

UNIT-I

Salient Features of Indian Economy

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Some features of Indian economy are given below:

1. Low per Capita Income: India's per capita income is very less as compare to developed countries. As per the estimates of the Central Statistics Office (CSO), the per capita net national income of the country at current prices for the year 2015-16 is estimated to attain the level of Rs. 93231/-. The per capita net national income at constant prices (2011-12) for the year 2015-16 is estimated to attain the level of Rs. 77, 431/-. As per the CSO's estimates, the per capital net national income at **current prices is** 2012-13Rs. 71050/-

2013-14 Rs. 79412/

2014-15Rs. 86,879/-

The per capita net national income at **constant prices** (base year 2011-12) 2012-13..... Rs. 65,664/-

2013-14..... Rs. 68867/-

2014-15.Rs. 72889/-

2. Agriculture Based Economy: Agriculture and allied sectors provide around 14.2% of Indian GDP while 53% of total Indian population is based on the agriculture sector.

3. Over population: in every decade Indian population get increased by about 20% . During the 2001-11 population increased by 17.6%. Currently

India is adding the total population of Australia every year. India is the possessor of around 17.5% population of the whole world.

4. Income Disparities: a report released by Credit Suisse revealed that the richest 1% Indians owned 53% of the country's wealth, while the share of the top 10% was 76.30%. To put it differently, in a manner that conveys the political economy of this stunning statistic, 90% of India owns less than a quarter of the country's wealth.

5. Lack of Capital Formation: Rate of capital formation is low because of lower level of income. Gross domestic capital formation was 23.3% in 1993-94 increased upto the level of 38.1% in 2007-08 but declined upto 34.8% in 2012-13.

6. Backwardness of Infrastructural Development: As per a recent study, 25% of Indian families don't have reach of electricity and 97 million people don't have reach of safe drinking water and 840 million people in India don't have sanitation services. India needs 100 million dollar for infrastructural development upto 2025.

7. Market Imperfections: Indian economy doesn't have good mobility from one place to other which hinders the optimum utilization of resources. These market imperfections create the fluctuations in the price of commodities every year.

8. Economy is Trapped in the Vicious Circle of Poverty: Prof. Ragner Nurkes says that 'a country is poor because it is poor'. It means poor countries are trapped in the vicious circle of poverty.

9. Use of Outdated Technology: It is very clear that Indian production technique is more labour oriented in nature. So it increases the cost of production of the products made in these countries.

10. Traditional Set Up of Society: Indian societies are trapped in the menace like casteism, communalist, male dominated society, superstitions, lack of entrepreneurship, and '*chalta hai attitude*' of the peoples. These all factors hindered the growth of the country as a whole.

ECONOMIC GROWTH VS ECONOMIC DEVELOPMENT

1. Definition of Economic Growth

Economic Growth is defined as the rise in the money value of goods and services produced by all the sectors of the economy per head during a particular period. It is a quantitative measure that shows the increase in the number of commercial transactions in an economy.

Economic growth is the increase in goods & Services produced by an economy or nation, considered for a specific period of time. The rise in the country's output of goods and services is steady and constant and may be caused by an improvement in the quality of education,

improvements in technology or in any way if there is a value addition in goods and services which is produced by every sector of the economy.

It can be measured as a percentage increase in real gross domestic product. Where a gross domestic product (GDP) is adjusted by inflation. GDP is the market value of final goods & services which is produced in an economy or nation.

2. Definition of Economic Development

Economic Development is defined as the process of increase volume of production along with the improvement in technology, a rise in the level of living, institutional changes, etc. In short, it is the progress in the socio-economic structure of the economy.

Human Development Index (HDI) is the appropriate tool to gauge the development in the economy. Based on the development, the HDI statistics rank countries. It considers the overall development in an economy regarding the standard of living, GDP, living conditions, technological advancement, improvement in self-esteem needs, the creation of opportunities, per capita income, infrastructural and industrial development and much more.

