

POPULATION AND SOCIETY: FREQUENTLY ASKED QUESTIONS (FAQ)

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IN INDIA WHEN WAS THE LAST POPULATION CENSUS CONDUCTED?

- The last population census of India was conducted in year 2011.
- The reference date for the population figures provided by Population Census of India, 2011, is 1st March 2011.
- The census provides data on household characteristics as well as size, growth, composition and dynamics of population.
- For more information see: http://censusindia.gov.in/

FOR WHOM ARE THE CENSUS FIGURES IMPORTANT?

- Planning Commission, Government of India, for setting up plan goals, developing strategies and estimating outlays for various national level plans.
- State, district and block level planners for state, district and block level planning.
- Various government departments for analysis, plan and action.
- Academicians demographers, sociologists, economists, political scientists and others.
- Environmentalists.
- Independent consultants, intellectuals, Nongovernment Organizations (NGO) and social activists.

WHAT ARE THE HIGHLIGHTS OF 2011 CENSUS.

- The size of India's population in 2011 is 1,210,193,422.
- Every six person in the world is Indian.
- Population of India is growing at an average annual exponential growth rate of 1.64 percent per year. This rate can double India's population in 42 years.
- The growth rate during the last decade, 1991-2001, was found to be 1.97 percent. Thus the growth rate observed in 2001 census is lower than the growth rate observed in the preceding census. It is likely to decline further.
- The decline in the growth rate is due to decline in average number of children per family.



- The growth rate is a function of birth and death rates which depend on levels of fertility and mortality, and age-composition of population.
- Death rate has almost declined to minimum.
- Birth rate is expected to decline further due to two reasons: (a) fall in total fertility rate; and (b) aging of population.
- Even otherwise the difference between birth and death rates in India (obtained from SRS data) gives a natural growth rate of 1.54 percent around 2008.

HOW DO WE CALCULATE GROWTH RATE OF POPULATION?

Growth rate is generally calculated as average annual exponential growth rate:

 $r = (100/t) Log_e (P_t/P_0)$

For India, between 1991-2001

 $r = 10 \text{ Log}_{e} (1,028,737,436 / 846,302,688)$

= 10 Log_e 1.21556

Which comes out to be 1.95 percent per year.

In analysis of census data, however, it is more common to calculate the decadal growth rate.

WHAT IS DECADAL GROWTH RATE?

Decadal growth rate expresses the percentage change in population for the census decade. For example, Population of India, 1991 = 846,302,688 Population of India, 2001 = 1,028,737,436Decadal growth rate, 1991-2001 = 100* (1,028,737,436 -846,302,688)/ 846,302,688

Which comes out to be 21.55 % percent.

You may express it as 2.1 % per year.

WHAT ARE OTHER MAJOR CHARACTERISTICS OF INDIA'S POPULATION?

- India is the second largest country in the world.
- From international standards the median age of population of India is relatively lower.
- India is a developing country which is aiming at a rapid improvement in income, longevity, literacy, secondary school enrolment ratio, level of urbanization and industrialization, and decrease in poverty, destitution, unemployment and underemployment.
- There are significant regional and social group variations in the demographic and socioeconomic characteristics of population.
- The Government of India aims at lowering the growth rate of population to zero, to achieve a stationary state of population.

IS THERE ANYTHING GOOD ABOUT INDIA'S POPULATION GROWTH?

Yes. The major advantages of the moderate growth are:

- Population of India is younger than the population of developed countries.
- Due to decline in fertility, a rather slow improvement in mortality at older ages, and entry of baby boom generation in the working ages, India is enjoying the demographic dividend from a larger population of youths.
- If the education policy of India succeeds the large size of India's youths will be highly beneficial for its development.
- The educated youths of India can also fill the vacuum created by below replacement level fertility in industrially advanced countries, which will contribute to development of both India and the developed countries.

WHAT ARE MAJOR THEORIES OF POPULATION?

1. Malthusian theory

According to this theory population, if unchecked, grows in a geometric progression, but food can grow only in arithmetic progression. This leads to long term imbalance between population and food and causes vice and misery.

2. Marxian theory

Surplus population (i.e. the population of unemployed people) is caused by the iron law of capitalist accumulation - leading to increase in the proportion of fixed capital in the total capital, and decrease in the proportion of variable capital.

WHAT DOES THE EVIDENCE SHOW?

- The relationship between growth of population and development is complex.
- In the short run, rapid growth of population is associated with slower growth of income due to increased need to meet the consumer requirements of existing and additional population as well as human capital, but in the long run the relationship between population and development may be positive.
- The relationship depends on a lot of other factors such as ideology, governance, international trade, innovations, social structure, and mode of production.

WHAT ARE OTHER MAJOR THEORIES?

