General Knowledge Today

Economic Growth, Development & Inequality

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Model Questions

Prelims MCQ Topics
Difference between Economic Growth and Economic Development, Composition of Human Development Index, Gender Inequality Index, Multidimensional Poverty Index, Capital Formation, Supply of Capital, Gini coefficient, Special Category States.

1. "Economic growth means more output … Development goes beyond this …". In the light of your answer, comment on the performance of the Indian economy since Independence.
2. Distinguish between 'economic development' and 'economic growth'. What are the factors which determine economic development?
3. Define economic development. Do you agree with the view that India has experienced growth but no economic development? Give reasons for your answer.
4. Do you agree with the view that growth is a necessary but not sufficient condition for development? Substantiate your answer
5. What is Sustainable Development? Explain the features and strategies of sustainable development.

6. "Growth and Development are inseparable elements of each other. One can't exist without the other." Explain.
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15. How is human capital different from human development? How can the process of human capital formation be accelerated?
16. What factors contribute to the process of human capital formation? Explain the significance and success of educational programmes in India in the context of human capital formation.
17. Investment in health and education are the principal sources of human capital formation. Critically evaluate.
18. Discuss the reasons and extent of regional disparity in India. What role has been played by Finance commission to fill the gulf of regional disparity?

Economic Growth versus Development

Economic Growth and Economic Development are central to developed as well as developing economies. Classical thinkers such as Adam Smith, Karl Marx examined the problem of economic development as early as 18th century. However, the study of economic growth and development as a specialized study started during the period of Great depression of 1929-33 and World War-II.

Classical economists used the terms economic growth and economic development as synonyms of each other. However, modern economists such as J.A. Schumpeter, Ursula Hicks and Kindleberger have focused on growth and development as two different concepts. They argued that growth need not necessarily imply the occurrence of development.

Economic Growth

Economic growth refers the long term increase in real national output or real national income. Any increase in national income can offset with rapid growth of population if we don't take per capita income as a measure of economic growth. Further, despite of increase in per capita income, the number of poor people may rise if the distribution of income remains unequal. Thus, Economic growth is a *single dimensional quantitative concept* which is concerned only with the rate of increase in national income. It ignores distribution of income and it ignores qualitative aspects of human life.

Economic Development

Economic development is broader in nature. It not only includes the quantitative change but also includes certain qualitative changes in the economy. Economic development means not just increase in the real per capita income but also reduction in economic-divide, poverty, illiteracy and unemployment. Thus, economic development includes both economic growth as well as social welfare. Economic development should focus on inclusive growth – growth that includes all sectors of the economy and all sections of the society.

The following table outlines the basic differences between Economic Growth and Development:

Economic Growth	Economic Development
Single dimension Concept: Economic growth is merely a quantitative concept. It is concerned with rate of increase in national income.	Double / Multi dimension Concept: Concept of economic development is both quantitative and qualitative in nature. It is concerned with welfare of people (a qualitative aspect) along with increase in per capita income (a quantitative concept).

Economic Growth	Economic Development
Ignores Distribution of Income: Distribution of income is ignored in case of economic growth. In spite of increase in income, number of poor people may rise if the distribution of income becomes further unequal.	Considers Distribution of Income: In case of economic development, distribution of income is given due consideration. Reduction in inequality (of income distribution) is one of the principal targets of economic development. In equality of income and wealth must be reduced.
Independent of Structural, Institutional and Technical Changes: Economic growth may occur independent of any structural, institutional and technical changes in the economy.	Associated with socio-technological Change: Economic development is invariably associated with significant structural, institutional and technical changes in the economy.

Measurement of Economic Growth

Economic growth is the rate of change at which an economy is growing year after year or the percentage change in the Gross Domestic Product (GDP) of a country year after year. The economic growth can be actual growth or potential growth. Actual growth is the growth actually achieved, while potential growth is the expected achievable growth when all resources in the economy are fully utilized at their normal level of utilization. Potential growth is also sometimes called as targeted growth.

Measurement of Economic Development

Economic development is a normative concept which takes into account both qualitative and quantitative aspects. Economic development is an increase in overall living standards and quality of life of the people, On this basis, there are several parameters for measurement of the economic development as discussed below:

Rise in Real National Income

Real national income at constant prices is conventionally a comprehensive measure of economic growth as well as development of an economy. It is estimated by dividing national income at current prices (also called monetary income) by the index of price level (showing the percentage change in price level over time). Generally, the increased real national income means higher economic development. However growing population, environmental degradation may affect the economic development.

Increase in Real Per Capita Income

Real per capita income is often considered as a better indicator of economic development than the real national income. *This is because per capita income accounts for a change in population size*. Per capita income is estimated as the ratio between national income and population of a country.

Economic Welfare

Economic development of a country can be viewed better in terms of economic welfare of the people. Economic welfare means lower levels of poverty and inequalities, better health conditions, high literacy levels and better standard of life.

Structural, Institutional and Technical Changes

Development process must bring about structural, institutional and technical changes which stimulate the process of growth and social justice. Structural change means change in the structure of production and employment in the economy. For example, *a shift from primary sector to the secondary and tertiary sector is an important structural change*. Further, a change from labour intensive technology to capital intensive technology is a technological change. A shift in the ownership of natural resources is an important institutional change associated with the process of development.

Sustained Change

Development is a long term phenomenon of economic prosperity and social equality.

Differences between Economic Growth and Economic Development

Differences between Economic Growth and Development can be summarized in the below points:

- Economic growth is a narrow concept (It studies only increase in real per capita income) while economic development is a broad concept (it studies increase in real per capita income as well as economic welfare).
- Economic growth is only a quantitative concept whereas economic development is both a quantitative as well as a qualitative concept.
- Economic growth ignores distribution of income. Economic development studies distribution of income.
- Economic growth is the essential element of progress of developed countries. Economic development is the essential element of the progress of under developed countries.
- Economic development accounts for structural, institutional and technical change in the economy while economic growth does not.

India Economy and the Growth Development Paradox

Economic growth is possible without development and like many others, Indian economy also presents a growth development paradox. Since 1992, the average growth rate of India has been above 6% and it has attracted global attention as a resilient economy that was able to keep itself tamperproof against the effects of the subprime crisis and the global financial slowdowns. Due to this, India is seen as emerging economic powerhouse in the South Asia region. However, India is also home to a large concentration of people living in debilitating poverty and social deprivation. This is because the pace of poverty reduction and human development has not kept pace with the economic growth. The key reasons for this paradox are inequitable distribution of land and income, lack of adequate funding on social development, adverse impacts of liberalization on poor, lack of political will, lack of economic agenda towards etc. and to a great extent the trade regime led by WTO. These all have resulted in increasing gap between macroeconomic development and social development and lack of inclusive growth overall in the Indian economy. Thus, despite of more than two decades of economic growth, India has yet to achieve economic development.

Human Development Index

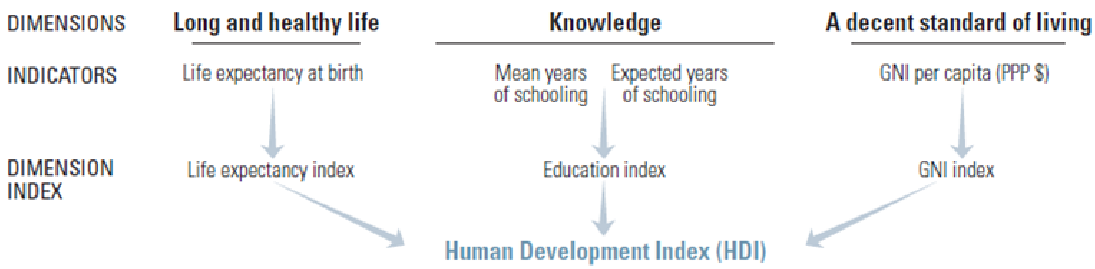
The logic behind development of Human Development Index (HDI) was to do away with the inherent weakness of use of GDP as measure of development. HDI is a part of the Human Development Report, which is an editorially independent annual publication of UNDP. The report was first launched in 1990 by the Pakistani Economist Mahbub ul Haq and Indian Nobel laureate Amartya Sen. Its goal was *to place people at the centre of the development process in terms of economic debate, policy and advocacy*. *"People are the real wealth of a nation,"* was the opening line of the first report in 1990. This report ranks the countries on the basis of the Human Development Index.

About Human Development Index

Human Development Index (HDI) is a summary measure of human development. It measures the average achievements in a country in three basic dimensions of human development:

- A long and healthy life
- Access to knowledge
- A decent standard of living.

The HDI is the geometric mean of normalized indices measuring achievements in each dimension, viz. Life Expectancy Index, Education Index, GNI Index. They are shown in the following graphics:



There are two steps to calculating the HDI.

- Step 1. Creating the dimension indices
- Step 2. Aggregating the sub-indices to produce the Human Development Index

In the first step, the Minimum and maximum values (goalposts) are set in order to transform the indicators into indices between 0 and 1. The minimum value for life expectancy is 20 years while maximum value is 85 years. It is based on the premise that in 20th century, no country had a minimum life expectancy below 20 years. Similarly, in education, minimum value is 0, while maximum value is 18 years of schooling with 15 mean years of schooling. GNI is 100 dollars at minimum while 75000 at maximum. Maximum value of GNI at 75000 dollars per year is based upon a study by Kahneman and Deaton (2010) that there is a virtually no gain in human development and well-being from annual income beyond $75,000.

Dimension	Indicator	Minimum	Maximum
Health	Life expectancy (years)	20	85
Education	Expected years of schooling	0	18
	Mean years of schooling	0	15
Standard of living	Gross national income per capita (PPP 2011 $)	100	75,000

Having defined the above values, the sub-indices are calculated as follows:

$$\text{Dimension Index} = \frac{\text{actual value} - \text{minimum value}}{\text{maximum value} - \text{minimum value}}$$

After that, the HDI is calculated as geometric mean of the three dimension indices. The following example, sourced from the HDR-2014 shows calculation of the same for Costa Rica:

Indicator	Value
Life expectancy at birth (years)	79.93
Mean years of schooling	8.37
Expected years of schooling	13.50
Gross national income per capita (PPP 2011 $)	13,011.7

Note: Values are rounded.

$$\text{Health index} = \frac{79.93 - 20}{85 - 20} = 0.922$$

$$\text{Mean years of schooling index} = \frac{8.37 - 0}{15 - 0} = 0.558$$

$$\text{Expected years of schooling index} = \frac{13.50}{18} = 0.750$$

$$\text{Education index} = \frac{0.558 + 0.750}{2} = 0.654$$

$$\text{Income index} = \frac{\ln(13{,}011.7) - \ln(100)}{\ln(75{,}000) - \ln(100)} = 0.735$$

$$\text{Human Development Index} = (0.922 \cdot 0.654 \cdot 0.735)^{1/3} = 0.763$$

Inequality-adjusted HDI (IHDI)

The Inequality-adjusted Human Development Index (IHDI) adjusts the Human Development Index (HDI) for inequality in distribution of each dimension across the population. The IHDI accounts for inequalities in HDI dimensions by "discounting" each dimension's average value according to its level of inequality.

If there is no inequality across people, HDI is equal to IHDI. *However, in case of inequalities, the value of IHDI is always less than HDI.* This implies that the IHDI is the actual level of human development (accounting for this inequality), while the HDI can be viewed as an index of "potential" human development (or the maximum level of HDI) that could be achieved if there was no inequality.

The "loss" in potential human development due to inequality is given by the difference between the HDI and the IHDI and can be expressed as a percentage.

Gender related Development Index (GDI)

The Gender related Development Index (GDI) measures gender inequalities in achievement in three basic dimensions of human development as follows:

- Health, which is measured by female and male life expectancy at birth
- Education, which is measured by female and male expected years of schooling for children and female and male mean years of schooling for adults ages 25 and older
- Command over economic resources, measured by female and male estimated earned income

The index shows the loss in human development due to inequality between female and male achievements in these dimensions. It ranges from 0, which indicates that women and men fare equally, to 1, which indicates that women fare as poorly in comparison to their male counterparts as possible in all measured dimensions.

In order to address shortcomings of the GDI, a new index Gender Inequality Index (GII) was proposed. This index measures three dimensions viz. Reproductive Health, Empowerment, and Labor Market Participation.

Multidimensional Poverty Index (MPI)

The Multidimensional Poverty Index (MPI) identifies multiple deprivations at the individual level in health, education and standard of living. It uses micro data from household surveys, as basis of deprivation of Cooking fuel, Toilet, Water, Electricity, Floor, Assets. Each person in a given household is classified as poor or non-poor depending on the number of deprivations his or her household experiences. These data are then aggregated into the national measure of poverty. The indicator thresholds for households to be considered deprived are as follows:

Education

- School attainment: no household member has completed at least six years of schooling.
- School attendance: a school-age child (up to grade 8) is not attending school.

Health

- Nutrition: a household member (for whom there is nutrition information) is malnourished, as measured by the body mass index for adults (women ages 15–49 in most of the surveys) and by the height-for-age z score calculated using World Health Organization standards for children under age 5.
- Child mortality: a child has died in the household within the five years prior to the survey.

Standard of living

- Electricity: not having access to electricity.
- Drinking water: not having access to clean drinking water or if the source of clean drinking water is located more than 30 minutes away by walking.
- Sanitation: not having access to improved sanitation or if improved, it is shared.
- Cooking fuel: using 'dirty' cooking fuel (dung, wood or charcoal).
- Having a home with a dirt, sand or dung floor.

- Assets: not having at least one asset related to access to information (radio, TV, telephone) and not having at least one asset related to mobility (bike, motorbike, car, truck, animal cart, motorboat) or at least one asset related to livelihood (refrigerator, arable land, livestock).

Computation of the Multi-Dimensional Poverty Index (MDPI) reveals that, despite recent progress in poverty reduction, more than 2.2 billion people are either near or living in multidimensional poverty.

Sustainable Development

Sustainable development is development that *meets the needs of the present without compromising the ability of future generations to meet their own needs.* Thus, it *takes into account both the present and future generations* without over exploitation of natural resources and environmental degradation.

Features of Sustainable Development:

Sustained Rise in Real Per Capita Income

There should be a sustained rise in real per capita income and economic welfare on long term basis.

Rational Use of Natural Resources

Sustainable development simply means that natural resources should be rationally used in a manner such that they are not over exploited.

Preserving the natural resources for future generations

Sustainable development aims at making use of natural resources and environment for raising the existing standard of living in such a way as not to reduce ability of the future generations to meet their own needs.

Strategies for Sustainable Development

Sustainable development depends on optimum utilisation of resources and in a manner such that the pace of economic growth is sustained with inter-generational equity.

- Efficient Technology: Use of production technologies which are input efficient. It means more is produced per unit of input.
- Use of Environment-friendly Sources of Energy: promotion of wind energy, solar energy and other environment friendly sources of energy in place of fossil fuels.
- Promotion of Organic Farming: Adaption of chemical free agriculture.
- Recycling of the Wastes
- Stringent Laws on the Disposal of Chemical Effluents
- Creation of awareness to conserve natural assets for inter-generational equity
- Public Means of Transport: Public means of transport are to be rapid, comfortable and economical.

Measurement of Sustainable Development

The measurement of sustainable development is done in terms of two different aggregates

Green Net National Income

It is the difference between Net National Income and Depreciation of Natural Capital. Net National Income is the market value of the final goods and services produced by the residents of the country during the period of one year. Depreciation of Natural Capital meansloss of value of the capital because of its continuous use. Natural capital refers to the sum total of natural resources including environment.

Green Net National Income = Net National Income – Depletion of Natural Resources – Environmental Degradation.

Sustainable development is to be measured in terms of the rise in Green National Income.

Genuine Savings

The genuine savings are the rate of savings adjusted not only for depreciation of man-made capital but also for loss of value of the natural capital.

Genuine Savings = Gross Savings – Depreciation of Manmade Capital – Depreciation of Natural Capital (Depletion of Natural Resources and Degradation of Environment).

Increase in Genuine Savings implies higher rate of sustainable development and vice versa.

Concept of Underdevelopment

World Development Report categorizes economies on the basis of income in three categories viz. *high income, middle income* and *low income economies.* Usually, high income countries are known as developed / advanced economies while low income countries are known as underdeveloped economies. Developed or advanced economies are also characterised by high standard of living, universal and quality education, better health care facilities and high life expectancy.

However, all high income economies may not be developed economies. Some of the middle and low income economies are developing faster than high income economies.

Further, the *underdeveloped economies showing high potential of growth in terms of their natural, physical and human resources are often referred to as developing economies.* Economists also use the terms, first world, second world and third world for the developed, socialist industrialist countries and underdeveloped economies respectively.

Criterion for Classifying Economies as Developed and Underdeveloped

Economies cannot be classified as developed and underdeveloped economies based on their natural resources, population and sectoral dependency. However, there is a set of common characteristics of underdeveloped economies such as low per capita income, low levels of living, high rate of population growth, illiteracy, technical backwardness, capital deficiency, dependence on backward agriculture, high level of unemployment, unfavourable institutions and so on. It is on the basis of these characteristics that we draw a line of distinction between developed and underdeveloped economies.

Meaning and Definition of Underdevelopment

Underdevelopment is low level of development characterized by low real per capita income, wide-spread poverty, lower level of literacy, low life expectancy and underutilisation of resources etc. The state in underdeveloped economy fails to provide acceptable levels of living to a large fraction of its population, thus resulting into misery and material deprivations. We need to note here that *underdevelopment is a relative concept but it sustains absolute poverty.*

Underdevelopment is a Relative Concept

The concept of underdevelopment is a relative one because it is the comparison of quality of life between the economies that differentiates them in underdeveloped and developed.

Underdevelopment Sustains Absolute Poverty

Although, concept of underdevelopment is a relative concept but it sustains absolute poverty. Absolute poverty refers to the state of poverty wherein the people fail to fulfil even their basic needs in terms of food, clothing and shelter. In fact, they are a class of people who are always striving to survive. Thus, underdevelopment and absolute poverty go together or underdevelopment sustains absolute poverty.

Characteristics of Underdeveloped Economies

It is difficult to find an underdeveloped economy representing all the representative characteristics of underdevelopment. While most of them are poor in nature, they have diverse physical and human resources, socio-political conditions and culture. Some of the common characteristics displayed by most of the underdeveloped countries in the world are as follows:

Low Per Capita Income

Almost all underdeveloped countries of the world show low per capita income in comparison to developed countries of the world.

Slow Growth Rate of Per Capita Income

Low per capita income and slow growth rate of per capita income are characteristics of these countries.

Economic Inequalities

High inequality of income and wealth is another common feature of underdeveloped countries. In these countries, large percentage of national income is shared by a small segment of the society while a large segment of the society gets barely enough to survive. Economic inequality exists even in developed countries but it is not as much as found in underdeveloped countries.

Low Level of Living

Level of living in the underdeveloped countries is low because of low per capita income. Low level of living of the people of underdeveloped countries is also reflected in Human Development Index prepared by the United Nation Development Programme (UNDP). HDI of developed countries is very high whereas for underdeveloped countries it is very low.

Low Rate of Capital Formation

Rate of capital formation is very low in underdeveloped economies due to low income levels and high incidence of poverty.

Backward Techniques of Production

Underdeveloped economies use outdated technology for production. Lack of capital leads to less spending on research and development.

High Growth Rate of Population and Dependency Burden

These countries are characterised by high growth rate of population and high dependency burden.

Low Productivity of Labour

Underdeveloped economies are characterised by low labour productivity due to low level of skill set.

Underutilisation of Natural Resources

Natural resources are underutilised in underdeveloped economies. Their capability to exploit them is very low.

Large Scale Unemployment

Large scale unemployment is another characteristic feature of underdeveloped countries.

Dominance of Agriculture

Large section of people in underdeveloped economies depends on primary sector for employment. But the primary sector is not well-developed in those countries.

High Incidence of Poverty

Low per capita income results in high incidence of poverty in underdeveloped economies.

