

# UNIT 6 – UPSC - Population and Associated Issues

Human population are also theme to usual process of birth and death. World is facing major challenge of rapid increase in human population since last many decades, (UNFPA, 2011). In various parts of globe, there is unparalleled rapid demographic change and the most noticeable example of this change is the vast expansion of human. It is expected that in near future, it will increase rapidly and give birth to numerous issues in the least developed regions. It is recommended that there is a desperate need to take urgent steps to control population otherwise serious problems can arise such as environment damage and restricted availability of food resources. Constant growth of population is major issue and therefore it is significant to understand how policy makers can manage population growth for the benefit of society. The influence of population on the financial system is apparently straightforward. It is about having enough resources to meet the needs of the growing number of people. Since the same resources are shared by all members of the society, everybody is affected by development and many are underprivileged of their access to the same resources. The merits and drawbacks of controlling population growth can be recognized with reference to the very tangible reality of basic education development. It has been shown in studies that population issues are vital component of policy discussion on social and economic development. They encompass a broad sense of concern that range from questions of design of appropriate intervention to lessen fertility, improve the health of mother and children, encourage better birth spacing, and reduce population growth (Sanderson, 1993).



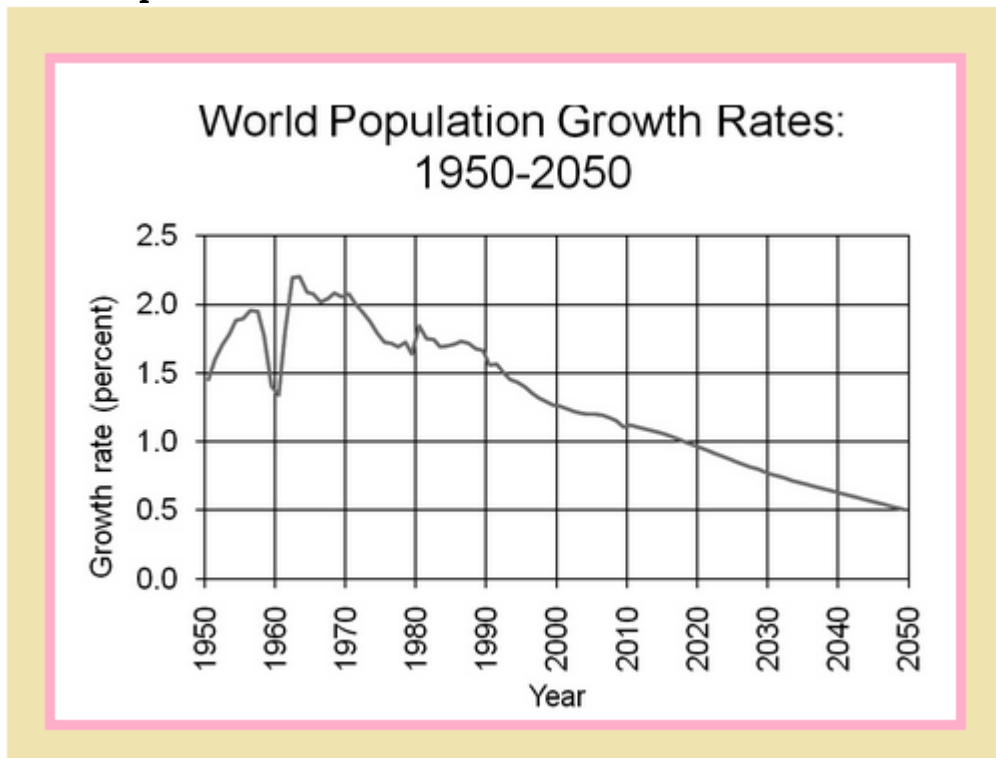
**Concept of population:** Population is described as the number of people in an area based on specific categories such as ethnicity, age, income, sex, and social economic status. Population is continually changing due to birth and death rate and relocation among families to explore good sources of income. Population is calculated by counting the actual number of people in a given area and measuring birth to death ratios. Population Growth can be defined as the change in population over time and can be quantified as the change in number of individuals in a population as "per unit time".

