Economics - TEST – 5 PART – II

11th Economics	Unit 1	Introduction to Micro-Economic
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11th STD Economics

Unit – 1 Introduction to Micro-Economic

Introduction

- A subject should have a name or a title that facilitates a clear and correct understanding of its contents. In a subject like Economics, there are many books available with titles such as 'Introductory Economics', 'Economics: An Introduction', 'Basic Economics', 'Elements of Economics', 'Elementary Economics', 'Fundamentals of Economics' etc. But these books have the same contents, though each is intended to serve readers of a different levels of interest and capacity.

- A good introduction to a subject, besides containing the meaning of its title, should have an explanation of the nature and scope of the subject, i.e., whether the subject is traditional or modern, static or dynamic. The readers should be in a position to clearly classify the subject as belonging to either arts alone, or to science alone or to both. The significance of all the branches of the subject should find a place in it. As they go through the introduction, the readers should be able to understand the relationships of the subject with other subjects. Newer areas incorporated into the subject and the newer ways of comprehending its contents are to be highlighted in the introduction. The methodologies applied in the derivation of its laws are to be stated in such an introduction.

Economics: Meaning

- The term or word 'Economics' comes from the Ancient Greek oikonomikos (oikos means "households"; and, nomos means "management", "custom" or "law"). Thus, the term 'Economics' means 'management of households'. The subject was earlier known as 'Political Economy', is renamed as 'Economics', in the late 19th century by Alfred Marshall.

Economics: Its Nature

- The nature of a subject refers to its contents and how and why they find a place in the subject. This nature is understood by studying the various definitions given by the notable economists. The existence of multiplicity of the definitions makes some scholars comment that a search for a clear definition of Economics is an exercise in futility. J. M. Keynes, for example, observes that "Political Economy is said to have strangled itself with definitions". Their presence makes studying a subject interesting, exciting, enjoyable, or worthwhile. In fact, their presence in a social science subject is a clear sign of the growth of the science. It indicates that there exists freedom for people associated with such as science to formulate fresh definitions. These associates appreciate and make use of the opportunity afforded to them and come up with a plethora of definitions saying: 'The more, the merrier'. Each definition represents a unique generalisation. A wide variety of definitions paves the way to arrive a near-complete agreement on the subject-matter of Economics.

- A science grows stage by stage, and at every stage, its newer definition emerges and a concept associated with it receives some special emphasis. However, the study of a subject is made possible when it possesses its clear cut definition and boundary.

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1. Smith's Wealth Definition, representing the Classical era;
2. Marshall's Welfare Definition, representing the Neo-Classical era;
3. Robbins' Scarcity Definition, representing the New Age; and,
4. Samuelson's Growth Definition, representing the Modern Age.

Wealth Definition: Adam Smith

- Adam Smith (1723- 1790), in his book "An Inquiry into Nature and Causes of Wealth of Nations" (1776) defines "Economics as the science of wealth". He explains how a nation's wealth is created and increased. He considers that the individual in the society wants to promote his own gain and in this process, he is guided and led by an "invisible hand". He states that every man is motivated by his self interestThis means that each person works for his own good.

- Smith favours the introduction of "division of labour" to increase the quantum of output. Severe competition in factories and society helps in bettering the product. Supply force is very active and a commodity is made available to the consumers at the lowest price.

The publication of Adam Smith's"The Wealth of Nations" in 1776, hasbeen described as "the effective birthof economics as a separate discipline".

Criticism

For Smith, Economics consists of 'wealthgetting' activities and 'wealth-spending' activities. An undue emphasis is given to material wealth. Wealth is treated to be an end in itself. This view leads him to ignore human welfare as an essential part of Economics. Smith gives his definition when religious and spiritual values are held high. Ruskin and Carlyle regard Economics as a 'dismal science', "pig science" etc. as it teaches selfishness which is against ethics.

Welfare Definition: Alfred Marshall

- Alfred Marshall (1842-1924) in his book "Principles of Economics" (1890) defines Economics thus: "Political Economy" or Economics is a study of mankind in the ordinary business of life; it examines that part of individual and social action which is most closely connected with the attainment and with the use of the material requisites of well-being. Thus, it is on one side a study of wealth; and on the other, and more important side, a part of the study of man."

The important features of Marshall's definition are:

- Economics does not treat wealth as the be-all and end-all of economic activities. Man promotes primarily welfare and not wealth.
- The science of Economics contains the concerns of ordinary people who are moved by love and not merely guided or directed by the desire to get maximum monetary benefit.
- Economics is a social science. It studies people in the society who influence one another.

Criticism

- Marshall regards only material things. He does not consider immaterial things, such as the services of a doctor, a teacher and so on. They also promote people's welfare.

- In the theory of wages, Marshall ignores the amount of money that goes as reward for the services of 'immaterial' services.

- Marshall's definition is based on the concept of welfare. But it is not clearly defined. Welfare varies from person to person, country to country and one period to another. Marshall clearly distinguishes between those things that are capable of promoting welfare of people and those things that are not. Things like liquor that are not capable of promoting welfare but command a price, come under the purview of Economics

- However, welfare means happiness or comfortable living conditions of an individual or group of people. The welfare of an individual or nation is dependent not only on the stock of wealth possessed but also on political, social and cultural activities of the nation.

Scarcity Definition: Lionel Robbins

- Lionel Robbins published a book "An Essay on the Nature and Significance of Economic Science" in 1932. According to him, "Economics is a science which studies human behaviour as a relationship between ends and scarce means which have alternative uses".

The major features of Robbins' definition are:

- Ends refer to human wants. Human beings have unlimited number of wants.

- On the other hand, resources or means that go to satisfy the unlimited human wants are limited or scarce in supply. The scarcity of a commodity is to be considered only in relation to its demand.

- Further, the scarce means are capable of having alternative uses. Hence, an individual grades his wants and satisfies first his most urgent want. Thus, Economics, according to Robbins, is a science of choice.

Criticism

- Robbins does not make any distinction between goods conducive to human welfare and goods that are not. In the production of rice and alcoholic drink, scarce resources are used. But the production of rice promotes human welfare, while that of alcoholic drinks does not. However, Robbins concludes that Economics is neutral between ends.

- Economics deals not only with the micro-economic aspects of resourceallocation and the determination of the price of a commodity, but also with the macro-economic aspects like how national income is generated. But, Robbins reduces Economics merely to theory of resource allocation.

- Robbins' definition does not cover the theory of economic growth and development.

Growth Definition: Samuelson

- Paul Samuelson defines Economics as "the study of how men and society choose, with or without the use of money, to employ scarce productive resources which could have alternative uses, to produce various commodities over time, and distribute them for consumption, now and in the future among various people and groups of society".

The major implications of this definition are as follows:

- Like Robbins, Samuelson states that the means are scarce in relation to unlimited ends and that such means could be put to alternative uses.
- Samuelson makes his definition dynamic by including the element of time in it. Therefore, his definition covers the theory of economic growth.
- Samuelson's definition is applicable also in a barter economy, where money is not used.
- His definition covers various aspects like production, distribution and consumption.
- Samuelson treats Economics as a social science, whereas Robbins regards it as a science of individual behaviour.
- Of all the definitions discussed above, the 'growth' definition stated by Samuelson appears to be the most satisfactory.

Scope of Economics

* The scope of the subject of Economics refers to on the subject-matter of Economics. It throws light on whether it is an art or a science and if science, whether it is a positive science or a normative science.

Economics: Its subject-Matter

* Economics focuses on the behaviourand interactions among economicagents, individuals and groupsbelonging to an economic system.It deals with the activities such asthe consumption and productionof goods and services and thedistribution of income among thefactors of production. The activitiesof the rational human beings inthe ordinary business of life underthe existing social, legal andinstitutional arrangement areincluded in the Science of Economics;the abnormal persons and the sociallyunacceptable and unethical activitiesare excluded.

* Economics studies the ways in which people use the available resources to satisfy their multiplicity of wants. Scarcity is a problem indicating the gap between what people want and what they are able to get. This scarcity can be eliminated either by limiting the human wants or by increasing the supply of the goods that satisfy the human wants. The method of getting more is resorted to, rather than the method of wanting less.

* Economics is concerned with activities of human being only. Human beings are related to one another and the actions of one member affect those of the other members in the society. Hence, Economics is called a Human Science or Social Science.
* The activities of rational or normal human beings are the subject-matter of Economics.
* All human activities related to wealth constitute the subject-matter of Economics. Thus, human activities not related to wealth (non-economic activities) are not treated in Economics. For example, playing cricket for pleasure, mother's child care.
* It is customary to clarify whether Economics is an art or a science; and if it is a science, to observe its specific features.

Economics is an Art and a Science
Economics as an Art

* Art is the practical application of knowledge for achieving particular goals. Economics provides guidance to the solutions to all the economic problems.

* C. Pigou, Alfred Marshall and others regard Economics as an art.

Economics as a Science

* Science is a systematic study of knowledge. All its relevant facts are collected, classified and analyzed with its scale of measurement. Using these facts, science develops the co-relationship between cause and effect. Scientific laws derived are

tested through experiments; and future predictions are made. These laws are universally applicable and accepted. Economists like Robbins, Jordon and Robertson argue that Economics is a science like Physics, Chemistry etc., since, it has several similar characteristics. Economics examines the relationships between the causes and the effects of the problems. Hence, it is rightly considered as both an art and a science. In fact, art and science are complementary to each other.

Economics: Positive science Normative science

- Positive science deals with what it is, means, it analyses a problem on the basis of facts and examines its causes. For example, at the time of a price increase, its causes are analysed.

- On the other hand, normative science responds to a question like what ought to be. Here, the conclusions and results are not based on facts, but on different considerations belonging to social, cultural, political, religious realms. They are basically subjective in nature.

- In short, positive science is concerned with 'how? and why?' and normative science with 'what ought to be'. The distinction between the two can be explained. An increase in the rate of interest, under positive science, would be looked into as to why and how can it be reduced, whereas under normative science, it would be seen as to whether it is good or bad.

Three statements about each type are given below:
Positive Economics

- ❖ An increase in money supply implies a price-rise in an economy.
- ❖ As the irrigation facilities and application of chemical fertilizers expand, the production of food-grains increases.
- ❖ An increase in the birth rate and a decrease in the death rate reflect the rate of growth of population.

Normative Economics

- ❖ Inflation is better than deflation.
- ❖ More production of luxury goods is not good for a less-developed country.
- ❖ Inequalities in the distribution of wealth and incomes should be reduced.

Basic Concepts in Economics

- Like other sciences, Economics also has concepts to explain its theories. A complete and clear grasp of their meaning is necessary when the theories associated with them are studied. Only a preliminary acquaintance is now attempted here.

Goods and Services

- Both goods and services satisfy humanwants. In Economics, the term 'goods'implies the term 'services' also, unlessspecified otherwise. Goods (also called 'products', 'commodities', 'things' etc)

    - as material things, they are tangible;
    - have physical dimensions, i.e., their physical attributes can be preserved over time;
    - exist independently of their owner;
    - are owned by some persons;
    - are transferable;
    - have value-in exchange;

Ki nds of Goods (and Services)
Free and Economic goods

- Free goods are available in nature and in abundance. Man does not need to incur any expenditure to own or use them. For example air, and sun shine. Water was also an example in the past, but at present it has exchange value. So it is not a free good.

- Milton Friedman, a Nobel laureate, popularises a saying: "There is no such thing as a free lunch". He means that it is impossible to get something for nothing. Even those offered 'free' always costs a person or the society as a whole. Its cost, however, is hidden. It is an externality. Someone can benefit from an externality or from a public good, but someone-else has to pay the cost of producing these benefits. In Economics, it refers to 'opportunity cost'.

- On the other hand, economic goods are not available in plenty. They are scarce in supply. Man has to spend money to own or use them.

Consumer goods and Capital goods:

- Consumer goods directly satisfy human wants, TV, Furniture, Automobile etc.

- Capital-goods (also called producer's goods) don't directly satisfy the consumer wants. They help to produce consumer goods. For example, machines do not directly satisfy the consumers, but in factories, the manufacturers need them.

Perishable goods and Durable goods:

- Perishable goods are short-lived. Their life-span is limited. For example fish, fruits, flower etc do not have a long life.

- Durable goods and semi-durable goods have a little longer life-time than the Perishable goods. For example, a table, a chair etc.

Services

- Along with goods, services are produced and consumed. They are generally, possess the following:

Intangible:

- Intangible things arenot physical objects but exist inconnection to other things, forexample, brand image, goodwill etc.But today, the intangible things areconverted and stored into tangibleitems such as recording a music pieceinto a pen-drive. They are marketed asa good.

Heterogeneous:

- Services vary across regions or cultural backgrounds. They can be grouped on the basis of quality standards. A single type service yields multiple experiences. For example, music, consulting physicians etc.

Inseparable from their makers:

- Services are inextricably connected totheir makers. For example, labour andlabourer are inseparable; and,

Perishable:

- Services cannot be stored as inventories like assets. For example, it is useless to possess a ticket for a cricket-match once the match is over. It cannot be stored and it has no valuein- exchange.

Utility
Meaning

- 'Utility' means 'usefulness'. In Economics, utility is the wantsatisfying power of a commodity or a service. It is in the goods and services for an individual consumer at a particular time and at a particular place.

Characteristics of Utility

- Utility is psychological. It depends on the consumer's mental attitude. For example, a vegetarian derives no utility from mutton;
- Utility is not equivalent to usefulness. For example, a smoker derives utility from a cigarette; but, his health gets affected;
- Utility is not the same as pleasure. A sick person derives utility from taking a medicine, but definitely, it is not providing pleasure;
- Utility is personal and relative. An individual obtains varied utility from one and the same good in different situations and places;

* Utility is the function of the intensity of human want. An individual consumer faces a tendency of diminishing utility;
* Utility is a subjective concept it cannot be measured objectively and it cannot be measured numerically;
* Utility has no ethical or moral significance. For example, a cook derives utility from a knife using which he cuts some vegetables; and, a killer wants to stab his enemy by that knife. In Economics, a commodity has utility, if it satisfies a human want;

Types of Utility

* The following are the types of utility

Form Utility:

* An individual consumer obtains utility from a good or service only when it is available in a particular form. Raw materials in their original form may not possess utility for a consumer. But in their changed forms as they become finished products, they provide utility to him. For example, cotton as a raw material may not possess utility for a consumer; but as it gets a new form as a cloth, it yields the consumer utility.

Time Utility:

* A sick man derives time utility from blood not at the time of its donation, but only at the operation-time, i.e., when it is used.

Place Utility:

* A student derives place utility from a book not at the place of its publication (production centre) but only at the place of his education (consumption centre).

Service Utility:

* An individual consumer derives service utility from a service made available at the time when he most needs it. For example, clients obtain service utility from their lawyers, patients derive service utility from the doctors and so on.

Possession Utility:

* When a student buys a book or dictionary from a book seller, then only it gives utility.

Knowledge Utility:

* It is the utility derived by having knowledge of a particular thing. Advertisement serves as a source of information on an object.

Measurability of Utility

- Wants of a person are satisfied by the act of consumption. The consumer derives utility, measured in terms of 'Utils'. An 'Util' is a unit of measurement of utility. An individual pays a price for the unit of the good, equal to the utility derived. Marshall states that utility can be measured indirectly using the 'measuring rod of money'.

Price

- Price is the value of the good expressed in terms of money. Price of a good is fixed by the forces of demand for and supply of the good. Price determines what goods are to be produced and in what quantities. It also decides how the goods are to be produced.

Market

- Generally, market means a place where commodities are bought and sold. But, in Economics, it represents
- where buyers and sellers enter into an exchange of goods and services over a price.

Cost

- Cost refers to the expenses incurred to produce or acquire a given quantum of a good. Together with revenue, it determines the profit gained or the loss incurred by a firm.

Revenue

- Revenue is income obtained from the saleof goods and services. Total Revenue (TR)represents the money obtained fromthe sale of all the units of a good. Thus,TR = P × Q, where TR is Total Revenue;P is the price per unit of the good; and,Q is the Total Quantity of the goods sold.

Equilibrium Diagram
Stable Equilibrium

- Prof. Stigler states that "equilibrium is a position from which there is no net tendency to move". Its absence is referred to as disequilibrium. Consumer's equilibrium occurs when he gets maximum satisfaction. The equilibrium of the Producer occurs when he gets maximum profit. A resource is in equilibrium when it gets fully employed and gets its maximum payment. Thus, static equilibrium is based on given and constant prices, quantities, income, technology, population etc.

Particular Equilibrium and General Equilibrium

- An equilibrium, when it pertains to a single variable, may be called particular equilibrium.

- An equilibrium, on the other hand, when it relates to numerous variables or even the economy as a whole, may be called general equilibrium.

Income

- Income represents the amount of monetary or other returns, either earned or unearned small or big, accruing over a period of time to an economic unit. Nominal income refers to income, expressed in terms of money. It is termed as the money income. Real income is the amount of goods that can be purchased with money as income. It is the purchasing power of income which is based on the rate of inflation.

Methods of Economics, Facts, Theories and Laws
Methods of EconomicsDeduction and Induction

- Like any other science, Economics also has its laws or generalisations. These laws govern the activities in the various divisions of Economics such as Consumption, Production, Exchange and Distribution. The logical process of arriving at a law or generalization in a science is called its method.

Economics uses two methods: deduction and induction.
Deductive Method of Economic Analysis

- It is also named as analytical or abstract method. It consists in deriving conclusions from general truths; it takes few general principles and applies them to draw conclusions. The classical and neo-classical school of economists notably, Ricardo, Senior, J S Mill, Malthus, Marshall, Pigou, applied the deductive method in their economic investigations.

Steps of Deductive Method

- The analyst must have a clear and precise idea of the problem to be inquired into.
- The analyst clearly defines the technical terms used in the analysis. Further, assumptions of the theory are to be precise.

Deduce hypothesis from the assumptions taken.

- Hypotheses should be verified through direct observation of events in the real world and through statistical methods. (eg) There exists an inverse relationship between price and quantity demanded of a good.

Inductive Method of Economic Analysis

- Inductive method, also called empirical method, is adopted by the "Historical School of Economists". It involves the process of reasoning from particular facts to general principle.

Economic generalizations are derived in this method, on the basis of

1. Experimentations;
2. Observations; and,
3. Statistical methods.

- Data are collected about a certain economic phenomenon. These are systematically arranged and the general conclusions are drawn from them.

By observing the data, conclusions are easily drawn.
Generalization of the data and then Hypothesis Formulation
Verification of the hypothesis (eg.Engel's law)

- Economists today are of the view that both these methods are complementary. Alfred Marshall has rightly remarked: "Inductive and Deductive methods are both needed for scientific thought, as the right and left foot are both needed for walking".

Economics: Facts, Theories

- Using the methods, the economistobserves facts, such as, changes in the priceof a commodity. Similarly, the quantitydemanded of that commodity also varies.And he observes these movements andcomes up with a theory that these twomovements are inversely related, i.e.,when the price increases, the quantitydemanded of that commodity decreasesand vice versa. Thus, he formulates histheory of demand.
- He tests his theory by collecting further facts and when his theory stands the test of time and obtains universal acceptance, the theory is raised to the status of a law.

Nature of Economic Laws

- A Law expresses a causal relation betweentwo or more than two phenomena.Marshall states that the Economic lawsare statement of tendencies, and thosesocial laws, which relate to those branchesof conduct in which the strength ofthe motives chiefly concerned can bemeasured by money price.
- In natural sciences, a definite result is expected to follow from a particular cause. In Economic science, the laws function with cause and effect. The consequences predicted by the data, necessarily and invariably follow.
- However, Economic laws are not as precise and certain as the laws in the physical sciences. Marshall holds the opinion that there are no laws of economics which can be compared for precision with the law of gravitation.

Importance of Micro Economics

- To understand the operation of aneconomy
- To provide tools for economicpolicies
- To examine the condition ofeconomic welfare
- Efficient utilization of resources
- Useful in international trade
- Useful in decision making:
- Optimal resource allocation
- Basis for prediction
- Price determination

- A physical scientist carrying out controlled experiments in his laboratory can test the scientific laws very easily by changing the conditions obtaining there. Changes in Economics science cannot be brought about easily. As a result, prediction regarding human behaviour is likely to go wrong. There are exceptions to the Law of Demand. Thus, economic laws are not inviolable.

- As unpredictability is invariably associated with the economic laws. Marshall compares them to the laws of tides. Just as it cannot be predicted and said with certainty that a high tide would follow a low tide, unpredictability prevails in Economics. Human behaviour is volatile. Economic laws are not assertive but they are indicative. The Law of Demand, for example, states that other things remaining the same, the quantity demanded of a commodity increases, as its price decreases and vice versa.

- The use of the assumption 'other things remaining the same' (ceteris paribus) in Economics makes the Economic laws hypothetical. It might be argued that the laws in other sciences can also be called hypothetical. It should be admitted however that in the case of Economics, the hypothetical elements in its laws are a little less pronounced than in the laws of physical sciences.

- But since money is used as the measuring rod, laws in economics are more exact, precise and accurate than the other social sciences. As the value of the measuring- rod money is not constant, there is always an hypothetical element surrounding the laws of Economics.

- Some economic laws are simply truisms. For example, saving is a function of income. Another example of truism is: human wants are unlimited.

Economics: Its sub Divisions

- Economics has been divided into somebranches.

Consumption

- Human wants coming under consumption is the starting point of economic activity. In this section the characteristics of human wants based on the behaviour of the consumer, the diminishing marginal utility and consumer's surplus are dealt with.

Production

- Production is the process of transformation of inputs into output. This division covers the characteristics and role of the factors of production namely Land, Labour, Capital and Organization and also the relationship between inputs and output.

Exchange

- Exchange is concerned with pricedetermination in different market forms.This division covers trade and commerce.Consumption is possible only if theproduced commodity is placed in thehands of the consumer.

Distribution

- Production is the result of the coordination of factors of production. Since a commodity is produced with the efforts of land, labour, capital and organization, the produced wealth has to be distributed among the cooperating factors. The reward for factors of production is studied in this division under rent, wages, interest and profit. Distribution studies about the pricing of factors of production.