- The theory of optimum population it states that the relationship between population and development is inverted U-shaped. When population is low, growth of population has the advantage of economy of scale and the relationship between the two is positive. When the population is beyond the optimum level and law of diminishing returns applies the relationship between the two is negative.
- Julian Simon argues that the fear of overpopulation is wrong. Moderate population growth is better than a small or negative rate of growth. History shows that with growth of world population all indicators of development have improved, prices have fallen and life expectancy has increased.

http://www.juliansimon.com/writings/Articles/CATONE W.txt

CAN YOU SAY SOMETHING ABOUT THE SIZE AND GROWTH OF WORLD POPULATION?

- The population of the world is close to 6.8 billion.
- The rate of growth is 1.2 percent per year.
- Doubling time is nearly 60 years.
- By 2050 it is going to reach a level of 9.15 billion.

LANDMARKS IN WORLD POPULATION HISTORY

Billion	Approximate	Time to add	
mark	date(AD)	one billion	
1st	1820	5-10 lakh	
		years	
2 nd	1930	110	
3 rd	1960	30	
4 th	1974	14	
5 th	1987	13	
6 th	1999	12	

WHICH ARE THE MAJOR SOCIOLOGISTS WHO SAID ANYTHING ON POPULATION?

Many sociologists have contributed to study of population. Some important names are:

- Emile Durkheim
- Pitirim Sorokin
- Kingsley Davis
- Pierre Bourdieu

WHAT DID EMILE DURKHEIM SAY?

- There is an order in society.
- Durkheim said that population growth leads to increase in physical density of population.
- This accelerates the increase in the moral density or interactions.
- This produces anomy (i.e., a disorder or normlessness).
- However, in the past this normlessness was checked by division and specialization of labor (and subsequently the growth rate fell).
- Thus a new order at a higher size of population was established.

WHAT DID SOROKIN SAY?

Sorokin said that there is some empirical evidence that population growth is associated with the following:

- Birth and death rates
- Migration
- Revolution and war
- Economic prosperity
- Forms of ownership and possession
- Forms of social organization
- Political and social institutions
- Inventions and birth of men of genius
- Mores and customs
- Language, religion, mysticism, equalitarian ideology
- Progress and decay of societies

WHAT DID KINGSLEY DAVIS SAY?

- In ancient society order is maintained by high death rate and an equally high birth rate.
- With socio-economic development death rate falls and population starts growing.
- The equilibrium between birth and death rates is disturbed.
- Eventually, when people start feeling the growing pressure of population on their fixed resources, they respond in all possible ways to reduce the number of births.
- A new equilibrium with low fertility and low mortality is established.

WHAT DID BOURDIEU SAY?

- Pierre Bourdieu focuses on how individuals take an action such as arranging for marriage of children.
- He says that their strategies are not to be seen in abstraction.
- They are part of the complex process of social reproduction through which power and privileges are passed on to new generation.
- For Bourdieu, individual's strategies are more important than rules governing society.
- This shifts sociologists' attention from positivism to dispositions to act, which are constructed through socialization and experiences.
- To theorize about strategies, he gave the concept of habitus.

WHAT METHODOLOGIES ARE USED IN POPULATION STUDIES?

- Population study uses all known social science methodologies such as positivism, phenomenology and triangulation.
- Accordingly all following methods are used:
 - Survey
 - > Interview
 - > Focus group discussion
 - Observation
 - Secondary data/non-obtrusive methods
 - Case studies
 - Mathematical modeling or computer simulation

GIVE A FEW EXAMPLES OF QUESTIONS THAT MODELING CAN ANSWER?

- How many people have ever lived on earth?
- In a country having a life expectancy of 70 years what proportion of people are likely to survive till the age of 65?
- If the present schedule of fertility (i.e., the set of agespecific-fertility rates) remains unchanged how many children a woman will produce in her life time?
- If the prevalence rate of HIV is reduced to half what will be its impact on life expectancy?
- If all couples follow a stopping rule of α sons and β daughters what will be its effect on the sex ratio of the population?
- Are there errors in census age data? What corrections in age data need to be made before using them for prediction of India's population?
- If the data is available on proportion married by age, how can one calculate average age of marriage?

WHAT IS THE DISTINCTION BETWEEN DEMOGRAPHY AND POPULATION STUDIES?

- Demography refers to quantitative study of five demographic processes: nuptiality (marriages); reproduction (births); mortality (deaths); migration of people from one place to another (both within a country and between different countries); and social mobility.
- Population study refers to a body of substantive studies that link population trends with the socio-economic and cultural trends.

SHOW THE DECADAL GROWTH RATE OF POPULATION IN INDIA.

The decadal growth of India's population is given in the following table

Year	Population	Average annual growth	Ratio to 1901 population
1901	238,396,327		1.00
1911	252,093,390	0.57	1.06
1921	251,321,213	-0.03	1.05
1931	278,977,238	1.10	1.17
1941	318,660,580	1.42	1.34
1951	361,088,090	1.33	1.51
1961	439,234,771	2.16	1.84
1971	548,159,652	2.48	2.30
1981	683,329,097	2.47	2.87
1991	846,302,688	2.38	3.55
2001	1,028,737,436	2.16	4.32
2011	1,210,193,422	1.76	5.08

WHAT IS AGE COMPOSITION OF INDIA?