Centripetal and Centrifugal forces foresees how successful the country's financial system is going to be; many people travel in or out of the country to find suitable jobs. In every unit area, population density is the measurement of the amount of people in a given square mile. In metropolis region, the population is more dense because of limitation of land area and in rural and suburban areas, people own more land and is generally used for agriculture and income.

Statistical reports indicated that China and India are nations with the huge population in the world. Due to massive land and lack of contraception, the population is mounting at a rapid rate within these countries. Developed countries such as the United States subcontract in China and India because the labour cost is low-priced. Labour laws in these countries are not synchronized which allow these countries to take shortcuts which means more products to export.

Due to the industrial revolution, the population has been growing at great pace during the past. Developed countries are visualizing increasing trends based on the monetary development. In these areas, the more people are able to provide for the family, the larger the family gets. Nations where industrial development is slow, population is growing but most people struggle to survive due to deficit in medical facilities and shortage of water and food. The industrial revolution generated income for people and these people get funds for shelter and food. Thomas Malthus was sensible philosopher who expected population to grow in time as long as there's food and shelter. However, due to fast growth of the population, many serious issues emerged like diseases and scarcity of resources.

**World Population Growth: Source: U.S. Census Bureau: International data base June 2011**



Population explosion in developing countries such as India is a matter of concern because it disrupts the development of the country and its society. The developing countries already face challenge of limited resources due to fast growth of population as the resources available per person are reduced further which results in increased poverty, malnutrition, and other large population-related problems. The factual meaning of population is "the whole number of people or inhabitants in a country or region" and the literal meaning of population outburst is "a pyramiding

of numbers of a biological population". As the number of people in a pyramid increases, the issues associated with it becomes severe and worsen the situation of country. The main factors that greatly impact the population change are the birth rate, death rate and migration. The birth rate is the ratio between births and individuals in a specified population and time (Miller, 253).

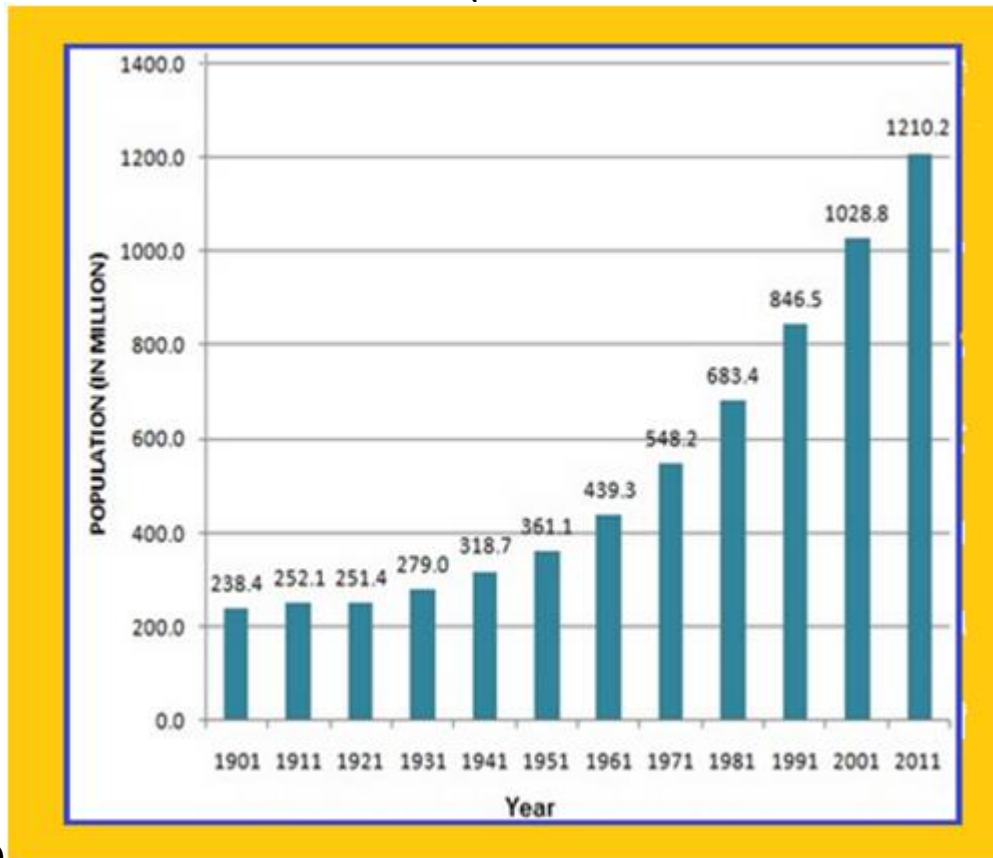
Population growth from the past to present is in increasing trend, and it will continue at even a rapid rate in the next few decades. The main problem arise from fast population growth is the lack of resources and land. When population explode, the more waste would be produced. Academicians and researchers stressed that country must develop ways to lessen future problems through educating developing countries and provide contraception to areas that have larger population growth. Other ways to tackle issues of population expansion is to create sustainability laws, monitor natural resources, and replenish what was taken out of the earth. Many experts advocated that it is imperative to educate the general public about major issues due to overpopulation and pollution which can help prevent future disasters. Increase wakefulness of contraception and to become more environmentally friendly will make human life secure in near future.