Economics: Its Types

- Economics is a rapidly growing subject and itshorizon has been expanding. The basic thrustof the subject is that there should be efficientallocation of the available scarce resources toobtain maximum welfare to the people ona sustainable basis. Given below are someof the major branches of the subject, wheresuch efficient resource allocation is made.

Micro-economics

- Micro Economics is the study of the economic actions of individual units say households, firms or industries. It studies how business firms operate under different market conditions and how the combined actions of buyers and sellers determine prices. Micro economics covers
    - ❖ Value theory (Product pricing and factor pricing)
    - ❖ Theory of economic welfare

Macro-economics

- Macro economics is the obverse of micro economics. It is concerned with the economy as a whole. It is the study of aggregates such as national output, inflation, unemployment and taxes. The General Theory of Employment, Interest and Money published by Keynes is the basis of modern macro economics.

Difference between Micro Economics and Macro Economics

Micro Economics	Macro Economics
It is that branch of economics which deals with the economic decisionmaking of individual economic agents such as the producer, the consumer etc.	It is that branch of economics which deals with aggregates and averages of the entire economy. E.g., aggregate output, national income, aggregate savings and investment, etc.
It takes into account small components of the whole economy.	It takes into consideration the economy of the country as a whole.
It deals with the process of price determination in case of individual products and factors of production.	It deals with general price-level in any economy.
It is known as price theory	It is also known as the income theory.
It is concerned with the optimization goals of individual consumers and producers	It is concerned with the optimization of the growth process of the entire economy.

International Economics

- In the modern world, no country can grow in isolation. Every country is having links with the other countries through foreign capital, investment (foreign direct investment) and international trade.

Public Economics

- Public finance is concerned with the income or revenue raising and expenditure incurring activities of the public authorities and with the adjustment of the one with the other. The scope of Public Finance covers Public expenditure, Public revenue, Public debt and financial administration.

Developmental Economics

- The countries have been classifiedinto developed, developing and underdeveloped on the criteria of per capitaincome, Human Development Indexand Happiness Index. The DevelopmentEconomics deals with features of developednations, obstacles for development,Economic and Non-economic factorsinfluencing development, various growthmodels and strategies.

Health Economics

- Health Economics is an area of applied economics. It covers health indicators, preventive and curative measures, medical research and education, Rural Health Mission, Drug Price control, Neo natal care, Maternity and Child health, Budgetary allocation for health etc.

Environmental Economics

- Depletion of natural resources stock andpollution result from rapid economicdevelopment. Hence the need for the study ofEnvironmental Economics which analysesthe inter relationship between economy andenvironment. Environmental Economicsis a study of inter disciplinary tools forthe problems of ecology, economy andenvironment.

Basic Economic Problems

- If resources are abundant and wants are so few, then there would be no economic problem. But this situation can never exist. Resources are always scarce and our wants are numerous. Hence in every society certain choices have to be made.

The Economic problem

- ❖ Wants, desires, unlimited
- ❖ Resources Scarce not freely available
- ❖ Economic choice
- ❖ Economics
  How people use resources to satisfy unlimited wants.

What and how much to produce?

- Every society must decide on what goods it will produce are and how much of these it will produce. In this process, the crucial decisions include:

  - ❖ Whether to produce more of food, clothing and housing or to have more luxury goods
  - ❖ Whether to have more agricultural goods or to have industrial goods and services
  - ❖ Whether to use more resources in education and health or to use more resources in military services
  - ❖ Whether to have more consumption goods or to have investment goods
  - ❖ Whether to spend more on basic education or higher education

How to Produce?

- Every society has to decide whether it will use labour-intensive technology on capital intensive technology; that is whether to use more labour and less more machines and vice versa.

For whom to produce?

- Every society must also decide how its produce be distributed among the different sections of the society. It must also decide who gets more and who gets less. It should also decide whether or not a minimum amount of consumption beensured for everyone in the society. Due to the scarcity of resources, a society faces the compulsion of making choice among alternatives. It faces the problem of allocating the scare resources to the production of different possible goods and services and of distributing the produced goods and services among individuals within the economy.

Production Possibility Curve

- The problem of choice between relatively scarce commodities due to limited productive resources with the society can be illustrated with the help of a geometric device, is known as production possibility curve. Production possibility curve shows the menu of choice along which a society can choose to substitute one good for another, assuming a given state of technology and given total resources.

- The explanation and analysis of production possibility curve is based upon certain assumptions, some of them are following

  - The time period does not change. It remains the same throughout the curve.
  - Techniques of production are fixed.
  - There is full employment in the economy
  - Only two goods can be produced from the given resources.
  - Resources of production are fully mobile.
  - The factors of production are given in quantity and quality
  - The low of diminishing returns operates in production.

- Every production possibility curve is based upon these assumptions. If some of these assumptions changes or neglected, then it affects the nature of production possibility curve.
- To draw this curve we take the help of production possibilities schedule, as shown below.
- This schedule suggests that if all resources are thrown into the production of food, a maximum of 500 tons of food can be produced, given the existing technology. If on the other hand, all resources are instead used for producing cars, 25 cars can be produced. In between these two extreme possibilities exist. If we are willing to give up some food, we can have some cars.

- We can obtain a production possibility curve by drawing production possibilities schedule graphically. The quantity of food is shown on x-axis and the number of cars is shown on y-axis, the different six production possibilities are being shown as point P1P2P3P4P5&P6

Food production

- If we assume that innumerable production possibilities exist between any two production possibilities schedule, we get the production possibility curve P1 to p6. This shows the locus of points of the different possibilities of production of two commodities, which a firm or an economy can produce, with the help of given resources and the techniques of production. Points outside the production possibility (e.g. point p) are unattainable as society's resources of production are not sufficient to give output beyond the curve. Points lying inside the curve like p1 are attainable by the society but at these points resources production are not fully employed. For example, if society is producing at point p7 then it can increased the production of food keeping the no of cars constant or it can increase the production of cars keeping the food grain output constant or it can increased the output of both the goods simultaneously.

The PPC shifts upward or downward due to:

1. The change in the supply of productive resources and
2. The change in the state of technology.

- The production capacity of an economy grows overtime through increase in resource supplies and improvement of technology. This enables PPC to shift upward from AE to A1E1 as shown in figure below. This outward shift of the PPC is the basic feature of economic growth.

Uses of production possibility curve

- Through the device of PPC can be used for many analytical purposes. We shall discuss below some of its popular uses.

The problem of choice

- The problem of choice arise because of the given limited resources and unlimited wants, may relate to the allocation of resources between the goods for the higher income group and the lower income group and the goods for the defense and the civilians. Since PPC is the locus of the combination of the goods the problem of choice will not arises when we choose any point on PPC.

The Notion of Scarcity

- We can explain the notion of scarcity with the help of PPC. We know that every society possesses only a specific amount of resources, which can produce only limited amount of output even with the help of best technology, Economic scarcity of best fact of life. The production possibility curve reflects the constraints imposed by the element of economic scarcity.

Solution of central problems

- The central problems of an economy can be explained with the help of PPC. The solution of problem of what to produce involves the decision regarding the choice of location on the production possibility carves. A production combination represented by any point inside the PPC indicates that the economy is using inefficient methods of production and inefficient combination of resources.

Conclusion

- This chapter has given a broad overview of economics. Moreover the present certain common characteristics of economics definitions of Wealth, Welfare, Scarcity & Growth free essential questions an economy must solve; what to produce, how to produce and for whom to produce and also looked at division of economics, distinguishing between Micro and Macroeconomics. It has introduced some basic concepts frequently appearing throughout the lessons.

- It is perhaps both importance, the study of economics is an intellectually fascinating adventure highly relevant and it affects people's life. Every now and then after learning lesson, think of economic activities in and around you. Perhaps in this way learning of economics makes to think like an economist.

11th Economy
7. Indian Economy

Meaning of Growth and Development

A country's economic growth is usually measured by National Income, indicated by Gross Domestic Product (GDP).The GDP is the total monetary value of the goods and services produced by that country over a specific period of time, usually one year.

The level economic development is indicated not just by GDP, but by an increase in citizens' quality of life or well-being. The quality of life is being assessed by several indices such as Human Development Index (HDI), PhysicalQuality of Life Index (PQLI) and Gross National Happiness Index (GNHI).

Gross National Happiness Index (GNHI)
The term "Gross National Happiness" was coined by the fourth king of Bhutan, JigmeSingyeWangchuck, in 1972. It is an indicator of progress, which measures sustainable development, environmental conservation promotion of culture and good governance.

On the basis of the level of economic development, nations are classified as developed and developing economies.

Developed economies are those countries which are industrialised, utilise their resources efficiently and have high per capita income. Te USA, Canada, U.K, France, and Japan are some of the developed economies. Developed economies are also termed as Advanced Countries. On the other hand, countries which have not fully utilized their resources like land, mines, workers, etc., and have low per capita income are termed as under developed economies. Examples of underdeveloped countries are Sub Saharan Africa, Bangla Desh, Myanmar, Pakistan, Indonesia etc.They are also termed as Undeveloped Countries or Backward Nations or Third World Nations.

Indian Economy

Indian economy is the Seventh largest economy of the world. Being one of the top listed countries. In terms of industrialization and economic growth, India holds a robust position with an average growth rate of 7% (approximately).

Even though the rate of growth has been sustainable and comparatively stable, there are still signs of backwardness.

Features of a Developed Economy

1. High National Income
2. High Per Capita Income
3. High Standard of Living

4. Full Employment of Resources
5. Dominance of Industrial Sector
6. High Level of Technology
7. High Industrialisation
8. High ConsumptionLevel
9. High Level of Urbanisation
10. Smooth Economic Growth
11. Social Equity, Gender Equality and Low Levelsof Poverty
12. Political Stability and Good Governance

The diametrically opposite features of Indian Economy are discussed below in detail.

Features of Indian Economy
Strengths of Indian Economy

1. **India has a mixed economy**

   Indian economy is a typical example of mixed economy. This means both private and public sectors co-exist and function smoothly. On one side, some of the fundamental and heavy industrial units are being operated under the public sector,while, due to the liberalization of the economy, the private sector has gainedimportance. This makes it a perfect model for public – private partnership.

2. **Agriculture plays the key role**

   Agriculture being the maximum pursued occupation in India; it plays an important role in its economy as well. Around 60% of the people in India depend upon agriculture for their livelihood. In fact, about 17% of our GDP today is contributed by the agricultural sector. Green revolution, ever green revolution and inventions in bio technology have made agriculture self-sufficient and also surplus production. The export of agricultural products such as fruits, vegetables, spices, vegetable oils, tobacco, animal skin, etc. also add to forexearning through international trading.

3. **An emerging market**

   India has emerged as vibrant economy sustaining stable GDP growth rate even in the midst of global downtrend. This has attracted significant foreign capital through FDI and FII.India has a high potential for prospective growth. This also makes it an emerging market for the world.

4. **Emerging Economy**

WORLD NATIONS IN G _ 20			
1.Aregentina	6. European Union	11. Italy	16. South Africa
2. Australia	7. France	12. Japan	17. South Korea

3. Brazil	8. Germany	13. Mexico	18. Turkey
4. Canada	9. India	14. Russia	19. United Kingdom
5. China	10. Indonesia	15. Saudi Arabia	20. United States

Emerging as a top economic giant among the world economy, India bags the seventh position in terms of nominal Gross Domestic Product (GDP) and third in terms of Purchasing Power Parity (PPP). As a result of rapid economic growth Indian economy has a place among the G20 countries.

5. **Fast Growing Economy**

India's economy is well known for high and sustained growth. It has emerged as the world's fastest growing economy in the year 2016-17 with the growth rate of 7.1% in GDP next to People's Republic of China.

6. **Fast growing Service Sector**

Top INTERMET COUNTRIES – 2017
With the Highest Number of Internet Users

#	Country or Region	Population, 2018 Est.	Population 2000 Est.	Internet Users 31 Dec 2017	Internet Users 31 Dec 2000	Internet Growth
1	China	1,415,045,928	1,283,198,970	772,000,000	22,500,000	3,331 %
2	India	1,354,051,854	1,053,050,912	462,124,989	5,000,000	9,142 %
3	United States	326,766,748	281,982,778	312,322,257	95,354,000	227 %
4	Brazil	210,867,954	175,287,587	149,057,635	5,000,000	2,881 %
5	Indonesia	266,794,980	211,540,429	143,260,000	2,000,000	7,063 %
6	Japan	127,185,332	127,533,934	118,626,672	47,080,000	152 %

The service sector, contributes a lion's share of the GDP in India. There has been a high rise growth in the technical sectors like Information Technology, BPO etc. These sectors have contributed to the growth of the economy. These emerging service sectors have helped the country go global and helped in spreading its branches around the world.

7. **Large Domestic consumption**

With the faster growth rate in the economy the standard of living has improved a lot.This in turn has resulted in rapid increase in domestic consumption in the country. The standard of living has considerably improved and life style has changed.

8. **Rapid growth of Urban areas**

Urbanization is a key ingredient of the growth of any economy. There has been a rapid growth of urban areas in India after independence. Improved connectivity in transport and communication, education and health have speeded up the pace of urbanization.

9. **Stable macro economy**

The Indian economy has been projected and considered as one of the most stable economies of the world. The current year's Economic survey represents the Indian economy to be a "heaven of macroeconomic stability, resilience and optimism. According to the Economic Survey for the year 2014-15, 8%-plus GDP growth rate has been predicted, with actual growth turning out to be a little less (7.6%). This is a clear indication of a stable macroeconomic growth.

10. **Demographic dividend**

232 million Youth Populatin of India is nearly equal the total Populatin of 18 western asian countries in 2011

The human capital of India is young. This means that India is a pride owner of the maximum percentage of youth. The young population is not only motivated but skilled and trained enough to maximize the growth. Thus human capital plays a key role in maximizing the growth prospects in the country. Also, this has invited foreign investments to the country and outsourcing opportunities too.

Weakness of Indian Economy

1. Large Population

India stands secondin terms of size of population next to China and our country is likely to overtake china in near future. Population growth rate of India is very high and this is always a hurdle to growth rate. The population growth rate in India is as high as 1.7 per 1000.The annual addition of population equals the total population of Australia.

2. Inequality and poverty

There exists a huge economic disparity in the Indian economy. T e proportion of income and assets owned by top 10% of Indians goes on increasing. T is has led to an increase in the poverty level in the society and still a higher percentage of individuals are living Below Poverty Line (BPL). As a result of unequal distribution of the rich becomes richer and poor becomes poorer.

3. Increasing Prices of Essential Goods

Even though there has been a constant growth in the GDP and growthopportunities in the Indian economy, there have been steady increase in the prices of essential goods. The continuous rise in prices erodes the purchasing power and adversely affects the poor people, whose income is not protected.

4. Weak Infrastructure

Even though there has been a gradual improvement in the infrastructural development in the past few decades, there is still a scarcity of the basic infrastructure like power, transport, storage etc.

5. Inadequate Employment generation

With growing youth population, there is a huge need of the employment opportunities. The growth in production is not accompanied by creation of job. The Indian economy is characterized by 'jobless growth'.

6. Outdated technology

The level of technology in agriculture and small scale industries is still outdated and obsolete.

Demographic trends in India

Scientific study of the characteristics of population is known as Demography. The various aspects of demographic trends in India are:

- Size of population
- Rate of growth
- Birth and death rates
- Density of population
- Sex-ratio
- Life-expectancy at birth
- Literacy ratio

a. Size of Population

Table 7.1 Population Growth

Census Year	Population(in crores)	Average annual growth rate
1901	23.84	-
1911	25.21	0.56
1921	25.13	-0.03
1931	27.90	1.04
1941	31.87	1.33
1951	36.11	1.25
1961	43.92	1.96
1971	54.81	2.20
1981	68.33	2.22
1991	84.33	2.16
2001	102.70	1.97

2011	121.02	1.66

(Source: Registrar General of India)

Over a period of 100 years, India has quadrupled its population size. In terms of, size of population, India ranks 2nd in the world after China. India has only about 2.4% of the world's geographical area and contributes less than 1.2% of the world's income, but accommodates about 17.5% of the world's population. In other words, every 6th person in the world is an Indian. Infact, the combined population of just two states namely, Uttar Pradesh and Maharashtra is more than the population of United States of America, the third most populous country of the world. Some of the states in India have larger population than many countries in the world.

The negative growth during 1911-21 was due to rapid and frequent occurrence of epidemics like cholera, plague and influenza and also famines. The year 1921 is known as the 'Year of Great Divide' for India's population as population starts increasing.

During 1951, population growth rate has come down from 1.33% to 1.25%. Hence it is known as 'Year of Small divide'.

In 1961, population of India started increasing at the rate of 1.96% i.e, 2%. Hence 1961 is known as 'Year of Population Explosion'. In the year 2001, the Population of India crossed one billion (100 crore) mark.

The 2011 census reveals growth of youth population which is described as 'demographic transition'.

b. Birth rate and death rate

Crude Birth rate: It refers to the number of births per thousand of population.
Crude Death rate: It refers to the number of deaths per thousand of population
Crude birth and death rates of India during various years

Table 7.2
Birth rate and death rate

Year	C.B.R	C.D.R.
1951	39.9	27.4
2001	25.4	8.4
2011	21.8	7.11

(Source: Source: Registrar General of India)

Birth rate was 39.9 in 1951; it fell to 21.8 in 2011. Although the birth rate has declined, the decline is not so remarkable. The death ratehas declined from 27.4 in 1951 to 7.1 in 2011. However, from the data it is clear that the fall in birth rates is less than that of death rates.

Kerala has the lowest birth rate (14.7) and Uttar Pradesh has the highest birth rate (29.5). West Bengal has the lowest death rate (6.3) and Orissa (9.2) has the highest. Among States Bihar has the highest decadal (2001-11) growth rate of population, while Kerala has the lowest growth rate. Te four states Bihar, Madhya Pradesh, Rajasthan and Uttar Pradesh called BIMARU states have very high population.

c. Density of population

It refers to the average number of persons residing per square kilometre. It represents the man- land ratio. As the total land area remains the same, an increase in population causes density of population to rise.

$$\text{Density of population} = \frac{\textbf{Total population}}{\textbf{Land area of the region}}$$

Table 7.3 Density of population

Year	Density of population (No. of persons per sq. km)
1951	117
2001	325
2011	382

(Source: Registrar General of India)

Just before Independence, the density of population was less than 100. But after independence, it has increased rapidly from 117 in 1951 to 325 in 2001. According to 2011 census, the present Density of population is 382. Thus, the pressure of population on land has been rising. Kerala,West Bengal, Bihar and Uttar Pradesh have density higher than the India's average density. Bihar is the most densely populated state in the country with 1,102 persons living per sq.km followed by West Bengal with 880. Arunachal Pradesh has low density of population of only 17 persons.

d. Sex ratio

It refers to the number of females per 1,000 males. It is an important indicator to measure the extent of prevailing equity between males and females at a given point of time.

Table 7.4 Sex Ratio

Census year	Sex ratio (Number of females per 1000 males)
1951	946
2001	933
2011	940

(Source: Source: Registrar General of India)

In India, the sex ratio is more favourable to males than to females. In Kerala, the adult sex ratio is 1084 as in 2011. Te recent census (2011) shows that there has been a marginal increase in sex ratio. Haryana has the lowest sex ratio of 877 (2011) among other states, while Kerala provides better status to women as compared to other States with 1084 females per 1000 males

e. Life expectancy at birth

It refers to the mean expectation of life at birth. Life expectancy has improved over the years. Life expectancy is low when death rate is high and / or instances of early death are high. On the other hand, lifeexpectancy is high when death rate is low and / or instances of early death are low.

Table 7.5 Life Expectancy

Year	Male	Female	Overall
1951	32.5	31.7	32.1
1991	58.6	59.0	58.7
2001	61.6	63.3	62.5
2011	62.6	64.2	63.5

(Source: Registrar General of India)

During 1901 – 11, life expectancy was just 23 years. It increased to 63.5 years in 2011. A considerable fall in death rate is responsible for improvement in the life expectancy at birth. However the life expectancy in India is very low compared to that of developed countries.

f. Literacy ratio

It refers to the number of literates as a percentage of the total population. In 1951, only one-fourth of the males and one-twelfth of the females were literates. Thus, on an average, only one-sixth of the people of the country were literates. In 2011, 82% of males and 65.5% of females were literates giving an overall literacy rate of 74.04% (2011). When compared to other developed countries and even Sri Lanka this rate is very low.

Table 7.6 Literacy ratio

Census year	Literate persons	Males	Females
1951	18.3	27.2	8.9
2001	64.8	75.3	53.7
2011	74.04	82.1	65.5

(Source: Registrar General of India)

Kerala has the highest literacy ratio (92%) followed by Goa (82%), Himachal Pradesh (76%), Maharastra (75%) and Tamil Nadu (74%). Bihar has the lowest literacy ratio (53%) in 2011.

Natural Resources

Any stock or reserve that can be drawn from nature is a Natural Resource. The major natural resources are - land, forest, water, mineral and energy. India is rich in natural resources, but majority of the Indians are poor. Nature has provided with diverse climate, several rivers for irrigation and power generation, rich minerals, rich forest and diverse soil.

Types of Natural resources

a) Renewable Resources: Resources that can be regenerated in a given span of time. E.g. forests, wildlife, wind, biomass, tidal, hydro energies etc.
b) Non-Renewable Resources: Resources that cannot be regenerated. E.g. Fossil fuels-coal, petroleum, minerals, etc.

Land Resources

In terms of area India ranks seventh in the world with a total area of 32.8 lakh sq. km. It accounts for 2.42% of total area of the world. In absolute terms India is really a big country. However, land- man ratio is not favourable because of the huge population size.

According to Agricultural Census, the area operated by large holdings (10 hectares and above) has declined and area operated under marginal holdings (less than one hectare) has increased. This indicates that land is being fragmented and become ineconomic.

Forest Resources

India's forest cover in 2007 is 69.09 million hectare which constitutes 21.02 per cent of the total geographical area. Of this, 8.35 million hectare is very dense forest, 31.90 million hectare is moderately dense forest and the rest 28.84 million hectare is open forest.

