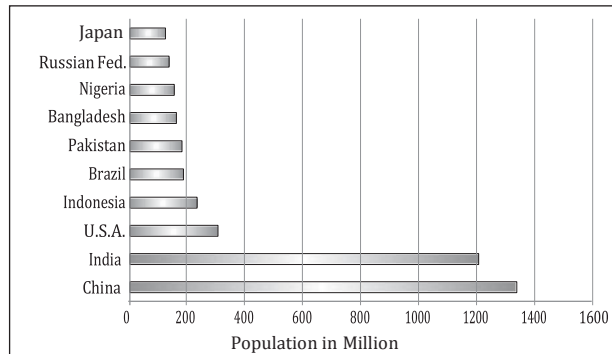


## **THE WORLD POPULATION**

### **DISTRIBUTION, DENSITY AND GROWTH**

#### **PATTERNS OF POPULATION DISTRIBUTION IN THE WORLD**

- The term population distribution refers to the way people are spaced over the earth's surface.
- 90 per cent of the world population lives in about 10 per cent of its land area.
- 



#### **DENSITY OF POPULATION**

- The ratio between the numbers of people to the size of land. This ratio is the density of population. It is usually measured in persons per sq km.

#### **FACTORS INFLUENCING THE DISTRIBUTION OF POPULATION**

##### **Geographical Factors**

- (i) **Availability of water:** It is the most important factor for life. So, people prefer to live in areas where fresh water is easily available
- (ii) **Landforms:** People prefer living on flat plains and gentle slopes. This is because such areas are favourable for the production of crops and to build roads and industries.
- (iii) **Climate:** An extreme climate such as very hot or cold deserts are uncomfortable for human habitation. Areas with a comfortable climate, where there is not much seasonal variation attract more people. Areas with very heavy rainfall or extreme and harsh climates have low population. Mediterranean regions were inhabited from early periods in history due to their pleasant climate.
- (iv) **Soils:** Fertile soils are important for agricultural and allied activities. Therefore, areas which have fertile loamy soils have more people living on them as these can support intensive agriculture.

##### **Economic Factors**

- (i) **Minerals:** Areas with mineral deposits attract industries. Mining and industrial activities generate employment. So, skilled and semi-skilled workers move to these areas and make them densely populated. Katanga Zambia copper belt in Africa is one such good example.
- (ii) **Urbanisation:** Cities offer better employment opportunities, educational and medical facilities, better means of transport and communication. Good civic amenities and the attraction of city life draw people to the cities. It leads to rural to urban migration and cities grow in size. Mega cities of the world continue to attract large number of migrants every year.
- (iii) **Industrialisation:** Industrial belts provide job opportunities and attract large numbers of people.

These include not just factory workers but also transport operators, shopkeepers, bank employees, doctors, teachers and other service providers. The Kobe-Osaka region of Japan is thickly populated because of the presence of a number of industries.

### **Social and Cultural Factors**

- Some places attract more people because they have religious or cultural significance. In the same way – people tend to move away from places where there is social and political unrest.

### **POPULATION GROWTH**

- The population growth or population change refers to the change in number of inhabitants of a territory during a specific period of time. This change may be positive as well as negative.
- It can be expressed either in terms of absolute numbers or in terms of percentage. Population change in an area is an important indicator of economic development, social upliftment and historical and cultural background of the region.

### **Natural Growth of Population:**

- This is the population increased by difference between births and deaths in a particular region between two points of time.  
Natural Growth = Births – Deaths

### **Actual Growth of Population:**

- **This = Births – Deaths + In Migration – Out Migration**

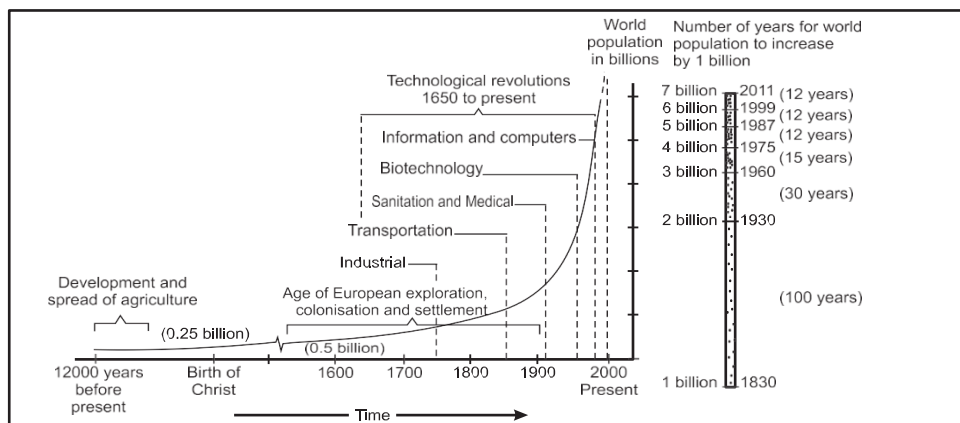
### **Components of Population Change**

- There are three components of population change – births, deaths and migration.
- The crude birth rate (CBR) is expressed as number of live births in a year per thousand of population. It is calculated as:
- Death rate plays an active role in population change.
- Crude Death Rate (CDR) is a simple method of measuring mortality of any area. CDR is expressed in terms of number of deaths in a particular year per thousand of population in a particular region.

### **Migration**

- When people move from one place to another, the place they move from is called the Place of Origin and the place they move to is called the Place of Destination.
- Migration may be interpreted as a spontaneous effort to achieve a better balance between population and resources.
- Migration may be permanent, temporary or seasonal.
- It may take place from rural to rural areas, rural to urban areas, urban to urban areas and urban to rural areas.
- Immigration: Migrants who move into a new place are called Immigrants.
- Emigration: Migrants who move out of a place are called Emigrants.

### **TRENDS IN POPULATION GROWTH**



## Science and Technology helped Population Growth?

- The steam engine replaced human and animal energy and also provided mechanised energy of water and wind. This increased agricultural and industrial production.
- Inoculation against epidemics and other communicable diseases, improvement in medical facilities and sanitation contributed to a rapid decline in death rates throughout the world

## DOUBLING TIME OF WORLD POPULATION

- **It took more than a million years for the human population to attain the one billion mark. But it took only 12 years for it to rise from 5 billion to 6 billion.**
- **developed countries are taking more time to double their population as compared to developing countries. Most of the population growth is taking place in the developing world, where population is exploding. Why is this so?**

## SPATIAL PATTERN OF POPULATION CHANGE

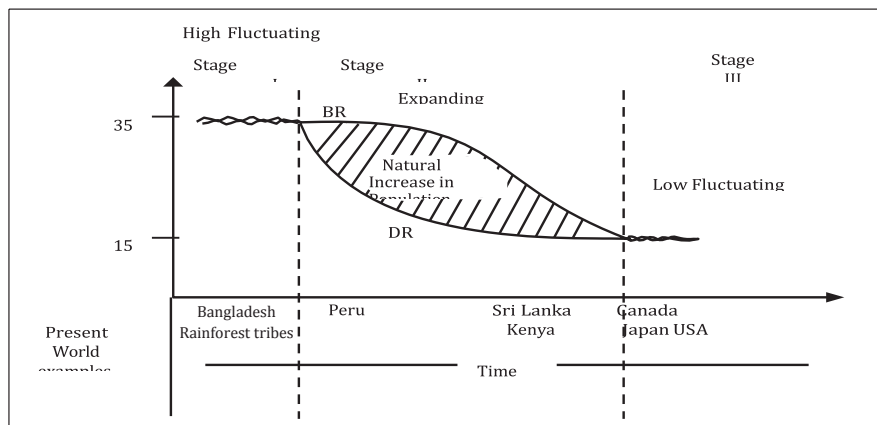
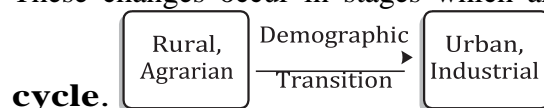
- There is negative correlation between economic development and population growth.
- Although the annual rate of population change (1.4 per cent) seems to be low it is actually not so.
- This is because: When a small annual rate is applied to a very large population, it will lead to a large population change.

## IMPACT OF POPULATION CHANGE

- A small increase in population is desirable in a growing economy.
- Depletion of resources is the most serious problem.
- Population decline is also a matter of concern. It indicates that resources that had supported a population earlier are now insufficient to maintain the population.
- The deadly HIV/AIDS epidemics in Africa and some parts of the Commonwealth of Independent States (CIS) and Asia have pushed up death rates and reduced average life expectancy. This has slowed down population growth.