Infrastructural Backwardness

Economic infrastructure and social infrastructure are almost at their bottom level in underdeveloped countries.

Low Volume of Foreign Trade

Underdeveloped countries export primary products like, agricultural goods, minerals, petroleum oil, etc., and import finished products, especially consumer goods. Terms of trade are grossly unfavourable to underdeveloped countries.

India as a Developing Economy

Though the Indian economy is growing, it is still lagging behind in terms of reducing poverty, unemployment, backwardness and hunger and in terms of low technological development. Some other culprits for low development include low per capita income, excessive dependency on primary sector and high pressure on natural resources.

The key reasons for low development in India include exploitation during colonial era, pressure of population, infrastructure bottlenecks, brain-drain, corruption in public offices, low farm productivity, unfriendly business environment, inefficiency of public sector, high ratio of non-development expenditure etc.

Determinants of Development

The process of development depends on a host of factors like natural resources, physical and human capital, technology, socio-politico-economic structure of the country. Determinants of development are broadly classified into economic factors and non-economic factors.

Economic Factors as determinants of Development

Economic factors as determinants of development include natural and human resources. Natural resources (those which are available as a free gift of nature) include land, water, minerals, fossil-fuel, forest products, wind and solar energy, etc. Natural resources can be broadly divided into three categories viz. Bioclimatic resources (land, water, forests and climatic environment), Fossil Fuel and non-fuel mineral resources. The countries, which are rich in natural resources have more scope for high economic growth. Many of the western countries development is due to their abundant availability of natural resources. But there are a lots of exception to this. For example, many countries in Africa are rich in natural resources, but poor in development.

Human resources are also equally important. Few countries such as Japan are poor in natural resources but their human resources have turned those countries into epitome of success.

Human resources are a prerequisite for development of a country. A country devoid of human resources cannot progress even if it is abundant with natural resources. Human resource can be divided into two categories viz. Physical labour and Human skill. Physical labour is the labour supply and skill is the knowledge embodied in humans. Human skill is formed when investment is made into education, health, training etc.

Non-economic Factors

Non-economic factors refer to socio-political factors or even religious factors. Political environment directly influences the economic development. Stable political administration generates faith of the people in the programmes and policies of the government. Accordingly, people venture to make investment in diverse areas of economic activity. Social institutions like caste system, joint family system and laws of inheritance play an important role in economic development. A corruption-free system is certainly more conducive to the process of growth and development, than the one where corruption is present.

Physical Capital Formation and Economic Development

Development of a nation without the availability of adequate capital either in the form of physical capital or in the form of human capital is not possible. The higher the rate of capital formation (physical as well as human), the faster is the pace of economic growth. On the other hand, deficiency of capital has been the primary cause of underdevelopment in the third world economies.

Capital, Saving, Investment and Capital Formation

Capital refers to the stock of all the produced means of production that an economy possesses at a point of time. Capital includes only those means of production which are produced by man. For example – Plant and machinery, tools and instruments. The capital formation means addition to the existing stock of capital. Capital formation may be defined as the process of adding to the stock of capital per year.

The part of income which is not spent on consumption is called saving. If our savings are spent on capital goods, such as, machines, instruments, factories, or on increasing the stock of raw material or finished goods, this expenditure is called *investment.* Investment results in the production of capital goods or in the increase in capital stock. The increase in capital stock is called capital formation. Physical capital formation means stock of physical capital. There are two aspects of capital formation viz. Gross Capital Formation (GCF) and Net Capital Formation (NCF).

- **Gross Capital Formation:** It means gross investment. It includes both replacement investment and net investment.
- **Net Capital Formation:** It means increase in net investment only. Net investment is estimated by deducting depreciation from gross investment.

Process and Sources of Capital Formation

Process of capital formation refers to the way addition of capital stock is done. It involves saving and mobilisation of savings, and conversion of savings into capital goods through investment.

Saving and Mobilisation of Saving (Supply of Capital)

Saving is the surplus of income after consumption. The savings are used for further generation of income through investment. Investment is an instrument of capital formation. Thus, higher the rate of saving, higher the rate of capital formation. *Idle savings do not form part of capital formation.*

Financial institutions play an important role in converting saving into investment. Supply of capital not only depends on the rate of saving but also depends on how savings are mobilised through various channels. There are broadly two sources of savings viz. Internal Sources and External Sources.

Internal sources include household savings, public savings and corporate savings. External sources include foreign investment, trade surplus, foreign borrowing, etc. Domestic savings can be either voluntary saving by people or forced saving by government through taxes and inflation. An external source of saving comes in the form of foreign loan and grants, private foreign investment (FDI and FII) and international terms of trade.

Investment or Demand for Capital

Mobilised savings by the banking and other financial institutions need to be invested for capital formation. Higher investment implies higher capital formation. However, there should be demand for capital from entrepreneurs or from government. Government can use the investment to develop public infrastructure.

Role and Significance of Capital Formation in Economic Development:

Capital Formation ensures a Sustained Rise in Output

Higher capital formation ensures a continuous rise in economic growth. Higher economic growth means rise in the output of the country.

Capital Formation generates Employment

Generation of employment opportunities is a prerequisite for growth and development. Increase in capital formation generates more employment opportunities to produce more output.

Capital Formation facilitates Technical Progress

Capital formation creates an environment for technical progress with more spending on research and development.

Physical Capital Formation prompts Human Capital Formation

Human capital formation is possible only through physical capital formation. The expenditure incurred on health, education and social welfare, is the expenditure for the formation of human capital.

Capital Formation and Infrastructural Development

Capital formation provides the required capital for development of infrastructure.

Capital Formation and Self-reliance

Higher capital formation through domestic savings can create a self-reliance condition.

Capital Formation Facilitates Exploitation of Natural Resources

Capital formation facilitates exploitation of natural resources in the development process.

Factors responsible for lower capital formation

Low Per Capita Income

Low per capita income in less developed countries results in lower savingwhich is the primary source of capital formation.

Large Size of Population

Large size population is an impediment for capital formation. Because of large size population there is increase in consumption expenditure. Higher consumption expenditure means lower saving.

Inflation
Higher inflation means less surplus of income for further investment, implying a low rate of capital formation.

Demonstration Effect
Consumption expenditure tends to be high and the rate of capital formation tends to be low due to Demonstration Effect in the less developed countries. The low-income group people imitate high-income group's way of life and start spending much of their income on expensive consumer durables. It causes lower rate of capital formation.

Lack of Investment-friendly Environment
Lack of investment-friendly environment suppress the investment.

Complex Tax-structure
Complex tax-structure in less developed economies lowers the capital formation.

Limited Extent of Market
Demand in small size market is low. Lower the demand, lower investment for capital formation.

Measures to Promote Capital Formation in Underdeveloped Countries

Increase in Voluntary savings
Increase in rate of voluntary savings is a prime requirement in less developed countries. Increase in interest rate can encourage more voluntary savings.

Expansion of Banking Institutions
Banking facilities expansion in rural areas can increase the savings in rural areas.

Forced Saving through Taxation
Government can increase the capital formation by imposing direct and indirect tax on economic activities.

Encouraging private Enterprises
Generally, private enterprises are efficiently run when compared to public enterprises. Encouraging private enterprises can increase the capital formation.

Reduction in Non-developmental expenditure
The government should reduce non-developmental expenditure related to administration and defence. Their reduction will result in more savings to be invested in the Public sector.

Price Stability
Price stability is conducive to both the supply of capital as well as demand for capital.

Liberal government Policies
Liberal fiscal and credit of the government encourages saving and investment for capital formation.

Surplus through International Trade
International trade can encourage the flow of capital to the less developed countries.

Concept of Human Capital
Human capital refers to stock of 'skill and expertise' embodied in humans. Human capital is as

important as physical capital for economic development. Human capital formation is the process of adding to stock of human capital over time. Human capital can be developed through creation of skilled, trained and efficient labour force by providing better education, health care facilities, etc. Highly skilled people can create new ideas and methods of production. Thus, expenditure on education, on health and on on-job-training are key instruments of human capital formation. Expenditure on education is one of the most important way of enhancing and enlarging a productive workforce in the country. Expenditure on health can create more efficient and more productive human capital. Further, on-the-job-training helps workers to update skills. Training enhances the productivity and is expected to accelerate the process of human capital formation.

Role of human capital formation in economic Development

The human capital formation plays crucial role in the economic development. Firstly, formation of human capital would tend to change the traditional society to modern society, which has higher scope for economic development. Secondly, human capital increases the productivity of the physical capital (for example, they can handle the tools and machines in better way). Enhanced productivity would accelerate the growth. Thirdly, higher standard of life is possible only via development of human capital. Fourthly, human capital formation facilitates the use and growth of innovation. Innovation is the principal determinant of growth. Fifthly, human capital formation increases the rate of participation. Higher the rate of participation, greater is the degree of economic equality in the society. *Finally*, investment in human capital yields larger returns and the returns on this type of investment far outweigh its input costs. For example, training of the workers increases their productivity which ultimately leads to overall increase in production.

Various Problems in formation of human capital in India

There are several problems of formation of human capital in India. Firstly, rapid growth of population adversely affects the quality of human capital. It reduces per head availability of the natural resources. Secondly, migration of skilled persons to developed countries is a serious brain drain threat to the process of human capital formation in the country. Thirdly, there is insufficient manpower planning by raising the standard of education at different stages. There is a need to maintain a balance between the demand and supply of technical labour force. Last but not the least, the insufficient supply of qualified and trained technologists is a pointer to a serious neglect of human capital formation in India. On-the-job training should be provided to working population to create a productive human capital formation.

How to Raise the Rate of human capital Formation in India?

- Check the high rate of population growth.
- Proper Manpower Planning: A proper manpower planning is a critical requirement to

combat the problem of human resource wastage. The planning needs to focus on both the quantitative and qualitative aspects of human capital.

- Proper educational planning: An effective educational planning that promotes human capital formation must be developed.
- It should provide for adequate health services and nutritive food to the existing population of the country.

Basics of Inclusive Growth

Definition and Meaning

Inclusive growth has been defined differently by different organizations and scholars. The dictionary meaning of the term "inclusive" is "comprehensive", "including all extremes" and "not excluding any section of the society".

UNDP has defined inclusive growth as "*the process and the outcome where all groups of people have participated in growth and have benefited equitably from it*". This implies that inclusive growth should include all sections as beneficiaries as well as partners in growth and that inclusion of the excluded should be embodied in the growth process.

Basely *et el* (2007) defined inclusive growth as the "*growth that has a high elasticity of poverty reduction*", i.e. it should have a higher reduction in poverty per unit of growth.

In summary, Inclusive growth is the growth that reduces disparities among per capita incomes in agriculture and non-agriculture, in rural and urban areas, and in different socio-economic groups, particularly between men and women and among different ethnic groups. The result of inclusive growth is reduction in vertical inequalities (individual inequalities) and horizontal inequalities (group inequalities).

Salient Features of Inclusive Growth

The growth is inclusive growth when it is socially inclusive, regionally balanced, which enables every state to do better than in the past, which narrows the gap between different communities, which also brings in our concern for gender equality, upliftment of women, improving their educational condition and social status. The key features of Inclusive growth are as follows:

- *Economic growth is a precondition for inclusive growth*, though the nature and composition of growth has to be conducive to inclusion.
- Inclusive growth is to include the poor and lagging socio-economic groups such as ethnic groups, weaker sections as well as lagging regions as partners and beneficiaries of economic growth.
- The Inclusive growth *addresses the constraints of the excluded and the marginalised*. It has to open

up opportunities for them to be partners in growth.

- Inclusive growth should be non-discriminatory and favourable for the excluded. This implies that inclusive growth has to be broad-based in terms of coverage of regions, and labour-intensive in terms of creating large-scale productive employment opportunities in the economy.
- Inclusive growth is expected to ***reduce poverty faster*** in the sense that it has to have a *higher elasticity of poverty reduction*.
- Inclusive growth has to ensure access of people to basic infrastructure and basic services/capabilities such as basic health and education. This access should include not only the quantity, but also quality of these basic services.
- Inclusive growth *should reduce vertical as well as horizontal inequalities* in incomes and assets.

Theoretical Aspects in Inclusiveness Growth

Inclusive growth is a Multi-dimensional Concept

Inclusive growth is understood as a multi-dimensional concept that facilitates inclusion from a variety of fronts that include:

- Increase of employment;
- Elimination of poverty;
- Elimination of discrimination
- Elimination of horizontal and vertical inequalities
- Promotion of access to a variety of public resources and institutions.

Basic idea is that the fruits of rapid economic growth should be widely shared, particularly by the poor and marginalised segments of society. Even if the rates of economic growth are high, that is, even if the cake is growing rapidly in size, nothing will trickle down to those who are not involved in the growth process either as entrepreneurs or employees, because of lack of appropriate capabilities. This is why the state has to intervene and orchestrate an inclusive growth path.

Inclusive Growth is an Utopia

The concept of inclusive growth is basically a utopian concept. This is because inclusive growth is based on the assumption of equitable allocation of resources and benefits accruing to every section of society, but perfect equality cannot be found anywhere.

However, the practical idea is to keep inequality into tolerable limits. Even bringing inequality within tolerable limits cannot be achieved overnight. Thus, the goal of inclusive growth needs to be a medium-long-term goal, as it takes time to include the excluded. However, the processes of such growth should start in the short run, as the medium-term goals have implications for short-term processes and activities.

Inclusive growth should be reflected in better opportunities for both wage employment and livelihood and in improved provision of basic amenities such as water, electricity, roads, sanitation and housing.

Inclusive Growth is beyond reducing poverty

There are several aspects of inclusive growth, the key aspects being adequate flow of benefits to the poor and the most marginalised. However, inclusive growth also involves group equality, regional balance, gender balance and social / economic empowerment. The poor are certainly one group, but inclusiveness must also embrace the concern of other groups such as the Scheduled Castes (SCs), Scheduled Tribes (STs), Other Backward Classes (OBCs), Minorities, differently-abled and other marginalised groups. Women can also be viewed as a disadvantaged group for this purpose. Further, regional balance aspect of inclusiveness relates to whether all regions, are seen to benefit from the growth process. An important constraint on the growth of backward regions in India is the poor state of infrastructure, especially road connectivity, schools and health facilities and the variability of electricity, all of which combine to hold back development. Improvement in infrastructure must therefore be an important component of any regionally inclusive development strategy.

Economic Inequality

Economic inequality is a hindrance to the process of growth and development in India. Even though there is an economic growth in India, it is not able to reduce the growing inequalities of the Indian society. Our development strategies failed to reduce the extent of regional and sectoral inequalities. Domestic and foreign investments are not directed to backward regions of the country. Already developed states are found to be preferred destination of investment.

Meaning of Economic Inequality

In India four forms of inequalities are found.

1. Inequality of income,
2. Inequality of consumption expenditure,
3. Inequality of asset holding, and
4. Regional inequality.

Inequality of the distribution of wealth and income refers to a situation in which small section of society share large part of nation income whereas large sections of society are devoid of income. There is an unequal distribution of income.

Inequality in consumption expenditure refers to a situation in which a large percentage of total consumption expenditure is incurred by a small percentage of population. Inequality of consumption expenditure shows that a large percentage of bottom population has to struggle to survive, whereas a small percentage of top population enjoys a lavish lifestyle.

Regional inequality refers to inequality of growth process across various states in the country and different regions with in a single state. Some states or regions are far more prosperous than the others.

Nature and Extent of Economic Inequality in India

In India inequality of income is calculated based on the data on consumption distribution (provided by NSSO) and income tax data. To examine the distribution of income in India, a Committee was appointed by the Government under the chairmanship of Prof. P.C. Mahalanobis. The committee submitted the report in 1964. Besides this Committee, National Council of Applied Economic Research (NCAER), Reserve Bank of India, World Bank and many economists have undertaken important research studies relating to distribution of income. However, these studies relate to different periods of time, and are based on different methodologies. The results of these studies are not strictly comparable. Higher Lorenz ratio or Gini-coefficient points to a greater degree of inequality. Gini index in India was 33.4 in 2011-12 which points to an alarming magnitude of inequality in India.

Rural and Urban Breakup

In India there are inequalities of income are found in rural and urban areas as well. Per capita income in rural areas is less than the per capita income in urban areas. However the inequality levels in rural areas are less than the inequality at urban areas.

Causes of Inequality of Income and Wealth in India

Causes of Inequality of Income in India:

- Inequality in the ownership of assets,
- Laws of inheritance,
- Cost of professional training,
- Inflation,
- Unemployment,
- Tax evasion,
- Corruption and smuggling,
- Greater Burden of indirect taxation or regressive tax structure.

Government Policy to Reduce Inequalities of Income and Wealth

Ever since independence, Government has been focussed on reduction of inequalities of income and wealth in the country.

Land Reforms
Land reforms have been introduced to remove inequality in the ownership of land. Land in excess of the ceiling limit has been distributed among the tenant farmers, and among the small and marginal holders.

Expansion of Public Sector
Government pursued a policy of assigning a 'flagship-role' to the Public Sector. Many commercial banks were nationalised in 1966-68. However, since 1991, there has been reversal of the government policy. Privatisation has become the centrestage of growth-strategy. This is because public sector has only yielded inefficiency and bankruptcy.

Encouraging Small Scale Industry
The Government is providing support to develop small scale industry.

Monopolies and Restrictive Trade Practices Act
Monopolies and Restrictive Trade Practices Act, 1969 was passed to put a check on concentration of economic power.

Poverty Alleviation Programmes
Government should frame poverty alleviation programmes particularly those which provide gainful employment to the economically weaker section of the society.

Pricing Policies
Government should design the pricing and distribution policies to reduce the inequalities present in the society. Government should provide the basic amenities at lower price to the weaker sections of the society.

Measures to Correct Regional Imbalances
Following measures have been taken to remove regional imbalances: (i) Greater share of central pool of funds should be allocated to backward states. (ii) Provision of Grant-in-aid by the Central Government to the backward states. (iii) Launching of Special Area Programmes like Desert Development Programme, Drought Prone Area Programme, etc. (iv) Propagation and use of improved dry farming technology. (v) Provision of infrastructural facilities in backward districts. (vi) Development of forward and backward linkages in those backward regions.

Economic Inequalities and Five Year Plans
Economic growth with social justice has been one of the most important objectives of five year plans in India. Growth must be inclusive of all segments of the society rather than exclusive of larger sections of the society. Keeping in mind the goal of social equality, Planning Commission of India adopted different strategies during different five year plans to achieve this goal. During the initial period of planning (up to third plan), the objective of equitable distribution was not given any centrestage priority. However, in subsequent plans, equality received its due focus. Abolition of

zamindari System, ceiling on landholding, subsidy for use of HYV technology are important measures taken in the five year plans. But the plans are not able to succeed fully as the inequalities are not removed fully.

Gini coefficient

Gini coefficient represents the income distribution of a country's residents. It was developed by the Italian statistician and sociologist Corrado Gini. It measures the inequality. The coefficient ranges from zero to one, with *zero representing perfect equality* and *one showing perfect inequality*. The higher is the Gini Coefficient, more is gap between rich and poor in a country. If the value of Gini Coefficient is 1, it implies that all wealth of that country belongs to one person and everybody else is poor. The 0 value of Gini Coefficient implies that all people have exactly equal wealth. Practically, the Gini Coefficient value falls between 0 and 1 for all the countries.

India's Gini Coefficient

In India, National Sample Survey does not collect data on income, because people deliberately don't tell their income when asked during data collection. The Gini coefficients cited are from NSSO is based on consumption expenditure rather. (This simply implies that inequality in distribution of income will be more than inequality in distribution of consumption expenditure). The only organization that provides income distribution data is National Council of Applied Economic Research (NCAER), through the National Survey of Household Income and Expenditure (NSHIE). Last time, the NSHIE was done in 2004-05. NSHIE showed a Gini coefficient of 0.466 in 2004-05. In recent times, the People Research on India's Consumer Economy (PRICE) survey called ICE (India's Consumer Economy) had come up a Gini coefficient with income distribution data at 0.386. If we take both data correct, we can say that income inequality has declined in last 10 years.

