14 POPULATION DYNAMICS

- Population size, growth, composition and distribution.
- Components of population growth: birth, death, migration.
- Population policy and family planning.
- Emerging issue: ageing, sex ratios, reproductive health.

POPULATION SIZE, GROWTH, COMPOSITION AND DISTRIBUTION

India is the second most populous country in the world after China, with a total population of 103 crores or 1.03 billion according to the Census of 2001. The growth rate of India's population has not always been very high.

- Between 1901-1951 the average annual growth rate did not exceed 1.33%, a modest rate of growth.
- In fact between 1911 and 1921 there was a negative rate of growth of -0.03%. This was because of the influenza epidemic during 1918-19 which killed about 12.5 million persons or 5% of the total population of the country (Visaria and Visaria).
- The growth rate of population substantially increased after independence from British rule going up to 2.2% during 1961-1981.
- Since then although the annual growth rate has decreased it remains one of the highest in the developing world the comparative movement of the crude birth and death rates. The impact of demographic transition phase is found in the decade of 1921 to 1931.

Out of every 100 persons in the world 15 are Indians, that is, every seventh person is an Indian. A total of 16.7 per cent of the world's population lives in India, inhabiting only 2.4 per cent of the total land area of the world. The growth of India's population has been phenomenal compared to that of other countries and particularly in relation to the growth of necessary resources and infrastructure required to meet the pressure of the growing population. From 1971 to 2001, it increased from 548 million to 1029 million. It is two and a half times the population of the whole of Africa. During the decade the growth was equivalent to the half of the population of Canada and the United States. Every year, a whole Malaysia or Australia is added to India's population. Thus, the problem of population growth is really a serious one as the increases in employment opportunities and other resources cannot keep up with increase in population.

Table 1

Growth of Population in India, 1891-2001

Year	Total population (in millions)	Decennial increase During the decade (in million)	Decennial growth rate during the decade (per cent)
1891	235.9	-	-
1901	238.4	2.4	1.0
1911	252.0	13.7	5.7
1921	251.3	-0.7	-0.3
1931	279.0	27.7	11.0
1941	318.7	39.7	14.2
1951	361.1	42.4	13.3
1961	439.2	78.1	21.6
1971	548.2	108.9	24.8
1981	683.3	135.6	24.7
1991	846.3	162.9	23.5
2001	1028.7	182.4	21.5

The Table 1 shows that growth rate was not so high up to 1921.However, from 1921 there was a steady increase till 1951.From 1951 onwards the growth rate has been increasing at an alarming rate. The pre 1921 period had death rate due to plague, malaria, influenza and famine. In post-independence India, health hazards have been considerably curbed, which has resulted in increased population growth. Since 1951, the population of India has nearly tripled. The growth has been higher in the northern zone compared to other areas, particularly the southern states.

The density of population has increased from 72 persons per square kilometer in 1901 to 267 persons in 1991 and 325 persons in 2001. The density of populations is 13 persons per square kilometer in Arunachal Pradesh, followed by Mizoram. West Bengal had the maximum density, followed by Bihar.

Table 2

Percentage and Growing Rate of Urban and Rural Population				
Year	Percentage of distribution		Decadal growth rate	
	Rural	Urban	Rural	Urban
1901	89.2	10.8	-	-
1911	89.7	10.3	6.4	0.3
1921	88.8	11.2	-1.3	8.3
1931	88.0	12.0	9.9	19.1
1941	96.1	13.9	11.8	31.9
1951	82.7	17.3	8.8	41.4
1961	82.0	18.0	20.6	26.4
1971	80.1	19.9	21.8	37.8
1981	76.3	23.7	19.0	46.0
1991	74.3	25.7	20.0	36.5
2001	72.2	27.8	18.1	31.5

It is true that India is predominantly a country of villages. Out of India's total population, 72.2 per cent lived in villages and 27.8 per cent were in urban areas as per 2001 census. This increased to 25.7 per cent in 1991 and further it went up to 27.7 per cent in 2001. However, it is significant to note that the increase in the urban population has been far more than that of rural population. Over 60 per cent of the urban population lived in 216 agglomerations and cities with population of one lakh and above. The increase in urban population is migration from rural areas, as the cities and towns offer more job opportunities, better amenities and higher standards of living.

Hindus account for 80.5 per cent of the total population and **Muslims** of 13.4 per cent. **Christians** are the third major group. **Sikhs** are mainly concentrated in Punjab. **Jains and Buddhists** as social groups are more like Hindus. The census provides details based on age, sex, martial status, literacy, occupation, etc.

The sex composition of India's population shows that there are fewer females than males.

Table 3

Sex Ratio (females per thousand males)			
Census year	Population (in millions)		Sex Ratio
	Male	Female	
1901	120.9	117.4	972
1911	128.4	123.7	964
1911	129.5	122.8	955
1931	142.9	135.8	950
1941	163.7	154.7	945
1951	185.5	175.6	946
1961	226.3	212.9	941
1971	284.0	264.1	930
1981	353.3	330.5	935
1991	439.2	407.6	927
2001	532.2	496.5	933

Like the male-female ratio, the age structure of India's population has remained almost stable during the last six decades. The reason is that

natural calamities and man-made problem like wars have not affected India's populations on any large scale. Nearly 40 per cent of India's population consists of those below 15 years of age and about 5 to 6 per cent of 60 years and above. This shows that nearly half of India's population is dependent upon those who are earners. The dependency of such a large part of the population adversely affects economic and social development. Saving and investment become almost negligible because almost entire income is spent on consumption. Problems of unemployment, migration and mobility are also related to the age composition of India's population.