**India and Population:** India is considered to be one of the most populous countries at global scale. Population in this country is growing speedily due to globalisation and establishment of many factories which consecutively create jobs for many unskilled workers. India has the second largest population in the world and will soon exceed China. The majority of the population growth takes place in poverty suffering areas due to lack of contraception and medical centres. The fertility rate which is the amount of children per woman that would be birthed in her lifetime is at 6 children per woman; while, in developed countries like U.S. the fertility rate is at 2 children per woman. The carrying capacity of India is very restricted due to exaggerate utilization of natural resources. The shortage of clean water and over harvesting of crops proves damaging to the environment. Sustainability is a colossal issue in India and people of India are not well educated to utilize resources in appropriate way. Such lack of knowledge about replenishing resources is leaving people out of options on the next step to take.

In India, most of the population lives in crowded slums because land is limited and pollution is increasing day by day. Though, India's financial system is improved due to new business ventures. Many persons moved from rural areas to cities for better opportunities. The probability of children going to school in the city is more common than in rural areas. But job opportunities are still limited and with lack of education and skills, many people are unemployed. With population growth astounding at an alarming rate, waste is also accumulating in areas where children and old people are exposed of toxic waste. Many parts of India are not capable of providing proper sanitary practices such as a bathroom and toilet. Many rivers and lakes are contaminated with organic and man-made waste. Many people bath, drink, and eat fish from the same source. It has adverse impact on health on populace of India such as people are contracting salmonella and other gastrointestinal illnesses due to unhygienic conditions. The poor are left to live amongst waste that has accumulated from the explosion of the population and the wealth of the economy. The worst condition due to increase in population is that many poor people collect utility items through wastelands to build shelter. Unfortunately, poverty exists throughout the world but is a growing problem in thickly populated nations such as India and China. Government involvement is to reduce poverty in rural India. Many programs funded by the government organized that help the

poor which significantly changed many lives. It has been observed that people are given education, welfare, and proper sanitation.

### Population growth in India from 2001- 2011 (Source: Census 2011 : Provisional Population



#### Total – INDIA)

Reports indicated that in 1 January 2015, the population of India was estimated to be 1 286 956 392 people. This is an increase of 1.34 % (16 979 590 people) compared to population of 1 269 976 802 the year before. In 2014 the natural increase was positive, as the number of births exceeded the number of deaths by 17 131 987. Due to external migration, the population declined by 152 397. The sex ratio of the total population was 1.068 (1 068 males per 1 000 females) which is higher than global sex ratio. During 2015 India population is estimated to be increased by 17 206 607 people and reach 1 304 162 999 in the beginning of 2016. The natural increase is expected to be positive, as the number of births will exceed the number of deaths by 17 361 042. If external migration will remain on the previous year level, the population will be declined by 154 435 due to the migration reasons. It means that amount of people who leaves India to settle permanently in another country (emigrants) will prevail over the amount of people who moves into the country (<http://countrymeters.info/en/India>).