Economic Development is the process focusing on both qualitative and quantitative growth of the economy. It measures all the aspects which include people in a country become wealthier, healthier, better educated, and have greater access to good quality housing. Economic Development can create more opportunities in the sectors of education, healthcare, employment and the conservation of the environment. It indicates an increase in the per capita income of every citizen. The standard of living includes various things like safe drinking water, improve sanitation systems, medical facilities, the spread of primary education to improve literacy rate, eradication of poverty, balanced transport networks, increase in employment opportunities etc. Quality of living standard is the major indicator of economic development. Therefore, an increase in economic development is more necessary for an economy to achieve the status of a Developed Nation.

It can be measured by the Human Development Index, which considers the literacy rates & life expectancy which affect productivity and could lead to Economic Growth.

3. Key differences between Economic Growth vs Economic Development

Both Economic Growth vs Economic Development are popular choices in the market; let us discuss some of the major Difference Between Economic Growth and Economic Development:

- Economic Growth is the increase in the real output of the country in a particular span of time. Whereas, Economic Development is the increase in the level of production in an economy along enrichment of living standards and the advancement of technology.
- Economic growth does not consider the Income from the Informal Economy. The Informal economy is unrecorded economic activity. Whereas, Economic Development takes consideration of all activities, whether formal or informal and eases people with low standards of living a suitable shelter and with proper employment.

- Economic Growth does not reflect the depletion of natural resources. Depletion of resources such as pollution, congestion & disease. Governments are under pressure due to the environmental issues, majorly the problem is due to Global warming. However, Economic Development is concerned with Sustainability, which means meeting the needs of the present without compromising.
- Economic growth is the subset of economic development.
- Economic growth indicates the expansion of the Gross Domestic Product (GDP) of the country and the concept of Economic Growth is basically related to the developed countries. Economic Development is a broader concept than the Economic Growth. Economic Development refers to the increase of the Real National Income of the economic and socio-economic structure of any country over a long period of time. Economic Development is related to underdeveloped or developing countries of the world.
- Unlike economic development, Economic growth is an automatic process. Meanwhile, economic development is the outcome of planned and result-oriented activities.
- Economic Growth refers to the rise in the value of all the products produced in the economy. It indicates the yearly increase in the country's GDP or GNP, in percentage terms. It alludes to a considerable rise in the per-capita national product, over a period, i.e. the growth rate of increase in total output should be greater than the population growth rate.
- Economic growth is necessary but not enough to achieve economic development.
- They both Economic Growth vs Economic Development have different indicators for their measurement. Economic Growth can be measured through an increase in the GDP, per capita income, etc. However, Economic Development can be measured through Improvement in the life expectancy rate, infant mortality rate, literacy rate, and poverty rates.

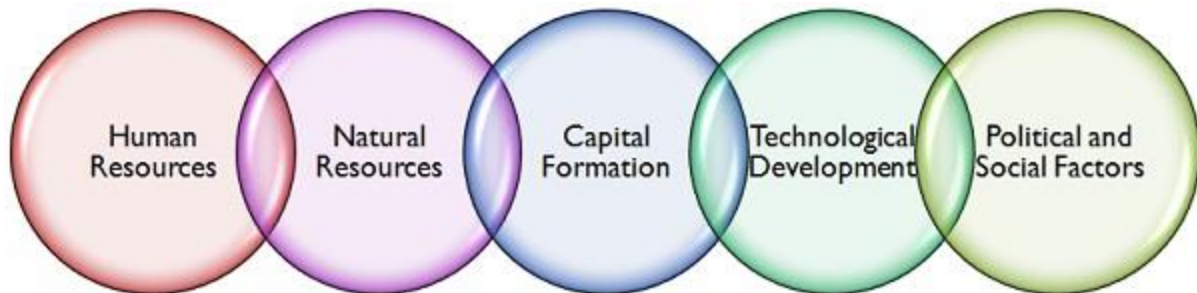
Conclusion – Economic Growth vs Economic Development

After examining the above information, we can say that Economic Growth is a subset of Economic development. Economic Development is a bigger concept than economic growth. Economic Development uses various indicators to measure the progress in an economy as a whole, however, Economic growth uses only specific indicators like the gross domestic product, individual income, etc for the calculation. Economic Growth is often contrasted with Economic Development, which can be defined as the increase in the economic wealth of an economy or nation, for the welfare of its residents. Here, you should know that economic growth is essential but not the only condition for economic development.