COMPONENTS OF POPULATION GROWTH: BIRTH, DEATH, MIGRATION

Before 1931, both **death rates and birth rates** are high, whereas, after this transitional moment the death rates fall sharply but the birth rate only falls slightly. The principal reasons for the decline in the death rate after 1921 were

- increased levels of control over famines and epidemic diseases. The later cause was perhaps the most important. The major epidemic diseases in the past were fevers of various sorts, plague, smallpox and cholera. But the single biggest epidemic was the influenza epidemic of 1918-19, which killed as many as 125 lakh people, or about 5% of the total population of India at that time.
- Improvements in medical cures for these diseases, programmes for mass vaccination, and efforts to improve sanitation helped to control epidemics. However, diseases like malaria, tuberculosis, diarrhoea and dysentery continue to kill people even today, although the numbers are nowhere as high as they used to be in the epidemics of the past. Surat witnessed a small epidemic of plague in September 1994, while dengue and chikungunya epidemics have been reported in various parts of the country in 2006.
- Famines were also a major and recurring source of increased mortality. Famines were cause by high levels of continuing poverty and malnutrition in an agro climatic environment that was very vulnerable to variations in rainfall. Lack of adequate means of transportation and communication as well as inadequate efforts on the part of the state were some of the factors responsible for famines.
- However, as scholars like Amartya Sen and others have shown, famines were not necessarily due to fall in food grain production; they were also caused by a 'failure of entitlements', or the inability of people to buy or otherwise obtain food.
- Substantial improvements in productivity in Indian agriculture (specially through the expansion of irrigation); improved means of communication; and more vigorous relief and preventive measures by the state have all helped to drastically reduce deaths from famine.
- Nevertheless, starvation deaths are still reported from some backward region of the country. The National Rural Employment Guarantee Act is the latest state initiative to tackle the problem of hunger and starvation in rural areas. Unlike the death rate, **the birth rate** has not registered a sharp fall. This is because
- The birth rate is a socio-cultural phenomenon that is relatively slow to change.
- By and large, increased level of prosperity exerts a strong downward pull on the birth rate. Once infant mortality rates decline, and there is an overall increase in levels of education and awareness, family size beings to fall.
- There are very wide variations in the fertility rates across the states of India. Some states like Kerala and Tamil Nadu have managed to bring down their fertility rates (TFR) to 2.1 and 1.8 respectively. This means that the average woman in Tamil Nadu produces on

2.1 children, which is the 'replacement level' (required to replace herself and her spouse). Kerala's TFR is actually below the replacement level, which means that the population is going to decline in the future. Many others states like Himachal Pradesh, West Bengal, Karnataka and Maharashtra have fairly low TFRs.

- But there are some states, notably Bihar, Madhya Pradesh, Rajasthan and Uttar Pradesh which still have very high TFRs of 4 or more. These few states already accounted for almost 45% of the total population as of 2001, and they will also account for about half (50%) of the additions to the Indian population up to the year 2026. Uttar Pradesh alone is expected to account for a little less than one quarter (22%) of this increase.

CAUSES OF HIGH BIRTH RATE

Customs of Early Marriage

The high birth rate in our country is due to several factors. One of the factors is the customs of early marriage in our country, particularly in rural areas. It has been observed that persons who are married at an early age have more children. Laws have been made from time to time to stop the practice of child marriage. According to the latest law, it is illegal for a girl to marry before she attains the age of 18 years and for a boy to marry before he attains the age of 21 year.

Illiteracy and Poverty

Illiteracy in our country is another factor for the high birth rate. In this context, education of women is very important. It has been found that the families of illiterate women have more children. Poverty is also an important factor. For the poor people more children mean additional hands to earn. In the poor families the child starts earning at an early age. Therefore, the poor people tend to have more children to increase their income. But in reality having more children does not help. The poor people are often unable to feed and educate their children. These children remain illiterates and unskilled labour throughout their life.

Preference for Male Child

In our country, there is a preference for the male child. This kind of wrong attitude is found not only in the illiterate families but also among the literates. In many families, the desire for a male child results in having more children.

The unmanageable growth in population creates many problems. The country cannot provide notorious food to its people. There is a shortage of space and housing. Unemployment grows and the standard of living decline. Therefore urgent measures are needed to tackle the problems of population growth.

The problem is more acute in the rural areas where the majority of our people live. These people have to be made aware of the problem of population growth. They have to be told that it is now possible to plan the size of the family. People have to realize that it is our own decision which makes our family small or big. It is in our own individual interest as well as in the interest of the country that we should have a small family.

Age structure of the Indian Population

The age structure of the population refers to the proportion of persons in different age groups relative to the total population. The age structure changes in response to changes in levels of development and the average life expectancy.

- Initially, poor medical facilities, prevalence of disease and other factors make for a relatively short life span. Moreover, high infant and maternal mortality rates also have an impact on the age structure.
- With development, quality of life improves and with it the life expectancy also improves. This changes the age structure.
- Relatively smaller proportions of the population are found in the younger age groups and larger proportions in the older age groups. This is also referred to as the ageing of the population.
- The dependency ratio is a measure comparing the portion of a population which is composed of dependents (i.e., elderly people who are

too old to work, and children who are too young to work) with the portion that is in the working age group, generally defined as 15 to 64 years.

- A rising dependency ratio is a cause for worry in countries that are facing an ageing population, since it becomes difficult for a relatively smaller proportion of working-age people to carry the burden of providing for a relatively larger proportion of dependents.
- On the other hand, a falling dependency ratio can be a source of economic growth and prosperity due to the larger proportion of workers relative to the non-workers. This is sometimes referred to as the 'demographic dividend', or benefit flowing from the changing age structure. However, this benefit is temporary because the larger pool of working age people will eventually turn into non-working old people.

India has a very young population, that is, the majority of Indians tend to be young, and the average age is also less than that for most other countries.

- The share of the under 15 age group in the total population has come down from its highest level of 42% in 1971 to 35% in 2001.
- The share of the 15-60 age group has increased slightly from 53% to 59%, while the share of the 60+ age group is very small but it has begun to increase (form 5% to 7%) over the same period.
- But the age composition of the Indian population is expected to change significantly in the next two decades. Most of this change will be at the two ends of the age spectrum– as 0-14 age group will reduce its share by about 11% (from 34% in 2001 to 23% in 2026) while the 60 plus age group will increase its share by about 5% (from 7% in 2001 to about 12% in 2026).

As with fertility rates, there are wide regional variations in the age structure as well. While a state like Kerala is beginning to acquire an age structures like that of the developed countries.

- Uttar Pradesh presents a very different picture with high proportions in the younger age groups and relatively low proportions among the aged.
- India as a whole is somewhere in the middle, because it includes states like Uttar Pradesh as well as states that are more like Kerala.