Regional Disparity

'Unity in diversity' is a fundamental characteristic of India. The growth pattern of Indian Economy has reflected in various dimensions of social, economic, political, geographical, religious, cultural and linguistic diversities.

Reasons for Disparity

Natural Resources

- Most important reason for regional disparity is that India's different regions are endowed with different natural and human-based resources. Some states such as West Bengal, Jharkhand, Odisha, Chhattisgarh etc. are endowed with better mineral resources while others such as Punjab and Haryana have better irrigation facilities.

Manmade / Historical Reasons

- The manmade reasons for regional disparity lie in the neglect of some regions and preference of other regions in terms of investments and infrastructure facilities. Apart from uneven distribution of geographical advantages, *historical factors that go back to mughal era and became prominent in British Era*, have also contributed to regional inequities.

Government Polices / Planning/ Economic Liberalization etc.

- To a great extent, the faulty planning process has been responsible for that. The striking regional disparities, inherited from colonial rule of over two centuries, have increased in the post-independence era because of faulty unified and centralized planning, political structure and social traditions.
- However, while income growth performance has diverged, there is a pleasant evidence of some convergence in Human Development indicators across the states.
- The government's development policies adopted during successive plan periods have stressed the need to develop backward regions of the country. In promoting regional balanced development, public sector enterprises were located in backward areas of the country during the early phase of economic planning. However, despite of the pro-backward areas policies and programmes, considerable economic and social inequalities exist among different States of India, as reflected in differences in per capita State Domestic Product.

- However, the income differentials between more developed and relatively poorer states show a widening trend which is a matter of serious concern.
- Inter-state disparities in growth of GSDP have increased post economic reforms period. In general the richer states have grown faster than the poorer states, leaving the backward states struggling even for basic amenities such as universal primary education, primary health care, housing, rural roads, drinking water and electricity. Moreover, the regional disparities in per capita GSDP growth are even greater because the poorer states in general have experienced a faster growth in population.

Disparity in other parameters

Apart from the disparities in GSDP and Incomes, there are wide variations between the states even on other parameters such as health (IMR, MMR, expectancy of life at birth, access to safe drinking water, etc.), education (Adult literacy, Gross enrolment ratio at elementary, intermediate and higher education level) and infrastructure indicators.

Intra-state disparity

Various economic and social indicators confirm the higher level of inter-state disparities in India. Almost the same picture emerges among the different districts and regions within the states. Even in highly developed states such as Maharashtra, Gujarat, Tamil Nadu, Punjab and Haryana, there are districts and regions whose indicators are comparable to those of the poorest districts in most backward states. Maharastra is one of the most developed states in India but maximum numbers of farmers have committed suicides over there. This proves to the hypothesis that the benefits of the economic growth have not percolated downward.

Important Notes

- Rate of divergence has increased since the initiation of economic reforms as the value of gini coefficient has increased, intermittently.
- There are wide variations on account of social and demographic indicators such as poverty ratio, IMR, literacy rate, which plays an important role in the development of standard of living.
- While the GSDPs have been on the rise for all the states since 1991-92, there has been inequality in terms of development expenditure on education, infrastructure, health, urbanization, irrigation etc. The overall effectiveness of public investment and growth prospects of poor states could be improved by higher investment in social and economic infrastructure.
- Many of the states such as West Bengal have seriously deteriorated fiscal health. Some other states have been able to sustain fiscal health in quite satisfactory condition.

- Economic reforms led growth process increased concentration of economic activities in and around the centers already developed. High inequalities in infra-structural facilities, easy availability of skilled labour and raw material along with the investment friendly policies of state governments gave impetus to entrepreneurs to select developed regions for the expansion of their activities.
- The successive Finance Commissions with their recommendations on devolution of tax revenue between Union of India and States have tried to benefit the backward states, sometimes even on biased parameters, yet we have not been able to fill the gap between the states.

Role of Finance Commission in addressing Regional Disparity

The framers of the constitution were aware that our country has an in-built imbalance between the expenditure responsibilities and the revenue sources of the State governments. So, it was ensured that a comprehensive scheme of devolution of Central Tax revenues through the mechanism of Finance Commissions is put in place.

The sharing of Personal Income Tax and Excise duties collected by the Centre with the States is periodically reviewed by the Finance Commission appointed every five years as per mandate of Constitution via Article 280.

The Commission also decides the principles and the formula by which the allocable funds are to be distributed among the States.

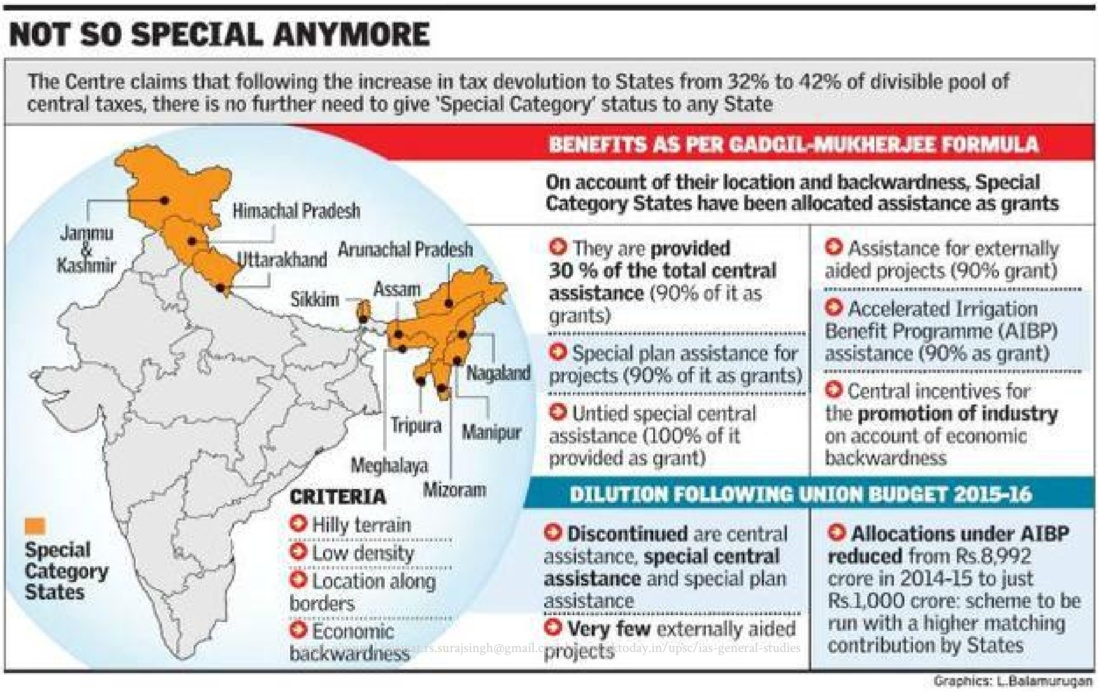
An important aspect of the devolution of Central tax revenues under Finance Commission dispensation is that *it has an in-built bias in favour of fiscally weak States*. Population and per capita income of the State get high weight-age in the distribution formula. A State with larger population and lower per capita income gets a higher share in the Central tax revenues.

The gap between revenue receipts (other than the Central tax revenues) and revenue expenditure is another parameter, which decides the level of a State's share. As a result the Central tax share constitutes a major revenue source for the backward States. While it constitutes about one-third of the total tax revenues of all the States taken together; it accounts for more than 50 per cent of the total tax revenues of less developed States like Bihar and Odisha; but its share is less than 15 per cent of the total tax revenues of more developed States like Gujarat, Haryana, Maharashtra and Punjab.

Special Category States

The Special Category states was introduced in 1969. So far extended to 11 states including seven North East states viz. Arunachal Pradesh, Assam, Manipur, Meghalaya, Mizoram, Nagaland and Tripura and the border states of Himachal Pradesh, Jammu and Kashmir and Sikkim as well as Himalayan state of Uttarakhand.

Special category status enhances the resource capability of the state by altering the mix of Centre-state contribution for centrally-sponsored schemes. It frees state resources, enabling access to external funds, and the associated tax breaks with a sunset clause incentivizes private investments.



Special Category states are **not a constitutional prerogative**. The category has been devised by the Government to pay attention to the many problems apart from the financial viability of these states. Almost all of them have a hilly and difficult terrain and very low level of infrastructural development. Most of them have significant tribal population. Almost all of them are border States with considerable international borders. Most of them are poor and have very own low revenue resources.

- These states are given favored treatment in respect of plan financing and financial devolutions.
- According to the Gadgil formula for devolution of Central assistance for States plan as approved by the National Development Council, 30 per cent of the total funds is earmarked for Special Category States.
- Further, as against the composition of Central assistance of 30 per cent grant and 70 per cent loan for major States (characterized as non-special category States), special category States receive 90 per cent plan assistance as grant and just 10 per cent as loan.
- Similar favored treatment is received by the special category States in the hands of the Finance Commission in respect of devolution of Central tax revenues. High levels of

devolution by the Planning Commission and the Finance Commission compensate for the very fragile own revenue basis of these States.

Backward Region Grants Fund is NOT applicable to only special category states. Backward Regions Grant Fund (BRGF), which began in 2006-07, addresses backwardness on multiple criteria covering 272 districts. This programme is now delinked from central support and states themselves implement it.

General Knowledge Today

Economic Planning Fundamentals

[Integrated IAS General Studies:2016-17](http://www.gktoday.in/upsc/ias-general-studies)

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Mains Model Questions

1. Independent India chose the path of socialism because that was the dominating thought when British left India. Assess Critically.
2. Discuss the efforts towards economic planning in India during the Pre-independence Period.
3. Critically discuss the achievements and failures of economic planning in the pre-liberalization period.
4. What do you understand by evidence based policy making? In your view, how NITI Aayog would provide a good platform for a shift towards evidence-informed policy making?
5. Planning Commission outlived its original objectives and its credibility has rapidly lost. Discuss the various reasons that led to demise of this body.
6. Discuss the aims & objectives of NITI Aayog. To what extent, it is different from the erstwhile Planning Commission?

Types of Economic Planning

Economic Planning refers to any plans of economic activity which point to achieve specific social and economic outcomes. The planning mechanism involves the specific economic or social outcomes. The philosophy of planning is that only markets and price system cannot ensure the welfare of citizens. Apart from this there are economic requirements such as investment in infrastructure, investments in public goods such as transport & other public utility which are enjoyed by the society.

Types of Economic Planning

In today's world, most economies are mixed economies. The planning can be of several types as discussed below:

Indicative Planning

- It puts forward / indicates to some broad principles and guidelines to achieve some goals. Not much specific particulars.

Comprehensive / Imperative Planning

- Refers to centralized planning and implementation with allocation of resources
- Used by socialist countries and each and every aspect of planning is controlled by state.

Structural Planning

- Aims to change the existing structures

Functional Planning

- Aims to achieve the objectives without making much changes to existing structural framework

Centralized Planning

- One central authority formulates plan, targets and priorities for all sectors. Also called Top bottom

Decentralized planning

- Multi-level planning in which more than one institutions work for implementation

Perspective Planning

- Refers to Long term planning 15-20-25 years. Implemented by breaking the plan period into smaller plans such as 5 years

Planning Before Independence

First of all the idea of planned economy was crystallized in 1930s when our national leaders came under the influence of socialist philosophy. India's Five year plans were very much impressed by the rapid strides achieved by the USSR through five years plans.

In 1934, Sir M. Visvesvaraya had published a book titled "*Planned Economy in India*", in which he presented a constructive draft of the development of India in next ten years. His core idea was to lay out a plan to shift labor from agriculture to industries and double up National income in ten years.

This was the first concrete scholarly work towards planning. The economic perspective of India's freedom movement was formulated during the thirties between the 1931 Karachi session of Indian National Congress, 1936 Faizpur session of India National Congress.

National Planning Committee

The first attempt to develop a national plan for India came up in 1938. In that year, Congress President Subhash Chandra Bose had set up a National Planning Committee with Jawaharlal Nehru as its president. However the reports of the committee could not be prepared and only for the first time in 1948 -49 some papers came out.

Bombay Plan

In 1944 Eight Industrialists of Bombay viz. Mr. JRD Tata, GD Birla, Purshottamdas Thakurdas, Lala Shriram, Kasturbhai Lalbhai, AD Shroff , Ardeshir Dalal, & John Mathai working together prepared "*A Brief Memorandum Outlining a Plan of Economic Development for India*". This is known as "Bombay Plan". This plan envisaged doubling the per capita income in 15 years and tripling the national income during this period. Nehru did not officially accept the plan, yet many of the ideas of the plan were inculcated in other plans which came later.

People's Plan

People's plan was drafted by MN Roy. This plan was for ten years period and gave greatest priority to Agriculture. Nationalization of all agriculture and production was the main feature of this plan. This plan was based on Marxist socialism and drafted by M N Roy on behalf of the Indian federation of Lahore.

Gandhian Plan

This plan was drafted by Sriman Nayaran, principal of Wardha Commercial College. It emphasized the economic decentralization with primacy to rural development by developing the cottage industries.

Sarvodaya Plan

Sarvodaya Plan (1950) was drafted by Jaiprakash Narayan. This plan itself was inspired by Gandhian Plan and Sarvodaya Idea of Vinoba Bhave. This plan emphasized on agriculture and small & cottage industries. It also suggested the freedom from foreign technology and stressed upon land reforms and decentralized participatory planning.

Planning and Development Department

In August 1944, The British India government set up "Planning and Development Department" under the charge of Ardeshir Dalal. But this department was abolished in 1946.

Planning Advisory Board

In October 1946, a planning advisory board was set up by Interim Government to review the plans and future projects and make recommendations upon them.

Planning Commission

Immediately after independence in 1947, the Economic Programme Committee (EPC) was formed by All India Congress Committee with Nehru as its chairman. This committee was to make a plan to balance private and public partnership and urban and rural economies. In 1948, this committee recommended forming of a planning commission. In March 1950, in pursuance of declared objectives of the Government to promote a rapid rise in the standard of living of the people by efficient exploitation of the resources of the country, increasing production and offering opportunities to all for employment in the service of the community, the Planning Commission was set up by a Resolution of the Government of India as an advisory and specialized institution. Planning Commission was an extra-constitutional body, charged with the responsibility of making assessment of all resources of the country, augmenting deficient resources, formulating plans for the most effective and balanced utilization of resources and determining priorities. Jawaharlal Nehru was the first Chairman of the Planning Commission.

National Development Council

Government of India could take the initiative to set up the planning commission only by virtue of provision in the constitution which made Economic & Social planning an item in Concurrent list. The Resolution to set up a planning commission was actually based upon the assumption that the roots of Centre- State cooperation should be deeper. Later, in 1952, the setting up of the National Development Council was in fact a consequence of this provision.

Features of Indian Planning

The planning era has ended with planning commission but here are some of the key features of Indian planning for academic purposes.

Five Year Planning

- India's plans are of 5-year period. The five year plans integrated the short term objectives with long term objectives.

Comprehensive Planning

- The focus of the planning was not only on economic parameters but also on social parameters of growth and development. On one side, it focused on acceleration of the pace of growth, on other side, it focussed to minimize vertical and horizontal disparities. The focus of comprehensive planning was to achieve 'inclusive growth'.

A Tilt towards the Public Sector and Regulation of the Market Forces

- Even though India adopted mixed economy, it encouraged more participation of public sector in development process. Private sector was controlled through legislative restrictions like

MRTP Act (to check on growth of monopolies). Public sector involved in provision of food grains and essential goods to people through a comprehensive public distribution system (PDS).

- Since 1990's the strategy was changed. Now the private sector is encouraged more to participate in development process.

Democratic Planning

- At the formulation level as well as at the implementation level of plans, India followed the democratic approach. Planning commission prepares the draft plan and it was approved by the National Development Council(NDC) body, which included stakeholders from state governments. Opinions of various organisations and experts are taken into consideration while formulating the plans. While implementing the plans, bottom-up approach was followed with involvement of democratic bodies at village and district level.

Prospective and Perspective Planning

- Indian planning incorporated both short-term and long-term programmes of growth and development. The integration of both the strategies is required to exploit the potential of growth process.

Central Planning Authority

- Planning Commission was established in 1950 as a central authority to develop the plans and to oversee the implementation.

Economic and Social Spheres of Planning

- In planning objectives along with economic development goals, social development goals are included.

Financial Planning

- Indian planning involves allocation of funds to various sectors and activities, rather than achieving the physical targets of the plan.

Objectives of Planning

In India objectives of planning are mainly classified as long-term objectives and short-term objectives.

Long-term objectives try to solve the socio-economic issues that the country is facing over the years. It includes increase in national income or per-capita income, achieving full employment, social justice and equitable distribution, poverty alleviation, self-sufficiency and modernisation, etc. Achieving all these objectives would be termed as 'Growth with Social Justice'. Short term objectives are plan specific to be achieved within the plan itself. They are often concerned with the allocation of resources to various sectors of the economy according to immediate demand as envisaged by the policy makers.

Long-term Objectives

Economic Growth

- Achievement of economic growth is the main motive of planning. Economic growth can be measured in terms of rate of growth of GDP or GNP. Higher rate of economic growth creates multiplier effect which will further improve the economic growth indicators. Each five year plan sets a target to achieve growth in terms of increase in GDP.

Full Employment

- Rampant unemployment is a serious issue in India. Provision of full employment is a long-term objective of planning in India. For the first time Sixth five year plan accorded the priority status for employment.

Equity and Social Justice

- The fruits of economic growth should benefit large sections of the society. Development of few sections of the society will lead to the inequality in society. Indian planning should aim at reducing such inequalities, so that the benefits of economic development percolate down to the lower strata of the society.

Eradication of Poverty

- Eradication of poverty is one of the long-term objectives of the planning in India. Fifth and Sixth five year plans primarily focussed on eradication of the poverty problem in India.

Modernisation

- Modernisation means updation of technical know-how and adoption of new technologies for betterment of the society. Productivity of the economy can be raised many-fold with the use of innovative and modern technology. Green Revolution and IT revolution are best examples of how technology can transform a country. Modernisation also includes issues like empowerment of women.

Self-sufficiency

- Self-sufficiency means dependence on domestically produced goods, particularly foodgrains. The basic idea was not to expose India's fragile economy to political diktats of rest of the world as it happened in 1965 when U.S.A., threatened to stop exports of foodgrains to India unless the latter stopped the then war with Pakistan.

Short Period Objectives

Short period objective have been varying from plan to plan depending on current needs of the economy.

Planning Strategies

In order to achieve the long-term and short-term objectives set in the each five year, specific strategies are required. It involves allocation resources across different sectors of the economy in tandem with the specified objectives. It involves selection choices like development of agricultural sector or industrial sector, public sector or private sector involvement, closed economy or open economy model. Indian planning strategies can be split into two phases: pre-1991 phase and post – 1991 phase.

Pre 1991 Phase or Pre-reform Phase

During pre – 1991 phase (1951 to 1990), India followed the strategy of planning with greater reliance on the public sector along with a regulated private sector. Following strategies are followed during 1951-91 phase:

Heavy Reliance on Public Sector

- Greater reliance was placed on public sector compared to private sector. As private sector was not able to invest in large amount for development of heavy industries, government turned towards public sector for provision of essential and basic needs for the people. At the same time private sector was not willing to provide the services in backward regions of the country.

Regulated Expansion of Private Sector

- Private sector was restricted to few areas of activities. New legislations were created for the restriction for the restriction of private sector.

Development of Heavy Industries

- Government invested heavily in development of Heavy industry like iron industry.

Protection of Small Scale Industry

- Small scale industry was protected by means of establishment of boards for different small scale industries and reserving few areas of production exclusively for the small scale industry.

Inward Looking Trade Strategy

- Domestic industry was protected from competition in the international market. Heavy import duty was imposed to curb competitive imports, while domestic industries were encouraged to produce domestic substitutes of essential imports.