COMPARISON CHART

BASIS FOR COMPARISON	ECONOMIC GROWTH	ECONOMIC DEVELOPMENT
Meaning	Economic Growth is the positive change	Economic Development involves rise in the level of

BASIS FOR COMPARISON	ECONOMIC GROWTH	ECONOMIC DEVELOPMENT
	in the real output of the country in a particular span of time.	production in an economy along with the advancement of technology, improvement in living standards and so on.
Concept	Narrow	Broad
Scope	Increase in the indicators like GDP, per capita income etc.	Improvement in life expectancy rate, infant mortality rate, literacy rate and poverty rates.
Term	Short term process	Long term process
Applicable to	Developed Economies	Developing Economies
How it can be measured?	Upward movement in national income.	Upward movement in real national income.
Which kind of changes are expected?	Quantitative changes	Qualitative and quantitative changes
Type of process	Automatic	Manual
When it arises?	In a certain period of time.	Continuous process.



Determinants of Economic Growth

FACTORS INFLUENCING ECONOMIC DEVELOPMENT

(a) Human Resource:

Refers to one of the most important determinant of economic growth of a country. The quality and quantity of available human resource can directly affect the growth of an economy.

The quality of human resource is dependent on its skills, creative abilities, training, and education. If the human resource of a country is well skilled and trained then the output would also be of high quality.

On the other hand, a shortage of skilled labor hampers the growth of an economy, whereas surplus of labor is of lesser significance to economic growth. Therefore, the human resources of a country should be adequate in number with required skills and abilities, so that economic growth can be achieved.

(b) Natural Resources:

Affect the economic growth of a country to a large extent. Natural resources involve resources that are produced by nature either on the land or beneath the land. The resources on land include plants, water resources and landscape.

The resources beneath the land or underground resources include oil, natural gas, metals, non-metals, and minerals. The natural resources of a country depend on the climatic and environmental conditions. Countries having plenty of natural resources enjoy good growth than countries with small amount of natural resources.

The efficient utilization or exploitation of natural resources depends on the skills and abilities of human resource, technology used and availability of funds. A country having skilled and educated workforce with rich natural resources takes the economy on the growth path.

The best examples of such economies are developed countries, such as United States, United Kingdom, Germany, and France. However, there are countries that have few natural resources, but high per capita income, such as Saudi Arabia, therefore, their economic growth is very high. Similarly, Japan has a small geographical area and few natural resources, but achieves high growth rate due to its efficient human resource and advanced technology.

(c) Capital Formation:

Involves land, building, machinery, power, transportation, and medium of communication. Producing and acquiring all these manmade products is termed as capital formation. Capital formation increases the availability of capital per worker, which further increases capital/labor ratio. Consequently, the productivity of labor increases, which ultimately results in the increase in output and growth of the economy.

(d) Technological Development:

Refers to one of the important factors that affect the growth of an economy. Technology involves application of scientific methods and production techniques. In other words, technology can be defined as nature and type of technical instruments used by a certain amount of labor.

Technological development helps in increasing productivity with the limited amount of resources. Countries that have worked in the field of technological development grow rapidly as compared to countries that have less focus on technological development. The selection of right technology also plays an role for the growth of an economy. On the contrary, an inappropriate technology- results in high cost of production.

(e) Social and Political Factors:

Play a crucial role in economic growth of a country. Social factors involve customs, traditions, values and beliefs, which contribute to the growth of an economy to a considerable extent.

For example, a society with conventional beliefs and superstitions resists the adoption of modern ways of living. In such a case, achieving becomes difficult. Apart from this, political factors, such as participation of government in formulating and implementing various policies, have a major part in economic growth.