- India has a young age structure with more than 57 percent of its population in the age group 15-59 years.
- 35.3 percent population of India is in the age group 0-14 years.
- Earlier 0-14 population was much higher.
- A thumb rule states that in the pre-transitional society, marked by high birth rate and high death rate nearly 40 percent population is found in the age group 0-14.
- As a result of fall in birth rate the percentage population in age group 0-14 has somewhat declined.
- The percentage of old (60+) is only 7.5.

DISCUSS THE MARITAL STATUS COMPOSITION OF INDIA'S POPULATION.

- In India marriage is early and universal.
- So around the age of 15 girls start getting married.
- NFHS 3 (2005-06) data show that by the time they reach age group 25-29 the percentage of never married women drops to 5.8; and by the next age group 30-34 it drops to 1.8 percent.
- NFHS-3 reported that for women in the age group 20-49 average age of marriage is 17.2 years. Median age is 17.7.
- This means that more than half of the women are still marrying below the age of 18, the legal minimum age of marriage.
- Among men the percentage never married is found to be 29.4 in the age group 25-29, and 8.7 in 30-34.
- Then it drops to 3.0 in age group 35-39, and further to 1.9 in 40-44.

WHAT IS THE CASTE COMPOSITION OF INDIA?

- There are no census data on OBC population.
- The censuses give data on SC and ST populations only.
- NFHS-3, however, provides useful information on this.
- NFHS-3 data shows that nearly 19 percent population of India belongs to SC, 8 percent to ST, 39 percent to OBC, and the rest to others. Remember that SC, ST and OBC are not closed categories.

WHAT IS THE SIGNIFICANCE OF JUVENILE SEX RATIO IN INDIA?

- Sex Ratio is a sensitive indicator that displays the status of women. Concerted efforts are needed to create equal regard and affection for the girl child.
- According to Census of India 2011, the sex ratio of India's population is 940 females per 1,000 males, showing a relative deficit of females.
- Sex ratio in age group 0-6, called child sex ratio, is of special interest.
- The sex ratio among children (0 to 6 years) is showing a continuous decline.
- The reason is that many families willfully decide to remove the female foetus in a quest for sons.
- Unfortunately this happens in the more educated and affluent localities. The motivation is primarily to protect property, family business and to avoid giving dowry.
- If there has to be a change in mindset, leaders in society have to show the way. Otherwise the population will become skewed leading to a host of societal problems like increased crime against women.

WHAT IS BIRTH RATE?

- Birth rate is defined as number of births in a year per thousand population.
- It is a crude measure of fertility as along with fertility, it is influenced heavily by age and sex composition of population.
- Till 1971 the crude birth rate of India was more than 40.
- It has come down to 22.
- A better measure of fertility is total fertility rate which is obtained by adding agespecific-fertility rates at all ages from 15 to 44 or 15 to 49.

WHAT IS BELOW REPLACEMENT FERTILITY?

- When a country has a total fertility rate below 2.1 it is called below replacement level fertility.
- Most of the industrialized countries have below replacement level fertility.
- Some of them have as low fertility as 1.2. It is easy to understand that if a couple is replaced by 1.2 children in the next generation the population of the country would fall by 40 percent.

WHAT IS DEATH RATE?

- Death rate is defined as number of deaths in a year per thousand population.
- It is a crude measure of mortality as it is also influenced heavily by age and sex composition of population.
- In the beginning of the last century crude death in India was around 50.
- It has come down to 7.4.
- A better measure of mortality is life expectancy which estimates the average age of death of a birth cohort of people, or of a synthetic cohort experiencing the age-specific-death rates in a particular period.

WHAT DOES THE DEMOGRAPHIC TRANSITION THEORY SAY?

- Demographic transition theory is an attempt to capture the history of change in demographic condition.
- A process of change from a situation of high mortality and high mortality to a situation of low mortality and low fertility.
- It is based on the history of Western countries.
- Relates demographic transition to economic development and industrialization.
- Usually the transition is shown to occur in three stages.

STAGE I

- In ancient society survival of human society required that it reproduces at the highest level to counter the high force of mortality (caused by small pox, plague, malaria and other deadly infectious diseases, wars, natural disasters, shortage of food, violent conflicts and wars).
- If a year was free from natural catastrophes mortality was relatively lower and if there were outbreaks of diseases, wars, fire, famine or abnormal rainfall, then mortality was high.
- In this stage the rate of growth of population fluctuates with a long run tendency to remain around zero.