Important Mineral Resources

a. Iron-Ore

India possesses high quality iron-ore in abundance. The total reserves of iron-ore in the country are about 14.630 million tonnes of haematite and 10,619 million tonnes of magnetite. Hematite iron is mainly found in Chhattisgarh, Jharkhand, Odisha, Goa and Karnataka.The major deposit of magnetite iron is available at western coast of Karnataka. Some deposits of iron ore are also found in Kerala, Tamil Nadu and Andhra Pradesh.

b. Coal and Lignite

Coal is the largest available mineral resource. India ranks third in the world after China and USA in coal production. The main centres of coal in India are the West Bengal, Bihar, Madhya Pradesh, Maharashtra,Odisha and Andhra Pradesh. Bulk of the coal production comes from Bengal-Jharkhand coalfields.

c. Bauxite

Bauxite is a main source of metal like aluminium. Major reserves are concentrated in the East Coast bauxite deposits of Odisha and Andhra Pradesh.

d. Mica

Mica is a heat resisting mineral which is also a bad conductor of electricity. It is used in electrical equipment's as an insulator. India stands first in sheet mica production and contributes 60% of mica trade in the world. The important mica bearing pegmatite is found in Andhra Pradesh, Jharkhand, Bihar and Rajasthan.

e. Crude Oil

Oil is being explored in India at many places of Assam and Gujarat. Digboi, Badarpur, Naharkatia, Kasimpur, Palliaria, Rudrapur, Shivsagar, Mourn (All in Assam) and Hay of Khambhat, Ankaleshwar and Kalol (All in Gujarat) are the important places of oil exploration in India.

f. Gold

India possesses only a limited gold reserve. There are only three main gold mine regions—Kolar Goldfeld, Kolar district and HuttiGoldfeld in Raichur district (both in Karnataka) and RamgiriGoldfeld in Anantpur district (Andhra Pradesh).

g. Diamond

As per UNECE the total reserves of diamond is estimated at around 4582, thousand carats which are mostly available in Panna(Madhya Pradesh),Rammallakota of Kurnur district of Andhra Pradesh and also in the Basin of Krishna River.

The new Kimberlile fields have been discovered in Raipur and Pastar districts of Chhattisgarh, Nuapada and Bargarh districts of Odisha, Narayanpet - Maddur Krishna areas of Andhra Pradesh and Raichur-Gulbarga districts of Karnataka.

Economic Infrastructure

Infrastructural development means the development of many support facilities. These facilities may be divided into (a) economic infrastructure and
(b) social infrastructure. Economic infrastructure includes - transport, communication, energy, irrigation, monetary and financial institutions. Social infrastructure includes - education, training and research, health, housing and civic amenities.

Economic Infrastructure

Economic infrastructure is the support system which helps in facilitating production and distribution. For instance, railways, trucks, posts and telegraph offices, ports, canals, power plants, banks, insurance companies etc. are all economic infrastructure of an economy. They help in the production of goods and services.

Transport

For the sustained economic growth of a country, a well-connected and efficientTransport system is needed. India has a good network of rail, road, coastal shipping, and air transport. The total length of roads in India being over 30 lakh km, India has one of the largest road networks in the world. In terms of railroads, India has a broad network of railroad lines, the largest in Asia and the fourth largest in the world. The total rail route length is about 63,000 km and of this 13,000 km is electrified. The major Indian ports including Calcutta, Mumbai, Chennai, Vishakhapatnam and Goa handle about 90% of sea- borne trade and are visited by cargo carriers and passenger liners from all parts of the world. A comprehensive network of air routes connects the major cities and towns of the country. The domestic air services are being looked after by Indian Airlines and private airlines. The international airport service is looked after by Air India.

Indian Railways Provide Wi-Fi Facility First in India is Bangalore Railway Station

Air India and Indian Airlines were merged on August 27, 2007 to from National Aviation Company of India Ltd. (NACIL)

The National Harbour board was set up in 1950 to advise the Central and State Governments on the management and development of ports, particularly minor ports

Energy

Electrical energy is one of the necessary components of our life. Nowadays, without electricity, we cannot survive in this world of technology. The energy sources are classified under two heads based on the availability of the raw materials used, while generating energy.

1. Non-renewable energy source
2. Renewable energy sources

1. Non-renewable energy sources

As the name suggests, the sources of energy which cannot be renewed or re-used are called non-renewable energy sources. Basically these are the energy sources which will get exhausted over a period of time. Some of the examples of this kind of resources are coal, oil, gas etc.

2. Renewable energy sources

These are the kind of energy source which can be renewed or reused again and again. These kinds of materials do not exhaust or literally speaking these are available in abundant or infinite quantity. Example for this kind include**1. Solar energy 2. Wind**

energy 3. Tidal energy 4. Geothermal energy 5.Biomass energy Sometimes renewable sources are also called non-conventional sources of energy since, these kinds of materials or these ways of energy production were not used earlier or conventionally.

Social Infrastructure

Social infrastructure refers to those structures which are improving the quality of manpower and contribute indirectly towards the growth of an economy. These structures are outside the system of production and distribution. The development of these social structures help in increasing the efficiency and productivity of manpower. For example, schools, colleges, hospitals and other civic amenities. It is a fact that one of the reasons for the low productivity of Indian workers is the lack of development of social infrastructure. The status and developments in the social infrastructure in India are discussed below.

Education

a. Education in India

Imparting education on an organized basis dates back to the days of 'Gurukul' in India. Since then the Indian education system has flourished and developed with the growing needs of the economy. The Ministry & Human Resource Development (MHRD) in India formulates education policy in India and also undertakes education programs.

b. Education system in India

Education in India until 1976 was the responsibility of the State governments. It was then brought under concurrent list (both Centre and State). The Centre is represented by the Ministry of Human Resource Development decides the India's education budget. The education system in India consists of primarily six levels:**1. Nursery Class, 2. Primary Class, 3. Secondary Level, 4. Higher Secondary Level, 5. Graduation, 6. Post-Graduation**

c. Education Institutions in India:

Education in India follows the 10+2 pattern. For higher education, there are various State run as well as private institutions and universities providing a variety of courses and subjects. The accreditation of the universities is decided under the University Grant Commission Act. The Education Department consists of various schools, colleges and universities imparting education on fair means for all sections of the society. The budget share of the education sector is around 3% of GDP, of this largest proportion goes for school education. However, per pupil expenditure is the lowest for school students.

Health
a. Health in India

Health in India is a state government responsibility. The Central Council Of Health and Welfare formulates the various health care projects and health department reform policies. The administration of health industry in India as well as the technical needs of the health sector are the responsibility of the Ministry Of Health And Welfare.

Health care in India has many forms. These are the ayurvedic medicinepractice, unani or galenic herbal care, homeopathy, allopathy, yoga, and many more. Each different healthcare form has its own treatment system and practice patterns. The medical practicing in India needs a proper licensing from the Ministry of Health. All medical systems are now under one ministry viz AYUSH.

b. Health Care Services in India:

The health care services in India are mainly the responsibility of the Ministry of Health. State wise, health status is better in Kerala as compared to other States. Compared to other developed countries, India's health status is not satisfactory. India's health status is poor compared to Sri Lanka.

Contributions of Indian Economic Thinkers

Tiruvalluvar

The economic ideas of Tiruvalluvar are found in his immortal work, Thirukkural, a book of ethics. Even though scholars differ widely over the estimation of the period of Tiruvalluvar, it is generally believed that, he belongs to the Sangam age in Tamil Nadu around third century A.D. Tiruvalluvar'swork is marked by pragmatic idealism.

A large part of Valluvar's economic ideas are found in the second part of Tirukkural, the porutpal. It deals with wealth. Tiruvalluvaris a fundamental thinker. He believes that rains are the basicsupport of life. Since rain provides food, it forms the basis for stable economic life. Agriculture which is the most fundamental economic activity depends on rain, "It is rain that both ruins and aids the ruined to rise".

a. Factors of Production

Tiruvalluvar has made many passing references about the factors of production viz., Land, Labour, Capital, Organisation, Time, Technology etc. He says, "Unfailing harvest, competent body of men, group of men, whose wealth knows no diminution, are the components of an economy".(Kural 61)

b. Agriculture

According to Tiruvalluvar, agriculture is the most fundamental economic activity. They are the axle-pin of the world, for on their prosperity revolves prosperity of other sectors of the economy, "The ploughmen alone", he says "live as the freemen of the soil; the rest are mere slaves that follow on their toil"(Kural 1032). Valluvar believes that agriculture is superior to all other occupation.

c. Public Finance

Tiruvalluvar has elaborately explained Public Finance under the headings Public Revenue, Financial Administration and Public expenditure. He has stated these as 1) Creation of revenue, 2) Collection of revenue, 3) Management of revenue 4) Public expenditure

d. Public Expenditure

Valluvarhas recommended a balanced budget. "It is not a great misfortune for a state if its revenues are limited, provided the expenditure is kept within bounds." He has given certainguidelines for a budgetary policy. "Budget for a surplus, if possible, balances the budget at other times, but never budget for a deficit." Valluvar advocates the following main items of public expenditure: 1) Defence 2) Public Works and 3) Social Services.

e. External Assistance

Valluvar was against seeking external assistance. According to Kural No. 739, countries taking external assistance are not to be considered as countries at all. In other words, he advocated a self-sufficient economy.

f. Poverty and Begging

Valluvarconsiderers' freedom from hunger as one of the fundamental freedoms that should be enjoyed by every citizen. According to him 'poverty' is the root cause of all other evils which would lead to ever-lasting sufferings. It is to be noted that the number of people living below poverty line, begging, sleeping on the roadsides and rag picking in India has been increasing.

g. Wealth

Valluvar has regarded wealth as only a means and not an end. He said, "Acquire a great fortune by noble and honourable means." He condemned hoarding and described hoarded wealth as profitless richness. To him industry is real wealth and labour is the greatest resource.

h. Welfare State

Tiruvalluvar is for a welfare state. In a welfare state there will be no poverty illiteracy, disease and industry. The important elements of a welfare state are 1) perfect health of the people without disease 2) abundant wealth,
3) good crop 4) prosperity and happiness and 5) full security for the people.

Mahatma Gandhi

Gandhian Economics is based on ethical foundations. In 1921, Gandhi wrote, "Economics that hurts the moral well-being of anindividual or a nation is immoral, and therefore, sinful." Again in 1924, he repeated the same belief: "that economy is untrue which ignores or disregards moral values".

Salient Features of Gandhian Economic Thought

1. **Village Republics:**
   To Gandhi, India lives in villages. He was interested in developing the villages as self-sufficient units. He opposed extensive use of machinery, urbanization and industrialization.

2. **On Machinery:**
   Gandhi described machinery as 'Great sin'. He said that "Books could be written to demonstrate its evils… it is necessary to realize that machinery is bad. Instead of welcoming machinery as a boon, we should look upon it as an evil. It would ultimately cease.

3. **Industrialism:**
   Gandhi considered industrialism as a curse on mankind. He thought industrialism depended entirely on a country's capacity to exploit.

4. **Decentralization:**
   He advocated a decentralized economy, i.e., production at a large number of places on a small scale or production in the people's homes.

5. **Village Sarvodaya:**
   According to Gandhi, "Real India was to be found invillages and not in towns or cities." So he suggested the development of self-sufficient, self-dependent villages.

6. **Bread Labour:**
   Gandhi realized the dignity of human labour. He believed that God created man to eat his bread by the sweat of his brow. Bread labour or body labour was the expression that Gandhi used to mean manual labour.

7. **The Doctrine of Trusteeship:**
   Trusteeship provides a means of transforming the present capitalist order of society into an egalitarian one. It gives no quarter to capitalism. However, now India experiences both casino capitalism and crony capitalism

8. **On the Food Problem:**
   Gandhi was against any sort of food controls. He thought such controls only created artificial scarcity. Once India was begging for food grain, but India tops the world with very large production of foodgrains, fruits, vegetables, milk, egg,meat etc.,

9. **On Population:**

Gandhi opposed the method of population control through contraceptives. He was, however, in favour of birth control through Brahmacharya or self-control. He considered self-control as a sovereign remedy to the problem of over-population.

10. **On Prohibition:**

Gandhi advocated cent per cent prohibition. He regarded the use of liquor as a disease rather than a vice. He felt that it was better for India to be poor than to have thousands of drunkards. But ,now many states depend on revenue from liquor sales.

Jawaharlal Nehru

Jawaharlal Nehru, one of the chief builders of Modern India, was the first Prime Minister ofIndependent India and he was there in that post till his death in 1964. He was a great patriot, thinker and statesman. His views on economics and social problems are found in the innumerable speeches he made and in the books he wrote.

a. Democracy and Secularism

Jawaharlal Nehru was a firm believer in democracy. He believed in free speech civil liberty,adult franchise and the Rule of Law and Parliamentary democracy. Secularism, is another signal contribution of Nehru to India. In our country, there are many religions - Hinduism, Islam, Christianity, Buddhism, Jainism, Zoroastrianism, Sikhism and so on. But there is no domination by religious majority. Secularism means equal respect for all religions.

b. Planning

Jawaharlal Nehru was responsible for the introduction of planning in our country. To Jawaharlal Nehru, the Plan was essentially an integrated approach for development. Initiating the debate on the Second Plan in the Lok Sabha in May 1956, Nehru spoke on the theme of planning. He said, "the essence of planning is to find the best way to utilize all resources of manpower, of money and so on." Planning for Nehru was essentially linked up with industrialization and eventual self-reliance for the country'seconomic growth on a self- accelerating growth. Nehru carried through this basic strategy of planned development. Nehru's contribution to the advancement of science, research, technology and industrial development cannot be forgotten. It was during his period, many IITs and Research Institutions were established. He always in insited on "scientific temper".

c. Democratic Socialism

Socialism is another contribution of Nehru to India. He put the country on the road towards a socialistic pattern of society. But Nehru's socialism is democratic socialism.

B. R. Ambedkar

B.R.Ambedkar (1891-1956) was a versatile personality. He was the architect of the Indian Constitution, a custodian of social justice and a champion of socialism and state planning. Ambedkar's writings included
"Ancient Indian Commerce" (a thesis submitted to the Columbia University for the award of the Master of Arts Degree in 1915), 'National Dividend of India: A Historical and Analytical Study (a thesis for which he was awarded Ph.D). His thesis was published as 'The Evolution of Provincial Finance in British India: A Study of the Provincial Decentralization of Imperial Finance".
Ambedkar's thesis on "Provincial Decentralization of Imperial Finance in British India" was accepted for the M. Sc degree in 1921. And his thesis" The Problem of the Rupee" was accepted for the award of the D.Sc degree by the London School of Economics in 1923. It is a miracle that RBI was conceptualized as per the guidelines presented by Ambedkar in his book, "The Problem of the Rupee;Its origin and its solution". The main economic ideas of Ambedkar may be studied under four broad headings:

1. Financial Economics

Much of the work done by Ambedkar during his stay abroad mostly during the period 1913-1923, was in the field of Finance Economics. Ambedkar divided the evolution of provisional finance into three stages: (i). Budget by Assignment (1871-72 to 1876-77); (ii) Budget by Assigned Revenue (1877-78 to 1881-82); and (iii) Budget by Shared Revenues (1882-83 to 1920-1921).

2. Agricultural Economics

In 1918, Ambedkar published a paper "Small Holding in India and their Remedies". Citing Adam Smith's 'Wealth of Nations", he made a fine distinction between "Consolidation of Holdings" and "Enlargement of Holdings".

3.Economics of Caste

Ambedkar believed that caste was an obstacle to social mobility. It resulted in social stratification. He was of the firm view that individuals must be free to change their occupations. Moreover, the caste system caused social tensions. The caste system has resulted in the absence of social democracy in India as distinct from political democracy.

4. Economics of Socialism

Ambedkar was a socialist. He was a champion of state socialism. He advocated the nationalization of all key industries and suggested state ownership of land and collective farming. He was for state monopoly of insurance business. Not only that, he advocated compulsory insurance for every citizen.

There is no doubt that Ambedkar was a great economist. But his academic work as an economist was eclipsed by his greater contributions in the field of law and politics. Above all he was a great social reformer.

J. C. Kumarappa

Joseph ChelladuraiKumarappa was born on 4 January 1892 in Tanjavur, Tamil Nadu. A pioneer of rural economic development theories, Kumarappa is credited for developing economic theories based on Gandhism – a school of economic thought he coined "Gandhian Economics".

Gandhian Economics

J.C.Kumarappa strongly supported Gandhi's notion of village industries and promoted Village Industries Associations. Kumarappa worked to combine Christian and Gandhian values of "trusteeship", nonviolence and a focus on human dignity and development in place of materialism as the basis of his economic theories. While rejecting socialism's emphasis on class war and force in implementation, he also rejected the emphasis on materialdevelopment, competition and efficiency in free-market economies. Gandhi and Kumarappa envisioned an economy focused on satisfying human needs and challenges while rooting out socio-economic conflict, unemployment, poverty and deprivation.

Kumarappa worked as a Professor of economics at the Gujarat Vidyapith in Ahmedabad, while serving as the editor of Young India during the Salt Satyagraha. He founded the All India Village Industries Association in 1935; and was imprisoned for more than a year during the Quit India movement. He wrote during his imprisonment, Economy of Permanence: The Practice and Precepts of Jesus (1945) and Christianity: Its Economy and Way of Life (1945).

Several of Gandhi's followers developed a theory of environmentalism. Kumarappa took the lead in a number of relevant books in the 1930s and 1940s. Historian RamachandraGuha calls Kumarappa, "The Green Gandhian," portraying him as the founder of modern environmentalism in India.

Kumarappa worked for the Planning Commission of India and the Indian National Congress to develop national policies for agriculture and rural development. He also travelled to China, Eastern Europe and Japan on diplomatic assignments and to study their rural economic systems.

V.K.R.V. Rao

According to P.R. Brahmananda, " the great trinity of pre- independent and post independent Indian economists consisted of D.R.Gadgill, C.N.Vakil and V.K.RV. Rao. These scholars were imbibed with a missionary zeal and analysed the Indian economic problems witha view to designing and propagating economic policies/programmes and plans to India's national advantage." V.K.R.V: Rao was a prolific writer.

V.K.R.V: Rao was deeply interested in three large themes. They were:
i. National Income,
ii. Food, nutrition and the distribution of good; and
iii. Employment and occupational distributions.

1. National Income Methodology

As an applied economist, Rao's name is remembered for his pioneering work on the enumeration of national income of India. Rao was a pupil of J.M. Keynes and he worked with Colin Clark. H.W Singer considered V.K.R.V Rao as " the best equipped of all Keynes' pupils. He attempted (i) to develop the national income concepts suited to India and developing countries generally; (ii) to analyse the concepts of investment, saving and the multipliers in an underdeveloped economy; and (iii) to study the compatibility of the national incomes of industrialized and underdeveloped countries. Rao's paper on "Full Employment and Economic Development" was one of the earliest contributions in the field of development towards employment.

2. International Food Aid

Rao was influential in creating ideas and shaping policy in the international attack on world poverty, not only through his contributions to the question of international aid and improved flows of external resources, but also through his activities in the field of food aid.

3. Support for Socialism

During the early phases of planning in India, Rao supported the case of a socialist India, where the state would control the commanding heights of the economy and the public sector would play a dominant role in economic development.

4. Rao's Views on Industrialization

In his pamphlet "what is wrong with Indian Economic Life?' (1938), Rao gave the following reasons for low per capita income and low levels of per capita nutrition in India.
i. Uneconomic holdings with subdivisions and fragmentation;
ii. Low levels of water availability for crops;
iii. Excess population pressure on agriculture due to the absence of a large industrial sector;
iv. Absence of capital;
v. Absence of autonomy in currency policy, and in general in monetary matters encouraging holding of gold.

5. Village Clusters

Rao felt that rural communities had to be given a viable base.Therefore he suggested that a cluster of villages should form a unit for rural development, so that both social and economic interactions between villages could develop, and they could effectively generate and fashiontheir own development with a more meaningful participation by people.

6. Investment, Income and Multiplier

Rao's examination of the "interrelation between investment, income and multiplier in an under developed economy" (1952) was his major contribution to macroeconomic theory. As a thinker, teacher, economic adviser and direct policy maker, V.K.R.V. Rao followed the footsteps of his great teacher, John Maynard Keynes.

7. Institution Builder

He founded three national level research institutes namely Delhi School of Economics, Institute of Economic Growth (both at Delhi) and Institute for Social and Economic Change (Bangalore)

Amartya Kumar Sen

The Nobel citation refers to Sen's contributions to social choice theory, developmenteconomics, study on poverty and famines and concept of entitlements and capability development (1998).

1. Poverty and Famines

Sen's Poverty and Famines: An Essay on Entitlement and Deprivation" (1981) is both a theoretical and an applied work. In the book, several famines have been studied in the working of a general theoretical framework from an original angle. He examined various meanings of povertyand drew attention to the incidence of absolute and relative deprivation.

2. Poverty and Inequality

Sen has carried out massive work on poverty and inequality in India. Sen's major point has been that the distribution of income/ consumption among the persons below the poverty line is to be taken into account.

3. The Concept of Capability

The concept of capabilities developed by Sen has been cited as a better index of wellbeing than commodities or utilities. Capability, as defined by Sen, is the ability to transform Rawlsian primary goods to the achievement of wellbeing.

4. **Entitlement**

Sen has included the concept of entitlement items like nutrition, food, medical and health care, employment, security of food supply in times of famine etc. He considered famine as arising out of the failure of establishing a system of entitlements.

5. **Choice of Technique**

Sen's 'Choice of Technique ' was a research work where he argued that in a labour surplus economy, generation of employment cannot be increased at the initial stage by the adaptation of capital- intensive technique. Conclusively, Amartya Sen, more than just an economist, is an ethical philosopher. He is a lover of freedom and a humanist. He has focused on the poor, viewing them not as objects of pity requiring charitable hand–outs,but as disempowered folk needing empowerment, education,health, nutrition, gender equality,safety net in times of distress; all are needed to empower people.

Conclusion

This lesson mainly focused on some of the aspects of the Indian Economy and its resources, infrastructure facilities and energy, It also discussed the principles of Indian Economic thinkers to motivate the students to read good books on Economics Written by the great economists.