POPULATION: CHARACTERISTICS-CAUSES AND EFFECTS OF POPULATION GROWTH

1. POPULATION IN INDIA-

India is the second most populous country in the world, after China. Overpopulation is among the more serious problems that our country is facing, as it accounts for more than 1.20 billion people of the over 7 billion population of the world. Interestingly, USA, that ranks 3rd in the list of most populated countries of the world, is inhabited by 311.1 million people who comprise just 1/4th of India's population. This gap become even more astonishing when considered that the USA is three times larger than India in size. Some of the Indian states outnumber several countries in population. Uttar Pradesh with a population of 166 million leaves behind the Russian Federation, home to 146.9 million people. Similarly, Orissa's population exceeds that of Canada, and Chhattisgarh's that of Australia.

2. CAUSES OF POPULATION GROWTH IN INDIA

- **Increased Life Expectancy:** While the average annual birth rate in India, which was 42 per thousand in 1951-61, decreased to 24.8 per thousand in 2011, the country has seen its decadal death rate decline to 8.5 in 2001-2011 from 42.6 in 1901-1911. Since the death rate has also gone down sharply, the population has tended to grow very fast in India.
- **Lack of family planning:** If we add the number of miscarriages (6.20 lakh in 2010-11) in the country with an estimated number of births (2.05 crore in 2010-11) in one year, even in this age of family planning, one woman, on an average, is pregnant at any time in the age group of 15-45 years. All this happens because a large number of people in our country are illiterate with no awareness about the various advantages of family planning and the ill-effects of overpopulation on society.
- **Early marriage:** Child marriage is one of the major social problems of our country. Even today, a large number of boys and girls are married at an age when they are not prepared for family responsibilities either socially, emotionally, physically and mentally. Marriage at unripe age also leads to higher mortality rate of infants.
- **Lack of education:** The failure of family planning is directly related to large-scale illiteracy that also contributes to early age of marriage, low status of women, high child-mortality rate etc mentioned above. Uneducated families cannot grasp the issues and problems caused by

the increasing population rate. They are least aware of the various ways to control population, usage of contraceptives and birth control measures.

- **Religious reasons:** The people who are conservative and orthodox are opposed to the use of family planning measures. Women in such families are not allowed to take part in family planning because they are not supposed to go against the wishes of God. There are also women who argue that children are born with God's will and women are destined to give birth to children.
- **Compulsions of poverty:** Poverty is another reason for the increase in population in our country. Many poor parents produce more children not because they do not have the knowledge about contraceptives, but because they require children to assist them in earning their livelihood. It is clear from the fact that there is unending number of child labourers in our country. If poor families stop the children from working, their family income tends to fall way short of meeting their basic needs.
- **Problem of mind-set:** Generally, illiterate and uneducated children inherit their father's behaviour and choose to give birth to as many children as is necessary to increase the income of their family. As a son is supposed to be the bread earner of the family, the poor do not mind producing any number of girl children in their desire to be ultimately blessed by a male child.

3. EFFECTS OF POPULATION GROWTH

- **Burden on natural resources:** Overpopulation leads to over-exploitation of natural resources. Increasing population puts further burden on the earth's capacity to produce food and water and other natural resources. As a result, the underprivileged people have to suffer malnutrition, starvation and unhealthy living conditions Excessive increase in population leads to grave forms of pollution and deforestation.
- **Rise in poverty:** Overpopulation leads to the vicious circle of illiteracy, unemployment and poverty. Lack of education deprives the people of the opportunities to earn their livelihood and fulfil the bare necessities of their lives.
- **Widening the rich-poor gap:** Overpopulation leads to an unequal distribution of wealth and income. Consequently, the gap between the rich and poor is widened further.
- **Migration of Population:** Migration is a natural human trait. When the burden of population in any area becomes imbalanced compared to the available financial resources, people tend to move away from their original location. It is comparable to the phenomenon of

bee hive – when it is completely filled, flies leave it and go elsewhere. Similarly, human beings stop at one place for a time and then feel the urge to move on again. For this reason, human beings generally do not live anywhere permanently except for a few exceptions. The impact of human transformation is especially felt in terms of culture, but economic effects are also important. People who make the change are often young people, while the old and the children follow them. The following are some of the other similar problems generated by overpopulation:

Food and nutrition problems; housing problems; starvation and famine; infectious diseases and epidemics; increasing population pressure on the cities and development of slums; heavy burden on most resources; decrease in agricultural areas; continuous destruction of forests; threat to environment including wildlife; political instability, war, social evils and corruption, etc.