The bias towards younger age groups in the age structure is believed to be an advantage for India. Like the East Asian economies in the past decades and like Ireland today, India is supposed to be benefiting from a 'demographic dividend'. This divided arises from the fact that the current generation of working-age people is a relatively large one and it has only a relatively small preceding generation of old people to support. But there is nothing automatic about this advantage- it needs to be consciously exploited through appropriate policies.

Does the changing age structure offer a 'demographic dividend' for India?

The demographic advantage or 'dividend' to be derived form the age structure of the population is due to the fact that India is one of the youngest countries in the world. A third of India's population was below 15 years of age in 2000. In 2020, the average Indian will be only 29 years old, compared with an average age of 37 in China and the Untied States, 45 in Western Europe and 48 in Japan. This implies a large and growing labour force, which can deliver unexpected benefits in terms of growth and prosperity.

The 'demographic dividend' results from an increase in the proportion of workers relative to non-workers in the population. In terms of age, the working population is roughly that between 15 and 64 years of age. This working age group must support itself as well as those outside this age group (i.e., children and elderly people) who are unable to work and are therefore dependents. Changes in the age structure due to the demographic transition lower the 'dependency

ratio', or the ratio of non-working age to working-age population, thus creating the potential for generation growth.

But this potential can be converted into actual growth only if the rise in the working age group is accompanied by increasing levels of education and employment. If the new entrants to the labour force are not educated then their productivity remains low. If they remain unemployed, then they are unable to earn at all and become dependents rather than earners. Thus, changing age structure by itself cannot guarantee any benefits unless it is properly utilized through planned development. The real problem is in defining the dependency ratio of non-workers to workers. The difference between the two is determined by the extent of unemployment and underemployment, which keep a part of the labour force out of productive work. This difference explains why some countries are able to exploit the demographic advantage while others are not.

India is indeed facing a window of opportunity created by the demographic dividend. The effect of demographic trends on the dependency ratio defined in terms of age groups is quite visible. The total dependency ratio fell from 79 in 1970 to 64 in 2005. But the process is likely to extend well into this century with the age-based dependency ratio projected to fall to 48 in 2025 because of continued fall in the proportion of children and then rise to 50 by 2050 because of an increase in the proportion of the aged.

The problem, however, is employment. Data from the National Sample Survey studies of 1999-2000 and from the 200 Census of India reveal a sharp fall in the rate of employment generation creation of new jobs across both rural and urban areas. This is true for the young as well. The rate of growth of employment in the 15-30 age groups, which stood at around 2.4 per cent a year between 1987 and 1994 of both rural and urban men, fell to 0.7 for rural men and 0.3 per cent for urban men during 1994 to 2004. This suggests that the advantage offered by a young labour force is not being exploited.

Strategies exist to exploit the demographic window of opportunity that India has today. But India's recent experience suggests that market forces by themselves do not ensure that such strategies would be implemented. Unless a way forward is found, we may miss out on the potential benefits that the country's changing age structure temporarily offers.

MIGRATION

The vast majority of the population of India has always lived in the rural areas, and that continues to be true. The 2001 Census found that 72% of our population still lives in villages, while 28% is living in cities and towns. However the urban population has been increasing its share steadily, from about 11% at the beginning of the twenty-first century, an increase of about two-and-half times.

- It is not a question of numbers alone; processes of modern development ensure that the economic and social significance of the agrarian – rural way of life declines relative to the significance of the industrial–urban way of life. This has been broadly true all over the world, and it is true in India as well.
- Agriculture used to be by far the largest contributor to the country's total economic production, but today it only contributes about one-fourth of the gross domestic product. While the majorities of our people live in the rural areas and make their living out of agriculture, the relative economic value of what they produce has fallen drastically. Moreover, more and more people who live in villages may no longer work in agriculture or even in the village. Rural people are increasingly migrating to cities.
- Mass media and communication channels are now bringing images of urban lifestyles and patterns of consumptions into the rural areas. Consequently, urban norms and standards are becoming well known even in the remote villages, creating new desires and aspirations for consumptions. Mass transit and mass

communication are bridging the gap between the rural and urban areas. Migration is no more a taboo now.

Considered from an urban point of view, the rapid growth in migration shows that the town or city has been acting as a magnet for the rural population. Those who cannot find work (or sufficient work) in the rural areas go to the city in search of work.

- This flow of rural-to-urban migration has also been accelerated by the continuous decline of common property resources like ponds, forests and grazing lands.
- These common resources enabled poor people to survive in the villages although they owned little or no land. Now, these resources have been turned into private property, or they are exhausted. (Ponds may run dry or no longer provide enough fish; forests may have been cut down and have vanished...).
- If people no longer have access to these resources, but on the other hand have to buy many things in the market that they used to get free (like fuel, fodder or supplementary food items), then their hardship increases. This hardship is worsened by the fact that opportunities for earning cash income are limited in the villages.
- Sometimes the city may also be preferred for social reasons specially the relative anonymity it offers. The fact that urban life involves interaction with strangers can be an advantage for different reasons. For the socially oppressed groups like the Scheduled Castes and Scheduled Tribes, this may offer some partial protection from the daily humiliation they may suffer in the village where everyone knows their caste identity.
- The anonymity of the city also allows the poorer sections of the socially dominant rural groups to engage in low status work that they would not be able to do in the village. All these reasons make the city an attractive destination for the villagers. The swelling cities bear testimony to this flow of population. This is evident from the rapid rate of urbanization in the post-independence period.

While urbanization has been occurring at a rapid pace, it is the biggest cities– the metropolises- that have been growing the fastest. These metros attract migrants from the rural areas as well as from small towns. There are now 5,161 towns and cities in India, where 286 million people live. What is striking, however, is that more than two – thirds of the urban population lives in 27 big cities with million-plus populations. Clearly the larger cities in India are growing at such a rapid rate that the urban infrastructure can hardly keep pace. With the mass media's primary focus on these cities, the public face of India is becoming more and more urban rather than rural. Yet in terms of the political power dynamics in the country, the rural areas remain a decisive force.

POPULATION POLICY AND FAMILY PLANNING

'Population Policy' in its narrower sense, according to the UNEP is "an effort to affect the size structure and distribution or characteristics of population". In its broader range, it includes "efforts to regulate economic and social conditions which are likely to have demographic consequences".