8. Indian Economy Before and After Independence

Introduction

This chapter discusses the major events that took place in India before and after Independence. India was a colony for long. Colonialism refers to a system of political and social relations between two countries, of which one is the ruler and the other is its colony. The ruling country not only has political control over the colony but it also determines the economic policies of the subjugated country. Thus, the people living in a colony cannot take independent decisions in respect of utilisation of the country's resources and Important economic activities. India had the bitter experience of colonialism.

Indian Economy during the British Period

Indian's sea route trade to Europe started only after the arrival of Vasco da Gama in Calicut, India on May 20, 1498. The Portuguese had traded in Goa as early as 1510. In 1601 the East India Company was chartered, and the English began their first inroads into the Indian Ocean. In 1614 Sir Thomas Roe was successful in gettingpermission from Jahangir for setting up factories and slowly moved all parts of India.

History of British Period

During the British period

Before the advent of the British, Indian practically lived in village. Thus the economy of the village was self-sufficient. But under the British rule only industries were allowed to develop. These economic and organization change brought down the economic condition of Indians. All the problems are chiefly related with health, housing, child and woman welfare and labour, recreation, crime and social disorganization. Due to these problems, the need for organized social work was realised.

Hundred years after Battle of Plessey the rule of the East India Company finally did come to an end. In 1858, British Parliament passed a law through which the power for governance of India was transferred from the East India Company (EIC) to the British crown. Even the transfer of power from the East India Company to the British Crown did not materially alter the situation.

Britain had exploited India over a period of two centuries of its colonial rule. On the basis of the form of colonial exploitation, economic historians have divided the whole period into three phases: namely the period of merchant capital, the period of industrial capital, the period of finance capital.

Period of Merchant Capital

- The period of merchant capital was from 1757 to 1813.
- The only aim of the East India Company was to earn profitbyestablishing monopoly trade in the goods with India and the East India's.

- During this period, India had been considered as the best hunting ground for capital by the East Indian company to develop industrial capitalism is Britain.
- When Bengal and South India came under political shake of the East India Company in 1750s and 1760s, the objective of monopoly trade was fulfilled.
- The company administration succeeded in generating huge surpluses which were repatriated to England, and the Indian leaders linked this problem of land revenue with that of the drain.
- Above all, the officers of the company were unscrupulous and corrupt.

Period of Industrial Capital

- The period of Industrial capital was from 1813 to 1858.
- During this period, India had become a market for British textiles.
- India's raw materials were exported to England at low price and imported finished textile commodities to India at high price. In this way, Indians were exploited.
- India's traditional handicrafts were thrown out of gear.

Period of Finance Capital

- The third phase was the period of finance capital starting from the closing years of the 19th century andcontinuing till independence. During this period, finance imperialism began to entrench itself through the managing agency firms, export – import firms, exchange banks and some export of capital.
- Britain decided to make massive investments in various fields (rail, road, postal system irrigation, European banking system, and a limited field of education etc.) in India by plundering Indian capital.
- Railway construction policy of the British led to unimaginable as well as uneconomic. The poor Indian taxpayers had been compelled to finance for the construction of railways. The political power was handed over to the British Government by the East India Company in 1858.

Decline of Indian Handicrafts

- The Indian handicrafts products had a worldwide market. Indian exports consisted chiefly of hand weaved cotton and silk fabrics, calicoes, artistic wares, wood carving etc.
- Through discriminatory tariff policy, the British Government purposefully destroyed the handicrafts.
- With the disappearance of nawabs and kings, there was no one to protect Indian handicrafts.
- Indian handicraft products could not compete with machine-made products.
- The introduction of railways in India increased the domestic market for the British goods.

The Land Tenure Systems in India

Land Tenure refers to the system of land ownership and management.The features that distinguish a land tenure system from the others relate to the following:
(a) Who owns the land;
(b) Who cultivates the land;
(c) Who is responsible for paying the land revenue to the government.

Basedon these questions, three different types of land tenure existed in India before Independence. They were Zamindari system, Mahalwari system and Ryotwari system.

Zamindari System or the Land lord-Tenant System

This system was created by the British East India Company, when in 1793, LordCornwallis introduced 'Permanent Settlement Act'. Under this system the landlords or the Zamindari were declared as the owners ofthe land and they were responsible to pay the land revenue to the government. The share of the government in total rent collected was fixed at 10/11th, the balance going to the Zamindars as remuneration.

Mahalwari System or Communal System of Farming

After introduction of this system, it was later extended to Madhya Pradesh and Punjab. The ownership of the land was maintained by the collective body usually the villagers which served as a unit of management. They distributed land among the peasants and collected revenue from them and pay it to the state.

Ryotwari System or the Owner-Cultivator System

This system was initially introduced in Tamil Nadu and later extended to Maharashtra, Gujarat, Assam, Coorg, East Punjab and Madhya Pradesh. Under this system the ownership rights of use and control of land were held by the tiller himself. There was the direct relationship between owners. This system was the least oppressive system before Independence.

Process of Industrial Transition and Colonial Capitalism

This process of industrial transition in India during the British period can be broadly classified into two as given below:

(a) Industrial growth during the 19th century

During the 19th century, British investors started to pioneer industrial enterprises in India as they had experiences of running industries at home. British enterprises also received maximum state support. Although the Britishers initiated industrialisation process in the 19th century, they were primarily interested in making profit and not in accelerating the economic growth in India. At the end of 19th century, there were about 36 jute mills, 194 cotton mills and a good number of plantation industries. The production of coal had risen to over 6 million tonnes per annum.

(b) Industrial progress during the 20th century

During the first part of 20th century, Swadeshi movement stimulated the industrialisation process in India. The existing industries and new industries had maintained a slow but steady growth till the outbreak of the First World War in 1914.By this time more than 70 cotton mills and 30 jute mills were set up. Coal production was doubled. The foundation of iron and steel industry was laid. Railway network was extended.

During the period 1924-39, various major industries like iron and steel, cotton textiles, jute, matches, sugar, paper and pulp industry etc. were brought under protection scheme. This led to rapid expansion of protected industries in India. These protected industries captured the entire Indian market and eliminated foreign competition totally.

Thus in the early part, British rule tried to transform the Indian economy asthe producer of industrial raw materials and tried to capture Indian market for their industrial finished goods and thus started exploiting Indian economy in a different way. Later on, British capitalists gradually developed various industries like, jute, tea, coffee, cotton and textiles, paper and paper pulp, sugar etc, in India for locational advantages and exploited Indian labourers extensively.

Problems of British Rule

1. The British rule stunted the growth of Indian enterprise.
2. The economic policies of British checked and retarded capital formation inIndia.
3. The drain of wealth financed capital development in Britain.
4. Indian agricultural sector became stagnant and deteriorated even when a large section of Indian population was dependent on agriculture for subsistence.
5. The British rule in India led the collapse of handicraft industries without making any significant contribution to development of any modern industrial base.
6. Some efforts by the colonial British regime in developing the plantations, mines, jute mills, banking and shipping, mainly promoted a system of capitalist forms that were managed by foreigners. These profit motives led to further drain of resources from India.

Important Industrial Policies Prior to 1991

India is the Asia's third largest economy. The 70 years of Independence have brought a remarkable change in the socio - economic landscape of India.

Industrial Policy of India 1948, 1956, 1977, 1980, 1990 & 1991

Economic development of a country particularly depends on the process of industrialisation. At the time of Independence, India inherited a weak and shallow industrial base. Therefore during the post-Independence period, the Government of India took special emphasis on the development of a solid industrial base. The Industrial Policy

Resolutions of 1948 and 1956 clearly stated the need for developing both small scale industries and large scale industries.

Industrial Policy Resolutions 1948

The Government of India recognized the significant contribution of industrialization. Therefore the Government of India declared its first Industrial Policy on 6th April 1948. The main importance of this policy was that it ushered in India the system of mixed economy.

Industrial Policies
Industrial Policy 1948 – **Center's Monopoly:** Government of India's Monopoly shall include Railways. Arms and ammunition, Atomic Energy, Postal Department. **State's Monopoly:** State Monopoly shall include natural resources like coal, steel, manufacture of aircraft, cement, rubber automobile, wireless apparatus (Radio Receiving Sets) and mineral oil. **Unregulated Private Enterprises:** It was kept open to private enterprises of individuals and co-operative societies to also involve.

1. Industries were classified into four groupssuch as public sector (strategic industries), public-cum -private Sector (key industries), and controlled private sector, private and co-operative sectors.
2. This policy endeavoured to protect cottage and small scale industries.
3. The central and state governments had a virtual monopoly in rail roads and exclusive rights to develop minerals, iron ore etc.
4. The Government encouraged the significance of foreign capital for industrialization but the government decided that the control should remain with Indian hands.

Industrial Policy Resolution 1956

1. The Industrial Policy of 1956 sought to give a dominant role to public sector. At the same time, it assured a fair treatment to the private sector.
2. The Government would support and encourage cottage and small scale enterprises by restricting volume ofproduction in the large scale sector by differential taxation or by direct subsidies.
3. This industrial policy emphasized the necessity of reducing the regional disparities in levels of development.
4. The Government recognized the need for foreign capital for progressive Indenisation of foreign concerns.

Industrial Resolution Policy – 1956
Shaped by the MahalanobisModel of growth which suggested that emphasis on heavy industries would lead the economic towards a long term higher growth path. The Industrial Policy Resolution – 1956 classified industries into three categories; **17 Industries:**

Exclusively under the domain of the Government. These included inter alia, railway, air transport, arms and ammunition, iron and steel and atomic energy.
12 Industries:
Which were envisaged to be progressively State owned by Private Sector was expected to supplement the efforts of the State. The third category contained all the remaining industries and it was expected that private sector would initiate development of these industries but they would remain open for the state as well.

Green Revolution

The term Green Revolution refers to the technological breakthrough in of agricultural practices. During 1960s the traditional agricultural practices weregradually replaced by modern technology and agricultural practices in India. Initially the new technology was tried in 1960-61 as a pilot project in seven districts. It was called as the High Yielding Varieties Programme (HYVP).

Achievement of Green Revolution

1. The major achievement of the new strategy was to boost the production of major cereals viz., wheat and rice. India was depending on the US for the food grain. The US by using Public Law 480 (PL480) exported wheat to India. Indians were waiting for the ships to sip their food. On the other hand, India lost lots of minerals. The US could strategically exploit Indian mineral resources at cheapest price for manufacturing missiles and weapons, which gave job opportunity for larger US youth and largely contributed to US GDP. But now India is food surplus, exporting food grains to the European countries.
2. The Green revolution was confined only to High Yielding Varieties (HYV) cereals, mainly rice, wheat, maize and jowar.
3. This Strategy was mainly directed to increase the production of commercial crops or cash crops such as sugarcane, cotton, jute, oilseeds and potatoes.
4. Per hectare productivity of all crops had increased due to better seeds.
5. Green Revolution had positive effect on development of industries, which manufactured agricultural tools like tractors, engines, threshers and pumping sets.
6. Green Revolution had brought prosperity to rural people. Increased production had generated employment opportunities for rural masses. Due to this, their standard of living had increased.
7. Due to multiple cropping and more use of chemical fertilizers, the demand for labour increased.
8. Financial resources were provided by banks and co-operative societies. These banks provided loans to farmer on easy terms.

The New Agricultural strategy was also called by various names. Modern agricultural technology, seed - fertilizer - water technology, or simply green revolution.

Weaknesses of Green Revolution

1. Indian Agriculture was still a gamble of the monsoons.
2. This strategy needed heavy investment in seeds, fertilizers, pesticides and water.
3. The income gap between large, marginal and small farmers had increased. Gap between irrigated and rain fed areas had widened.
4. Except inPunjab, and to some extent in Haryana, farm mechanization had createdwidespread unemployment among agricultural labourers in the rural areas.
5. Larger chemical use and inorganic materials reduced the soil fertility and spoiled human health. Now organic farming is encouraged.

Rainbow Revolution	
1. Green revolution – Agriculture (Food grains productions)	7. White Revolution - Milk
2. Blue Revolution – Fish	8. Yellow Revolution – Oilseeds
3. Golden Revolution – Fruits / Apple	9. Black Revolution – Petroleum
4. Solver Revolution – Egg	10. Round Revolution – Potato
5. Red Revolution- Meat/Tomato	11. Grey Revolution – Fertilizes
6. Pink Revolution – Shrimp	12. Brown Revolution – Leather

Second Green Revolution

The Government of India had implemented 'Second Green revolution' to achieve higher agricultural growth. The target of Second Green Revolution was to increase 400 million tons of food grain production as against about 214 million tons in 2006-07. This is to be achieved by 2020. In agricultural sector, the growth rate of 5% to 6% has to be maintained over next 15 years. There may be changes in these statistics.

Requirements of Second Green revolution:

- Introduction of Genetically Modified (GM) seeds which double the per acreage production.
- Contribution of private sector to market the usage of GM foods.
- Government can play a key role in expediting irrigation schemes and managing water resources.
- Linking of rivers to transfer surplus water to deficient areas.

Large Scale Industries

The term "Large scale industries" refers to those industries whichrequire huge infrastructure, man-power and a have influx of capital assets. Theterm 'large scale industries' is a generic one including various types of industries in its purview. All the heavy industries of India like the iron and steel industry textile industry automobile manufacturing industry fall underthe large scale industrial arena. However in recent years due to the IT boom andthe huge amount of revenue generated by it the IT industry can also be includedwithin thejurisdiction of the large scale industrial sector. Indian economy is heavily dependent on theselarge industries for its economic growth, generation of foreign currency and forproviding job opportunities to millions of Indians. The following are the major large scale industries in India.

1. Iron and steel industry

- First steel industry at Kulti, Near Jharia, West Bengal - Bengal iron works company in 1870.
- First large scale steal plant TISCO at Jamshedpur in 1907 followed by IISCO at Burnpur in 1919. Both belonged to private sector.
- The first public sector unit was "Vishveshvaraya Iron and Steel works" at Bhadrawati.
- All these are managed by SAIL (at present all important steel plants except TISCO, are under public sector)
- Steel Authority of India Ltd (SAIL) was established in 1974 and was made responsible for the development of the steel industry.
- Presently India is the eighth largest steel producing country in the world.

Public sector steel plants

Location	Assistance
Rourkela (Odissa)	Germany
Bhilai (MP)	Russia
Durgapur (WB)	UK
Bokaro (Jharkhand)	Russia
Burnpur (WB)	Acquired from private sector in 1976
Vishakhapatnam(AP)	Russia
Salem (Tamil Nadu)	Government of India (No external assistance)
Vijai Nagar Karnataka)	Government of India
Bhadrawati (Karnataka)	Nationalisation of Vishveshvarayya Iron and Steel Ltd(owned by Centre and State government)

2. Jute industry

- Jute industry is an important industry for a country like India, because not only it earns foreign exchange but also provides substantial employment opportunities in agriculture and industrial sectors.
- Its first modernised industrial unit was established at Reshra in West Bengal in 1855.
- The jute industry in the country is traditionally export oriented. Indiaranks number one in the raw jute and jute goods production and number two in export of jute goods in the world.

3. Cotton and textile industry

- Oldest industry of India, and employs largest number of workers.

- It is the largest organised and broad-based industry which accounts for 4% of GDP, 20% of manufacturing value-added and one third of total export earnings.
- The first Indian modernised cotton cloth mill was established in 1818 at Fort Gloaster near Calcutta. But this mill was not successful. The second mill named "Mumbai's Spinning and Weaving Co." was established in 1854 at Bombay by KGN Daber.

4. Sugar industry

- Sugar industry is the second largest industry among agriculture-based industries in India.
- India is now the largest producer and consumer of sugar in the world. Maharashtra contributes over one third of the Indian total sugar output, followed closely by Uttar Pradesh.

5. Fertiliser industry

- India is the third largest producer of nitrogenous fertilisers in the world.

6. Paper industry

- The first mechanised paper mill was set up in 1812 at Serampur in West Bengal.
- The paper industry in India is ranked among the 15 top global paper industries.

7. Silk industry

- India is the second-largest(first being China) country in the world in producing natural silk. At present, India produces about 16% silk of the world.
- India enjoys the distinction of being the only country producing all the five known commercial varieties of silk viz Mulberry, Tropical Tussar, Oak Tussar, Eri and Muga.

8.Petroleum and natural gas

- First successful Oilwell was dug in India in 1889 at Digboi, Assam.
- At present a number of regions with oil reserves have been identified and oil is being extracted in these regions
- For exploration purpose, Oil and Natural Gas Commission (ONGC) was established in 1956 at Dehradun, Uttarakhant

Small Scale Industries

Small scale industries play an important role for the development of Indian economy in many ways. About 60 to 70 percent of the total innovations in India comes from the SSIs. Many of the big businesses today were all started small and then nurtured into big businesses. The role of SSIs in economic development of the country is briefly explained in forthcoming paragraphs.

Role of SSIs in Economic Development

1. Provide Employment

- SSIs uselabour intensive techniques. Hence, they provide employment opportunities to a large number of people. Thus, they reduce the unemployment problem to a great extent.
- SSIs provide employment to artisans, technically qualified persons and professionals, people engaged in traditional arts, people in villages and unorganized sectors.
- The employment-capital ratio is high for the SSIs.

2. BringBalanced RegionalDevelopment

- SSIs promote decentralized development of industries as most of the SSIs are set up in backward and rural areas.
- They remove regional disparities by industrializing rural and backward areas and bring balanced regional development.
- They help to reduce the problems of congestion, slums, sanitation and pollution in cities. They are mostly found in outside city limits.
- They help in improving the standard of living of people residing in suburban and rural areas in India.
- The entrepreneurial talent is tapped in different regions and the income is also distributed instead of being concentrated in the hands of a few individuals or business families.

3.Helpin Mobilization ofLocal Resources

- SSIs help to mobilize and utilize local resources like small savings, entrepreneurial talent etc., of the entrepreneurs, which might otherwise remain idle and unutilized.
- They pave way for promoting traditional family skills and handicrafts. There is a great demand for handicraft goods in developed countries.
- They help to improve the growth of local entrepreneurs and self-employed professionals in small towns and villages in India.

4. Pave for Optimisation of Capital

- SSIs require less capital per unit of output. They provide quick return on investment due to shorter gestation period. The payback period is quite short in SSIs.
- SSIs function as a stabilizing force by providing high output-capital ratio as well as high employment-capital ratio.
- They encourage the people living in rural areas and small towns to mobilize savings and channelize them into industrial activities.

5.Promote Exports

- SSIs do not require sophisticated machinery. Hence, import the machines from abroad is not necessary. On the other hand, there is a great demand for goods produced by SSIs.Thus they reduce the pressure on the country's balance of payments. However, with recent past large scale industries are able to borrow large funds with low interest rate and spend large sums on advertisements. Hence SSSs are gradually vanishing.
- SSIs earn valuable foreign exchange through exports from India.

6. Complement Large Scale Industries

- SSIs play a complementary role to large scale sector and support the large scale industries.
- SSIs provide parts, components, accessories to large scale industries and meet the requirements of large scale industries through setting up units near the large scale units.
- SSIs serve as ancillaries to large scale units.

7. Meet Consumer Demands

- SIs produce wide range of products required by consumers in India.
- Hence, they serves as an anti-inflationary force by providing goods of daily use.

8. Develop Entrepreneurship

- SSIs help to develop a class of entrepreneurs in the society. Tey help the job seekers to become job givers.
- They promote self-employment and spirit of self-reliance in the society.
- SSIs help to increase the per capita income of India in various ways.
- They facilitate development of backward areas and weaker sections of the society
- SSIs are adept in distributing national income in more efficient and equitable manner among the various participants of the society.

Micro, Small and Medium Enterprises (MSMEs)

As on now, the following monetary limits have been used for defining different kinds of industrial service units. However, these limits are subject to changes over time.

Manufacturing Enterprises

a. **Micro Manufacturing Enterprises:** The investment in plant and machinery does not exceed Rs.25 lakhs.
b. **Small Manufacturing Enterprises:** The investment in plant and machinery is more than twenty five lakh rupees but does not exceed Rs.5 crores.

c. **Medium Manufacturing Enterprises:** The investment in plant and machinery is more than Rs.5 crores but not exceeding Rs.10 crores.

Service Enterprises

a. **Micro Service Enterprises:** Theinvestment in equipment does not exceed Rs. 10 lakh
b. **Small Service Industries:** Theinvestment in equipment is more than Rs.10 lakhs but does not exceed Rs. 2 crores.
c. **Medium Service Enterprises:** Theinvestment in equipment is more than Rs.2 crores but does not exceed Rs.5 crores.

Public Sector and Private sector banks

Public Sector Banks

Public sector bank is a bank in which the government holds a major portion of the shares. Say for example, SBI is public sector bank; the government holding in this bank is 58.60%. Similarly PNB is a public sector bank; the government holds a stake of 58.87%. Usually, in public sector banks, government holdings are more than 50 percent. Public sector banks are classified into two categories: 1. Nationalised Banks 2. State Bank and its Associates.

In case of nationalized banks, the government controls and regulates the functioning of the banking entity.Some examples are SBI, PNB, BOB, OBC,AllahabadBank etc. However, the government keeps reducing the stake in PSU banks as and when they sell shares. So, to that extent they can also become minority shareholders in these banks. This is in accordance with the privatization policy.

Private Sector Banks

In these banks, most of the equity is owned by private bodies, corporations, institutions or individuals rather than government. These banks are managed and controlled by private promoters.Of the total banking industry in India, public sector banks constitute 72.9% share while the rest is covered by private players. In terms of the number of banks, there are 27 public sector banks and 22 private sector banks.As part of its differentiated banking regime, RBI, the apex banking body, has given license to Payments Bank and Small Finance Banks (SFBs). This is an attempt to boost the government's Financial Inclusion drive. (But, there may be other problems).

As a result, Airtel Payments Bank and Paytm Payments Bank Limited have come up. How far these banks would help the poor people is not known.

Nationalisation of Banks

After Independence, the Government of Indiaadopted planned economic development. For this purpose, Five Year Plans came into existence since 1951. The main objective of the economic planning aimed at social welfare. Before Independence commercial banks were in the private sector. These commercial banks failed in helping the

Government to achieve social objectives of planning. Therefore, the government decided to nationalize 14 major commercial banks on 19 July 1969. In 1980, again the government took over another 6 commercial banks.

Objectives of Nationalization

The Government of India nationalized the commercial banks to achieve the following objectives.