Thrust on Savings and Investment

- Promotion of savings and investment was the undisputed objective of monetary and fiscal policies of the government. Savings are induced through high rate of interest. Tax concessions were to mobilise savings.

Restriction on Foreign Capital

- Several types of restrictions were imposed on foreign direct investment. To control and regulate it, Foreign Exchange Regulation Act (FERA) was enforced.

Adherence to Centralised Planning

- State level plans were aligned in sync with the over all objectives and strategy of growth as specified in Five Year Plans.

Post 1991 Phase (Post-reform Phase)

Strategy of planning in India witnessed a marked shift in the year 1991. Following are main changes observed under NEP (new economic policy):

- Fiscal policy and monetary policy have been reoriented to facilitate the free play of market forces.
- Foreign capital in the form of FDI (Foreign direct investment) and FII (Foreign Institutional Investment) are encouraged.
- Import restrictions are restricted to the minimum, while export promotion has been accorded a high priority.
- Competition rather than controls have become the fulcrum of growth process.
- Direct participation of the government is significantly tempered and confined only to strategic industries such as atomic energy, minerals and railways.
- Partial convertibility of Indian Rupee.

Recently, the concept of Sustainable development is included as main feature of the strategy of planning in India. Sustainable development refers to the development of present generation by taking into consideration of the future generations.

Following are some notable reasons for change in economic policy:

1. Mounting Fiscal Deficit and revenue deficit: Fiscal deficit and revenue deficit of the country are increased due to the policies followed before the 1990's governments.
2. Balance of Payments (BoP) Crisis: Heavy dependence on imports resulted in a BoP crisis.
3. Gulf Crisis: On account of Iraq war in 1990-91, prices of petrol started increasing. Remittances from gulf countries are also stopped.
4. Fall in Foreign Exchange Reserves: In 1990-91, India's foreign exchange reserves lowered to such a level that these were not enough even to pay for an import bill of 10 days.
5. Rise in Prices: In India prices happened to rise rapidly. Expansion in money supply was the principal cause of inflationary pressures. In turn, this was related to deficit financing. Country has experienced the situation of stagflation.
6. Dismal Performance of Public Sector Undertakings (PSUs):Public sector undertakings were showed dismal performance.

On account of all these factors, the government shifted to New Economic Policy.

Three Principal Components of New Economic Policy

Liberalisation, Privatisation and Globalisation are the three principal components of New Economic

Policy. Liberalisation of the economy means freedom of the economy from restrictions of the Government. Liberalisation was expected to break the deadlock of low investment by exposing the economy to the forces of supply and demand. Privatisation refers to allowing private sector to enter in those areas of production which were previously reserved for the public sector. Also, existing public enterprises are either wholly or partially sold to private sector. It was considered to be the fittest option to stave off problems of public sector enterprises. Globalisation means integrating domestic economy with rest of the world under conditions of free flow of trade and factors of production across borders. Globalisation results in flow of capital and technology from developed countries into the Indian economy.

Summary of the Five Year Plans

Since 1951 India has completed 11 five year plans and 12th five year plan is about to finish in 2017. Each five year plan started from April 1 of a particular and ended on March 31 of a particular year, so by convention the five year plans take on 5 financial years. India's First Five year plan was launched on April 1, 1951. *Three Annual Plans were launched between third five year plan & fourth five year plan .* The fifth five year plan was launched by the Indira Government but was abandoned one year before its scheduled end by the Janta Alliance government. Instead of a regular plan, the Janta Government introduced Rolling plan in 1978. This rolling plan was launched actually as 6th plan from 1978 to 1983, but soon Janta Government was ousted from power and incumbent Indira Government abandoned it and launched her own sixth plan in 1980. The Eighth five year plan started two years than the scheduled time because India's economy was in shambles during 1990-92.

First Five Year Plan 1951-56

The first five year plan was presented in the parliament by Prime Minister Jawaharlal Nehru in December 1951.This plan promoted the idea of *self reliant closed economy* and was developed by Prof. P. C. Mahalanobis. The plan had heavily borrowed ideas from USSR's five year plans developed by Domer. Due to this, the first five year plan is also called *Domer-Mahalanobis Model.*

In this plan, highest priority was given to the Agriculture, Irrigation & Power Projects. Total plan budget of Rs. 2069 Crore was allocated to seven broad areas: irrigation and energy (27.2 percent), agriculture and community development (17.4 percent), transport and communications (24 percent), industry (8.4 percent), social services (16.64 percent), land rehabilitation (4.1 percent), and other (2.5 percent). The plan was success due to favourable monsoons and relatively higher crop yields.

Notable Points

Other key notable points are as follows:

- Many irrigation projects including Bhakra Dam and Hirakund Dam were started in first five year plan.

- At the end of the plan period in 1956, five Indian Institutes of Technology (IITs) were started as major technical institutions.
- University Grant Commission was set up to take care of funding and take measures to strengthen the higher education in the country.

Critical Assessment of First Five Year Plan

At the time of Independence, India faced several problems such as partition and influx of refugees, severe food shortage, mounting inflation and disequilibrium in economy due to second world war. First five year plan ushered India into planned economy with a socialist aim. Its key objective was to achieve self sufficiency in food production, so highest preference was given to agriculture. The total outlay of this plan was Rs. 2069 Crore which was later increased to Rs. 2378 Crore.

But this plan was more or less a haphazard venture because at that time there were no concrete data and reliable statistics. The plan was basically a patchwork of so many projects which were isolated with each other. However, the plan was a great success thanks to the two continuous good harvests and emphasis on agriculture & irrigation. The country was able to achieve the targeted growth and was able to increase national income. However, the per capita income did not increase substantially

because increase in national income was offset by increase in population. Indian Government had collaborated with the WHO to address infant mortality and this also contributed in growth of population.

Second Five Year Plan: 1956-61

The success of the First Five year plan boosted the confidence of the leaders. The agriculture growth target in the first plan was achieved, so government quickly started looking beyond agriculture. The second five-year plan focused on industry, especially heavy industry. The target of 25% Increase in the national income was set through rapid industrialization.

The second five year plan is based on so called Mahalanobis model. This was the USSR model indianized by PC Mahalanobis, the founder of Indian Statistical Institute and a close aide of Nehru. This model is known to have set the statistical foundations for state-directed investments and created the intellectual underpinnings of the license-raj through an elaborate input-output model. This Model suggested that there should be an emphasis on the heavy industries, which can lead the Indian Economy to a long term higher growth path. India's second five year plan and Industrial policy Resolution 1956, which paved the way for development of Public Sector and license raj; were based upon this model.

Notable Points

- Steel mills at Bhilai, Durgapur, and Rourkela were established in second five year plan.

- Enhanced coal production and more railway lines were introduced in this plan.
- Atomic Energy Commission was formed in 1957 with Homi J. Bhabha as the first chairman.
- Tata Institute of Fundamental Research was established as a research institute.
- In 1957 a talent search and scholarship program was begun to find talented young students to train for work in nuclear power.

Achievements

The second five year plan, based on socialistic pattern, had targeted increase of 25% in National Income by Rapid industrialization, however, achieved target was of only 20%. Further, per capita income grew by 8% only. Domestic production of industrial products was encouraged, particularly in the development of the public sector.

Critical Assessment of Second Five Year Plan

The second five year plan was a big leap forward and it laid a heavy emphasis on the heavy industries. During this plan period the Industry policy resolution was amended and the primary responsibility for development was left to the Public Sector. The private sector was more or less confined to the consumer industries only. The small and cottage industries remained sluggish during this plan. The imports increased and lot and this uncovered India's Sterling Balances. The results were seen in the third plan when India was forced to devalue its currency twice.

Third Five Year Plan : 1961-1966

The first two plans developed a institutional structure to take the country on path of developed economy. Third plan for the first time rode on the wave of high expectation following overall growth of the economy of India. In this plan, India made efforts to achieve self reliance in food production and industry. However, the plan period saw a lots of political and economic problems. The Indo-China war 1962 and Indo-Pak War 1965 etc. exposed weakness of the country. These conflicts substantially shifted the focus towards defense production. Country's morale was down due to death of Jawaharlal Nehru in 1964 and Lalbahadur Shastri soon afterwards. Further, the 1965-66 was a near famine year, and the problem became more severe due to lack of buffer stocks.

Critical Assessment of Third Five Year Plan

During the third five year plan, the country was reeling under high budget deficit. In 1966 the third plan struck because of the more and more borrowing from the International Monetary Fund. Foreign aid was cut off and there was an international pressure to devaluate the Rupee. When rupee was devalued in 1966, it had its own impacts on economy. Growth rate was targeted 5%, however achieved only 2.2%. Much of the achievement was null and void because of 36% inflation and devaluation of rupee in 1966.

Due to bitter experience, the demand for a plan holiday were raised from various sectors and the planning commission admitted that this plan was a failure. Accordingly, government declared a plan holiday for next three years and due to this, the fourth plan started in 1969. Government mobilized all available resources for stepping up food production and establishing buffer stocks to meet the contingency. In this way, the economy had so much degenerated that planning was now made annual with three annual plans to take on the short term objectives.

However, there were positive achievements also. The years 1965-66 ushered India into Green Revolution and advanced agriculture. The construction of dams continued. Many cement and fertilizer plants were also built. Punjab began producing an abundance of wheat. Many primary schools were started in rural areas. In an effort to bring democracy to the grassroots level, Panchayat elections were started and the states were given more development responsibilities. State electricity boards and state secondary education boards were formed. States were made responsible for secondary and higher education. State road transportation corporations were formed and local road building became a state responsibility.

Fourth Five Year Plan 1969-74

Fourth Five Year plan was the first plan launched by Indira Gandhi government amid pressure of drought, devaluation and inflationary recession. The country was fighting with population explosion, increased unemployment, poverty and a shackling economy. In addition, the situation in East Pakistan (now independent Bangladesh) was becoming dire as the Indo-Pakistani War of 1971 and Bangladesh Liberation War took place. Funds earmarked for the industrial development had to be used for the war effort. The result was that this plan period was also no better than the third five year plan.

Notable Points

- India fought yet another war with Pakistan and helped in creation of Bangladesh. Needed to tackle the problem of Bangladeshi refugees after the 1971 war.
- Nationalization of 14 major Indian Banks was a key even during this war. This boosted the confidence of the people in banking system and started greater mobilization of private savings into banking system.
- At the end of this plan, India also performed the *Smiling Buddha underground nuclear test in 1974*. This test was partially in response to the US deployment of the Seventh Fleet in the Bay of Bengal to warn India against attacking West Pakistan and widening the war. The international community took several harsh measures against India, which affected the domestic economy.
- The Oil Crisis of 1973 skyrocketed the oil and fertilizer prices leading to a very high inflation.

Critical Assessment of Fourth Five Year Plan

The Fourth plan when it was introduced after a gap of three years, was an ambitious plan with an aim of 5.5% growth as the previous plans had a growth target / achievement of maximum 3.5%. But the Indo-Pakistan war, liberation of Bangladesh and problem of Bangladesh refugees , successive failures of monsoon, Asian Oil Crisis of 1973 marred the objectives of this plan. The international economic turmoil due to Oil crisis upset the calculations for Fourth Plan. So only 3.4% growth could be achieved.

Fifth Five Year Plan: 1974-79

Critical Assessment

The fifth five year plan was launched with twin objectives of poverty eradication and attainment of self reliance.

The planning commission devised a *national program for minimum needs,* which included elementary education, safe drinking water, health care, shelter for the landless etc. The Electricity Supply Act 1975 was enacted to enable the central government to enter into power generation and transmission. Meanwhile, India had seen substantial rise in the food grain production and from fifth plan onwards India achieved self-sufficiency in food grains production.

To alleviate the problem of unequal spread of green revolution, government unsuccessfully tried to take over the wholesale trade in wheat. Indira Gandhi government also launched twenty point programme and irrigation schemes such as Command Area Development Programme in this plan.

However, in 1975, Indira Gandhi imposed emergency and planning became subject to much politicization. In 1977, the government changed and first non-Congress Government took over power with Morar Ji Desai at its helm. The new central government was a coalition called *Janata Alliance*. This government reconstituted the planning commission and announced a new strategy in the planning. This new strategy involved a change in the objective and approach pattern. The new objective laid down was "Growth for Social Justice". The new approach was "Rolling Plan". It terminated the fifth five year plan in 1977-78 and launched its own sixth five year plan for period 1978-83 and called it rolling plan. Later, Janta government self-destructed itself and Indira Gandhi again became prime minister. She immediately threw the Janta's rolling plan in dustbin and launched her own plan for year 1980-85. *The year 1978-79 was restored back to fifth plan of 1974-79.*

Rolling Plans

The Janta Government terminated the fifth five year plan in 1977-78 and launched its own sixth five year plan for period 1978-83 and called it a Rolling Plan.

Meaning of Rolling Plan

The meaning of the Rolling Plan was that now, *every year the performance of the plan will be assessed* *and a new plan will be made next year based upon this assessment.*

In the rolling plans there are three kind of plans. First is the plan for the current year which comprises the annual budget. Second is a plan for a fixed number of years, which may be 3, 4 or 5 years. This second plan is kept changing as per the requirements of the economy (and politics). Third is a perspective plan which is for 10, 15 or 20 years. Thus, there is no fixation of dates in respect of commencement and end of the plan in the rolling plans.

Advantages and Issues with Rolling Plans

The main advantage of the rolling plans is that they are flexible. They are able to overcome the rigidity of fixed five year plans by revising targets, projections and allocations as per the changing conditions in the country's economy. Thus, the rolling plans allow for revisions and adjustments. In rolling plans the review of a plan becomes a continuous exercise. The effect of changed circumstances and the changed demand and supply conditions can be incorporated in the plan.

No doubt in fixed plans, the annual reviews are made, but they are getting information regarding the progress of the economy. While in case of rolling plans, the yearly reviews are such a nature that they serve the basis for the revised new five year plan every year. Such yearly review is the essence of rolling plans.

However if targets are revised each year, it becomes very difficult to achieve the targets which are laid down in the five year period. Frequent revisions make it difficult to maintain right balances in the economy which are essential for its balanced development.

So far, rolling plans have been unsuccessful in underdeveloped economies like Mexico and Myanmar and were later discarded, however in developed nations like Japan & Poland they have been successfully used.

Fate of India's Rolling Plans

Due to political problems, Morar Ji Desai was forced to resign and his successor Chaudhary Charan Singh (was in office for 170 days) failed to sustain a parliamentary majority as alliance partners withdrew support. The new elections were held and now Indira Gandhi came back to power with thumping success in January 1980. She resumed her own strategy and new 6th plan was started on April 1, 1980 which continued till March 31, 1985.

Sixth Five Year Plan (1980-85)

From the sixth five year plan onwards, there was massive investment in the Social Services. *These social services included Education, Health and Family Planning, Housing & Urban Development and other services.* From the 6th Plan onwards, the role & scope of the Planning Commission also increased. The plan objectives were poverty alleviation and higher economic growth. Special attention was paid to removal of poverty through the rural development schemes such as Integrated Rural

Development Programme (IRDP), National Rural Employment Programme (NREP), and Rural Landless Employment Guarantee Programme (RLEGP) etc. The poverty was 47% in the beginning of the plan and a target of 30% was fixed to achieve. The actual target achieved at that time was 37%.

- Training of Rural Youth for Self-Employment (TRYSEM) was started in 1979.
- Integrated Rural Development Programme (IRDP) was launched on October 2nd. 1980 all over the Country
- The National Rural Employment Programme (NREP) was launched in October, 1980 and became a regular Plan programme from April, 1981
- Till recently, 37% population of India was below poverty line, which has now come down to 20.9% as per government.
- Training of Rural Youth for Self-Employment (TRYSEM) was started in 1979.
- Integrated Rural Development Programme (IRDP) was launched on October 2nd. 1980 all over the Country
- The National Rural Employment Programme (NREP) was launched in October, 1980 and became a regular Plan programme from April, 1981

Seventh Five Year Plan: 1985-1990

A long term plan was outlined for 1985-2000 and the 7th five year plan was announced in this backdrop on November 9, 1985. This plan was started by Rajiv Gandhi government when Dr. Manmohan Singh was Deputy chairman of planning commission. The basic objectives were: Speedy development, modernization, self reliance and social justice. Seventh Plan also envisaged the continuance and expansion of the National Rural Employment Programme (NREP) and Rural Landless Employment Guarantee Programme (RLEGP) which were started in the Sixth Plan.

The 7th Five Year plan was considerably big. The outlay of Rs. 1, 80,000 Crore was not only double of the previous plan but also had a broader scope and the actual spending of Rs. 218700 Crore was 21.5% more than then plan outlay. The outlay on Rural Development was doubled in this plan.

Annual Plans: 1990-92

The unsustainable fiscal deficit of the 1980s along with the excessive external borrowing accumulated and culminated in the crisis of 1991. The Foreign exchange reserves were left a just one billion Dollars in January 1991, which was sufficient to finance three weeks' worth of imports.

So, the country was on the brink of default on its external obligations. The immediate response of the caretaker government under Chandrasekhar was to secure an emergency loan of $2.2 billion from the International Monetary Fund by pledging 67 tons of India's gold reserves as collateral. This triggered the wave of the national sentiments against the rulers of the country.

After assassination of Rajiv Gandhi in 1991, a nationwide sympathy wave secured the victory of the

Congress. New Prime Minister was Narsimharao and his finance minister was Manmohan Singh. This new government started several reforms which are collectively called "Liberalization". This process brought the country back on the track and after that India's Foreign Currency reserves have never touched such a brutal low.

During the period of 1990-92, two annual plans for 1990-91 and 1991-92 were launched. They were worth Rs. 58,369.30 Crore and Rs. 64,751.20 Crore. The Eighth plan could not start because of politico-economical turmoil in the country during 1990-92.

Eighth Five Year Plan: April 1, 1992 to March 31, 1997

Critical Overview

The eighth five year plan can be called a "Rao and Manmohan Plan". This was reform period and the following took place during the reform period. In 1991, Rupee was once again devaluated. Due to the currency devaluation the Indian Rupee fell from 17.50 per dollar in 1991 to 45 per dollar in 1992. The Value of Rupee was devaluated 23%. The Government announced the new Industrial Policy whereby it delicensed most industries, reduced import tariffs, opened door for foreign direct investment, introduced a market determined exchange rate system.

The Eighth plan started in April 1992. One of the major highlight was modernization of the

industries. The plan was launched with twin objectives of alleviation of poverty and unemployment. This plan period saw launching of many flagship programmes. In the 8th five year plan, growth rate achieved was 6.8% against the target of 5.6% . In the first two years the achieved growth rate was in the tune of 7.7%. Later it decreased due to a mounting pressure on Asian Economies which later culminated in the *Asian Financial Crisis of 1997*.

Ninth Five Year Plan: April 1, 1997 to March 31, 2002

This period saw the change in the government. The Ninth plan was started with an objective of "*Growth with Social Justice and Equality*". It also assigned importance to agriculture growth. Regulation of the debt programmes was emphasized to improve government's financial position. It was developed in context of 4 important dimensions of the government policy:

- Improving the quality of the life
- Generation of Productive employment
- Creation of regional balances
- Self reliance

The average target growth rate was 6.5% but the achieved growth rate was 5.5%. The growth in agriculture fell to 2.1% and manufacturing fell to 4.51% from 4.69% and 7.57 % from the previous plans.

Tenth Five Year Plan: April 1, 2002 to March 31, 2007

The tenth plan was launched by Atal Bihari Vajpayee Government on December 21, 2002. This plan was prepared in the background of high expectations arising from the better growth rate achieved after the liberalization. Economy accelerated in the Tenth Plan period (2002–03 to 2006–07) to record an average growth of 7.7%, the highest in any Plan period so far. National Income increased by 7.6% and Per capita income by 6% per annum. Industrial production increased at the rate of 8.6% per year. In the last year of the plan double digit growth was achieved. This led the Vajpayee government to call for new election bit earlier than its scheduled time in 2004. The NDA asked vote in the name of "feel good factor" but somehow, this did not work. Vajpayee was ousted from power and UPA-I government came at the centre. The 61st report of the NSSO for 2004-05 recorded poverty to be 22% from the earlier level of 26.1%. UPA government continued many of the NDA schemes. It launched Bharat Nirman to upgrade rural infrastructure.