Population Policy Aims at :

- decreasing birth rate,
- limiting the number of children in family or two
- decreasing mortality,
- creating awareness among the masses regarding the consequences of galloping population,
- procuring necessary contraceptives,
- enacting laws like legalizing abortion, and
- giving incentives as well as disincentives.
- checking concentration of people in congested areas,

- providing necessary public services for effective settlement in new areas, and
- relocation of offices to less populated areas.

Since India's population policy needs to aim at 'enhancing the quality of life', and 'increasing individual happiness', it has to act as a means to attaining a broader objective of achieving individual fulfilment and social progress. Initially, the policy was adhoc in nature, flexible, and based on a trial and error approach. Gradually, it was replaced by more scientific planning.

- The sub-committee on population appointed in 1940 under the chairmanship of Radha Kamal Mukherjee by the National Planning Committee (appointed by Indian National Congress in 1938) laid emphasis on self-control, spreading knowledge of cheap and safe methods of birth- control and establishing birth control clinics. It also recommended raising the marriage age, discouragement of polygamy, and a eugenic programme of sterilizing persons suffering from transmissible diseases.
- The Bhore Committee of 1943 appointed by the government criticized self-control approach and advocated 'deliberate limitation of families'.

After independence, a Population Policy Committee was created in 1952 and a Family Planning Research and Programmes Committee in 1953. A Central Family Planning Board was created in 1956 which emphasized sterilization. During the 1960s, a more vigorous family planning programme was advocated for stabilizing the growth of population over a reasonable period. While earlier, it was assumed by the government that the family planning programme had created enough motivation among the people and the government was only to provide facilities for contraception, it was later realized that people needed motivation and masses had to be educated.

In April 1976, the Minister of Health and Family Planning, Karan Singh, presented before the Parliament the National Population Policy:

- raising the statutory age of marriage,
- introducing fiscal incentives to states which perform well in the field of family planning,
- paying special attention to improving female literacy,
- public education through all available media (radio, television, press, films),
- introducing direct monetary incentives for adoption of vasectomy and tubectomy operations, and a new thrust towards research in reproductive health.

It was planned at a time when the Emergency was in operation. There were so many excesses in the sterilization campaign under the leadership of Sanjay Gandhi, that it came to be regarded with hostility by people. The programme was so overzealously implemented in some of the North Indian states that during the election in 1977 after the Emergency, these excesses became an important election issue and the Congress lost the elections at the Centre. When in 1980, Indira Gandhi returned to power, she became extremely cautious and unenthusiastic about reviving her commitment to the family planning programme. Since then the policy of almost all governments in the states and at the centre has been so lopsided that the growth rate of population which was expected to have fallen below the 2 per cent mark, is till around 2.35 per cent.

Population Policy 2000: National Socio-Demographic Goals for 2010

- Address the unmet needs for basic reproductive and child health services, supplies and infrastructure.
- Make school education up to age 14 free and compulsory, and reduce dropouts at primary and secondary school levels to below 20 per cent for both boys and girls.
- Reduce infant mortality rate to below 30 per 1000 live births.

  Reduce maternal mortality ratio to below 100 per 100,000 live births.

- Achieve universal immunization of children against all vaccine preventable diseases.
- Promote delayed marriage of girls, not earlier than age 18 and preferably after 20 years of age.
- Achieve 80 per cent institutional deliveries and 100 per cent deliveries by trained persons.
- Achieve universal access information/ counseling, and services for fertility regulation and contraception with a wide basket of choices.
- Achieve 100 per cent registration of births, deaths, marriage and pregnancy.
- Contain the spread of Acquired Immuno Deficiency Syndrome (AIDS), and promote greater integration between the management of Reproductive Tract Infections (RTI) and Sexually Transmitted Infections (STI) and the National Aids Control Organization.
- Prevent and control communicable diseases.
- Integrate Indian System of Medicine (ISM) in the provision of reproductive and child health services, and in reaching out to households.
- Promote vigorously the small family norm to achieve replacement levels of TFR.
- Bring about convergence in implementation of related social sector programmes so that family welfare becomes a people centered programme.

But National Population Policy-2000 has been criticized on many counts. Some major concerns regarding NPP-2000 are:

- NPP-2000 provides cash-based incentives for small family norm. Some scholars are concerned that this does not help as monetary incentives do not change habits and behaviours based on social norms. That children are gifts of God and one should never stop children from coming to this world is widespread social value in our society. Monetary incentives can not change this basic social value, alternative strategies need to be devised. There is need for social transformation, and no innovative strategy in line with this thought has been included in NPP-2000.
- Highlighting the bottom up approach in implementing small family norm NPP-2000 has emphasized on role of Panchayati Raj Institutions (PRIs). However, it is not mentioned what their role is going to be. Similarly, Population Research Institutes have not been given any clear responsibilities
- NPP-2000 unequivocally rejects all forms of coercion. Yet, many state governments have announced population policies that violate the commitment of NPP. Coercion is used by states in the form of disincentives. For example, Rajasthan and Maharashtra make adherence to two child norm, a service condition for state government employment. Many states provide funds for rural development schemes subject to adherence of population largest by panchayats.
- Disincentives imposed by state governments are often anti-poor and anti-women. The poor (tribals, dalits etc.) have more fertility rate than the rich.

FAMILY PLANNING

India was the first country to evolve a government-backed family planning programme in the 1950s when the rest of the world was not aware of the problem. But, India is still trailing behind in population control. During the Emergency regime the political leaders, the government officials and policemen shouted themselves hoarse advocating sterilization. They devised ambitious programmes and carried them out against popular wishes, and even used such harsh and coercive methods of sterilization that today one is reluctant to talk of family planning to the populace. The concerned officials in family welfare/planning departments have been scared away from it. The experts have jettisoned hopes of reaching targets. In fact, for all practical purposes, the country is without an effective

programme or an effective target. Political parties studiously skirt the subject, and election campaigns are conducted without a word about it. What was once a highly dramatic political issue has suddenly become taboo.

In 1977, 'family planning' was rechristened 'family welfare', and tasks beyond its competence embracing all aspects of family welfare, including improvement of women's educational level. Government of India also adopted the UNEP guideline of delaying the first child and spacing the subsequent births.