1. The main objective of nationalization was to attain social welfare. Sectors such as agriculture, small and village industries were in need of funds for their expansion and further economic development.
2. Nationalisation of banks helped to curb private monopolies in order to ensure a smooth supply of credit to socially desirable sections.
3. In India, nearly 70% of population lived in rural areas. Therefore it was neededto encourage the banking habit among the rural population.
4. Nationalisation of banks was required to reduce the regional imbalances where the banking facilities were not available.
5. Before Independence, the numbers of banks were certainly inadequate. After nationalization, new bank branches were opened in both rural and urban areas.
6. Banks created credit facilities mainly to the agriculture sector and its allied activities after nationalization.

Nationalization	
1969 14 banks with deposits above Rs.50 crores were nationalized.	**1980 6 banks with deposits above Rs. 200 crores were Nationalized**
19 July 1969	**15 April 1980**
1. Allahabad Bank	1. Andhra Bank
2. Bank of Baroda	2. Corporation Bank
3. Bank of Maharashtra	3. New Bank of India
4. Canara Bank	4. Oriental Bank of Commerce
5. Central Bank of India	5. Punjab & Sindh Bank
6. Dena Bank	6. Vijaya Bank
7. Indian Bank	
8. Indian Overseas Bank	
9. Punjab National Bank	
10. Syndicate Bank	
11. Union Bank	
12. United Bank of India	
13. UCO Bank	
14. Bank of India	

After New Economic Policy 1991, the Indian banking industry has been facing the new horizons of competitions, efficiency and productivity. With all these developments people in villages and slums depend largely on local money lenders for their credit need. This is unfortunate.

Performance of India's Five Year Plans

Economic planning is the process in which the limited natural resources are used skillfully so as to achieve the desired goals. The concept of economic planning in India or five year plan is derived from Russia (then USSR). India has launched 12 five year plans so far. Twelfth five year plan will be the last one. The government of India has decided to stop the launching of five year plans and it was replaced by NITI Aayog.

First Five Year Plan (1951-1956)

- It was based on the Harrod-Domar Model.
- Its main focus was on the agricultural development of the country.
- This plan was successful and achieved the GDP growth rate of 3.6% (more than its target)

Second Five Year Plan (1956-1961)

- It was based on the P.C. Mahalanobis Model.
- Its main focus was on the industrial development of the country.
- This plan was successful and achieved the growth rate of 4.1%

Third Five Year Plan (1961-1966)

- This plan was called 'GadgilYojana' also.
- The main target of this plan was to make the economy independent and to reach self-propelled position ortake off.
- Due to Indo -China war, this plan could not achieve its growth target of 5.6%

Plan Holiday (1966-1969)

- The main reason behind the plan holiday was the Indo-Pakistan war & failure of third plan.
- During this plan, annual plans were made and equal priority was given to agriculture, its allied sectors and the industry sector.

Fourth Five Year Plan (1969-1974)

- There are two main objectives of this plan i.e. growth with stability and progressive achievement of self reliance.
- This plan failed and could achieve growth rate of 3.3% only, against the target of 5.7%.

Fifth Five Year Plan (1974-1979)

- In this plan top priority was given to agriculture, next cameindustry and mines.
- Overall this plan was successful, which achieved the growth rate of 4.8% against the target of 4.4%.
- The draft of this plan was prepared and launched by D.P. Dhar. This plan was terminated in 1978.

Rolling Plan

This plan was started with an annual plan for 1978-79 and as a continuation of the terminated fifth year plan.

Sixth Five Year Plan (1980-1985)

- The basic objective of this plan was poverty eradication and technological self-reliance. Garibi-Hatao was the motto.
- It was based on investment yojana.
- Its growth target was 5.2% but it achieved 5.7%.

Seventh Five Year Plan (1985-1990)

- Objectives of this plan included the establishment of the self-sufficient economy and opportunities for productive employment.
- For the first time, due to the pressure from private sector the private sector got the priority over public sector.
- Its growth target was 5.0% but it achieved 6.0%.

Annual Plans

Eighth five year Plan could not take place due to volatile political situation at the centre.Sotwo annual programmes are formed in 1990-91& 1991-92.

Eighth Five Year Plan (1992-1997)

- In this plan the top priority was given to development of the human resources i.e. employment, education and public health.
- During this plan, New Economic Policy of India was introduced.
- This plan was successful and got annual growth rate of 6.8% against the target of 5.6%.

Ninth Five Year Plan (1997-2002)

- The main focus of this plan was "growth with justice and equity".
- This plan failed to achieve the growth target of 7% and Indian economy grew only at the rate of 5.6%.

Tenth Five Year Plan (2002-2007)

- This plan aimed to double the per capita income of India in the next 10 years.
- It aimed to reduce the poverty ratio to 15% by 2012.
- Its growth target was 8.0% but it achieved only 7.2%.

Eleventh Five Year Plan (2007-2012)

- Its main theme was "faster and more inclusive growth".
- Its growth rate target was 8.1% but it achieved only 7.9%

Twelfth Five Year Plan (2012-2017)

- Its main theme is "Faster, More Inclusive and Sustainable Growth".
- Its growth rate target is 8%.

Here it can be concluded that since the Indian Independence the five year plans of India played a very prominent role in the economic development of the country. These plans had guided the Government as to how it should utilise scarce resources so that maximum benefits can be gained. It is worthy to mention here that Indian Government adopted the concept of five year plans from Russia.

NITI Aayog

The Planning Commission has been replaced by the NITI Aayog on 1st January, 2015. NITI (National Institution for Transforming India) Aayog will monitor, coordinate and ensure implementation of the accepted sustainable development goals. NITI Aayog serves as a knowledge hub and monitors progress in the implementation of policies and programmes of theGovernment of India. It includes the matters of national and international importance on the economic front, dissemination of best practices from within the country and from other nations, the infusion of new policy ideas and specific issue-based support. In order to understand the achievements of the NITI Aayog, researches need to be done then and there.

Development Indicators
Human Development Index (HDI)

United Nations Development Programme has been publishing Human Development Report annually since 1990. HDI helped the government to the real uplifting of standard of living of the people.

Human Development Index (HDI)
HDI was developed by the Pakistani Economist MahbubulHaq and the Indian Economist Amartya Kumar Sen in 1990 and was published by the United Nations Development Programme (UNDP). It is constructed based on Life Expectancy Index, Education Index and GDP Per Capita.

HDI is based on the following three indicators

1.Longevity is measured by life expectancy at birth,
2. Educational attainments,
3. Standard of living, measured by real GDP per capita (PPP$).

Before calculating HDI, the fixed minimum and maximum values of each indicator are chosen.

The performance in each dimension is expressed as a value between 0 and 1 by applying the following formulaDimension Index = (Actual value – Minimum value) / (Maximum value -Minimum value)According to Planning Commission's National Human Development Report 2011, HDI has improved significantly between 1980 and 2011. That is, The HDI went up from 0.302 in 1981 to 0.472 score in 2011.

As per latest Human Development Report (2016) by the United Nations Development Programme (UNDP), India has been ranked 131st out of 188 countries. Out of 188 countries, India lies in Medium HumanDevelopment bracket. The other nations such as Bangladesh, Bhutan, Pakistan, Kenya, Myanmar and Nepal attained the medium human development. The HDR 2016 stated that regional disparities in education, health and living standards within India has caused India's downfall to 27 % on HDI score. India's HDI rank value in 2015 stood at 0.624, which had increased from 0.580 in 2010. India's rank in 2014 was 131.

Top three countries of HDI		
Norway (0.949)	Australia (0.939)	Switzerland (0.939)

Human Development Index (HDI)		
Dimensions	Indicator	Dimensions Index
Long and Healthy Life	Life Expectancy at Brith	Life Expectancy Index
Knowledge	Adult Literacy rate	Education Index
Decent Standard of Living	Cross enthrallment ratio	GDP Index
	GDP Per capita (PPP USS)	

BiswajeetGuha has stated that the calculation of HDI neglected many important aspects of human development. He has created four indices of HDI as HDI_1, HDI_2, HDI_3, and HDI_4. HDI_1 is based on UNDP methodology as given in Humanthan Development Report. He has enlarged the scope of HDI by adding three more dimensions such as quality of life, poverty eradication, and urbanization.Various countries including India are continuously making efforts to improve and enlarge the scope of available statistical information.

Physical Quality of Life Index (PQLI)

Morris D Morris developed the Physical Quality of Life Index (PQLI). The PQLI is a measure to calculate the quality of life (well-being of a country). For this, he included three indicators such as life expectancy, infant mortality rate and literacy rate. A scale of each indicator ranges from the number 1 to 100. Number 1 represents the worst performance by any country. 100 is the best performance. For example, in case of life expectancy, the upper limit of 100. This was assigned to 77 years which was achieved by Sweden in 1973. The lower limit of 1 was assigned to28 years which was achieved by Guinea-Bissau in 1960.The main difference between the two is the inclusion of income in HDI and exclusion of income from PQLI. HDI represents both physical and financial attributes of development and PQLI has only the physical aspects of life.

Conclusion

To conclude, the British were more focused on the money from Indians than good governance. Some positive thingshappened during British Rule. They eradicated systems like 'sati', introduced railway services, English language and education, infrastructure and basic principle of capitalist economy. After Independence, the Government of India formulated many policies with the help of Five year plans to achieve the growth target in various sectors. Among the other things, the major challenges that still continue are: poor health standard, female foeticide, declining child sex ratio, open defecation, social & economic inequalities, increasing slumming, urban congestion and declining qualities of basic environmental resources namely air, land and water

Glossary

- **Zamindari:** The owner of the land who pays the land revenue to the Government.
- **Mahalwari**: The collective body usually the villagers which serve as a unit of management.
- **Ryotwari:** The ownership rights of use and control of land were held by the tiller himself.
- **Green Revolution:** The renovation of agricultural practices through modern technology.
- **Public Sector Banks:** A bank in which the government holds a major portion of the shares.
- **Private Sector Banks:** Most of the equity is owned by private bodies, corporations, institutions and individuals rather government.
- **Nationalization:** The process of transforming private assets ownership into government ownership.
- **Human Development Index:** It is a composite statistic of life expectancy,education and per capita income indicators.
- **Physical Quality of Life Index:** It is a measure to calculate the quality of life (well-being of a country).

9. Development Experiences in India

Introduction

At the time of Independence in 1947, India was a typically backward economy. Owing to poor technological and scientific capabilities, industrialization was limited and lop-sided. Agricultural sector exhibited features of feudal and semi-feudal institutions, resulting into low productivity. Means of transport and communications were underdeveloped. Educational and health facilities were grossly inadequate and social security measures were virtually non-existent. In brief, the country suffered from the twin problems of rampant poverty and widespread unemployment, both resulting in low standard of living.

The year 1991 is an important landmark in the economic history of post-independent India. The country went through a severe economic crisis in the form of serious Balance of Payments problem. Indian economy responded to the crisis by introducing a set of policies known as Structural Reforms. These policies were aimed at correcting the weaknesses and rigidities in the various sectors of the economy such as Industry, Trade, Fiscal and Agriculture.

Meaning of Liberalization, Privatization and Globalization (LPG)

The triple pillars of New Economic Policy are Liberalization, Privatization and Globalization (LPG)

Impacts of Liberalisation	
Positive Effects	**Negative Effects**
Increase In Foreign investment	Increase in Unemployment
Increase In production	Decrease in Tax Receipt
Technological advancement	
Increase in GDP growth rate	

Liberalization:

Liberalization refers to removal of relaxation of governmental restrictions in all stages in industry. Delicensing, decontrol, deregulation, subsidies (incentives) and greater role for financial institutions are the various facets of liberalization.

Privatization:

Privatization means transfer of ownership and management of enterprises from public sector to private sector. Denationalization, disinvestment and opening exclusive public sector enterprises to private sector are the gateways to privatization.

Globalization:

Impacts of Globalisation	
Positive Effects	**Negative Effects**
Expansion of market	But thought Completion
Development of infrastructure	Rise in Monopoly
Higher living Standards	Discourage Domestic Forms
International Co-operations	Increase in inequality

Globalization refers to the integration of the domestic (Indian) economy with the rest of the world. Importliberalization through reduction of tariff and non-tariff barriers, opening the doors to Foreign Direct Investment (FDI) and Foreign Portfolio Investment (FPI) are some of the measures towards globalization.

Arguments in favour of LPG

a. Liberalization was necessitated because various licensing policies were said to be deterring the growth of the economy.
b. Privatization was necessitated because of the belief that the private sector was not given enough opportunities to earn more money.
c. Globalization was necessitated because today a developed country can grow without the help of the under developed countries. Natural and human resources of the developing countries are exploited by the developed countries and the developing economies are used as market for the finished goods of the developed countries. The surplus capital ofthe developed countries are invested in backward economies. Obsolete and outdated technologies of the developed countries can be easily sold to poor under developed countries. Ultimately, the rich countries can grow further at the cost of developing economies.

Arguments against LPG

a. Liberalization measures, when effectively enforced, favour an unrestricted entry of foreign companies in the domestic economy. Such an entry prevents the growth of the local manufacturers.
b. Privatization measures favour the continuance of the monopoly power. Only the powerful people can sustain in business markets. Social justice cannot be easily established and maintained. As a result, the disparities tend to widen among people and among regions.
c. As globalization measures tend to integrate all economies of the world and bringing them all under one umbrella; they pave the way for redistribution of economic power at the world level. Only the already well-developed countries are favoured in this process and the welfare of the less-developed countries will be neglected. The economic crises of the developed countries are easily spread to the developing economies through trade.

The following are the major changes after 1991:

1. Foreign exchange reserves started rising.
2. There was a rapid industrialization.
3. The pattern of consumption started improving (or deteriorating).
4. Infrastructure facilities such as express highways, metro rails, flyovers and airports started expanding (but the local people were thrown away).

The benefits of this growth in some sectors have not reached the marginalized sections of the community. Moreover, the process of development has generated serious social, economic, political, demographic and ecological issues and challenges. Development brings benefits, but which section gets this benefit depends on socioeconomic structure of the society.

Despite all these initiatives in the Indian economy, a large section of the people of India continue to face basic economic problems such as poverty, unemployment, discrimination, social exclusion, deprivation, poor healthcare, rising inflation, agricultural stagnation, food insecurity and labour migration. However, for these problems, Government policies alone cannot be blamed. As new institutional economists suggest, the values, believes, norms etc. of the individuals also matter.

Disinvestment

Disinvestment means selling of government securities of Public Sector Undertakings (PSUs) to other PSUs or private sectors or banks. This process has not been fully implemented.

Relative Position of on Indian Economy

(This discussion is suitable for a particular period only, there may be changes afterwards)

- According to International Monetary Fund, World Economic Outlook (Ocoter-2016), GDP (nominal) of India in 2016 at current prices was 42,251 billion. India contributed 2.99% of total world's GDP in exchange rate basis. India shared 17.5 percent of the total world population and 2.4 percent of the world surface area. India was now 7th largest economy of the world in 2016.
- India was at 3rd position after China and Japan among Asian countries. India shared 8.50% of total Asia's GDP (nominal) in 2016.

Industrial Sector Reforms

The Prime Minister of India announced the new industrial policy on July 24, 1991. The new policy radically liberalized theindustrial policy itself and de-regulated the industrial sector substantially. The primary objectives of the industrial policy were to promote major industries from the clutches of bureaucrats, to abolish restrictions on foreign direct investment, to liberate the indigenous enterprise from the restrictions of MRTP Act, to maintain a sustained growth in productivity and employment and also to achieve international competitiveness.

Important Initiatives by the Government towards Industrial Policy

The policy has brought changes in the following aspects of industrial regulation:

1. Industrial Delicensing
2. De reservation of the industrial sector
3. Public sector policy (dereservation and reform of PSEs)
4. Abolition of MRTP Act
5. Foreign investment policy and foreign technology policy.

Industrial De regulation	
Before 1991	**After 1991**
Industrial licensing for all commodities	Licensing restricted to alcohol, drugs etc.,
Private Sector not allowed in many industries	Only defence, energy, railway for public sector large scale privatization, disinvestment
Controls on price fixation and distribution	Market allowed to determine prices

1. **Industrial Delicensing policy:** the most important objective of the new industrial policy of 1991 was theend of the industrial licensing or the license raj or red tapism. Under the industrial licensing policies, private sector firms had to secure licenses to start an industry.

2. **Dereservation of the industrial sector:** Previously, the public sector was given reservation especially in the capital goods and key industries. Under industrial deregulation, most of the industrial sectors were opened to the private sector as well. Under the new industrial policy, only three sectors viz., atomic energy, mining and railways will continue as reserved for public sector. All other sectors have been opened for private sector participation.

3. **Reforms related to the Public sector enterprises**: Reforms in the public sector were aimed at enhancing efficiency and competitiveness of the sector. The government identified strategic and priority areas for the public sector to concentrate. Loss making PSUs were sold to the private sector.

4. **Abolition of MRTP Act:** The New Industrial Policy of 1991 has abolished the Monopoly and Restrictive Trade Practices Act 1969. In 2010, the Competition Commission has emerged as the watchdog in monitoring competitive practices in the economy.The policy caused big changes including emergence of a strong and competitive private sector and a sizable number of foreign companies in India.

5. **Foreign investment policy:** Another major feature of the economic reform was red carpet welcome to foreign investment and foreign technology. This measure has enhanced the industrial competition and improved business environment in the country. Foreign investment including FDI and FPI were

allowed. In 1991, the government announced a specified list of high-technology and high-investment priority industries wherein automatic permission was granted for foreign direct investment (FDI) upto 51 % foreign equity. The limit was raised to 74 percent and subsequently to 100 percent for many of these industries. Moreover, many new industries have been added to the list over the years.Foreign Investment Promotion Board (FIPB) has been set up to negotiate with international firms and approve foreign direct investment in select areas.

Impact of LPG on Agricultural Sector Reforms

Since the inception of economic reforms, Indian economy has achieved a remarkable rate of growth in industry and service sector. However, this growth process bypassed the agricultural sector, which showed sharp deceleration in the growth rate (3.62 % during 1984/85 - 1995/96 to 1.97 percent in 1995/96 - 2004/05). The sector has recorded wide variations in yield andproductivity and there was a shift towards cash crop cultivation. Moreover, agricultural indebtedness pushed several farming households into poverty and some of them resorted to extreme measures like suicides.

Crop Insurance

Agriculture in India is highly prone to risks like droughts and floods. It is necessary to protect the farmers from natural calamities and ensure their credit eligibility for the next season. For this purpose, the Government of India introduced many agricultural schemes throughout the country.The PradhanMantriFasalBimaYojana (Prime Minister's Crop Insurance Scheme) was launched on **18 February 2016.**It envisages a uniform premium of only 2 %to be paid byfarmers forKharif crops and 1.5 % for Rabi crops. The premium for (annual) commercial and horticultural crops will be 5 %

Cold Storage

India is the largest producer of fruits and second largest producer of vegetables in the world. In spite of that per capita availability of fruits and vegetables is quite low because of post-harvest losses which account for about 25% to 30% of production. Besides, quality of a sizable quantity of produce also deteriorates by the time it reaches the consumer. Most of the problems relating to the marketing of fruits and vegetables can be traced to their perishability. Perishability is responsible for high marketing costs, market gluts, price fluctuations and other similar problems. In order to overcome this constraint, the Government of India and the Ministry of Agriculture promulgated an order known as "Cold Storage Order, 1964" under Section 3 of the Essential Commodities Act, 1955. However, the cold storage facility is still very poor and highly inadequate.

Post Harvest measures

The annual value of harvest and post-harvest losses of major agricultural produce at national level was of the order of Rs.92,651 crores, calculated using production data of

2012-13 at 2014 and wholesale prices, estimated by the Indian Council of Agricultural Research (ICAR).

Food Items Waste (%)	
Crops	**Cumulative wastages (%)**
Cereals	5-6
Pulses	6 - 8
Oil seeds	3-10
Fruits &Vegetables	5-16
Milk	1
Fisheries (in land)	5
Fisheries (Marine)	10
Meat	3
Poultry	7

Source: Ministry of Food Processing Industries, GoI, 2016

Kisan Credit Card Scheme

A Kisan Credit Card (KCC) is a credit delivery mechanism that is aimed at enabling farmers to have quick and timely access to affordable credit. It was launched in 1998 by the Reserve Bank of India and NABARD. The scheme aims to reduce farmer dependence on the informal banking sector for credit - which can be very expensive and suck them into a debt spiral. The card is offered by cooperative banks, regional rural banks and public sector banks. Based on a review of the working of the KCC, the government has advised banks to convert the KCC into a smart card cum debit card.

In order to reduce wastage of agricultural produce and minimize post-harvest losses, the Ministry of Food Processing Industries (MoFPI) has implemented various components of Central Sector Schemes, namely:
Mega Food Parks; Integrated Cold Chain; Value Addition Preservation Infrastructure; Modernization of Slaughter houseScheme for Quality Assurance; Codex Standards; Research and Development and Other promotional activities.

Further, the GoI extended support to arrest post harvest losses of horticulture and non-horticulture produce and to provide integrated cold chain and preservation infrastructure facilities from the farm gate to the consumer or from the production site to the market since 2008-09. However, the improvement is not visible for it is not substantial.

Agricultural Produce Market Committee

Agricultural Produce Market Committee (APMC) is a statutory body constituted by state government in order to trade in agricultural or horticultural or livestock products.

Functions of APMC

1. To promote public private partnership in the ambit of agricultural markets.
2. To provide market led extension services to farmer.

3. To bring transparency in pricing system and transactions taking place in market in a transparent manner.
4. To ensure payments to the farmers for the sale of agricultural produce on the same day.
5. To promote agricultural activities.
6. To display data on arrivals and rates of agricultural produce from time to time into the market.