11th Five Year Plan

India entered the Eleventh Plan period with an impressive record of economic growth. Together with 10th plan progress, India emerged as one of the fastest growing economies in the world in the initial years of 11th plan. India's economic fundamentals have been improving in many dimensions, and this is reflected in the fact that despite the slowdown in 2011–12,the growth rate of the economy averaged 8 per cent in the Eleventh Plan period. This was lower than the Plan target of 9 per cent, but it was better than the achievement of 7.8 per cent in the Tenth Plan.

Achievements of Planning

India has completed eleven plans and twelfth is underway. The 65 years of planning in India has a mixed result. Sometimes targets have been realised while some other times we only shared disappointment and despair.

Achievements of Five Year Plans

Increase in National Income

- Five year plans are able to increase the nation income level form a stagnant position at the time of independence.

Increase in Per Capita Income

- Increase in national income resulted in increase of per capita income.

Increase in Rate of Capital Formation

- Capital formation is a key factor of economic growth. It depends on saving and investment. During Five Year Plans, there has been a considerable increase in the rate of saving and investment. It was around 35% by 2010-11.

Growth of Agricultural Sector

- Both crop productivity and crop production have shown a substantial rise in India. From the net importer of foodgrains, India became net exporter.

Development of Industries

- There has been a substantial improvement of the capital goods industry including iron and steel, machinery, chemical fertilisers, etc.

Development of Economic Infrastructure

- Five-year plans laid the foundation for development of economic infrastructure which include transportation, power generation, communication etc.

Development of Social Infrastructure

- Social infrastructure includes such services as education, health facilities, etc. In this area also, five year plans able to achieve desired success.

Other areas of achievements are in increased employment, modernisation of the society and achieving self-sufficiency.

Failures of Economic Planning

Following observations highlight failures of planning in India:

- No Substantial Increase in the Standard of Living
- Rise in Prices
- Increase in Unemployment
- Inadequate Increase in Production
- Inadequate Development of Infrastructure
- Inefficient Administration
- High Capital Output Ratio

Nehru's Democratic Socialism & Democratic Collectivism

Jawaharlal Nehru was greatly influenced by the achievements of Soviet Planning. Since he also viewed democratic qualities of capitalism as indispensable for complete economic and social growth and since he wished to take advantage of both, he came out with his vision of so called "Democratic Socialism" for new India. Ideally, the democratic socialism was to not only check the growth of monopolistic tendencies of the private sector but also provide freedom to the private sector to play for main objective of social gain rather than economic gain.

Another feature of Nehru's planning philosophy was "Democratic Collectivism", which emphasized on planning by consensus. Nehru had a genuine concern about the need for a peaceful transition through consensus in the development process in India. The emphasis was on "Social" implications of the economic ideas along with wider national and international lines. The "Democratic Socialism" and the "mixed economy' demanded equality of opportunities for all and it was the basic theme.

Nehru's vision of a technologically progressive India was also inspired by a socially inspired process of integrating the technology with the modern methods of agriculture and production.

Why India chose the so called Nehruvian Socialism?

Generally, it is said that socialism was the dominating economic thought after the World War II and this was the reason that India also chose this path. However, this is a myth. In fact, in those days, those who were in favour of the free enterprise system vastly outnumbered their opponents favouring states control. Indians had consistently opposed the state controls imposed by the British. They protested the regulations of the textile industry, taxes on goods such as salt, opposed setting up of the Reserve Bank of India and opposed pegging of Indian Rupee with Pound Sterling.

The reason to why India chose the path of socialism are more political than economic and go back to the British Era. On the basis of the views on economy, the congress leaders of those times can be divided into **three** groups.

- First group, who eventually were in majority, were called **capitalists**. The leaders of this group included leaders such as Rajendra Prasad, Sardar Patel and C Rajagopalachari.
- The second group can be called This group included Ram Manohar Lohiya, Jai Prakash Narayan and Acharya Kripalani.

- The Third group consisted of Jawahar Lal Nehru and some other leaders. Although Nehru later called himself a socialist, he was labelled as a 'radical' and a 'Marxist' by the press of the day. Marxist-derived ideas were at the heart of the economic thinking of leaders such as Jawaharlal Nehru.
- The economic thought of the above mentioned second group of socialists was not something related to the 'communist' or 'state-control' but an economy *containing cottage industries run by cooperative societies*. That is why; this group opposed the communists and also raised its voice against Nehru when they got a clue about the economic policy of the Congress.
- After the demise of Sardar Patel and elevation of Dr. Rajendra Prasad to the office of the President, Nehru got a free reign and the first thing he did was to create a Planning Commission on the lines of the *Gosplan* of the Soviet Union. He imitated the Soviet Union by drawing up Five Year Plans. At the time of drafting the first Five Year Plan, Nehru was ambivalent and talked of a mixed economy that would accommodate the private sector.
- However, later he progressively implemented his plan to usher the country in an era of socialism. In Mid 1950s, Nehru got Parliament to accept the "socialist pattern of society" as the aim of economic development, and at the Avadi session of the Indian National Congress (1955), the resolution now known as the Avadi Resolution was passed. This resolution called

for establishment of a socialistic pattern of society where the principal means of production are under social ownership or control and there is "equitable distribution of the national wealth." This was followed by the Industrial Policy of 1956 in which only the government was permitted to undertake new ventures in several sectors such as textiles, automobiles, and defence. For the private sector the policy said that the state would "progressively participate" and would not "hesitate to intervene" if it found progress to be "unsatisfactory." The second five year plan was based on the Industrial Policy Resolution of 1956. This plan asserted the economic goal as the socialist pattern of society. The economy was now modelled after that of the Soviet Union. The private individuals were deprived of the right to indulge in many forms of commercial activities. The government policies of the 1950s and 1960s transformed India into such a socialist country in which all the flaws of socialism took root.

Did Nehru's philosophy truly embody the Democratic Socialism and Collectivism?

Nehru's Planning philosophy was branded "democratic socialism" but in practice, it lacked the proper objectives, priorities, strategy and budgeting which are fundamental themes of the socialistic planning. The basic approach in the socialistic economy is that *there is a control of the means of production and distribution.* But it was not done right from the beginning and with passage of time new capitalist hold strengthened in the form of foreign aid and collaboration. The adverse impact of the philosophy was seen in the Public sector companies which became sick soon due to mismanagement and corruption. India's power generation got erratic during the first few five year plans and power generation was not considered to be the lifeline of India's progress in initial decades. The result was that India stagnated until bold neoliberal economic reforms triggered by the currency crisis of 1991, and implemented by the then government.

Comparison of Planning Philosophy of Nehru and Bose

When Subhash Chandra Bose was congress president, he had appointed Nehru as chief of National Planning Committee in 1938-39. The basic difference between the philosophy of Nehru and Bose were that while *Nehru was inspired by the planned economy of Soviet, Bose wanted a controlled economy.* The thought of Bose were with dictatorial tendencies and reflected in his political and economic thoughts but Nehru was inspired by the "democratic collectivism" and he thought that it was always good to take all the sectors together. He was only partially successful during his era.

Rise and Fall of Planning Commission

On 15 August 2014, India's Prime Minister Narendra Modi declared to replace the Planning Commission by a new body. On January 1, 2015, the government by a resolution established the NITI Aayog or National Institution for Transforming India. This body would work as a policy think-tank of Union Government and aims to involve the states in economic policymaking. This article looks into the rise and fall of planning commission

The rise of Planning Commission

Planning Commission was set up by a Government of India Resolution in 1950 as an advisory and specialized institution. It was charged with the responsibility to formulate a strategy of development for independent India in a long-term perspective and for making assessment of all resources of the country, augmenting deficient resources, formulating plans for the most effective and balanced utilization of resources and determining priorities. Its first chairman, as we all know was Jawaharlal Nehru.

The constitutional provision that was kept in mind while creating the planning commission was that the Economic & Social planning is an item of Concurrent list and creation of such body will strengthen the roots of Centre-State Cooperation and Indian federalism. Later in 1952, the National Development Council was established as an advisory body to the Planning Commission.

The planning commission emerged as an intellectual hub with distinguished scholars and economists as its members. It was such as a respectable body, that it became a role model for planning commissions and boards of many developing countries in those times.

Fall of Planning Commission

Gradually, both planning as well as planning commission lost rationale. It actually began from 1960s, when successive droughts and poor harvests led the government to abandon planning for an interregnum of three years (plan holiday). These plan holidays were early signals of decline of planning commission. Slowly and steadily, the administrative fiat eroded its role and the spirit with which its original writer Nehru had launched it, was never revived later.

Due to administrative fiat, it was transformed into a government department without any proper function or mandate. Its functions collided with Finance Commission as well as Finance Ministry. A few examples are:

- Its role of serving as an intermediate between the centre and state continued, but collided with Finance Commission, which recommended on statutory transfers.
- Its role on non-discretionary transfers was almost nothing as there was a Gadgil Formula in place.
- Its role on residual discretionary allocation of resources to states was in effect nothing, because this is being done by the finance ministry.

However, despite no legal or constitutional backing, planning commission \continued to preside over the allocation of central funds meant for the "Plan" both for the centre and the states. There was a one way flow of policy and for the state governments, the practice of requiring them to come to

Delhi for their "plan approval" every year also continued. But, the focus was shifted to crisis management and academic exercises rather. If there is any other notable work of planning commission in recent times, it has been various committees and the ritual of preparing five-year plan documents, mid-term reviews etc. A few nice ideas that have been incubated in the planning commission include Direct Benefit Transfer, Financial Inclusion and Banking Correspondent models etc. The other specific factors that led to lost of its relevance are as follows:

Globalization, Liberalization and Privatization

When the planning commission was launched, India was on the path of Nehru's socialistic economy. Today, India is largely a market driven economy where three fourths of investments flow from the private sector. The planning in a largely market-driven economy cannot be similar to an economy that is heavily controlled by the state. Thus, there was a need of shift in the focus of planning in current times in comparison to the past.

Shortcoming in the planning process: Why Planning Commission was abolished?

The planning process in India, particularly after liberalization, has become erratic due to an array of reasons some of which are as follows:

- Firstly, it is focused on theoretical tools such as sophisticated mathematical models. These models did not work on ground because they were based on input/output coefficients that are highly aggregative. This was mainly due to data problems.
- Secondly, the planning documents generally resulted in duplication of the jobs of central ministries and the states by setting up parallel divisions in planning commission itself.
- Thirdly, during the successive plan periods, the targeted goals were compromised in most arbitrary way. This was mainly because of the faulty budgeting resulting in absence of annualized break-up of targets set in the plan.
- Fourthly, the multiyear budgeting in our country has its own problems. The rationale behind multiyear budgeting is that different programmes have different time spans. For example, Bharat Nirman was launched for four-year period 2005-09, while JNNURM was launched for seven years beginning 2006. However, five years is a too long a period and almost every plan immediately started dwindling after its launch. It could be more logical if a plan could be prepared for 3 years timeframe and fourth and fifth years would be set as tentative plans. Further, the five year plans were not in sync with the annual budgeting exercise. In the absence of a budget system that helps a five year plan get implemented annually, the five year planning remained at best as an academic exercise.
- Fifthly, the plan/non-plan distinction in government expenditures has lost its relevance and needs to go.

- Sixthly, the dwindling flow of central assistance for state plans and the cessation of on-lending to the states by the centre the system of Annual Plan approval with the states has lost its significance and needs to be done away with.
- Finally, the system of transfers from the centre needs to be reformed.

Lost credibility of the planning commission

Successive governments have used the planning commission as a parking lot for decent placement for the favorable officers and academics, who could not be accommodated anywhere else as its members. Its credibility was lost due to its theoretical reports and data-mining which generally did not stand correct on ground.

In words of finance minister Arun Jaitley, the Planning Commission was useful in a command economy structure, which is not relevant today. India is a diversified country and its states are in various phases of economic development along with their own strengths and weaknesses. Planning commission used "one size fits all" approach and imposed policies on states and tied allocation of funds with projects it approved. In contrast, the government has established Niti Ayog as a "Think Tank" which has no power to impose policies.

NITI Aayog

The Government of India has established Niti Ayog as a "Think Tank" which has no power to impose policies. By establishing Niti Ayog the government wants to be an "enabler" and leaves the impetus to provide a platform for cooperative and competitive federalism to the newly established body. India was probably the first non-Communist country which went for central planning. Starting with the Harrod-Domar Model and later statistics of Mahalanobis model, the planning commission set out sector- specific output and investment targets. It was strong enough to have a final say on resource allocation. For the last few decades, funds were simply tied to not only successful but also failed schemes because vested interests demanded their continuation. There was an increasingly frustration in the states but they had to yield to the arrogant fund controlling body. Most underdeveloped states including the North East had to suffer due to the dogged prescription of one-size-fits-all schemes by the planning commission. The Niti Ayog seeks to give up the one size fits all prescriptions for a huge country like India with lots of vertical and horizontal imbalances. Whether it would be able to carve out its unique place in today's time, is yet to be seen.

Aims and Objectives of Niti Ayog

- NITI Aayog is essentially an advisory body that seeks to provide critical directional and strategic inputs across spectrum of key elements of policy to the centre as well as states.
- It also seeks to put an end to the slow and tardy implementation of the policy by fostering

inter-ministry, inter-state and centre-state coordination.

- Strong states make a strong nation, is the core idea; and the Ayog will foster cooperative federalism by evolving a shared vision of national development priorities.
- It has been envisaged to follow the bottom-top development approach whereby, it would develop mechanisms to formulate credible plans to the village level and aggregate these progressively at higher levels of government.
- It would also pay attention to the weaker sections of the society that may not have benefitted from economic progress.
- It would create a knowledge, innovation and entrepreneurial support system via a community of national and international experts, practitioners and partners.
- It would serve as a platform for resolution of inter-sectoral and inter-departmental issues in order to accelerate the implementation of the development agenda.
- It will also monitor and evaluate the implementation of programmes, and focus on technology upgradation and capacity building.

Composition of NITI Ayog

- **Chairperson** -Prime Minister

- **Governing Council** – Its members are Chief Ministers and Administrators of the Union Territories
- **Regional Councils** -These would be created as per need and its members would be chief ministers and administrators of UTs of respective regions.
- **Vice-Chairperson** – The Vice-chairperson of the Niti Ayog will be appointed by Prime Minister. The first Vice-Chairperson of Niti Ayog is Arvind Panagariya.

Further, the Niti Ayog has full time members (number unspecified), part time members (maximum 2 , these would be scholars from universities and research institutions), Ex-officio members (maximum 4, these are ministers from Union Council of Ministers), Special Invitees (appointed by PM for fixed tenure. Finally, there is a Chief Executive Officer (CEO) of the Niti Ayog, who is appointed by Prime Minister and has a rank similar to Secretary to the Government of India. Current CEO was named on January 10 (Sindhushree Khullar). The secretariat will be established if deemed necessary.

NITI Aayog & Planning Commission: Comparison

Planning Commission was an advisory body, and so is Niti Ayog. But the key difference between them is that while the former had powers to allocate funds to ministries and states; this function will be now of finance ministry. Niti Ayog is essentially a think tank and a truly advisory body. Other differences are as follows:

- The role of states in the planning commission era was limited. The states annually needed to interact with the planning commission to get their annual plan approved. They had some limited function in the National Development Council. Since Niti Ayog has all chief ministers of states and administrators of UT in its Governing Council, it is obvious that states are expected to have greater role and say in planning/ implementation of policies.
- The top down approach is reversed in Niti Ayog. It will develop mechanisms to formulate credible plans to the village level and aggregate these progressively at higher levels of government.
- The provision of regional council is there in Niti Ayog to address local / regional development issues.
- One of the new functions of Niti Ayog is to address the need of the National Security in the economic strategy. How this is to be done – is yet to be watched.
- While the planning commission formed Central Plans, Niti Ayog will not formulate them anymore. It has been vested with the responsibility of evaluating the implementation of programmes. In this way, while Niti Ayog retains the advisory and monitoring functions of the Planning commission, the function of framing Plans and allocating funds for Plan assisted schemes has been taken away.

The governing council, which has all chief ministers of states and administrators of the Union Territories sounds much like the National Development Council.

NITI Aayog and Evidence Based Policy Making

Evidence-informed policymaking is an approach that aims to integrate the best available scientific evidence into the design of public policies. Central and state governments make hundreds of policy decisions, small and big, every day that have an impact on millions of lives. Many of the policy questions have been rigorously researched, and controlled trials are conducted in order to assess the impact, leading to valuable insights into which policies work, which don't and why. But not all of this research finds its way into government policies. This is often because we lack a unifying mechanism within government that can synthesise a diverse array of scientific evidence, from India and other developing countries, and provide coherent recommendations for policymakers. This is also why a centrally located government think tank like the NITI Aayog, which can command the necessary resources and attention, is well placed to play this role.

NITI Ayog and Evidence based policy making

NITI Aayog is mandated to work towards furthering cooperative federalism. It can also promote evidence based policy making by ensuring that a policy innovation from any state, regardless of the party in power, gets due attention and becomes a template for other states as long as it is backed by rigorous scientific evidence. In policy areas where evidence is scarce, the NITI Aayog can actively promote collaborations between policymakers and researchers by funding and rigorously testing policy innovations at the pilot stage, before recommending them for scale. This comes from a realisation that despite decades of effort in designing and implementing anti-poverty programmes, there is little consensus on the most effective strategies for improving the lives of the poor. Reflecting this thought, the World Development Report 2015, the flagship report of the World Bank, focuses on mind, society and behaviour and makes a strong case for the application of behavioural science in development.

Challenges

To achieve this in practice will require the NITI Aayog to overcome two key challenges:

- accessing high-quality researchers in multiple disciplines who can partner with policymakers, and
- creating a willingness among policymakers to learn from evidence instead of relying solely on intuitions or ideologies.

Learning from Tamil Nadu

In fact, the state of Tamil Nadu has already taken a step in this direction. In 2014, the government of Tamil Nadu entered into a partnership with the Abdul Latif Jameel Poverty Action Lab (J-PAL) to institutionalize the use of evidence in policymaking by rigorously evaluating innovative programmes before they are scaled up, strengthening monitoring systems and enhancing the officials' capacity to generate and use data. In perhaps a first for any state government in India, the Tamil Nadu government also set up an Innovation Fund, with an annual allocation of Rs. 150 crore, through which any government agency can access resources for pilot innovation programmes through a competitive process.

General Knowledge Today

Population, Census & Unemployment Fundamentals

Integrated IAS General Studies:2016-17

Last Updated: February 15, 2016

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Model Questions

Prelims MCQ Topics

Dependency Ratio, Demographic Transition Theory, Age Sex Pyramids, Push Pull Factors of Migration, Birth Rate, Death Rate, Total Fertility Rate, Demographic Dividend & Longevity Dividend, Census Act Provisions, Canvasser method and 'householder' method of enumeration, Population Extremes (highest, lowest states, districts), SECC Objectives, data, angle of deprivation, Labour Force versus Workers Force, Labour Force Participation Rate, Types of Unemployment, Employment Elasticity, Trend in Female Labour Force Participation Rate.

Mains Model Questions

1. What do you mean by 'disguised unemployment'? Do you think that it can be used as a source of capital formation? Examine its limitations.
2. "Poverty and unemployment are inseparable twins". An effective anti-poverty programme should aim at solving the unemployment problem. Elucidate
3. "Migration, fertility and mortality are the basic fundamental elements determining population growth and demographic structure of a country." Elucidate.