## DEMOGRAPHIC TRANSITION

- The theory tells us that population of any region changes from high births and high deaths to low births and low deaths as society progresses from rural agrarian and illiterate to urban industrial and literate society.
- These changes occur in stages which are collectively known as the **demographic cycle**.



## Three-staged model of Demographic Transition Theory:

### 1. **The first stage**

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

### 2. **Second stage**

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

### 3. **Last stage**

- both fertility and mortality decline considerably.
- The population is either stable or grows slowly.
- The population becomes urbanised, literate and has high technical know-how and deliberately controls the family size.

## **POPULATION CONTROL MEASURES**

- Family planning is the spacing or preventing the birth of children. Access to family planning services is a significant factor in limiting population growth and improving women's health. Propaganda, free availability of contraceptives and tax disincentives for large families are some of the measures which can help population control.
- Thomas Malthus in his theory (1793) stated that the number of people would increase faster than the food supply.
- Any further increase would result in a population crash caused by famine, disease and war.
- The preventive checks are better than the physical checks. For the sustainability of our resources.

## **POPULATION COMPOSITION**

### **SEX COMPOSITION-**

- The ratio between the number of women and men in the population is called the Sex Ratio.
- In India, the sex ratio is worked out using the formula:  
$$\text{Female Population} / \text{Male Population} \times 1000 \dots$$

### **Natural Advantage v/s Social Disadvantage**

- Females have a biological advantage over males as they tend to be more resilient than males yet this advantage is cancelled out by the social disadvantages and discriminations that they face.
- the world population reflects a sex ratio of 102 males per 100 females.
- The highest sex ratio in the world has been recorded in Latvia where there are 85 males per 100 females. In contrast, in Qatar there are 311 males per 100 females.

### **Age Structure**

- Age structure represents the number of people of different age groups.
- Like- age group of 15- 59 indicates a large working population

### **Age-Sex Pyramid**

- The age-sex structure of a population refers to the number of females and males in different age groups. A population pyramid is used to show the age-sex structure of the population.

## **Expanding Populations**

- The age-sex triangular shaped pyramid with a wide base and is typical of less developed countries.
- These have larger populations in lower age groups due to high birth rates. If you construct the pyramids for Bangladesh and Mexico, it would look the same.

### **Constant Population**

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

### **Declining Populations**

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

### **RURAL URBAN COMPOSITION**

- In general terms rural areas are those where people are engaged in primary activities and urban areas are those when majority of the working population is engaged in non-primary activities.
- in countries like India, female participation in farming activity in rural area is fairly high.
- Shortage of housing, high cost of living, paucity of job opportunities and lack of security in cities, discourage women to migrate from rural to urban areas.

### **Literacy**

- Proportion of literate population of a country is an indicator of its socio-economic development as it reveals the standard of living, social status of females, availability of educational facilities and policies of government.
- Level of economic development is both a cause and consequence of literacy.
- In India – literacy rate denotes the percentage of population above 7 years of age, who is able to read, write and have the ability to do arithmetic calculations with understanding.

### **Occupational Structure**

- Agriculture, forestry, fishing and mining are classified as primary activities
- manufacturing as secondary,
- transport, communication and other services as tertiary
- jobs related to research and developing ideas as quaternary activities.
- The proportion of working population engaged in these four sectors is a good indicator of the levels of economic development of a nation. This is because only a developed economy with industries and infrastructure can accommodate more workers in the secondary, tertiary and quaternary sector

## **HUMAN DEVELOPMENT**

### **GROWTH AND DEVELOPMENT**

- **Both growth and development refer to changes over a period of time.**
- **The difference is that growth is quantitative and value neutral. It may have a positive or a negative sign.**
- **Development means a qualitative change which is always value positive.**
- Development occurs when there is a positive change in quality.
- A man of vision and compassion, Pakistani economist Dr Mahbub-ul-Haq created the Human Development Index in 1990. According to him, development is all about enlarging people's choices in order to lead long, healthy lives with dignity.
- The United Nations Development Programme has used his concept of human development to publish the Human Development Report annually since 1990.
- Nobel Laureate Prof Amartya Sen saw an increase in freedom (or decrease in unfreedom) as the main objective of development. Interestingly, increasing freedoms is also one of the most effective ways of bringing about development.
- His work explores the role of social and political institutions and processes in increasing

freedom.

### **THE FOUR PILLARS OF HUMAN DEVELOPMENT**

- Equity refers to making equal access to opportunities available to everybody. The opportunities available to people must be equal irrespective of their gender, race, income and in the Indian case, caste.
- Sustainability means continuity in the availability of opportunities. To have sustainable human development, each generation must have the same opportunities. All environmental, financial and human resources must be used keeping in mind the future.
- Productivity here means human labour productivity or productivity in terms of human work. Such productivity must be constantly enriched by building capabilities in people. Ultimately, it is people who are the real wealth of nations. Therefore, efforts to increase their knowledge, or provide better health facilities ultimately leads to better work efficiency.
- Empowerment means to have the power to make choices. Such power comes from increasing freedom and capability. Good governance and people-oriented policies are required to empower people.

### **APPROACHES TO HUMAN DEVELOPMENT**

- **(a) The income approach; (b) The welfare approach; (c) Minimum needs approach; and (d) Capabilities approach**

(a)	<b><i>Income Approach</i></b>	This is one of the oldest approaches to human development. Human development is seen as being linked to income. The idea is that the level of income reflects the level of freedom an individual enjoys. Higher the level of income, the higher is the level of human development.
(b)	<b><i>Welfare Approach</i></b>	This approach looks at human beings as beneficiaries or targets of all development activities. The approach argues for higher government expenditure on education, health, social secondary and amenities. People are not participants in development but only passive recipients. The government is responsible for increasing levels of human development by maximising expenditure on welfare.
(c)	<b><i>Basic Needs Approach</i></b>	This approach was initially proposed by the International Labour Organisation (ILO). Six basic needs i.e.: health, education, food, water supply, sanitation, and housing were identified. The question of human choices is ignored and the emphasis is on the provision of basic needs of defined sections.
(d)	<b><i>Capability Approach</i></b>	This approach is associated with Prof. Amartya Sen. Building human capabilities in the areas of health, education and access to resources is the key to increasing human development.

### **MEASURING HUMAN DEVELOPMENT**

- **The human development index (HDI) ranks the countries based on their performance in the key areas of health, education and access to resources.**

- Each of these dimensions is given a weightage of 1/3.
- These rankings are based on a score between 0 to 1. The closer a score is to one, the greater is the level of human development and viva-versa.
- **Health indicator**- life expectancy at birth. A higher life expectancy means that people have a greater chance of living longer and healthier lives.
- **Education indicator**- The adult literacy rate and the gross enrolment ratio represent access to knowledge. The number of adults who are able to read and write and the number of children enrolled in schools show how easy or difficult it is to access knowledge in a particular country.
- Access to resources is measured in terms of purchasing power.
- The human development index measures **attainments** in human development.
- it is not the most reliable measure. This is because it does not say anything about the distribution.
- **The human poverty index** is related to the human development index. This index measures the **shortfall** in human development.
- **It is a non-income measure.**
- The probability of not surviving till the age of 40,
- the adult illiteracy rate,
- the number of people who do not have access to clean water, and the number of small children who are underweight are all taken into account to show the shortfall in human development in any region. Often the human poverty index is more revealing than the human development index.
- The Human Development index and the Human Poverty index are two important indices to measure human development used by the UNDP.

## INTERNATIONAL COMPARISONS

- Size of the territory and per capita income are not directly related to human development. Often smaller countries have done better than larger ones in human development. Similarly, relatively poorer nations have been ranked higher than richer neighbours in terms of human development.
- within India, Kerala performs much better than Punjab and Gujarat in human development despite having lower per capita income. (Y- just think all the indicator of HDI .i.e health , education and access to resources and compare)
- **Human Development: Categories, Criteria and Countries**
- 

<i>Level of Human Development</i>	<i>Score in Development Index</i>	<i>Number of Countries</i>
Very High	above 0.793	47
High	between 0.698 up to 0.793	47
Medium	between 0.522 up to 0.698	47
Low	below 0.522	46

- India was 126<sup>th</sup> in Human Development Index as per Human Development Report, 2006. According to HDI, 2013, India's rank has further gone down to 136



**with a score of 0.586 which falls in the medium human development category.  
What could be the reason for India to be behind 135 countries in HDI?**

### **PRIMARY ACTIVITIES**

- Human activities which generate income are known as economic activities.
- Economic activities are broadly grouped into primary, secondary, tertiary and quaternary activities.
- Primary activities are directly dependent on environment as these refer to utilisation of earth's resources such as land, water, vegetation, building materials and minerals. It, thus includes, hunting and gathering, pastoral activities, fishing, forestry, agriculture, and mining and quarrying.
- People engaged in primary activities are called red-collar workers due to the outdoor nature of their work.