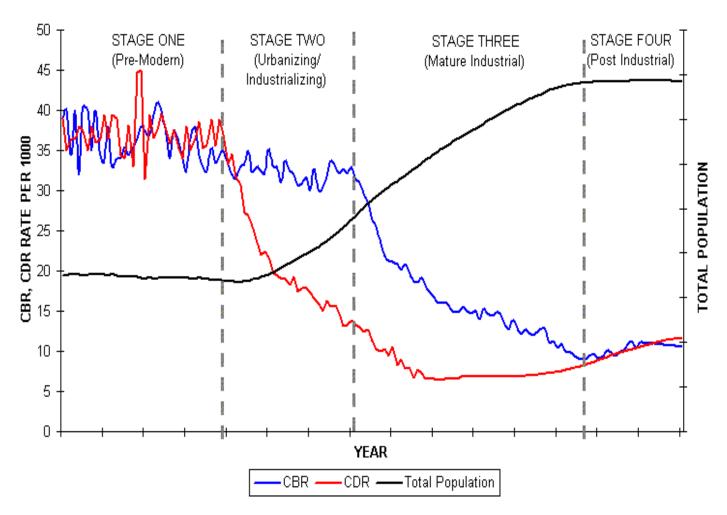
STAGE II

- As society develops its death rate starts falling.
- The reasons are not adequately understood.
- Yet they include formation of nation state, improvement in working conditions, improvement in means of transport and communication, developments in the field of medical sciences and medicine, and improvement in income.
- Development of antibiotics and better surgical techniques has certainly played an important role in reduction of death rate though the role of socioeconomic and political factors cannot be ignored.
- Reduction in death rate leads to population explosion.
- Stage II societies experience rapid population growth.

STAGE III

- Finally, equilibrium between birth and death rates is restored when couples start limiting number of children.
- Thus in Stage III when death rates are low and birth rates are also low
- Zero population growth (ZPG) is restored.

THE DEMOGRAPHIC TRANSITION MODEL



WHAT IS SECOND DEMOGRAPHIC TRANSITION?

- In the recent literature on demographic trends in low fertility countries social scientists are talking about second and third demographic transitions.
- Second demographic transition refers to a rapid fall in fertility to the below replacement level.
- Empowerment and expansion of choices among women, due to education and work opportunities, are the major reasons behind the second demographic transition.

WHAT IS THE THIRD DEMOGRAPHIC TRANSITION?

- The third transition refers to increase in fertility in lowest low fertility countries which have already experienced the second demographic transition.
- The mechanism of the third transition is not yet understood.
- It is difficult to say whether societies will experience increased fertility after the second transition, and in what circumstances. This is a new issue, not yet explored much.
- Today only the most advanced countries are expecting this.
- As and when the developing countries will achieve the replacement or below replacement level fertility this issue will become important for them also.

WHAT IS THRESHOLD HYPOTHESIS?

- Threshold hypothesis is an offshoot of demographic transition theory (DTT).
- According to DTT changes in mortality and fertility are caused by development and modernization.
- Yet, one may argue that in ancient society minor improvements may not lead to any change in mortality and fertility. Improvement in people's condition must be substantial and perceptible before it lead to demographic transition.
- Thus threshold hypothesis attempts to operationalise how much improvement in socioeconomic indicators is required for fertility to start declining or to decline to a given level.

DID GANDHI SAY ANYTHING ON POPULATION?

- Gandhi was an ardent supporter of population control.
- However, it was not on economic grounds.
- He rejected artificial birth control methods and supported brahmacharya (celibacy).
- Gandhi believed that practice of brahmacharya is needed not so much for population control, it is necessary for Truth realization.
- Artificial birth control methods do an immense harm to moral fabric of society.
- Gandhi stood for empowerment of women, sarvodaya and gram swaraj.

WHAT IS URBANIZATION?

- Urbanization is defined as increase in proportion of population living in urban areas.
- Urbanization is closely linked with rural to urban migration.
- The theory of push-pull factors explains the rural-urban migration.
- Various factors operating at rural areas, such as poverty and unemployment, push rural people outside the village.
- Several people from rural areas are pulled towards urban areas due to factors such as better employment condition, higher wages, charm of city life, higher possibility of social mobility.

DISCUSS THE TREND IN URBANIZATION IN INDIA.

- At the moment close to 29 percent population of India is living in urban areas.
- The next slide shows the trend in urbanization in India.

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Trend in Urbanization in India

Year	Total	Rural	Urban	Level of urbanization	Speed (trend) of urbanization
1901	238,396,327	212,544,454	25,851,873	10.84	-
1911	252,093,390	226,151,757	25,941,633	10.29	-0.51
1921	251,321,213	223,235,043	28,086,170	11.18	0.86
1931	278,977,238	245,521,249	33,455,989	11.99	0.72
1941	318,660,580	274,507,283	44,153,297	13.86	1.56
1951	361,088,090	298,644,381	62,443,709	17.29	2.47
1961	439,234,771	360,298,168	78,936,603	17.97	0.39
1971	548,159,652	439,045,675	109,113,977	19.91	1.08
1981	683,329,097	523,866,550	159,462,547	23.34	1.72
1991	846,302,688	628,691,676	217,611,012	25.71	1.02
2001	1,028,737,436	742,490,639	286,119,689	27.81	0.82

HOW ARE URBAN AND RURAL AREAS DEFINED IN INDIAN CENSUS?