4. "Economists in India have put forward the reasons for and against the question of whether India is over-populated." Discuss presenting your view.
5. "The growing population problem calls for a definite population policy and its effective implementation."Discuss.
6. "India's national population policies have failed to achieve their objectives as we remain world's second largest populated country." What are the shortcomings? Discuss.
7. "The recently released religious data in Census 2011 had stripped up a controversy with respect to the growth of the minority population in India." Critically examine the issue.
8. "The key rationale behind conducting a socio-economic and caste census was to assess the population that is actually below the poverty line (BPL)." To what extent the methodology adopted has been successful in SECC-2011 objectives? Discuss critically.
9. "Despite of so many committees formed over the last many decades, there has never been a correct insight into who are the legitimate beneficiaries of the welfare schemes." Critically examine.
10. "Economic Development must bring some notable changes in the structural, institutional and technical set up." Throw light.

11. What do you understand by Employment Elasticity? Discuss the Employment Elasticity trends in India in different sectors over there recent years.
12. Critically examine the recent trends in labour force and workforce participation rates of women in India.

Part: A: Fundamentals in Population

Dependency Ratio

Dependency ratio refers to the ratio of persons of ages under 15 years and over 64 years to the persons of ages 15-64 years. The persons below 15 years and above 64 years are defined dependent while persons between 15-64 years age are defined as economically productive.

$$Dependency\,ratio = \frac{(number\ of\ people\ aged\ 0-14\ and\ those\ aged\ 65\ and\ over)}{number\ of\ people\ aged\ 15-64} \times 100$$

Dependency Ratio is also sometimes called Total Dependency Ratio. It is made up of two different ratio viz. Child Dependency Ratio and Age Dependency Ratio.

Child Dependency Ratio

Child dependency ratio is the ratio of persons under age 15 to number of people aged 15-64.

$$Child\ dependency\ ratio = \frac{number\ of\ people\ aged\ 0-14}{number\ of\ people\ aged\ 15-64} \times 100$$

Aged Dependency Ratio

Age dependency ratio is the ratio of persons above age 65 to number of people aged 15-64.

$$Aged\ dependency\ ratio = \frac{number\ of\ people\ aged\ 65\ and\ over}{number\ of\ people\ aged\ 15-64} \times 100$$

Important notes on Dependency Ratio

- A higher dependency ratio means that more and more people (children and aged) are dependent on the working population of a country.
- The higher dependency ratio necessitates the government to spend more on health, education, social security, age related pensions, disability pension etc.
- Higher dependency ratio is a feature of aging populations and populations with higher birth rate in comparison to death rates.
- The developing and least developed countries have tendency to show a higher dependency ration.

Thus, increasing **dependency ratio** brings more economic pressure on working population. As the ratio increases there may be an increased burden on the productive part of the population to maintain the means of livelihood of the economically dependent. This results in direct impacts on financial expenditures on things like social security, as well as many indirect consequences.

Demographic Transition Theory

The demographic transition theory studies the relationship between economic development and population growth. It discusses about changes in birth rate and death rate and consequently growth rate of population in assonance with the process of growth and development. It is also used to describe and predict the future population of any area. The theory tells us that population of any region changes from high births and high deaths to low births and low deaths as society progresses from rural agrarian and illiterate to urban industrial and literate society. These changes occur **in stages** which are collectively known as the demographic cycle. There are four stages of demographic transition related to the state of economic development.

First Stage or Stage of High Birth Rate and High Death Rate

In first stage, the country is at low level of economic development. Agriculture is the main occupation of the people. Standard of living of the people is low. Death rate is high because of lack of medical facilities, epidemics, famines and illiteracy. Birth rate is high because of social and economic reasons. The key notable features of this stage are as follows:

- *Population Pyramid in the first stage is Expanding at the bottom*
- Stable population
- High birth rate, High infant mortality and High death rate = low life expectancy
- Many young people, very few older people
- High fertility rate (8+)

The first stage has high fertility and high mortality because people reproduce more to compensate for the deaths due to epidemics and variable food supply. The population growth is slow and most of the people are engaged in agriculture where large families are an asset. Life expectancy is low, people are mostly illiterate and have low levels of technology. Two hundred years ago all the countries of the world were in this stage.

Second Stage or Stage of High Birth Rate and Low Death Rate or Stage of Population Explosion

In this stage, birth-rate is high but death rate is low. It results in high growth rate of population. In this stage, income begins to rise and economic activities expand. On account of better health facilities and nourishing diet, death rate falls rapidly. Birth rate remains high due to social backwardness and limited access to contraceptives. The key notable features of this stage are as follows:

- Population Pyramid in this stage is Rapidly Expanding
- Very rapid increase in population (population explosion)
- Rapid decline in death rate but death rate remains below the birth rate
- Fertility rate remains high
- High birth rate
- High rate of natural increase

- Decline in infant mortality
- Many young people

Fertility remains high in the beginning of second stage but it declines with time. This is accompanied by **reduced mortality rate**. Improvements in sanitation and health conditions lead to decline in mortality. Because of this gap the net addition to population is high.

Third Stage or Stage of Declining Birth Rate and Low Death Rate

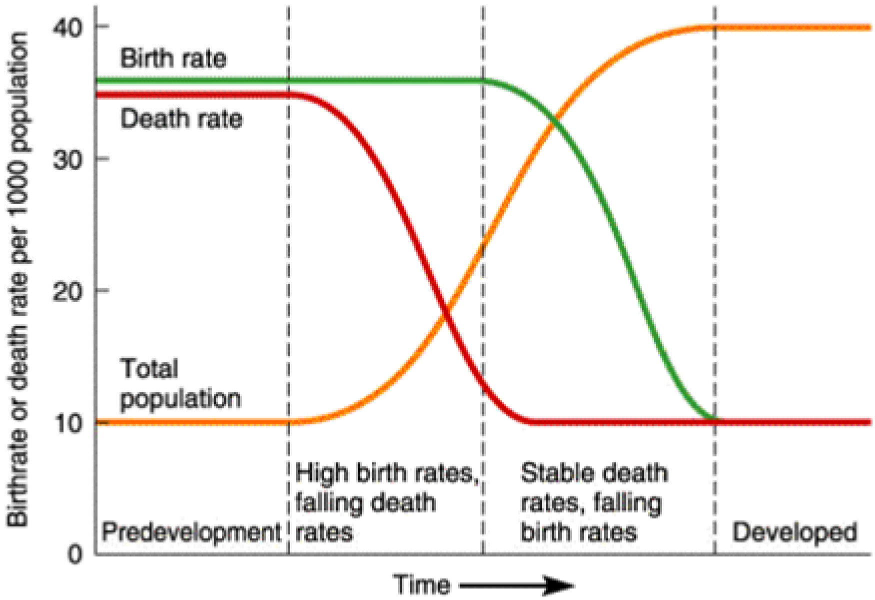
In the third stage, a declining birth rate and low death rate lead to low population growth. Along with economic development of the country, structural changes in the economy begin to take place. Large population begins to reside in urban areas. People start considering large families as liability. Consequently, birth rate begins to fall. Death rate continues to be low. Growth rate of population declines. India is passing through this stage of demographic transition. The key notable features of this stage are as follows:

- The Population Pyramid in third stage is Stationary
- Population growth slows down
- Birth rate declining rapidly
- Decline in fertility rate
- Death rate declining slowly
- Birth rate approaching death rate
- High life expectancy
- Increasing number of older people

Fourth Stage or Stage of Low Birth Rate and Low Death Rate

In the fourth stage, low birth rate and low death rate lead to Population stabilisation. In this stage, because of rapid economic development, standard of living of the people becomes very high. Quality of life is given a priority to the size of the family. The key notable features of this stage are as follows:

- Population Pyramid is Contracting
- Stable or slow population increase
- Low birth rate
- Low death rate
- High life expectancy
- Birth rate is approximately the same as the death rate
- Fertility rate is close to or below 2.1
- Many older people



In the last stage, both fertility and mortality decline considerably. The population is either stable or grows slowly. The population becomes urbanised, literate and has high technical knowhow and deliberately controls the family size. This shows that human beings are extremely flexible and are able to adjust their fertility. In the present day, different countries are at different stages of demographic transition.

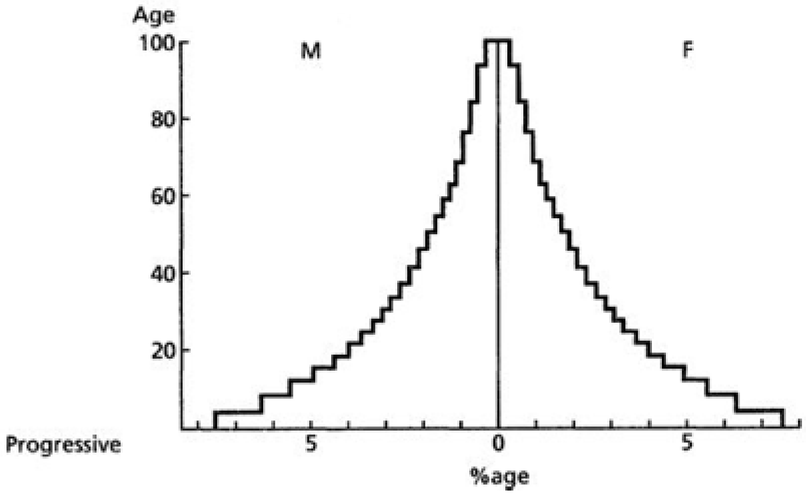
Age Sex Pyramids

The age-sex structure of a population refers to the number of females and males in different age groups. An age sex pyramid or population pyramid is used to show the age-sex structure of the population. The shape of the population pyramid reflects the characteristics of the population and also indicates whether the population is experiencing growth or decline or stability.

In an age sex pyramid, the left side shows the percentage of males while the right side shows the percentage of women in each age group. By convention, the younger ages are at the bottom.

Triangle Shaped Pyramid

A Triangle shaped pyramid with a wide base reflects that the number of people with lower age groups is larger and thus there would be high birth rates.



This kind of age sex pyramid is typical for Nigeria, Bangladesh or Mexico or such less developed countries. These have larger populations in lower age groups due to high birth rates.

Bell shaped Pyramid tapered at top

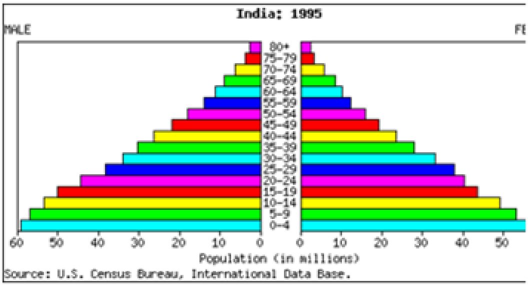
Australia's age-sex pyramid is bell shaped and tapered towards the top. This shows birth and death rates are almost equal leading to a near constant population.

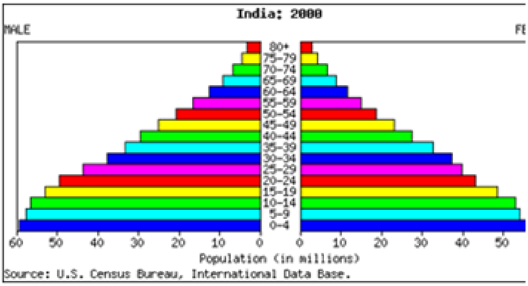
Bell shaped Pyramid tapered at top and bottom

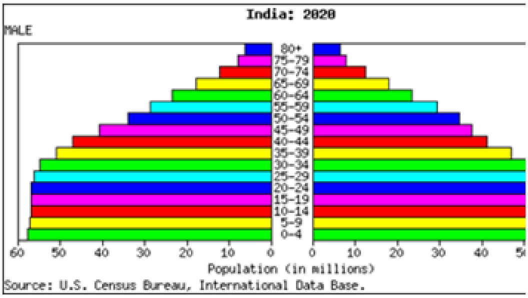
The Japan pyramid has a narrow base and a tapered top showing low birth and death rates. The population growth in developed countries is usually zero or negative.

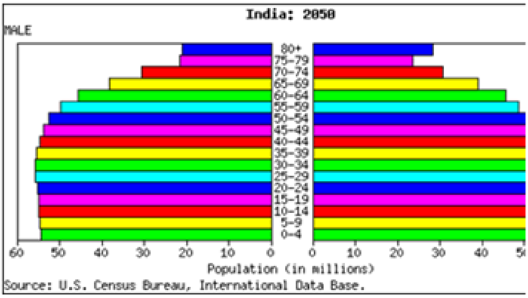
India's Age Sex Pyramid

India's population is to grow by just over 57% between 2000 and 2050. This overall growth will, in part, be due to increased life expectancy and, therefore, a larger elderly population – around 10 million aged 80 years and over in 2005 to grow to around 50 million in 2050. However, the population is expected to begin to decline beyond 2050, with the 0-4 year old group falling from over 110 million in 2005 to just over 105 million. This means that India's Age Sex Pyramid was on stage 1 in past and expected to be at stage 4 in 2050. Since 1981, India has been passing through the **Third Stage** of demographic transition. Few states and union territories of India already reached the fourth stage.









Migration

Migration, fertility and mortality are the basic fundamental elements determining population growth and demographic structure of a country.

Migration is permanent or semi-permanent change of residence of an individual or group of people over a significant distance. It can be international, intra-national, interregional, intra-urban, rural-to-urban or urban-to-rural. On the basis of distance, it may be long or short distance. On the basis of number, it may be individual or mass; it may be politically sponsored or voluntary. On the basis of social organisation, migration may be that of family, community, clan, or individual. On the basis of causes, migration may be economic, social, cultural, religious or political. Migration may be stepwise or direct from the place of origin to the destination.

There can be various causes of migration such as over population, economic causes, technology, political causes, socio-religious causes, demographic causes and wars.

Factors Affecting Migration

People migrate for a better economic and social life. There are two sets of factors that influence migration.

- The **Push factors** make the place of origin seem less attractive for reasons like unemployment, poor living conditions, political turmoil, unpleasant climate, natural disasters, epidemics and socio-economic backwardness.

- The **Pull factors** make the place of destination seem more attractive than the place of origin for reasons like better job opportunities and living conditions, peace and stability, security of life and property and pleasant climate

Consequences of Migration

Migration has a direct and indirect consequence on society, demography, economy, and environment. Some of the main consequences of migration are:

Reallocation of resources

- Generally, people from the crowded and overpopulated areas emigrate to the areas of sparse population with better re-source base, which helps in maintaining a balance between population and physical resources.

Change in demographic characteristics

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

Change in sex ratio

- The sex ratio at the place of destination drops as the male members have been added while the sex ratio at the place of origin increases.

Economic gains

- There is more intensive and judicious utilisation of physical resources at the place of destination, leading to higher agricultural and industrial production. The migrants send money back to home to their families which brings prosperity to the place of origin of migration also.

Transformation of ethnic characteristics

- The physical and marital contacts of people belonging to different ethnic groups may change the biological characteristic of the migrants and that of the host population.

Transformation of cultural values

- When large scale migration takes place, the cultural values of the people undergo radical transformation. The dietary habits of the people are also significantly transformed.

Crude Birth Rate

Crude Birth Rate

The Crude Birth Rate (CBR) is expressed as number of live births in a year per thousand of population. It is calculated as:

$$CBR = \frac{Bi}{P} X\ 1000$$

Where *Bi* is the number of live births during the year and P is the mid-year population. This implies that A country with a population of 2 million and has 40,000 live births per year; it has a **crude birth rate** of 20.

India's Crude Birth Rate

The Crude Birth Rate (CBR) at the national level during 2013 stands at 21.4, a decline of 0.2 points over 2012. The maximum CBR has been reported in Bihar (27.6) and the minimum in Kerala (14.7).

Crude Death Rate

Death rate plays an active role in population change. Population growth occurs not only by increasing births rate but also due to decreasing death rate. Crude Death Rate (CDR) is a simple method of measuring mortality of any area. CDR is expressed in terms of number of deaths in a particular year per thousand of population in a particular region

$$CDR = \frac{D}{P} X\ 1000$$

Where D is the number of deaths and P is mid-year population.

Rate of Natural Increase (RNI)

Crude Birth Rate minus Crude Death Rate is called Rate of natural increase (RNI). The RNI does not take into account the immigration and emigration of people, so it does not show population growth rate. Generally, the developing countries have high RNI while developed countries have low RNI.

Infant Mortality Rate & Maternal Mortality Rate

Infant Mortality Rate refers to the deaths of infants under age of one year per 1,000 live births. Infant Mortality Rate include Perinatal mortality, Neonatal mortality and Post-Neonatal mortality. *Perinatal mortality* only includes deaths from 22 weeks of pregnancy onward till 7th day after delivery. *Neonatal mortality* includes deaths in the first 28 days of life. *Postneonatal mortality* only includes deaths after 28 days of life but before one year. IMR is different from Child mortality, which refers to death of children below 5 years per 1000 live births.

Currently Highest IMR is found in Afghanistan, followed by African countries such as Mali, Somalia etc.

Maternal Mortality Rate

Maternal mortality Rate refers to number of women who die as a result of pregnancy and childbirth complications per *100,000 live births in a given year*.

Total Fertility Rate

Total Fertility Rate is the average number of children that a woman bears over her reproductive span. The reproductive age span of women taken for statistical purpose is between 15-49 years. A Total Fertility Rate of 2.1 is considered to be a Replacement Rate, i.e. the rate at which a given population is able to produce enough offspring to replace itself. This ratio ideally should be 2 (two parents produce 2 children) but taking into account for possible premature deaths, the replacement rate is considered to be 2.1 TFR. A TFR of above 2.1 shows increasing population, while below 2.1 shows decreasing population.

India's TFR

India's TFR is around 2.6. Most of the states in India have above 2.1 replacement Total Fertility Rate. Highest TFR in India is in Bihar and Uttar Pradesh.

Demographic Dividend & Longevity Dividend

India is a nation of young people – out of a population of above 1.1 billion, 672 million people are in the age-group 15 to 59 years, – which is usually treated as the "working age population".

A few years back, it was proposed that India in near future (30 years) will see a sharp **decline in the dependency ratio** over, which will constitute a major 'demographic dividend' for India. In 2001, 11% of population of the country was in age group of 18-24 years which is expected to rise to 12% by the end of XI Five Year Plan.

However, recent data says that India's old age dependency ratio is increasing consistently:

Longevity Dividend

When people live longer, it offers society a chance to reap a 'longevity' dividend. This implies that the elderly continue to contribute significantly for an unprecedented period of time. However, in order to reap that benefit, it is necessary that the challenges of an ageing population and understood and effective policy are made in time.

Zero Population Growth

Zero population growth is an ideal condition when the birth rate equals death rate and the replacement level is 2. Zero population growth is often a goal of demographic planners and environmentalists who believe that reducing population growth is essential for the health of the ecosystem. Preserving cultural traditions and ethnic diversity is a factor for not allowing human populations levels or rates to fall too low. Zero population growth is seen with increase in elderly population which is opposite to demographic dividend.

Size and Trends of Growth of India's Population

India is the second largest populated country in the world. India's share in the world population is 17.5%. The population of India, at 121 crore, is almost equal to combined population of USA, Indonesia, Brazil, Pakistan, Bangladesh and Japan. In 1991, population of India was 84.64 crore and in 2001 it was 102.87 crore. Thus, during 1991 to 2001 we added 18.23 crore people and during 2001 to 2011 we added another 18.14 crore people. Thus, decade after decade, the size of our population is growing at explosive rates. But the average annual growth rate has recorded a decline from 1.97

percent in 2001 to 1.64 percent in 2011. But this decline is very modest and we are still in the danger zone as far as growth rate of population is concerned. The addition of 1.8 crore population every year will end up India being the most populated country in the world. According to the United Nations, India is set to replace China as the most populated country by 2022.