## Reasons for current increase in the world population

Due to economic and political challenges in India, country faces problems of the population explosion. According to reports, India's population hit 1 billion in May 2000, increasing the urgency for the country to moderate its population growth. Some of the reasons for this population explosion are poverty, better medical facilities, and immigration from the neighbouring countries

of Bangladesh and Nepal. The population density of India in 1996 was about 287 persons per square kilometer.

Fertility, mortality and migration are principal determinants of population expansion. The birth rate is the ratio between births and individuals in a specified population and time (Miller, 253). The death rate is the ratio between the number of deaths and individuals in a specified population and time (Miller, 253). Migration is the number of people moving in (immigration) or out (emigration) of a country, place or locality. The population change is calculated by the formula:

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

The increase in birth rates due to medical improvements increases population in world and the decrease in death rates. To account for the differences in population size, demographers often use the concept of crude birth and death rate. The crude birth rate is the number of births divided by the size of the population and multiplied by 1000. Death rate: though poverty has increased and the development of the country continues to be troubled, the enhancements in medical facilities have been incredible. This improvement might be considered constructive, but it led to increase in population. The crude death rate in India in 1981 was roughly 12.5, and that decreased to approximately 8.7 in 1999. Also, the infant mortality rate in India decreased from 129 in 1981 to approximately 72 in 1999 (Mapsindia.com, Internet). Such statistical figures indicate that due to the improvements in the medical field, human life is secured and they live longer. Additionally, abortion is not permitted by several religions in India. In fact, in Islam, one of the leading religions of India, children are considered to be gifts of God, therefore there is no family planning which ultimately results in increase in population.

Poverty is major cause of population increase in developing countries. According to ABC News, India currently faces approximately "33 births a minute, 2,000 an hour, 48,000 a day, which calculates to nearly 12 million a year". Unfortunately, the resources do not increase in same manner as the population increases. Instead the resources keep decreasing, leading to making survival for a human being more and more competitive even for the basic necessities of life like food, clothing and shelter. India currently is gripped under serious problem of population explosion and poverty. According to Geography.com, "More than 300 million Indians earn less than US \$1 everyday and about 130 million people are jobless." Poor or illiterate people give birth to more children because they think that more children mean more earning hands. Also, due to poverty, the infant mortality rate among such families is higher due to the lack of facilities like food and medical resources. Therefore, they produce more children assuming that not all of them would be able to survive. This results in exploding population at alarming rate in India. Due to the increase in population, the problems of scarce resources, jobs, and poverty increases.

Another cause of population explosion in India is religious beliefs, Traditions and Cultural Norms. India's culture is very strong and prevails since historic time. Due to the increased population, the educational facilities are very limited. As a result, most people still firmly follow ancient values. Report of ABC News revealed that renowned Indian author, Shobha De stated, "God said 'Go forth and produce' and we just went ahead and did exactly that." In India, people have belief that they must have son in family instead of a daughter. Consequently, a lot of families have more children than they actually want or can afford. This leads to increased poverty, lack of resources, and ultimately increases number of people in country. Indian people also believe that cultural norms are for a girl to get married at an early age. In most of the rural areas and in some urban areas as well, families choose to get their girls married at the age of 14 or 15. Although child marriage is

unlawful in India, the culture and the society surrounding the girls in India does not allow them to resist such decisions taken by their family.

**Migration:** Immigration to better developed countries due to several reasons like better job opportunities, war, and natural causes like hurricanes, earthquakes, and so forth. In developed countries, major cause of population growth is immigration. However, in countries like India, immigration has little role in the population growth. Although people from neighbouring countries like Bangladesh, Pakistan and Nepal, travel to India; at the same time Indians migrate to other countries like the U.S., Australia, and the U.K. During the 1971 war between India and Pakistan over Bangladesh, the immigration rate increased enormously.

