 in 1981 and from 26.5 in 1991 to 12.2 in 2011.
2. Also, World Bank has indicated 28.3 as Infant Mortality Rate of India for 2019.
3. According to the latest sample registration system Bulletin, Infant Mortality Rate in Kerala – 7 (updated)
4. Infant Mortality Rate in Madhya Pradesh – 48 (updated)
5. In India, Nagaland has the best Infant Mortality Rate which is at 4.
6. As per RBI, the Infant Mortality Rate of the National Capital Delhi is 13.
7. The infant mortality rate among females is higher than among males in all Indian states except:
 - Chhattisgarh
 - Delhi
 - Madhya Pradesh
 - Tamil Nadu
 - Uttarakhand

Note: The 32 is the IMR at the national level. The rate varies between 6.9 and 5.0 in urban areas and rural areas respectively.

5.3 Replacement Rate

- In the case of no female mortality until the culmination of childbearing age (44/45/49), the replacement level of the TFR would be quite near 2.
- The current India Total Fertility Rate is 2.2 (2020).
- The lowest TFR 2019-2020 as per National Family Health Survey 5 is recorded in Sikkim (1.1). Bihar has the highest TFR – 3 (in 2005-06 the TFR was 4).
- According to the latest National Family Health Survey (NFHS), the TFR across most Indian states declined in the past half a decade, more so among urban women.
- The fertility rate of women in rural areas sharply dropped in Jammu and Kashmir, Maharashtra, Assam, Nagaland, Manipur, Mizoram, and Bihar, while the fertility rate of women in urban areas went below-replacement fertility across all 21 states except Bihar, where it has remained unchanged at 2.4 since 2015-16.