4. MEASURES TO CONTROL POPULATION GROWTH IN INDIA

Preventing the rapid growth of the population is the key to the victory over poverty, illiteracy, unemployment, economic backwardness, etc in the modern world. The increasing population will only swallow the growing development of the nation and the benefit of advanced technology. Therefore, the following measures should be taken to curb the excessive growth in population:

- **Family Planning:** For a good, prosperous nation, it is necessary that its residents are healthy and their numbers are in sync with the country's wealth. For this, modern methods and measures of family planning should be adopted. They should be propagated in a proper manner by the government, NGOs and civil society.
- **Increase in marriage age:** Minimum age of marriage of boys and girls should be increased. The age of marriage in India has been fixed for girls at 18 years and for boys at 21 years. It should be complied with firmly in all the states. For this, we require a strong political will, accompanied by an effective system of governance.
- **Balanced ratio:** It is also necessary to make qualitative improvement in the population. The gap between the children should be at least five years and the number of offspring should not exceed two children per family.

- **Improvement in public health services:** It is necessary to pay attention to public health and cleanliness to increase man's economic capacity. In each state, emphasis should be on pollution-free and clean environment in urban and rural areas.
- **Proper utilisation of land:** To reduce the burden of the growing population, what is required is the scientific and proper planning of the land. To achieve this aim, it is necessary to emphasize on certain parameters:
- **Need for education:** To improve the condition of the farmers, they need to be educated and attached with some cooperatives. With the help of government, co-operatives and other useful institutions, the farmers continue to get the opportunity to learn about loans, proper agriculture methods, education and technology. They, thus, realise that illiteracy is a curse that leads to only deprivation and destruction.
- **Proper industrialisation:** In areas where industrial development has not reached yet, industrialization should be done promptly. Small and cottage industries should be encouraged, because small industries establish a necessary linkage and coordination between agriculture and large-scale industries, along with it between rural and urban income. By reducing the gap, they also develop other means of livelihood. This leads to the development of many subsidiary and new dwellings in the cottage and small scale sector. If small industries increase in the villages, they also absorb the burden of population.
- **Proper government policies:** Means of education, entertainment and employment should be increased. Our government needs to adopt such public policies that not only curb the uncontrolled growth of the number of persons, but also prevent unchecked migration of the population and the growing centralization of the people in urban areas. For the right population mix, adequate resources should be harnessed with provision of enough space and strong infrastructure.
- **Promoting family planning:** Spreading awareness about the contraception measures and birth control techniques is most effective method to keep the population within limit. We need to make people aware about benefits and ways of family planning in order to overcome the problem of overpopulation. It will also help them to understand the need of having one or two children at the most.

Empowering women: Any woman who has many children for parenting and who passes through child deliveries repeatedly spends most of her life as a mother and wife. She is

imprisoned in the four-walls of her house. She cannot play any meaningful role in her community and society until she is able to limit her family to a proper size. Family planning will not only improve family welfare, but also contribute to achieving social prosperity and personal happiness.

- **Raising awareness:** Fast population growth in India hinders the progress and development of the country. Reducing the existing population is not possible but it is possible to check further rise in population of our country which can overcome the problem of population growth, through spreading awareness about overpopulation. Once people know that unemployment, poverty, illiteracy, unhealthy living conditions, depletion of natural resources and environmental problems are all results of overpopulation; they will themselves take initiatives to control the population growth.

Uncontrollable growth of population is certainly a problem that our country needs to overcome. The government, NGOs and the people of the society have to work together to solve the problem of overpopulation in our country. Clearly, human beings need to stop overpopulating the world. The Earth has a limited capacity and we must not tear open its bowels to feed ourselves.

POPULATION GROWTH AND ITS IMPACTS – COMPLETE DETAIL.

Population growth and its impacts on nature and natural resources. The geometric rise in human population levels during the twentieth century is the fundamental cause of the loss of biodiversity.

Nature and natural resources are destroyed as human populations grow. Nature and natural resources are destroyed as human populations grow and require more space for habitation and farming, and more fuel for cooking. Demand for cultivable land, fuel wood/charcoal and other forest products, arising from the needs of the non-agricultural (mostly, urban) population and the export sector.