### **HUNTING AND GATHERING**

- **Gathering and hunting are the oldest economic activity known.**
- **Gathering is practiced** in regions with harsh climatic conditions.
- It often involves primitive societies, who extract, both plants and animals to satisfy their needs for food, shelter and clothing.
- This type of activity requires a small amount of capital investment and operates at very low level of technology. The yield per person is very low and little or no surplus is produced.

### **PASTORALISM**

- At some stage in history, with the realization that hunting is an unsustainable activity, human beings might have thought of domestication of animals.
- Depending on the geographical factors, and technological development, animal rearing today is practiced either at the subsistence or at the commercial level.

### **Nomadic Herding**

- Nomadic herding or pastoral nomadism is a primitive subsistence activity, in which the herders rely on animals for food, clothing, shelter, tools and transport.
- They move from one place to another along with their livestock, depending on the amount and quality of pastures and water. Each nomadic community occupies a well-identified territory as a matter of tradition.
- The process of migration from plain areas to pastures on mountains during summers and again from mountain pastures to plain areas during winters is known as transhumance
- The number of pastoral nomads has been decreasing and the areas operated by them shrinking. This is due to
  - (a) imposition of political boundaries;
  - (b) new settlement plans by different countries

### **Commercial Livestock Rearing**

- Unlike nomadic herding, commercial livestock rearing is more organised and capital intensive.
- Commercial livestock ranching is essentially associated with western cultures and is practised on permanent ranches. These ranches cover large areas and are divided into a number of parcels, which are fenced to regulate the grazing.
- When the grass of one parcel is grazed, animals are moved to another parcel. The number of animals in a pasture is kept according to the carrying capacity of the pasture.
- This is a specialised activity in which only one type of animal is reared.
- Rearing of animals in ranching is organised on a scientific basis. The main emphasis is on breeding, genetic improvement, disease control and health care of the animals.

### **AGRICULTURE**

- Based on methods of farming, different types of crops are grown and livestock raised. The following are the main agricultural systems.



## **Subsistence Agriculture**

- Subsistence agriculture is one in which the farming areas consume all, or nearly so, of the products locally grown. It can be grouped in two categories — Primitive Subsistence Agriculture and Intensive Subsistence Agriculture

## **Primitive subsistence agriculture or shifting cultivation**

- is widely practised by many tribes in the tropics, especially in Africa, south and central America and south east Asia.
- The vegetation is usually cleared by fire, and the ashes add to the fertility of the soil. Shifting cultivation is thus, also called slash and burn agriculture

## **Intensive Subsistence Agriculture-**

- This type of agriculture is largely found in densely populated regions of monsoon Asia. , there are two types of intensive subsistence agriculture.
- Intensive subsistence agriculture dominated by wet paddy cultivation:
- This type of agriculture is characterised by dominance of the rice crop.
- Land holdings are very small due to the high density of population. Farmers work with the help of family labour leading to intensive use of land.
- Use of machinery is limited and most of the agricultural operations are done by manual labour. Farm yard manure is used to maintain the fertility of the soil.
- In this type of agriculture, the yield per unit area is high but per labour productivity is low.
- Intensive subsistence agriculture dominated by crops other than paddy:
- Most of the characteristics of this type of agriculture are similar to those dominated by wet paddy except that irrigation is often used.

### **1. Plantation Agriculture**

- Plantation agriculture was introduced by the Europeans in colonies situated in the tropics. Some of the important plantation crops are tea, coffee, cocoa, rubber, cotton, oil palm, sugarcane, bananas and pineapples.
- The characteristic features of this type of farming are large estates or plantations, large capital investment, managerial and technical support, scientific methods of cultivation, single crop specialisation, cheap labour, and a good system of transportation which links the estates to the factories and markets for the export of the products.
- The French established cocoa and coffee plantations in west Africa.
- The British set up large tea gardens in India and Sri Lanka, rubber plantations in Malaysia and sugarcane and banana plantations in West Indies.

### **2. Extensive Commercial Grain Cultivation**

- Commercial grain cultivation is practised in the interior parts of semi arid lands of the mid- latitudes.
- Wheat is the principal crop, though other crops like corn, barley, oats and rye are also grown.
- The size of the farm is very large, therefore entire operations of cultivation from ploughing to harvesting are mechanised .
- There is low yield per acre but high yield per person. Why does this happen?

### **3. Mixed Farming**

- Mixed farms are moderate in size and usually the crops associated with it are wheat, barley, oats, rye, maize, fodder and root crops.
- Fodder crops are an important component of mixed farming.
- Crop rotation and intercropping play an important role in maintaining soil fertility.
- Equal emphasis is laid on crop cultivation and animal husbandry. Animals like cattle, sheep, pigs and poultry provide the main income along with crops.
- Mixed farming is characterised by high capital expenditure on farm machinery and building, extensive

use of chemical fertilisers and green manures and also by the skill and expertise of the farmers.

#### 4. **Dairy Farming**

- Dairy is the most advanced and efficient type of rearing of milch animals.
- It is highly capital intensive. Animal sheds, storage facilities for fodder, feeding and milching machines add to the cost of dairy farming.
- Special emphasis is laid on cattle breeding, health care and veterinary services.
- is highly labour intensive.
- There are three main regions of commercial dairy farming. The largest is North Western Europe the second is Canada and the third belt includes South Eastern Australia, New Zealand and Tasmania.

#### 5. **Mediterranean Agriculture**

- Mediterranean agriculture is highly specialized commercial agriculture.
- It is practiced in the countries on either side of the Mediterranean sea in Europe and in north Africa from Tunisia to Atlantic coast, southern California, central Chile, south western parts of South Africa and south and south western parts of Australia.
- **Viticulture or grape cultivation** is a speciality of the Mediterranean region. Best quality wines in the world with distinctive flavours are produced from high quality grapes in various countries of this region.
- The inferior grapes are dried into raisins and currants.
- This region also produces olives and figs.
- The advantage of Mediterranean agriculture is that more valuable crops such as fruits and vegetables are grown in winters when there is great demand in European and North American markets.

#### 6. **Market Gardening and Horticulture**

- Market gardening and horticulture specialise in the cultivation of high value crops such as vegetables, fruits and flowers, solely for the urban markets.
- Farms are small and are located where there are good transportation links with the urban centre where high income group of consumers is located.
- It is both labour and capital intensive and lays emphasis on the use of irrigation, HYV seeds, fertilisers, insecticides, greenhouses and artificial heating in colder regions.
- This type of agriculture is well developed in densely populated industrial districts of north west Europe, north eastern United States of America and the Mediterranean regions.
- The regions where farmers specialise in vegetables only, the farming is known as truck farming.
- The distance of truck farms from the market is governed by the distance that a truck can cover overnight, hence the name truck farming.
- a modern development in the industrial regions of Western Europe and North America is factory farming. Livestock, particularly poultry and cattle rearing, is done in stalls and pens, fed on manufactured feedstuff and carefully supervised against diseases.
- This requires heavy capital investment in terms of building, machinery for various operations, veterinary services and heating and lighting.
- One of the important features of poultry farming and cattle rearing is breed selection and scientific breeding.

### **Co-operative Farming**

- A group of farmers form a co-operative society by pooling in their resources voluntarily for more efficient and profitable farming. Individual farms remain intact and farming is a matter of cooperative initiative.
- Co-operative movement originated over a century ago and has been successful in many western European countries like Denmark, Netherlands, Belgium, Sweden, Italy etc.
- In Denmark, the movement has been so successful that practically every farmer is a member of a co-operative.

## **Collective Farming**

- The basic principle behind this type of farming is based on social ownership of the means of production and collective labour.
- Collective farming or the model of Kolkhoz was introduced in erstwhile Soviet Union to improve upon the inefficiency of the previous methods of agriculture and to boost agricultural production for self-sufficiency.
- The farmers used to pool in all their resources like land, livestock and labour. However, they were allowed to retain very small plots to grow crops in order to meet their daily requirements
- Yearly targets were set by the government and the produce was also sold to the state at fixed prices. Produce in excess of the fixed amount was distributed among the members or sold in the market.
- The farmers had to pay taxes on the farm produces, hired machinery etc. Members were paid according to the nature of the work allotted to them by the farm management.