In the Census of India 2001, the definition of urban area adopted is as follows: (a) All statutory places with a municipality, corporation, cantonment board or notified town area committee, etc. (b) A place satisfying the following three criteria simultaneously:

- i) a minimum population of 5,000;
- ii) at least 75 per cent of male working population engaged in non-agricultural pursuits; and
- iii) a density of population of at least 400 per sq. km. (1,000 per sq. mile).

For identification of places which would qualify to be classified as 'urban' all villages, which, as per the 1991 Census had a population of 4,000 and above, a population density of 400 persons per sq. km. and having at least 75 per cent of male working population engaged in non-agricultural activity were considered. To work out the proportion of male working population referred to above against b)(ii), the data relating to main workers were taken into account.

An Urban Agglomeration is a continuous urban spread constituting a town and its adjoining urban outgrowths (OGs) or two or more physically contiguous towns together and any adjoining urban outgrowths of such towns... Each such individual area by itself may not satisfy the minimum population limit to qualify it to be treated as an independent urban unit but may deserve to be clubbed with the town as a continuous urban spread.

WHAT ARE THREE MILLION PLUS CITIES IN INDIA?

- There are about 4,000 cities and towns in India.
- About 300 cities have population over 1,00,000.
- Among them seven cities have population more than 3 million.
- They are Greater Mumbai, Delhi, Kolkata, Bangalore, Chennai, Ahmedabad and Hyderabad.

DESCRIBE THE OVERURBANIZATION THESIS

- Initially, Kingsley Davis and others proposed that there is a positive relationship between urbanization and development.
- Studies of urbanization in the less developed countries, however, contradict this.
- They show that in developing countries urbanization is taking place without similar improvement in industrialization and economic development. These studies lead to the overurbanization thesis.
- According to this thesis the present day less developed countries are more urbanized that the developed countries were at the same level of development.
- Moreover, the quality of urban population in the developing countries is much poorer than expected at their respective levels of urbanization.

WHAT IS THE CONCEPT OF DUAL CITY?

In the less developed countries two urban phenomena are marked:

- Rapid growth of large cities leading to poor urban amenities, and poor quality of life; and
- Division of city into two different parts, one modern and developed, and the other as traditional and poor.

A city marked by this division of city into two parts - one traditional and poor, and one modern and affluent - is called the dual city.

WHAT DO THE POPULATION POLICIES ADDRESS?

The population policies address the following issues:

- Population size
- Growth rate of population
- Regional differences in size or growth rate of population
- Fertility rate
- Mortality rate
- International migration
- Internal migration from one region to another and rural to urban areas
- Age of marriage
- Social differentials in fertility or mortality or other aspects of population
- Social class mobility or shift from agriculture to urban, industrial employment
- Strategies to influence the above parameters

WHAT ARE POLICY ISSUES IN DEVELOPING COUNTRIES?

- The developing countries have faced the population explosion in much of 1960s and 1970s and fear adverse effects of population on savings and capital, and culture and society.
- Most of them have antinatal population policy.
 Other issues are:
 - Pattern of spatial distribution
 - High IMR and high MMR
 - Low life expectancy
 - Size of working population
 - Adolescent fertility
 - > HIV/AIDS

WHAT ARE POLICY ISSUES IN THE DEVELOPED COUNTRIES?

- The developed countries which have a declining fertility and a fear of aging of population due to declining growth rate favour pronatal policy.
- Other issues are HIV/AIDS and size of working population.
- International migration.
- Need to protect the migrants, women and children from violence, discrimination and trafficking.

WHAT ARE POLICY STATEMENTS?

- Policy statements are issued with the approval of the head of the state and are not simply statements of goals of their intellectuals, academicians, political parties, or one particular department of government.
- Population policy statements include:
 - discussion of the present demographic scenario;
 - their implications for development;
 - statement of a preferred demographic scenario commensurate with the short term and long term development goals of the country;
 - and strategies to materialize the preferred demographic scenario, often combined with time bound targets and calculations of requirements of resources.

WHO ARE PARTICIPANTS IN POLICY DEBATE?

- Political leaders
- Religious groups
- Ethnic groups
- Feminist factions and women's groups
- Non-governmental organizations
- Census and survey organizations
- International agencies which influence the national population policies
- International conferences on population and development

WHAT FACTORS DO EXPLAIN DECLINE IN MORTALITY?

- In the developed countries the decline in mortality was a rather slow process.
- It began around 1700 AD and continued till the end of the last century.
- It was caused by improvement in agricultural productivity, socio-economic development, spread of education, rise of nation states, and development of transport and communication.
- In the developing countries it was sudden. It occurred mostly in 1950s and 1960s and was caused mainly by control of infectious diseases.
- There is a wide gap in life expectancy between developed and developing countries.

WHAT FACTORS DO EXPLAIN DECLINE IN FERTILITY?