Agrarian Crisis after Reforms

a. High input Costs:The biggest input for farmers is seeds. Before liberalisation, farmers across the country had accessto seeds from state government institutions. The institutions produced own seeds and were responsible for their quality and price. With liberalization, India's seed market was opened up to global agribusinesses. Also, following the deregulation many state government institutions were closed down in 2003. These hit farmers doubly hard: seed prices shot up, and fake seeds made an appearance in a big way.
b. Cutback in agricultural subsidies:Farmers were encouraged to shift from growing a mixture of traditional crops to export oriented 'cash crops' like chill, cotton and tobacco. Liberalisation policies reduced the subsides on pesticide, fertilizer and elasticity. As a result prices have increased by 300%. However, the prices of agricultural goods have not increased to that extent.
c. Reduction of import duties: With a view to open India's markets, the liberalization reforms also withdrew tariffs and duties on imports. By 2001, India completely removed restrictions on imports of almost 1,500 items including food. As a result, cheap imports flooded the market, pushing prices of crops like cotton and pepper down.
d. Paucity of credit facilities: After 1991 the lending pattern of commercial banks, including nationalised bank drastically changed. As a result, loan was not easily adequate. This has forced the farmers to rely on moneylenders who charge exorbitant rate of interest.

Trade Reforms:

- Trade Policy Reforms: The main features of the new trade policy as it has evolved over the years since 1991 are as follows:
    - Free imports and exports: Prior to 1991, in India imports were regulated. From 1992, imports were regulated by a limited negative list. For instance, the trade policy of 1 April 1992 freed imports of almost all intermediate and capital goods. Only 71 items remained restricted. This would affect the domestic industries.
    - Rationalization of tariff structure and removal of quantitative restrictions: The Chelliah Committees Report had suggested drastic reduction in import duties. It had suggested a peak rate of 50 percent. As a first step towards a gradual reduction in the tariffs, the 1991-92 budget had reduced the peak rate of import duty from more than 300 percent to 150 percent. The process

of lowering the customs tariffs was carried further in successive budgets. This also affected the domestic industries.

Export and Import Policy

The Government of India, Ministry of Commerce and Industry announced New Foreign Trade Policy on 01st April 2015 for the period of 2015-2020.

Salient Features of "EXIM POLICY (2015-2020)"

The new EXIM policy has been formulated focusing on increasing in exports scenario, boosting production and supporting the concepts like Make in India and Digital India.

- Reduce export obligations by 25% and give boost to domestic manufacturing supporting the "Make in India" concept.
- As a step to Digital India concept, online procedure to upload digitally signed document by CA/CS/Cost Accountant are developed and further mobile app for filing tax, stamp duty has been developed.
- Repeated submission of physical copies of documents available on Exporter Importer Profile is not required.
- Export obligation period for export items related to defence, military store, aerospace and nuclear energy to be 24 months.
- EXIM Policy 2015-2020 is expected to double the share of India in World Trade from present level of 3% by the year 2020. This appears to be too ambitions.

Special Economic Zones

With a view to overcome the shortcomings experienced on account of the multiplicity of controls and clearances, absence of world-class infrastructure, and an unstable fiscal regime and with a view to attract larger foreign investments in India, the Special Economic Zones (SEZs) Policy was announced in April 2000.

As part of the economic reforms, the system of taking over land by the government for commercial and industrial purposes was introduced in the country. As per the Special Economic Zones Act of 2005, the government has so far notified about 400 such zones in the country. Since the SEZ deprives the farmers of their land and livelihood, it is harmful to agriculture. In order to promote export and industrial growth in line with globalisation the SEZ was introduced in many countries

History of SEZ in India

Based on the success of

To invite larger foreign investments in India, these EPZs were converted into

First ever export processing zone (EPZ) in Asia was set up by government of India in Kandla in 1965.	Kandle EPZ in the beginning of eighties, seven more EPZs were set up in Bombay, Noida Surat, Madras, Falta, Visakapattinam	special Economic Zones (SEZs) in the year 2000 under a new policy announced by the Government of India.

India was one of the first in Asia to recognize the effectiveness of the Export Processing Zone (EPZ) model in promoting exports, with Asia's first EPZ set up in Kandla in 1965. The broad range of SEZ covers free trade zones, export processing zones, industrial parks, economic and technology development zones, high-tech zones, science and innovation parks, free ports, enterprise zones, and others.

Major Objectives of SEZs

1. To enhance foreign investment, especially to attract foreign directinvestment (FDI) and thereby increasing GDP.
2. To increase shares in Global Export (International Business).
3. To generate additional economic activity.
4. To create employment opportunities.
5. To develop infrastructure facilities.
6. To exchange technology in the global market.

Main Characteristics of SEZ

a. Geographically demarked area with physical security
b. Administrated by single body/ authority
c. Streamlined procedures
d. Having separate custom area
e. Governed by more liberal economic laws.
f. Greater freedom to the firms located in SEZs. As a result, they need not respect the Government's rules and regulations. The social and environmental impacts were disastrous.

Fiscal Reforms

A key element in the stabilization effort was to restore fiscal discipline. It means reduction of fiscal deficit to the extent of just 3% of GDP, as suggested by Fund Bank Policies. In this way, the budget aimed at containing government expenditure and augmenting revenues; reversing the downtrend in the share of direct taxes to total tax revenues and curbing conspicuousconsumption. Some of the important policy initiatives introduced for correcting the fiscal imbalance were: reduction in fertilizer subsidy, abolition of subsidy on sugar and disinvestment of a part of the government's equity holdings in select public sector undertakings. Gradually expenditures on welfare measures were reduced; takes on corporate sectors were reduced; and takes on poor people were increased.

Goods and Services Tax (GST)

Goods and Services Tax (GST) is defined as the tax levied when a consumer buys a good or service. It is proposed to be a comprehensive indirect tax levied on manufacture, sale and consumption of goods as well as services. GST aims to replace all indirect taxes levied on goods and services by the Indian Central and State governments. GST would eliminatie the cascading effect of taxes on the production and distribution of goods and services. It is also a "one-point tax" Unlike VAT which was a multipoint tax.

The Goods and Service Tax Act was passed in the Parliament on 29th March 2017. The Act came into effect on 1st July 2017.Te motto is one nation, one market, one tax.

Current GST Rates in India

Advantages of GST

- Removing cascading tax effect
- Single point tax
- Higher threshold for registration
- Composition scheme for small business
- Online simpler procedure under GST
- Defined treatment for e-ecommerce
- Increased efficiency in logistics
- Regulating the unorganized sector

Monetary and Financial Sector Reforms

Monetary reforms aimed at doing away with interest rate distortions and rationalizing the structure of lending rates.The new policy tried in many ways to make the banking system more efficient. Some of the measures undertaken were:

a. **Reserve Requirements:** Reduction in statutory liquidity ratio (SLR) and the cash reserve ratio (CRR) were recommended by the Narasimham Committee Report, 1991. It was proposed to cut down the SLR from 38.5 percent to 25 percent within a time span of three years. Similarly it was proposed that the CRR be brought down to 3 to 5% over a period of four years.
b. Interest Rate Liberalisation: Earlier, RBI controlled (i) the interest rates payable on deposits, (ii) the interest rates which could be charged for bank loans.
c. Greater competition among public sector, private sector and foreign banksand elimination of administrative constraints.
d. Liberalisation of bank branch licensing policy in order to rationalize the existing branch network.
e. Banks were given freedom to relocate branches and open specialized branches
f. Guidelines for opening new private sector banks.
g. New accounting norms regarding classification of assets and provisions of bad debt were introduced in tune with the Narasimham Committee Report.

Conclusion

There is no doubt that the Indian economy recorded ample achievements in some sectors after new economic policy. If the size of an economy provides the first impression of a country's political and economic strength, then India has indeed grown since 1991. In dollar terms, India's GDP crossed the $2-trillion mark in 2015-16. Currently, the country is ranked ninth in the world in terms of nominal GDP. Once India was rebuked for its "Hindu rate of growth", a term used by Rajkrishna to refer to low rate of economic growth. The GDP growth rate of India is very much appreciated. This growth is also due to changes in accounting system. That is why the increased GDP growth rate has failed to alleviate the miseries of the common people and to reduce the socio, economic and environmental imbalances. The basic problems of unemployment,poverty ill-health and inequalities remain unsolved.

10. Rural Economics

Introduction

Rural Economics deals with the application of economic principles in understanding and developing rural areas. In general, rural areas are geographical areas located outside towns and cities. According to the Census of India, the basic unit for rural areas is the revenue village. Rural economy refers to villages, and rural community refers to people living in villages. Rural areas have problems like backwardness of agriculture, low income , low employment opportunities, poverty, low infrastructural development, low illiteracy, low labourproductivity, lower prices of agricultural products, surplus labour force, larger population, high level of migration and high dependency on natural resources and nature. According to the 2011 PopulationCensus, there are 6,40,867 villages in India and 68.84 percent of the 121crore total population live in rural areas.

Features of Rural Economy

Main characteristics of rural economy are:

1. **Village is anInstitution:** TheVillage is a primary institution and it satisfies almost all the needs of the rural community. The rural people have a feeling of belongingness and a sense of unity towards each other.
2. **Dependence on Agriculture:** Therural economy depends much on nature and agricultural activities. Agriculture and allied activities are the main occupation in rural areas.
3. **Life of Rural People:** Lifestyles in villages are very simple. Public services like education, housing, health and sanitation, transport and communication, banking, roads and markets are limited and unavailable. Rural people rely much on faith, superstitions and traditional cultural practices. The standards of living of majority of rural people are poor and pitiable. In terms of methods of production, social organization and political mobilization, rural sector is extremely backward and weak. In recent years, the incidence of alcohol drinking has gone up.
4. **Population Density:** Population density, measured by number of persons living per sq. km is very low and houses are scattered in the entire villages.
5. **Employment:** There exists unemployment, seasonal unemployment and underemployment in rural areas. Unemployment refers to the situation of people withwillingness and ability to work but is not getting employed. Underemployment also called disguised unemployment is the situation of people employed in excess, over and above the requirement. Disguised unemployment is a situation Where people work but no increase in production. Both the situations are common in rural areas.
6. **Poverty:** Poverty is a condition where the basic needs of the people like food, clothing and shelter are not being met. According to the 2011-12 estimates, About 22 crores of people in rural areas are poor and live below the poverty line.
7. **Indebtedness:** People in rural areas are highly indebted owing to poverty and underemployment, lack of farm and non-farm employment opportunities, low wage employment, seasonality in production, poor marketing network etc. A

famous British writer Sir Malcolm Darling (1925) stated that 'A n Indian farmer is born in debt, lives in debt, dies in debt and bequeaths debt'. Since formal loan facilities are not available to the villagers, they depend on local money lenders who, like a parasite, squeeze the villagers. Hence the villagers commit suicide frequently.

8. **Rural Income:** The income of the rural people is constrained as the rural economy is not sufficiently vibrant to provide them with jobs or self – employment opportunities.Large proportion of labourers and skilled persons are underemployed and the scope for increasing their income is limited.
9. **Dependency:** Rural households are largely dependent on social grants and remittances from family members working in urban areas and cities.
10. **Dualism:** Dualism means the co existence of two exteremely different features like developed and underdeveloped, organised and unorganised, traditional and modern, regulated and unregulated, poor and rich, skilled and unskilled and similar contradicting situations in a region. These characteristics are very common in rural areas.
11. **Inequality:** The distributions of income, wealth and assets are highly skewed among rural people. There are number of historical, social, economic and political reasons behind the existence of inequality. Landlords and landowners dominate the rural activities. Land, livestock and other assets are owned by a few people
12. **Migration:** Rural people are forced to migrate from villages to urban areas in order to seek gainful employment for their livelihood. Tis character of the development gives rise to the formation of cities. Enmity and Lack of basic amenities in rural areas also push the people to migrate to urban areas. Tis is called' double poisoning' by Schumacher, one side villages are empty, on the other side towns are congested. His book is '' Small is Beautiful "describes the dangers of the present kind of development.

Meaning of Rural Development

Rural Development is defined as an overall improvement in the economies and social well-being of villagers and the institutional and physical environments in which they live. According to the World Bank, 'Rural Development is a strategy designed to improve the economic and social life of a specific group of people - rural poor'. In short, rural development is a process of improving the rural areas, rural people and rural living.

Need for Rural Development

Rural development is very urgent in the context of the overall growth and development of Indian economy due to the following reasons.

1. A major share of population lives in rural areas, and their development and contributions are very much supportive for the nation building activities. India cannot be developed by retaining rural as backward.
2. The rural economy supports the urban sectors by way of supplying drinking water, milk, food and raw materials. Hence, the backwardness of the rural sector would be a major impediment to the overall progress of the economy.

3. Improvements in education, health and sanitation in villages can help avoid many urban problems namely,begging, rack picking and road side slumming.
4. Development of agriculture and allied activities are necessary for providing gainful employment in rural areas and improving overall food production.
5. The evils of brain-drain and rural-urban migration can be reduced if rural areas are developed.
6. In order to better utilise the unused and under-utilised resources, there is a need to develop the rural economy.
7. Rural development should minimise the gap between rural and urban areas in terms of the provision of infrastructural facilities. It was called as PURA by former President Abdul Kalam.
8. In order to improve the nation’s status in the global arena in terms of the economic indicators like Human Development Index (HDI), Women Empowerment Index (WEI), Gender Disparity Index (GDI), Physical Quality of Life Index (PQLI) and Gross National Happiness Index (GNHI) should be given due attention.

Problems of Rural Economy

Rural areas are facing number of problems relating to, 1) People, 2) Agriculture, 3) Infrastructure, 4) Economy, 5) Society and Culture, 6) Leadership and 7) Administration.

The problems of rural economy are discussed below.

1. **People Related Problems:** The problems related to individuals and their standard of living consist of illiteracy, lack of technical knowhow, low level of confidence, dependence on sentiments and beliefs etc.
2. **Agriculture RelatedProblems:** The problems related to agriculture include 1.Lack of expected awareness, knowledge, skill and attitude, 2.Unavailabilityof inputs, 3.Poor marketing facility, 4.Insufficient extension staff and services, 5.Multidimensional tasks to extension personnel, 6.Small size of land holding, 7.Sub-division and fragmentation of landholdings, 8.Absence of infrastructure to work and stay in rural areas, 9.Primitive technology and low adoption of modern technologies 10. Reduced public investment and absence of role for farmers in fixing the prices for their own products.
3. **Infrastructural Related Problems:** Poor infrastructure facilities like, water, electricity, transport, educational institutions, communication, health, employment, storage facility, banking and insurance are found in rural areas.
4. **Economics related Problems:** The economic problems related to rural areas are: inability to adopt high cost technology, high cost of inputs, under privileged rural industries, low income, indebtedness and existence of inequality in land holdings and assets. In fertile areas, a few absentee landlords own large area and they do not evince greater Interest in improving the performance of agriculture.
5. **Leadership Related Problems**: The specific leadership related problems found in rural areas are: Leadership among the hands of inactive and incompetent people,

self-interest of leaders, biased political will, less bargaining power and negation skills and dominance of political leaders.

6. **Administrative Problems:** The rural administrative problems consist of political interference, lack of motivation and interest, low wages in villages, improper utilization of budget, and absence of monitoring and implementation of rural development programme.

Rural poverty, rural unemployment, rural industries, micro finance, rural health and sanitation and rural infrastructures are the issues that are considered for detailed discussion.

Rural Poverty

Rural poverty refers to the existence of poverty in rural areas. Poverty in India has been defined as the situation in which an individual fails to earn sufficient income to buy the basic minimum of subsistence. Poverty line is a hypothetical line based on income or consumption levels that divides the population as people below poverty line and above poverty line. On the basis of recommended nutritional intake, persons consuming less than 2,400 calories per day in rural areas are treated as they are under rural poverty.

As per the Planning Commission estimates, the percentage of people living below poverty in rural areas was 54.10 which accounted for 33.80 per cent during 2009-10. Poverty is deepest among members of scheduled castes and tribes in the rural areas. In 2005 these groups accounted for 80 per cent of rural poor, although their share in the total rural population is much smaller. In 2015, more than 80 crores of India's people lived in villages. One quarter of village population (22 crores people) list below the poverty line. India is the home to 22 per cent of the world's poor. It is needless to state that the country has been successful in reducing the proportion of poor people, in spite of increasing of population.

Causes for Rural Poverty

Various forces responsible for rural poverty are highlighted below:

1. The distribution of land is highly skewed in rural areas. Therefore, majority of rural people work as hired labour to support their families.
2. **Lack of Non-farm Employment:** Non-farm employment opportunities do not match the increasing labour force. The excess supply of labour in rural areas reduces the wages and increases the incidence of poverty.
3. **Lack of Public Sector Investment:** The root cause of rural poverty in our country is lack of public sector investment on human resource development.
4. **Inflation:** Steady increase in prices affects the purchasing power of the rural poor leading to rural poverty.
5. **Low Productivity:** Low productivity of rural labour and farm activities is a cause as well as the effect of poverty.

6. **Unequal Benefit of Growth:** Major gains of economic development are enjoyed by the urban rich people leading to concentration of wealth. Due to defective economic structure and policies, gains of growth are not reaching the poor and the contributions of poor people are not accounted properly.
7. **Low Rate of Economic Growth:** The rate of growth of India is always below the target and it has benefited the rich. The poor are always denied of the benefits of the achieved growth and development of the country.
8. **More Emphasis on Large Industries:** Huge investment in large industries catering to the needs of middle and upper classes in urban areas are made in India. Such industries are capital-intensive and do not generate more employment opportunities.Therefore, poor are not in a position to get employed and to come out from the poverty in villages.
9. **Social Evils:** Social evils prevalent in the society like custom, believes etc. increase unproductive expenditure.

Remedial Measures to Rural Poverty

Since rural unemployment and rural poverty are interrelated, creation of employment opportunities would support elimination of poverty. Poverty alleviation schemes and programmes have been implemented, modified, consolidated, expanded and improved over time. However, unemployment, begging, rag picking and slumming continues. Unless employment is given to all the people poverty cannot be eliminated. Who will bell the cat?

Poverty Eradication Schemes	
Schemes	**Year of launch**
20 Point Programme	1975
Integrated Rural development Programme(IRDP)	1976
Training Rural Youths for Self- Employment (TRYSEM)	1979
Food for Work Programme (FWP)	1977
National Rural Employment Programme (NREP)	1980
Rural Landless Employment Guarantee Programme(RLEGP)	1983
JawaharRozgarYojana(JRY)	1989
Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNREGS)	2006

Development Schemes	
Pradhan MantriAdarsh Gram SadakYojana (PMAGSY)	2010
Bharat NirmanYojana	2005
Indira AwasYojana	1985
Jawaharlal Nehru National Urban Renewal Mission (JNNURM)	2005
Rajiv AwasYojan (RAY)	2009

National Rural Health Mission	2005
National Rural Livelihood Mission	2011
National Food Security Scheme	2013

Rural Unemployment

Unemployment is a situation in which a person is actively searching for employment but unable to find work at the prevailing wage rate. It is a tragic waste of manpower and underutilisation of human resources. As long as there is unemployment, social problems cannot be stopped; and, economy cannot achieve development.

Peter Diamond, Dale Mortensen and Christopher Pissarides shared 2010 Economics Nobel prize for jobs study. Their model, called DMP model, helps us understand how regulation and economic policies affect unemployment, job vacancies and wages.

As on 4th October 2016, rural unemployment was 7.8 per cent which is less than urban unemployment (10.1 per cent) and all India unemployment rate (8,5 per cent). Rural unemployment in India are categorised into three classes: (i) Open Unemployment (ii) Concealed Unemployment or Under employment and (iii) Seasonal Unemployment. In **Open Unemployment**, unemployed persons are identified as they remain without work. This type of unemployment is found among agricultural labourers, rural artisans and literate persons. In **Concealed Unemployment,** it is difficult to identify who are under employed; for many are employed below their productive capacity and even if they are withdrawn from work the output will not diminish. It is also called Disguised Unemployment or Under employment. This type of unemployment is found among small and marginal farmers, livestock rearers and rural artisans. This kind of unemployment situation is more serious in villages than in urban areas. Disguised unemployment in rural India is 25 per cent to 30 per cent. In **Seasonal Unemployment**, employment occurs only on a particular season supported by natural circumstances and the remaining period of a year the rural people are unemployed or partially employed. In seasons like ploughing, sowing, weeding and harvesting there is scarcity of labour and in the rest of the yearthere is unemployment. It is pathetic to note that a farmer who cultivates one crop in a year usually goes without a job for almost 5 to 7 months and ultimately commit suicide.

According to the Agricultural Labour Enquiry Committee Report, "the extent of under employment is on the average, 82 days of unemployment in a year for 84 per cent of agricultural labours."

Causes for Rural Unemployment

Causes for rural unemployment in India are discussed below:

1. **Absence of skill development and employment generation:** Lack of Government initiatives to give required training and then to generate employment opportunities.
2. **Seasonal Nature of Agriculture:** Agricultural operations are seasonal in nature and depend much on nature and rainfall. Therefore, the demand for labour

becomes negligible during off-season. So, non-farm employment opportunities must be created.

3. **Lack of Subsidiary Occupation:** Rural people are not able to start subsidiary occupations such as poultry, rope making, piggery etc. due to shortages of funds for investment and lack of proper marketing arrangements. This restricts the employment opportunity and rural family incomes. Government must arrange funds for these people. However, as now they pay huge interest to the local money lenders, for they are unable to get loans from formal sources.
4. **Mechanization of Agriculture:** The landlords are the principal source of employment to the farm labour. Mechanization of agricultural operations like ploughing, irrigation, harvesting, threshing etc. reduces employment opportunities for the farm labour.
5. **Capital-Intensive Technology:** The expanding private industrial sector is largely found in urban areas and not creating additional employment opportunities due to the application of capital intensive technologies. Government must establish firms to absorb surplus labour power.
6. **Defective System of Education:** The present system of education has also aggravated the rural unemployment problem.Large number of degree-producing institutions has come in the recent years. Students also want to get degrees only, not any skill. Degrees should be awarded only on the basis of skills acquired. The unemployed youth should get sufficient facilities to update their skills.