## **MINING**

- The actual development of mining began with the industrial revolution and its importance is continuously increasing.

### **Factors Affecting Mining Activity**

1. Physical factors include the size, grade and the mode of occurrence of the deposits.
2. Economic factors such as the demand for the mineral, technology available and used, capital to develop infrastructure and the labour and transport costs.

## **Methods of Mining**

Depending on the mode of occurrence and the nature of the ore, mining is of two types:

1. The surface mining also known as open-cast mining is the easiest and the cheapest way of mining minerals that occur close to the surface.
  - Overhead costs such as safety precautions and equipment is relatively low in this method.
  - The output is both large and rapid.
2. **underground mining method** (shaft method).
  - Used When the ore lies deep below the surface
  - In this method, vertical shafts have to be sunk, from where underground galleries radiate to reach the minerals. Minerals are extracted and transported to the surface through these passages.
  - It requires specially designed lifts, drills, haulage vehicles, ventilation system for safety and efficient movement of people and material.
  - This method is risky. Poisonous gases, fires, floods and caving in lead to fatal accidents. Have you ever read about mine fires and flooding of coal mines in India?

## **SECONDARY ACTIVITIES**

- Secondary activities add value to natural resources by transforming raw materials into valuable products. Secondary activities, therefore, are concerned with manufacturing, processing and construction (infrastructure) industries.

## **MANUFACTURING**

- Manufacturing involves a full array of production from handicrafts to moulding iron and steel and stamping out plastic toys to assembling delicate computer components or space vehicles.

- In each of these processes, the common characteristics are the application of power, mass production of identical products and specialised labour in factory settings for the production of standardised commodities. Characteristics of Modern Large Scale Manufacturing

### **Modern large scale manufacturing has the following characteristics:**

#### **1. Specialisation of Skills/Methods of Production**

- Under the 'craft' method factories produce only a few pieces which are made-to-order. So the costs are high. On the other hand, mass production involves production of large quantities of standardised parts by each worker performing only one task repeatedly.

#### **2. Mechanisation**

- Mechanisation refers to using gadgets which accomplish tasks.
- Automation (without aid of human thinking during the manufacturing process) is the advanced stage of mechanisation. Automatic factories with feedback and closed-loop computer control systems where machines are developed to 'think', have sprung up all over the world.

#### **3. Technological Innovation**

- Technological innovations through research and development strategy are an important aspect of modern manufacturing for quality control, eliminating waste and inefficiency, and combating pollution.

### **Organisational Structure and Stratification**

Modern manufacturing is characterised by:

- a complex machine technology
- extreme specialisation and division of labour for producing more goods with less effort, and low costs
- vast capital
- large organisations
- executive bureaucracy.

### **Uneven Geographic Distribution**

- Major concentrations of modern manufacturing have flourished in a few number of places.
- These cover less than 10 per cent of the world's land area. These nations have become the centres of economic and political power.

### **Why do Large-scale Industries choose different locations?**

- Industries maximise profits by reducing costs. Therefore, industries should be located at points where the production costs are minimum. Some of the factors influencing industrial locations are as under:
  - Access to Market
  - Access to Raw Material
  - Access to Labour Supply
  - Access to Sources of Energy
  - Access to Transportation and Communication Facilities
  - Communication is also an important need for industries for the exchange and management of information.
  - Government Policy
  - Access to Agglomeration Economies/ Links between Industries

### **Foot Loose Industries**

- Foot loose industries can be located in a wide variety of places.
- They are not dependent on any specific raw material, weight losing or otherwise.

- They largely depend on component parts which can be obtained anywhere.
- They produce in small quantity and also employ a small labour force.
- These are generally not polluting industries.
- The important factor in their location is accessibility by road network.

### **Classification of Manufacturing Industries**

Manufacturing industries are classified on the basis of their size, inputs/raw materials, output/products and ownership

#### 1. Industries based on Size

- The amount of capital invested, number of workers employed and volume of production determine the size of industry.

### **HOUSEHOLD INDUSTRIES OR COTTAGE MANUFACTURING**

- It is the smallest manufacturing unit.
- The artisans use local raw materials and simple tools to produce everyday goods in their homes with the help of their family members or part-time labour.
- Finished products may be for consumption in the same household or, for sale in local (village) markets, or, for barter.
- Capital and transportation do not wield much influence as this type of manufacturing has low commercial significance and most of the tools are devised locally.

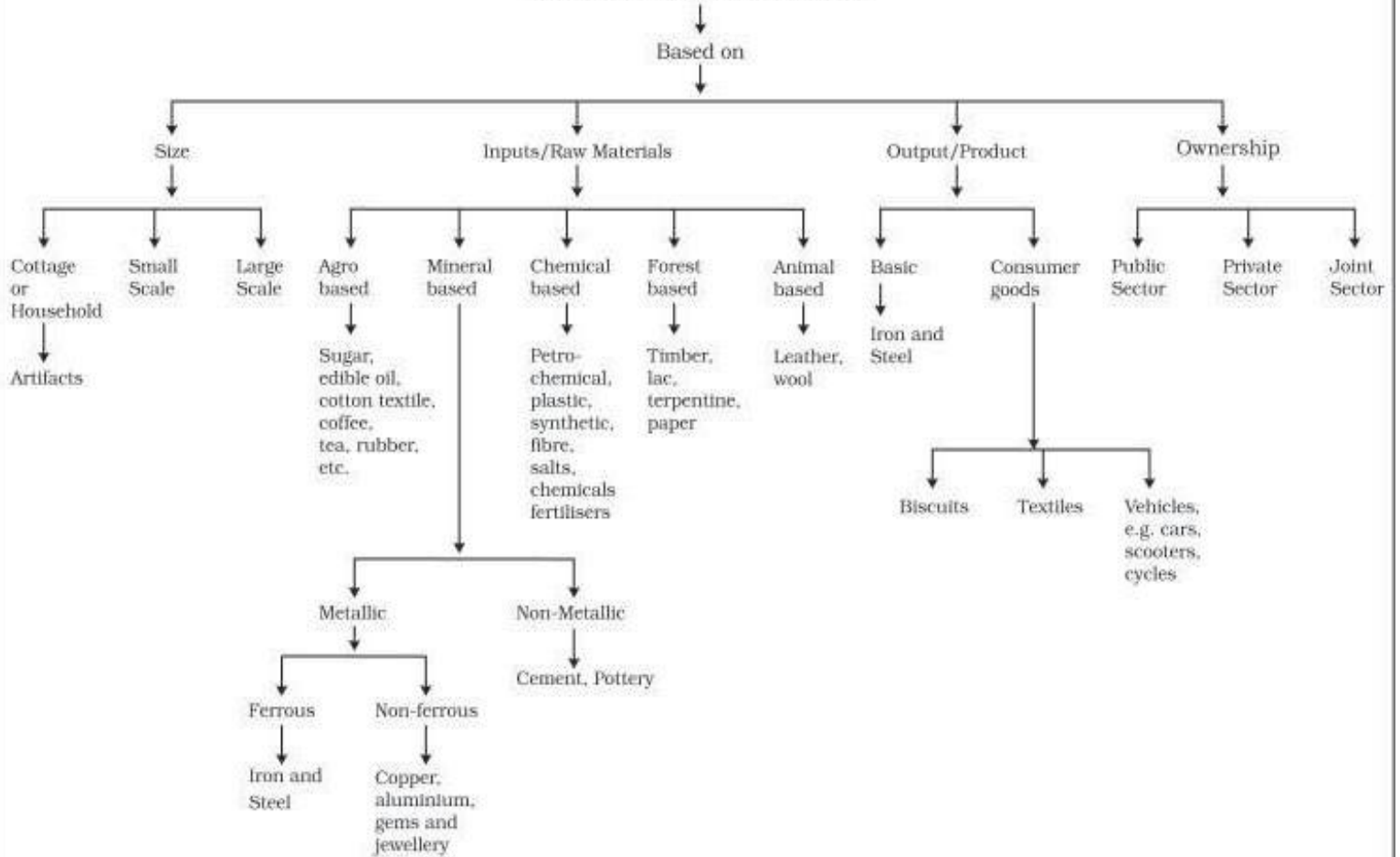
### **Small Scale Manufacturing**

- Small scale manufacturing is distinguished from household industries by its production techniques and place of manufacture (a workshop outside the home/cottage of the producer).
- This type of manufacturing uses local raw material, simple power-driven machines and semi-skilled labour.
- It provides employment and raises local purchasing power.
- Therefore, countries like India, China, Indonesia and Brazil, etc. have developed labour-intensive small scale manufacturing in order to provide employment to their population.