## Trends in Fertility

Enlarged fertility rates and migration can have significant effects on the general structure of populations. In the United States, the amalgamation has led to the Hispanic ethnic group becoming the largest ethnic minority in the country. The speedy growth of the Hispanic population since last many decades has in effect invigorated the aging U.S. population by adding children and working-age adults, at the same time making it more ethnically diverse. The size of the Latino population doubled between 1980 and 2000, and Latinos also accounted for 40% of the country's population growth. That rapid growth has continued since 2000, accounting for almost half the increase of the U.S. population (U.S. Census Bureau, 2006).

**Effects of the rapid population growth in India:** There is unfavourable impact of population explosion in India.

**Providing employment to growing population:** Job creation is major issue for countries in which population is increasing at faster rate. The main reason is that in developing economies majority of the population is uneducated. The burden of school age population has already revealed signs of becoming unbearable. The proportion of children in schools is increasing fast and, huge numbers are still not covered. The total number of illiterate persons increases every year. This is only a sign of the wastage of human resources for want of appropriate development opportunities.

**Problem of utilisation of manpower:** Another issue is how to use manpower. Better educated manpower seeks for occupations of greater status, which are opened up by the new development efforts. Because of its capital intensive nature, the ability, of the new economy for employment generation becomes limited. Concurrently, it renders many of the old occupations out of day and redundant. As a result, under-employment and unemployment, including unemployment of educated persons, increases. There is therefore surplus of even developed human capital.

**Over-strained infrastructure:** Due to population explosion, numerous facilities such as housing, transportation, health care, and education become insufficient. The worst symptoms of overcrowding in every aspect of living conditions are manifested in the urban areas. In countries such as India, a situation of "over urbanisation" exist which puts intolerable strain on urban services. Overloaded houses, slums and unhygienic localities, traffic jamming and crowded hospitals have become common aspects in the developing countries.

**Pressure on land and other renewable natural resources:** Population overcrowding put more pressure on land and natural resources. Common properties such as forest and water are over-

exploited. This results in deforestation and desertification with permanent damage to the renewable resources.

**Increased cost of production:** Human inventiveness and technological progression makes it achievable to increase production of goods and services. But, due to increase in population, the cost of production of the basic necessities of life, such as food, increases.

**Inequitable distribution of income:** Population growth in uneven manner can lead to unbalanced distribution of salary. Both at the international and national levels, income inequality increased. The increase in gross national product (GNP) is significantly reduced in per capita terms on account of the rapidly growing population. With rapidly growing population, the major problem of a developing country tends to be focused more on economic growth as such.

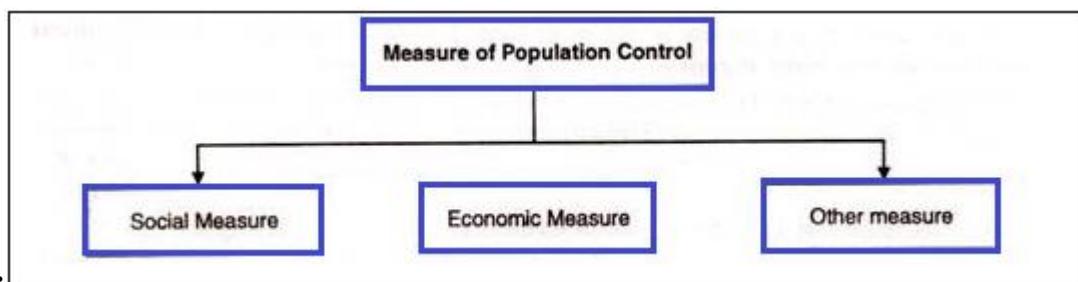
**Air Pollution:** The technical growth of India has lead not only to medical advancements, but also to an increase in the number of factories. This results in air and water pollution. More energy needs to be produced to power these factories. When fossil fuels are burnt, gases released in the atmosphere. Many cities in India have crossed the limits of suspended particulate matter, sulfur dioxide, and other pollutants due to vehicular and industrial emanation. Reports of the World Bank Organization have shown that Delhi is one of the world's most contaminated cities. As the population increases in future, more forests are cleared. The reasons for deforestation are to make houses for increased number of people to live in, and to use wood as a fuel in the industries. As a result, the trees that facilitate in reducing the air pollution through the process of photosynthesis are not able to do so. Increased air pollution causes many air (polluted) borne diseases. Some of the diseases caused by air pollution are "respiratory diseases, asthma, chronic obstructive pulmonary disease, cardiovascular disease and cancer of the lung" (World Health Organization, Internet). Due to the tropical climate of India, air pollution also causes smog which may result in headaches, dizziness, breathing difficulties, or even mass illness due to carbon monoxide. The root of all the problems is population increase.