Remedies for Rural Unemployment

In order to reduce rural unemployment in the country there is a need to take integrated and coordinated efforts from various levels. A few remedial measures are listed below:

1. Subsidiary Occupation: To reduce the seasonal unemployment rural people should be encouraged to adopt subsidiary occupations. Loans should be granted and proper arrangements should be made for marketing their products.
2. Rural Works Programme: Rural Works Programme such as construction and maintenance of roads, digging of drains, canals, etc should be planned during off-seasonto provide gainful employment to the unemployed.
3. Irrigation Facilities: Since rainfall is uncertain irrigation facilities should be expanded to enable the farmers to adopt multiple cropping. The increased cropping intensity creates additional demand for labour.
4. Rural Industrialization: To provide employment new industries should be set up in rural areas. This will open new fields of employment and also change the attitude of rural people towards work. For this, government has to do something. Private sector would not take up this responsibility.
5. Technical Education: Employment oriented courses should be introduced in schools and colleges to enable the litrate youth to start their own units.

Rural Industries

Rural industries embrace all industries which are run by rural people in rural areas. These industries are based primarily on the utilization of locally available raw materials, skills and small amount of capital. The rural industries can be broadly classified into a) cottage industries, b) village industries, c) small industries, d) tiny industries and e) agro-based industries.

Cottage Industries: Cottage industries are generally associated with agriculture and provide both part-time and full-time jobs in rural areas.The important characteristics of this type of industries are as follows:

1. These industries are carried out by artisans in their own homes at their own risk and for their own benefit. Artisans may combine this work with another regular job.
2. No or little outside labour is employed. Normally, the members of the household provide the necessary labour.
3. These industries are generally hereditary and traditional in character.
4. No or little power is used.
5. These industries usually serve the local market and generally work on the orders placed by other industries.

Examples of cottage industries are mat, coir and basket making industries. The principal cottage industries of India are hand-loom weaving (cotton, silk, jute, etc.) pottery, washing soap making, conch shell, handmade paper, horn button, mother-of-pearl button, cutlery, lock and key making industries.

Village Industries: Village industries are traditional in nature and depend on local raw-material. They cater to the needs of local population. Examples of village industries are gur and khandsari, cane and bamboo basket, shoe making, pottery and leather tanning. These are almost similar to the cottage industries.

Small Scale Industries (SSIs): Most small scale industries are located near urban centres. They produce goods for local as well as foreign markets. Examples of such small scale industries are manufacture of sports goods, soaps, electric fans, foot wear, sewing machines and handloom weaving.

SSIs are also known as Micro, Small & Medium Enterprises (MSMEs). They are defined and categorized by the Micro, Small & Medium Enterprises Development Act, 2006. The Act categorizes different scale of industries on the basis of investment in plant and machinery in case of manufacturing industries and on the basis of investment in equipment in case of service sector industries.

Agro-based Industries: These industries are based on the processing of agricultural produce. Agro-based industries may be organised on a cottage-scale, small-scale and large-scale. These industries tend to develop household settlements around them as they employ more labour on a regular basis. Examples are textile, sugar, paper, vegetable oil, and tea and coffee industries.

Rural Indebtedness

Rural indebtedness refers to the situation of the rural people unable to repay the loan accumulated over a period. Existence of the rural indebtedness indicates the weak financial infrastructure of our country, in reaching the needy farmers, landless people and the agricultural labourers.

The farmers borrow loan for various purposes like agricultural operations, supporting the family in the lean season or purchase of equipment's in the recent years, expenses on celebrations, liquor consumption and medicines go on increasing without any limit. Due to lower income, the villagers are unable to repay the loans or pay the pending interest on the principal amount.

According to the Government of India's Socio Economic and Caste Census (SECC), 2015, around 73 per cent of households in India are rural. Of these, 18.5 per cent are scheduled caste households and 11 per cent belong to the scheduled tribe category.

The data of the National Sample Survey Organisation (NSSO, 2002-03) reveals that only about 30 per cent of the poor borrowers get credit from the formal banks. According to the All India Debt and Investment Survey (AIDIS) 2002, the share of institutional credit has declined from 66.3 per cent in 1991 to 57.1 percent in 2002, with a corresponding increase in informal channels of credit (RBI, 2006).

Features of Rural Indebtedness

Nearly three fourth of rural families in the country are in debt. The amount of debt is heavier in the case of small farmers. Cultivators are more indebted than the non-cultivators. Most of the debts taken are short term and of unproductive nature. The proportion of debts having higher rates of interest is relatively high. Most of the villagers are indebted to private agencies particularly money lenders.

Causes for Rural Indebtedness

The causes for rural indebtedness may be summarized as below:

1. Poverty of Farmers: The vicious circle of poverty forces the farmers to borrow for consumption, cultivation and celebrations. Thus, poverty, debt and high rates of interest hold the farmer in the grip of money lenders.
2. Failure of Monsoon: Frequent failure of monsoon is a curse to the farmers and they have to suffer due to the failure of nature. Therefore, farmers find it difficult to identify good years to repay their debts.

3. Litigation: Due to land disputes litigation in the court compels them to borrow heavily. Being uneducated and ignorant they are caught in the litigation process and dry away their savings and resources.
4. Money Lenders and High Rate of Interest: The rate of interest charged by the local money lenders is very high and the compounding of interestleads to perpetuate indebtedness of the farmer.

Measures to Remove Rural Indebtedness

Several remedial measures have been introduced to reduce rural indebtedness. It includes regulation of money lenders, development of rural banks, Regional Rural Banks (RRBs), Micro Finance, formation of Self Help Groups (SHGs), Primary Cooperative Banks and Land Development Banks, Crop Loan Schemes, Lead Bank Schemes, Micro Units Development and Refinance Agency Bank (MUDRA), promotion of subsidiary occupation, of farm employment opportunities, skill development programmes and so on. However, the interest rate charged plus transaction cost for poor people and Self-Help Groups are much higher as compared to that for rich people. For instance, education loan is costlier than car loans.

Regional Rural Banks (RRBs)

Regional Rural Banks came into existence based on the recommendation made by a working group on rural banks appointed by the Government of India in 1975. RRBs are recommended with a view to developing rural economy by providing credit and other facilities particularly to the small and marginal farmers, agricultural labourers, artisans and small entrepreneurs. RRBs are set up by the joint efforts of the Centre and State Governments and commercial banks. At present, there are 64 Regional Rural Banks in India. The RRBs confine their lending's only to the weaker sections and their lending rates are at par with the prevailing rate of cooperative societies.

Micro Finance

Micro finance, also known as micro credit, is a financial service that offers loans, savings and insurance to entrepreneurs and small business owners who do not have access to traditional sources of capital, like banks or investors. The goal of micro financing is to provide individuals with money to invest in themselves or their business. Microfinance is available through micro finance institutions, which range from small non-profit organizations to larger banks. In India, Non-Government Organizations (NGOs) play a pivotal role in the development of micro finance service. Microfinanceindustries in India have grown vastly in the last two decades. In 2009, the total number of micro finance institutions in India was around 150 (Tripathi, 2014).

Self-Help Groups (SHGs)

Self Help Groups are informal voluntary association of poor people, from the similar socio-economic background, up to 20 women (average size is 14). They come together for the purpose of solving their common problems through self-help and mutual help. The SHG promotes small savings among its members. They save small amounts Rs.10 to Rs.50 a month. The savings are kept with a bank. After saving regularly for a minimumof 6 months, they lend small amounts to their members for interest. Based on their performance, they are linked with the bank for further assistance under SHG Bank Linked Programme (SBLP) started in 1992. It is a holistic programme of micro-enterprises covering all aspects of self-employment, organization of the rural poor into self Help groups and their capacity building, planning of activity clusters, infrastructure build up, technology, credit and marketing.

In 2009-10, the number of new SHGs having credit-linked with banks was 1.59 million and a bank loan of Rs.14,453 Crores was disbursed to these SHGs. Further, the number of SHGs which maintained savings accounts with banks at the end of March 2010 was 6.95 million.

The main objective of this programme is to bring the beneficiaries above the poverty line by providing income generating assets to them through bank credit and government subsidy. NABARD estimatesthat there are 2.2 million SHGs in India, representing 33 million members that have taken loans from banks under its linkage program to date. The SHG Banking Linkage Programme since its beginning has been predominant in certain states, showing spatial preferences especially for the southern regions like Andhra Pradesh, Tamil Nadu, Kerala and Karnataka. These SHGs have helped the Banks to accumulate more funds. Actually the banks change higher interest for the SHGs than car owners.

Under NABARD SHG Linkage Programme, SHGs can borrow credit from bank on showing their successful track record of regular repayments of their borrowers. It has been successful in the states like Andhra Pradesh, Tamil Nadu, Kerala and Karnataka during 2005-06. These States received approximately 60 per cent of SHG linkage credit (Taruna and Yadav, 2016).

Major Features of SHGs are

1. SHG is generally an economically homogeneous group formed through a process of self-selection based upon the affinity of its members.
2. Most SHGs are women’s groups with membership ranging between 10 and 20.
3. SHGs have well-defined rules and by-laws, hold regular meetings and maintain records and savings and credit discipline.
4. SHGs are self-managed institutions characterized by participatory and collective decision making.

Micro Units Development and Refinance Agency Bank (MUDRA Bank)

It is a public sector financial institution which provides loans at low rates to micro-finance institutions and non-banking financial institutions which then provide credit to Micro, Small and Medium Enterprises (MSMEs). It was launched on 8th April 2015.

Mudra Bank Micro Units Development and Refinance Agency Regulate and Refinance and Micro finance Institutions

The principal objectives of the MUDRA Bank are the following

1. Regulate the lender and the borrower of microfinance and bring stability to the microfinance system.
2. Extend finance and credit support to Microfinance Institutions (MFI) and agencies that lend money to small businesses, retailers, self-help groups and individuals.
3. Register all MFIs and introduce a system of performance rating and accreditation for the first time.
4. Offer a Credit Guarantee scheme for providing guarantees to loans being offered to micro businesses.
5. Introduce appropriate technologies to assist in the process of efficient lending, borrowing and monitoring of distributed capital.

Rural Health, Nutrition and Sanitation

Health is an important component for ensuring better quality of life. Largemasses of the Indian poor continue to fight hopeless and constantly losing the battle for survival and health. Indian rural people are suffering with various epidemics such as small pox, cholera, malaria, typhoid, dengue, chicken guniya, etc. This is mainly due to lack of medical facilities, deep ignorance and poverty. Indian Constitution clearly lays down that "States shall regard the rising of the level of nutrition and standard of living of its people and improvement of public health as among its primary duties". To meet this constitutional directive. Several programmes for nutrition have been implemented. These include Supplementary Feeding Programmes including Mid Term Meal Programme, Nutrition Education through Printed Media and Television and Compulsory Fortification of Common Salt within Iodine. Still in terms of health standard, Sri Lanka is better than India, and in India, Kerala is better than Tamil Nadu.

National Rural Health Mission

The National Rural Health Mission (NRHM) was launched on 12th April 2005, to provide accessible, affordable and quality health care to the rural population,especially the vulnerable groups. NRHM seeks to provide equitable, affordable and quality health care to the rural population, especially the vulnerable groups.

NRHM focuses on Reproductive, Maternal, New-born, Child Health and Adolescent (RMNCH+A) Services. The emphasis here is on strategies for improving maternal and child health through a continuum of care and the life cycle approach.

Rural Infrastructure
Rural Housing

House is one of the basic needs of every family. Provision of better housing facilities increases the productivity of labour. The housing problem is getting aggravated due to rapid adaptation of nuclear families. Housing does not mean provision of house alone but also proper water supply, good sanitation, proper disposal of sewage etc. The problem of housing can be tackled by the development of low cost technology in house construction, provision of adequate housing finance and provision of land sites to landless workers in rural areas.As per the NSSO data, 38 per cent of the households lived in with one room while another 36 per cent lived with two rooms.

Rural Market

Road Market refers to the infrastructure created to buy and sell the products produced in rural areas and also to purchase the needed products and farm inputs produced in urban and other regions. The rural marketing is still defective as farmers lack bargaining power, long chain of middlemen, lack of organisation, insufficient storage facilities, poor transport facilities, absence of grading, inadequate information and poor marketing arrangements.

Rural roads in India constitute 26.50 lakh kms, of which 13.5 percent of the roads are surfaced.

India's road network is one of the world's largest. The road length of India increased from about 4 lakh kms in 1950-51 to 34 lakh kms at present (2018).

Rural Roads

Road transport is an important constituent of the transport system. Rural roads constitute the very life line of rural economy. A well-constructed road network in rural area would bring several benefits including the linking of remote villages with urban centres, reduction in cost of transportation of agricultural inputs and promotion of marketing for rural produces. It helps the farmers to bring their produce to the urban markets and to have access to distant markets and other services.

Rural Electrification

Rural Electrification refers to providing electrical power to rural areas. The main aims of rural electrification are to provide electricity to agricultural operations and to enhance agricultural productivity, to increase cropped area, to promote rural industries and to lighting the villages. In order to improve this facility the supply of electricity is almost free for agricultural purpose in many states and the electricity tariff charged in rural areas is kept very low. In India 99.25% of villages were electrified at the end of March 2017. As on 31.03.2017, 100 percent electrification was achieved in villages of 20 States/UTs namely, Chandigarh, Delhi, Haryana, Himachal Pradesh, Punjab, Rajasthan, Daman & Diu, D & N Haveli, Goa, Gujarat, Maharashtra, Andhra Pradesh, Kerala, Lakshadweep, Puducherry, Tamil Nadu, Telangana, Andaman & Nicobar Island, Sikkim and Tripura.

The factors hindering the progress of rural electrification in India are:

1. Lack of Funds: The generation and transmission of power involves huge expenditure and the fund allocation is low.
2. Inter-state Disputes: As there are inter-state disputes in managing power projects, power distribution is affected.
3. Uneven Terrain: As rural topography is uneven without proper connection, developing new lines are costlier and difficult.
4. High Transmission Loss: Transmission loss in power distribution is almost 25 per cent in rural areas.
5. Power Theft: Unauthorized use and diversion of power are evil practices adopted by affluent people that hinder the rural electrification process.

Requirements for Rural Development

Slater Villages: Gilbert Slater, the first professor of economics at Madras University, published his book, Some South Indian Villages, in 1918 following a survey of some villages like Vadamalaipuram (Ramnad), Gangaikondan (Tirunelveli), Palakkuurichi (Tanjore) and Dusi (North Arcot) in Tamil Nadu by his students. It was subsequently done by different groups of researchers in the 1930s, 1950s, 1960s, and two of the villages only in the early 21st century. Te resurveys became an important historical record. They provided a baseline for several later revisits to his villages, and have inspired many successors. Much of our knowledge of rural change depends on these studies.

1. Efforts need to be made to raise farm and non-farm rural real incomes.
2. Investment in basic infra-structure and social services need to be increased.
3. Coordinated and integrated programmes for solving the present problems and to achieve sustainable development need to be designed.
4. Persons and leaders with an understanding of reality of rural problems and with the required foresight vision should be consulted while designing development programmes.

Conclusion

Crucial steps to strengthening the rural economy are already being taken through various policies. These steps include investments in areas ranging from health, information technology, education, infrastructure and small business. The Administration is committed to building on these unprecedented measures in the months and years to come. PURA (Provision of Urban facilities for Rural Areas) needs to be given due emphasis, without which Indian villages cannot prosper.

11th - Economics
11. Tamil Nadu Economy

Introduction

The economic and social development of states in India are not uniform. Wide regional disparities exist. The western region and southern regions are better of than the other regions. Tamil Nadu is geographically eleventh largest and population wise third largest. Tamil Nadu fares well with many achievements. It stands to second in termsof contribution to GDP, third highest in terms of per capita income, investment, Foreign Direct Investment (FDI) and industrial output. It has been ranked as the most economically free state by the Economic Freedom.

In the social and health sector also Tamil Nadu's performance is better than many other states and better than national average in terms of health, higher education, IMR and MMR.

Highlights of Tamil Nadu Economy

- Growth of SGDP in Tamil Nadu has been among the fastest in India since 2005.
- Poverty reduction in Tamil Nadu has been faster than that in many other States.
- Tamil Nadu contains a smaller proportion of India's poor population.
- Tamil Nadu is the second largest contributor to India's GDP.
- Tamil Nadu ranks 3rd in Human Development Index (source: UNDP-2015)
- Tamil Nadu ranks 3rd in terms of invested capital (Rs.2.92 lakh crore) and value of total industrial output (Rs.6.19 lakh crore).
- Tamil Nadu ranks first among the states in terms of number of factories with 17% share and industrial workers (16% share) of the country.
- Tamil Nadu is placed third in health index as per the NITI AAYOG report.
- Tamil Nadu has a highest Gross Enrolment Ratio in higher education.
- Tamil Nadu has the largest number of engineering colleges
- Tamil Nadu has emerged as a major hub for renewable energy.
- Tamil Nadu has highest credit Deposit Ratio in commercial and Cooperative banks.
- has highest ranks first on investment proposals filed by MSMEs.

Performance of Tamil Nadu Economy

Some of the States like Gujarat and Maharashtra seem to perform well in some of the economic indicators. Kerala tops in literacy IMR and MMR. In recent years Tamil Nadu's performance is outstanding and far ahead of all other states in the spheres of health, higher education, growth of MSMEs, poverty alleviation and employment generation.

Tamil Nadu is placed third in health index

The Tamil Nadu state has come third after Kerala and Punjab in a health index report. The neo natal mortality rate is 14 lower than that of many other states and that the under 5 mortality has dropped from 21 in 2014 to 20 in 2015
- Healthy States, Progressive India Report, (2018) -NITI AAYOG The reasons for the relative success of Tamil Nadu lie in extending social policies to cover most of the population. For instance the Public Distribution System, midday meals and public health infrastructure have near universal coverage.

Natural Resource
Water Resources

Tamil Nadu is not endowed with rich natural resources compared to otherStates. It accounts for three per cent of water sources, four per cent of land area against six per cent of population.North East monsoon is the major source of rainfall followed by South West monsoon. There are 17 river basins in Tamil Nadu. The main rivers are Palar, Cheyyar, Ponnaiyar, Cauvery, Bhavani, Vaigai, Chittar, Tamiraparani, Vellar, NoyyalSiruvani, Gundar, Vaipar, Valparai etc. Wells are the largest source of irrigation in Tamil Nadu (56%).

Water Resources	
Source of Irrigation	**Numbers**
Reservoirs	81
Canals	2239
Tanks	41262
Tube Wells	3,20,707
Open Wells	14,92,359

Source: Tamil Nadu Government Season & Crop Report 2012-13

Mineral Resources

Tamil Nadu has a few mining projects based on Titanium, Lignite, Magnesite, Graphite, Limestone, Granite and Bauxite. The first one is the Neyveli Lignite Corporation that has led development of large industrial complex around Neyveli in Cuddalore district with Termal power plants, Fertilizer and Carbonisation plants. Magnesite mining is at Salem from which mining of Bauxite ores are carried out at Yercaud and this region is also rich in Iron Ore at Kanjamalai. Molybdenum is found in Dharmapuri, and is the only source in the country.

Table 11.2

Mineral Resources		
Mineral	**Reserve(Tonnes)**	**National Share**
Lignite	30,275,000	87%
Vermiculite	2,000,000	66%
Garnet	23,000,000	42%
Zircon	8,000,000	38%
Graphite	2,000,000	33%

Ilmenite	98,000,000	28%
Rutile	5,000,000	27%
Monazite	2,000,000	25%
Magnesite	73,000,000	17%

(Source: Department. of Geology and Mining)

Population

Tamil Nadu stands sixth in population with 7.21 crore against India's 121 crore asper 2011 census. However, Tamil Nadu's population is higher than that of several countries according to UN Report.

Table 11.3 Population

State / Country	Population(in Crore)
Tamil Nadu	7.2
U.K.	6.5
France	6.5
Italy	5.9
South Africa	5.6
Spain	4.7
Sri Lanka	2.1

(Source: Projections published by the United Nations in the 2017 Revision of World Population Prospects.)

Density

The density of population which measures population per sq.km is 555 (2011) against 480 (2001). Tamil Nadu ranks 12th in density among the Indian States and overall it is 382 for India.

Urbanisation

Tamil Nadu is the most urbanized state with 48.4% of urban population against 31.5% for India as a whole. The State accounts for 9.61% of total urbanites in India against 6% share of total population.

Sex ratio (Number of female per 1000 males)

Balanced sex ratio implies improvement in quality of life of female population. The sexratio in Tamil Nadu is nearing balance with 995 which is far better compared to most of the States and all India level. Tamil Nadu stands third next only to Kerala state and Puduchery Union Territory in sex ratio.

Table 11.4 Sex Ratio

S. No	Indicator	Tamil Nadu	India
1.	IMR	17	34

2.	MMR	79	159
3.	Life Expectancy Total Male Female	 70.6 68.6 72.7	 67.9 66.4 69.6
4.	Literacy Rate Total Male Female	 80.33% 86.81% 73.86%	 74.04 % 82.14 % 65.46 %
5.	Sex Ratio	995	940

Infant Mortality Rate (mortality before completing 1 year)

Tamil Nadu is well ahead of national average and other states in IMR. According to NITI AAYOG, the IMR is 17 (per 1000) for Tamil Nadu which is just half of national average of 34 as on 2016.

Maternal Mortality Rate (MMR) (Mother's death at the time of delivery per 1 lakh)

Tamil Nadu has a good record of controlling MMR, ranking third with79 (Kerala 61, Maharashtra 67) against national average of 159 again half of the national average [NITI AAYOG].

Life Expectancy at birth

The average period that a person may expect to live is called life expectancy. However, life expectancy in India still falls short of most developed and developing nations.

Literacy

The literacy rate of Tamil Nadu is Is higher than in many States

Gross State Domestic Product (GSDP)

Just like GDP, the Gross State Domestic Product refers to the total money value of all the goods and services produced annually in the State.

Tamil Nadu is the second largest economy in India with a GSDP of $ 207.8 billion in 2016-17 according to the Directorate of Economics and Statistics, Tamil Nadu. The GSDP of Tamil Nadu is equal to the GDP of Kuwait on nominal term and GDP of UAE on PPP terms.

The GSDP of Tamil Nadu is far higher compared to many countries as shown below. This is mainly due to population effect. Per capita GSDP would be better for intercountry or interstate comparisons. Tamil Nadu may go below if per capita GSDP is considered for comparison.