### **Large Scale Manufacturing**

- Large scale manufacturing involves a large market, various raw materials, enormous energy, specialised workers, advanced technology, assembly-line mass production and large capital.
- This kind of manufacturing developed in the last 200 years, in the United Kingdom, north-eastern U.S.A. and Europe. Now it has diffused to almost all over the world.

## Classification of Industries



**On the basis of the system of large scale manufacturing, the world's major industrial regions may be grouped under two broad types, namely**

- traditional large-scale industrial regions which are thickly clustered in a few more developed countries.
- high-technology large scale industrial regions which have diffused to less developed countries.

## **2- Industries based on Inputs/Raw Materials**

### **(a) Agro based Industries**

- Agro processing involves the processing of raw materials from the field and the farm into finished products for rural and urban markets. Major agro-processing industries are food processing, sugar, pickles, fruits juices, beverages (tea, coffee and cocoa), spices and oils fats and textiles (cotton, jute, silk), rubber, etc.
- Agri-business is commercial farming on an industrial scale often financed by business whose main interests lie outside agriculture, for example, large corporations in tea plantation business. Agri-business farms are mechanised, large in size, highly structured, reliant on chemicals, and may be described as 'agro-factorie

### **(b) Mineral based Industries**

- These industries use minerals as a raw material. Some industries use ferrous metallic minerals which contain ferrous (iron), such as iron and steel industries but some use non-ferrous metallic minerals, such as aluminium, copper and jewellery industries. Many industries use non-metallic minerals such as cement and pottery industries.

### **(c) Chemical based Industries**

- Such industries use natural chemical minerals, mineral-oil (petroleum) is used in petro- chemical industry.
- Salts, sulphur and potash industries also use natural minerals. Chemical industries are also based on raw materials obtained from wood and coal. Synthetic fibre, plastic, etc. are other examples of chemical based industries.

### **(d) Forest based Raw Material using Industries**

- for furniture industry, wood, bamboo and grass for paper industry, lac for lac industries come from forests.

### **(e) Animal based Industries**

Leather for leather industry and wool for woollen textiles are obtained from animals. Besides, ivory is also obtained from elephant's tusks.

## **3- Industries Based On Output/Product**

- The industry whose products are used to make other goods by using them as raw materials are basic industries.
- The consumer goods industries produced goods which are consumed by consumers directly. For example, industries producing breads and biscuits, tea, soaps and toiletries, paper for writing, televisions, etc. are consumer goods or non-basic industries.

## **4- INDUSTRIES BASED ON OWNERSHIP**

- Public Sector Industries are owned and managed by governments.
- Private Sector Industries are owned by individual investors. These are managed by private organisations



- Joint Sector Industries are managed by joint stock companies or sometimes the private and public sectors together establish and manage the industries.

### **Traditional Large-Scale Industrial Regions**

- These are based on heavy industry, often located near coal-fields and engaged in metal smelting, heavy engineering, chemical manufacture or textile production.
- These industries are now known as smoke stack industries. Traditional industrial regions can be recognised by:
- High proportion of employment in manufacturing industry. High-density housing, often of inferior type, and poor services. Unattractive environment, for example, pollution, waste heaps, and so on.
- Problems of unemployment, emigration and derelict land areas caused by closure of factories because of a worldwide fall in demand.

### **The Ruhr Coal-field, Germany**

- This has been one of the major industrial regions of Europe for a long time. Coal and iron and steel formed the basis of the economy, but as the demand for coal declined, the industry started shrinking.
- Even after the iron ore was exhausted, the industry remained, using imported ore brought by waterways to the Ruhr. The Ruhr region is responsible for 80 per cent of Germany's total steel production.

### **Concept of High Technology Industry**

- High technology, or simply high-tech, is the latest generation of manufacturing activities. It is best understood as the application of intensive research and development (R and D) efforts leading to the manufacture of products of an advanced scientific and engineering character.
- Professional (white collar) workers make up a large share of the total workforce. These highly skilled specialists greatly outnumber the actual production (blue collar) workers. Robotics on the assembly line, computer-aided design (CAD) and manufacturing, electronic controls of smelting and refining processes, and the constant development of new chemical and pharmaceutical products are notable examples of a high-tech industry.

### **Iron and Steel Industry**

- The iron and steel industry forms the base of all other industries and, therefore, it is called a basic industry. It is basic because it provides raw material for other industries such as machine tools used for further production.
- It may also be called a heavy industry because it uses large quantities of bulky raw materials and its products are also heavy.
- Iron is extracted from iron ore by smelting in a blast furnace with carbon (coke) and limestone. The molten iron is cooled and moulded to form pig iron which is used for converting into steel by adding strengthening materials like manganese.
- The large integrated steel industry is traditionally located close to the sources of raw materials – iron ore, coal, manganese and limestone – or at places where these could be easily brought, e.g. near ports.
- But in mini steel mills access to markets is more important than inputs. These are less expensive to build and operate and can be located near markets because of the abundance of scrap metal, which is the main input.

### **Distribution:**

- The industry is one of the most complex and capital-intensive industries and is concentrated in the advanced countries of North America, Europe and Asia. It has now become the “rust bowl” of U.S.A.

### **Cotton Textile Industry**

- Cotton textile industry has three sub-sectors handloom, powerloom and mill sectors.

- Handloom sector is labour-intensive and provides employment to semi-skilled workers. It requires small capital investment. This sector involves spinning, weaving and finishing of the fabrics.
- The powerloom sector introduces machines and becomes less labour intensive and the volume of production increases.
- mill sector is highly capital intensive and produces fine clothes in bulk.
- Cotton textile manufacturing requires good quality cotton as raw material.
- India, China, U.S.A, Pakistan, Uzbekistan, Egypt produce more than half of the world raw cotton.
- The U.K, NW European countries and Japan also produce cotton textile made from imported yarn. Europe alone accounts for nearly half of the world's cotton imports.
- The industry has to face very stiff competition with synthetic fibres hence it has now shown a declining trend in many countries.

## **TERTIARY AND QUATERNARY ACTIVITIES**

### **Tertiary activities**

- involve the commercial output of services rather than the production of tangible goods.
- They are not directly involved in the processing of physical raw materials. Common examples are the work of a plumber, electrician, technician, launderer, barber, shopkeeper, driver, cashier, teacher, doctor, lawyer and publisher etc.
- The main difference between secondary activities and tertiary activities is that the expertise provided by services relies more heavily on specialised skills, experience and knowledge of the workers rather than on the production techniques, machinery and factory processes.

### **TYPES OF TERTIARY ACTIVITIES**

#### **1. Trade and commerce**

- Trade is essentially buying and selling of items produced elsewhere.
- The towns and cities where all these works take place are known as trading centres or collection and distribution points
- Trading centres may be divided into rural and urban marketing centres.
- Rural marketing centres cater to nearby settlements.
- These are quasi-urban centres. They serve as trading centres of the most rudimentary type. Here personal and professional services are not well-developed.
- Periodic markets in rural areas are found where there are no regular markets and local periodic markets are organised at different temporal intervals.
- These may be weekly, bi-weekly markets from where people from the surrounding areas meet their temporally accumulated demand.
- Urban marketing centres have more widely specialised urban services. They provide ordinary goods and services as well as many of the specialised goods and services required by people.

### **Retail Trading**

- This is the business activity concerned with the sale of goods directly to the consumers. Most of the retail

trading takes place in fixed establishments or stores solely devoted to selling. Street peddling, handcarts, trucks, door-to-door, mail-order, telephone, automatic vending machines and internet are examples of non-store retail trading.

### **Wholesale Trading**

- Wholesale trading constitutes bulk business through numerous intermediary merchants and supply houses and not through retail stores.
- Some large stores including chain stores are able to buy directly from the manufacturers. However, most retail stores procure supplies from an intermediary source.
- Wholesalers often extend credit to retail stores to such an extent that the retailer operates very largely on the wholesaler's capital.

### **Transport**

- Transport is a service or facility by which people, materials and manufactured goods are physically carried from one location to another.
- At every stage in this complex system, the value of the material is significantly enhanced by transportation.
- Isochrone lines are drawn on a map to join places equal in terms of the time taken to reach them.

### **Factors Affecting Transport**

- **Demand** for transport is influenced by the size of population. The larger the population size, the greater is the demand for transport.
- **Routes** depend on: location of cities, towns, villages, industrial centres and raw materials, pattern of trade between them, nature of the landscape between them, type of climate, and funds available for overcoming obstacles along the length of the route.