**Water Pollution:** Water pollution also poses threat to environment through the increasing population. Water is considered the core of life. Nearly 10 percent of the world's population faces constant freshwater shortage. This figure may rise if the population growth is uncontrolled. Due to increase in population, numerous factories are set up. These factories lead to various kinds of pollution, including water pollution. Also, India being an agrarian country, the water pollution also comes from pesticides used for agriculture. Some of the major types of pollutants are petroleum products required for automobiles, cooking, and other such human activities, pesticides and herbicides used for agriculture by the Indian farmers, heavy metals from industries, automobiles' exhausts and mines, hazardous wastes, excessive organic matter like fertilizers and other organic matter used by farmers, sediments caused by soil erosion produced by strip mines, agriculture and roads and thermal pollution caused by deforestation. One of the typical examples of water pollution in India is the river Ganga. This river is considered sacred. People take holy bath in it for spiritual renewal and drink water from it. But people do not realize that along with washing off their sins in the river, they are also washing off their body wastes, leading to polluting the holy water of the river. Also, cremated and partly cremated bodies are dumped into the river. Although, dumping these bodies is a spiritual act in India among the Hindus, but it contaminate the water. Therefore, when population increases, the number of people dying is also increasing, and it lead to the pollution in the river Ganga. Additionally, the nearby factories and human colonies dump sewage directly into the river. At present the river is so contaminated that some experts believe

such water should not even be exposed in nature without being treated. It can be said that when population size is increasing, it results in increased pollution, which in turn is leading to a more hostile environment for human beings themselves.

## Available measures to Control Population

To control population, preventive actions are being taken at global scale. In India, government has initiated numerous programs to curb the population and has been spending huge money on controlling the birth rate. Some of the programs have been triumphant, and the rate of increase has also reduced, but has still to reach the sustainable rate. It has been highlighted in reports that the key factors that affect the population increase of India are the fast increasing birth rate and decreasing death rates. Effective population control measures are necessary in present scenario. It is well established that birth rate is mainly responsible for rapid population growth. Therefore measures which can reduce the birth rate should be adopted.



**Figure:**

**Social Measure:** Population outburst is considered to be a social problem and it is intensely rooted in the civilization. It is therefore necessary to make efforts to eliminate the social iniquities in the country. Minimum age of Marriage: As fertility depends on the age of marriage therefore the minimum age of marriage should be raised. In India minimum age for marriage is 21 years for men and 18 years for women fixed by law. This law should be strongly implemented and people should also be made aware of this through promotion.

Another aspect in controlling population is to raising the Status of Women. There is still favouritism to the women. They are restricted to house. They are still confined to rearing and bearing of children. So women should be given opportunities to develop socially and economically. Free education should be given to them.

Other preventive measure of population is to spread education. The spread of education changes the views of people. The educated men take mature decisions and prefer to delay marriage and adopt small family custom. Educated women are health mindful and avoid frequent pregnancies and thus help in lowering birth rate.

Adoption is also effective way to curb population. Some parents do not have any child, despite expensive medical treatment. It is recommended that they should adopt orphan children. It will be helpful to orphan children and children to couples.

As preventive measure of population, there is a need to change in Social Outlook. Social outlook of the people should undergo a change. It must be taught that marriage should no longer be considered a social compulsory.