- Several factors explain decline in fertility.
- Determinants of fertility are more complex than determinants of mortality.
- The major factors are:
 - Improvement in mortality.
 - Development of social security programmes.
 - Change in the value of children.
 - Nucleation of family and individualization caused by industrialization and urbanization.
 - State efforts and family planning movement (in the developing countries).
 - Knowledge and availability of contraceptives.
 - Women empowerment.

WHAT IS THE HISTORY OF FAMILY PLANNING PROGRAMME IN INDIA?

- India entered the second stage of demographic transition around 1921 after which its population started growing at rate more than 1 percent a year.
- Nehru wrote extensively on falling birth and death rates in the West in *Discovery of India* and was a strong supporter of family planning programme.
- National Planning Committee of the Indian National Congress supported promotion of family planning as a state policy strongly.
- This explains how after independence, the Government of India recognized the vital role of population control in the overall development of national economy and in 1952 India became the first country of the world to launch an official family planning programme.
- Unrestricted population growth (around 2%) was viewed as a serious threat to all national developmental efforts.

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- Over the years the planners have followed different approaches towards promoting family planning among the masses.
- These approaches are broadly grouped into Gandhian approach, clinical approach, extension approach, cafeteria approach, coercion and rights based approach.
- While we started cautiously with Gandhian approach, after various experiments in this area, we have settled with a demand driven, rights based approach in which greater role is assigned to education, empowerment and meeting the unmet needs for family planning rather than attaining family planning targets.
- Three major landmarks of India's population policy are: a statement by Dr. Karan Singh issued in 1976; a statement by Janata party government issued in 1977; and the declaration of National Population Policy 2000.

WHAT IS CAFETERIA APPROACH?

- Cafeteria approach aims at provision of a range of effective and approved family planning methods according to needs and preferences of the individuals, e.g., condoms, diaphragms, jelly, cream, foam tablets for newly married couples, IUCD for couples with one or two children, and sterilization for couples who have completed their desired family size.
- By 1980 the term cafeteria approach became a buzzword in family planning programme and the influence of this approach continued.
- Broadly speaking, the different family planning methods are divided into two categories: terminal methods; and spacing methods.
- The terminal methods refer to methods which are used when couples have completed their desired family size and do not want to produce more children; then they may go for male or female sterilization.
- The spacing methods refer to those methods which are used to create a gap between successive childbirths. They are advised mostly for younger couples.

HAS FAMILY PLANNING PROGRAMME FAILED IN INDIA?

Dyson answers this best. His answer is:

The Indian family planning programme is often dismissed as a 'failure'. But in my view this is an unjust and rather too simple characterisation. Among other things, the programme's properevaluation would need to take account of:

- (i) the sheer size and complexity of the task which it has had to tackle, namely reducing the birth rate in a huge, poor, poorly educated, and largely rural population
- (ii) the aforementioned fact that in many respects India has been a pioneer; this is most commonly illustrated by the statement that it was the first country in the world to

announce an official family planning programme (in 1952). But actually India has led the world in many other ways too (e.g. in the development of several methods of

sterilisation). The main point I am making, however, is that it is particularly difficult to be a pioneer, and that pioneers inevitably tend to make more mistakes than those who follow and,

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(iii) the fact that in the past some politicians have shied àway from their duty of ensuring that Indian women, and men, have a real 'right to choose'. By this I mean their responsibility of making sure that everyone has access to safe, effective and affordable methods of contraception. Indeed there are still significant parts of the country where this 'right to choose' needs to be expanded. But this requires political backing and greater resources. Of course, India's family planning programme has had its failings. For example, it has been much too 'target-bound', and for much too long it has badly neglected the promotion of reversible forms of contraception (today about eighty percent of all married women who are currently using a modern method of contraception are

relying upon sterilisation (i.e. tubectomy)). Nevertheless, despite its problems, there can be little doubt that the Indian birth rate would be somewhat higher today, and the country's population would be larger still, if the family planning programme had not existed.

- Quoted from Dyson (2003)

WHAT IS THE DIFFERENCE BETWEEN ENVIRONMENTAL SOCIOLOGY AND SOCIOLOGY OF ENVIRONMENT?

- Sociologists of environment examine how social structure affects the environment (including resource use, resource depletion, environmental pollution, climate change and access to various community resources).
- They also study environmental movements broadly covered under the aegis of neo-social movements, by focusing on local and global issues raised by them, and drawing attention to participation of various social classes in the movements, organizational structure, motivation, successes and impact.
- Environmental sociologists take a neo-Durkheimian view of society and maintain that among other things, society is significantly shaped by environment.

WHAT ALL FACTORS DO AFFECT ENVIRONMENT?

The total impact on the environment is determined by interaction of three factors: size of population, consumption standards, and wastages of resources for each unit of consumption.

IMPACT = POPULATION X CONSUMPTION PER PERSON X TECHNOLOGY EFFECT

The above formula shows that the total impact on environment depends not only on population but also on consumption per capita and technology.

WHAT ARE EIGHT MILLENNIUM DEVELOPMENT GOALS (MDGS)?