### **Communication**

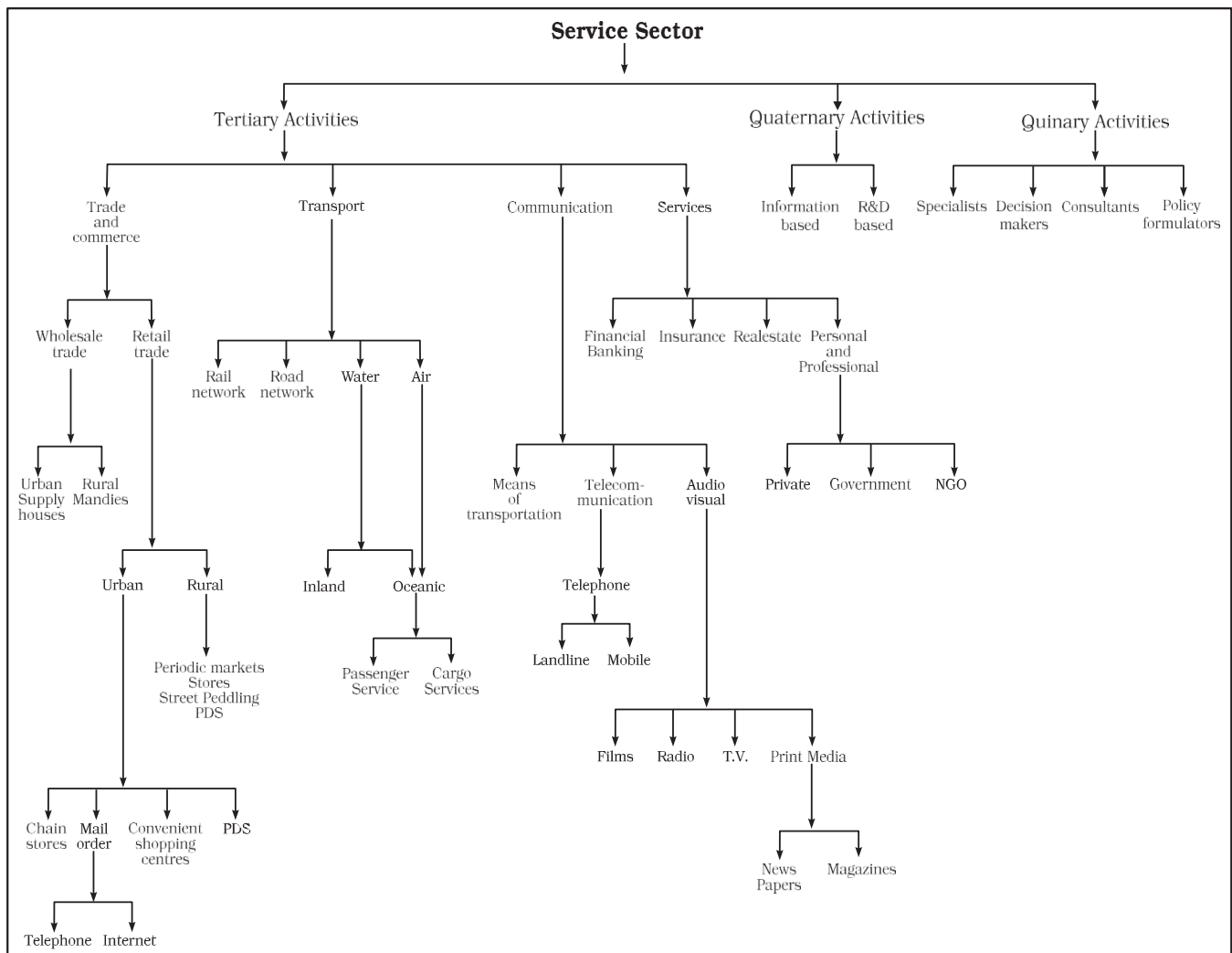
- Communication services involve the transmission of words and messages, facts and ideas.

### **Telecommunications**

- The use of telecommunications is linked to the development of modern technology. It has revolutionised communications because of the speed with which messages are sent. The time reduced is from weeks to minutes.
- Radio and television also help to relay news, pictures, and telephone calls to vast audiences around the world and hence they are termed as mass media.
- They are vital for advertising and entertainment. Newspapers are able to cover events in all corners of the world.
- Satellite communication relays information of the earth and from space.
- The internet has truly revolutionised the global communication system .

## Services

- Services occur at many different levels. Some are geared to industry, some to people, and some to both industry and people, e.g. the transport systems.
- Services are provided to individual consumers who can afford to pay for them. For example, the gardener, the launderers and the barber do primarily physical labour. Teacher, lawyers, physicians, musicians and others perform mental labour.



## PEOPLE ENGAGED IN TERTIARY ACTIVITIES

- Today most people are service workers. Services are provided in all societies. But in more developed countries a higher percentage of workers is employed in providing services as compared to less developed countries.
- The trend in employment in this sector has been increasing while it has remained unchanged or decreasing in the primary and secondary activities.

## SOME SELECTED EXAMPLES

### **1. Tourism**

- Tourism is travel undertaken for purposes of recreation rather than business.

- It has become the world single largest tertiary activity in total registered jobs (250 million) and total revenue (40 per cent of the total GDP).
- Tourism fosters the growth of infrastructure industries, retail trading, and craft industries (souvenirs).

### **Tourist Regions**

- The warmer places around the Mediterranean Coast and the West Coast of India are some of the popular tourist destinations in the world.
- Others include winter sports regions, found mainly in mountainous areas, and various scenic landscapes and national parks, which are scattered. Historic towns also attract tourists, because of the monument, heritage sites and cultural activities.

### **Factors Affecting Tourism**

- **Demand** : Since the last century, the demand for holidays has increased rapidly. Improvements in the standard of living and increased leisure time, permit many more people to go on holidays for leisure.
- **Transport** : The opening-up of tourist areas has been aided by improvement in transport facilities. Travel is easier by car, with better road systems. More significant in recent years has been the expansion in air transport.

### **Tourist Attractions**

1. Climate
2. Landscape
3. History and Art
4. Culture and Economy

### **Medical Services for Overseas Patients in India**

- About 55,000 patients from U.S.A. visited India in 2005 for treatment. This is still a small number compared with the millions of surgeries performed each year in the U.S. healthcare system.
- India has emerged as the leading country of medical tourism in the world. World class hospitals located in metropolitan cities cater to patients all over the world. Medical tourism brings abundant benefits to developing countries like India, Thailand, Singapore and Malaysia.
- Beyond medical tourism, is the trend of outsourcing of medical tests and data interpretation.
- Hospitals in India, Switzerland and Australia have been performing certain medical services – ranging from reading radiology images, to interpreting Magnetic Resonance Images (MRIs) and ultrasound tests.
- When medical treatment is combined with international tourism activity, it lends itself to what is commonly known as medical tourism.

### **Quaternary activities**

- It involve some of the following: the collection, production and dissemination of information or even the production of information.
- Quaternary activities centre around research, development and may be seen as an advanced form of services involving specialised knowledge and technical skills

### **Quinary sector**

- The highest level of decision makers or policy makers perform quinary activities. These are subtly different from the knowledge based industries that the quinary sector in general deals with.
- Quinary activities are services that focus on the creation, re-arrangement and interpretation of new and existing ideas; data interpretation and the use and evaluation of new technologies.
- Often referred to as ‘gold collar’ professions, they represent another subdivision of the tertiary sector representing special and highly paid skills of senior business executives, government officials, research scientists, financial and legal consultants, etc.

## THE DIGITAL DIVIDE

- Opportunities emerging from the Information and Communication Technology based development is unevenly distributed across the globe. There are wide ranging economic, political and social differences among countries.
- How quickly countries can provide ICT access and benefits to its citizens is the deciding factor.
- While developed countries in general have surged forward, the developing countries have lagged behind and this is known as the digital divide. Similarly digital divides exist within countries. For example, in a large country like India or Russia, it is inevitable that certain areas like metropolitan centres possess better connectivity and access to the digital world versus peripheral rural areas

## INTERNATIONAL TRADE

- **barter system**, where direct exchange of goods took place.
- Every January after the harvest season Jom Beel Mela takes place in Jagoirad, 35 km away from Guwahati and it is possibly the only fair in India, where barter system is still alive. A big market is organised during this fair and people from various tribes and communities exchange their products

## HISTORY OF INTERNATIONAL TRADE

- The Silk Route is an early example of long distance trade connecting Rome to China – along the 6,000 km route.
- The traders transported Chinese silk, Roman wool and precious metals and many other high value commodities from intermediate points in India, Persia and Central Asia.
- Fifteenth century onwards, the European colonialism began and along with trade of exotic commodities, a new form of trade emerged which was called slave trade.
- The Portuguese, Dutch, Spaniards, and British captured African natives and forcefully transported them to the newly discovered Americas for their labour in the plantations.
- After the Industrial Revolution the demand for raw materials like grains, meat, wool also expanded, but their monetary value declined in relation to the manufactured goods.
- The industrialised nations imported primary products as raw materials and exported the value added finished products back to the non-industrialised nations.
- In the later half of the nineteenth century, regions producing primary goods were no more important, and industrial nations became each other's principle customers.
- During the World Wars I and II, countries imposed trade taxes and quantitative restrictions for the first time. During the post-war period, organisations like General Agreement for Tariffs and Trade (which later became the World Trade Organisation), helped in reducing tariff.