The methods in family planning

Sterilization, loop, pill, withdrawal, rhythm, sheath and diaphragm. The condom and the pill seem most popular among the high socio-economic groups; so are withdrawal method and the condom among the middle socio-economic groups and sterilization is preferred by people belonging to the low social strata. Operations for family planning are not very popular among the socially well-placed, as this group is exposed to other methods of birth control. A good number of women use more than one method, depending on circumstances, availability and mood of the moment.

Measures Adopted

- Officially mobilized in 1951, about 150 family planning clinics were established. Since then, a network of Community Health Centres, Primary Health Centres, and Sub Centres have been created for implementing family planning programme. A large number of centres and sub-centres are created in rural areas in each Five Year Plan.
- Of the various methods of family planning, the government till recently depended more on the 'camp approach' which relied implicitly on the district authorities applying pressure on their officials to intensify the sterilization campaign. These government set targets for different states and district and adopted persuasive, monetary, as well as coercive measures to achieve targets. The highest rate of target achievement (200%) was in 1776-77.
- The Primary Health Centres in villages, engaged in family planning programmes, perform two specific functions: providing services to people and disseminating information about these services in an effective manner in order to motivate people to accept family planning. Nearly half a million medical and para-medical persons are engaged in the programme, besides half a million part-time village health guides.

What We Achieved

- Since 1968-69 the decline in the birth rate became noticeable. The birth rate which stood at 41.7 per thousand in 1961 came down to 28.7 in 1994 and 25.2 in 1995. Between 1956 and 1996, about 13 crores births–equal to the current population of Japan–were averted (The Hindustan Times, February).
- The achievement of the targets has not been disastrous in all fields though the number of sterilization has fallen, According to the National Health and Family Welfare, only 6 per cent of Indian women between the ages of 13 and 49 years use any modern contraceptive. Yet another report says that half of the couples do not practice family planning though over 90 per cent are aware of it.(The Hindustan times).
- The use of condom in India is as insignificant as a more six per couple per year. The data dished out by the survey about sterilization rate (30%) – the mainstay of the sterilizations are undertaken only after having had three or more children. The total fertility even begun in India (Sahay, 1997).
- Today, the effort has altogether slackened to the extent that Ashish Bose, a noted demographer of our country, in his talk on 'Indian Population' said that "family planning programme has completely failed in the country and entirely a new approach is needed for its success".

- The progress in containing population growth has been extremely slow as is evident when we compare it with China which has avoided the birth of 200 million children since 1970 through a vigorous family planning programme and brought the fertility rate down to 2.5 from 5.82 among eligible mothers (the Hindustan Times,). China adopted the norm of one child per couple in the urban centres and a ceiling of two children per couple in the rural areas, with several incentives for the planned child as also the parents. Those who violated these norms were penalized. The planned child was given special allowances till the age of 14 for education and upbringing; and the couple was provided with land for building house or for farm machinery. A major component of the programme in China is encouraging late marriage and late child birth.

Attitude Towards Family Planning

The idea of family planning has been successfully brought to the notice of an average Indian woman. The attitude of a woman towards family planning is influenced by her education, age, income background, husband's occupation, and her (working) status among other factor. In terms of age, it has been found that the percentage of women approving family planning decreases as the age group increases. But the acceptance is about two-third even among the older age groups. This clearly shows that the great majority of Indian women approve of family planning, irrespective of age.

Kothari and Gulati conducted a survey in Rajasthan. It was found that out of total persons studied, 88.1 per cent were in favour of family planning and 11.9 per cent were against it. Kothari also noted that according to the findings of the National Family Welfare Survey, conducted in Rajasthan in 1993, of the women married in the 13-49 years age group, 90 per cent knew some method of family planning, and 76.2 per cent were aware of some sources of getting the required contraceptives, though only 31.8 per cent were actually using the contraceptives.

Rao and Inbaraj conducted a survey on attitude towards family planning in Vellore city of Tamil Nadu and its surrounding villages. In all, 2,426 persons were interviewed with the intention of finding out whether they considered it within the power of the couple to control the number of children. Around 37 per cent replied in the affirmative and 41 per cent replied in the negative (The Journal of Family Welfare). When they were asked whether they themselves were in favour of family planning, 64.6 per cent said 'Yes' and 25.4 per cent said 'No'. The reasons given for hostility to family planning measures were: it was harmful to women, it went against God's will, and it constituted unnatural behaviour. However, since seven out of every ten persons were in favour of family planning, it points to the fact that people today have ceased to be very traditional in their beliefs and values.

A study made by the National Institute of Community Development covering 365 villages in 16 states and 43 districts and 7,224 respondents also revealed that 51.6 per cent were in favour of family planning and 23.7 percent were against it.

Since illiteracy is found more among the poorer section of our society, it is seen that women with low education in the lower strata are more reluctant to accept family planning methods. Their contention is that since they have no money to fall back upon, their only hope of survival is their children's income. An average poor Indian couple is not satisfied with fewer than two or three children. Time and again studies in various parts of the country have revealed this fact. About a decade ago, a large scale survey covering some 32,000 respondents sponsored by the Ministry of Health and Family Welfare came to the conclusion that most couples wanted not only three or more children but they also wanted that two of them should be sons (The Hindustan Times).

A survey was conducted in 1991 on 'Socialization of Indian Youth About Population' by the Family Planning Foundation, Delhi in collaboration with Operation Research Group,

Delhi. This survey studies the attitudes of 17,185 male and female children selected from 251 schools from urban and rural areas of 22 districts of Uttar Pradesh, Rajasthan, Haryana and Delhi. A large number of the respondents were in favour of two-child family. While about 90 per cent subjects preferred one son and one daughter, 73 per cent were not keen about giving undue importance to the sex of the children. A majority of the respondents did not consider the age of marriage of both boys and girls below 22 years as the correct marriage age. A good number of them had slight knowledge of contraceptives but they were not very well informed about the subject. A large number has acquired this knowledge from watching the TV (The Hindustan Times).

A survey was conducted by Population Research Centre of Udaipur University in Rajsthan in 1992 in which 5,211 women (1,019 from urban areas and 4,192 fro rural areas) from 27 districts in 13-49 years age group were interviewed. The survey revealed that among the currently married women (i.e. 5058), 99 per cent in urban areas and 84 percent in rural areas had knowledge of at least one modern method of family planning i.e., sterilization, condom, pill, and injection) as different from the traditional method of periodic abstinence, withdrawal, etc. As regards their husbands, amongst 2,433 rural husbands, 57.1% approve family planning, 16.8 per cent disapproved it, and 26.1 per cent were unsure. Amongst urban husbands, 74.9 per cent approved it, 9.4 per cent disapproved it, and 15.7 per cent were unsure.