Census Year	Population (in crores)	Decadal growth (%)	Average Annual growth rate (%)
1901	23.83	–	–
1911	25.2	5.75	0.56
1921	25.13	-0.31	-0.03
1931	27.89	11.1	1.04
1941	31.86	14.22	1.33
1951	36.1	13.31	1.25
1961	43.92	21.64	1.96
1971	54.81	24.8	2.2
1981	68.33	24.66	2.22
1991	84.64	23.87	2.16
2001	102.87	21.54	1.97
2011	121.01	17.64	1.64

The growth rate of population started rising till 1951 though it was not a cause of concern. But after 1951, there was an alarming rise in the population. It continued till 1981. Since 1981, though population has been growing in absolute numbers, growth rate has been declining, offering a slight relief to the policy makers of the country. The growth of India's population can be divided into four periods.

Period of Stable Population (1891-1921)

During the period from 1891 to 1921, growth of Indian population was very slow and it was almost stable. During this period, only 1.27 crore persons were added to the total population. The size of the population increased from 23.87 crore in 1891 to 25.14 crore in 1921. The decades of 1891-1901 and 1911-1921 witnessed negative growth of population because of famines. During the decade of

1901-1911, there was positive growth of population.

Period of Steady Rise in Population (1921-1951)

The year 1921 was referred as the year of 'Great Divide.' From 1921 onwards India's population started rising steadily. The average annual growth rate of population during this 30 years period increased to 1.22 percent. In absolute number, population of India increased by 10.96 crore during this period.

Decade	Increase in population (in crores)	Population growth rate (%)
1921-1931	2.76	1.1
1931-1941	3.96	1.4
1941-1951	4.24	1.3

Period of Population Explosion (1951-1981)

Population Explosion is a situation in which size of population tends to become enormous owing to a widening gulf between birth rate and death rate. During the phase of 1951-1981, India witnessed population explosion. Growth rate of population reached to 2.2% by 1981. Average annual growth

rate of the population during this period reached to 2.15%.

Period of Declining Growth Rate of Population (1981 Onwards)

From 1981 onwards, India's population is growing consistently but growth rate of population has been falling. Average annual growth rate of population was 1.64 percent in 2011. It was 2.16 in 1991 and 1.97 in 2001.But in its absolute size, population continues to rise. From 1981 to 201153 crore people were added to our population.

Causes of Population Explosion

There two main causes of high increase in population in India viz. High Birth Rate, and Low Death Rate. Birth rate refers to the number of children born per thousand persons in a year. Death rate refers to the number of persons who die per thousand persons in a year.

Improvement in health and medical facilities and proper distribution of food grains in the country brought down the death rate and increased the birth rate.

Causes of High Birth Rate

There are several causes of high birth rate in India. *Firstly*, poverty is main cause as poor people consider children as assets who help them to supplement family income even at the tender age. Secondly, illiteracy among the rural people has been traditionally an important reason. Due to high infant mortality rate, people were encouraged to have more children in last century. *Thirdly*, attitude towards having a male child resulted in high birth rate. *Fourthly*, early marriage results in long child bearing capacity and causes high birth rate. Universality of marriage in India also supplements this reason.

Causes of Decline in Death Rate

The death rate in past used to be very high due to epidemics and famines. Most of the epidemics have been controlled and mass destruction of human life does not take place due to epidemics. The spread of medical facilities in rural areas has reduced the occurrence of epidemics and communicable diseases like cholera and smallpox. Easy availability of life-saving drugs have saved lives of millions of people. The spread of institutional delivery, female education, urbanization etc. have resulted in decline of the death rates.

The Overpopulation Debate

There is no particular criterion to judge whether a country is over-populated or not. Economists in India have put forward the reasons for and against the question of whether India is over-populated.

Argument against the perception that India is over populated

Some economists argue that there are ample natural resources in the country. Output can be sufficiently increased by exploiting and utilising the natural resources judiciously. There is also rising per-capita income which proved that India is not over-populated. Population density in India is low compared to many other countries.

Argument favouring the perception that India is overpopulated

The standard of living in India is very low. Further increase in the population of poor families will prove to be fatal. The economic growth of the country is not able to create enough employment opportunities for the rising population.

Population Control in India – Remedial Measures

Large size of population is a challenge for India's economic development and is needs to be addressed. The growing population problem calls for a definite population policy and its effective implementation. There are several remedial measures to control population. *Firstly*, the late marriages should be encouraged to reduce the period of reproduction among the females, bringing down the birth rate. *Secondly,* self restraint due to spread of awareness and education can help in combating high rise in population. Increased consciousness towards better standard of life comes due to education and awareness and induces people to reduce their family size. *Thirdly*, Infant Mortality Rate should be brought down. People produce many children when Infant Mortality Rate is high, so that they can offset the loss due to premature death of their offspring. *Fourthly*, women should be treated on par with their male counterparts. Education among women should be encouraged to make them financially independent. Working women prefer small size families. *Fifthly*, more planned families should be covered under social security schemes. Children are born in India in a hope that they would take care of parents in old age. An increased social security net will lessen the desire to produce children as old age insurance. *Sixthly*, the availability of cheap devices of birth control should be in place.

National Population Policy

Government of India introduced first National Population Policy in 1976, which focussed on reducing birth rate, lowering infant mortality rate and improving standard of life. The policy was revised in 1977 which focussed on:

- No coercion for family planning
- Minimum marriage age 18 years for females and 21 years for males.
- Emphasis on awareness through education and media
- Mandatory registration of marriages
- Use of media for spreading the awareness about family planning among the rural masses.
- Monetary compensation to those who opt for permanent measures of birth control (sterilisation and tubectomy).

The National Population Policy 2000 provided a comprehensive framework to provide the reproductive and health needs of the people of India for the next ten years. It has fixed short term, medium term and long term goals as follows:

- Short term goal: Addressing the un-fulfilled needs of contraception and health care infrastructure. Provision ofintegrated service for basic reproductive and child health care.
- Medium term goal: Bring down the Total Fertility rate.
- Long term goal: To achieve a stable population by 2045.

The government implemented the policy with involvement of local level bodies and voluntary sector with funds from central government.

Critical Assessment of India's Population Policy

India's national population policies have failed to achieve their objectives as we remain world's second largest populated country. The population of India in 1951 was 35 crore, but by 2011, it had increased to 121 crore. There have been few shortcomings. *Firstly,* the NPP have a narrow perspective, give much importance to contraception and sterilisation. The basic prerequisite of meaningfully controlling population include poverty alleviation, improving the standards of living and the spread of education. *Secondly*, on national scale the policy was not publicised and failed to generate mass support in favour of population control. *Thirdly*, we have insufficient infrastructure owing to the lack of trained staff, lack of adequate aptitude among the staff and limited use or misuse of the equipment for population control resulted in failure of the policy. *Lastly,* the use of coercion during the Emergency (1976-77) caused a serious resentment among the masses. This made the very NPP itself very unpopular.

Part-B: Census Information

Basic Information About Census

Earliest reference to Census in India comes from Kautilya's Arthashashtra. In Mughal period, writings of Abul Fazal in Ain-e-Akbari also give reference to the census.

First Census

- During British Era, first census was conducted non-synchronously in 1965, the efforts culminated in 1872 and thus, the 1872 Census is called first Census of India. First synchronous census was carried out in 1881. Since then, Census in India is carried out every 10 years. Census 2011 was the latest and fifteenth Census in this continuous series from 1872. It was *seventh* since Independence.
- Indian population census organisation is considered as the largest administrative network in the world.

Census Act Provisions

In India, the population census is a Union subject (Article 246) and is listed at serial number 69 of the seventh schedule of the constitution. The Census Act 1948 forms the legal basis for conduct of census in independent India. Although the Census Act is an instrument of Central legislation, in the scheme of its execution, state hierarchy is setup at all levels by State Governments for the purpose of carrying out census.

- Census Act 1948 gives necessary authority to the Census Organization to access to households and canvass the prescribed questionnaires and to expect the people to answer truthfully. This act empowers Central Government to notify the date for the census and to appoint a Census Commissioner and Superintendents of Census Operations in States.
- The Act enjoins upon every citizen to assist in the taking of census. The law makes it obligatory on the part of every citizen to answer the census question truthfully.
- The Act provides penalties for giving false answer or not giving answers at all to the census questionnaire.
- The law calls upon the census officers to discharge their duties faithfully and warns them against putting any question to a person which is not covered by the questionnaire and they are required to record the answers as given by the person enumerated.
- One of the most important provision of the Census Act 1948 is that it makes provisions for the maintenance of secrecy of the information collected at the census of each individual.

- The Act requires strict secrecy to be maintained about the individual's record which *should not be used for any purpose against the individual except for an offence in connection with the census itself.*
- The *census records are not open to inspection and also not admissible in evidence*. The answers ascertained at the census can be used only for statistical purposes in which the individual data get submerged.
- Services of teachers can be used for works of national importance like Census, disaster relief, elections etc. (as per RTE section 27)
- Section 27 of the Right to Education makes it obligatory for the teachers to be deployed in Census, disaster relief duties etc.
- Census Records Can NOT be used as evidence in any civil proceeding or criminal proceeding other than a prosecution under the Census act itself.

Operational Unit of enumeration is Household on individual

- The Census aims at enumerating every individual. But the operational unit is not the Individual but the household. A household is generally understood as a group of persons commonly living together and partaking of food from the same kitchen. There may be one or more than one households sharing one house. The census officers are trained and mandated to clearly locate every house and household(s) therein.

- For the census purpose, the country is divided into states and sub-divided into districts and further sub-divided into sub-districts, sub-divisions, taluks etc. The smallest unit of administration will ultimately be a village or a town.

Census Organization

- Census Organisation under the Union Home Ministry has been functioning on permanent footing ever since 1961 and provides a vital continuity to conceive, plan and implement the programme of census taking in country. The Organisation headed by the Registrar General and Census Commissioner, India has field offices in thirty three States and Union territories. These are permanent Directorates headed by the Directors of Census Operations, who are mainly responsible for the conduct of census in their respective jurisdiction.
- The states appoint State Co-ordinators for furthering co-ordination between the Directorate, Government of India and the State Government. Deputy Commissioners under the guidance of Divisional Commissioners function as Divisional Census Officers at the Division level in states. District Collectors as Principal Census Officers are responsible for the census work in their respective districts.

Objective of conducting a Census

- India is a welfare State. Since independence, Five Year Plans, Annual Plans and various welfare schemes have been launched for the benefit of the common man. All these require information at the grass root level. This information is provided by the Census. Census is the basis of how the number of seats in Parliamentary/Assembly Constituencies, Panchayats and other local bodies are determined. Similarly, Census helps on how the boundaries of such constituencies are demarcated. Census provides information on a large number of areas.
- House listing and Housing Census has immense utility as it provides comprehensive data on the conditions of human settlements, housing deficit and consequently a wide range of data on amenities and assets available to the households, information much needed by various departments of the Union and State Governments and other non Governmental agencies for development and planning at the local level as well as the State level. This would also provide the base for Population Enumeration.

Canvasser method and 'householder' method of enumeration

'Canvasser' and the 'Householder' methods are the two recognised methods of census enumeration.

- Under the 'Canvasser' method the enumerator approaches every household and records the answer on the schedules himself after ascertaining the particulars from the head of the household or other knowledgeable persons in the This is followed in India.
- Under the 'householder' method the enumerator distributes the census schedules to each household in his jurisdiction and the head of the household is expected to fill the answer for all members of his household and the enumerator later collects back the answered schedules soon after the census day is over.
- *Since literacy is still low, the 'canvasser' method is the only practical method in India.*

The Census of India is conducted once in a decade, following an extended de facto canvasser method. Under this approach, data is collected from every individual by visiting the household and canvassing the questionnaire all over the country, over a period of three weeks. The count is then updated to the reference date and time by conducting a Revisional Round. In the Revisional Round, changes in the entries that arise on account of births, deaths and migration between the time of the enumerator's visit and the reference date/time are noted down and the record is updated.

De-facto and De-jure enumeration

An important question pertaining to enumeration that always arises at a Population Census is whether the population should be counted on a de-facto basis i.e. at the place where a person is actually found on the reference date of the census or on a de-jure basis i.e., count a person only according to the place of normal residence.

- Of these, the enumeration on *de-jure basis is more difficult to achieve without the risks of omission or double count*. Enumeration of de-facto population though may appear simple will be difficult unless the movement of population is restricted on the census day and the entire enumeration is got through on a single night which is operationally difficult specifically when large population has to be covered by canvasser method.
- In practice, therefore, enumeration on a 100 per cent de-facto or de-jure basis is impossible and often times a variation or even a combination of the two is resorted to. The census instructions should clearly lay down who are the persons who should be enumerated during the census enumeration period.

Census 2011: Key Data

The Census of India 2011 was conducted in two phases as follows House listing and Housing Census and Population Enumeration. The population of India, at 1210.2 million, is almost equal to the combined population of U.S.A., Indonesia, Brazil, Pakistan, Bangladesh and Japan put together (1214.3 million). The population of India has increased by more than 181 million during the decade 2001-2011. The absolute addition is slightly lower than the population of Brazil, the fifth most populous 10 country in the world. 2001-2011 is the first decade (with the exception of 1911- 1921) which has actually added lesser population compared to the previous decade. The percentage decadal growth 14 during 2001-2011 has registered the sharpest decline since Independence – a decrease of 3.90 percentage points from 21.54 to 17.64 percent.

Top 10 States with highest population

Rank	State	Population (2011 Census)
1	Uttar Pradesh	19,95,81,477
2	Maharashtra	11,23,72,972
3	Bihar	10,38,04,637
4	West Bengal	9,13,47,736
5	Andhra Pradesh	8,46,65,533
6	Madhya Pradesh	7,25,97,565
7	Tamil Nadu	7,21,38,958
8	Rajasthan	6,86,21,012

Rank	State	Population (2011 Census)
9	Karnataka	6,11,30,704
10	Gujarat	6,03,83,628

Uttar Pradesh (200 million) is the most populous State in the country – population is more than the population of Brazil. The combined population of Uttar Pradesh and Maharashtra (312 million) is greater than the population of USA.

All top populated states show decline in decadal growth rate in 2001-2011 in comparison to 1991-2001.

Bottom 10 States with Lowest Population

Rank	State	Population(2011 Census)
18	Jammu and Kashmir	1,25,48,926
19	Uttarakhand	1,01,16,752
20	Himachal Pradesh	68,56,509
21	Tripura	36,71,032
22	Meghalaya	29,64,007
23	Manipur	27,21,756
24	Nagaland	19,80,602
25	Goa	14,57,723
26	Arunachal Pradesh	13,82,611
27	Mizoram	10,91,014
28	Sikkim	6,07,688

Highest populated Districts of India

Thane with population of 1.1 Crore is the most populated district of India. North Twenty Fourth Pargana in West Bengal is the second most populous district of India with a population of 1.08 Crore.

Lowest Populated Districts of India

With a population of 7948, Dibang Valley in Arunachal Pradesh is the lowest populated district of

India. Second lowest populated district of India is Anjaw which is also in Arunachal Pradesh. It had a population of 21089 in Census 2011.

States with Highest Decadal Growth Rate 2001-2011

According to Census 2011, Meghalaya has registered the highest decadal growth rate during 2001-11. Top ten states with highest decadal growth rate in India are as follows:

State	% Growth (2001-2011)
Meghalaya	27.80%
Arunachal Pradesh	25.90%
Bihar	25.10%
Jammu and Kashmir	23.70%
Mizoram	22.80%
Chhattisgarh	22.60%
Jharkhand	22.30%
Rajasthan	21.40%
Madhya Pradesh	20.30%

However, if we compare all states and UTs, then the highest decadal growth is registered by Dadra and Nagar Haveli that is 55.50% . Lowest Growth Rate has been of Nagaland – Negative .47%, followed by Kerala – 4.86%.

Union Territory	% Growth 2001-2011
Dadra and Nagar Haveli	55.50%
Daman and Diu	53.50%
Pondicherry	27.70%
Delhi	21%
Chandigarh	17.10%
Andaman and Nicobar Islands	6.70%

Union Territory	% Growth 2001-2011
Lakshadweep	6.20%

Districts with highest and lowest Decadal Growth Rate

District with highest decadal growth rate was Kurung Kumey in Arunachal Pradesh that registered 111% growth rate. District with lowest decadal growth rate was Longleng in Nagaland which registered -58.39% Growth rate.

Population of 0-6 Years

The total number of children in the age-group 0-6 is 158.8 million (-5 million since 2001). Highest population in this age group is in Uttar Pradesh. The 158.8 million children in age group 0-6 make 13.1 percent population of India. This figure was 15.9 percent in 2001 census. The decline in child population in the age group of 0-6 years to total Population is *indicative of fall in fertility*.

Gender Composition of India's population

India Sex ratio is 940 as per Census 2011. The sex ratio was 933 as per 2001 population. The sex ratio at 940 is highest Sex Ratio recorded since Census 1971. However, so far highest sex ratio in India was recorded in Census 1961. Kerala has highest sex ratio (1084) while Daman & Diu has lowest sex ratio (618). Mahe district of Puducherry is the district in India with highest sex ratio (1176), while Daman district in Daman & Diu has lowest sex ratio (533). India's child sex ratio (0-6 years) is 914, which is lowest since independence. Further, the three major States (J&K, Bihar & Gujarat) have shown decline in Sex Ratio as compared to Census 2001.

Literacy in census 2011

India's literacy rates stands at 74.04 % for age 7 and above. The literacy has increased by 9.2% from 2001 Census. Male literacy stands at 82.14 and female literacy stands at 65.46. The gap of 21.59 percentage points recorded between male and female literacy rates in 2001 Census has reduced to 16.68 percentage points in 2011.

Population density

As per the provisional data of Census 2011, population density of India stands at 382, which is 17.5% more than 325 in Census 2001. NCT of Delhi with 11297 is has highest density in India, followed by Chandigarh where population density stands at 9252. Population density of Arunachal Pradesh is 17. Lowest among all states and Uts in India. Lowest Population density among Uts is of Andaman & Nicobar Islands (46).

Religious Data in Census

The data on Religious population was released in August 2015. Following table shows the religious population of India:

Religion	Numbers (Per cent of the population)
Hindu	96.63 crore (79.8 %)
Muslim	17.22 crore (14.2%)
Christian	2.78 crore (2.3%)
Sikh	2.08 crore (1.7%)
Buddhist	0.84 crore (0.7%)
Jain	0.45 crore (0.4%)
Other Religions & Persuasions (ORP)	0.79 crore (0.7%)
Religion Not Stated	0.29 crore (0.2%)

Controversy over Religious Data in Census 2011

The data had stirred up a controversy (in media) with respect to the growth of the minority (Muslim) population. The data revealed that the share of Hindus in India's population had fallen very slightly from 80% to 79.8%. At the same time, the share of Muslims rose slightly from 13.4% in 2001 to 14.2% in 2011. But the data reveals that the rate of growth for Muslims is considerably lower than in previous decades. We note here that 2004 also similar controversies had erupted when the government released the Census 2001 data on religion. In 2005, the union government had set *Rajinder Sachar committee* to find out the social, economic and educational status of the Muslims. That report had discussed about the Muslim population growth in India and had thrown light on some of the misconceptions about the population growth of Muslims in India.

After the government released data, some went to extent of saying that the increased growth of Muslim population is a part of conspiracy to take over India demographically. However, such rhetoric throws further misgivings only. The demographic changes should be analyzed in not only short period context but also in context of structural socio-economic changes. The relatively faster growth rate in Muslim population is due to younger median age (22 in Muslims, 26 in Hindus) and relatively high Total Fertility Rate in Muslims (3.1) in comparison to Hindus (2.7) and Christians (2.3). The higher fertility rate is mainly because of low female literacy rates, poverty and backwardness. The Muslim women in India, particularly rural women live in stranglehold of the harsh customs and unable to act on their own to obtain family planning services to regulate their childbearing. However, fortunately, there is a growing awareness among the new generation for women. Muslim women are also challenging patriarchy that all women experience around unequal power hierarchies in society.