## Why Does International Trade Exist?

- International trade is the result of specialization in production.
- international trade is based on the principle of comparative advantage, complementarity and transferability of goods and services and in principle, should be mutually beneficial to the trading partners.

## Basis of International Trade

1. **Difference in national resources:** The world's national resources are unevenly distributed because of differences in their physical make up i.e. geology, relief soil and climate.
  - (a) **Geological structure:** It determines the mineral resource base and topographical differences ensure diversity of crops and animals raised.
  - (b) **Mineral resources:** They are unevenly distributed the world over. The availability of mineral resources provides the basis for industrial development.
  - (c) **Climate:** It influences the type of flora and fauna that can survive in a given region. It also ensures diversity in the range of various products, e.g. wool production can take place



in cold regions, bananas, rubber and cocoa can grow in tropical regions.

2. **Population factors:** The size, distribution and diversity of people between countries affect the type and volume of goods traded.
  - **Cultural factors:** Distinctive forms of art and craft develop in certain cultures which are valued the world over, e.g. China produces the finest porcelains and brocades.
  - **Size of population:** Densely populated countries have large volume of internal trade but little external trade because most of the agricultural and industrial production is consumed in the local markets.
3. **Stage of economic development**
4. **Extent of foreign investment**
5. **Transport**

### **Important Aspects of International Trade**

- International trade has three very important aspects.
1. ***Volume of Trade***
    - The actual tonnage of goods traded makes up the volume. However, services traded cannot be measured in tonnage. Therefore, the total value of goods and services traded is considered to be the volume of trade.
  2. ***Composition of Trade***
    - agricultural products, fuels and mining products, fuels, manufactures, iron and steel, chemicals, office and telecom equipment, automotive products, textiles and clothing are major merchandise which are traded over the world.
  3. ***Direction of Trade***

### **Balance of Trade**

- Balance of trade records the volume of goods and services imported as well as exported by a country to other countries.
- If the value of imports is more than the value of a country's exports, the country has negative or unfavorable balance of trade.
- If the value of exports is more than the value of imports, then the country has a positive or favorable balance of trade.

### **Types of International Trade**

1. **Bilateral trade:** Bilateral trade is done by two countries with each other. They enter into agreement to trade specified commodities amongst them.
2. **Multi-lateral trade:** As the term suggests multi-lateral trade is conducted with many trading countries. The same country can trade with a number of other countries.
  - The country may also grant the status of the "Most Favoured Nation" (MFN) on some of the trading partners

### **Case for Free Trade**

- The act of opening up economies for trading is known as free trade or trade liberalisation.
- This is done by bringing down trade barriers like tariffs. Trade liberalisation allows goods and services from everywhere to compete with domestic products and services.
- free trade should not only let rich countries enter the markets, but allow the developed countries to keep their own markets protected from foreign products.
- Countries also need to be cautious about dumped goods; as along with free trade dumped goods of cheaper prices can harm the domestic producers
- **Dumping** The practice of selling a commodity in two countries at a price that differs for reasons not related to costs is called dumping.



## **World Trade Organisation**

- In 1948, to liberalise the world from high customs tariffs and various other types of restrictions, General Agreement for Tariffs and Trade (GATT) was formed by some countries.
- GATT was transformed into the World Trade Organisation from 1st January 1995.
- WTO is the only international organization dealing with the global rules of trade between nations. It sets the rules for the global trading system and resolves disputes between its member nations.
- WTO also covers trade in services, such as telecommunication and banking, and others issues such as intellectual rights.
- many developed countries have not fully opened their markets to products from developing countries. It is also argued that issues of health, worker's rights, child labour and environment are ignored
- WTO Headquarters are located in Geneva, Switzerland.
- 149 countries were members of WTO as on December 2005
- India has been one of the founder member of WTO

## **Regional Trade Blocs**

- Regional Trade Blocs have come up in order to encourage trade between countries with geographical proximity, similarity and complementarities in trading items and to curb restrictions on trade of the developing world.
- Today, 120 regional trade blocs generate 52 per cent of the world trade

## **Concerns Related to International Trade**

- International trade can prove to be detrimental to nations if it leads to dependence on other countries, uneven levels of development, exploitation, and commercial rivalry leading to wars.
- Global trade affects many aspects of life; it can impact everything from the environment to health and well-being of the people around the world.
- As countries compete to trade more, production and the use of natural resources spiral up, resources get used up faster than they can be replenished. As a result, marine life is also depleting fast, forests are being cut down and river basins sold off to private drinking water companies.
- Multi-national corporations trading in oil, gas mining, pharmaceuticals and agri-business keep expanding their operations at all costs creating more pollution – their mode of work does not follow the norms of sustainable development.
- If organisations are geared only towards profit making, and environmental and health concerns are not addressed, then it could lead to serious implications in the future.

## **GATEWAYS OF INTERNATIONAL TRADE**

### **1. Ports**

- The chief gateways of the world of international trade are the harbours and ports.
- The ports provide facilities of docking, loading, unloading and the storage facilities for cargo.
- In order to provide these facilities, the port authorities make arrangements for maintaining navigable channels, arranging tugs and barges, and providing labour and managerial services.
- The importance of a port is judged by the size of cargo and the number of ships handled. The quantity of cargo handled by a port is an indicator of the level of development of its hinterland.

## **Types of Port**

### **A. Types of port according to cargo handled**

1. **Industrial Ports:** These ports specialise in bulk cargo-like grain, sugar, ore, oil, chemicals and similar materials.
2. **Commercial Ports:** These ports handle general cargo-packaged products and manufactured goods.

These ports also handle passenger traffic

3. **Comprehensive Ports:** Such ports handle bulk and general cargo in large volumes. Most of the world's great ports are classified as comprehensive ports.

## **B. Types of port on the basis of location**

1. **Inland Ports:** These ports are located away from the sea coast. They are linked to the sea through a river or a canal. Such ports are accessible to flat bottom ships or barges. For example, Manchester is linked with a canal and Kolkata is located on the river Hoogli, a branch of the river Ganga.
2. **Out Ports:** These are deep water ports built away from the actual ports. These serve the parent ports by receiving those ships which are unable to approach them due to their large size. Classic combination, for example, is Athens and its out port Piraeus in Greece.

## **C. port on the basis of specialised functions:**

1. **Oil Ports:** These ports deal in the processing and shipping of oil. Some of these are tanker ports and some are refinery ports.
2. **Ports of Call:** These are the ports which originally developed as calling points on main sea routes where ships used to anchor for refuelling, watering and taking food items. Later on, they developed into commercial ports. Aden, Honolulu and Singapore are good examples.
3. **Packet Station:** These are also known as ferry ports. These packet stations are exclusively concerned with the transportation of passengers and mail across water bodies covering short distances.
4. **Entrepot Ports:** These are collection centres where the goods are brought from different countries for export. Singapore is an entrepot for Asia. Rotterdam for Europe, and Copenhagen for the Baltic region.
5. **Naval Ports:** These are ports which have only strategic importance. These ports serve warships and have repair workshops for them. Kochi and Karwar are examples of such ports in India.

## **HUMAN SETTLEMENTS**

1. A human settlement is defined as a place inhabited more or less permanently. The houses may be designed or redesigned, buildings may be altered, functions may change but settlement continues in time and space.
2. The census of India, 1991 defines urban settlements as "All places which have municipality, corporation, cantonment board or notified town area committee and have a minimum population of 5000 persons, at least 75 per cent of male workers are engaged in non-agricultural pursuits and a density of population of at least 400 persons per square kilometers are urban

## **TYPES AND PATTERNS OF SETTLEMENTS**

3. Settlements may also be classified by their shape, patterns types.
1. **Compact or Nucleated settlements:** These settlements are those in which large number of houses are built very close to each other. Such settlements develop along river valleys and in fertile plains. Communities are closely knit and share common occupations
2. **Dispersed Settlements:** In these settlements, houses are spaced far apart and often interspersed with fields. A cultural feature such as a place of worship or a market, binds the settlement together.