Reality Check of Family Planning

Family planning in India has come to a standstill. In fact, the programme is moving backward as today we are producing 52 children every minute in comparison to 21 children per minute in 1971 and eight children per minute in 1941. This stagnation is bound to wipe out all the effort that has been made since 1952. While it is true that the couple protection percentage has gone up steadily from 10.4 in 1971 to 43.96 in 1995, it should be asked : who are these couples who are supposed to have obtained protection? It is none other than those who have had three or more children and who have already done their part of the damage to the two children family norm.

The propaganda for two child and no child after 35 year of age should be linked with improving the standard of living, provision of better education, and health guarantee of (two) children and improved services for the health of women/mother. This will put the couples in a frame of mind where they would themselves be anxious to work for this objective. Money incentives cannot be a motivating factor. The money may be incentive for the campaigner to motivate the couple but not for the person undergoing sterilization.

Some scholars present optimistic blueprints for checking population explosion in the coming years. One point usually made is that our country has many untapped resources which, if properly developed, will sustain even three times the present population. The second point urged is that industrial growth, economic development and increase in exports will take care of poverty, unemployment and the increasing population.

Both these views are rather naive and unsound. What is useful and important for any country is the goods and services actually available and not likely to be available to meet the needs of the population. With the present political situation in the country both at the centre and in the states, with the political parties laying focus on achieving and retaining power rather than or 'community development' and with increasing casteism, parochialism, regionalism, and linguism, how can we expect our power elite to take interest in development and modernization and/ or tapping the untapped resources?

EMERGING ISSUES : AGEING, SEX RATIOS, CHILD AND INFANT MORTALITY, REPRODUCTIVE HEALTH

Ageing : Problems and Solutions

Thanks to development in medical science for the decline in the death rate in India and cure

easily available for most of the ailments which has increased human longability. The number of aged persons in India is increasing. Because of the disintegration of joint-family system and change in the lifestyle of the youth under the influence of modernization and urbanization aged persons are facing many problems. Here, we will consider the nature of problems faced by this section of population in relation to his relations with younger members of the family.

The word 'Ageing' has been defined variedly by researchers in different contexts.

- **Becker** defines ageing in the broadest sense, "as those changes occurring in an individual, as a result of the passage of time".
- **According to Stieglitz,** "ageing is a part of living. It begins with conception and terminates with death".
- **Tibbitts** says "ageing may best be defined as the survival of a growing number of people who have completed the traditional adult roles of making a living and childrearing".

Similarly, the optimum minimum age fixed for treating a person as aged also varies from country to country. In India the attainment of the age 60 has been mostly accepted for the purpose of classifying aged persons.

Recently a few studies have been conducted to focus on the problems of aged in varied dimensions. The change of role and status is a part of the ageing process.

The ancient scriptures divide family life into 4 stages. Out of which the last stage is termed as 'Vanaprastha' which means withdrawal from active life. Studies by **De Souza, Desai and Naik** show that religion plays an important role in the life of the aged. These studies still hold good.

- There is a broad distinction between **physical and social ageing**. The social ageing need not necessarily coincide with physical ageing. Physical ageing may be conditioned by the health status whereas social ageing may coincide with retirement from the production process. Social ageing in the Indian context may be interpreted in a different way. This is so because social and cultural aspects are included besides the economic aspects. In rural areas where still the past-oriented societies prevail, the aged are meaningful links to tradition and ensure historical continuity. In industrialized societies and urban areas the roles get shifted from authoritarian-patriarchal type to an equalitarian partnership. Here, there are more non-traditional roles and discontinuity of status among the aged in terms of family and kinship patterns.
- **In the case of the retired persons,** family comes to their rescue for their economic, emotional protection. The aged living without any family members are taken care of by the State Governments either through social assistance scheme or old age pension scheme or through the destitute homes, home for the aged, ashrams conducted by religious institutions, etc.

On the contrary, in the rural settings the old people may retire gradually owing to ill health or susceptibility of diseases instead. Hence, the old age, for people without children becomes a hardship.

- Rapid urbanization, change over to the nuclear family system, change over to the flat system and the need for the women to take up jobs to add to the family kitty have also contributed to the changing roles of aged in and outside the family.
- It is often observed that aged in cities become anti-social and limit themselves to the four walls (owing to heavy traffic and noise outside). Mostly spend their time in looking after grand children. Further, social assistance rendered by the schemes for the aged, do not strengthen the capacity of the family but rather have the effect of replacing the family.
- The family development cycle brings about changes in the status and roles of both men

and women because there is a transition from the role of the provider to that of the dependant. This may result in loss of role or to limited participation in decision-making process in the social-cultural and economic spheres of family.

- Process of migration also has a vital role to play in the case of ageing. The impact may be of two kinds. One, when the aged are forced to migrate to the urban areas leaving behind their older members and other relatives in the family, or it may be to join the members of the family who have already migrated. The situation in both cases may be varied but may have impact either in the form of adjustment or isolation from the family circle.
- Inter and Intra-generation gaps may be created due to the process of modernization taking place in the society which may have repercussions on the aged as well as the younger ones. The advent of Socio-Psychological and Cultural changes may result in the inter-generational conflict which may add to the problems of the aged.
- The urban studies (Delhi and Mumbai) show that though old age leads to enhanced status, it is conditioned by their economic situation. Both from the point of view of economic and emotional support, the role in the family become essential for the aged. The transition from the role of bread winner to a dependent causes problems among the aged. The degree of dependency varies according to the economic situations and also characterized by a loss or role and limited role in decision making process.
- The problem faced by aged retired from organized sector, informal sector or agricultural sector varies. The persons retired from organized sector have less economic insecurity. People from the informal sector lack even the minimum economic security. Thus the aged peasants may become the worst sufferers, under the shelter of bread winners, who may be sons or daughters. This may lead to the prolonged work participation by aged even after their attainment of age specific. In the agricultural sector, the aged may retire only due to illness or problems connected with physical strength. Otherwise their participations still continues which is needed for their survival.
- The situation may be different when one is unemployed and has no economic support. They may or may not get the same respect either from his family members or from society. They have to cope up with a lowered status.
- Getting along with younger generation may pose problems of adjustment. The value system of the younger generations may be different from that of the aged which may result in generational conflict or generation gap.