Gross State Domestic Product

State / Country	GSDP /GDP (Billion)
Tamil Nadu-GSDP	$ 207.8
Iraq-GDP	$ 171
New Zealand-GDP	$ 184
Sri Lanka-GDP	$ 81

(Source: IMF Outlook, April 2017)

Sectoral Contribution

The tertiary sector (service sector) is the major contributor to Tamil Nadu's GSDP at 63.70%. The secondary sector (Industry) contribution is gradually on the rise and now it is 28.5%. Agriculture occupies a prominent position in occupation but its contribution to GSDP is declining and now it is just 7.76%. This means that the tertiary and secondary sectors have grown faster, the agricultural sector has grown slow. Agriculture sector provides employment and food to larger proportion of Indians and Tamils. But, the same sector is growing slowlymeans it is not good. With this trend sustainable development may not be possible.

Per capita Income

The Per capita GSDP of Tamil Nadu also ($ 2,200) which is higher than that of many other States in India. Per capita GSDP of Tamil Nadu is nearly 1.75 times higher than the national average, as per 2018 data. In term of ₹ the per capita income in Tamil Nadu was ₹ 1,03,600 in 2010-11 and it has increased to ₹1,88,492 in 2017-18 as per the Budget figures 2018.

Per capita income

State / Country	Per capita Income (in USD)
Tamil Nadu	2200
India	1670
Nigeria	2175
Nicaragua	2151
Pakistan	1443
Bangladesh	1358
Zimbabwe	1029
Nepal	729

(Source: World Bank National Accounts data, and OECD National Accounts data files. - https://data. worldbank.org/indicator/NY.GDP.PCAP.CD)

The Per capita income of Tamil Nadu among the southern States is given below:

Table Per capitaIncome (2015-16)

State	PI
Tamil Nadu	1,57,116
Kerala	1,55,516
Karnataka	1,46,416
Telangana	1,58,360
Andhra Pradesh	1,37,000

(Source: Reserve Bank of India, New Delhi. February 2017.)

Agriculture

Tamil Nadu, with seven agro climatic zones and varied soil types is better suited for the production of fruits, vegetables, spices, plantation crops, flowers and medicinal plants. The State is the largest producer of loose flowers and the third largest producer of fruits. Tamil Nadu has historically been an agricultural State. At present, Tamil Nadu is the India's second biggest producer of rice, next only to West Bengal. The state is one of the major producers of turmeric. It is also the leading producer of Kambu, Corn, Groundnut, Oil seeds and Sugarcane. It ranks first in production of plantation crops and banana and coconut, second in rubber and cashew nut, third in pepper and fourth in sugarcane.

The gross cropped area under all crops was 58.97 lakh hectares in the year 2013-14. The area under food crops account for 72.9% and that of non-foodcrops is 27.1%. Among the food crops paddy takes a major share. Among the non-food crops, groundnut and coconut take a major share.

Net sown area has been gradually declining; and, rural land, labour and capital are moving towards urban projects. As a result, villages are emptied and cities are over-crowded and congested, leading to spatially unbalanced bulging.

Foodgrain Production

Rice production dominates among food grain production with 79.49 lakh tones on 2014-15 followed by millets at 40.79 lakh tons. There is significant jump in pulses production from 3.59 lakhs ton in 2011-12 to 7.67 lakh ton in 2014-15. There may be changes in these statistics. Hence updation is unavoidable.

Productivity Position of Tamil Nadu and India

The Government of Tamil Nadu lays emphasis on agricultural production and productivity. As a result, Tamil Nadu tops in productivity, in food crops as well as non-food crops, among the States in India.

Productivity Position of Tamil Nadu

Crop	Position of Tamil Nadu at National Level
Maize	1
Cumbu	1

Total Oilseeds	1
Cotton	1
Coconut	2
Rice	2
Sugarcane	3
Sunflower	3
Jowar	3
Coarse cereals	4
Total Pulses	8

(Source: Tamil Nadu Agriculture Department Policy Note 2017-18)

Tamil Nadu ranks first in maize cumbu, groundnut, oil seeds and cotton second in rice and coconut, third in sugarcane, sunflower and jowar.

Industry

Chennai is sometimes referred to as the Health Capital of India or the Banking Capital of India, having attracted investments from International finance Corporation sand the World Bank. It is also called as Detroit of Asia.

Tamil Nadu has a network of about 110 industrial parks/estates that offer developed plots with supporting infrastructure. Also the Government is promoting other industrial parks like Rubber Park, TICEL Park for Biotechnology, Siruseri IT Park and Agro Export Zones. The heavy engineering manufacturing companies are centeredaround the suburbs of Chennai. Chennai boasts of global car manufacturing giants as well a home grown companies.

Karur is known for its bus body building which contributes 80% of South Indian bus body building. TNPL is the Asia›s largest eco-friendly paper mill. Salem is called as steel city and has many sago producing units and mineral wealth. Sivakasi is the leader in printing, fireworks, safety matches production in India. It contributes to 80% of India's total safety matches production and 90% of India's total fireworks production. Thoothukudi is the gateway of Tamil Nadu. It is a major chemical producer next only to Chennai.

Textiles

Tamil Nadu is the largest textile hub of India. Tamil Nadu is known as the "Yarn Bowl" of the country accounting for 41% of India's cotton yarn production. The textile industry plays a significant role in the Indian economy by providing direct employment to an estimated 35 million people, and thereby contributing 4% of GDP and 35% of gross export earnings. The textile sector contributes to 14% of the manufacturing sector. From spinning to garment manufacturing, entire textile production chain facilities are in Tamil Nadu. About half of India's total spinningmill capacity is in Tamil Nadu. The western part of Tamil Nadu comprising Coimbatore, Tirupur, Erode, Dindigul and Karur has the majority of spinning mills manufacturing cotton/polyester/blended yarn and silk yarn used by garment units in Tamil Nadu, Maharastra etc. Yarn is also exported to China, Bangladesh etc. Tirupur known as "Knitting City" is the exporter of garments worth USD 3 Billion. Karur is the major home for textile manufacturing (Curtain cloth, bed linens, kitchen linens, toilet linens, table linens, wall hangings etc.) and export hub in India. Erode is the main cloth market in South India for both retail and wholesale ready-mades.

Leather

Tamil Nadu accounts for 30 per cent of leather exports and about 70 per cent of leather production in the country. Hundreds of leather and tannery industries are located around Vellore, Dindigul and Erode. Every year the State hosts the India International Leather Fair in Chennai.

Electronics

Chennai has emerged as EMS Hub of India. Many multi – national companies have chosen Chennai as their South Asian manufacturing hub.

Auto motives

Chennai nicknamed as "The Detroit of Asia"is home to a large number of auto component industries. Tamil Nadu has 28% share each in automotive and auto components industries, 19% in the trucks segment and 18% each in passenger cars and two wheelers.

Cement Industry

Tamil Nadu ranks third in cement production in India (First Andhra Pradesh, Second Rajasthan). Among 10 largest cement companies in India as on 2018, Ramco Cement and India Cement find prominent place. And also Tamil Nadu stands second in number of cement plants with 21 units against 35 units in Andhra Pradesh.

Fire works

The town of Sivakasi is a leader in the areas of printing, fireworks, and safety matches. It was fondly called as "Little Japan" by Jawaharlal Nehru. It contributes to 80% of India's fireworks production. Sivakasi provides over 60% of India's total offset printing solutions.

Other Industries

One of the global electrical equipment public sector companies viz BHEL has manufacturing plants at Tiruchirappalli and Ranipet. The Tamil Nadu State Government owns the Tamil Nadu Newsprint and Papers (TNPL), the world's biggest bagasse-based paper mill in Karur. Tamil Nadu is a leading producer of cement in India and with manufacturing units located at Ariyalur, Virudhunagar, Coimbatore and Tirunelveli. The region around Salem is rich in mineral ores. The country's largest steel public sector undertaking, SAIL has a steel plant in Salem.

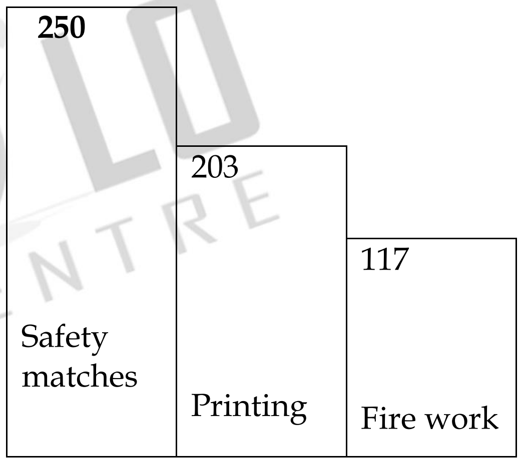
Coimbatore is also referred to as "the Pump City" as it supplies two thirds of India's requirements of motors and pumps. The city is one of the largest exporters of jewellery, wet grindersand auto components and the term "Coimbatore Wet Grinder" has been given a Geographical indicationThoothukudi is known as "Gateway of Tamil Nadu". Thoothukudi is the major chemical producer in the state. It produces the 70 per cent of the total salt production in the State and 30 per cent in the country.

Sivakasi-A fireworks manufacturing hub

- Sivakasi is a town in Virudhunagar District of Tamil Nadu
- World renowned for firework Production
- Accounts for USD SO Millon exports of safety Matches, printing and Firework in 2013-14

90% India's Fire Work Production	450 Firework factories
0.5 Million direct employment	0.2Million indirect employment
60% of safety match Production	4500 match units

Production in 2012 – 13 (USD Million)



MSMEs

The Micro, Small and Medium Enterprises are defined under the MSMED Act 2006. The enterprises are classified as Manufacturing and Service enterprises based on the investment in plant and machinery and equipment (excluding land and building) the classification of Micro, Small and Medium Enterprises is given in Table- 11.11.

Tamil Nadu accounts of 15.07% Micro, Small and Medium Enterprises (MSMEs) in the country(the highest among all States) with 6.89 lakhs registered MSMEs. Producing over 8000 varieties of product for a total investment of more than Rs.32,008crore.

MSMEs produce a wide variety of products in almost all sectors. Te prominent among them are the engineering, electrical, chemicals, plastics, steel paper, matches, textiles, hosiery and garments sector. Around 15.61 lakh entrepreneurs have registered, providing employment opportunities to about 99.7 lakhs persons with total investment of Rs. 1,68,331 crore.

Energy

Tamil Nadu tops in power generation among the southern States as seen in following table.Installed capacity of power utilities in States in southern region

Table 11.11 Energy

State	Units	Ranks
Tamil Nadu	26,865 MW	I
Karnataka	18,641 MW	II
Andhra Pradesh	17,289 MW	III
Telungana	12,691 MW	IV
Kerala	4,141 MW	V
	79,627 MW	

(Source: Central Electricity Authority, Ministry of Power, Government of India. Retrieved Jan.2017.)

Tamil Nadu is in the forefront of all other Indian States in installed capacity. Muppandal wind farm is a renewable energy source, supplying the villagers with electricity for work. Wind farms were built in Nagercoil and Tuticorin apart from already existing ones around Coimbatore, Pollachi, Dharapuram and Udumalaipettai. These areas generate about half of India's 2,000 megawatts of wind energy or two percent of the total power output of India.

Nuclear Energy

The Kalpakkam Nuclear Power Plant and the Koodankulam Nuclear Power Plantare the major nuclear energy plants for the energy grid.

Table 11.12 Nuclear Energy

Units	Existing Installed capacity (2018)
Kudankulam	1834 MW (2 x 917)
Kalpakkam	470 MW (2 x 235)

Thermal Power

In Tamil Nadu the share of thermal power in total energy sources is very high and the thermal power plants are at Athippattu (North Chennai) Ennore, Mettur, Neyveli and Thoothukudi.The generation of power under various sources is given below.

Table 11.13 Thermal Power

Source	Million Units	%
Thermal	13304	49.52
Hydel	2203	8.20

Nuclear	986	3.67
Others (Wind Solar)	10372	38.61
Total	**26865**	**100.00**

(Source: Central Electricity Authority, Ministry of Power, Government of India. Retrieved 15 Jan.2017.)

Hydel Energy

There are about 20 hydroelectric units in Tamil Nadu. The prominent units are Hundah, Mettur, Periyar, Maravakandy, Parson Valley etc.

Solar Energy

Tamil Nadu tops in solar power generation in India as seen in following table.Southern Tamil Nadu is considered as one of the most suitable regions inthe country for developing solar power projects.

Solar Energy

Ranking	States	Total capacity(MW) 2017
1	Tamil Nadu	1590.97
2	Rajasthan	1317.64
3	Gujarat	1159.76
4	Telangana	1073.41
5	Andhra Pradesh	979.65

(Source: Data From MNRE)

Wind Energy

Tamil Nadu has the highest installed wind energy capacity in India. Te State has very high quality of of shore wind energy potential of the Tirunelveli coast and southern Toothukudi and Rameswaram coast.

SERVICES

Banking, insurance, energy, transport and communication fall under tertiary sector i.e., services.

Banking

In Tamil Nadu, Nationalised banks account for 52% with 5,337 branches, Private Commercial Banks 30% (3,060) branches, State Bank of India and its associates 13% (1,364), Regional Rural Banks 5% (537) branches and the remaining 22 foreign bank branches.

Total deposits of the banks in Tamil Nadu registered an year-on year increase of 14.32% by March 2017 and touched Rs. 6,65,068.59 crores. Total credit of the banks in Tamil Nadu registered a year-on year increase of 13.50% by March 2017 and touched Rs.

6,95,500.31 crores. The share of Priority Sector Advances stands at 45.54% as against the national average of 40%. The percentage of Agricultural advances to total advances as at the end of March 2017 works out to 19.81% as against the national average of 18%. Banks in Tamil Nadu have maintained one of the highestCredit Deposit Ratio of 119.15% in the country whereas this ratio is 77.5% at the national level.

Education

a. School Education

Tamil Nadu is grouped among high Gross Enrolement Ratio (GER) States. It ranks third next only to Kerala (81%) and Himachal Pradesh (74%). The all India average is 43% and the world average is 59%.

Gross Enrolment Ratio is 118.8% for primary level(class 1-5); 112.3% for upper primary level (class 6-8), 62.7% for secondary level (class 9-10), 49.26% at Higher Secondary level (class 11-12). This has been possible mainly due to the supply of free food, cloth, foot-wear, scholarship, laptop etc.

Tamil Nadu's primary education statistics 2016-17

Number of schools	Primary	35,414
	Middle	9,708
	High and HigherSecondary	12,911

(Source: Tamil Nadu State portal, State interim Budget 2016-17)

b. Higher Education

In Gross Enrolment Ratio under higher education (Tertiary level) Tamil Nadu continues to be at the top level well ahead of other states. The GER is 46.9% in Tamil Nadu which is far higher against national average and all other States Thishigher GER is thanks to the distribution of free food,cloth, footwear, laptop and scholarship.

Table 11.16 Gross Enrolment Rate %

State	**2016-17**
Tamil Nadu	46.9
Maharashtra	30.2
Uttar Pradesh	24.9
Odisha	21.0
Bihar	14.4
All India	25.2

(Source: All India Survey on Higher Education (AISHE) released by the Ministry of Human Resource Development- January 2018)

Tamil Nadu has 59 Universities, 40 Medical colleges, 517 Engineering colleges, 2,260 Arts and Science colleges, 447 Polytechnics and 20 dental colleges. Tamil Nadu produces nearly four lakh engineering and polytechnic students every year, the highest in the country.

Educational Loans

As far as educational loans disbursed by Public Sector Banks under priority sector are concerned, 20.8% of the total amount was disbursed in Tamil Nadu between 2013-14 and 2015-16. Andhra Pradesh was second with 11.2% of the total loan amount followed by Maharashtra (10.2%).

Of the total amount of educational loans disbursed by Private Banks during the same period, Kerala accounted for 37.8% followed by Tamil Nadu with24.8%. Both Karnataka & Kerala together accounted for more than 60% of the total educational loan amount by Private Banks.

Health

Tamil Nadu has a three – tier health infrastructure comprising hospitals, primary health centres, health units, community health centres and sub-centres. As of March 2015, the State had 34 district hospitals, 229 sub-divisional hospitals, 1,254 primary health centres, 7,555 Sub-centres and 313 community health centres.

Communication

Maharashtra has the highest number of internet subscribers in the country at 29.47 million, followed by States like Tamil Nadu, Andhra Pradesh and Karnataka.According to government data, India had a total of 342.65 million internet subscribers at the end of March, 2016. Tamil Nadu had 28.01 million subscribers, while its neighbor's Andhra Pradesh and Karnataka had 24.87 million and 22.63 million, respectively.

Transport

Tamil Nadu has a well-established transportation system that connects all parts of the State. This is partly responsible for the investment in the State. Tamil Nadu is served by an extensive road network in terms of its spread and quality, providing links between urban centres, agricultural market-places and rural habitations in the countryside. However, there is scope for improvement.

a. Road

There are 28 national highways in the State, covering a total distance of 5,036 km. The State has a total road length of 167,000 km, of which 60,628 km are maintained by Highways Department. It ranks second in India with a share of over 20% in total road projects under operation in the public-private partnership (PPP) model.

b. Rail

Tamil Nadu has a well-developed rail network as part of Southern Railway, Headquartered at Chennai. The present Southern Railway network extends over a large area of India's Southern Peninsula, covering the States of Tamil Nadu, Kerala, Puducherry, minor portions of Karnataka and Andhra Pradesh. Tamil Nadu has a total railway track length of 6,693 km and there are690 railway stations in the State. The systemconnects it with most major cities in India. Main rail junctions in the State include Chennai, Coimbatore, Erode, Madurai, Salem, Tiruchirapalli and Tirunelveli. Chennai has a well-established Suburban Railway network, a Mass Rapid Transport System and is currently developing a Metro system, with its first underground stretch operational since May 2017.

c. Air

Tamil Nadu has four major international airports. Chennai International Airport is currently the third largest airport in India after Mumbai and Delhi. Other international airports in Tamil Nadu include Coimbatore International Airport, Madurai International Airport and Tiruchirapalli International Airport. It also has domestic airports at Tuticorin, Salem, and Madurai. whichconnect several parts of the country. Increased industrial activity has given rise to an increase in passenger trafic as well as freight movement which has been growing at over 18 per cent per year.

d. Ports

Tamil Nadu has three major ports; one each at Chennai, Ennore, and Tuticorin, as well as one intermediate port in Nagapattinam, and 23 minor ports. The ports are currently capable of handling over 73 million metric tonnes of cargo annually (24 per cent share of India). All the minor portsare managed by the Tamil Nadu Maritime Board, Chennai Port. This is an artificial harbour and the second principal port in the country for handling containers. It is currently being upgraded to have a dedicated terminal for cars capable of handling 4,00,000 vehicles. Ennore Port was recently converted from an intermediate port to a major port andhandles all the coal and ore traffic in Tamil Nadu.

Tourism

Tamil Nadu has since ancient past been a hub for tourism. In recent years, the state has emerged as one of the leading tourist destinations for both domesticand foreign tourists. Tourism in Tamil Nadu is promoted by Tamil Nadu Tourism Development Corporation (TTDC), a Government of Tamil Nadu undertaking. The State currently ranks the highest among Indian States with about 25 crore arrivals (in 2013). The annual growth rate of this industry stood at 16 per cent. Approximately 28 lakh foreign and 11 crore domestic tourists visit the State.

Tourist arrivals in India 2016	
Domestic tourist visits to States /UTs Tamil Nadu – 343.8 UP -211.7 AP-153.16 MP -150.49 Karnataka – 129.76 Maharashtra – 116.52 Telengana – 95.16 W Bengal – 74.46 Gujarat – 41.90	**Foreign tourist visits to States /UTs** Tamil Nadu – 4.77 MP- 4.67 UP – 3016 Delhi- 2.52 W Bengal – 1.53 Rajasthan – 1.51 Kerala 1.04 Bihar – 1.01 Goa – 0.68 Punjab – 0.66

Unemployment and Poverty

National average of unemployment rate stands at50 andTamil Nadu ranks 22nd with unemployment rate of 42 per 1000. There are different kinds of unemployment with different economic implications. All those aspects need to be studied to fully understand the employment situation.

Tamil Nadu is one of India's richest states Since 1994, the state has seen a steady decline in poverty. Today, Tamil Nadu has lower levels of poverty than most other States in the country. After 2005, Tamil Nadu was among India's fastest growing states, with growth being driven mainly by services.

Conclusion

The Tamil Nadu economy which is not rich in natural resources has goodrecord of agricultural growth, industrial progress, infrastructural development and good record of robust growth of service sector especially banking, education, transport and tourism. It occupies topthree ranks in health index, education, development of MSMEs. It has a good record of poverty alleviation and employment generation. However, India in general and Tamil Nadu in particular need to work more to eliminate female foeticide, reduce the population living in slums, sleeping on roadsides, beggers and rag pickers. Development is meaningless as long as the above eyesore continues.

Population Growth in Tamil Nadu: At a Glance (2011 Census)	
Total Population	72138958
Male	36158871
Female	35980087
Crude birth rate (per thousand) Crude death rate (per thousand) Growth Rate (per thousand)	15.7 7.4 8.3
Districts with Highest Population	(Chennai, Kancheepuram, Vellore and

	Thiruvallur)
Districts with Lowest Population	(Perambalur, The Nilgiris, Ariyalur and Theni)
Population Density (per sq km)	555 (2011), 480 (2001)
Maximum Density	Chennai (26903); Kanyakumari (1106)
Minimum Density	The Nilgiris (288); Thiruchirappalli (602)
Sex Ratio (per 1000 males)	995 females (2011) 987 females (2001)
District with Highest Sex Ratio	The Nilgiris (1041 females) Thanjavur (1031 females) Nagapattinam (1025 females)
District with Lowest Sex Ratio	Theni (900 females) Dharmapuri (946 females)
Child Sex Ratio (0-6 age group)	946 female children (2011) 942 female children (2001)
District with Highest Child Sex Ratio	The Nilgiris (985), Kanyakumari (964)
District with Lowest Child Sex Ratio	Cuddalore (896); Ariyalur (897)
Literacy Rate	80.33% (2011) 73.45% (2001)
Male Literacy	86.81% (2011) 82.33% (2001)
Female Literacy	73.86% (2011) 64.55% (2001)
District with Highest Literacy	Kanyakumari (92.14%); Chennai 90.33%)
District with Lowest Literacy	Dharmapuri(64.71%) Ariyalur (71.99%)