Socio-Economic Caste Census 2011

The 1st ever post independence Socio-Economic and Caste Census (SECC) 2011 began on 29 June 2011 from the Sankhola village of Hazemara block in West Tripura District. Government released the results of SECC-2011 in July 2015. SECC-2011 was first caste based census of Independent India. Earlier, caste based data was collected in 1931 Census. It was also SECC-2011 was also India's first paperless Census conducted on handheld devices by the government in 640 districts of the country. Government would use SECC-2011 data in all programmes such as NFSM, MGNREGA, Deen Dayal Upadhyaya Grameen Kaushalya Yojana etc and to identify the beneficiaries of direct benefit transfer (DBT) under the JAM (Jan Dhan-Aadhaar-Mobile) Trinity.

Objectives

The key rationale behind conducting a socio-economic and caste census was to assess the population that is actually below the poverty line (BPL).

Methodology

The SECC-2011 was based on exclusion criteria under which *households possessing specified assets are automatically excluded from the list*. The crucial difference between past BPL censuses (as the SECC is also called) and the current one, apart from the methodology, is that caste was analysed for the first time on a nationwide scale. The SECC data included:

- households without shelter
- destitute/living on alms
- manual scavengers
- Primitive Tribal Groups
- legally released bonded labourers.

The above households would be given highest priority for inclusion in the BPL list. Rest households are identified as poor from the *angle of deprivation* to which they are subjected to. The Angle of Deprivation is based on several deprivation factors such as: the households which have only one room with kacha walls and kacha roof; there is no adult member in the household between 16-59 age; female headed households with no adult male member between age 16 to 59; households without able bodied adult members, households without literacy; landless households earning via only manual causal labour.

The government had fixed a formula to rank the households on the basis of *deprivation score* on the basis of seven criteria. The order of priority for inclusion of households in the BPL list is the largest number of deprivations to smallest number of deprivations.

Further, there was a provision to automatically exclude the people from BPL list if they have certain assets, for example- two/three vehicles, motorized boats, tractors and other farming machines, Kisan card with credit limit above Rs. 50000, households with any member as government employee (except honorarium based workers like ASHA, Anganwadi workers), households with some registered enterprises, households with any family member earning more than Rs. 10000 per month, income tax payees, households with pukka houses, having a refrigerator or landline phones, having 2.5 acre or more land with at least one tube well etc.

Key Findings

- Out of the 24.4 crore households in India, 17.9 crore live in villages, which is 73.3% of all households in India. Out of these, 10.7 Crore households are deprived.
- Close to 30% rural households are landless and do the manual causal labour for bread winning; 13% live in one room huts (with kacha walls or roof) and 22% of them are from SC/ST category. More than half (56%) rural households in India are landless.
- 36% rural people are illiterate in India. This figure was recorded 32% in Census 2011. Out of the remaining 64% literate, around 20% have not completed primary school.

- 35% of urban Indian households qualify as poor
- Around 1.80 Lakh households are still engaged in manual scavenging for livelihood. Largest number of manual scavengers in India are in Maharashtra state. Close to 64 thousand out of 1.80 Lakh households in entire country are engaged in manual scavenging in Maharashtra for living. Maharashtra (63,713) is followed by Madhya Pradesh (23,093), Uttar Pradesh (17,619), Tripura (17,332) and Karnataka (15,375) and Punjab.
- India's 0.1% population is comprised of transgender. Highest proportion of transgenders is in Andaman & Nicobar Islands, West Bengal, Gujarat, Odisha and Mizoram.

Important Trivia

- *The SECC-2011 was NOT conducted under the Census Act 1948*, which implies that the information collection was done on self-declaration model of the respondents.
- SECC 2011 has three census components which were conducted by three separate authorities as follows:
    - Census in Rural Area was conducted by the Department of Rural Development.
    - Census in Urban areas was done under the administrative jurisdiction of the Ministry of Housing and Urban Poverty Alleviation.
    - Caste Census was done under the administrative control of Ministry of Home Affairs (Registrar General and Census Commissioner of India)

- The paperless Census was done via handheld devices manufactured by Bharat Electronics Ltd. Management of Information System (MIS) for the management of the database of Socio Economic Census 2011 and to facilitate its subsequent use by the MORD, other ministries and State Governments to be facilitated by National Informatics Centre (NIC).
- The methodology for conducting the Census in Rural areas is based upon suggestion of Expert Group chaired by Dr NC Saxena and a Pilot Study carried out in 29 States/Union Territories, thereafter.

Analysis

Our country has always struggled to define who is poor. Despite of so many committees formed over the last many decades, there has never been a correct insight into who are the legitimate beneficiaries of the welfare schemes. Further, the official estimates of the poor have always tended to underestimate the number of poor in comparison to the estimates done by international organizations such as World Bank. In this context, the SECC data seems to quite enlightening and innovative. The use of various deprivation factors and automatic exclusion make it free from controversy. Further, its finding are different from what official estimations of rural as well as urban poor by different committees had been so far.

Extent of Rural Poverty

The *key finding of the SECC-2011 is that rural India is poor*. The main breadwinner of the 74.5% rural households in India earns less than Rs. 5000 per month. This ratio is even higher in states such as West Bengal (82.4%), Madhya Pradesh (83.52%) and Chhattisgarh (90.79%). However, SECC data needs to be adjusted for tendency of the rural people to not to tell correct income in fear of losing some entitlement benefits. However, despite we do all adjustment, there is no doubt that deprivation levels in rural India are still far too high.

Extent of Urban Poverty

According to SECC-2011, 35% of urban households are poor (below BPL). This figure is in striking contrast with the earlier estimates that ranged from 13.7% as per Tendulkar committee methodology, while 26.4% as per Rangarajan formula. Here, we should note that SECC numbers have greater credibility as the data has been collected via door-to-door enumeration. However, in urban areas also, there may be a tendency to understate income and asset ownership.

How SECC can help?

The decadal Census focuses on individuals while SECC has focussed on households. The data would be helpful for states and centre to target the most needy of the DBT and other schemes. Since SECC has also included the homeless, there is a chance that a large number of hitherto excluded people are brought into the welfare schemes of the government. Further, the caste data might be helpful on if the policy of reservation has really helped the most downtrodden of India.

Further, with SECC data, the writing on the wall is clear. The SECC makes case for a paradigm shift in the economic policy making and budget allocation both by central and union governments. At the core of it, the policy making needs to be decentralized and include the most downtrodden people.

Part-C: Unemployment Fundamentals

Concepts related to Labour Force

Labour Force refers to the number of persons *actually working or willing to work.* However, workforce refers to the number of persons *actually working*. Thus, workforce does not account for those who are willing to work. The difference between labour force and workforce is the total number of unemployed persons.

Number of Persons unemployed = Labour Force – Workforce

Workforce does not takes into account the wage rates. On the other hand, labour supply refers to supply of labour *corresponding to different wage rates.*

Labour Force Participation Rate

Labour Force Participation Rate (LFPR) is defined as the number of persons in the labour force per 1000 persons.

$$LFPR = \frac{no. of\ employed + no. of\ unemployed\ persons}{Total\ population} X\ 1000$$

For example, if population is 1000, and there are 400 people actually working while 300 people willing to work; then, LBPR would be 700. LBPR can also be shown in percentage, whereby the above figure would become 70%.

Worker Population Ratio

Worker Population Ratio (WPR) is defined as the number of persons employed per 1000 persons.

$$WPR = \frac{no. of\ employed\ persons}{Total\ population} X\ 1000$$

As per NSSO 68th round, India's worker population ratio is 537.

Usual approach

A main worker is the person who has worked more than 183 days in a year. Marginal worker is the person who has worked less than 183 days in a calendar year. The major time spent by a person (183 days or more) is used to determine whether the person is in the labour force or out of labour force. This is called Usual approach in determining the participation rate.

Other Facts

- Unemployment is an economic situation marked by the fact that individuals actively seeking jobs remain unhired. Unemployment may be voluntary in nature also as individuals sometimes not interested to work at the prevailing wage rate due to various reasons. They are not included among the job seekers.
- As ability to work is one of the important indicator in calculation of unemployment, people of the age 15 – 60 excluding sick people are included in the workforce.
- In India, a person working 8 hours a day for 273 days in a year is considered as employed on a standard person year basis. An employed person should contribute to the growth of GDP of the country. Employment can be either self-employment or hired employment. Hired employment is either on casual basis or regular basis.

Types of Unemployment

There are several kinds of unemployment rate as follows.

Open Unemployment

Open unemployment is a condition in which people have no work to do. They are able to work and are also willing to work but there is no work for them. They are found partly in villages, but very largely in cities. Most of them come from villages in search of jobs, many originate in cities themselves. Such employment can be seen and counted in terms of the number of such persons. Hence it is called open unemployment. Naked unemployment is another term used for open unemployment.

Structural Unemployment

It occurs due to structural changes in the economy. Structural changes can be due to change in technology (from labour intensive technology to capital intensive technology) or change in the pattern of demand. In a developing country like India, structural unemployment exists both in the rural and the urban areas.

Frictional Unemployment

It occurs when a worker is shifting from one job to the other. During the mobility period, he may unemployed for some time. It is a temporary phenomenon. In other words, Frictional unemployment is the time period between jobs when a worker is searching for, or transitioning from one job to another. It is sometimes called *search engine* and can be voluntary based on the circumstances of the unemployed individual.

Cyclical Unemployment

It occurs because of cyclical fluctuations in the economy. Phases of boom, recession, depression and recovery are typical characteristics of a capitalist economy. In boom phase, high level of economic activity results in high level of employment whereas recession and depression phases marked with low demand results in more unemployment and during the recovery phase unemployment is slowly reduced.

Under-employment

It is a situation under which employed people are contributing to production less than they are capable of. It can be in terms of time (visible under-employment) or type of work (invisible under-employment). Part-time workers come under this category.

Disguised Unemployment

A disguisedly unemployed person is the one who seems to be employed but actually he is not. His contribution to the total output is zero or negligible. When more people are engaged in a job than actually required, a state of disguised unemployment is created. It is mostly seen in rural areas.

Seasonal Unemployment

It occurs only during seasonal months of the year. In India, it is very common in agriculture sector. In certain type of industries also this type of unemployment is found. Disguised unemployment and seasonal unemployment are two most common types of unemployments found in rural India particularly in farm sector.

Unemployment Trends in India

There are five sources of employment / unemployment statistics in India viz. NSSO, Economic Census, Employment Market Information Programme of DGET, Registrar General of India and Labour Bureau. The NSSO (National Sample Survey Office) releases its survey-based employment results every five years. It includes both organised and unorganised sector employment. Central Statistics Office (CSO) releases the 'Economic Census' every five years, which also provides survey-based data on employment but only with respect to establishments in the organised and unorganised sectors. Labour Bureau, Ministry of Labour and Employment, releases the 'Annual Survey of Industries (ASI)', covering employment in the organised sector as well as the 'Quarterly Report on Changes in Employment in Select Sectors'. While the NSSO, Economic Census and ASI offer state-level data, the quarterly publication releases sector-wise details.

Extent of Unemployment

The latest available data / trends on unemployment in India is from Employment & Unemployment Survey (2011-12) conducted by Labour Ministry and Economic surveys of last few years. According former report, all-India unemployment rate is 3.8 percent. This figure is in contrast with ILO (International Labour Organisation) data of 2011 which said that India's 6% population is unemployed. Out of this 3.8, male unemployment stands at 2.9% while female stands at 6.9%. Highest unemployment rate is in Goa (17.9%) followed by 14.1% in Tripura, 12.6% in Sikkim, 9.9%

in Kerala, 8.3% in Bihar and 7.8% in West Bengal.

Labour Force Participation Rate

At All India level the Labour Force Participation Rate (LFPR) based on usual principal status approach is estimated at 529 persons out of 1000 persons. The male and female LFPR is estimated to be 774 and 254 persons respectively per
1000 persons each.

Worker Population Ratio

The WPR at All India level based on usual principal status is estimated at 508 persons out of 1000 persons; which signifies that about 51 per cent of the population of age 15 years & above is employed.

Self-employed and Hired Workers

The ratio of self-employed and hired workers is another important feature of employment which indicates the nature of employment in the country. Nearly 48 percent of workforce is hired and 52 percent of it is self-employed.

Factors Accounting for Unemployment

Several factors account for the variation in the degree of Unemployment in different states. Normally, Unemployment is high in areas having the following characteristics:

- Larger proportion of agricultural Labourers
- more urbanisation
- More pressure of population on agriculture.
- High rate of illiteracy.

Regarding unemployment in India, we need to note that since poor cannot afford to remain unemployed, unemployment rate among the poor is very low as compared to educated youth who are from the relatively better of economic family background. Higher the level of education attainment, higher is the rate of unemployment in India. This is partly because of the fact that they can afford to remain unemployed to search for better employment opportunities. This is also a reason that there is increase in proportion of “Non workers” among Youth since 2001. Further, in recent years, the proportion of Non-workers has also increased among rural youth.

Employment in Organised and Unorganised Sectors

Employment may broadly be classified as:

- Organised or formal sector employment and
- Unorganised or informal sector employment.

Organised or formal sector employment means employment which is offered by public and private sector establishmentswith10 or more workers. Unorganised or informal sector employment means employment offered by private enterprises hiring less than 10 workers, besides employment in farming and self-employment ventures. Workers in organised sectors are entitled for social security benefits.

Employment Growth Rate

There has been a slowdown in the growth of employment. For the last 14-15 years, the approximate growth rate in employment has been ranging between 3.0 to 3.3 percent annually.

Share of Major Sectors in Total Employment (per cent)

	1999-2000	2004-05	2011-12
Agriculture & allied	59.9	58.5	48.9
Industry	16.4	18.2	24.3
Services	23.7	23.3	26.9

Source: Rangarajan, Seema, and Vibeesh (2014).

According to Economic Survey 2013-14, there has been a decline in the workforce in agricultural and allied sector, while there is an increase in industry and service sector. In 2011-12, almost half of total workforce was employed in farm related activities while remaining half in industry and services.

Need of Investment growth for creation of Jobs

Defining challenge in India today is that of *generating employment and growth*. Jobs are created by firms when firms invest and grow. Hence it is important to create environment conducive for firms to invest.

Reforms are needed on three fronts

- Creating a framework for sustained low and stable inflation
- Setting public finances on a sustainable path by tax and expenditure reform
- Creating the legal and regulatory framework for a well-functioning market economy.

Economic Development and structural shift in employment

The Economic Development must bring some notable changes in the structural, institutional and technical set up. For example a shift from the dominance of primary sector to that of the secondary and tertiary sector is one of the important structural changes. Then, the change from labour intensive to capital intensive technology is a technological change. The shift in the ownership of land from the absentee landlords to actual tillers is institutional change.

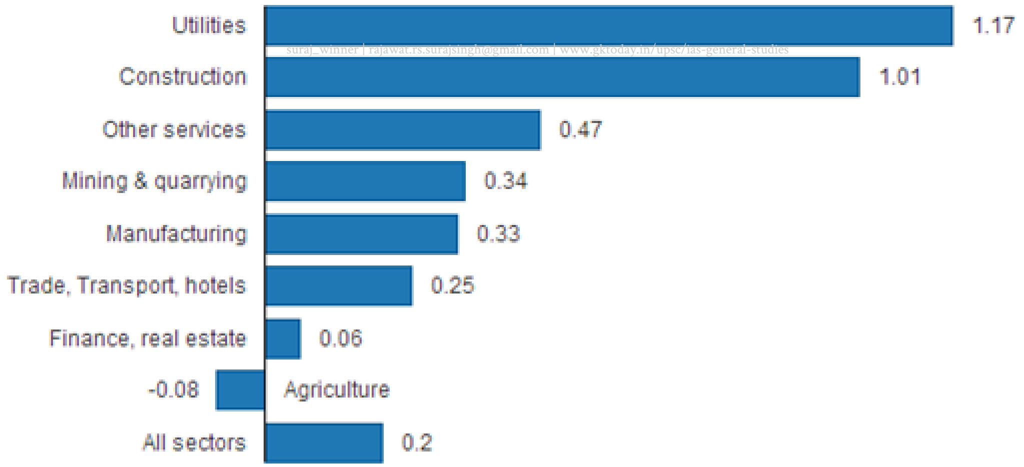
Thus, on path of development, there is a decline in farm employment and surge in non-farm employment.

This is evident from the data presented in the economic survey 2013 that growth of India's service sector is second fastest in the world only after china. In the services sector, the survey noted that largest growth of employment was registered by "**Construction**" sector, registering an increase of nearly 2.5 crore between 2004-05 and 2011-12.

Employment Elasticity

It is an irony that a few years back, when India was on high growth trajectory, its growth was **jobless growth.** Jobless growth means that the high growth in GDP did not accompany a similar growth in employment, resulting in a *low Employment Elasticity*.

Employment elasticity is a measure of how employment varies with economic output. An employment elasticity of 1 implies that with every 1 percentage point growth in GDP, employment increases by 1%. As a missed opportunity, the extraordinary growth during yesteryears didn't lead to any employment growth at all. For example, between 2004–05 to 2009–10, employment elasticity of India was as low as 0.01, which implies that with every 1 percentage point growth in GDP, employment increased by just one basis point.



Employment Elasticity of various sectors in 2009-10 (Source RBI)

In recent years, the highest employment elasticity has been shown by the Construction and utilities sector (which includes energy, water and waste management). These are the biggest job generators in our country. Further, the graphics above shows that *farm sector in India has shown negative employment elasticity*. This simply indicates that growth in farm sector is accompanied by reduction in farm employment as more and more people leave this sector and go out for jobs in non-farm sector.

This indicates a daunting task for the government. On the one hand, it has to revive growth; on other hand, it has to provide new and better-paying jobs for a growing workforce.

Decreasing women participation in labor force and workforce

In recent years there has also been a decline in the labour force and workforce participation rates of women. A large number of analysts have ascribed this to a rapid increase in female participation in education, both in the rural and urban areas.

We note here that very low and stagnating female labor force participation rates in urban India over the past 25 years. This stagnation is surprising given that it took place at a time of high GDP and earnings growth, a sizable fertility decline, a rapid expansion of female education, and rising returns to education. A combination of demand and supply side effects have played a role in accounting for this stagnation. On the supply side rising male incomes and education have reduced female labor force participation. Second, as the survey noted, there is a rapid increase in female participation in education, both in the rural and urban areas. This in part is driven by the preferences of educated women for white-collar service employment and stigmas attached with working in other sectors.

Causes of Unemployment in India

Problem of unemployment in India is not very grave in comparison to countries like Spain, Greece etc. However, the problems is of Under-employment, whereby people do the jobs worth less than

their capacity to do. The growth of Indian Economy has been jobless. Since 1990's, Indian economic growth is mainly based on manufacturing and services sector. The use of efficient technology in these sectors resulted in low level of employment opportunities creation. The low level of economic growth in primary sector curtailed the job opportunities at rural level. Thus it resulted in jobless growth. Further, rapid population growth adds more labour force to the market. More population means more consumption and less saving, less saving implies less capital formation and less production which finally leads to less employment. Some other reasons are as follows:

Agriculture – A Seasonal Occupation

- Being a seasonal activity, agriculture largely offers seasonal employment. Those engaged in farming remain idle for three to four months in a year.

Decline of Small Scale and Cottage Industries

- Industrial policy of British government curtailed the growth of small scale and cottage industries. Independent India's preference to large scale industry and new industrial policy of 1990's resulted in decline of small scale industries.

Joint Family System

- It encourages disguised unemployment. In big families having large business establishments, many such persons are found who do not do any work and depend on the joint income of the family. Joint family system is more prevalent in rural areas; hence a high degree of disguised unemployment there.

System of Education

- Prevailing educational system failed to produce trained and efficient labour force capable of self-employment. Country is producing a large number of graduates and post-graduates capable of white collar jobs only. Since the supply of such jobs is less than their demand, unemployment is the obvious outcome.

Mobility of Labour

- Labour mobility is very low in India. Because of their family loyalty, people generally avoid migrating to far-off areas of work. Factors like diversity of language, religion and customs also contribute to low mobility. Lower mobility causes greater unemployment.