India has been and continues to a great extent to be an elder directed society. Parents and grand parents in a joint family make many decisions related to work and marriage. They exercise authority and influence over the affairs of the family and the community. People often maintain some distance from the elderly and they never call them by their first names.

- Although elders do influence decisions about youth much of the time they are mature decisions. There is also a lot of warmth and affection in the relationships between the old and the young in India. The aged are usually taken care of by their children, traditionally the sons. There is a great deal of economic and emotional interdependence between the generations. There is closeness, concern and lone, forbearance and patience as well as problems, conflicts, hurts and burdens. There is no social security. Some people get pensions, which are often meager.
- All these general observations are variable in their applications to different groups and communities and must be understood against the following facts :

- In India tne socio-economic structure is roughly 15 per cent rich, 25 per cent middle class and 60 per cent poor.
- 72 per cent of the people live in villages and are traditional in their lifestyles.
- There is a gradual growth in urbanization, industrialization and education and consequently some crisis of authority, some rebellion by the youth against the authority of the elders.
- There is an increase in the longevity of people from 40-50 years some decades ago to the 60 and 80s.

- As compared between the rural and urban setting, the problems of adjustments of the elderly and those who care for them in India, particularly in urban areas are much more obvious than in the rural areas. India is well known for its rich socio-cultural traditions for the respect to elders. Yet, practically we find some aged persons not happy with the attitude of their children, because these children are self-righteous, they take away everything from their parents and do not treat them with respect of which they rightly deserve. Hence, governmental and some non-governmental agencies must rescue such old persons to enable them to live in peace till they are alive.

Needs and Services

The needs of the aged can roughly fall into the following categories:

- Environmental.
- Occupational.
- Economic.
- Health.
- Leisure.
- Social.

Therefore, there are four types of programmes which are needed in the country for the older persons:

- Day-care Centers or Older Persons Club for those who live their families,
- Institutions for unattached, dependent and friendless persons,
- Counselling for incurable and chronically ill, and
- Financial assistance to those who can live in their families but do not have sufficient means to maintain themselves.

Though the problems of the aged can be looked in different ways, basically they can be grouped into four major areas.

- Psychological or emotional problems and social problems are the derivatives of familial problems. The familial problems are mainly concerned with neglect and poor upkeep and in its wake give rise to emotional and psychological problems associated with sickness. The feeling of dependency on others during sickness causes emotional disturbance, besides adverse emotional reaction while ill. Another type of emotional disturbance is rooted in loneliness and physical isolation mostly among those who have outlived their relations or are estranged from them and live alone.
- Health and medical care is a major problem for the aged. Even when one is not suffering from any disease, one experiences a gradual decline in physical strength with growing age. But in most cases the advanced ages brings with it some chronic ailment and the aged get bed ridden and depend on others for their mobility and need medical care for their treatment.
- The housing conditions of most of the aged and the infirm are generally far from satisfactory. The problem is particularly acute among those who live alone. They are obliged to share accommodation with others. As a matter of fact, this problem is also associated with the economic problems.

- The majority of the elderly people have financial problems. Even those who are the recipients of retirement benefits after superannuation find it difficult to meet their basic requirements with decrease in their income and increase in the cost of living.

United Nations has suggested following principles and recommendations for the aged:

- National machinery should be established or strengthened to ensure that the humanitarian needs and development potential of the aged are appropriately addressed;
- the expansion of research focusing on the demographic, epidemiological, biological, social and economic aspects of ageing, particularly in developing countries, should be supported;
- The establishment or expansion of community based or institutional care systems that provide the necessary health and social services for the frail elderly who have limited or no family support should be encouraged;
- Organizations and associations of the elderly, which ensure their active involvement in policy, and programme development, should be encouraged and promoted. Training in Gerontology and Geriatrics should be promoted to ensure that policy makers, researchers and practitioners have an adequate knowledge of issue related to ageing.

The Ministry of Social Justice and Employment has been implementing has Central Scheme of assistance for establishing and maintaining the day- care centers, old age homes, mobile Medicare units as well as for supporting and strengthening non-institutional services for the aged. This revised scheme is called as 'An Integrated Programme for older persons'.

There is obviously enough scope for improvement in the quality and coverage of the scheme of the old age pension. Considering the needs of the aged, it is imperative to take supportive action for mitigation of their suffering, particularly by increasing the scope of old age pension, which is required to be given not only to those who have no income and who have no relatives having direct responsibility for their care, but also to those as well who have relatives whose financial resources are limited. What is needed more than institutional facilities today are measures which would help in strengthening the family so that most of the aged are taken care in the family itself.

Welfare activities in respect of aged in India are actually confined to the old age pension scheme and homes for the aged. There is, however, scope for organizing a number of other welfare services, such as medical care services, recreation and leisure activities, assistance in carrying the household chores, and marketing and counselling service for families caring for old persons.

Concluding Analysis of Ageing in India

Traditionally, the aged were accorded a place of honour and importance in the family and community. Ancient literature is replete with reverent reference to the aged. Long life was cherished, old age was viewed with deference, and the aged had a substantial role to perform in society. In the joint family setting, their opinion on religious, economic and social matters was valued; and in the clan and community their counsel carried weight. Also, in the socialization of children they had a positive role; they showered affection and enforced social norms and mores. On the other hand, the family and community looked after them irrespective of their productive capacity.

In contemporary times, the social situation has undergone a perceptible change. The forces of industrialization, commercialization and modernization have influenced and altered many social values and institutions. There has come about a substantial dilution of economic and social values. Likewise traditional institutions have to a great deal, lost their hold and relevance. The joint family system is fast giving way to nuclear family.

All this has seriously affected the situation of senior citizens in society. Neither they have the earlier position of importance in the family and the community, nor are they looked after the way it was done earlier.

As a result, the process of ageing sets in early in our country notwithstanding some improvements in health standards during recent years. This has created a rather paradoxical situation. Though the introduction of modern health technology and medicine has increased the span of life, it has also contributed to a higher proportion of aged or retired persons in the composition of population having little income of their own, who have to depend on others for their livelihood.