## **Rural Settlements**

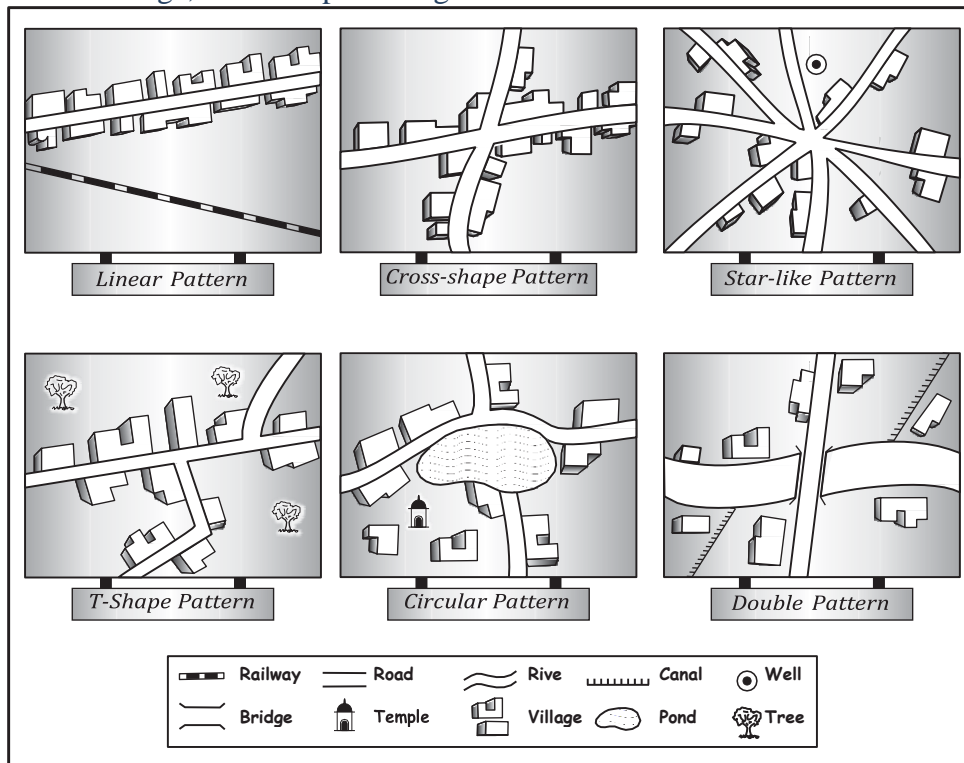
4. Rural settlements are most closely and directly related to land. They are dominated by primary activities such as agriculture, animal husbandary, fishing etc.

## **Factors affecting the location of rural settlements are**

1. **Water Supply**
2. **Land**
3. **Upland-** which is not prone to flooding was chosen to prevent damage to houses and loss of life.
4. **Building Material-** The availability of building materials- wood, stone near settlements is another advantage
5. **Defence** -During the times of political instability, war, hostility of neighbouring groups villages were built on defensive hills and islands
6. **Planned Settlements**

## Rural Settlement Patterns

5. Patterns of rural settlements reflect the way the houses are sited in relation to each other. The site of the village, the surrounding topography and terrain influence the shape and size of a village.
6. Rural settlements may be classified on the basis of a number of criteria
  1. **On the basis of setting:** The main types are plain villages, plateau villages, coastal villages, forest villages and desert villages.
  2. **On the basis of functions:** There may be farming villages, fishermen's villages, lumberjack villages, pastoral villages etc.
  3. **On the basis of forms or shapes of the settlements:** These may be a number of geometrical forms and shapes such as Linear, rectangular, circular star like, T-shaped village, double village, cross-shaped village etc.



## Classification of Urban Settlements

- Some of the common basis of classification are size of population, occupational structure and administrative setup.

### 1. Population Size

- It is an important criteria used by most countries to define urban areas. The lower limit of the population

size for a settlement to be designated as urban 5,000 in India and 30,000 in Japan.

- density of 400 persons per sq km and share of non-agricultural workers are taken into consideration in India.

## **2. Occupational Structure**

- In some countries, such as India, the major economic activities in addition to the size of the population in designating a settlement as urban are also taken as a criterion. In India a settlement is called urban, if more than 75 per cent of its economically productive population is engaged in non-agricultural pursuits.

## **3. Administration**

- The administrative setup is a criterion for classifying a settlement as urban in some countries. For example, in India, a settlement of any size is classified as urban, if it has a municipality, Cantonment Board or Notified Area Council.

## **Administrative Towns**

- National capitals, which house the administrative offices of central governments, such as New Delhi, Canberra, Beijing, Addis Ababa, Washington D.C., and London etc. are called administrative Town.

## **Trading and Commercial Towns**

- Agricultural market towns, such as, Winnipeg and Kansas city; banking and financial centres like Frankfurt and Amsterdam; large inland centres like Manchester and St Louis; and transport nodes such as, Lahore, Baghdad and Agra have been important trading centres.

## **Cultural Towns**

- Places of pilgrimage, such as Jerusalem, Mecca, Jagannath Puri and Varanasi etc. are considered cultural towns. These urban centres are of great religious importance

## **CLASSIFICATION OF TOWNS ON THE BASIS OF FORMS**

- An urban settlement may be linear, square, star or crescent shaped. In fact, the form of the settlement, architecture and style of buildings and other structures are an outcome of its historical and cultural traditions.

## **Types of Urban Settlements**

- Depending on the size and the services available and functions rendered, urban centres are designated as town, city, million city, conurbation, megalopolis.

### **1. Town**

- The concept of 'town' can best be understood with reference to 'village'. Population size is not the only criterion. Functional contrasts between towns and villages may not always be clear - cut, but specific functions such as, manufacturing, retail and wholesale trade, and professional services exist in towns.

### **2. City**

- A city may be regarded as a leading town, which has outstripped its local or regional rivals. In the words of Lewis Mumford, "the city is in fact the physical form of the highest and most complex type of associative life". Cities are much larger than towns and have a greater number of economic functions. They tend to have transport terminals, major financial institutions and regional administrative offices. When the population crosses the one million mark it is designated as a million city.

### **3. Conurbation**

- The term conurbation was coined by Patrick Geddes in 1915 and applied to a large area of urban development that resulted from the merging of originally separate towns or cities. Greater London,

Manchester, Chicago and Tokyo are examples.

#### **4. Megalopolis**

- This Greek word meaning “great city”, was popularised by Jean Gottman (1957) and signifies ‘super-metropolitan’ region extending as union of conurbations. The urban landscape stretching from Boston in the north to south of Washington in U.S.A. is the best known example of a megalopolis

#### **5. Million City**

### **Problems of Human Settlements in Developing Countries**

#### **1. Economic Problems-**

- The decreasing employment opportunities in the rural as well as smaller urban areas of the developing countries consistently push the population to the urban areas.
- The enormous migrant population generates a pool of un- skilled and semi-skilled labour force, which is already saturated in urban areas.

#### **2. Socio-cultural Problems**

- Cities in the developing countries suffer from several social ills. Insufficient financial resources fail to create adequate social infrastructure catering to the basic needs of the huge population.
- The available educational and health facilities remain beyond the reach of the urban poor.
- Health indices also, present a gloomy picture in cities of developing countries.
- Lack of employment and education tends to aggravate the crime rates. Male selective migration to the urban areas distorts the sex ratio in these cities.

#### **3. Environmental Problems**

#### **What is a Healthy City?**

- World Health Organisation (WHO) suggests that, among other things, a ‘healthy city’ must have:
- A ‘Clean’ and ‘Safe’ environment.
- Meets the ‘Basic Needs’ of ‘All’ its inhabitants.
- Involves the ‘Community’ in local government.
- Provides easily accessible ‘Health’ service.

#### **Urban Strategy**

- United Nations Development Programme (UNDP) has outlined these priorities as part of its ‘Urban Strategy’.
- 1. Increasing ‘Shelter’ for the urban poor.
- 2. Provision of basic urban services such as ‘Education’, ‘Primary Health care’, ‘Clean Water and Sanitation’.
- 3. Improving women’s access to ‘Basic Services’ and government facilities.
- 4. Upgrading ‘Energy’ use and alternative ‘Transport’ systems.
- 5. Reducing ‘Air Pollution’