Population growth is less important a factor here: income growth and the technological factor play a much greater role in this case than in the preceding one. In this context, a national policy of limiting population growth probably has a limited effect. Demand for forest products from non-agricultural sectors (industries, mining etc., including through export channels). The role of population growth as a determinant of growth in demand is even weaker in this case; technological change and policies can carry far greater weight than demographic change. Therefore, population growth policies probably have a negligible impact on this component.....

Population growth is responsible for degradation of nature and natural resources. Population growth has become a major force behind nature degradation in many rural and urban environments. The equality of the environment is constantly losing its status due to increase in population growth in most countries of world. Environmental degradation is a situation where the environment loses its natural equilibrium. Population has been a chief agent of environmental degradation in most cities of the world. He further explain that man main occupations were hunting and gathering of fruits but later as human population increased, man invented new techniques which has constitute great menace to the natural environment. population growth in these communities have lead to increasing environmental problems such as loss of plant and animal species, pollution, air population, soil infertility among others.

Nature and natural resources are destroyed as human populations grow and require more space for habitation and farming, and more fuel for cooking. In many cases the local people lost their traditional power over the groves, and their groves have been opened up to commercial forestry.

All world facing deforestation and environmental degradation as the population grows, and with it the demand for space and resources. Much of the original vegetation in many places has been cleared, and sacred groves remain as refuges for plants and animals. However, even the sacred groves are being encroached upon as demand for space and resources increases. Demand for cultivable land, fuel wood and other forest products, for the needs of a growing agricultural population. In this context, it may often be true that “policies to slow down population growth and enhance alternative employment opportunities are a necessary complement to strategies to attain sustainable agricultural development”. There is some uncertainty; however, as to how much national policies of this kind actually influence the growth of rural populations, especially those living in subsistence agriculture, because those populations typically are those who benefit the least from reproductive health services.

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The geometric rise in human population levels during the twentieth century is the fundamental cause of the loss of biodiversity. It has led to an unceasing search for more arable land for food production and livestock grazing, and for wood for fuel, construction, and energy. Previously undisturbed areas (which may or may not be suitable for the purposes to which they are constrained) are being transformed into agricultural or pasture land, stripped of wood, or mined for resources to support the energy needs of an ever-growing human population. Humans also

tend to settle in areas of high biodiversity, which often have relatively rich soils and other attractions for human activities. This leads to great threats to biodiversity, especially since many of these areas have numerous endemic species.

Effects of Population Growth on our Environment!

One of the factors responsible for environment degradation is population growth or population density. In particular, population density plays the most important role in shaping the socio-economic environment. Its effects are felt on the natural environment also.

1. Generation of Waste:

Due to his destructive activities, man has dumped more and more waste in environment. As the man-made waste is not transformed, it causes degradation and the capacity of environment to absorb more waste is reduced. Further, waste leads to air and water pollution.

2. Threat to Biodiversity:

Due to his destructive activities, man has extracted more and more minerals from the earth. Animals have been hunted and plants have disappeared. There has been loss of biodiversity. These have led to ecological imbalance.

3. Strain on Forests:

Man has established new housing colonies. National highways and hydropower projects have been built and forests have been wiped out. These destructive activities have increased and led to ecological imbalance.

4. Urbanization:

Rapid growth of population has led to urbanization which has adversely affected environment. Due to population pressure, natural resources in the cities are depleted at a fast rate due to population pressure.

Moreover, population does not have proper sanitation facilities and pure drinking water. As a result, the health of the people is adversely affected. No doubt, urbanization reduces pressure on the rural environment, but it brings with it environmental damages through industrial growth, emissions and wastes.

5. Industrialisation:

Underdeveloped countries are following the policy of heavy industrialisation which is causing environmental degradation. The establishment of such industries as fertilizers, iron and steel, chemicals and refineries have led to land, air and water pollution.

6. Land Degradation:

Intensive farming and excessive use of fertilizers and pesticides have led to over-exploitation of land and water resources. These have led to land degradation in the form of soil erosion, water logging and salination.