MDGs are created by an international body of statesmen during the UN Millennium Summit in September 2000. 189 nations adopted Millennium Declaration.

- Goal 1: Eradicate extreme poverty and hunger
- Goal 2: Achieve universal primary education
- Goal 3: Promote gender equality and empower women
- Goal 4: Reduce child mortality
- Goal 5: Improve maternal health
- Goal 6: Combat HIV/AIDS, malaria and other diseases
- Goal 7: Ensure environmental sustainability
- Goal 8: Develop a global partnership for development

India is a signatory to the above Declaration.

WHAT IS THE IMPACT OF MDGS?

The impacts of adoption of MDGs are:

- Focused attention of planners and development activists.
- Search for reliable data at national, state, district and block levels.
- Targets set for evaluation of development programmes.
- Seminars, conferences and research agenda.
- A framework for health and population policy.
- Stress on entitlements and human rights approach.
- Expanded role for private initiatives.
- Influence on the perspective of Five Year Plans.
- Putting the development agenda on the top of family planning.
- MDGs accord special importance to women empowerment, reproductive and child health and fighting HIV epidemic.

HOW IS NATIONAL POPULATION POLICY (NPP) 2000 DIFFERENT FROM EARLIER POLICIES?

- Reflecting the ICPD goals and MDGs, in India the National Population Policy 2000 has called for a more humane approach to population planning and for paying greater attention to social development with particular emphasis on improving education, reproductive health and unmet needs of slums and other special categories of population.
- One major factor of new thinking is the stress on three points:
 - (a) importance of area specific approach about which some academicians were arguing for a long time;
 - (b) a need to recognize the importance of reciprocal relationship between population and development; and
 - (c) acceptance of the fact that there could be multiple perspectives on social and organizational issues

WHAT IS NEW IN NPP 2000?

- A significant change in the National Population Policy 2000 has been the introduction of HIV/AIDS.
- Linking population dynamics to HIV/AIDS has generated whole lot of new issues in the area of reproductive health, sexuality, sexual networking, male involvement in reproductive health, mapping of high risk groups, awareness of risks, authority of women in decision making at family level, and role of community support.
- It may be stressed that all these issues have led to disenchantment with positivism and scientism, and established importance of social constructivism, yielding self-reports, qualitative studies, and discourse analysis as methodological tools.

COMMENT ON THE PARADIGM SHIFT IN POPULATION POLICY IN THE TENTH PLAN.

Unlike the earlier target oriented approach, the tenth plan stressed the following:

- Demographic targets to focusing on enabling couples to achieve their reproductive goals;
- Method specific contraceptive targets to meeting all the unmet needs for contraception to reduce unwanted pregnancies;
- Numerous vertical programmes for family planning and maternal and child health to integrated health care for women and children;
- Centrally defined targets to community need assessment and decentralised area specific microplanning and implementation of program for health care for women and children, to reduce infant mortality and reduce high desired fertility;
- Quantitative coverage to emphasis on quality and content of care;
- Predominantly women centred programmes to meeting the health care needs of the family with emphasis on involvement of men in planned parenthood;
- Supply driven service delivery to need and demand driven service; improved logistics for ensuring adequate and timely supplies to meet the needs;
- Service provision based on providers' perception to addressing choices and conveniences of the couples.

WHAT ARE MAJOR POPULATION QUESTIONS IN INDIA?

- How to reap the benefits of opening of demographic window?
- Regional and social-group differences in mortality and fertility.
- Declining juvenile sex ratio.
- Sustainable development.
- Effective interventions in education, immunization, lowering infant mortality rate, raising marriage age, increasing institutional deliveries, information/counselling, containing spread of HIV/AIDS, promotion of Indian Systems of Medicine, and related social sectors programmes.
- Empowerment of women and other vulnerable sections of society (including the problems of the disabled).
- Internal migration.

EXPLAIN HIV.

- HIV/AIDS is believed to be caused by a virus that scientists isolated in 1983. The virus was at first named HTLV-III/LAV (human T-cell lymphotropic virus-type III/lymphadenopathy- associated virus) by an international scientific committee.
- This name was later changed to HIV (human immunodeficiency virus).
- HIV is passed on from the infected person to another person through the contact of body fluids such as blood, semen, vaginal fluid, breast milk and other body fluids containing blood.
- In other words, the virus may be transmitted through blood to blood and sexual contact, and from pregnant women to baby during pregnancy, delivery or breast feeding.
- Among health workers it has also been acquired through contact of cerebrospinal fluid surrounding the brain and the spinal cord, synovial fluid surrounding bone joints, and amniotic fluid surrounding a fetus.

HOW DOES HIV WORK?

- The virus starts weakening the immune system of the body making it more and more susceptible to various types of infectious attacks.
- Since the infections can easily attack the body of the AIDS patient they are often called the "opportunistic" infections.
- The infected person ultimately succumbs to one or more of these infections and dies.
- Although, the relationship between HIV and AIDS is not fully understood, available evidence suggests that the HIV is the cause of AIDS: HIV may remain dormant for as many as 8-10 years and develop into AIDS after that.