Social Security is necessary for people. It is responsibility of government to include more and more people under-social security schemes. So that they do not depend upon others in the event of old age, sickness, unemployment with these facilities they will have no desire for more children.

## Economic Measures

There has to be numerous economic measures taken as a preventive measure for population explosion. Government must devise policies for more employment opportunities. It is necessary to raise the employment opportunities in rural as well as urban areas. Generally in rural areas there is disguised joblessness. Another economic measure for population control is the development of Agriculture and Industry. If agriculture and industry are correctly developed, huge number of people will get employment. When their income is increased they would enhance their standard of living and accept small family norms. Good standard of living is a deterrent to large family norm. In order to maintain their enhanced standard of living, people prefer to have a small family.

Urbanisation process can reduce population increase. It is reported that people in urban areas have low birth rate than those living in rural areas. Urbanisation should be encouraged.

**Other Measures:** Other actions to decrease population are many. First is late Marriage as this will reduce the period of reproduction among the females and bring down the birth rate. Another measure is self-control. Many practitioners advocated that self-control is one of the dominant methods to control the population. It is an idyllic and healthy approach and people should be provided to follow. It helps in reducing birth rate. The govt. can give different types of incentives to the people to adopt birth control measures. Financial incentives and other facilities like leave and promotion can be extended to the working class which adopts small family norms. Employment to Woman is effective method to check the population. Women should be given incentive to give services in different fields.

There is a need to follow strict birth control measures such as China has adopted the strategy to decrease the birth rate. But it is not possible to reduce technological advancements to decrease the death rate in India. In order to reduce the birth rate, several government-funded agencies like the Family Planning Association of India spend excessive funds to promote on family planning as a basic human right and the norm of a two-child family on a voluntary basis. It is done to achieve a balance between the population size and resources, to get ready young people for responsible attitudes in human sexuality, and to provide education and services to all. The family planning methods provided by the family planning program are vasectomy, tubectomy, IUD, conventional contraceptives (that is condoms, diaphragms, jelly/cream tubes, foam tables) and oral pills. Additionally, induced abortion is available, free of charge, in institutions recognized by the government to control population increase. However, the success of the family planning program in India depends on many factors such as literacy, religion and the region where the people live.

## Problems with implementing measures to control population

As it is well documented in literature that India is a country of diverse culture and people come from different family background therefore it is difficult to change the perception of people toward such norms like family planning. The success of family planning mainly depends on women and their status. Thus, it is crucial for the women to get proper education so that they can decide on the number of children they want and be aware of the available birth control measures. In India, it is important for the women to have equal rights to take decision about the number of children to be produced. Women also need to get educated about the impacts of having so many children on their health and the impacts on their children. Additionally, the older women need to be educated so that they can teach the correct family planning to their own daughters. Nevertheless, in India, society does not give more importance on women education because of the financial conditions in some families and the religious and social norms. In such a case, educating women about family planning becomes an even more difficult task. These factors lead to population increase and government face problem in implementing population control strategies. Another factor that create problem in controlling population is that most of the population in India live in the rural areas. However, family planning is not extensively advertised in rural areas. Also, in rural areas, social and religious norms are more firmly followed. It has been observed that family planning is considered as an offence in most of the tribal and rural communities.

To summarize, Population escalation is a major issue around the world which has adverse impact on numerous environmental and human health problems. Population growth continue to increase in the world at a fast pace. As the population enlarges, many experts are concerned about its dangerous results. The growth rate of population is a function of migration, birth rate and death rate in a country. The change in population caused by net migration as a proportion of total population of the country is almost insignificant and, therefore, can be easily ignored. That leaves us with birth rate and death rate. The difference between the birth rate and the death rate measures the growth rate of population. Over populated regions need more resources. Population explosion causes deforestation for food production, urban overcrowding and the spread of horrible diseases. The effectual way to stop population growth is to implement family planning policies but the exact way to achieve that has created a great deal of disagreement. Several feasible solutions have been proposed by the government to curb population.