7. Transport Development:

Environmental degradation is also due to transport development in the different parts of the world. The automobiles release huge quantities of poisonous gases such as carbon monoxide, nitrogen oxides and hydrocarbons. The development of ports and harbours have led to oil spills from ships adversely affecting fisheries, coral reefs, mangroves and landscapes.

8. Climatic Change:

Climatic changes are irregular due to green house gases. The thin skin of air that surrounds the planet is being affected by human activities as never before. Urban people are still being exposed to unaccepted levels of toxic pollutants. Further, forests are still being degraded by acid deposition generated by faraway industries, and greenhouse gases continue to accumulate in the atmosphere.

9. Productivity:

Environmental degradation not only harms health but also reduces economic productivity. Dirty water, inadequate sanitation, air pollution and land degradation cause serious diseases on an enormous scale in developing countries like India.

These, in turn, reduce the productivity levels in the country. To take specific instances, water pollution has led to declining fisheries in rivers, ponds and canals in both urban and rural areas. Water shortages have reduced economic activity in towns, and cities and villages.

Soil and hazardous wastes have polluted ground water resources which cannot be used for agricultural and industrial production.

Soil degradation leading to soil erosion, drought, etc. have led to siltation of reservoirs and blocking of river and canal transport channels. Deforestation has led to soil erosion and consequent loss of sustainable logging potential.

Loss of bio-diversity has resulted in the loss of genetic resources.

Last but not the least, atmospheric changes have given rise to disruption of marine food chain, damages to coastal infrastructure due to sea-rise and regional changes in agriculture productivity due to hurricanes in seas.

Thus, environmental degradation undermines economic productivity of a nation.

10. Technology:

Presently, environmental pollution is caused by old technology which releases gases and pollutants causing chemical and industrial pressure on environment.

Impact of Environment on Population:

Polluted environment also affects adversely the health of people.

Policy Measures:

Agricultural and industrial development along with urbanisation and spread of infrastructure combined with population growth has led to environmental degradation. Environmental degradation harms human health, reduces economic productivity and leads to the loss of amenities. The damaging effects of economic development on environmental degradation can be reduced by a judicious choice of economic and environmental policies and environmental investments.

We discuss some policy measures as under:

1. Control of Population Growth:

The rate of population growth should be curtailed through effective family planning measures. This is essential because the proportion of total population in the labour force will increase further in the years to come as a result of changes in the age structure of the population.

The shifting of labour force from the rural to the secondary sector requires increase in agricultural productivity. Increased agricultural productivity helps in meeting the demand for raw materials of the expanding manufacturing sector. With increased productivity, less workers are required to produce raw materials for industry and food-grains for the population.

It also increases agricultural surplus thereby raising saving and investment for economic development. So concerted efforts are needed to increase agricultural productivity through technological advancement. This will ultimately lead to commercialisation of agriculture and production for exports, thereby earning foreign exchange for further development.

2. Economic Development:

The aim of population control is not only to bring about a decline in fertility rates but also to improve the quality of life of the people. These are possible through rapid economic development. It is not an illusion to believe that a reduction in population growth will

automatically raise living standards. In fact, an effective family planning policy should be integrated with measures to accelerate economic development.

As the Ninth Five Year Plan observes:

“Several of the South Asian countries have been able to achieve economic prosperity and improvement in quality of life in spite of population growth. This has been attributed to the increase in productivity due to development and utilisation of innovative technologies by the young educated population who formed the majority of the growing population.”

In the current phase of demographic transition, developing countries can also achieve economic growth and improvement in quality of life despite population growth through commercialisation of agriculture, diversified industrialisation, urbanisation, and development of infrastructure so as to increase employment opportunities, raise income levels, and saving and investment rates.

These will help the country to achieve economic transition from low economic growth (low per capita income) to high income growth and to high per capita income. This will, in turn, raise the quality of life of the people and the population will be controlled automatically.

3. Improving Health and Nutrition:

The food and nutrition security for the weaker sections in a developing country should not be considered as issues in the Nutrition Science but should be considered as part of right to work, right to health, right to education, right to information and right of the poor. In such a country, there are agricultural, health, population, nutrition, children and education policies.