The Hindu joint family, which was the unit of social organization, itself provided an element of social security as well as status to the aged. The reciprocal obligations of the parents to support the child in infancy and of the son to support the parents in old age resulted in 'social insurance' through the cohesion of the traditional family comprising two or more generations. One other rationale for the regard for elders was their wisdom and experience which was supposed to pass to the next generation. However, recent changes in the social values, social structure and economy, coupled with the demographic transition, have created problems for the aged who are new under a severe strain.

The changes in kinship and family organization in conjunction with urbanization and industrialization have been more to the disadvantages of the aged. It would seem that industrialization and urbanization have impinged upon the inbuilt mechanism of the Indian Joint family system to provide social security to its members. In urban areas, the general economic inadequacy of the nuclear family have made it difficult to discharge its obligations in matters of providing social security to its members, especially the aged. Even Indian villages which are somewhat remote from the cities the family life and social values have been undergoing significant changes which are not favourable to the aged.

SEX RATIO IN INDIA

The sex ratio is an important indicator of gender balance in the population. As mentioned in the section on concepts earlier, historically, the sex ratio has been slightly in favour of females, that is, the number of females per 1000 males has generally been somewhat higher than 1000. However, India has had a declining sex-ratio for more than a century. From 972 females per 1000 males at the turn of the twentieth century, the sex ratio has declined to 933 at the turn of the twenty-first century. The trends of the last four decades have been particularly worrying– from 941 in 1961 the sex ratio had fallen to an all time low of 927 in 1991 before posting a modest increase in 2001.

But that has really alarmed demographers, policy makers, social activists and concerned citizens are the drastic fall in the child sex ratio. Age specific sex ratio began to be computed in 1961. The sex ratio for the 0-6 years age group (known as the juvenile or child sex ratio) has generally been substantially higher than the overall sex ratio for all age groups, but it has been falling very sharply. In fact the decade 1991-2001 represents an anomaly in that the overall sex ratio has posted its highest ever increase of 6 points from the all time low of 927 to 933, but the child sex ratio has dropped from 945 to 927, a plunge of 18 points taking it below the overall sex ratio for the first time.

The state-level child sex ratios offer even greater cause for worry. As many as six states and union territories have a child sex ratio of under 900 females per 1000 males. Punjab is the worst off with an incredibly low child sex ratio of 793 (the only state below 800), followed by Haryana, Chandigarh, Delhi, Gujarat and Himachal Pradesh. Uttaranchal, Rajasthan, Uttar Pradesh and Maharashtra are all under 925, while Madhya Pradesh, Goa, Jammu and Kashmir, Bihar, Tamil

Nadu, Karnataka and Orissa are above the national average of 927 but below the 950 mark. Even Kerala, the state with the best overall sex ratio does not do too well at 963, while the highest child sex ratio of 986 is found in Sikkim.

Demographers and sociologists have offered several reasons for the decline in the sex ratio:

- The main health factor that affects women differently from men is childbearing. It is relevant to ask if the fall in the sex ratio may be partly due to the increased risk of death in child birth that only women face.
- However, maternal mortality is supposed to decline with development, as levels of nutrition, general education and awareness as well as the availability of medical and communication facilities improves. Indeed, maternal mortality rates have been coming down in India even though they remain high by international standards. So it is difficult to see how maternal mortality could have been responsible for the worsening of the sex ratio over time.
- Combined with the fact that the decline in the child sex ratios has been much steeper than the overall figure, social scientists believe that the cause has to be sought in the differential treatment of girl babies.

Several other factors may be held responsible for the decline in the child sex ratio including.

- Severe neglect of girl babies in infancy leading to higher death rates,
- Sex specific abortions that prevent girl babies from being born, and
- Female infanticide (or the killing of girl babies due to religious or cultural beliefs).

Each of these reasons point to a serious social problem, and there is some evidence that all of these have been at work in India. Practices of female infanticide have been known to exist in many regions, while increasing importance is being attached to modern medical techniques by which the sex of the baby can be determined in the very early stages of pregnancy. The availability of the sonogram, originally developed to identify genetic or other disorders in the foetus, may be used to identify selectively abort female fetuses.

The regional pattern of low child sex ratios seems to support this argument. It is striking that the lowest child sex ratios are found in the most prosperous regions of India. Punjab, Haryana, Chandigarh, Delhi, Gujarat and Maharashtra are among the richest states of India in terms of per capital incomes, and they are also the states with the lowest child sex ratios. So the problem of selective abortions is not due to poverty or ignorance of lack of resources. For example, if practices like dowry payments to marry off their daughters, then prosperous parents would be the ones most able to afford this. However, we find that sex ratios are lowest in the most prosperous regions.

It is also possible (though this issue is still being researched) that as economically prosperous families decide to have fewer children-often only one or two now–they may also wish to choose the sex of their child. This becomes possible with the availability of ultrasound technology, although the government has passed strict laws banning this practice and imposing heavy fines and imprisonment as punishment. Known as the Pre-Natal Diagnostic Techniques (Regulation and Prevention of Misuse) Act, this law has been in force since 1996, and has been further strengthened in 2003. However, in the long run the solution to problems like the bias against girl children depends more on how social attitudes evolve even though laws and rules can also help.

Reproductive Health

The available facts pertaining to reproductive health in India point out that:

- Of the total conceptions that take place annually, about 78 per cent are unplanned and about 25 per cent are definitely unwanted. About 30 million women in India desire better family planning services since they are not satisfied with the available facilities/ programmes.

- Out of about 11 million abortions every year, 69 per cent are induced and 31 per cent are spontaneous.
- Over one lakh women die every year during pregnancy and child birth.
- About three-fourth babies are delivered at home and only one-third deliveries are assisted by a doctor, nurse or a midwife.
- One in every 13 children dies within the first year of life and one in every nine dies before reaching the age of five. Infant mortality is as high as 52 per cent in rural areas.

In recent years government has started many programmes to improve reproductive health of women. Janani Suraksha Yojana, National Rural Health Mission, ASHA volunteers etc., are all dedicated to this cause. Reproductive health of the women has become prime concern of policy makers. High infant mortality rate, maternal mortality rate are contributed to weak reproductive health.

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