WHAT IS KNOWN ABOUT PREVALENCE OF HIV IN INDIA?

Pandey's estimates for 2006 show:

- HIV prevalence among adults (15-49 yr) is 0.36 per cent (uncertainty bounds 0.29-0.46%).
- Overall HIV prevalence in the high prevalence States is 0.8 per cent and in low and moderate epidemic States is 0.2 per cent.
- Prevalence is highest in Manipur at 1.70 per cent followed by Nagaland at 1.41 per cent, and Andhra Pradesh at 1.04 per cent.
- The estimated number of PLHA in the population of all ages is 2.5 million (uncertainty bounds 2.0 - 3.1 million).
- The number of people living with HIV is highest in Andhra Pradesh at 525560 (range 420,448-651,694) followed by Maharashtra at 495,488 (range 396,390-614405), Karnataka at 276,129 (range 220,903-342,400) and Tamil Nadu at 246,473 (range 197,178-305,626).

WHAT IS THE MOST IMPORTANT ISSUE IN CONTROLLING HIV?

The most important issue in controlling HIV is stigma against HIV? Stigma affects:

- Information and communication.
- Hesitation in opening up.
- Testing and treatment.
- Discrimination against people living with HIV/AIDS (PLHA).
- Discrimination against communities from which more HIV cases are expected to come.

WHAT IS STIGMA?

- According to Goffman, persons who possess an attribute that risks their full acceptance from others are said to possess a stigma.
- Stigmatized persons are targets of prejudice (attitudes), stereotypes (i.e., cognition as beliefs, knowledge and expectations of social groups) and discrimination.
- As a consequence of the stigma, such persons are reduced in people's minds from whole and usual persons to the tainted, discounted ones.
- For Goffman stigma is relational in nature, i.e., it is an attribute that is deeply discrediting within a particular social interaction.

WHAT ARE MAJOR TYPES OF STIGMA?

- Abominations of the body various physical deformities.
- Blemishes of individual character weak will, domineering or unnatural passions, treacherous and rigid beliefs, or dishonesty. Blemishes of character are inferred from, for example, mental disorder, imprisonment, addiction, alcoholism, homosexuality, unemployment, suicidal attempts, or radical political behaviour.
- Tribal stigma of race, nation, and religion —
 beliefs that are transmitted through lineages and
 equally contaminate all members of a family.

WHAT ARE OTHER IMPLICATIONS OF STIGMA AGAINST HIV?

- In case of stigma against HIV not only the HIV positive people but also the communities to which they perceivably belong are stigmatised.
- People lack comprehensive knowledge of transmission of HIV but a large majority of them think that HIV spreads through illegal sex.
- Then sex being central to morality, HIV positive people are most stigmatised; they suffer from double stigma, one from having HIV and another for violating the sexual mores of society.
- There is very little knowledge that HIV can spread through non-sexual routes also (blood transmission, unsafe medical procedures, and mother to child).
- The problem of identifying and controlling HIV is further complicated by the fact that a single test of HIV is not enough to confirm the positive status.

WHAT ARE THE ISSUES IN INTERNATIONAL MIGRATION?

- With increasing globalization and growth of world population growing migration has become an important issue.
- According to the assessments of The National Intelligence Council (2001) more than 140 million people live outside their countries of birth, and migrants comprise more than 15 percent of the population in over 50 countries. It is estimated that their numbers will grow.
- Under certain conditions differences between migrants and natives are known to have produced stereotypes, discrimination and violent conflicts.
- Therefore, while international migration ameliorates the labour force shortfalls in the countries of destination it often evokes discrimination on the grounds of language, culture and religious practices.
- The most sufferers of the international migration are those less developed countries which receive a large number of illegal migrants.

WHAT ARE MAJOR ISSUES IN INTERNAL MIGRATION IN INDIA?

- In case of India internal migration is more important than international migration.
- Social responses to internal migration are ill understood.
- Due to socio-economic and demographic diversity a significant shift is taking place in spatial distribution of population.
- Strong push factors such as insecurity and unemployment are causing migration of people from states like Bihar to Maharashtra, Delhi, Gujarat, Punjab and Haryana where they can find employment in industry (often in agriculture).
- As the economic conditions are becoming harsher everywhere the local people are resenting the arrival of outsiders.
- The natives want more jobs for the "sons of the soil".
- This leads to conflict and sometimes has serious implications for national integration.

WHAT MORE IS NEEDED IN POPULATION STUDIES?

- There is a need for micro and participatory studies of population.
- There is a need to search for local solutions to problems of population and development in different social milieus.
- There is a need to learn from the people how they decide what is best for them and how they evolve sustainable models of development in the value framework of their culture, keeping in view their limited resources.
- In these studies social scientists should act as facilitators, helpful to the communities and people, in arriving at more optimal solutions, rather than as experts.

THANK YOU!