On the other hand, there are fiscal and budget revisions, exports, imports, taxation, price wage, employment policies and policy related to subsidies. Ultimately, all these policies affect life of the poor, their food and nutritionist security and health. As a leading nutritionist C. Gopalan notes: “Various types of food are needed for maximum nutrition and if they are all taken together and in proper proportions (systematic balanced diet), they can provide necessary nutrients.

Guarantee of good nutrition and absence of hunger are not the same thing. Our first effort should be towards removing hunger of the poor, but our long-term goal should be to provide maximum nutrition to our people which is useful in bringing out their hereditary talents. Nutrition security is more important than food security. Nutrition security includes making our food base wider and varietal. ”

Improving health and nutrition levels is an extremely important factor contributing to the social development of a developing country. Especially the people of the weaker sections of the society who do not take adequate advantage of health, family welfare and nutrition services, should be made aware of these facilities so that their health and nutrition status can be improved.

4. Reducing Poverty:

Such development projects should be started which provide greater employment opportunities to the poor. The government should expand health and family planning services and education so as to reach the poor that will help reduce population growth. Further, making investments in providing civic amenities like the supply of drinking water, sanitation facilities, alternate habitats in place of slums, etc. will not only improve welfare but also environment.

5. Removing Subsidies:

To reduce environmental degradation at no financial cost to the government, subsidies for resource use by the private and public sectors should be removed. Subsidies on the use of electricity, fertilisers, pesticides, diesel, petrol, gas, irrigation water, etc. lead to their wasteful use and environmental problems.

Subsidies to capital intensive and highly polluting private and public industries lead to environmental degradation. Removing or reducing subsidies will bring both economic and environmental benefits to the country.

6. Clarifying and Extending Property Rights:

Lack of property rights over excessive use of resources leads to degradation of environment. This leads to overgrazing of common or public lands, deforestation, and overexploitation of minerals, fish, etc. Clarifying and assigning ownership titles and tenurial rights to private owners will solve environmental problems. Places where the use of common lands, forests, irrigation systems, fisheries, etc. are regulated and rules for their proper use are laid down by the community, the ownership rights should be clearly specified in the administrative records.

7. Market Based Approaches:

Besides regulator measures, there is urgent need for adopting market based approaches for the protection of environment. They aim at pointing to consumers and industries about the cost of using natural resources on environment. These costs are reflected in the prices paid for goods and services so that industries and ultimately the consumers are guided by them to reduce air and water pollution.

The Market Based Instruments (MBIs) are in the form of environmental taxes that include pollution charges (emission tax/pollution taxes), marketable permits, depositor fund system, input taxes/product charges, differential tax rates and user administrative charges and subsidies for pollution abatement equipment for air and water resources.

8. Regulatory Policies:

Regulatory policies also help in reducing environmental degradation. Regulators have to make decisions regarding prices, quantity and technology. In making decisions, they have to choose between the quantity or the price of pollution or resource use of technologies.

The regulating authority has also to decide whether policies should target the environmental problem directly or indirectly. It lays down technical standards and regulations and charges on

air, water and land pollutants. Regulators should be impartial in applying environmental standards to both public and private sector polluters or resources users.

9. Economic Incentives:

Like regulatory policies, economic incentives relate to price, quantity and technology. Incentives are usually in the form of variable fees to resource users for the quantity of pollutants in air, water and land use. They are given rebates if less waste or pollution is generated than the emission standards laid down.

10. Public Participation:

Public awareness and participation are highly effective to improve environmental conditions. Conducting of formal and informal education programmes relating to environment management and environmental awareness programmes can go a long way in controlling environmental degradation and keeping the environment clean. For instance, the scheme of eco-labelling of products helps consumers to identify products that are environment friendly.

Public participation can also render costless and useful assistance in Afforestation, conservation of wildlife, management of parks, improvement of sanitation and drainage systems and flood control. Use of indigenous institutions, local voluntary organisations and NGOs can render much help in educating the masses about the harmful effects of environmental degradation and the benefits of keeping the environment clean.